

ATLANTIC COASTAL EXPERIMENT III:

**R/V KNORR CRUISE 68,
4-30 AUGUST 1977;**

**FRV ALBATROSS IV CRUISE 77-07
1-4, 16-31 AUGUST 1977.**

DATA REPORT

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ABSTRACT

Data are reported from KNORR cruise 68, the major investigation of the third Atlantic Coastal Experiment (ACE), conducted during a period of pronounced water-column stratification. One hundred fifty-five stations, including 6 time-series sitings, were occupied within the shelf and shelf-break regimes of New York Bight. Measurements were made to assess water-mass characterization, nutrient cycling, carbon/nitrogen assimilation, biomass distribution and diel dynamics and benthic/water-column interfacial exchange. Data are also included from the cruise of ALBATROSS IV carried out contemporaneously with the KNORR investigations, in an area ranging from Nantucket Shoals to the upper reaches of the Gulf of Maine. 20 hydrographic stations were used to augment underway mapping in order to elucidate surface-layer chlorophyll and nutrient distributions occurring at an important boundary of the New York Bight.

PART I

R/V KNORR CRUISE 68

INTRODUCTION

The KNORR was sailed during a period of pronounced thermal stratification to 155 stations comprising five cross-shelf/alongshore transects and six time-series sitings within the New York Bight (Fig. 1). In collaboration with investigators from Lamont-Doherty and WHOI, this cruise was undertaken to provide insight into the spatial and temporal variability of the summer coastal ecosystem, particularly the vertical transfer of energy among trophic levels. It was specifically intended to relate turbulence, cross-shelf advection and upwelling to nutrient regeneration and uptake, phytoplankton abundance and distribution, metabolic rates of bacterioplankton,* the abundance and distribution of zooplankton and larval fish, zooplankton feeding and benthic nutrient cycling.

Classical hydrography, enhanced by continuous physical profiling during the first reconnaissance (4-17 August) allied with high volume biomass pumping, principally at time-series stations, comprised the cardinal sampling strategy. Areal chlorophyll a distributions were described by augmenting station data with surface-layer mapping along near-shore Long Island and New Jersey (Figs. 1,2).

Simultaneously, two telemetering spar buoy arrays, one containing sensors for velocity, heat and salt, and the other relative fluorescence, were moored offshore of Moriches Inlet (stations 2-14). They were intended to provide complementary and more elaborate sampling density of plant biomass and coastal boundary layer circulation at the microscale level. The relative fluorescence has been graphically resolved over time (Fig. 3) and is included to show, inter alia, diel variation occurring during the first time-series stationing (WHITLEDGE and WIRICK, 1983).**

*Not reported. Those interested should contact Dr. Frank Barvenik, American Cyanamid Research Center, Stamford, CT.

**Physical data are currently being analyzed and are expected ready for press late 1983.

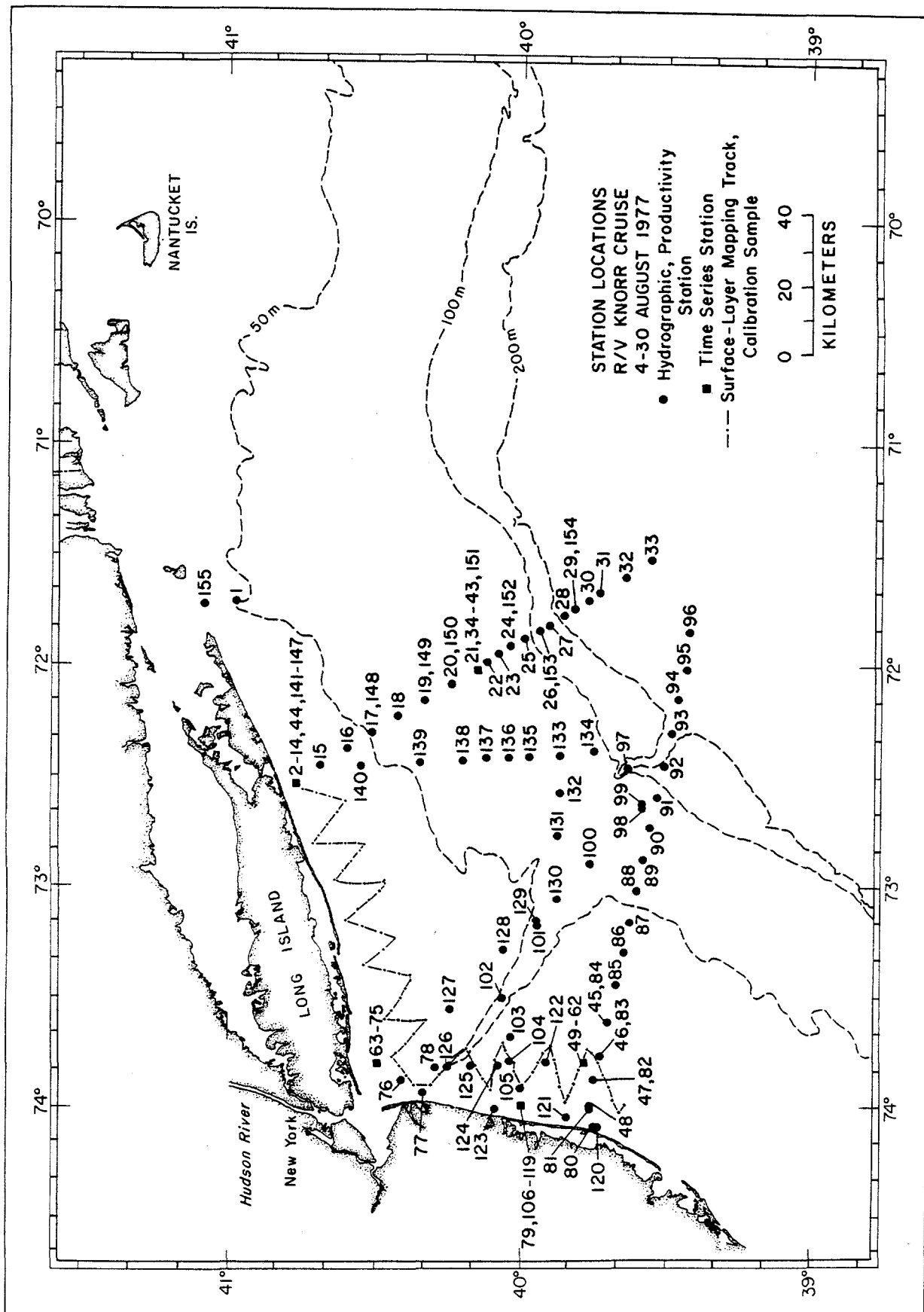


Figure 1. Station locations, R/V KNORR cruise, 4-29 August 1977.

METHODS

A. Hydrography

Temperature, Salinity, Dissolved Oxygen

Stations 1-56 were measured by Lamont-Doherty personnel using a Neil Brown Mark III CTD mounted within a General Oceanics "rosette" array carrying twelve 1.7ℓ bottles. The data were processed ashore by Lamont personnel using a procedure that first eliminated data falling outside a window width 1.5 times the standard deviation of the data computed in blocks. After the calibration constants were applied (FOFONOFF et al., 1974), the data were decimated at 0.2 decibar intervals. The constants were derived from reversing thermometers attached to selected array bottles and discrete salinity determinations (Guildline Autosol 8400) made aboard ship on bottle subsamples. The data were then produced as plots and remaining visual errors corrected by linear interpolation.*

Stations 63-155 were sampled with 5ℓ Niskin bottles furnished with Gohla or Watanabe reversing thermometers which were corrected according to standard procedures (SVERDRUP et al., 1942). Salinity values were derived from discrete analyses which also utilized the Autosol 8400 standardized with IAPSO Copenhagen water. Dissolved oxygen estimates were obtained from a titrimetric procedure described by WINKLER and modified by CARPENTER (1965).

Chlorophyll

Discrete chlorophyll a/phaeophytin concentrations were measured fluorometrically using a Turner Designs Model 10 fluorometer. Glass-fiber filters

*A fuller discussion of methods can be found in the Appendix, page 939. Those needing additional information should contact Dr. Frank Aikman, Lamont-Doherty Geological Observatory, Palisades, New York.

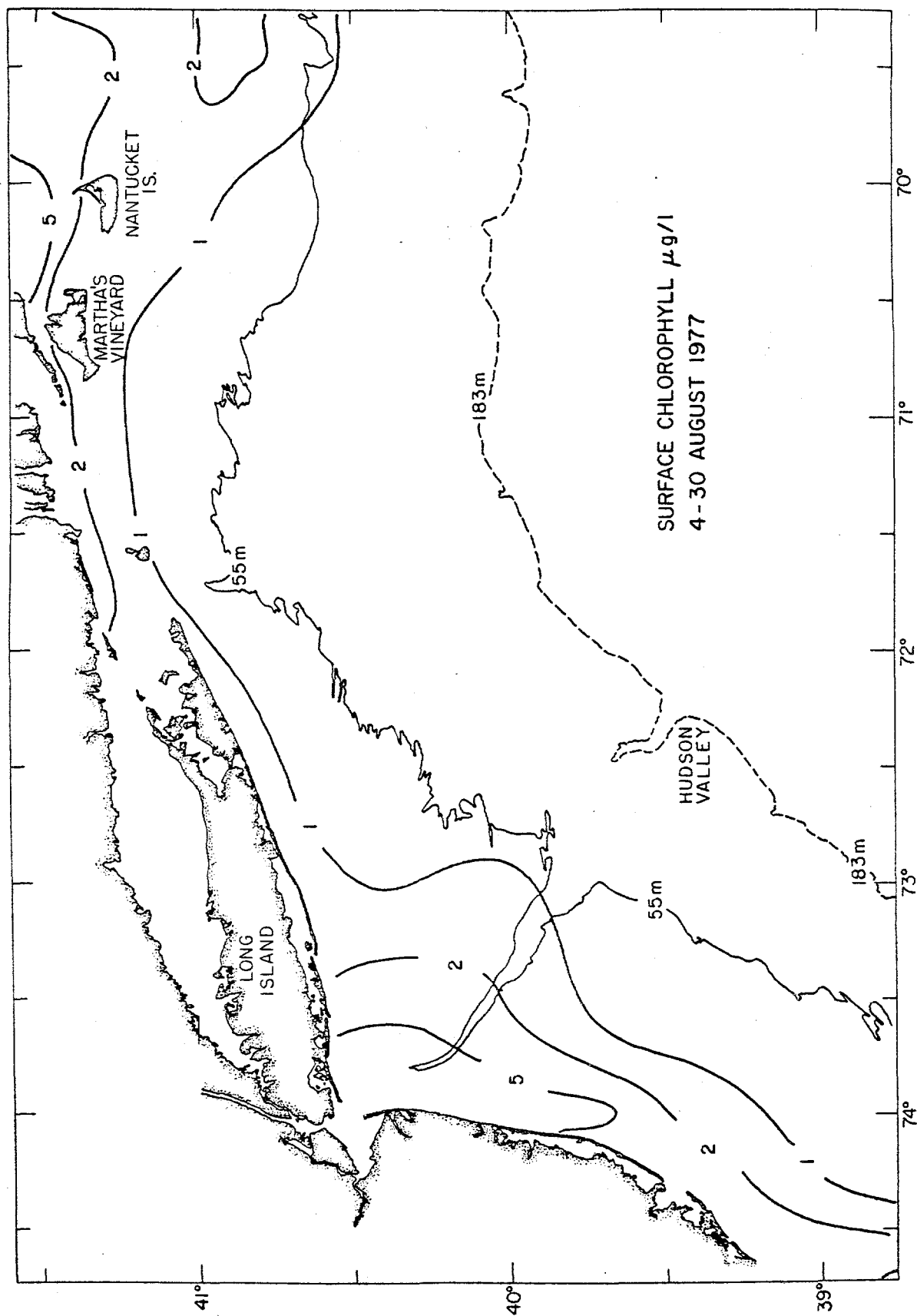


Figure 2. Surface-layer chlorophyll *a*, New York Bight, 4-30 August 1977

retaining plankton from 140 ml samples were finely ground in 90% acetone and the fluorescent emission of a clarified extract measured before and after acidification with ~1-2 drops of 1.0 N HCl (LORENZEN, 1966).

Surface in vivo chlorophyll (underway mapping) was determined using a second Turner Designs fluorometer modified for continuous flow measurement. Sample seawater was received from a dedicated biological delivery system tapped into the ship's seachest, located ~2 m below the waterline. The record was calibrated with an extracted measurement every half hour.

The fluorometers were calibrated previously using serial dilutions of a pure chlorophyll a standard derived from laboratory cultures of phytoplankton (PERKINS, ROBERTS, 1962). The concentration of the standard was measured spectrophotometrically using an extinction coefficient of $87.67 \text{ l} \cdot \text{cm}^{-1} \text{ g}^{-1}$ at 664 nm. The dilution (90% acetone) fluorescences were read before (R_0) and after (R_a) acidification (10% HCl) on at least two sensitivity ranges. Calibration factors for all dilutions were computed by:

$$F' = \frac{\mu\text{g chl } \underline{a} \text{ ml}^{-1}}{\frac{\tau}{\tau-1} (R_0 - R_a)}$$

where F' is the calibration factor for each dilution and τ is the maximum ratio of R_0/R_a . The mean F' determination was accepted as the calibration factor for all subsequent determinations of chlorophyll a and phaeophytin, and any significant variation among the serial factors over the selected ranges has been compensated by instrumental adjustments.

Nutrients

Nitrate, nitrite, ammonium, phosphate, and silicate were analyzed colorometrically. The automated methods used on a Technicon AutoAnalyzer

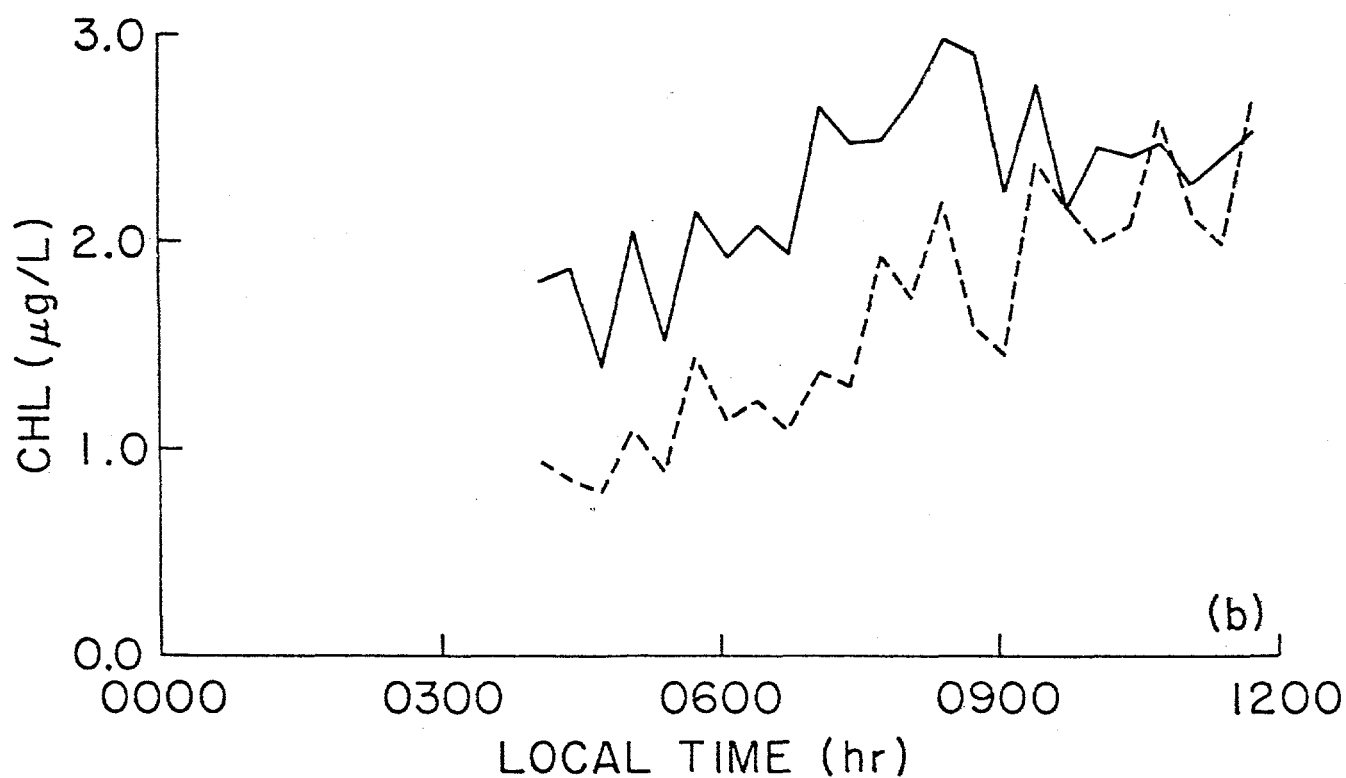
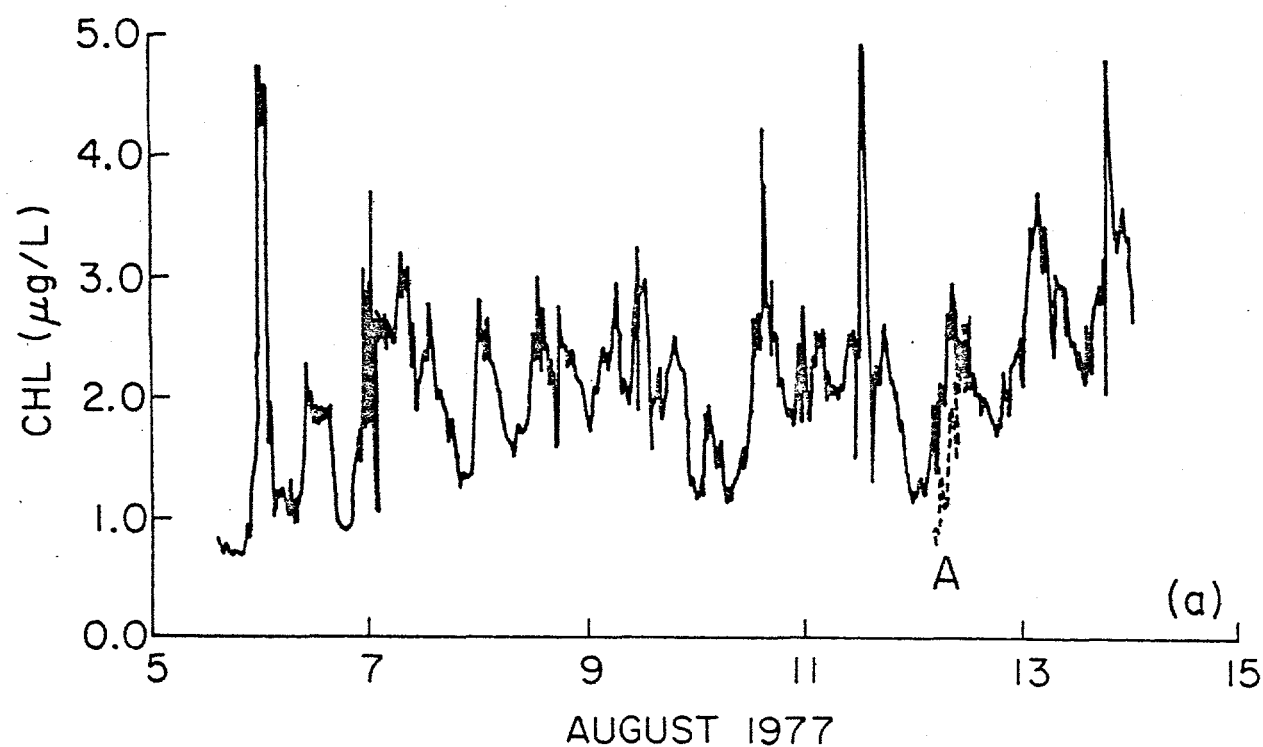


Figure 3. Chlorophyll concentration ($\mu\text{g } \ell^{-1}$): a) measured by an in situ moored fluorometer at 10.5 m from 5-15 August 1977. Dashed line is chlorophyll concentration measured by ship-board in situ FTD profiler. b) enlargement of the 8 h calibration period shown at "A"

utilized the analytical procedures of MURPHY and RILEY (1962) for reactive phosphorous and ARMSTRONG and others (1967) for silicate and nitrate. Ammonium was measured by the phenolhypochlorite method of KOROLEFF (1970) as adapted to the AutoAnalyzer by SLAWYK and MAC ISAAC (1972) and modified by PATTON and CROUCH (1977). Modifications were made to permit the use of small-volume glassware in the manifolds in order to optimize stability and sensitivity.

Particulate Matter

Abundance and size-frequency distribution of particulate material were determined with a Coulter Counter Model TA II. 100, 200, 280, and 400 μm tubes were used, which quantified particles between 2 and 40% of respective nominal sizes. Counting duration ranged from 60 to 300 seconds depending on particle concentration.

B. Productivity

^{14}C

Carbon assimilation rates were determined by inoculating, with $5\mu\text{Ci}$ of ^{14}C -labeled $\text{NaH}^{14}\text{CO}_3$, samples drawn from 10 & Niskin bottles representing 100, 50, 30, 15, 5, 1, and 0.1% of incident radiation. Enriched bottles, covered with neutral density screening to simulate respective light levels, were incubated with companion "dark" bottles in natural light under flowing surface seawater. After filtration (Millipore HA), filters were fumed 60 sec over concentrated HCl and reserved in 10 ml scintillation solutions (Beckman Filter Solv.). Activity was later measured by a Beckman LS 3150T scintillation counter using external standardization. Dark count values were subtracted from sunlight values during rate calculation (STEEMAN NIELSEN, 1952). Similar incubations were also done on samples taken from

surface and the 1% light level to aid in evaluating light history and the effects of vertical stability on photosynthesis (see Appendix).

^{15}N

The maximal utilization rate of dissolved inorganic nitrogen by phytoplankton was measured using the ^{15}N method (NEESS et al., 1962; DUGDALE and GOERING, 1967). Using 10-liter Niskin bottles, water was collected from six light depths, 100, 50, 30, 15, 5 and 1, corresponding to the percent of surface light intensity. The water samples were passed through a 253 μm Nitex mesh to remove large zooplankton and transferred into 2-liter pyrex bottles covered with neutral-density screens which simulated light intensity at sampling depth. The samples were enriched with $\sim 10 \mu\text{g-at}\cdot\text{l}^{-1}$ of ^{15}N -labelled NH_4 or NO_3 and incubated under natural light for 6 to 8 h in plexiglas tanks containing flowing surface seawater. 24-h ^{15}N incubations were also done at selected stations to determine diurnal uptake rates. After the water samples were filtered through Whatman GF/F glass fiber filters, the filters were dried at 80°C and stored in a desiccator at -30 to -40°C until analysis. The method of PAVLOU et al. (1974) and the modified combustion technique of GUNTHER et al. (1966) were used to analyze for the $^{15}\text{N}/^{14}\text{N}$ ratio in the phytoplankton. The biological transport rate of NH_4 (and NO_3) was calculated from the equation:

$$\text{NH}_4 = V_{\text{NH}_4} \cdot \text{PN} \quad (1)$$

where V_{NH_4} is the specific uptake rate of NH_4 (h^{-1}) and PN is the particulate organic nitrogen concentration ($\mu\text{g-at}\cdot\text{l}^{-1}$) determined at the end of the incubation.

PC, PN

100-150 ml of seawater from various light levels (primary productivity stations) were filtered through pre-combusted glass-fiber filters. Retained cells were washed with filtered seawater and stored at -30°C for later CHN analyses ashore. At the laboratory cellular C and N were measured by a Carlo-Erba CHN analyser interfaced with a digital integrator.

C. Benthic Nutrient Flux

Near-Bottom Gradients

Samples were collected with an "Interface" sampler constructed of 16 closely spaced 50 cc glass syringes mounted on an aluminum frame, a design similar to one described by BROENKOW (1969). The syringes were spaced from 18-36 cm apart over the 3.25 m length of the sampling device. The lower end, which rested on the bottom, was weighted with 27 kg of lead and the upper end was held vertically with a small buoyant deep-sea glass sphere enclosed in a plastic hard hat. The lowest sampling syringe was 13 cm above the sediment-water interface. If sediment were present in the near-bottom samples, they were immediately filtered through a prewashed 1 cm Millipore filter with 5 μ m pore size. Nutrient concentrations were then determined as described previously.

Sediment-Water Flux

All cores were extruded from the plastic core liners with a tight-fitting rubber stopper plunger and cut into three centimeter long sections. Sub-samples were taken from each section to determine organic carbon and nitrogen and percent sand-silt-clay. In those cores that were mostly silt and clay the sections were compressed in a stainless steel squeezer powered by a hydraulic press. The expelled water was collected in a 50 ml

hypodermic syringe and then analyzed for dissolved nutrient concentrations with a Technicon autoanalyzer or immediately frozen and analyzed later in the laboratory. It was later discovered that the paper filters used in squeezing contaminated the samples, giving erroneously high NO_3 values. In sandy sediments, known weight of a sediment was mixed with 50 ml filtered Sargasso Sea water and centrifuged to extract the pore water. The supernatant was then analyzed for nutrients, making allowances for the water content of the sediment and the dilution factor (FLOREK, 1979; ROWE and CLIFFORD, 1978).

D. Zooplankton

Discrete concentration estimates were derived from samples lifted by a centrifugal pump (Gorman-Rupp Model 14A2 SR2) through 90 m of 10.2 cm neoprene hose and discharged into a deck-mounted 102 μ nylon net. 3.8 m^{-3} were pumped from every 5 m interval, surface to 25 m, and every 10 m thereunder unto 60 m. The suction end was weighted to maintain vertical integrity and was also furnished with a Bourdon, clock-driven depth recorder (Benthos Model 1170). A portion of the discharge (~ 100 liters) was diverted upstream of the flow meter to a 200-liter Nalgene tank, from which samples were removed for extracted chlorophyll a fluorescence and nutrient measurements (JUDKINS, 1980; MILLER and JUDKINS, 1981). During subsequent laboratory analysis for taxa and abundance estimates, aliquots from each collection were withdrawn with a Stempel pipette and counting/identification proceeded through successive aliquots until 50 individuals per category had been identified; however, not more than 5 aliquots were drawn from any one category. Counts were multiplied by appropriate factors to yield total concentration (No. m^{-3}) estimates (JUDKINS et al., 1980).

E. Phytoplankton

Samples were drawn from surface, and the FTD*-determined subsurface chlorophyll maximum, and preserved immediately with 1-2 ml of basic Lugol's solution. During subsequent analysis ashore, 10 ml aliquots were "settled" for 24 h in Uttermohl chambers before identification and counting using an inverted microscope equipped with phase-contrast illumination. One-half, or the whole chamber, was counted depending upon cell density.

*A Turner Designs Model 10-05U fluorometer encased in a pressure protective housing which was equipped with a resistance thermistor, pressure transducer and centrifugal pump which circulated ambient seawater through the fluorometer flow cell. The assembly was lowered and retrieved with electromechanical cabling; voltages were recorded on an analog recorder. Its principal use was to locate more precisely the chlorophyll maximum layer while providing continuous water-column profiles of relative fluorescence. The FTD was limited to casts not greater than 50 m. The analog records are on file at BNL.

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REFERENCES

- ARMSTRONG, F.A.J., C.R. STEARNS, and J.D.H. STRICKLAND. 1967. The measurement of upwelling and subsequent biological processes by means of the Technicon AutoAnalyzer and associated equipment. Deep-Sea Res., 14: 381-389.
- BENDSCHNEIDER, K. and R.J. ROBINSON. 1952. A new spectrophotometric determination of nitrite in seawater. J. Mar. Res., 2: 87-96.
- BROENKOW, W.W. 1969. An interface sampler using spring-activated syringes. Limnol. Oceanogr., 14: 288-291.
- CARPENTER, J.H. 1965. The Chesapeake Bay Institute technique for the Winkler dissolved oxygen method. Limnol. Oceanogr., 10: 141.
- DUGDALE, R.C. and J.J. GOERING. 1967. Uptake of new and regenerated forms of nitrogen in primary productivity. Limnol. Oceanogr., 12: 196-206.
- FLOREK, R.J. 1979. Measurements of the flux of dissolved inorganic nutrients from marine coastal and shelf sediments. Master of Science Thesis, Wayne State University, Detroit.
- FOFONOFF, N.P., S. HAYES, and R. MILLARD. 1974. WHOI/Brown CTD micro-profiler: methods of calibration and data handling. Woods Hole Oceanographic Institution Tech. Rpt. 74-89.
- GUNTHER, H., H.G. FLOSS, and H. SIMON. 1966. A simple procedure for determining ¹⁵N. Z. Analyt. Chem. Bd., 218: 401-408.
- JUDKINS, D.C. 1980. Vertical distribution of zooplankton in relation to the oxygen minimum off Peru. Deep-Sea Res., 27A: 475-487.
- JUDKINS, D.C., C.D. WIRICK, and W.E. ESAIAS. 1980. Composition, abundance, and distribution of zooplankton in the New York Bight, September 1974-September 1975. Fish. Bull., 77: 669-683.

- KOROLEFF, F. 1970. Direct determination of ammonia in natural waters as indolphenol blue. Information on techniques and methods for sea water analysis. Interlab. Rep. (3), 19-22.
- LORENZEN, C.J. 1966. A method for continuous measurement of in vivo chlorophyll concentration. Deep-Sea Res., 13: 223-227.
- MILLER, C.B. and D.C. JUDKINS. 1981. Design of pumping systems for sampling zooplankton, with descriptions of two high-capacity samplers for coastal studies. Biol. Oceanog., 1: 29-56.
- MURPHY, J. and J.P. RILEY. 1962. A modified single solution method for the determination of phosphate in natural waters. Anal. Chim. Acta, 27: 31-36.
- NEESS, J.C., R.C. DUGDALE, V.A. DUGDALE, and J.J. GOERING. 1962. Nitrogen metabolism in lakes - I. Measurement of nitrogen fixation with ^{15}N . Limnol. Oceanogr., 7: 163-169.
- PAMATMAT, M. 1971. Oxygen consumption by the seabed. IV. Shipboard and laboratory experiments. Limnol. Oceanogr., 16: 536-550.
- PAVLOU, S.P., G.E. FRIEDRICH, and J.J. MACISAAC. 1974. Quantitative determination of total organic nitrogen and isotope enrichment in marine phytoplankton. Anal. Biochem., 61: 16-24.
- PERKINS, H.J. and D.W.A. ROBERTS. 1962. Purification of chlorophylls, phaeophytins, and phaeophorbides for specific activity determinations. Biochim. Biophys., 58: 486-498.
- ROWE, G.T. and C.H. CLIFFORD. 1978. Sediment data from short cores taken in the northeast Atlantic Ocean. Woods Hole Oceanographic Institution Tech. Rpt. WHOI-78-46.

- RYTHER, J.H. 1956c. The measurement of primary production. Limnol. Oceanogr., 1(2): 72-84.
- SLAWYK, G. and J.J. MACISAAC. 1972. Comparison of two automated ammonium methods in a region of coastal upwelling. Deep-Sea Res., 19: 521-524.
- STEEMAN NIELSEN, E. 1952b. The use of radio-active carbon (C^{14}) for measuring organic production in the sea. J. du Cons., 18(2): 117-140.
- STRICKLAND, J.D.H. and T.R. PARSONS. 1972. A practical handbook of seawater analysis. Fish. Res. Bd. Canada Bull., 167: 267-278.
- SVERDRUP, H.V., M.W. JOHNSON, and R.H. FLEMING. 1942. The Oceans, Their Physics, Chemistry and General Biology. Prentice-Hall, Englewood Cliffs, NJ.
- WHITLEDGE, T.E. and C.D. WIRICK. 1983. Observations of chlorophyll concentrations off Long Island from a moored in situ fluorometer. Deep-Sea Res. (in press).
- YENTSCH, C.S. and D.W. MENZEL. 1963. A method for the determination of phytoplankton, chlorophyll, and phaeophytin by fluorescence. Deep-Sea Res., 10: 221-231.

STATION LOG

STA	TEMPERATURE, SALINITY	DISSOLVED O ₂	NUTRIENTS	CHLOROPHYLL <u>a</u>	INTERFACE NUTRIENTS	BENTHIC METABOLISM	¹⁴ C	¹⁵ N	PC,PN	ZOOPLANKTON NET*	ZOOPLANKTON PUMP	PHYTOPLANKTON	PARTICLES	BACTERIOLOGY
1	✓	✓	✓							✓		✓		
2	✓	✓	✓	✓			✓	✓	✓	✓		✓		
3	✓	✓	✓	✓						✓	✓	✓		
4	✓	✓	✓	✓						✓	✓	✓		
5	✓	✓	✓	✓						✓	✓	✓		
6	✓	✓	✓								✓	✓		
7	✓	✓	✓	✓			✓	✓	✓		✓	✓		
8	✓	✓	✓	✓						✓	✓			
9	✓	✓	✓	✓							✓	✓		
10	✓	✓	✓	✓							✓	✓		
11	✓	✓	✓	✓						✓	✓	✓		
12	✓	✓	✓	✓							✓	✓		
13	✓	✓	✓	✓			✓	✓	✓		✓	✓		
14	✓	✓	✓	✓						✓	✓	✓		
15	✓	✓	✓	✓						✓		✓		
16	✓	✓	✓	✓						✓				
17	✓	✓	✓	✓						✓		✓	✓	
18	✓	✓	✓	✓						✓		✓	✓	
19	✓	✓	✓	✓						✓		✓		
20	✓	✓	✓	✓								✓		
21	✓	✓	✓	✓						✓		✓		
22	✓	✓	✓				✓	✓	✓	✓		✓		
23	✓	✓	✓	✓						✓		✓	✓	
24	✓	✓	✓	✓								✓		
25	✓	✓	✓	✓						✓		✓	✓	
26	✓	✓	✓	✓						✓		✓	✓	
27	✓	✓	✓	✓								✓		
28	✓	✓	✓	✓								✓	✓	
29	✓	✓	✓	✓						✓		✓		
30			✓	✓										

*Not Analyzed

STATION LOG

STA	TEMPERATURE, SALINITY	DISSOLVED O ₂	NUTRIENTS	CHLOROPHYLL <u>a</u>	INTERFACE NUTRIENTS	BENTHIC METABOLISM	¹⁴ C	¹⁵ N	PC, PN	ZOOPLANKTON NET*	ZOOPLANKTON PUMP	PHYTOPLANKTON	PARTICLES	BACTERIOLOGY
31	✓	✓	✓	✓						✓		✓		
32	✓	✓	✓	✓						✓		✓		
33	✓	✓	✓	✓			✓	✓	✓	✓		✓		
34	✓	✓	✓	✓			✓	✓	✓		✓	✓		
35	✓	✓	✓	✓						✓	✓	✓		
36	✓	✓	✓	✓							✓			
37											✓			
38	✓	✓	✓	✓						✓				
39	✓	✓	✓	✓								✓		
40	✓	✓	✓	✓			✓	✓	✓					
41	✓	✓	✓	✓						✓		✓		✓
42	✓	✓	✓	✓								✓		
43	✓	✓	✓	✓								✓		
44	✓	✓	✓				✓	✓	✓					
45	✓	✓	✓	✓			✓	✓	✓	✓		✓		
46	✓	✓	✓	✓								✓		
47	✓	✓	✓	✓								✓		
48	✓	✓	✓	✓								✓		
49	✓	✓		✓							✓	✓		
50	✓	✓		✓						✓	✓			
51	✓	✓		✓							✓			
52	✓	✓	SEE ANCILLARY PUMP DATA				✓	✓	✓		✓	✓		
53	✓	✓		✓						✓	✓	✓		
54	✓	✓		✓							✓			
55	✓	✓		✓							✓			
56	✓	✓		✓					✓	✓	✓			
57	✓	✓												
58				✓			✓	✓	✓		✓	✓		
59	✓	✓		✓						✓	✓	✓		
60	✓	✓		✓							✓			

*Not Analyzed

STATION LOG

STA	TEMPERATURE, SALINITY	DISSOLVED O ₂	NUTRIENTS	CHLOROPHYLL <u>a</u>	INTERFACE NUTRIENTS	BENTHIC METABOLISM	¹⁴ C	¹⁵ N	PC,PN	ZOOPLANKTON NET*	ZOOPLANKTON PUMP	PHYTOPLANKTON	PARTICLES	BACTERIOLOGY
61	✓	✓		✓							✓	✓		
62	✓	✓		✓						✓	✓			
63	✓	✓	✓	✓		✓					✓		✓	
64						✓				✓	✓			
65	✓	✓	✓	✓						✓	✓		✓	
66											✓			
67	✓	✓	✓	✓			✓	✓		✓	✓		✓	
68										✓	✓			
69	✓	✓	✓	✓							✓		✓	
70					✓						✓			
71	✓	✓	✓	✓						✓	✓		✓	
72											✓			
73	✓	✓	✓	✓			✓	✓	✓		✓		✓	
74					✓					✓	✓			
75	✓	✓	✓	✓							✓		✓	✓
76	✓	✓	✓	✓						✓				
77	✓	✓	✓	✓						✓			✓	
78	✓	✓	✓	✓						✓			✓	
79	✓	✓	✓	✓						✓		✓	✓	
80	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	
81	✓	✓	✓	✓									✓	✓
82	✓	✓	✓	✓						✓			✓	
83	✓	✓	✓	✓	✓					✓		✓	✓	
84	✓	✓	✓	✓						✓		✓	✓	
85	✓	✓	✓	✓	✓	✓				✓		✓	✓	
86	✓	✓	✓	✓						✓		✓	✓	
87	✓	✓	✓	✓	✓							✓	✓	
88	✓	✓	✓	✓						✓		✓	✓	
89	✓	✓	✓	✓			✓	✓	✓	✓		✓	✓	

*Not Analyzed

STATION LOG

STA	TEMPERATURE, SALINITY	DISSOLVED O ₂	NUTRIENTS	CHLOROPHYLL <u>a</u>	INTERFACE NUTRIENTS	BENTHIC METABOLISM	¹⁴ C	¹⁵ N	PC, PN	ZOOPLANKTON NET*	ZOOPLANKTON PUMP	PHYTOPLANKTON	PARTICLES	BACTERIOLOGY
90	✓	✓	✓	✓						✓		✓	✓	
91	✓	✓	✓	✓	✓	✓				✓		✓	✓	
92	✓	✓	✓	✓						✓		✓	✓	
93	✓	✓	✓	✓		✓				✓		✓	✓	
94	✓	✓	✓	✓						✓		✓	✓	
95	✓	✓	✓	✓						✓		✓	✓	
96	✓	✓	✓	✓						✓		✓	✓	
97	✓	✓	✓	✓									✓	
98	✓	✓	✓	✓			✓	✓	✓			✓		
99	✓	✓	✓	✓						✓		✓	✓	
100	✓	✓	✓	✓									✓	
101	✓	✓	✓	✓						✓			✓	
102	✓	✓	✓	✓						✓			✓	
103	✓	✓	✓	✓						✓			✓	
104	✓	✓	✓	✓									✓	
105	✓	✓	✓	✓									✓	
106	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓
107	✓	✓	✓	✓						✓	✓		✓	
108											✓			
109											✓			
110	✓	✓	✓	✓						✓	✓		✓	
111							✓	✓	✓		✓	✓		
112	✓	✓	✓	✓							✓	✓		
113											✓	✓	✓	
114												✓		
115	✓	✓	✓	✓									✓	
116					✓					✓				
117	✓	✓	✓	✓						✓	✓		✓	
118											✓			
119							✓	✓	✓		✓	✓		

*Not Analyzed

STATION LOG

STA	TEMPERATURE, SALINITY	DISSOLVED O ₂	NUTRIENTS	CHLOROPHYLL <u>a</u>	INTERFACE NUTRIENTS	BENTHIC METABOLISM	¹⁴ C	¹⁵ N	PC, PN	ZOOPLANKTON NET*	ZOOPLANKTON PUMP	PHYTOPLANKTON	PARTICLES	BACTERIOLOGY
120	✓	✓	✓	✓	✓	✓				✓			✓	✓
121	✓	✓	✓	✓	✓								✓	
122	✓	✓	✓	✓	✓					✓		✓	✓	
123	✓	✓	✓	✓	✓							✓		
124	✓	✓	✓	✓	✓					✓		✓	✓	
125	✓	✓	✓	✓								✓	✓	
126	✓	✓	✓	✓	✓					✓		✓	✓	
127	✓	✓	✓	✓								✓	✓	
128	✓	✓	✓	✓					✓	✓		✓	✓	
129	✓	✓	✓	✓								✓	✓	
130	✓	✓	✓	✓						✓		✓	✓	
131	✓	✓	✓	✓								✓	✓	
132	✓	✓	✓	✓						✓		✓	✓	
133	✓	✓	✓	✓								✓	✓	
134	✓	✓	✓	✓						✓		✓	✓	
135	✓	✓	✓	✓								✓	✓	
136	✓	✓	✓	✓						✓		✓	✓	
137	✓	✓	✓	✓								✓	✓	
138	✓	✓	✓	✓						✓		✓	✓	
139	✓	✓	✓	✓								✓	✓	
140	✓	✓	✓	✓								✓	✓	
141	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		
142										✓	✓			
143											✓			
144	✓	✓	✓	✓							✓			
145					✓					✓	✓			
146											✓			
147	✓	✓	✓	✓					✓		✓	✓	✓	
148	✓	✓	✓	✓	✓					✓		✓	✓	
149	✓	✓	✓	✓						✓		✓	✓	
150	✓	✓	✓	✓						✓		✓	✓	
151	✓	✓	✓	✓						✓		✓	✓	
152	✓	✓	✓	✓	✓					✓		✓	✓	
153	✓	✓	✓	✓						✓			✓	
154	✓	✓	✓	✓						✓			✓	
155	✓	✓	✓	✓								✓	✓	

*Not Analyzed

HYDROGRAPHY 4-17 AUGUST

25/26



CTD DATA

27/28



The standard levels used are:

every meter between 0 to 50 m
every 5 meters between 51 to 150 m
every 25 meters between 151 to 500 m
every 50 meters below 500 m

The station headers contain the following information:

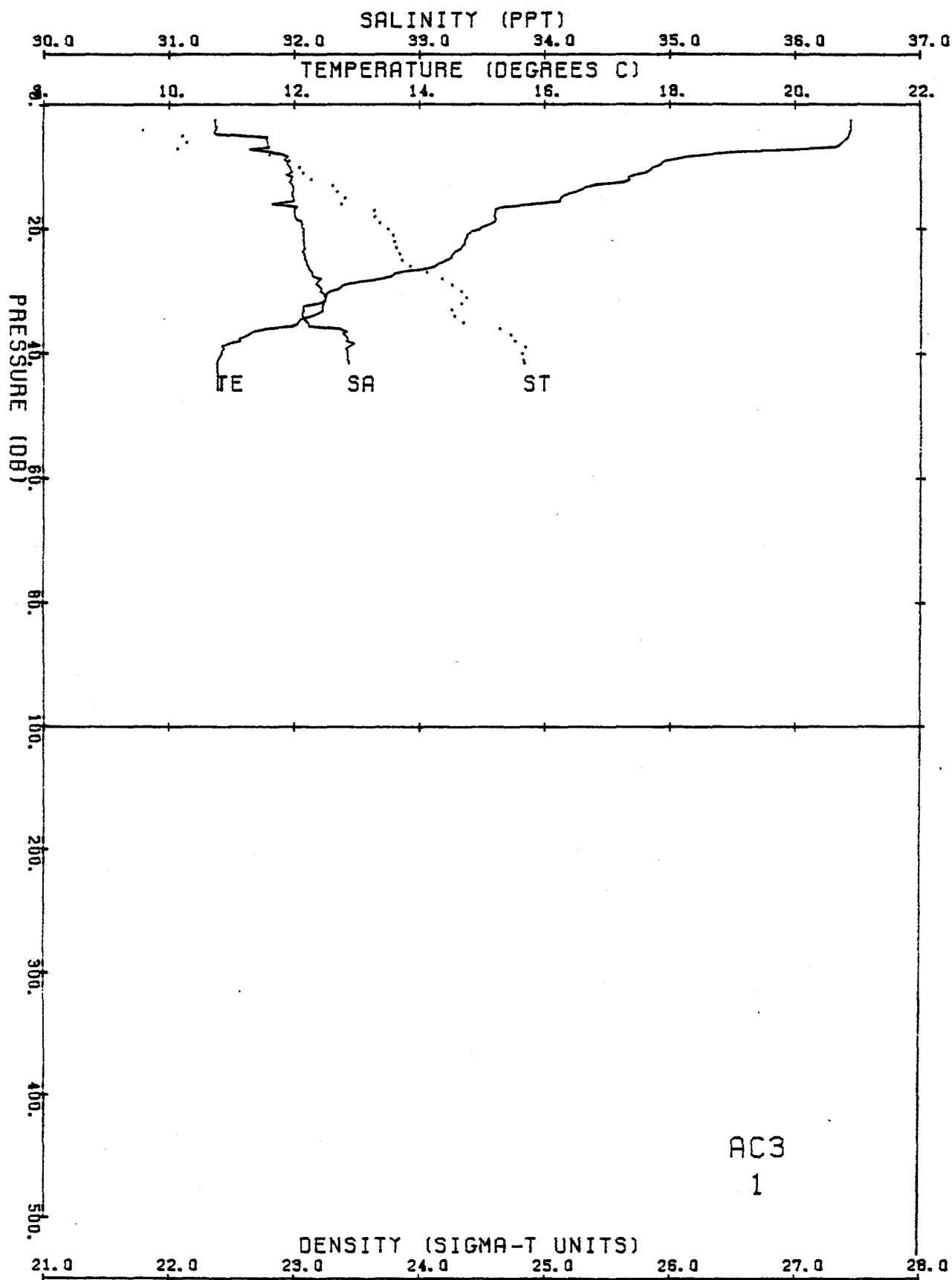
line 1: SHIP KN, CRUISE ACE-3, STATION #, CAST (1, 2, etc.)
line 2: START (ships position in Latitude (N) and Longitude (W),
at XXXX (hours - local time), date (yr/month/day)
line 3: POS = LC (for Loran C), STA. TYPE = (DT for downtrace,
UT for uptrace)
line 4: WIND = speed (knots), DIR = direction (deg.), DEPTH = XXX meters

The parameters listed are:

DE (depth in meters)
TE (temperature in °C)
SA (salinity in ‰)
ST (sigma-t) -- computed using UNESCO, 1981
AN (anomaly of the specific volume $\times 10^5$ in $\text{cm}^3 \cdot \text{g}^{-1}$)
HZ (dynamic height in dynamic meters)
VE (sound velocity in $\text{m} \cdot \text{s}^{-1}$)
BV (Brant-Vaisala frequency in $\text{cycles} \cdot \text{hr}^{-1}$, and
calculated over the previous 5 m of data from listed level)
PR (pressure in decibars)

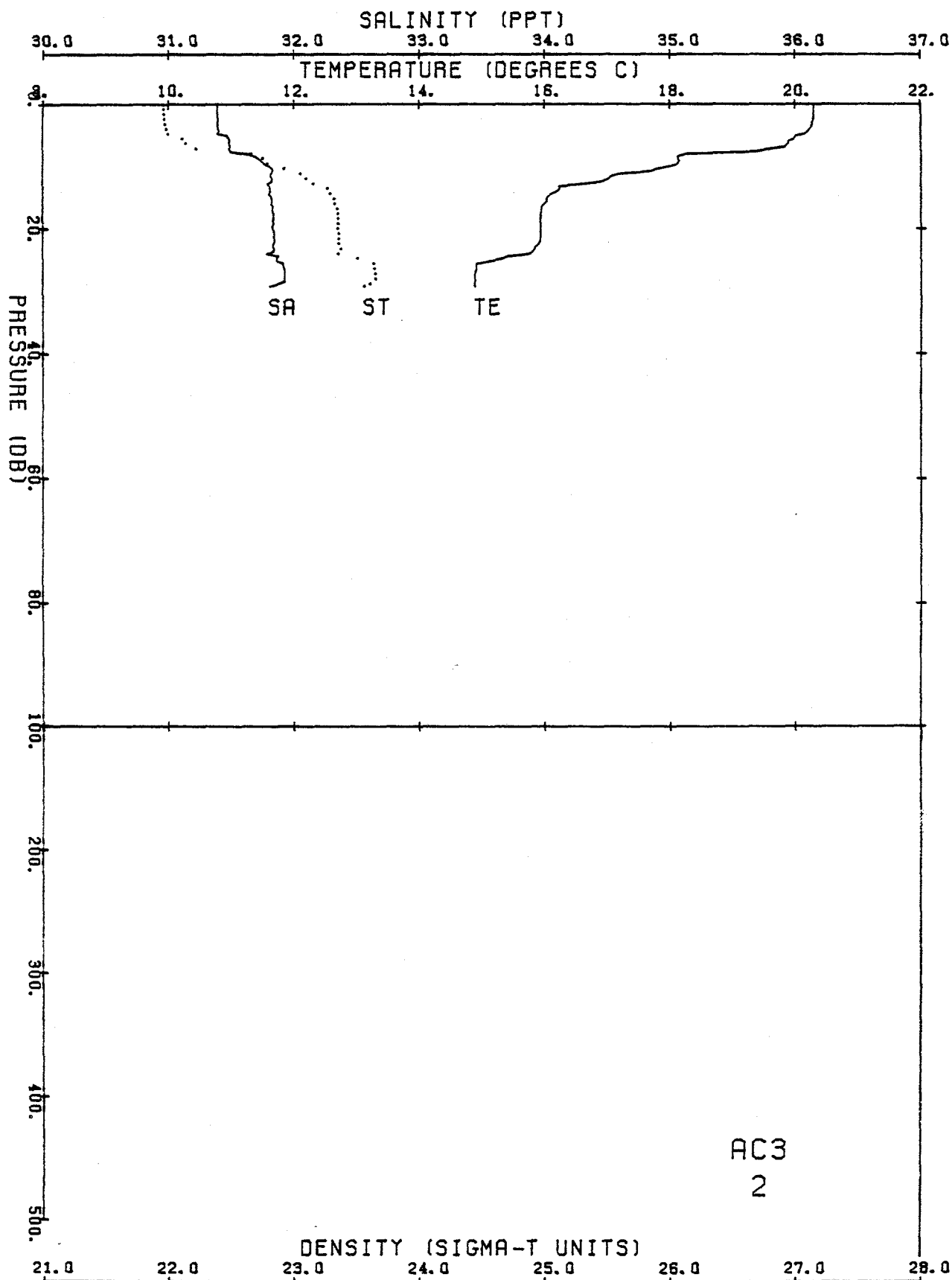
SHIP KN CRUISE ACE-3 STATION 1 CAST 1
 START 40 58.30 N 71 42.10 W AT 2133 77/ 8/ 4
 POS. = LC STA. TYPE = DT
 WIND = 9 knots DIR = 22 DEPTH = 43 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	20.891	31.372	21.745	603.66	0.000	1520.3	0.00	0.0
1	20.891	31.372	21.745	603.72	.006	1520.3		1.00
2	20.891	31.372	21.745	603.71	.012	1520.4		2.00
3	20.890	31.379	21.770	603.27	.013	1520.4		3.00
4	20.889	31.378	21.770	603.32	.025	1520.4		4.1
5	20.881	31.787	22.088	572.87	.031	1520.8	6.85	5.1
6	20.734	31.740	22.123	569.42	.036	1520.9		6.1
7	20.260	31.522	22.043	577.06	.042	1518.9		7.1
8	18.522	31.916	22.785	506.25	.047	1514.5		8.1
9	17.907	31.928	22.944	491.11	.052	1512.7		9.1
10	17.715	31.977	22.028	483.13	.057	1512.2	11.78	10.1
11	17.580	31.998	22.076	478.55	.062	1511.9		11.00
12	17.354	31.989	22.123	474.11	.066	1511.1		12.00
13	16.677	32.003	22.391	458.07	.071	1509.2		13.00
14	16.491	32.007	22.329	454.43	.076	1508.5		14.00
15	16.245	32.007	22.393	448.39	.080	1507.9	7.41	15.00
16	15.789	32.836	22.363	451.23	.085	1506.3		16.00
17	15.211	32.016	22.688	425.96	.089	1504.7		17.00
18	15.205	32.023	22.635	425.33	.093	1504.7		18.00
19	15.144	32.070	22.684	420.70	.098	1504.6		19.00
20	14.954	32.043	22.742	415.14	.102	1504.0	7.18	20.00
21	14.753	32.091	22.783	411.23	.106	1503.4		21.00
22	14.720	32.097	22.795	410.15	.110	1503.3		22.00
23	14.667	32.102	22.810	408.71	.114	1503.1		23.00
24	14.523	32.108	22.845	405.40	.119	1502.7		24.1
25	14.407	32.120	22.879	402.23	.123	1502.4	4.44	25.1
26	14.200	32.142	22.939	396.49	.127	1501.7		26.1
27	13.617	32.169	22.079	383.17	.130	1499.9		27.1
28	13.178	32.263	22.338	367.97	.134	1498.5		28.1
29	12.762	32.288	22.444	363.23	.138	1497.1		29.1
30	12.577	32.339	22.337	358.58	.141	1496.9	8.30	30.00
31	12.494	32.276	22.382	354.33	.145	1496.3		31.00
32	12.454	32.143	22.386	353.46	.149	1496.0		32.00
33	12.447	32.106	22.359	356.11	.153	1495.9		33.00
34	12.208	32.089	22.391	353.07	.156	1495.1		34.00
35	12.052	32.149	22.367	355.33	.160	1494.6	2.06	35.00
36	11.477	32.405	22.670	326.99	.163	1493.0		36.00
37	11.230	32.446	22.747	319.54	.167	1492.7		37.00
38	11.080	32.481	22.801	314.51	.170	1491.1		38.00
39	10.882	32.490	22.811	313.30	.173	1491.0		39.00
40	10.837	32.465	22.831	311.61	.176	1490.8	8.26	40.00
41	10.777	32.475	22.849	309.96	.179	1490.6		41.00
42	10.774	32.478	22.852	309.65	.180	1490.6		41.5



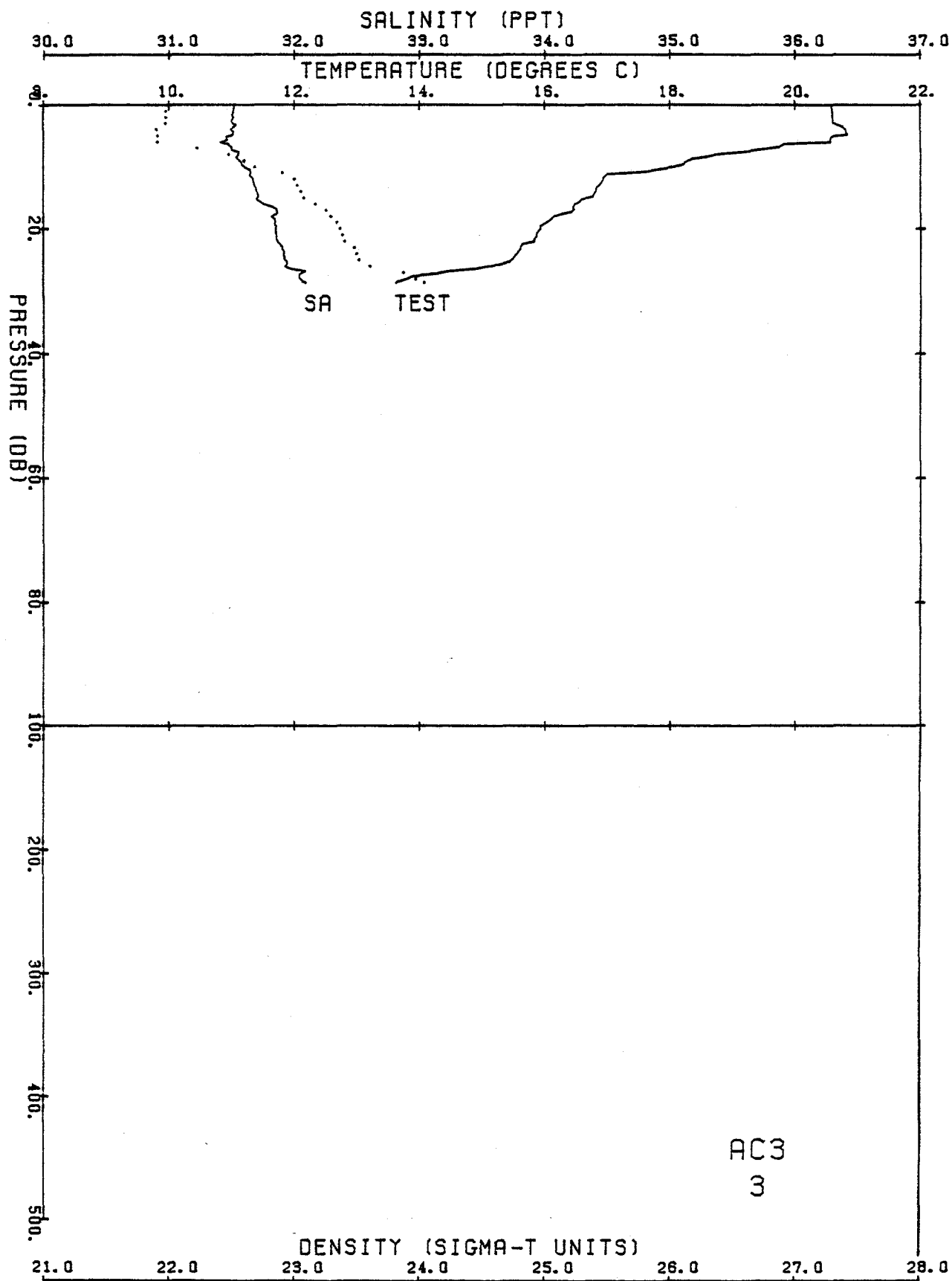
SHIP KN CRUISE ACE-3 STATION 2 CAST 1
 START 40 46.00 N 72 30.40 W AT 803 77/ 8/ 5
 POS = LC STA. TYPE = DT
 WIND = 8 knots DIR = 290 DEPTH = 31 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	20.297	31.392	21.936	597.26	0.000	1518.7	0.00	0.0
1	20.297	31.392	21.936	597.26	0.006	1518.7		1.00
2	20.297	31.392	21.936	597.26	0.012	1518.7		2.00
3	20.297	31.392	21.936	597.26	0.018	1518.7		3.00
4	20.297	31.392	21.936	597.26	0.023	1518.7		4.00
5	19.989	31.466	21.099	572.75	0.030	1518.1	4.71	5.1
6	19.989	31.466	21.099	572.75	0.035	1517.8		6.00
7	19.616	31.504	21.197	562.92	0.041	1517.1		7.00
8	18.260	31.643	21.641	520.05	0.046	1513.4		8.00
9	18.159	31.746	21.744	510.21	0.051	1513.2		9.00
10	17.970	31.817	21.844	500.71	0.056	1512.8	10.66	10.00
11	17.578	31.890	21.963	489.31	0.061	1511.7		11.00
12	17.019	31.940	22.087	477.49	0.066	1510.0		12.00
13	16.554	31.773	22.142	472.25	0.071	1508.5		13.00
14	16.179	31.882	22.257	460.41	0.075	1507.4		14.00
15	16.043	31.882	22.303	456.93	0.080	1507.0	8.23	15.00
16	15.989	31.882	22.317	455.68	0.085	1506.9		16.00
17	15.949	31.882	22.336	453.89	0.089	1506.8		17.00
18	15.939	31.882	22.356	453.01	0.094	1506.8		18.00
19	15.936	31.882	22.374	453.31	0.098	1506.8		19.00
20	15.936	31.882	22.392	453.36	0.103	1506.8	2.39	20.00
21	15.934	31.882	22.411	453.31	0.107	1506.8		21.00
22	15.926	31.882	22.437	451.98	0.112	1506.8		22.00
23	15.949	31.882	22.467	451.10	0.116	1506.6		23.00
24	15.733	31.882	22.505	452.55	0.121	1506.6		24.00
25	15.273	31.871	22.503	438.15	0.125	1504.8	4.87	25.00
26	14.907	31.943	22.577	425.31	0.130	1503.3		26.00
27	14.892	31.954	22.649	424.23	0.134	1503.3		27.00
28	14.888	31.956	22.651	424.02	0.138	1503.3		28.00
29	14.885	31.958	22.661	423.65	0.142	1503.3		29.00
30	14.888	31.956	22.659	423.90	0.143	1503.6		30.0



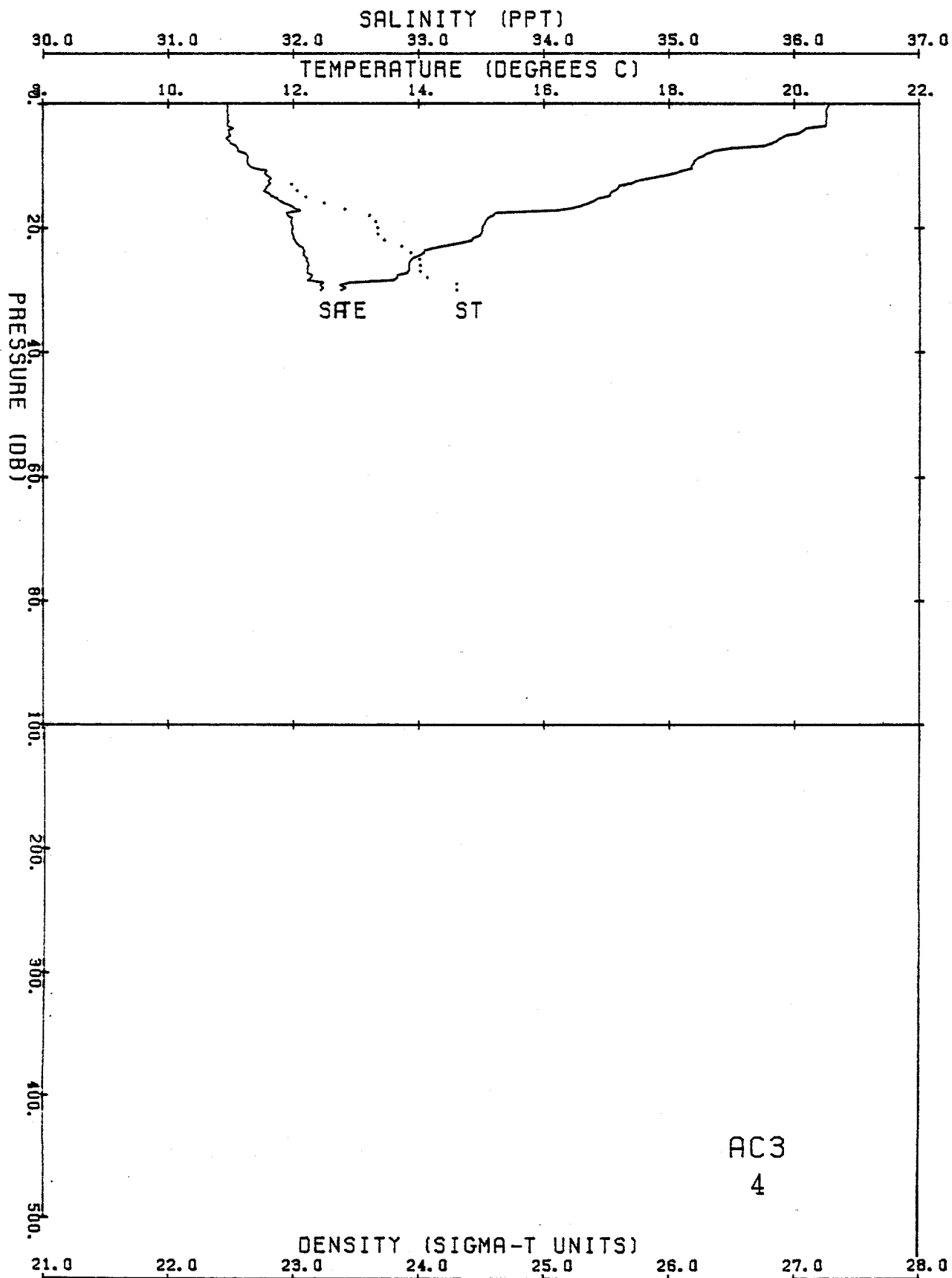
SHIP KN CRUISE ACE-3 STATION 3 CAST 1
 START 40 45 70 N 72 27.50 W AT 1458 77/ 8/ 5
 POS. = LC STA. TYPE = DT
 WIND = 13 knots DIR = 200 DEPTH = 31 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	20.586	31.522	21.959	585.07	0.000	1519.7	0.00	0.0
1	20.596	31.514	21.951	585.88	.006	1519.7		1.00
2	20.605	31.515	21.949	586.07	.012	1519.8		2.00
3	20.614	31.521	21.951	585.91	.018	1519.8		3.00
4	20.795	31.300	21.888	592.02	.023	1520.3		4.00
5	20.543	31.482	21.940	587.01	.030	1519.6	-1.63	5.1
6	20.562	31.413	21.883	592.51	.035	1519.6		6.00
7	19.508	31.477	22.204	561.80	.041	1516.8		7.00
8	18.734	31.558	22.460	537.41	.047	1514.7		8.00
9	19.266	31.571	22.583	525.47	.052	1513.3		9.00
10	18.056	31.614	22.668	517.53	.057	1512.8	10.47	10.00
11	17.172	31.639	22.889	496.38	.062	1510.0		11.00
12	16.925	31.683	22.988	486.94	.067	1509.9		12.00
13	16.861	31.693	22.011	484.79	.072	1509.4		13.00
14	16.809	31.716	22.041	482.02	.077	1509.2		14.00
15	16.727	31.723	22.065	479.70	.082	1509.0	7.66	15.00
16	16.478	31.771	22.159	470.79	.086	1508.0		16.00
17	16.472	31.883	22.246	462.51	.091	1508.9		17.00
18	16.133	31.833	22.283	458.93	.096	1507.4		18.00
19	16.044	31.867	22.330	454.45	.100	1507.7		19.00
20	15.932	31.871	22.358	451.84	.105	1506.8	6.57	20.00
21	15.968	31.878	22.378	449.99	.109	1506.7		21.00
22	15.824	31.890	22.397	448.20	.114	1506.9		22.00
23	15.612	31.930	22.474	440.83	.118	1505.9		23.00
24	15.556	31.942	22.496	438.79	.123	1505.8		24.00
25	15.483	31.945	22.513	437.02	.127	1505.6	4.80	25.00
26	15.096	31.952	22.603	428.37	.131	1504.4		26.00
27	14.384	31.106	22.873	402.82	.135	1502.3		27.00
28	13.788	31.079	22.975	393.12	.139	1500.9		28.00
29	13.628	31.122	23.040	386.87	.142	1499.9		29.6



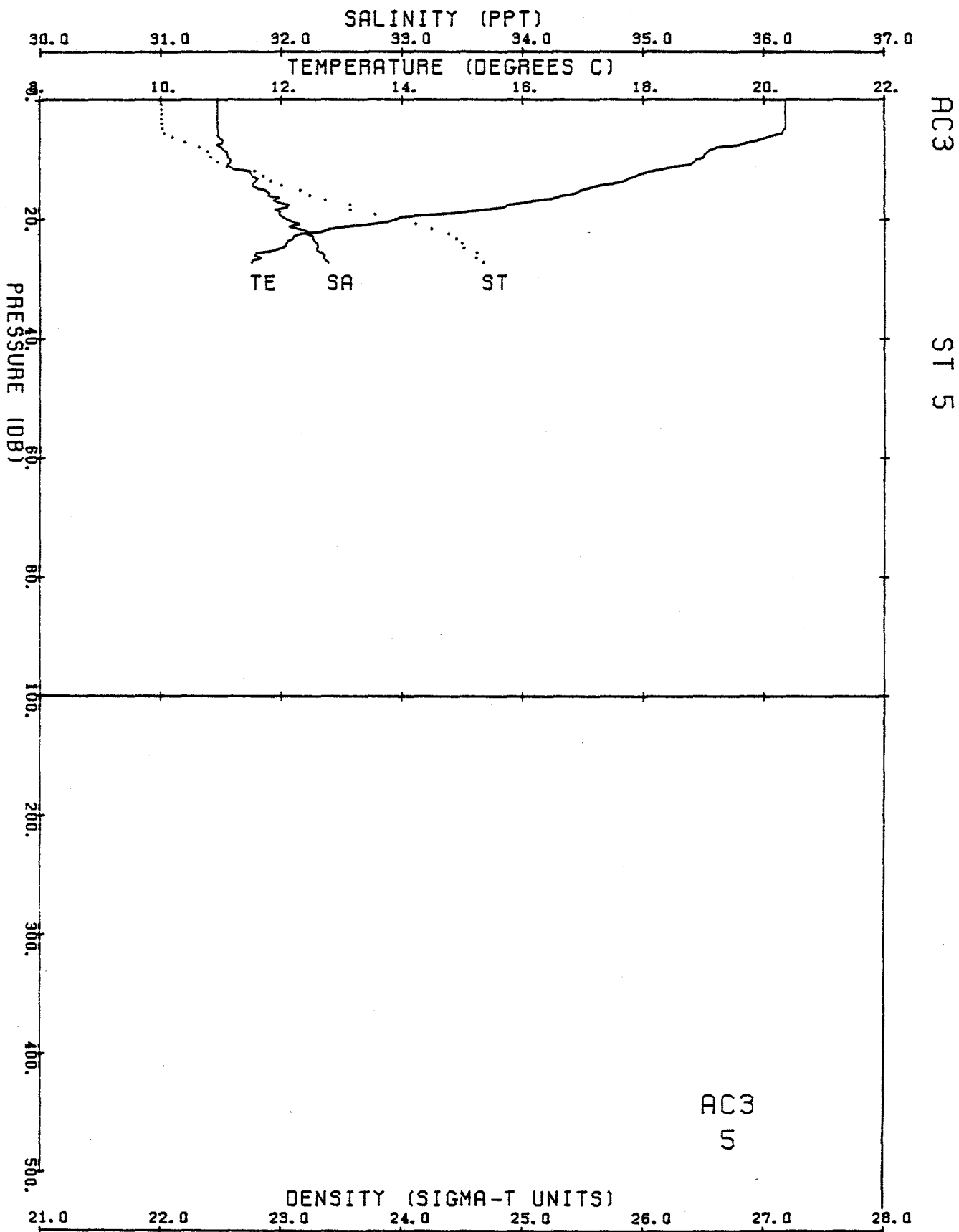
SHIP KN CRUISE ACE-3 STATION 4 CAST 1
 START 40 45.10 N 72 30.40 W AT 2052 77/ 8/ 5
 POS. = LC STA. TYPE = DT
 WIND = 14 knots DIR = 200 DEPTH = 31 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	20.553	31.471	21.929	587.93	0.000	1519.5	0.00	0.0
1	20.519	31.475	21.941	586.81	.006	1519.5		1.00
2	20.519	31.476	21.942	586.75	.012	1519.9		2.00
3	20.520	31.476	21.942	586.82	.018	1519.9		3.00
4	20.795	31.500	21.888	592.02	.024	1520.3		4.00
5	19.863	31.499	21.130	588.84	.030	1517.7	5.40	5.1
6	19.722	31.494	21.183	585.77	.035	1517.4		6.00
7	19.102	31.586	22.390	544.05	.041	1515.7		7.00
8	18.607	31.623	22.341	529.62	.046	1514.4		8.00
9	18.408	31.643	22.605	523.51	.051	1513.8		9.00
10	18.357	31.661	22.631	521.03	.056	1513.7	8.69	10.00
11	18.160	31.797	22.783	506.54	.062	1513.3		11.00
12	17.690	31.832	22.922	493.26	.067	1512.0		12.00
13	17.332	31.785	22.972	488.59	.071	1510.9		13.00
14	17.109	31.777	22.018	434.17	.076	1510.2		14.00
15	17.039	31.950	22.050	477.34	.081	1510.1	8.23	15.00
16	16.708	31.942	22.237	463.33	.086	1509.2		16.00
17	16.362	32.054	22.402	447.60	.090	1508.3		17.00
18	15.179	31.970	22.600	428.70	.095	1504.5		18.00
19	15.058	32.001	22.650	423.95	.099	1504.2		19.00
20	15.013	32.012	22.667	422.29	.103	1504.1	9.23	20.00
21	14.998	32.011	22.670	422.06	.107	1504.1		21.00
22	14.835	32.034	22.723	417.04	.112	1503.6		22.00
23	14.340	32.077	22.860	403.96	.116	1502.1		23.00
24	14.038	32.108	22.946	395.76	.120	1501.1		24.1
25	13.868	32.130	22.998	390.87	.124	1500.6	6.71	25.1
26	13.853	32.140	22.008	389.88	.128	1500.6		26.1
27	13.817	32.136	22.013	389.49	.132	1500.5		27.1
28	13.644	32.168	22.073	383.77	.136	1500.0		28.1
29	12.739	32.239	22.306	361.49	.139	1497.0		29.1
30	12.739	32.239	22.306	361.49	.139	1497.0		29.1



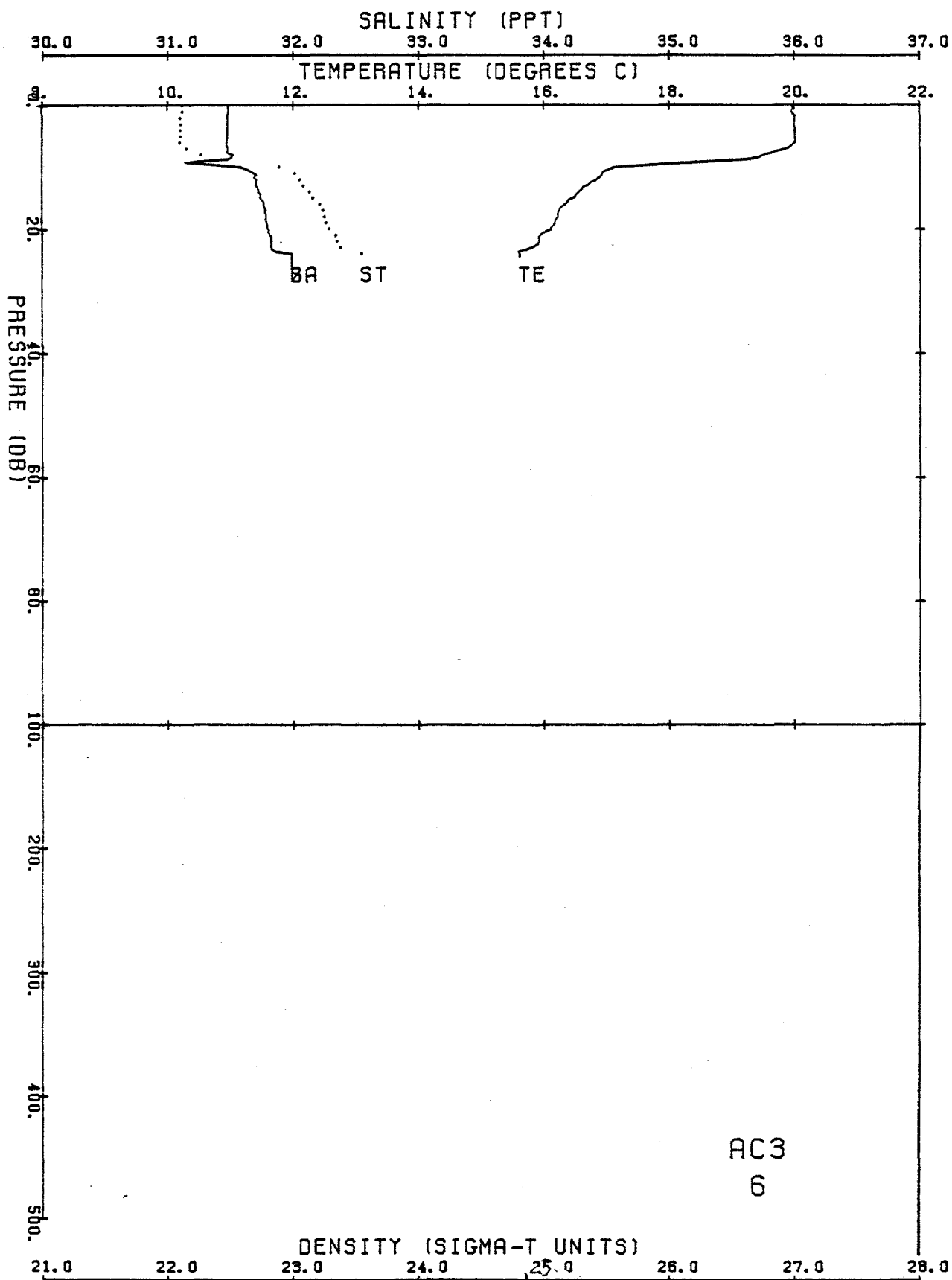
SHIP KN CRUISE ACE-3 STATION 5 CAST 1
 START 40 44.30 N 72 28.40 W AT 45 77/ 8/ 6
 POS. = LC STA. TYPE = DT
 WIND = 10 knots DIR = 25 DEPTH = 30 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	20.363	31.470	21.979	583.20	0.000	1519.0	0.00	0.0
1	20.368	31.471	21.981	583.03	.006	1519.0		1.0
2	20.363	31.473	21.983	582.85	.013	1519.0		2.0
3	20.362	31.473	21.981	583.05	.017	1519.1		3.0
4	20.793	31.500	21.888	582.02	.023	1520.3		4.0
5	20.318	31.480	21.998	581.49	.030	1519.0	1.69	5.1
6	20.136	31.475	22.042	577.37	.035	1518.5		6.0
7	19.740	31.525	22.181	564.00	.041	1517.5		7.0
8	19.221	31.510	22.302	552.53	.046	1516.0		8.0
9	19.037	31.563	22.388	544.28	.052	1515.6		9.0
10	18.870	31.589	22.450	538.42	.057	1515.1	8.25	10.0
11	18.712	31.568	22.473	536.25	.063	1514.7		11.0
12	18.110	31.754	22.762	508.61	.068	1513.1		12.0
13	17.819	31.778	22.832	500.02	.073	1512.3		13.0
14	17.508	31.778	22.925	493.11	.078	1511.4		14.0
15	17.019	31.847	23.093	477.08	.083	1510.1	9.74	15.0
16	16.653	31.908	23.224	464.56	.087	1509.0		16.0
17	16.113	31.953	23.380	449.71	.092	1507.4		17.0
18	15.670	31.965	23.565	433.01	.096	1506.2		18.0
19	14.885	31.959	23.736	415.74	.101	1503.7		19.0
20	13.893	31.938	23.936	396.43	.105	1500.5	11.16	20.0
21	13.096	31.864	24.119	379.18	.109	1499.9		21.0
22	12.688	31.840	24.317	360.33	.112	1496.7		22.0
23	12.211	31.826	24.443	348.04	.116	1495.5		23.0
24	12.076	31.826	24.499	342.98	.120	1494.8		24.1
25	11.861	31.837	24.537	333.37	.123	1494.0	9.29	25.1
26	11.533	31.812	24.657	327.06	.126	1493.5		26.1
27	11.503	31.815	24.674	326.39	.130	1492.9		27.1
28	11.503	31.815	24.674	326.39	.130	1492.9		27.1



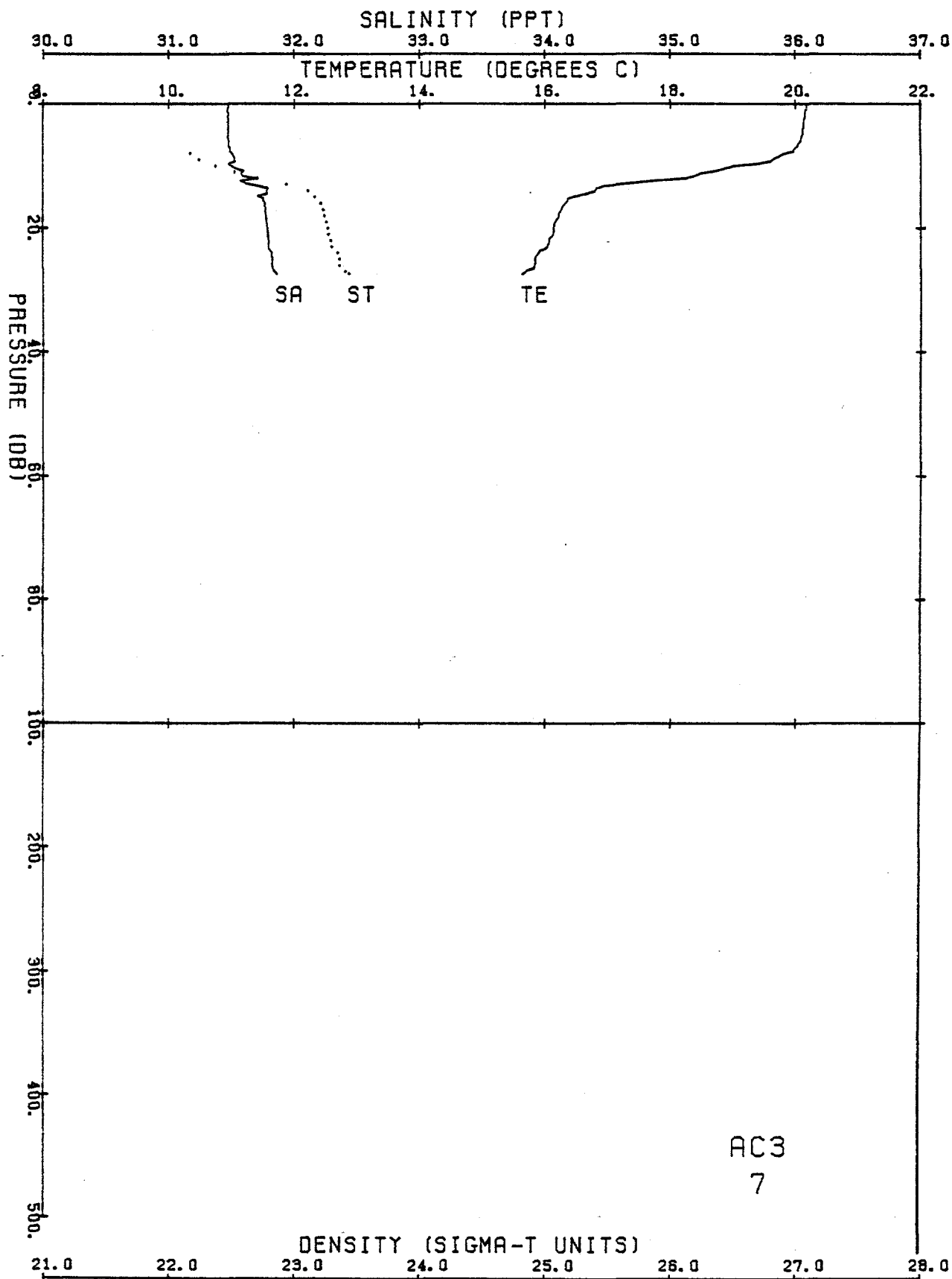
SHIP KN CRUISE ACE-3 STATION 6 CAST 1
 START 40 46.70 N 72 29.20 W AT 451 77/ 8/ 6
 POS. = LC STA. TYPE = OT
 WIND = 10 knots DIR = 260 DEPTH = 27 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	19.965	31.483	22.092	572.37	0.000	1517.9	0.00	0.0
1	19.962	31.484	22.093	572.24	.006	1517.9		2.00
2	20.007	31.474	22.074	574.13	.011	1518.1		2.00
3	19.997	31.476	22.078	573.77	.017	1518.1		3.00
4	20.795	31.500	22.888	592.02	.023	1520.3		4.00
5	20.007	31.475	22.073	574.14	.039	1518.1	-1.56	5.1
6	20.005	31.471	22.073	574.09	.035	1518.1		6.00
7	19.814	31.481	22.129	569.04	.040	1517.6		7.00
8	19.485	31.524	22.246	557.89	.046	1515.8		8.00
9	18.404	31.275	22.326	550.25	.031	1513.4		9.00
10	17.121	31.590	22.872	498.04	.037	1510.0	10.96	10.00
11	16.925	31.694	22.997	486.13	.042	1509.3		11.00
12	16.824	31.714	22.036	482.41	.067	1509.3		12.00
13	16.693	31.714	22.066	479.58	.071	1508.9		13.00
14	16.552	31.737	22.116	474.81	.076	1508.5		14.00
15	16.472	31.751	22.145	472.10	.081	1508.3	6.34	15.00
16	16.328	31.782	22.201	466.77	.086	1507.9		16.00
17	16.245	31.794	22.229	464.09	.090	1507.7		17.00
18	16.218	31.804	22.242	462.81	.095	1507.6		18.00
19	16.172	31.807	22.255	461.62	.099	1507.5		19.00
20	16.111	31.822	22.281	459.23	.104	1507.3	4.48	20.00
21	15.928	31.935	22.331	454.42	.109	1506.8		21.00
22	15.916	31.947	22.343	453.31	.113	1506.8		22.00
23	15.786	31.844	22.370	450.77	.118	1506.4		23.00
24	15.608	32.012	22.539	434.69	.122	1506.1		24.00
25	15.608	32.012	22.539	434.69	.122	1506.1		24.0



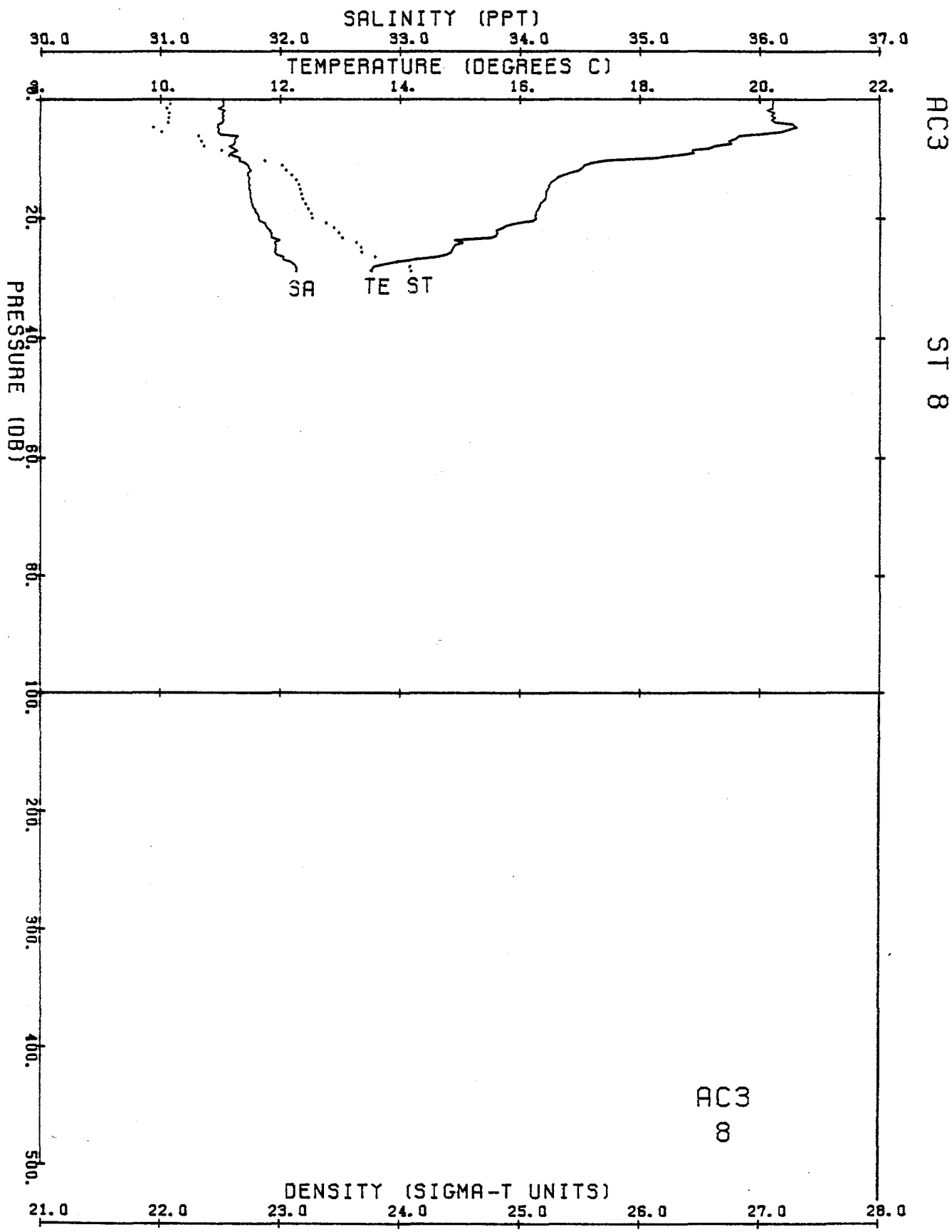
SHIP KN CRUISE ACE-3 STATION 7 CAST 1
 START 40 46 20 N 72 28.90 W AT 844 77/ 8/ 6
 POS. = LC STA. TYPE = DT
 WIND = 10 knots DIR = 230 DEPTH = 29 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	20.180	31.475	22.030	578.30	0.000	1518.5	0.00	0.0
1	20.160	31.470	22.031	578.21	.006	1518.5		1.0
2	20.131	31.474	22.037	577.69	.013	1518.5		2.0
3	20.130	31.477	22.045	576.96	.017	1518.4		3.0
4	20.795	31.500	21.888	592.02	.023	1520.3		4.0
5	20.096	31.476	22.052	576.30	.030	1518.4		5.1
6	20.080	31.483	22.062	575.39	.035	1518.3	1.81	6.1
7	19.990	31.495	22.095	572.32	.041	1518.1		7.0
8	19.811	31.512	22.153	566.73	.046	1517.7		8.0
9	19.613	31.538	22.224	560.02	.052	1517.2		9.0
10	19.004	31.512	22.337	547.35	.057	1515.4	6.79	10.0
11	18.639	31.593	22.510	532.69	.063	1514.5		11.0
12	18.244	31.704	22.691	515.38	.068	1513.5		12.0
13	17.125	31.661	22.925	473.00	.073	1510.1		13.0
14	16.800	31.790	23.099	476.42	.078	1509.3		14.0
15	16.432	31.747	23.151	471.52	.083	1509.1	10.82	15.0
16	16.326	31.785	23.204	466.48	.087	1507.9		16.0
17	16.265	31.792	23.223	464.66	.092	1507.7		17.0
18	16.219	31.793	23.234	463.60	.097	1507.6		18.0
19	16.169	31.798	23.249	462.22	.101	1507.5		19.0
20	16.146	31.810	23.264	460.85	.106	1507.4	4.09	20.0
21	16.131	31.813	23.269	460.37	.110	1507.4		21.0
22	16.067	31.821	23.284	458.48	.115	1507.2		22.0
23	16.033	31.821	23.297	457.73	.120	1507.1		23.0
24	15.888	31.837	23.343	453.36	.125	1506.7		24.1
25	15.855	31.849	23.358	451.95	.129	1506.6	3.70	25.1
26	15.831	31.855	23.369	450.98	.134	1506.6		26.1
27	15.668	31.878	23.422	445.94	.138	1506.1		27.1
28	15.639	31.887	23.435	444.66	.140	1506.1		27.4



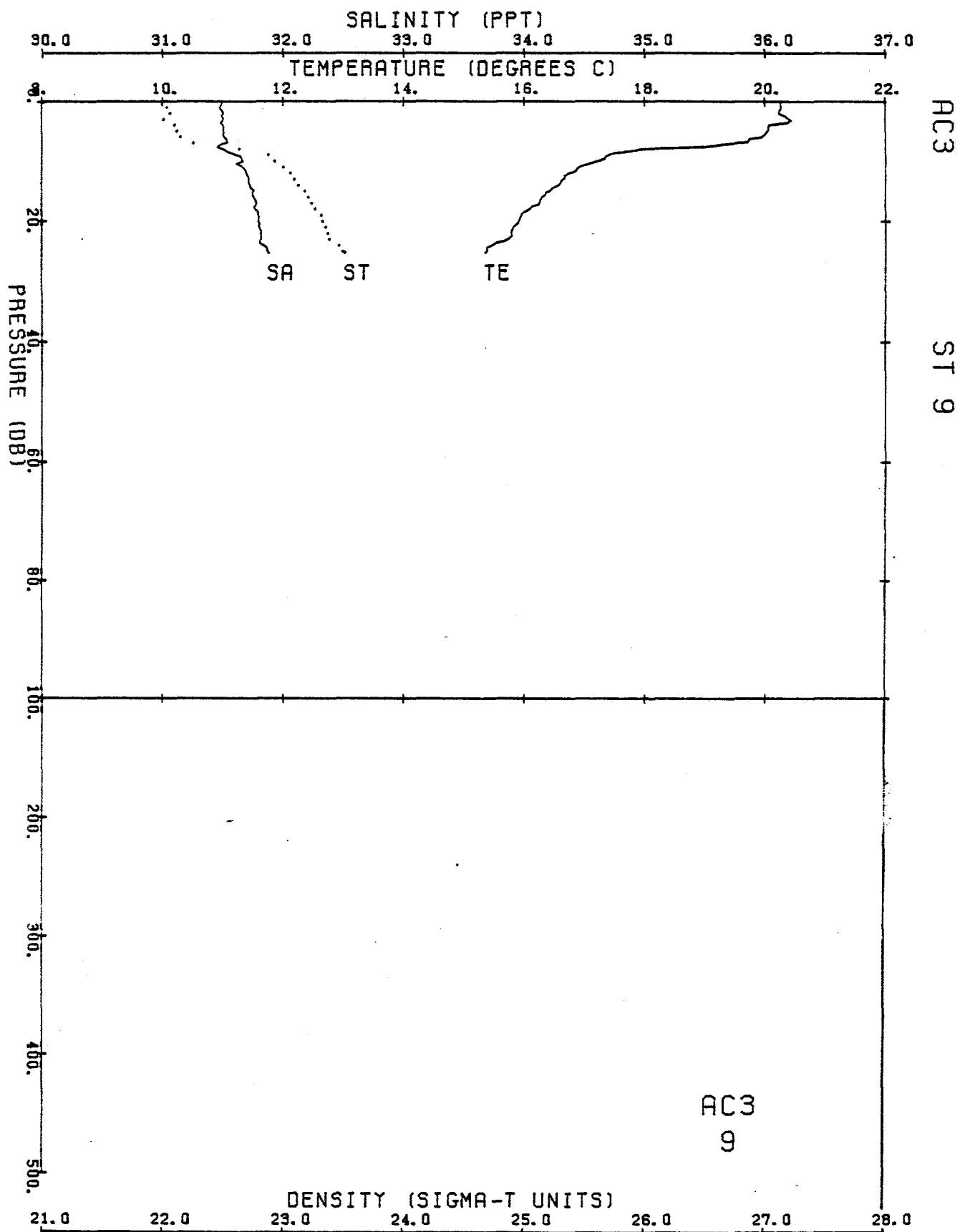
SHIP KN CRUISE ACE-3 STATION 8 CAST 1
 START 40 46.40 N 72 28.70 W AT 1353 77/ 8/ 6
 POS. = LC STA. TYPE = UT
 WIND = DIR = DEPTH = 30 meters

DE	TE	SA	ST	AN	4Z	VE	BV	PR
0	20.227	31.517	22.050	576.40	0.000	1518.7	0.00	0.0
1	20.219	31.523	22.056	575.82	.006	1518.7		1.0
2	20.127	31.934	22.089	572.74	.012	1518.6		2.0
3	20.200	31.525	22.063	575.24	.017	1518.7		3.0
4	20.795	31.500	21.988	592.02	.023	1520.3		4.0
5	20.508	31.490	21.956	585.52	.030	1519.6	-3.68	5.1
6	20.017	31.508	22.097	572.06	.035	1518.2		6.0
7	19.873	31.624	22.224	552.70	.040	1517.1		7.0
8	19.247	31.581	22.349	547.95	.046	1516.2		8.0
9	18.780	31.648	22.517	531.93	.051	1514.9		9.0
10	18.223	31.677	22.676	516.78	.057	1513.4	10.42	10.0
11	17.155	31.717	22.959	489.74	.062	1510.3		11.0
12	16.986	31.766	23.038	482.22	.066	1509.8		12.0
13	16.708	31.747	23.087	477.91	.071	1509.0		13.0
14	16.517	31.748	23.132	473.29	.076	1508.4		14.0
15	16.468	31.752	23.147	471.91	.081	1508.3	8.33	15.0
16	16.427	31.762	23.163	470.35	.085	1508.2		16.0
17	16.394	31.773	23.179	468.84	.090	1508.1		17.0
18	16.318	31.784	23.204	466.46	.095	1507.9		18.0
19	16.266	31.818	23.242	462.86	.099	1507.8		19.0
20	16.263	31.827	23.268	461.39	.104	1507.7	4.06	20.0
21	16.906	31.884	23.378	450.00	.109	1506.9		21.0
22	16.598	31.936	23.482	440.04	.113	1505.9		22.0
23	16.570	31.946	23.496	438.73	.117	1505.8		23.0
24	16.953	31.977	23.654	423.69	.122	1503.9		24.1
25	16.868	31.981	23.675	421.73	.126	1503.7	7.76	25.1
26	16.733	31.996	23.715	417.57	.131	1503.2		26.1
27	16.924	32.111	23.972	393.40	.135	1500.8		27.1
28	16.446	32.158	24.084	382.69	.139	1499.6		28.1
29	16.527	32.159	24.089	382.25	.141	1499.6		29.1



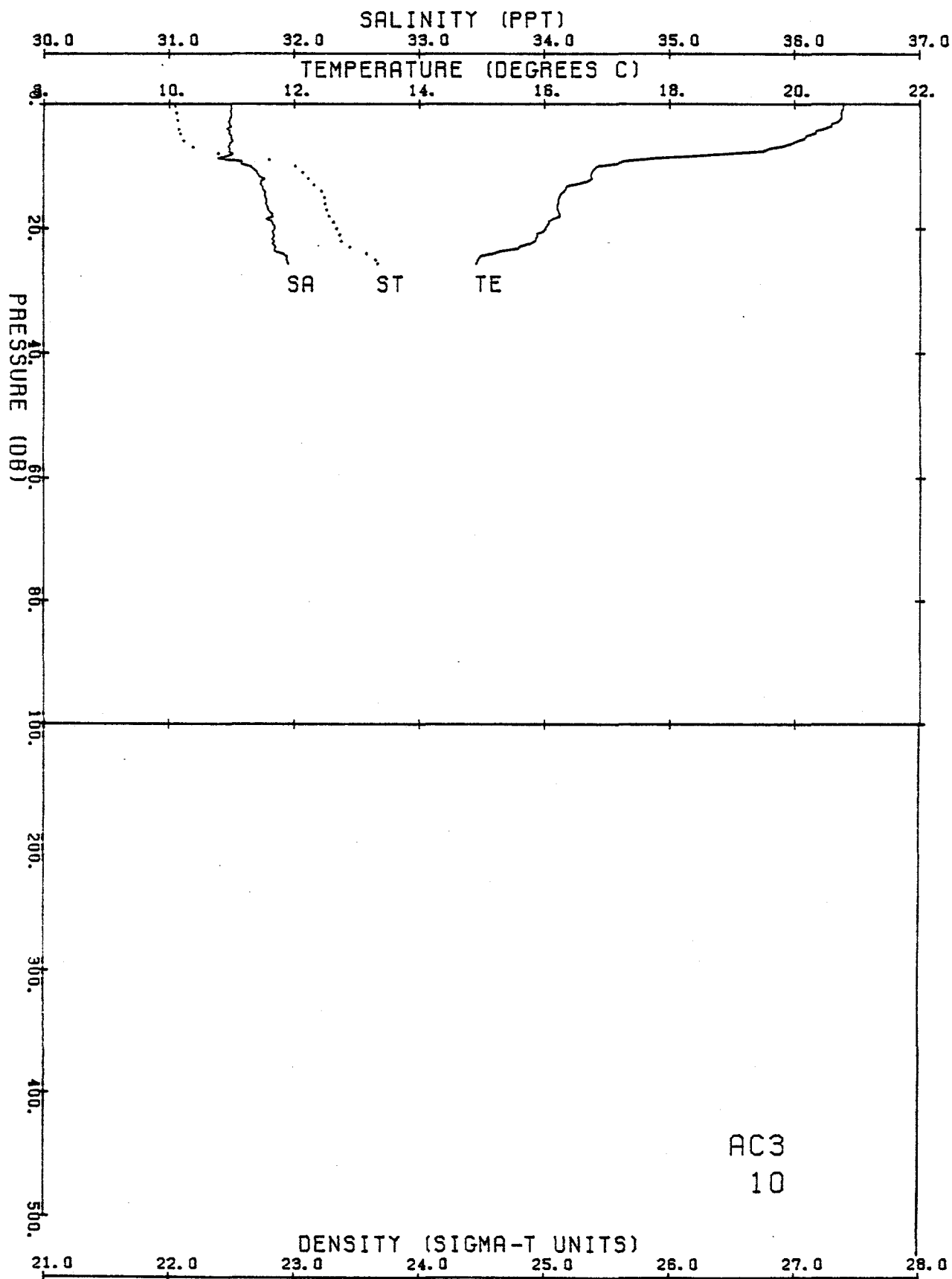
SHIP KN CRUISE ACS-3 STATION 9 CAST 1
 START 40 46 20 N 72 29.80 W AT 1623 77/ 8/ 6
 POS. = LC STA. TYPE = DT
 WIND = 10 knots DIR = 240 DEPTH = 27 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	20.2255	31.493	22.021	579.12	0.000	1518.8	0.00	0.0
1	20.2255	31.479	22.011	580.16	.006	1518.9		1.0
2	20.2255	31.505	22.040	577.37	.012	1518.7		2.0
3	20.427	31.501	21.985	582.66	.017	1519.0		3.0
4	20.745	31.500	21.888	592.02	.023	1520.0		4.0
5	20.026	31.512	22.043	571.95	.030	1518.5	3.34	5.1
6	19.928	31.517	22.127	569.17	.035	1518.2		6.0
7	19.416	31.486	22.235	558.92	.040	1516.4		7.0
8	17.928	31.505	22.616	522.40	.046	1512.2		8.0
9	17.338	31.645	22.859	499.27	.051	1510.7		9.0
10	17.210	31.677	22.917	493.73	.056	1510.4	11.11	10.0
11	16.922	31.678	22.985	487.31	.061	1509.6		11.0
12	16.739	31.705	22.048	481.26	.066	1509.0		12.0
13	16.564	31.725	22.080	478.19	.070	1508.3		13.0
14	16.564	31.738	22.114	475.01	.075	1508.5		14.0
15	16.480	31.768	22.170	469.71	.080	1508.1	6.11	15.0
16	16.302	31.774	22.201	466.74	.085	1507.8		16.0
17	16.202	31.792	22.228	464.22	.089	1507.7		17.0
18	16.032	31.787	22.258	461.34	.094	1507.2		18.0
19	15.749	31.810	22.307	456.64	.099	1506.8		19.0
20	15.906	31.811	22.318	455.64	.103	1506.7	4.68	20.0
21	15.800	31.823	22.346	453.04	.108	1506.4		21.0
22	15.704	31.838	22.366	451.14	.112	1506.4		22.0
23	15.741	31.841	22.377	450.08	.117	1505.2		23.0
24	15.406	31.882	22.482	440.06	.122	1505.0		24.0
25	15.333	31.905	22.512	437.30	.126	1505.1	5.29	25.0
26	15.333	31.905	22.512	437.30	.126	1505.1		26.0



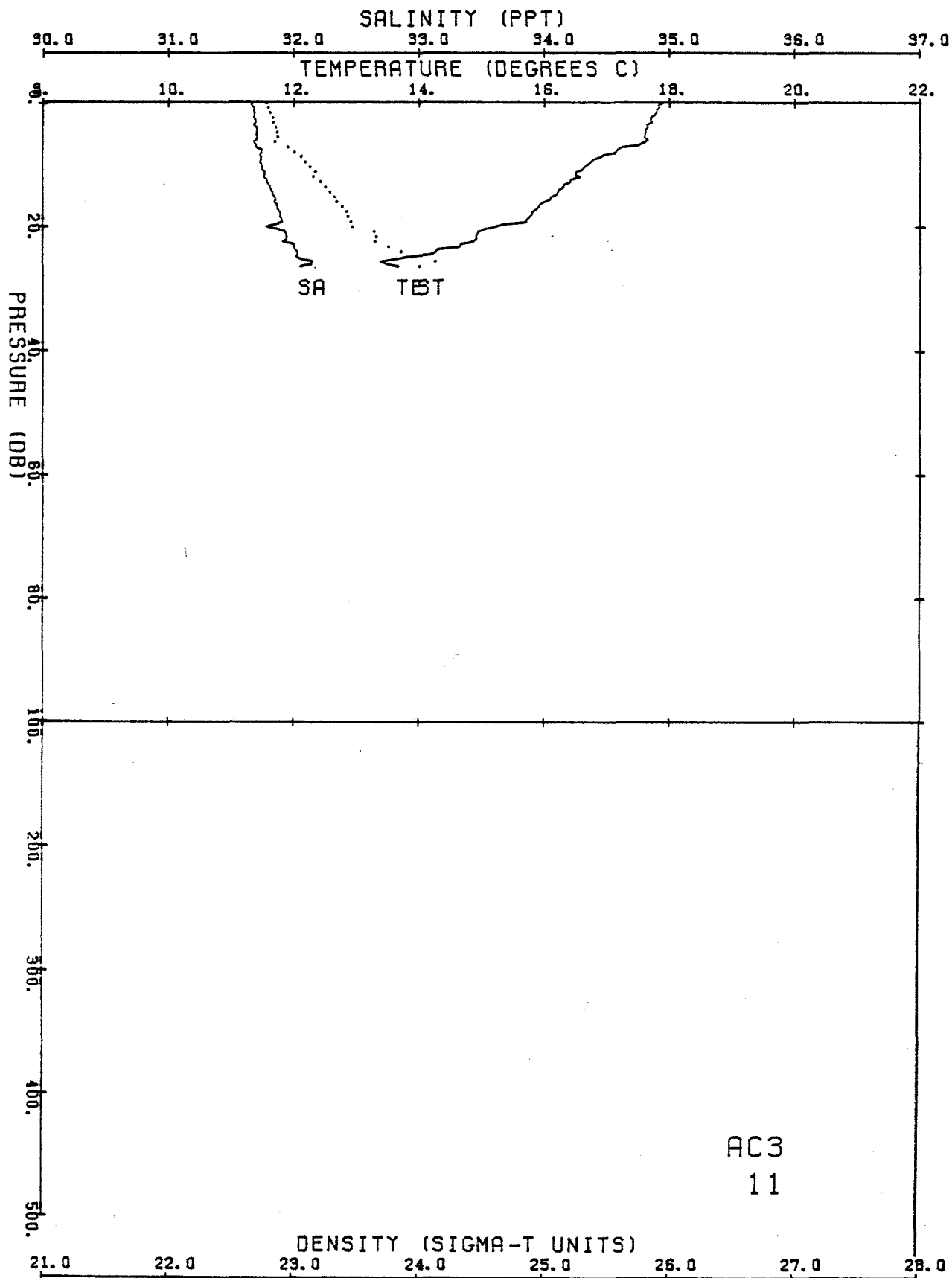
SHIP KN CRUISE ACE-3 STATION 10 CAST 1
 START 40 46.00 N 72 29.90 W AT 2030 77/ 8/ 6
 POS. = LC STA. TYPE = DT
 WIND = 14 knots DIR = 240 DEPTH = 27 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	20. 779	31. 492	21. 886	592. 09	0. 000	1520. 2	0. 00	0. 0
1	20. 770	31. 498	21. 893	591. 48	. 006	1520. 2		1. 0
2	20. 747	31. 497	21. 898	590. 94	. 012	1520. 1		2. 0
3	20. 735	31. 479	21. 914	589. 48	. 018	1519. 9		3. 0
4	20. 795	31. 500	21. 888	592. 02	. 024	1520. 3		4. 0
5	20. 181	31. 502	22. 050	576. 53	. 030	1519. 6	4. 88	5. 1
6	20. 022	31. 510	22. 098	571. 97	. 035	1518. 2		6. 0
7	19. 645	31. 479	22. 171	565. 00	. 041	1517. 1		7. 0
8	18. 945	31. 514	22. 373	545. 64	. 046	1515. 2		8. 0
9	17. 404	31. 561	22. 783	506. 48	. 052	1510. 8		9. 0
10	16. 841	31. 662	23. 992	486. 37	. 057	1509. 2	11. 91	10. 0
11	16. 749	31. 713	23. 052	480. 87	. 062	1509. 0		11. 0
12	16. 754	31. 773	23. 097	476. 57	. 066	1509. 1		12. 0
13	16. 419	31. 733	23. 143	472. 23	. 071	1508. 1		13. 0
14	16. 303	31. 778	23. 203	466. 46	. 076	1507. 8		14. 0
15	16. 226	31. 789	23. 229	464. 00	. 080	1507. 6	5. 92	15. 0
16	16. 206	31. 783	23. 237	463. 33	. 085	1507. 5		16. 0
17	16. 213	31. 809	23. 248	462. 29	. 090	1507. 6		17. 0
18	16. 233	31. 845	23. 270	460. 20	. 094	1507. 7		18. 0
19	16. 066	31. 842	23. 306	456. 77	. 099	1507. 2		19. 0
20	16. 009	31. 862	23. 334	454. 15	. 103	1507. 1	3. 93	20. 0
21	15. 886	31. 857	23. 358	451. 87	. 108	1506. 7		21. 0
22	15. 839	31. 863	23. 373	450. 50	. 112	1506. 6		22. 0
23	15. 602	31. 882	23. 409	444. 13	. 117	1505. 9		23. 0
24	15. 024	31. 955	23. 621	426. 83	. 122	1504. 1		24. 1
25	14. 929	31. 958	23. 652	423. 93	. 126	1503. 9	6. 78	25. 1
26	14. 906	31. 978	23. 664	422. 76	. 128	1503. 8		25. 6



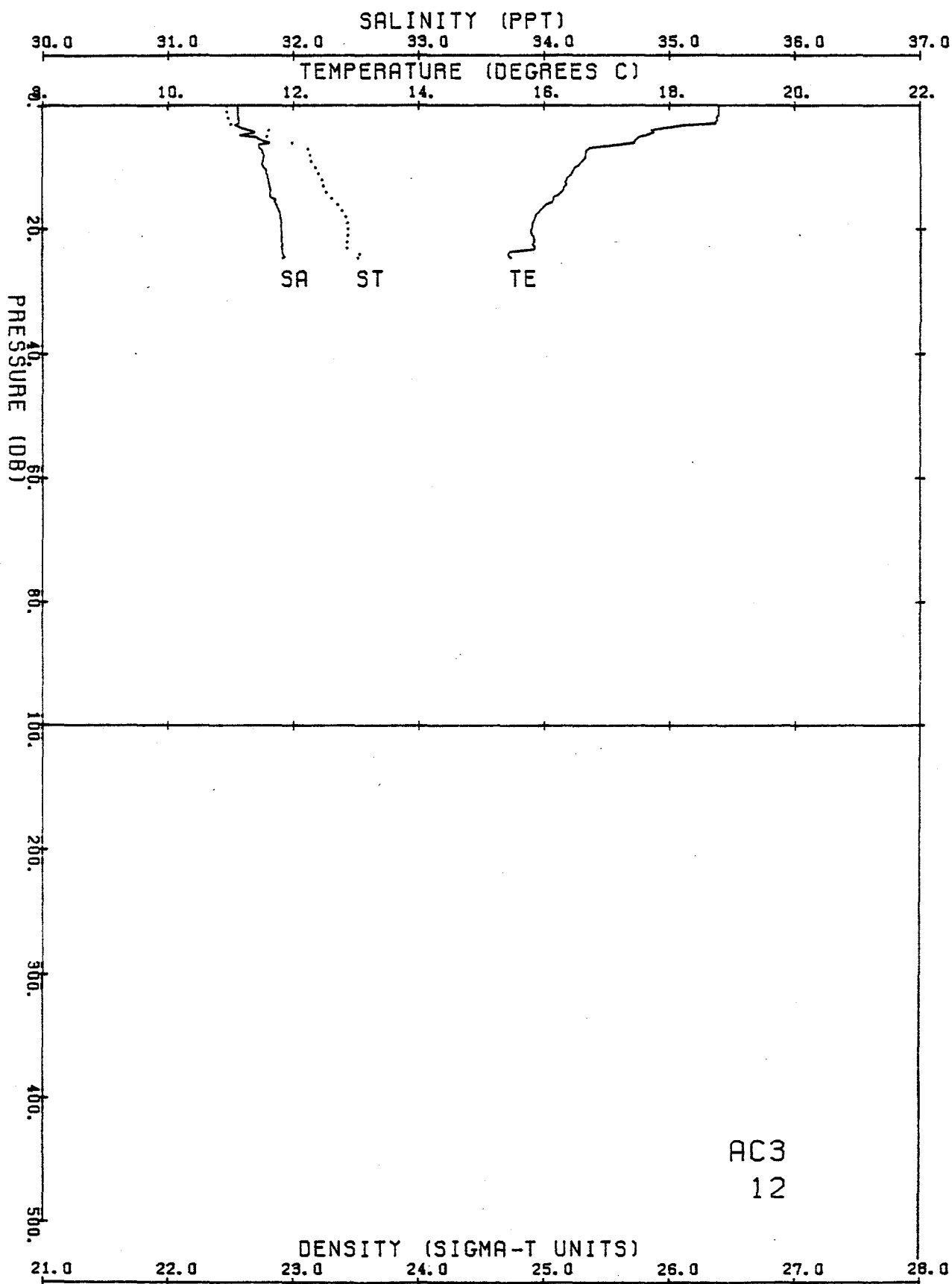
SHIP KN CRUISE ACE-3 STATION 11 CAST 1
 START 40 46.20 N 72 29.90 W AT 23 77/ 8/ 7
 POS. = LC STA. TYPE = DT
 WIND = 13 knots DIR = 260 DEPTH = 28 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	17.882	31.674	22.756	508.91	0.000	1512.2	0.00	0.0
1	17.810	31.679	22.777	506.83	.005	1512.0		1.0
2	17.754	31.683	22.794	505.27	.010	1511.9		2.0
3	17.704	31.701	22.819	502.88	.015	1511.7		3.0
4	20.795	31.500	21.888	592.02	.021	1520.3		4.0
5	17.606	31.705	22.846	500.59	.027	1511.5	3.60	5.1
6	17.643	31.706	22.837	501.22	.031	1511.6		6.0
7	17.225	31.737	22.960	489.49	.036	1510.4		7.0
8	17.132	31.748	22.990	485.69	.041	1510.2		8.0
9	16.818	31.750	23.065	479.56	.046	1509.2		9.0
10	16.686	31.752	23.097	476.54	.051	1508.9	6.15	10.0
11	16.658	31.761	23.132	473.16	.055	1508.5		11.0
12	16.651	31.771	23.140	472.50	.060	1508.5		12.0
13	16.335	31.797	23.206	465.21	.069	1508.0		13.0
14	16.230	31.932	23.262	460.87	.069	1507.6		14.0
15	16.158	31.256	23.296	457.63	.074	1507.4	5.42	15.0
16	16.997	31.859	23.334	454.00	.079	1507.0		16.0
17	16.894	31.888	23.380	449.67	.082	1506.7		17.0
18	16.801	31.911	23.418	446.07	.088	1506.4		18.0
19	16.717	31.922	23.445	443.46	.092	1506.2		19.0
20	16.302	31.797	23.461	441.97	.096	1504.4	4.94	20.0
21	14.943	31.932	23.636	425.90	.101	1503.8		21.0
22	14.914	31.966	23.653	423.66	.105	1503.3		22.0
23	14.613	32.037	23.771	412.42	.109	1502.9		23.0
24	14.206	32.051	23.867	403.28	.114	1501.6		24.0
25	13.617	32.082	24.012	389.50	.118	1499.7	8.92	25.0
26	13.510	32.079	24.031	387.73	.122	1499.4		26.0
27	13.664	32.073	23.995	391.11	.123	1499.9		27.0



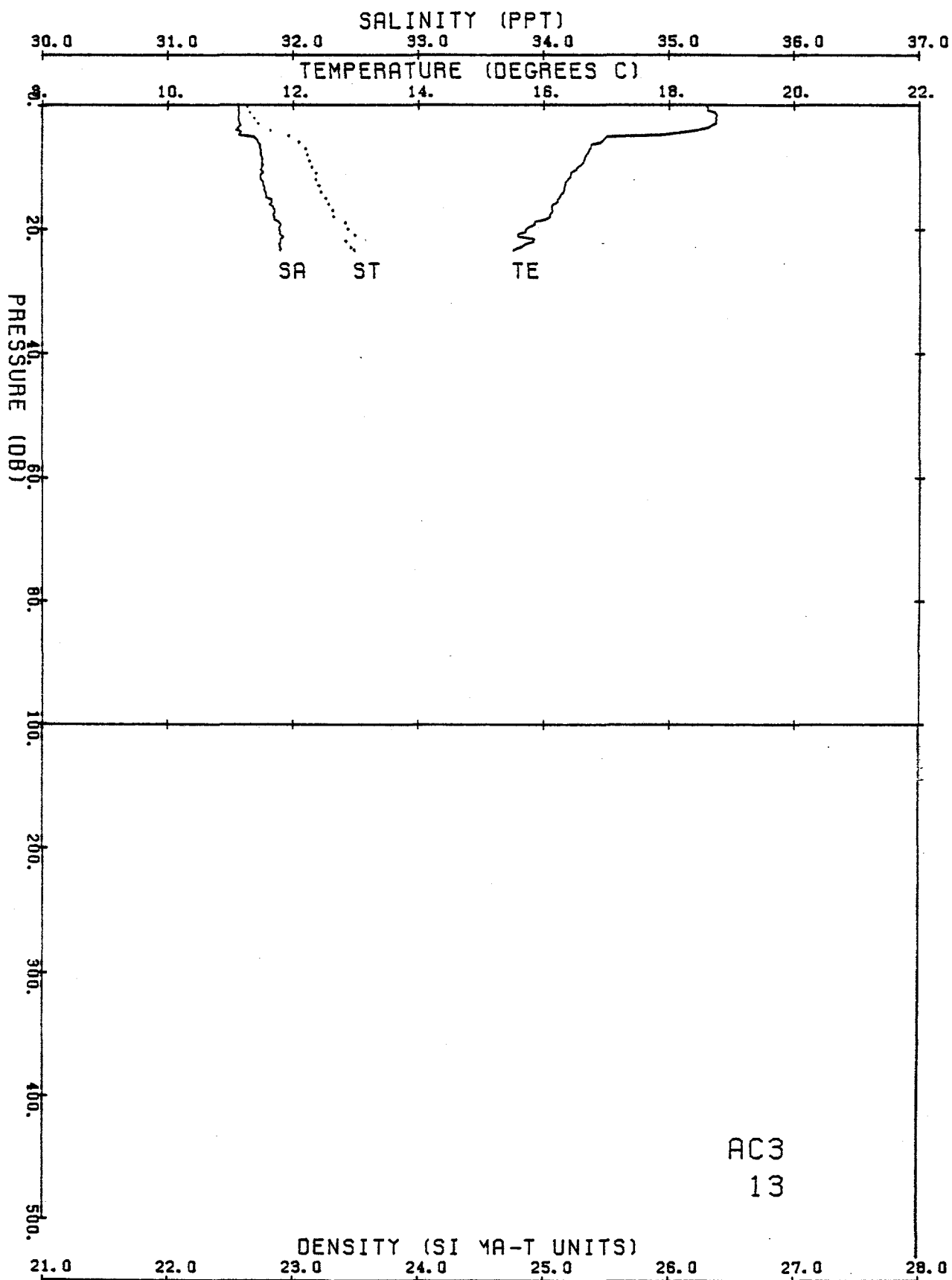
SHIP KN CRUISE ACE-3 STATION 12 CAST 1
 START 40 45.50 N 72 30.10 W AT 438 77/ 8/ 7
 POS. = LC STA. TYPE = DT
 WIND = 9 knots DIR = 240 DEPTH = 26 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	18.792	31.561	22.448	538.32	0.000	1514.7	0.00	0.0
1	18.792	31.560	22.447	538.37	.005	1514.7		1.0
2	18.750	31.564	22.460	537.15	.011	1514.6		2.0
3	18.683	31.569	22.481	535.25	.016	1514.5		3.0
4	20.795	31.500	21.888	592.02	.022	1520.3		4.0
5	17.502	31.706	22.871	497.94	.028	1511.2	7.83	5.1
6	17.423	31.811	22.970	488.50	.032	1511.1		6.0
7	16.672	31.750	22.098	476.34	.037	1508.8		7.0
8	16.648	31.758	22.117	474.54	.042	1508.7		8.0
9	16.386	31.761	22.126	473.70	.047	1508.5		9.0
10	16.482	31.772	22.138	470.66	.051	1508.3	6.37	10.0
11	16.429	31.789	22.184	468.26	.056	1508.1		11.0
12	16.333	31.812	22.219	464.94	.061	1507.9		12.0
13	16.235	31.819	22.228	464.10	.065	1507.9		13.0
14	16.269	31.830	22.251	461.88	.070	1507.7		14.0
15	16.133	31.847	22.295	457.77	.074	1507.3	4.48	15.0
16	16.026	31.878	22.343	453.21	.079	1507.1		16.0
17	15.929	31.897	22.379	449.76	.084	1506.8		17.0
18	15.851	31.915	22.410	446.85	.088	1506.6		18.0
19	15.810	31.921	22.424	445.55	.092	1506.5		19.0
20	15.789	31.923	22.429	445.02	.097	1506.4	4.46	20.0
21	15.817	31.925	22.435	445.44	.101	1506.6		21.0
22	15.833	31.923	22.420	445.94	.106	1506.6		22.0
23	15.840	31.923	22.420	445.97	.110	1506.7		23.0
24	15.401	31.942	22.530	435.54	.115	1505.3		24.1
25	15.464	31.926	22.511	437.30	.117	1505.5		24.6



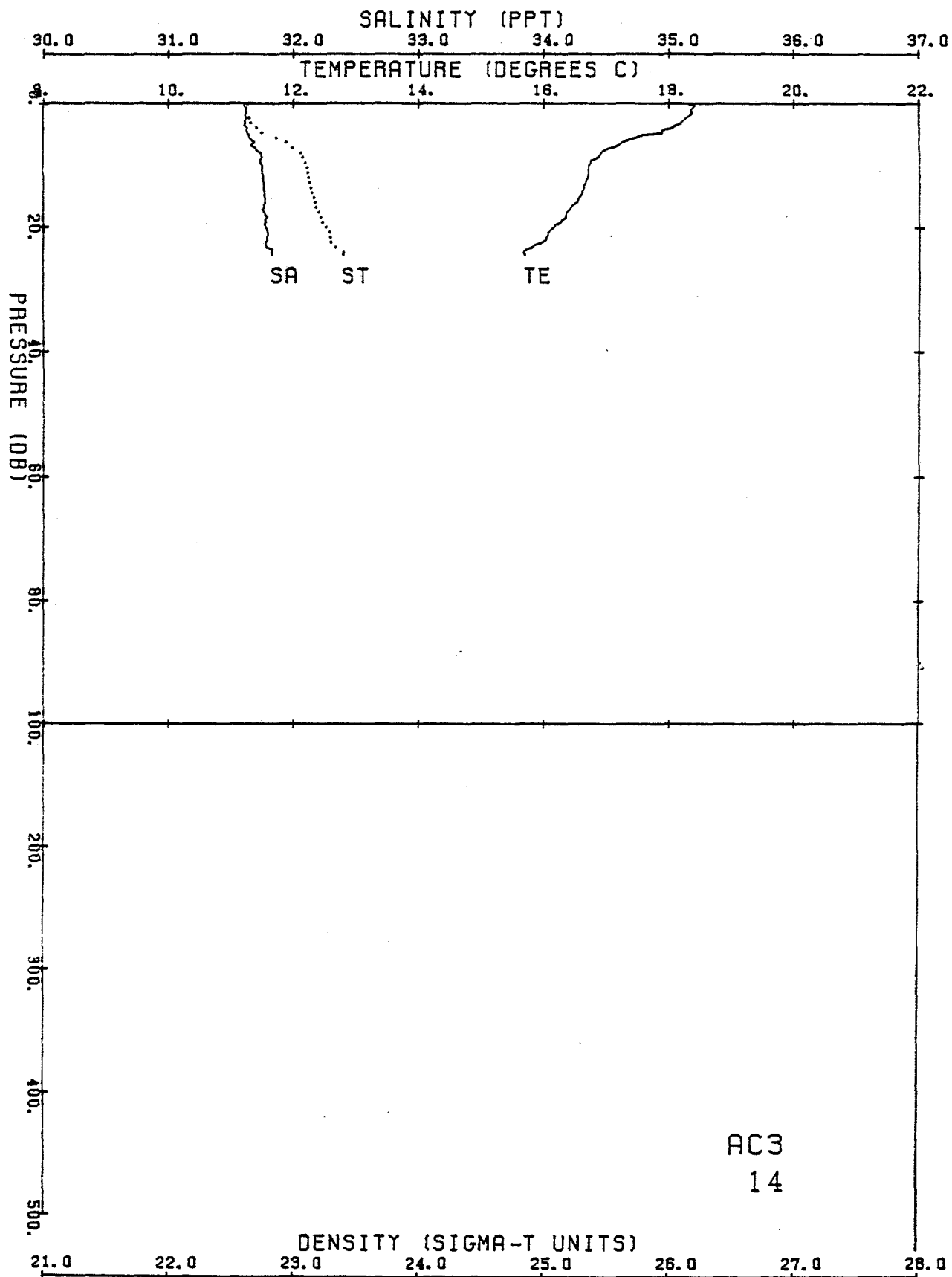
SHIP KN CRUISE ACE-3 STATION 13 CAST 1
 START 40 45.50 N 72 29.90 W AT 826 77/ 8/ 7
 POS = LC STA. TYPE = LT
 WIND = DIR = DEPTH = 26 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	18.595	31.560	22.495	533.76	0.000	1514.1	0.00	0.0
1	18.613	31.570	22.499	533.40	.005	1514.2		1.00
2	18.732	31.564	22.460	537.19	.011	1514.6		2.00
3	18.734	31.585	22.483	535.02	.016	1514.6		3.00
4	20.795	31.500	21.858	592.02	.022	1520.3		4.00
5	16.996	31.587	22.973	488.01	.028	1509.6	8.33	5.1
6	16.904	31.728	23.083	482.98	.032	1509.4		6.00
7	16.730	31.747	23.083	477.80	.037	1508.9		7.00
8	16.678	31.752	23.099	476.30	.042	1508.8		8.00
9	16.637	31.750	23.114	474.85	.045	1508.7		9.00
10	16.593	31.758	23.135	472.86	.051	1508.4	4.91	10.00
11	16.438	31.772	23.169	469.68	.056	1508.1		11.00
12	16.379	31.756	23.169	469.66	.060	1507.9		12.00
13	16.339	31.779	23.196	467.15	.065	1507.9		13.00
14	16.210	31.791	23.212	465.61	.070	1507.8		14.00
15	16.239	31.821	23.251	461.96	.074	1507.6	4.13	15.00
16	16.146	31.828	23.278	459.42	.079	1507.4		16.00
17	16.135	31.866	23.309	456.43	.084	1507.4		17.00
18	16.000	31.853	23.318	455.60	.088	1507.3		18.00
19	15.898	31.917	23.410	446.82	.093	1506.6		19.00
20	15.717	31.909	23.435	444.49	.097	1506.2	5.21	20.00
21	15.560	31.934	23.489	439.38	.102	1505.8		21.00
22	15.841	31.918	23.414	446.52	.106	1506.6		22.00
23	15.808	31.912	23.437	442.44	.110	1506.0		23.00
24	15.920	31.912	23.485	439.78	.112	1505.7		23.4



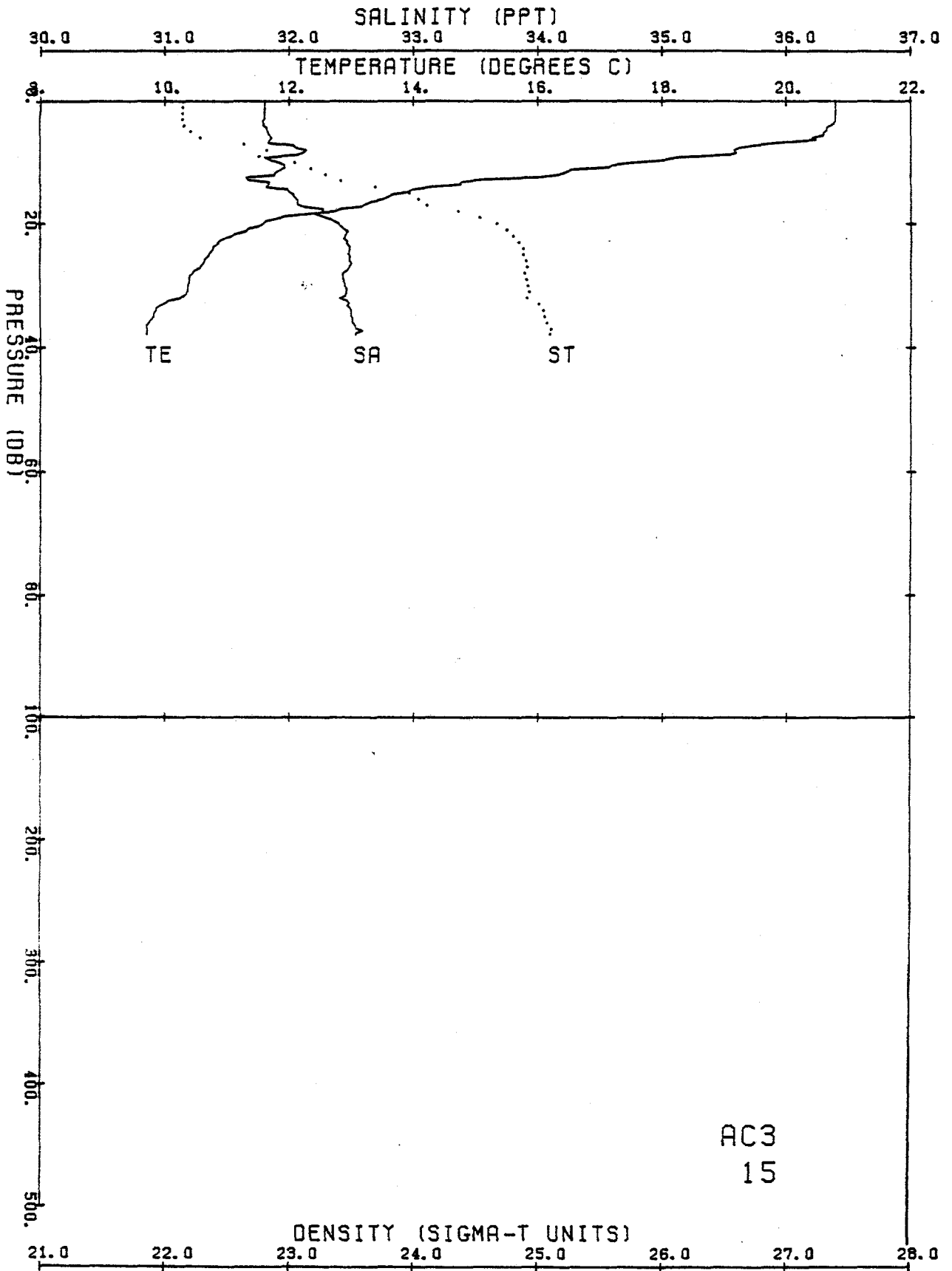
SHIP KN CRUISE ACE-3 STATION 14 CAST 1
 START 40 46.70 N 72 29.90 W AT 1212 77/ 8/ 7
 FOS. = LC STA. TYPE = DT
 WIND = 9 knots DIR = 230 DEPTH = 26 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	18.318	31.614	32.604	323.31	0.000	1513.4	0.00	0.0
1	18.335	31.618	32.603	323.44	.005	1513.5		1.0
2	18.332	31.614	32.604	323.43	.010	1513.4		2.0
3	18.197	31.614	32.604	320.56	.016	1513.1		3.0
4	20.795	31.600	32.888	392.02	.021	1520.3		4.0
5	17.970	31.647	32.809	303.86	.027	1511.3	5.45	5.1
6	17.310	31.674	32.892	436.03	.032	1510.6		6.0
7	17.056	31.698	32.967	488.82	.037	1509.9		7.0
8	16.903	31.746	32.042	481.73	.042	1509.9		8.0
9	16.798	31.732	32.056	480.43	.046	1509.9		9.0
10	16.718	31.768	32.094	476.81	.051	1509.0	6.54	10.0
11	16.707	31.762	32.099	476.30	.056	1508.9		11.0
12	16.696	31.763	32.104	475.86	.061	1508.9		12.0
13	16.656	31.768	32.116	474.81	.065	1508.8		13.0
14	16.621	31.777	32.131	473.40	.070	1508.7		14.0
15	16.580	31.783	32.144	472.14	.075	1508.6	2.73	15.0
16	16.523	31.789	32.162	470.44	.080	1508.3		16.0
17	16.428	31.773	32.171	469.58	.084	1508.2		17.0
18	16.352	31.791	32.202	466.66	.089	1508.0		18.0
19	16.286	31.794	32.220	465.02	.094	1507.7		19.0
20	16.152	31.795	32.250	462.13	.098	1507.4	3.96	20.0
21	16.062	31.812	32.284	458.96	.103	1507.2		21.0
22	16.031	31.808	32.288	458.59	.107	1507.1		22.0
23	15.842	31.800	32.324	455.20	.112	1506.9		23.0
24	15.687	31.853	32.398	448.08	.117	1506.1		24.1
25	15.701	31.850	32.393	448.57	.118	1506.2		24.4



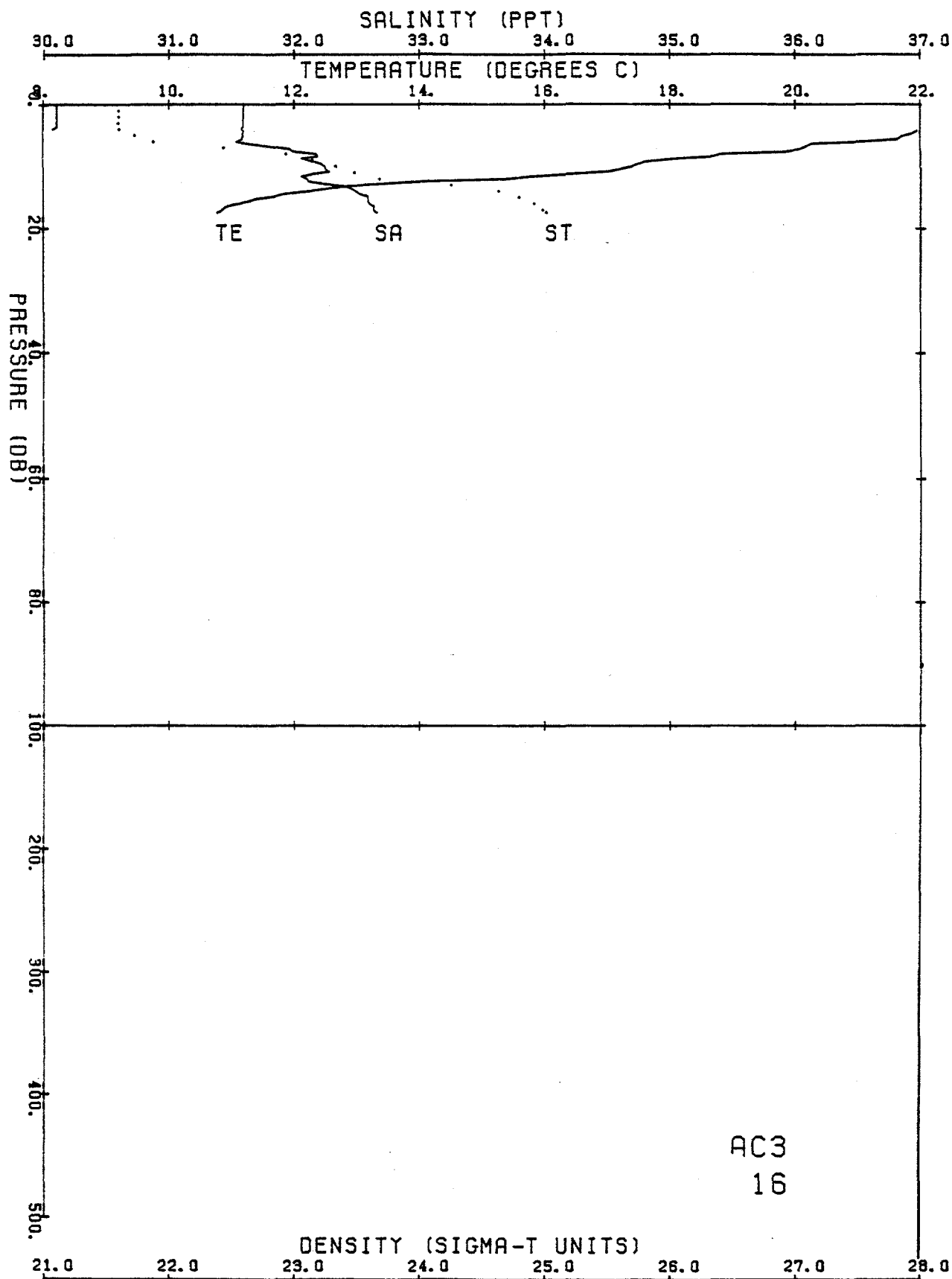
SHIP KN CRUISE ACE-3 STATION 15 CAST 1
 START 40 41.20 N 72 25.30 W AT 1608 77/ 8/ 7
 POS. = LC STA. TYPE = DT
 WIND = 8 knots DIR = 220 DEPTH = 39 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	20.797	31.806	22.120	56.970	0.000	1520.6	0.00	0.0
1	20.795	31.805	22.119	56.977	.006	1520.6		1.000
2	20.793	31.805	22.120	56.973	.011	1520.6		2.000
3	20.791	31.805	22.120	56.974	.017	1520.6		3.000
4	20.795	31.800	22.119	56.972	.023	1520.6		4.000
5	20.610	31.836	22.122	56.973	.039	1520.6	3.24	5.1
6	20.408	31.862	22.122	56.973	.034	1519.7		6.000
7	19.558	32.026	22.122	56.973	.040	1517.7		7.000
8	19.154	32.143	22.122	56.974	.045	1516.5		8.000
9	18.456	31.853	22.122	56.976	.050	1514.7		9.000
10	17.570	31.933	22.122	56.976	.055	1511.1	11.23	10.000
11	17.039	31.943	22.122	56.976	.060	1510.2		11.000
12	16.632	31.827	22.122	56.976	.064	1508.8		12.000
13	15.089	31.688	22.122	56.976	.069	1503.8		13.000
14	14.281	31.827	22.122	56.976	.073	1501.4		14.000
15	13.846	31.068	22.122	56.976	.077	1500.0	11.68	15.000
16	13.501	32.076	22.122	56.976	.081	1499.9		16.000
17	13.194	32.088	22.122	56.976	.085	1498.8		17.000
18	12.729	32.297	22.122	56.976	.089	1497.6		18.000
19	11.863	32.312	22.122	56.976	.093	1493.9		19.000
20	11.574	32.421	22.122	56.976	.095	1493.3	10.22	20.000
21	11.317	32.465	22.122	56.976	.099	1492.2		21.000
22	11.056	32.469	22.122	56.976	.102	1491.1		22.000
23	10.859	32.487	22.122	56.976	.105	1490.7		23.000
24	10.756	32.510	22.122	56.976	.108	1490.0		24.1
25	10.700	32.514	22.122	56.976	.111	1490.0	5.72	25.1
26	10.629	32.522	22.122	56.976	.115	1489.9		26.1
27	10.533	32.505	22.122	56.976	.118	1489.6		27.1
28	10.435	32.457	22.122	56.976	.121	1489.1		28.1
29	10.339	32.467	22.122	56.976	.124	1489.0		29.1
30	10.343	32.482	22.122	56.976	.127	1489.4	2.19	30.0
31	10.161	32.490	22.122	56.976	.130	1488.8		31.0
32	9.933	32.492	22.122	56.976	.133	1488.3		32.0
33	9.805	32.488	22.122	56.976	.136	1487.7		33.0
34	9.725	32.488	22.122	56.976	.139	1487.7	4.60	34.0
35	9.715	32.488	22.122	56.976	.142	1487.1		35.0
36	9.710	32.488	22.122	56.976	.145	1486.6		36.0
37		32.488	22.122	56.976	.147	1486.4		37.0
38		32.488	22.122	56.976	.149	1486.0		38.0



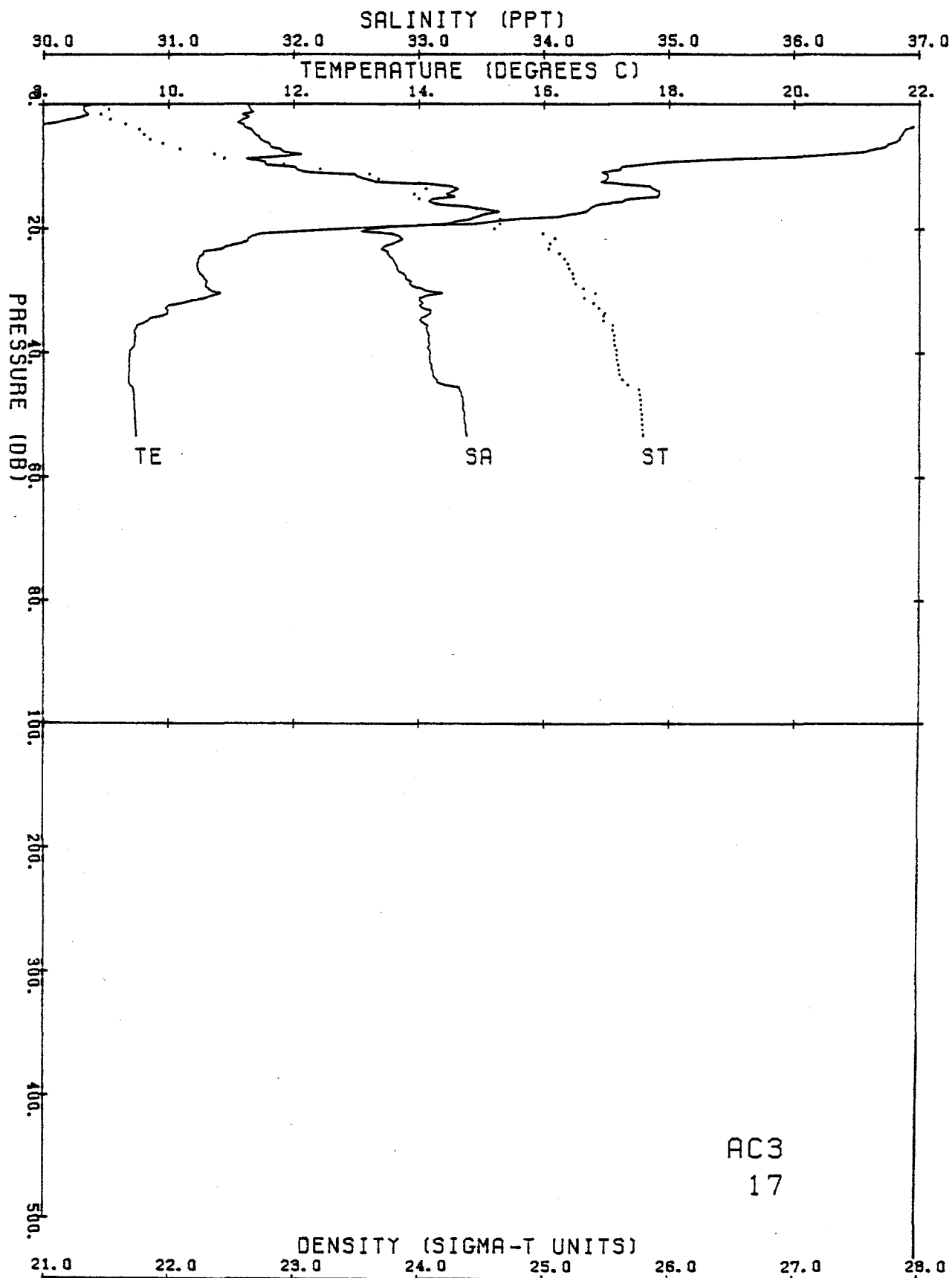
SHIP KN CRUISE ACE-3 STATION 16 CAST 1
 START 40 35.60 N 72 21.60 W AT 1825 77/ 8/ 7
 POS. = LC STA. TYPE = BT
 WIND = 10 knots DIR = 200 DEPTH = 42 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	22.217	31.597	21.576	621.72	0.000	1524.1	0.00	0.0
1	22.217	31.596	21.575	621.89	.006	1524.1		1.00
2	22.217	31.595	21.573	621.93	.012	1524.1		2.00
3	22.217	31.593	21.573	622.11	.019	1524.1		3.00
4	20.795	31.500	21.898	592.02	.025	1520.3		4.00
5	21.699	31.594	21.716	608.53	.031	1522.8	4.50	5.1
6	21.029	31.543	21.888	594.85	.037	1521.0		6.00
7	20.075	31.949	22.418	541.40	.042	1518.9		7.00
8	18.862	32.184	22.921	493.28	.048	1515.6		8.00
9	17.669	32.104	23.131	473.22	.052	1512.3		9.00
10	17.355	32.255	23.319	455.29	.057	1511.6	15.54	10.00
11	16.803	32.281	23.468	441.10	.062	1510.0		11.00
12	15.367	32.113	23.669	421.97	.066	1505.5		12.00
13	13.194	32.270	24.241	367.37	.070	1498.3		13.00
14	12.189	32.509	24.620	331.23	.073	1495.5		14.00
15	11.609	32.585	24.786	315.42	.077	1493.2	14.69	15.00
16	11.091	32.622	24.908	303.81	.080	1491.5		16.00
17	10.842	32.654	24.977	297.29	.083	1490.7		17.00
18	10.763	32.675	25.008	294.39	.084	1490.5		17.4



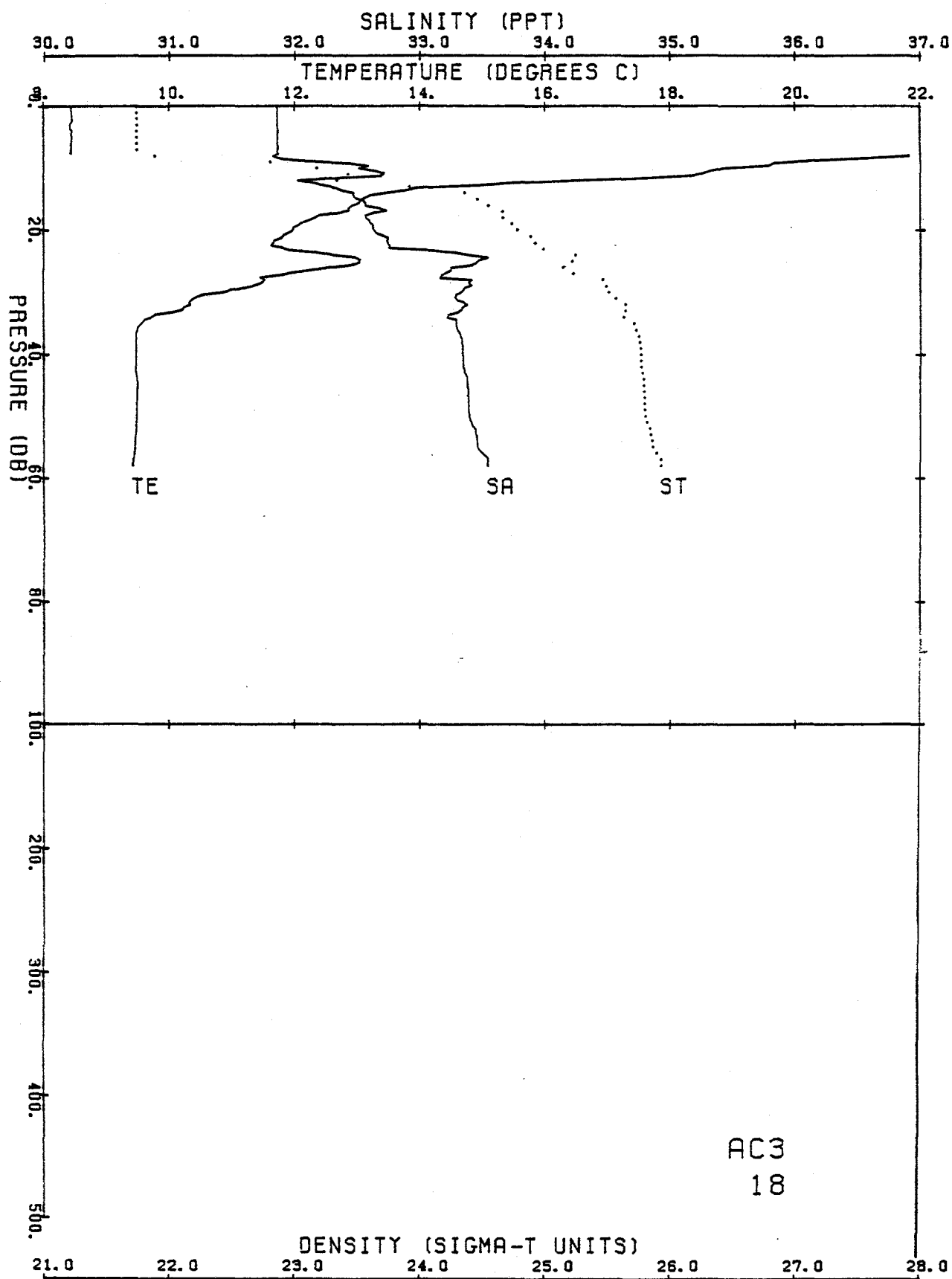
SHIP KN CRUISE ACE-3 STATION 17 CAST 1
 START 40 31.00 N 72 17.20 W AT 2019 77/ 8/ 7
 POS = LC STA. TYPE = DT
 WIND = 10 knots DIR = 260 DEPTH = 54 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	23	747	31	634	21	456	633	23
1	23	669	31	631	21	471	631	23
2	23	669	31	631	21	471	631	23
3	23	669	31	631	21	471	631	23
4	23	669	31	631	21	471	631	23
5	23	669	31	631	21	471	631	23
6	23	669	31	631	21	471	631	23
7	23	669	31	631	21	471	631	23
8	23	669	31	631	21	471	631	23
9	23	669	31	631	21	471	631	23
10	23	669	31	631	21	471	631	23
11	23	669	31	631	21	471	631	23
12	23	669	31	631	21	471	631	23
13	23	669	31	631	21	471	631	23
14	23	669	31	631	21	471	631	23
15	23	669	31	631	21	471	631	23
16	23	669	31	631	21	471	631	23
17	23	669	31	631	21	471	631	23
18	23	669	31	631	21	471	631	23
19	23	669	31	631	21	471	631	23
20	23	669	31	631	21	471	631	23
21	23	669	31	631	21	471	631	23
22	23	669	31	631	21	471	631	23
23	23	669	31	631	21	471	631	23
24	23	669	31	631	21	471	631	23
25	23	669	31	631	21	471	631	23
26	23	669	31	631	21	471	631	23
27	23	669	31	631	21	471	631	23
28	23	669	31	631	21	471	631	23
29	23	669	31	631	21	471	631	23
30	23	669	31	631	21	471	631	23
31	23	669	31	631	21	471	631	23
32	23	669	31	631	21	471	631	23
33	23	669	31	631	21	471	631	23
34	23	669	31	631	21	471	631	23
35	23	669	31	631	21	471	631	23
36	23	669	31	631	21	471	631	23
37	23	669	31	631	21	471	631	23
38	23	669	31	631	21	471	631	23
39	23	669	31	631	21	471	631	23
40	23	669	31	631	21	471	631	23
41	23	669	31	631	21	471	631	23
42	23	669	31	631	21	471	631	23
43	23	669	31	631	21	471	631	23
44	23	669	31	631	21	471	631	23
45	23	669	31	631	21	471	631	23
46	23	669	31	631	21	471	631	23
47	23	669	31	631	21	471	631	23
48	23	669	31	631	21	471	631	23
49	23	669	31	631	21	471	631	23
50	23	669	31	631	21	471	631	23
51	23	669	31	631	21	471	631	23



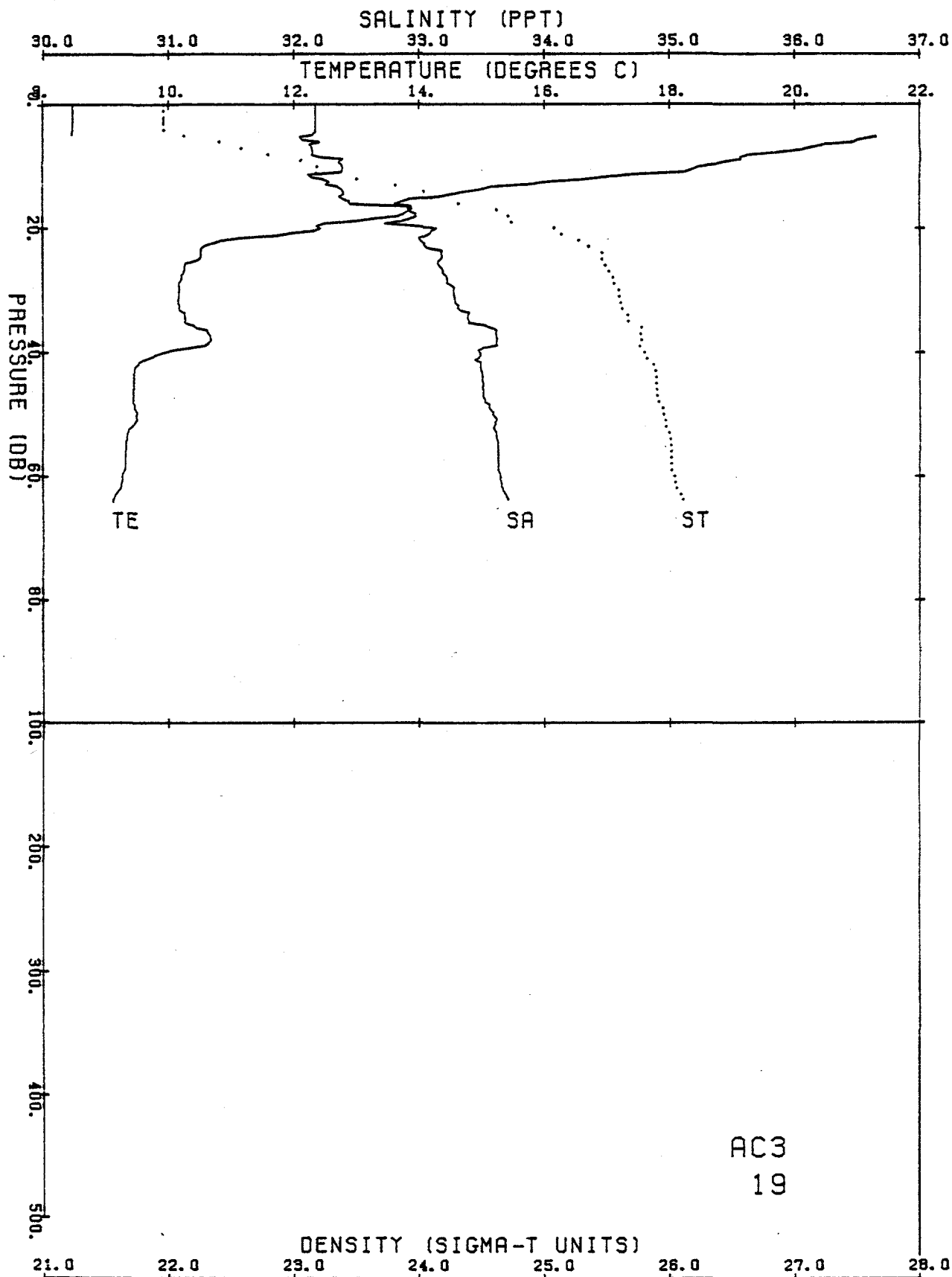
SHIP KN CRUISE ACE-3 STATION 18 CAST 1
 START 40 29.40 N 72 12.60 W AT 2225 77/ 8/ 7
 POS. = LC STA. TYPE = DT
 WIND = 13 knots DIR = 270 DEPTH = 59 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	33.446	31.861	21.713	608.67	0.000	1523.0	0.00	0.0
1	33.443	31.863	21.713	608.65	0.006	1523.0		0.0
2	33.452	31.862	21.713	608.82	0.012	1523.0		0.0
3	33.412	31.861	21.713	607.86	0.018	1523.0		0.0
4	33.829	31.869	21.713	608.60	0.024	1523.0		0.0
5	33.445	31.866	21.717	608.43	0.031	1523.0	.81	0.0
6	33.436	31.869	21.718	608.22	0.037	1523.0		0.0
7	33.814	31.864	21.721	608.10	0.043	1523.0		0.0
8	33.867	31.831	21.864	594.40	0.049	1523.0		0.0
9	33.866	31.831	21.748	599.85	0.054	1515.0		0.0
10	33.866	31.831	21.160	470.48	0.059	1515.0	14.75	0.0
11	33.827	31.741	21.413	446.23	0.064	1515.0		0.0
12	33.278	31.599	21.499	438.18	0.068	1508.0		0.0
13	33.676	31.906	21.906	399.37	0.072	1500.0		0.0
14	33.477	31.434	21.349	357.11	0.076	1499.0		0.0
15	33.090	31.514	21.450	347.47	0.080	1498.0	13.78	0.0
16	33.918	31.586	21.340	333.94	0.083	1497.0		0.0
17	33.840	31.717	21.657	327.83	0.086	1497.0		0.0
18	33.821	31.589	21.657	327.81	0.090	1495.0		0.0
19	33.101	31.539	21.730	320.90	0.093	1495.0		0.0
20	33.972	31.658	21.776	316.53	0.096	1494.0	6.92	0.0
21	33.903	31.751	21.880	306.63	0.099	1494.0		0.0
22	33.653	31.767	21.920	302.83	0.102	1493.0		0.0
23	33.796	31.886	21.986	296.60	0.105	1494.0		0.0
24	33.692	31.911	21.924	294.94	0.108	1498.0		0.0
25	33.032	31.933	21.804	275.95	0.111	1499.0	7.84	0.0
26	33.375	31.938	21.138	230.36	0.114	1497.0		0.0
27	33.770	31.801	21.066	217.93	0.116	1494.0		0.0
28	33.523	31.460	21.483	199.49	0.119	1494.0		0.0
29	33.223	31.989	21.483	199.59	0.122	1493.0		0.0
30	33.706	31.937	21.533	194.67	0.124	1491.0	6.88	0.0
31	33.398	31.931	21.588	199.44	0.127	1490.0		0.0
32	33.328	31.410	21.655	193.07	0.129	1490.0		0.0
33	33.057	31.937	21.645	194.09	0.131	1489.0		0.0
34	33.659	31.711	21.639	192.72	0.134	1487.0		0.0
35	33.531	31.930	21.726	192.38	0.136	1487.0	5.32	0.0
36	33.481	31.930	21.748	192.27	0.138	1486.0		0.0
37	33.473	31.930	21.768	192.42	0.141	1487.0		0.0
38	33.470	31.930	21.777	191.61	0.143	1487.0		0.0
39	33.470	31.930	21.779	191.43	0.145	1487.0		0.0
40	33.469	31.930	21.782	191.13	0.147	1487.0	2.87	0.0
41	33.469	31.931	21.784	190.99	0.149	1487.0		0.0
42	33.470	31.400	21.791	190.36	0.152	1487.0		0.0
43	33.489	31.930	21.807	189.82	0.154	1487.0		0.0
44	33.499	31.444	21.812	189.04	0.156	1487.0		0.0
45	33.498	31.930	21.814	189.15	0.158	1487.0	2.15	0.0
46	33.494	31.930	21.817	189.94	0.161	1487.0		0.0
47	33.493	31.440	21.818	189.84	0.163	1487.0		0.0
48	33.491	31.930	21.819	189.49	0.165	1487.0		0.0
49	33.488	31.444	21.824	189.29	0.167	1487.0		0.0
50	33.483	31.930	21.834	189.38	0.169	1487.0	1.70	0.0
51	33.454	31.930	21.991	189.04	0.180	1487.0	2.92	0.0



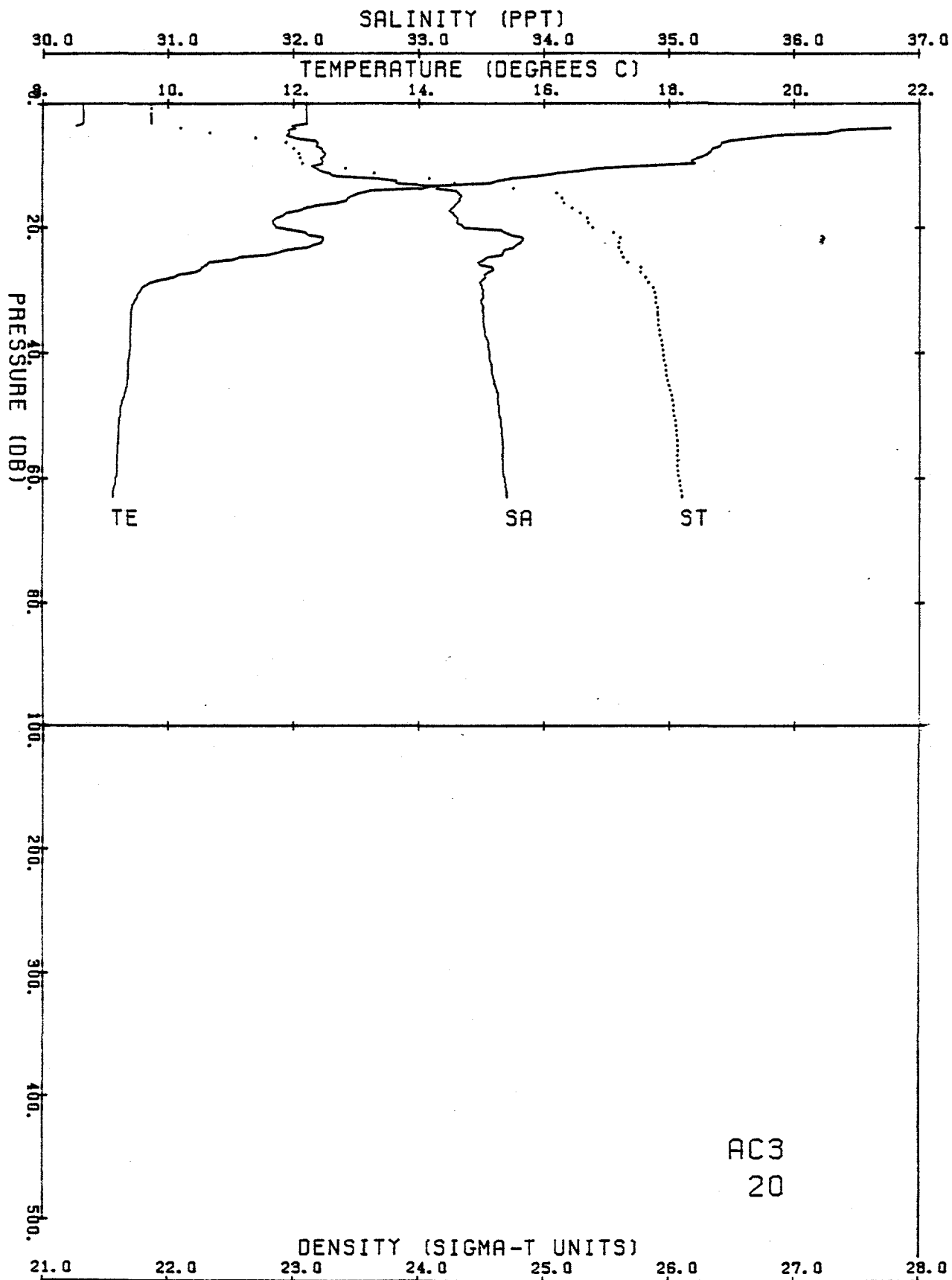
SHIP KM CRUISE ACE-3 STATION 19 CAST 1
 START 40 19 59 N 72 5.79 W AT 418 77/ 8/ 8
 POS. = LC STA. TYPE = DT
 WIND = 10 knots DIR = 250 DEPTH = 54 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	478	172	940	586.94	0.000	1525	0.00	0.00
1	481	172	939	587.07	0.006	1525		1.11
2	477	173	940	586.97	0.018	1525		1.11
3	477	174	941	586.86	0.023	1525		1.11
4	829	639	715	608.60	0.030	1525		1.11
5	333	065	912	589.71	0.035	1525	-1.99	1.11
6	333	065	387	544.27	0.041	1525		1.11
7	333	148	562	527.53	0.046	1519		1.11
8	333	148	779	506.87	0.051	1516		1.11
9	333	415	041	481.91	0.055	1516		1.11
10	333	401	175	463.06	0.060	1512	13.66	1.11
11	333	264	166	469.97	0.065	1512		1.11
12	333	247	491	438.96	0.069	1509		1.11
13	333	311	802	409.29	0.073	1505		1.11
14	333	407	403	387.40	0.077	1503		1.11
15	333	300	395	381.40	0.081	1501	11.64	1.11
16	333	464	308	351.02	0.084	1500		1.11
17	333	921	314	331.96	0.087	1501		1.11
18	333	921	470	323.06	0.090	1500		1.11
19	333	132	733	350.67	0.094	1498	12.01	1.11
20	333	132	077	327.91	0.096	1495		1.11
21	333	106	134	322.52	0.099	1495		1.11
22	333	034	274	326.91	0.102	1491		1.11
23	333	070	353	361.65	0.105	1490		1.11
24	333	117	465	351.00	0.107	1490		1.11
25	333	181	439	325.58	0.110	1490	7.42	1.11
26	333	101	505	324.72	0.112	1489		1.11
27	333	101	521	345.69	0.114	1489		1.11
28	333	033	402	342.12	0.117	1489		1.11
29	333	033	877	338.87	0.120	1489	4.54	1.11
30	333	099	603	338.00	0.122	1489		1.11
31	333	113	610	333.33	0.124	1489		1.11
32	333	163	623	336.11	0.127	1489		1.11
33	333	187	642	334.39	0.129	1489		1.11
34	333	270	724	331.34	0.131	1489	3.42	1.11
35	333	277	683	330.49	0.134	1491		1.11
36	333	366	782	331.14	0.136	1491		1.11
37	333	641	786	330.77	0.138	1491		1.11
38	333	366	792	330.27	0.140	1491		1.11
39	333	344	800	323.29	0.142	1490	4.54	1.11
40	333	344	824	317.22	0.145	1488		1.11
41	333	610	833	316.07	0.147	1487		1.11
42	333	494	889	311.00	0.149	1487		1.11
43	333	448	911	308.98	0.151	1487		1.11
44	333	446	914	308.64	0.153	1487	3.63	1.11
45	333	446	915	308.60	0.155	1487		1.11
46	333	440	931	308.08	0.157	1487		1.11
47	333	440	931	307.23	0.159	1487		1.11
48	333	466	958	304.62	0.161	1487		1.11
49	333	476	966	303.80	0.163	1487	3.31	1.11
50	333	489	990	201.59	0.173	1487	2.73	1.11
51	333	380	040	196.94	0.183	1487		1.11
52	333	778	076	193.61	0.190	1487	2.30	1.11
53	333	778	143	187.29		1486		1.11



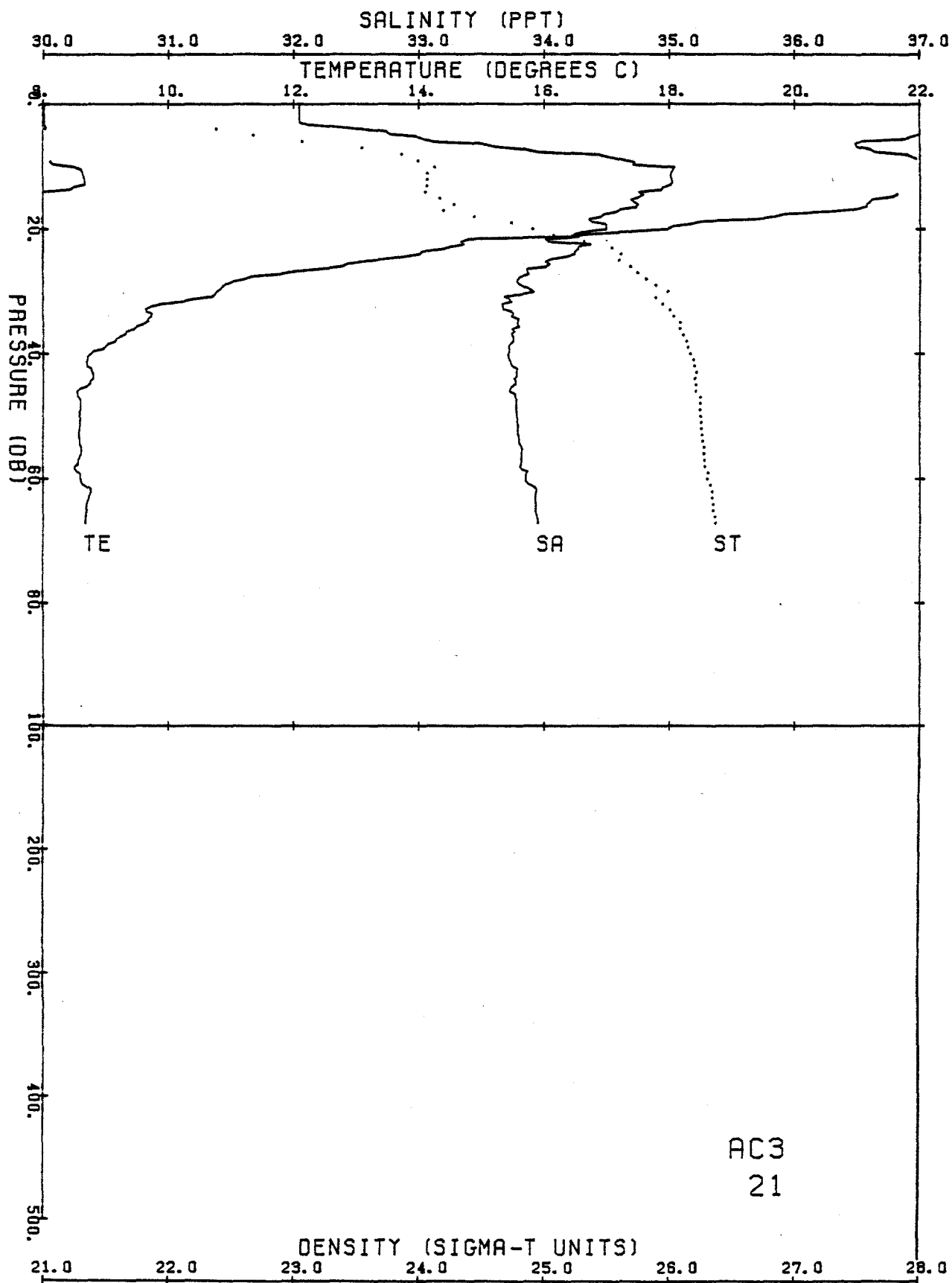
SHIP KN CRUISE ACE-3 STATION 20 CAST 1
 START 40 14.60 N 72 4.30 W AT 545 77/ 8/ 8
 POS. = LC STA. TYPE = DT
 WIND = 10 knots DIR = 250 DEPTH = 64 meters

DE	TE	SA	ST	AN	HZ	VE	BV	FR
0	0	0	0	0	0	0	0.00	0.0
1	1	1	1	1	1	1		1.1
2	2	2	2	2	2	2		2.2
3	3	3	3	3	3	3		3.3
4	4	4	4	4	4	4		4.4
5	5	5	5	5	5	5		5.5
6	6	6	6	6	6	6		6.6
7	7	7	7	7	7	7		7.7
8	8	8	8	8	8	8		8.8
9	9	9	9	9	9	9		9.9
10	10	10	10	10	10	10		10.0
11	11	11	11	11	11	11		11.1
12	12	12	12	12	12	12		12.2
13	13	13	13	13	13	13		13.3
14	14	14	14	14	14	14		14.4
15	15	15	15	15	15	15		15.5
16	16	16	16	16	16	16		16.6
17	17	17	17	17	17	17		17.7
18	18	18	18	18	18	18		18.8
19	19	19	19	19	19	19		19.9
20	20	20	20	20	20	20		20.0
21	21	21	21	21	21	21		21.1
22	22	22	22	22	22	22		22.2
23	23	23	23	23	23	23		23.3
24	24	24	24	24	24	24		24.4
25	25	25	25	25	25	25		25.5
26	26	26	26	26	26	26		26.6
27	27	27	27	27	27	27		27.7
28	28	28	28	28	28	28		28.8
29	29	29	29	29	29	29		29.9
30	30	30	30	30	30	30		30.0
31	31	31	31	31	31	31		31.1
32	32	32	32	32	32	32		32.2
33	33	33	33	33	33	33		33.3
34	34	34	34	34	34	34		34.4
35	35	35	35	35	35	35		35.5
36	36	36	36	36	36	36		36.6
37	37	37	37	37	37	37		37.7
38	38	38	38	38	38	38		38.8
39	39	39	39	39	39	39		39.9
40	40	40	40	40	40	40		40.0
41	41	41	41	41	41	41		41.1
42	42	42	42	42	42	42		42.2
43	43	43	43	43	43	43		43.3
44	44	44	44	44	44	44		44.4
45	45	45	45	45	45	45		45.5
46	46	46	46	46	46	46		46.6
47	47	47	47	47	47	47		47.7
48	48	48	48	48	48	48		48.8
49	49	49	49	49	49	49		49.9
50	50	50	50	50	50	50		50.0
51	51	51	51	51	51	51		51.1
52	52	52	52	52	52	52		52.2
53	53	53	53	53	53	53		53.3
54	54	54	54	54	54	54		54.4
55	55	55	55	55	55	55		55.5
56	56	56	56	56	56	56		56.6
57	57	57	57	57	57	57		57.7
58	58	58	58	58	58	58		58.8
59	59	59	59	59	59	59		59.9
60	60	60	60	60	60	60		60.0
61	61	61	61	61	61	61		61.1
62	62	62	62	62	62	62		62.2
63	63	63	63	63	63	63		63.3
64	64	64	64	64	64	64		64.4
65	65	65	65	65	65	65		65.5
66	66	66	66	66	66	66		66.6
67	67	67	67	67	67	67		67.7
68	68	68	68	68	68	68		68.8
69	69	69	69	69	69	69		69.9
70	70	70	70	70	70	70		70.0
71	71	71	71	71	71	71		71.1
72	72	72	72	72	72	72		72.2
73	73	73	73	73	73	73		73.3
74	74	74	74	74	74	74		74.4
75	75	75	75	75	75	75		75.5
76	76	76	76	76	76	76		76.6
77	77	77	77	77	77	77		77.7
78	78	78	78	78	78	78		78.8
79	79	79	79	79	79	79		79.9
80	80	80	80	80	80	80		80.0
81	81	81	81	81	81	81		81.1
82	82	82	82	82	82	82		82.2
83	83	83	83	83	83	83		83.3
84	84	84	84	84	84	84		84.4
85	85	85	85	85	85	85		85.5
86	86	86	86	86	86	86		86.6
87	87	87	87	87	87	87		87.7
88	88	88	88	88	88	88		88.8
89	89	89	89	89	89	89		89.9
90	90	90	90	90	90	90		90.0
91	91	91	91	91	91	91		91.1
92	92	92	92	92	92	92		92.2
93	93	93	93	93	93	93		93.3
94	94	94	94	94	94	94		94.4
95	95	95	95	95	95	95		95.5
96	96	96	96	96	96	96		96.6
97	97	97	97	97	97	97		97.7
98	98	98	98	98	98	98		98.8
99	99	99	99	99	99	99		99.9
100	100	100	100	100	100	100		100.0



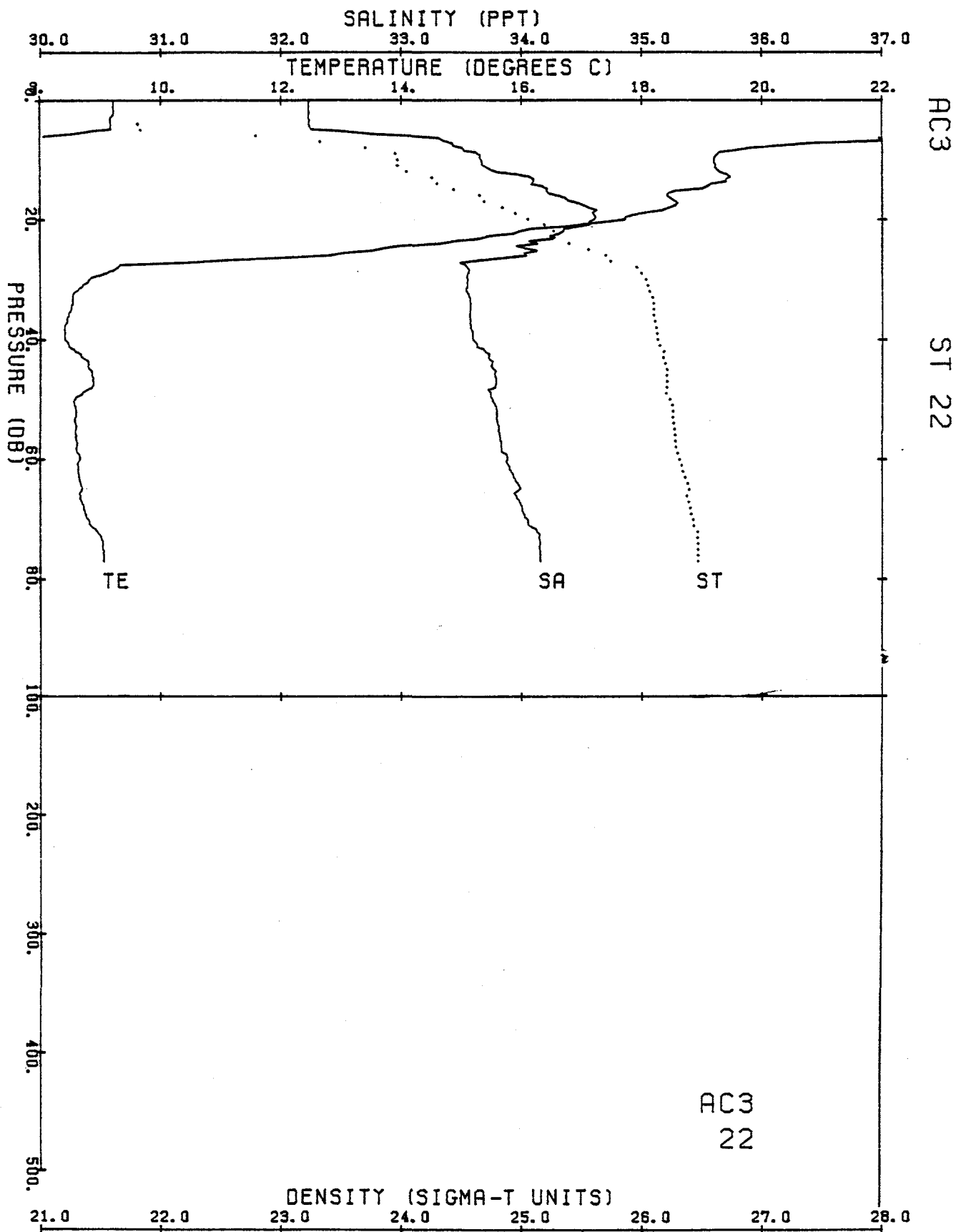
SHIP KN CRUISE ACE-3 STATION 21 CAST 1
 START 40 9.40 N 71 59.80 W AT 728 77/ 8/ 8
 PCS. = LC STA. TYPE = DT
 WIND = DIR = DEPTH = 68 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	018	045	971	583	0.000	1524.1	0.00	0.0
1	018	047	972	583	0.006	1524.1		0.0
2	019	048	973	583	0.012	1524.1		0.0
3	019	065	974	582	0.018	1524.1		0.0
4	829	639	715	608	0.023	1523.9		0.0
5	904	975	708	513	0.030	1524.9	10.33	0.0
6	900	286	110	475	0.034	1523.7		0.0
7	161	788	330	433	0.039	1524.0		0.0
8	797	439	890	404	0.043	1526.4		0.0
9	068	714	983	391	0.047	1527.4		0.0
10	499	048	113	79	0.051	1528.9	14.54	0.0
11	640	020	44	383	0.054	1529.3		0.0
12	659	026	44	383	0.058	1529.7		0.0
13	613	005	24	383	0.062	1529.9		0.0
14	002	763	44	386	0.066	1527.4		0.0
15	391	697	44	375	0.070	1525.7	2.54	0.0
16	155	764	44	364	0.074	1525.5		0.0
17	784	520	44	372	0.077	1524.9		0.0
18	686	466	44	348	0.081	1520.9		0.0
19	387	421	44	320	0.084	1517.7		0.0
20	977	511	44	304	0.087	1516.6	10.47	0.0
21	576	291	44	270	0.090	1511.1		0.0
22	667	057	44	243	0.093	1505.5		0.0
23	441	284	44	213	0.096	1503.1		0.0
24	875	234	44	202	0.098	1503.2		0.0
25	096	033	44	203	0.101	1500.4	10.19	0.0
26	584	934	44	203	0.103	1498.6		0.0
27	792	998	44	211	0.105	1495.5		0.0
28	083	807	44	216	0.107	1493.3		0.0
29	867	862	44	208	0.110	1492.1		0.0
30	760	893	44	204	0.112	1492.2		0.0
31	417	732	44	209	0.114	1490.8	6.90	0.0
32	834	690	44	204	0.116	1488.6		0.0
33	643	776	44	194	0.118	1488.0		0.0
34	723	771	44	196	0.120	1488.4		0.0
35	597	821	44	191	0.122	1488.2	4.57	0.0
36	401	795	44	189	0.124	1487.8		0.0
37	228	787	44	187	0.126	1487.7		0.0
38	119	801	44	185	0.128	1486.6		0.0
39	960	763	44	183	0.129	1486.6		0.0
40	728	750	44	180	0.131	1484.7	3.51	0.0
41	695	774	44	180	0.133	1484.6		0.0
42	720	808	44	178	0.135	1484.8		0.0
43	708	831	44	178	0.137	1485.1		0.0
44	745	819	44	178	0.139	1484.9		0.0
45	614	776	44	179	0.140	1484.4	2.32	0.0
46	547	815	44	175	0.142	1484.4		0.0
47	594	826	44	175	0.144	1484.4		0.0
48	595	831	44	175	0.146	1484.5		0.0
49	587	834	44	174	0.147	1484.4		0.0
50	586	840	44	174	0.149	1484.5		0.0
51	616	884	44	171	0.158	1484.7		0.0
52	607	921	44	168	0.166	1484.8		0.0
53	687	006	44	162	0.175	1485.5		0.0
54	675	023	44	162	0.177	1485.3		0.0



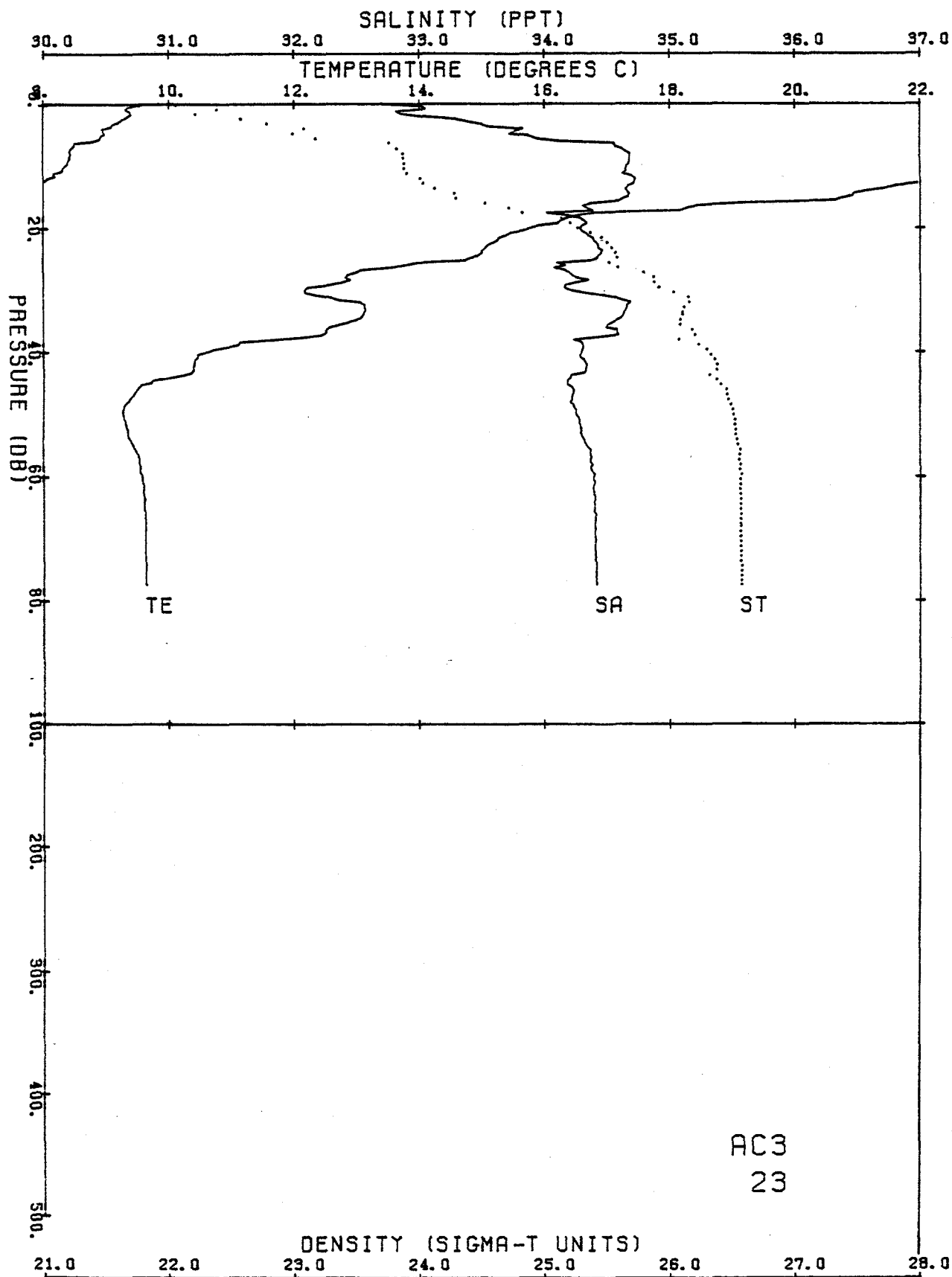
SHIP KN CRUISE ACE-3 STATION 22 CAST 1
 START 40 7 30 N 71 58.40 W AT 1150 77/ 8/ 8
 POS. = LC STA. TYPE = DT
 WIND = 10 knots DIR = 260 DEPTH = 78 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	000	015	000	21.777	602.54	0.000	1527.4	0.00
1	000	000	000	21.770	603.23	0.006	1527.4	0.00
2	000	000	000	21.777	603.56	0.012	1527.4	0.00
3	000	000	000	21.789	601.44	0.018	1527.4	0.00
4	000	000	000	21.715	608.60	0.024	1527.4	0.00
5	000	000	000	22.078	573.99	0.030	1527.4	0.00
6	000	000	000	22.661	518.12	0.035	1527.4	0.00
7	000	000	000	23.312	453.96	0.040	1527.4	0.00
8	000	000	000	23.692	419.68	0.045	1527.4	0.00
9	000	000	000	23.939	396.13	0.049	1527.4	0.00
10	000	000	000	24.060	373.17	0.053	1527.4	0.00
11	000	000	000	24.937	324.49	0.057	1527.4	0.00
12	000	000	000	25.035	307.13	0.061	1527.4	0.00
13	000	000	000	24.248	336.82	0.064	1527.4	0.00
14	000	000	000	24.291	336.77	0.068	1527.4	0.00
15	000	000	000	24.430	324.91	0.072	1527.4	0.00
16	000	000	000	24.647	307.88	0.075	1527.4	0.00
17	000	000	000	24.687	305.14	0.078	1527.4	0.00
18	000	000	000	24.928	301.76	0.081	1527.4	0.00
19	000	000	000	24.947	300.40	0.084	1527.4	0.00
20	000	000	000	25.032	290.44	0.087	1527.4	0.00
21	000	000	000	25.193	277.07	0.090	1527.4	0.00
22	000	000	000	25.267	270.00	0.093	1527.4	0.00
23	000	000	000	25.272	257.53	0.096	1527.4	0.00
24	000	000	000	25.337	257.70	0.098	1527.4	0.00
25	000	000	000	25.633	233.17	0.101	1527.4	0.00
26	000	000	000	25.683	230.45	0.103	1527.4	0.00
27	000	000	000	25.714	227.43	0.106	1527.4	0.00
28	000	000	000	25.957	203.36	0.108	1527.4	0.00
29	000	000	000	26.004	199.80	0.110	1527.4	0.00
30	000	000	000	26.041	196.36	0.112	1527.4	0.00
31	000	000	000	26.057	194.82	0.114	1527.4	0.00
32	000	000	000	26.076	193.02	0.116	1527.4	0.00
33	000	000	000	26.102	190.52	0.118	1527.4	0.00
34	000	000	000	26.107	190.19	0.120	1527.4	0.00
35	000	000	000	26.114	189.98	0.122	1527.4	0.00
36	000	000	000	26.115	189.36	0.124	1527.4	0.00
37	000	000	000	26.121	188.95	0.126	1527.4	0.00
38	000	000	000	26.132	187.79	0.127	1527.4	0.00
39	000	000	000	26.146	186.53	0.129	1527.4	0.00
40	000	000	000	26.151	186.05	0.131	1527.4	0.00
41	000	000	000	26.162	184.96	0.133	1527.4	0.00
42	000	000	000	26.182	182.16	0.135	1527.4	0.00
43	000	000	000	26.216	179.90	0.137	1527.4	0.00
44	000	000	000	26.209	180.66	0.139	1527.4	0.00
45	000	000	000	26.222	179.46	0.140	1527.4	0.00
46	000	000	000	26.237	178.93	0.142	1527.4	0.00
47	000	000	000	26.244	178.31	0.144	1527.4	0.00
48	000	000	000	26.251	182.43	0.146	1527.4	0.00
49	000	000	000	26.261	178.84	0.148	1527.4	0.00
50	000	000	000	26.261	175.82	0.149	1527.4	0.00
51	000	000	000	26.298	172.39	0.158	1527.4	0.00
52	000	000	000	26.343	168.18	0.167	1527.4	0.00
53	000	000	000	26.397	163.11	0.175	1527.4	0.00
54	000	000	000	26.467	156.62	0.183	1527.4	0.00
55	000	000	000	26.510	152.64	0.191	1527.4	0.00
56	000	000	000	26.513	152.43	0.193	1527.4	0.00



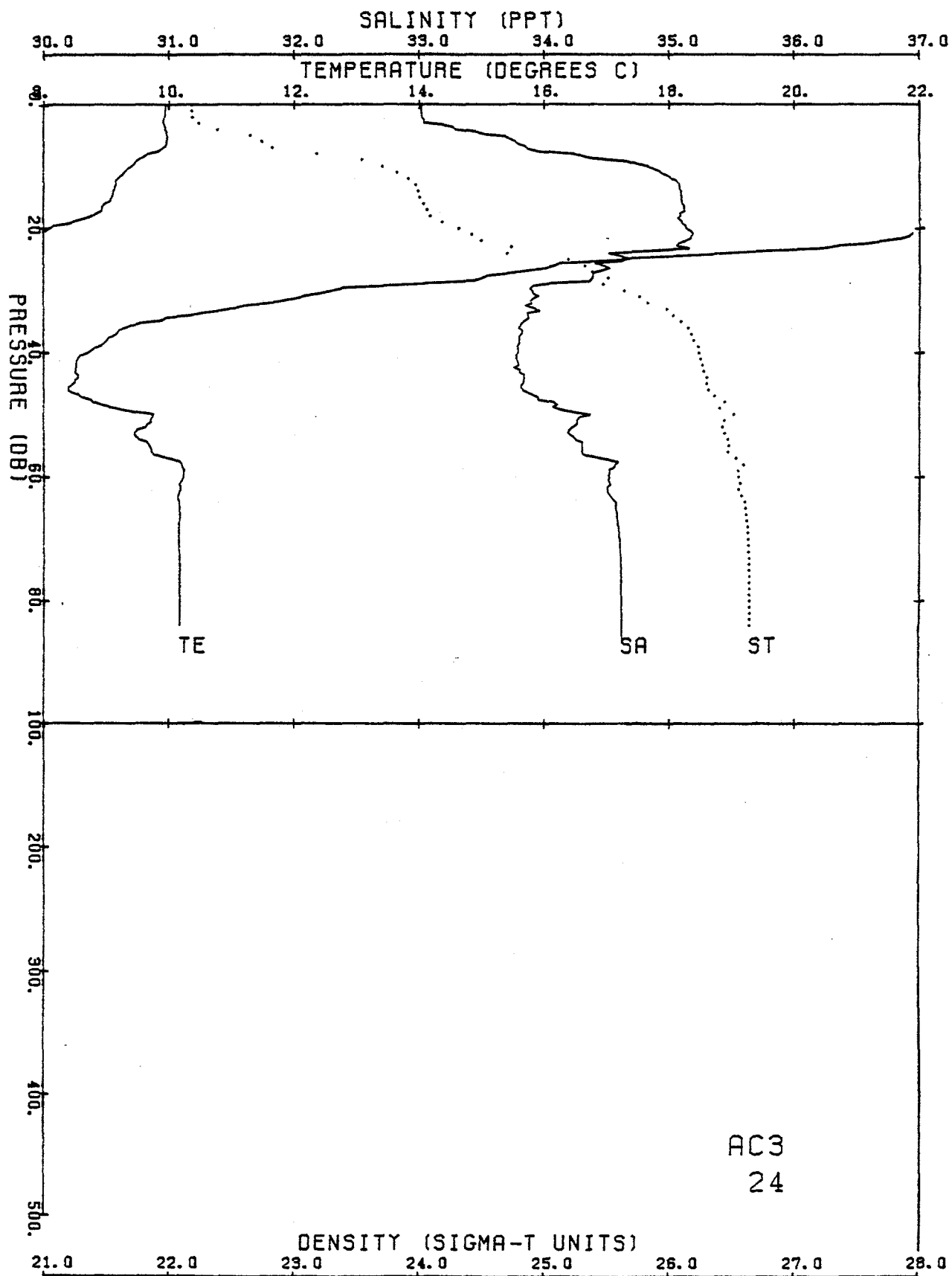
SHIP KN CRUISE ACE-3 STATION 23 CAST 1
 START 40 5.00 N 71 55.50 W AT 1322 77/ 8/ 8
 POS. = LC STA. TYPE = DT
 WIND = 10 knots DIR = 260 DEPTH = 78 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	000	000	000	577.97	0.000	1.500	0.00	0.0
1	000	000	000	562.01	0.006	1.500		0.0
2	000	000	000	549.23	0.011	1.500		0.0
3	000	000	000	517.62	0.017	1.500		0.0
4	000	000	000	499.60	0.022	1.500		0.0
5	000	000	000	470.19	0.027	1.500	12.78	0.0
6	000	000	000	454.53	0.031	1.500		0.0
7	000	000	000	409.41	0.036	1.500		0.0
8	000	000	000	403.72	0.040	1.500		0.0
9	000	000	000	403.93	0.044	1.500		0.0
10	000	000	000	403.02	0.048	1.500	10.30	0.0
11	000	000	000	402.18	0.052	1.500		0.0
12	000	000	000	390.58	0.056	1.500		0.0
13	000	000	000	387.97	0.060	1.500		0.0
14	000	000	000	371.56	0.063	1.500		0.0
15	000	000	000	361.79	0.067	1.500	7.99	0.0
16	000	000	000	341.07	0.070	1.500		0.0
17	000	000	000	318.58	0.074	1.500		0.0
18	000	000	000	301.01	0.077	1.500		0.0
19	000	000	000	277.43	0.080	1.500		0.0
20	000	000	000	270.30	0.083	1.500	11.88	0.0
21	000	000	000	258.22	0.085	1.500		0.0
22	000	000	000	250.84	0.088	1.500		0.0
23	000	000	000	244.88	0.090	1.500		0.0
24	000	000	000	241.23	0.093	1.500		0.0
25	000	000	000	240.01	0.095	1.500	6.85	0.0
26	000	000	000	239.57	0.098	1.500		0.0
27	000	000	000	219.75	0.100	1.500		0.0
28	000	000	000	213.60	0.102	1.500		0.0
29	000	000	000	214.11	0.104	1.500		0.0
30	000	000	000	199.28	0.106	1.500	7.78	0.0
31	000	000	000	185.79	0.108	1.500		0.0
32	000	000	000	185.40	0.110	1.500		0.0
33	000	000	000	189.69	0.112	1.500		0.0
34	000	000	000	190.38	0.114	1.500		0.0
35	000	000	000	192.02	0.116	1.500	3.37	0.0
36	000	000	000	185.98	0.118	1.500		0.0
37	000	000	000	180.30	0.120	1.500		0.0
38	000	000	000	185.22	0.121	1.500		0.0
39	000	000	000	173.64	0.123	1.500		0.0
40	000	000	000	167.91	0.125	1.500	6.11	0.0
41	000	000	000	164.69	0.127	1.500		0.0
42	000	000	000	162.94	0.128	1.500		0.0
43	000	000	000	163.55	0.130	1.500		0.0
44	000	000	000	163.80	0.132	1.500		0.0
45	000	000	000	160.19	0.133	1.500	3.47	0.0
46	000	000	000	155.37	0.135	1.500		0.0
47	000	000	000	154.79	0.136	1.500		0.0
48	000	000	000	154.51	0.138	1.500		0.0
49	000	000	000	150.66	0.139	1.500		0.0
50	000	000	000	150.06	0.141	1.500	3.97	0.0
51	000	000	000	145.96	0.143	1.500	0.54	0.0
52	000	000	000	144.57	0.145	1.500		0.0
53	000	000	000	144.01	0.146	1.500	1.49	0.0
54	000	000	000	143.35	0.148	1.500	1.01	0.0
55	000	000	000	143.00	0.150	1.500	0.94	0.0
56	000	000	000	143.66	0.152	1.500		0.0
57	000	000	000	142.66	0.154	1.500		0.0



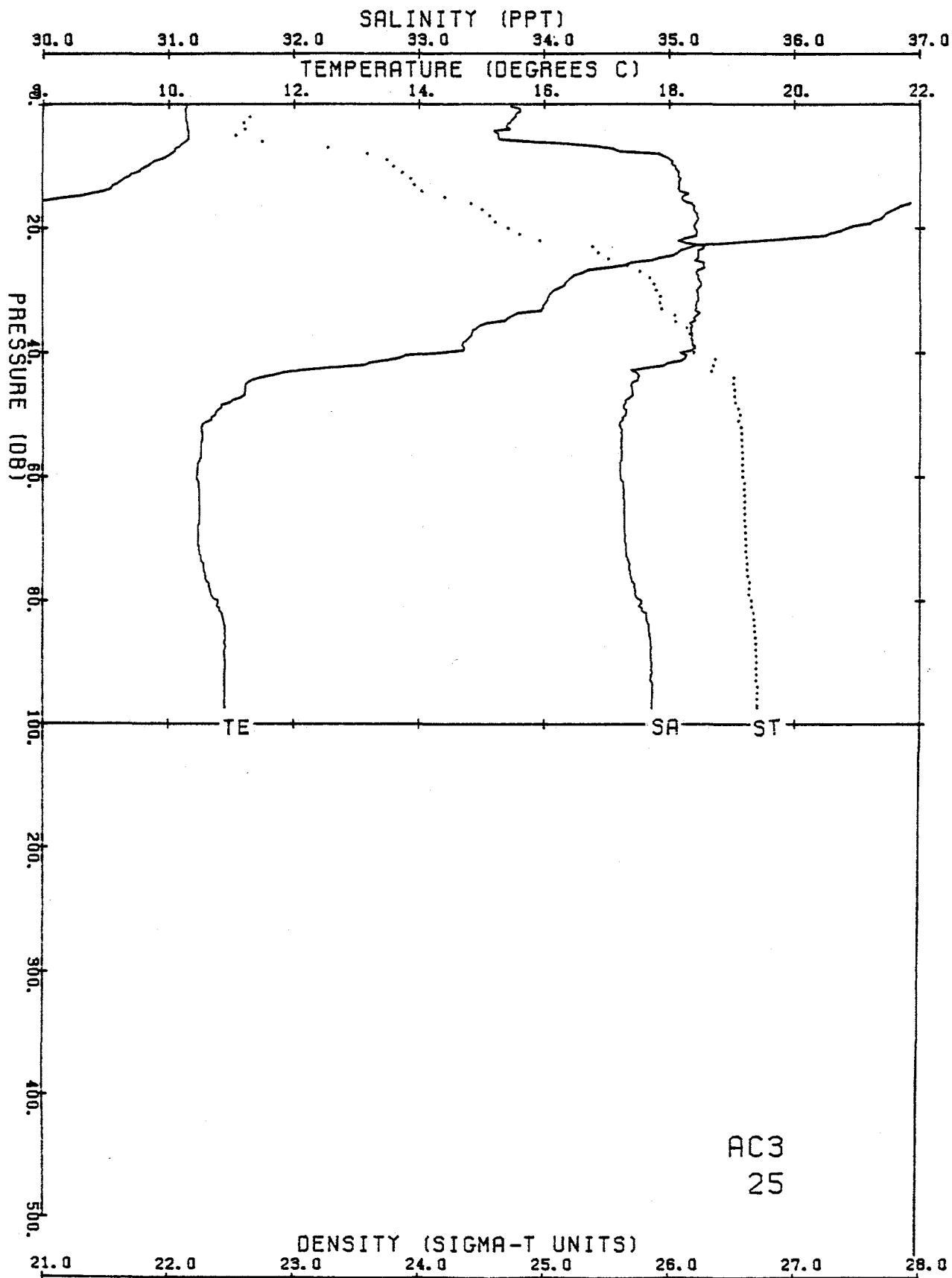
SHIP KN CRUISE ACE-3 STATION 24 CAST 1
 START 40 20 50 N 71 53.30 W AT 1516 77/ 8/ 8
 POS. = LC STA. TYPE = DT
 WIND = 12 knots DIR = 250 DEPTH = 85 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	949	018	158	565.99	0.000	1530.1	0.00	0.00
1	940	020	162	565.64	0.006	1530.1		1.1
2	930	022	167	565.21	0.011	1530.1		1.1
3	913	027	181	560.13	0.017	1530.1		1.1
4	944	030	201	546.59	0.022	1530.1		1.1
5	979	033	209	515.86	0.028	1531.1	2.73	1.1
6	989	036	212	511.62	0.033	1531.1		1.1
7	980	038	213	503.74	0.038	1531.1		1.1
8	970	040	215	469.66	0.043	1530.0		1.1
9	977	043	230	435.19	0.047	1530.0		1.1
10	984	044	232	419.44	0.052	1530.0	12.33	1.1
11	1000	048	233	408.25	0.056	1530.0		1.1
12	1000	050	234	399.24	0.060	1530.0		1.1
13	1000	053	234	394.11	0.064	1530.0		1.1
14	982	057	234	392.12	0.068	1530.0		1.1
15	989	060	234	390.99	0.072	1530.0	4.65	1.1
16	981	063	234	387.64	0.076	1530.0		1.1
17	980	066	234	384.91	0.079	1530.0		1.1
18	980	069	234	382.42	0.083	1529.9		1.1
19	988	071	234	373.36	0.087	1529.9		1.1
20	980	073	234	360.88	0.091	1529.9	6.84	1.1
21	976	076	234	351.07	0.094	1527.7		1.1
22	984	078	234	343.60	0.098	1526.6		1.1
23	980	080	234	320.81	0.101	1524.4		1.1
24	983	082	234	324.12	0.104	1518.9		1.1
25	988	084	234	327.09	0.107	1514.4	11.37	1.1
26	983	086	234	324.42	0.110	1510.8		1.1
27	980	088	234	325.64	0.113	1509.9		1.1
28	980	090	234	324.58	0.115	1507.7		1.1
29	980	092	234	323.12	0.118	1501.1		1.1
30	980	094	234	320.21	0.121	1498.8	8.34	1.1
31	980	096	234	322.70	0.123	1496.7		1.1
32	980	098	234	321.13	0.125	1494.4		1.1
33	980	100	234	320.07	0.127	1492.4		1.1
34	980	102	234	318.98	0.129	1490.4		1.1
35	980	104	234	317.60	0.131	1487.7	8.11	1.1
36	980	106	234	316.99	0.133	1486.6		1.1
37	980	108	234	315.81	0.135	1486.6		1.1
38	980	110	234	314.85	0.136	1485.9		1.1
39	980	112	234	313.64	0.138	1485.1		1.1
40	980	114	234	312.62	0.140	1484.6	4.13	1.1
41	980	116	234	311.42	0.142	1484.1		1.1
42	980	118	234	310.20	0.143	1484.4		1.1
43	980	120	234	309.13	0.145	1484.4		1.1
44	980	122	234	308.10	0.147	1484.4		1.1
45	980	124	234	307.19	0.149	1483.9	3.17	1.1
46	980	126	234	306.04	0.150	1483.0		1.1
47	980	128	234	304.63	0.152	1484.4		1.1
48	980	130	234	303.34	0.154	1485.9		1.1
49	980	132	234	302.04	0.155	1487.7		1.1
50	980	134	234	300.07	0.157	1489.9	5.58	1.1
51	980	136	234	298.10	0.164	1489.4		1.1
52	980	138	234	296.30	0.172	1491.6		1.1
53	980	140	234	294.70	0.179	1491.7		1.1
54	980	142	234	293.14	0.186	1491.7		1.1
55	980	144	234	291.40	0.193	1491.9		1.1
56	980	146	234	289.93	0.200	1492.0		1.1
57	980	148	234	288.46	0.205	1492.0		1.1



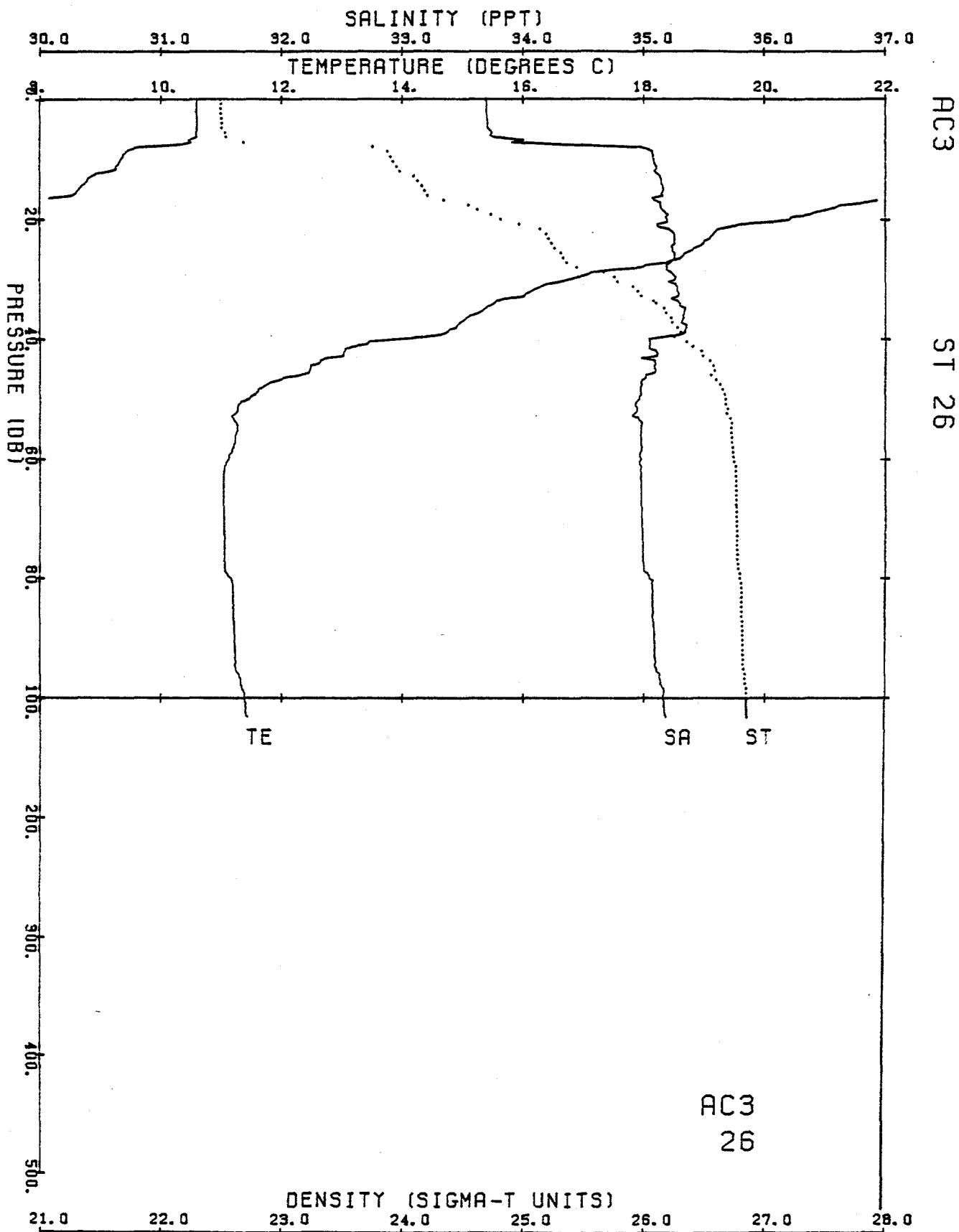
SHIP KN CRUISE ACE-3 STATION 25 CAST 1
 START 39 59.50 N 71 52.00 W AT 1621 77/ 8/ 8
 POS. = LC STA. TYPE = DT
 WIND = 13 knots DIR = 240 DEPTH = 98 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.287	33.742	22.606	523.13	0.000	1531.7	0.00	0.0
1	24.265	33.802	22.606	523.13	0.005	1531.7		0.0
2	24.276	33.771	22.606	523.13	0.010	1531.7		0.0
3	24.291	33.711	22.606	523.13	0.016	1531.7		0.0
4	24.306	33.658	22.606	523.13	0.021	1531.7		0.0
5	24.315	33.639	22.606	523.13	0.027	1531.7	-3.53	0.0
6	24.266	33.602	22.606	523.13	0.031	1531.7		0.0
7	24.104	34.533	22.606	523.13	0.036	1531.7		0.0
8	24.029	34.822	22.606	523.13	0.041	1531.7		0.0
9	23.774	33.036	22.606	523.13	0.045	1531.7		0.0
10	23.656	33.053	22.606	523.13	0.049	1531.7	13.79	0.0
11	23.472	33.076	22.606	523.13	0.053	1531.7		0.0
12	23.300	33.103	22.606	523.13	0.057	1531.7		0.0
13	23.172	33.092	22.606	523.13	0.061	1531.7		0.0
14	23.972	33.098	22.606	523.13	0.065	1531.7		0.0
15	22.446	33.141	22.606	523.13	0.069	1531.7	7.82	0.0
16	22.842	33.194	22.606	523.13	0.073	1531.7		0.0
17	22.1576	33.211	22.606	523.13	0.076	1531.7		0.0
18	22.1421	33.240	22.606	523.13	0.079	1531.7		0.0
19	22.1225	33.208	22.606	523.13	0.083	1531.7		0.0
20	22.0824	33.221	22.606	523.13	0.086	1531.7	8.66	0.0
21	22.0556	33.244	22.606	523.13	0.089	1531.7		0.0
22	22.0509	33.094	22.606	523.13	0.092	1531.7		0.0
23	22.0398	33.276	22.606	523.13	0.095	1531.7		0.0
24	22.1299	33.254	22.606	523.13	0.098	1531.7		0.0
25	22.799	33.250	22.606	523.13	0.100	1531.7	10.95	0.0
26	22.312	33.299	22.606	523.13	0.103	1531.7		0.0
27	22.615	33.238	22.606	523.13	0.105	1531.7		0.0
28	22.410	33.255	22.606	523.13	0.107	1531.7		0.0
29	22.319	33.291	22.606	523.13	0.109	1531.7		0.0
30	22.132	33.244	22.606	523.13	0.112	1531.7	7.43	0.0
31	22.062	33.258	22.606	523.13	0.114	1531.7		0.0
32	22.016	33.246	22.606	523.13	0.116	1531.7		0.0
33	22.949	33.207	22.606	523.13	0.118	1531.7		0.0
34	22.460	33.233	22.606	523.13	0.120	1531.7		0.0
35	22.078	33.194	22.606	523.13	0.122	1531.7	5.40	0.0
36	22.901	33.214	22.606	523.13	0.124	1531.7		0.0
37	22.833	33.214	22.606	523.13	0.126	1531.7		0.0
38	22.746	33.209	22.606	523.13	0.127	1531.7		0.0
39	22.721	33.241	22.606	523.13	0.129	1531.7		0.0
40	22.060	33.067	22.606	523.13	0.131	1531.7	4.23	0.0
41	22.486	33.134	22.606	523.13	0.133	1531.7		0.0
42	22.769	33.268	22.606	523.13	0.134	1531.7		0.0
43	22.332	33.281	22.606	523.13	0.136	1497.7		0.0
44	22.447	33.299	22.606	523.13	0.138	1496.4		0.0
45	22.230	33.238	22.606	523.13	0.139	1495.5	6.68	0.0
46	22.223	33.251	22.606	523.13	0.141	1495.5		0.0
47	22.157	33.229	22.606	523.13	0.142	1495.5		0.0
48	22.939	33.277	22.606	523.13	0.144	1494.4		0.0
49	22.795	33.206	22.606	523.13	0.145	1493.3		0.0
50	22.735	33.696	22.606	523.13	0.146	1493.3	2.89	0.0
51	22.521	33.673	22.606	523.13	0.154	1492.7	1.71	0.0
52	22.459	33.677	22.606	523.13	0.151	1492.2	1.42	0.0
53	22.504	33.708	22.606	523.13	0.158	1492.2	1.53	0.0
54	22.482	33.721	22.606	523.13	0.173	1492.2	1.46	0.0
55	22.586	33.765	22.606	523.13	0.182	1493.4	1.52	0.0
56	22.801	33.859	22.606	523.13	0.189	1494.4	0.24	0.0
57	22.912	33.928	22.606	523.13	0.196	1493.3	0.21	0.0
58	22.915	33.951	22.606	523.13	0.202	1493.3	1.96	0.0
59	22.961	33.961	22.606	523.13	0.209	1493.3	1.20	0.0
60	22.905	33.961	22.606	523.13	0.211	1493.3	1.48	0.0
61	22.905	33.961	22.606	523.13	0.211	1493.3	0.21	0.0



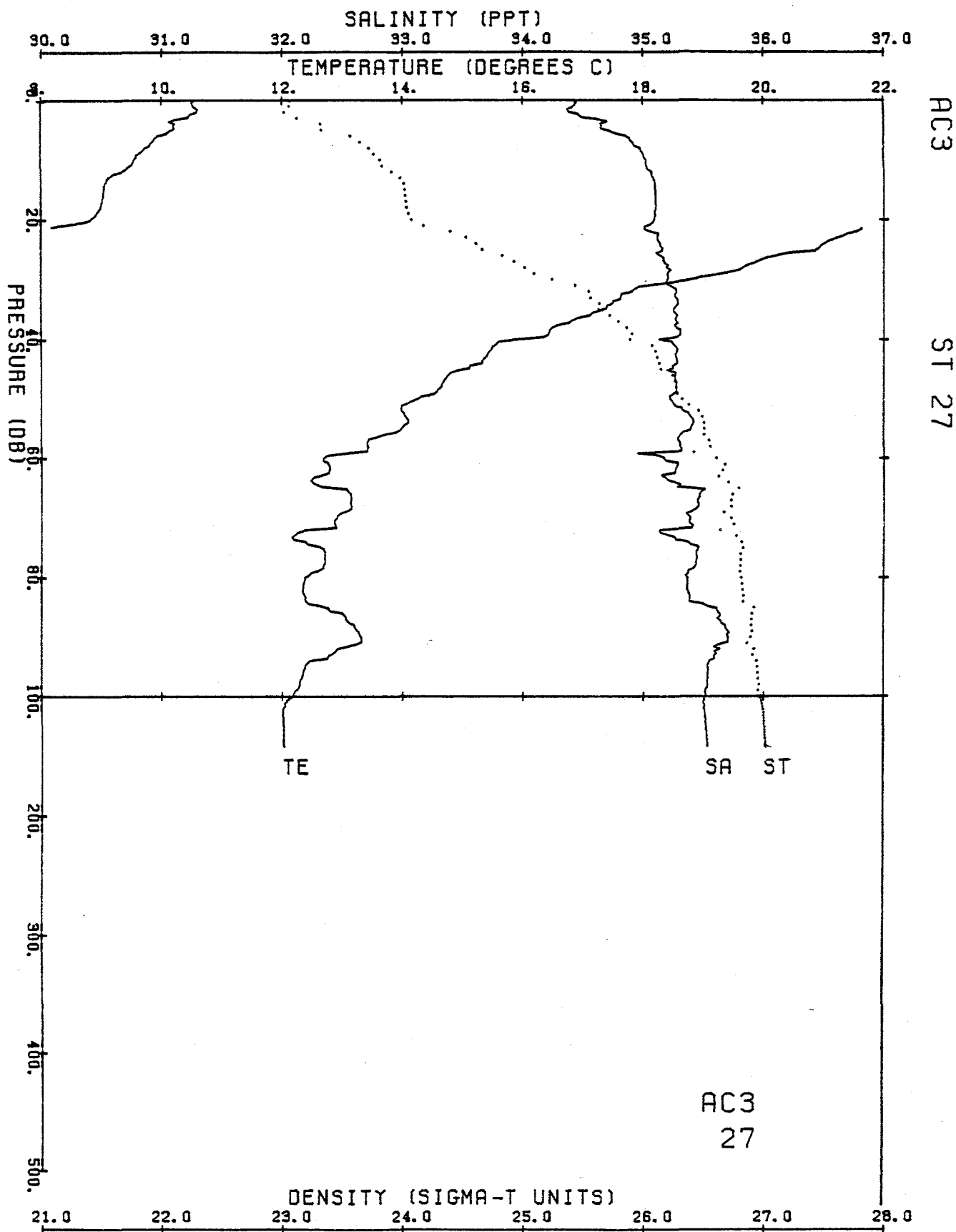
SHIP KN CRUISE ACE-3 STATION 26 CAST 1
START 39 54.50 N 71 49.60 W AT 1817 77/ 8/ 8
POS. = LC STA. TYPE = DT
WIND = 13 knots DIR = 240 DEPTH = 117 meters

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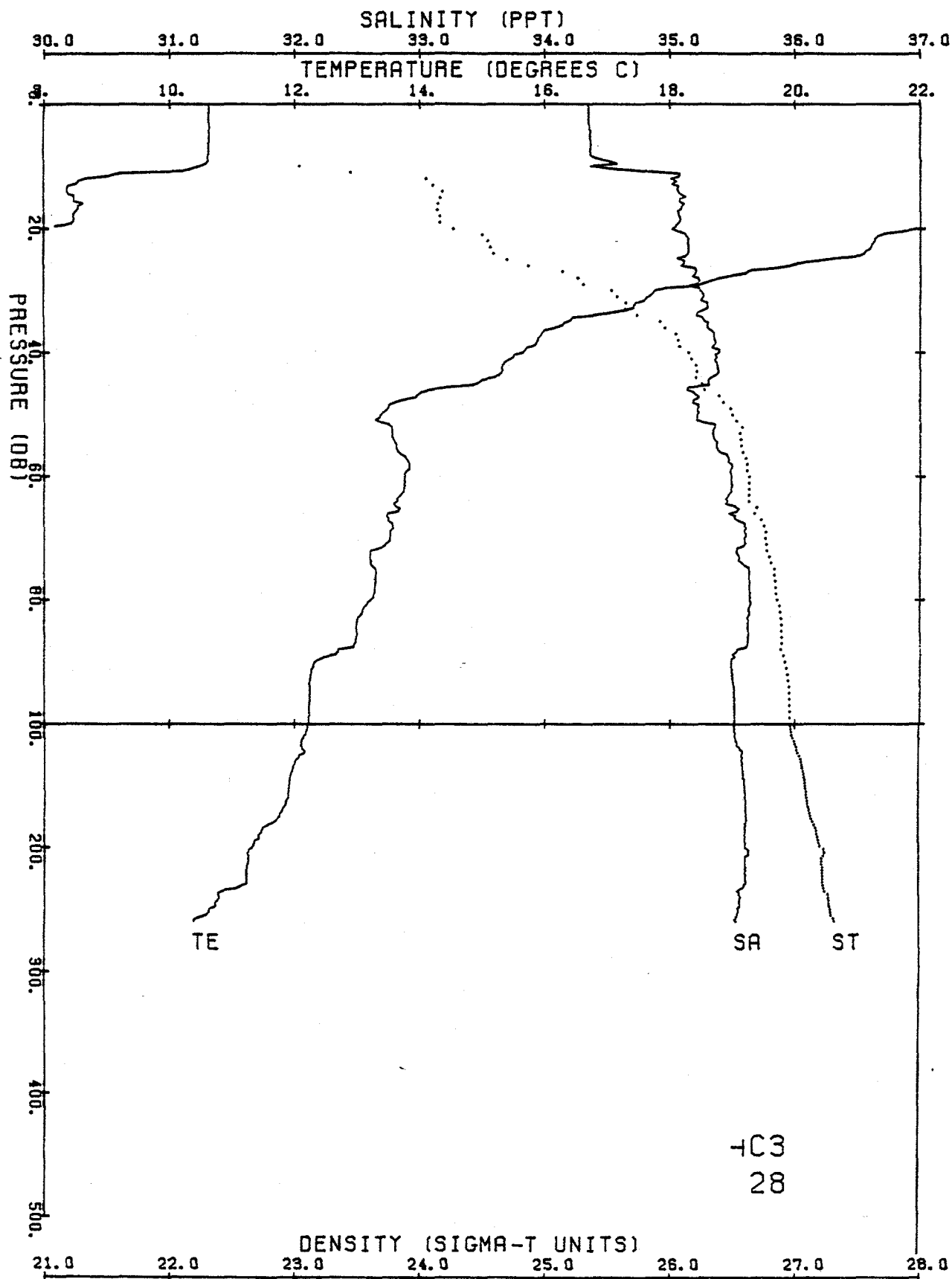
SHIP KN CRUISE ACE-3 STATION 27 CAST 1
 START 39 34.40 N 71 48.00 W AT 1945 77/ 8/ 8
 POS. = LC STA. TYPE = DT
 WIND = 13 knots DIR = 230 DEPTH = 143 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	34.530	34.423	22.049	480.36	0.000	1533.1	0.00	0.00
1	34.537	34.417	22.042	481.51	0.005	1533.3		1.00
2	34.544	34.411	22.035	483.58	0.010	1533.3		2.00
3	34.551	34.405	22.028	485.06	0.014	1533.3		3.00
4	34.558	34.399	22.021	487.06	0.019	1533.3		4.00
5	34.565	34.393	22.014	489.06	0.024	1533.3		5.00
6	34.572	34.387	22.007	491.06	0.028	1533.3		6.00
7	34.579	34.381	22.000	493.06	0.032	1533.3		7.00
8	34.586	34.375	21.993	495.06	0.036	1533.3		8.00
9	34.593	34.369	21.986	497.06	0.041	1533.3		9.00
10	34.600	34.363	21.979	499.06	0.045	1533.3		10.00
11	34.607	34.357	21.972	501.06	0.049	1533.3		11.00
12	34.614	34.351	21.965	503.06	0.053	1533.3		12.00
13	34.621	34.345	21.958	505.06	0.057	1533.3		13.00
14	34.628	34.339	21.951	507.06	0.061	1533.3		14.00
15	34.635	34.333	21.944	509.06	0.065	1533.3		15.00
16	34.642	34.327	21.937	511.06	0.069	1533.3		16.00
17	34.649	34.321	21.930	513.06	0.072	1533.3		17.00
18	34.656	34.315	21.923	515.06	0.076	1533.3		18.00
19	34.663	34.309	21.916	517.06	0.080	1533.3		19.00
20	34.670	34.303	21.909	519.06	0.084	1533.3		20.00
21	34.677	34.297	21.902	521.06	0.088	1533.3		21.00
22	34.684	34.291	21.895	523.06	0.091	1533.3		22.00
23	34.691	34.285	21.888	525.06	0.095	1533.3		23.00
24	34.698	34.279	21.881	527.06	0.098	1533.3		24.00
25	34.705	34.273	21.874	529.06	0.102	1533.3		25.00
26	34.712	34.267	21.867	531.06	0.105	1533.3		26.00
27	34.719	34.261	21.860	533.06	0.108	1533.3		27.00
28	34.726	34.255	21.853	535.06	0.111	1533.3		28.00
29	34.733	34.249	21.846	537.06	0.114	1533.3		29.00
30	34.740	34.243	21.839	539.06	0.117	1533.3		30.00
31	34.747	34.237	21.832	541.06	0.120	1533.3		31.00
32	34.754	34.231	21.825	543.06	0.122	1533.3		32.00
33	34.761	34.225	21.818	545.06	0.124	1533.3		33.00
34	34.768	34.219	21.811	547.06	0.127	1533.3		34.00
35	34.775	34.213	21.804	549.06	0.129	1533.3		35.00
36	34.782	34.207	21.797	551.06	0.131	1533.3		36.00
37	34.789	34.201	21.790	553.06	0.134	1533.3		37.00
38	34.796	34.195	21.783	555.06	0.136	1533.3		38.00
39	34.803	34.189	21.776	557.06	0.138	1533.3		39.00
40	34.810	34.183	21.769	559.06	0.140	1533.3		40.00
41	34.817	34.177	21.762	561.06	0.142	1533.3		41.00
42	34.824	34.171	21.755	563.06	0.144	1533.3		42.00
43	34.831	34.165	21.748	565.06	0.146	1533.3		43.00
44	34.838	34.159	21.741	567.06	0.148	1533.3		44.00
45	34.845	34.153	21.734	569.06	0.149	1533.3		45.00
46	34.852	34.147	21.727	571.06	0.151	1533.3		46.00
47	34.859	34.141	21.720	573.06	0.153	1533.3		47.00
48	34.866	34.135	21.713	575.06	0.155	1533.3		48.00
49	34.873	34.129	21.706	577.06	0.156	1533.3		49.00
50	34.880	34.123	21.699	579.06	0.158	1533.3		50.00
51	34.887	34.117	21.692	581.06	0.166	1533.3		51.00
52	34.894	34.111	21.685	583.06	0.174	1533.3		52.00
53	34.901	34.105	21.678	585.06	0.180	1533.3		53.00
54	34.908	34.099	21.671	587.06	0.186	1533.3		54.00
55	34.915	34.093	21.664	589.06	0.193	1533.3		55.00
56	34.922	34.087	21.657	591.06	0.199	1533.3		56.00
57	34.929	34.081	21.650	593.06	0.204	1533.3		57.00
58	34.936	34.075	21.643	595.06	0.210	1533.3		58.00
59	34.943	34.069	21.636	597.06	0.216	1533.3		59.00
60	34.950	34.063	21.629	599.06	0.221	1533.3		60.00
61	34.957	34.057	21.622	601.06	0.226	1533.3		61.00
62	34.964	34.051	21.615	603.06	0.231	1533.3		62.00
63	34.971	34.045	21.608	605.06	0.236	1533.3		63.00
64	34.978	34.039	21.601	607.06	0.241	1533.3		64.00
65	34.985	34.033	21.594	609.06	0.246	1533.3		65.00
66	34.992	34.027	21.587	611.06	0.251	1533.3		66.00
67	34.999	34.021	21.580	613.06	0.256	1533.3		67.00
68	35.006	34.015	21.573	615.06	0.261	1533.3		68.00
69	35.013	34.009	21.566	617.06	0.266	1533.3		69.00
70	35.020	34.003	21.559	619.06	0.271	1533.3		70.00
71	35.027	34.000	21.552	621.06	0.276	1533.3		71.00
72	35.034	34.000	21.545	623.06	0.281	1533.3		72.00
73	35.041	34.000	21.538	625.06	0.286	1533.3		73.00
74	35.048	34.000	21.531	627.06	0.291	1533.3		74.00
75	35.055	34.000	21.524	629.06	0.296	1533.3		75.00
76	35.062	34.000	21.517	631.06	0.301	1533.3		76.00
77	35.069	34.000	21.510	633.06	0.306	1533.3		77.00
78	35.076	34.000	21.503	635.06	0.311	1533.3		78.00
79	35.083	34.000	21.496	637.06	0.316	1533.3		79.00
80	35.090	34.000	21.489	639.06	0.321	1533.3		80.00
81	35.097	34.000	21.482	641.06	0.326	1533.3		81.00
82	35.104	34.000	21.475	643.06	0.331	1533.3		82.00
83	35.111	34.000	21.468	645.06	0.336	1533.3		83.00
84	35.118	34.000	21.461	647.06	0.341	1533.3		84.00
85	35.125	34.000	21.454	649.06	0.346	1533.3		85.00
86	35.132	34.000	21.447	651.06	0.351	1533.3		86.00
87	35.139	34.000	21.440	653.06	0.356	1533.3		87.00
88	35.146	34.000	21.433	655.06	0.361	1533.3		88.00
89	35.153	34.000	21.426	657.06	0.366	1533.3		89.00
90	35.160	34.000	21.419	659.06	0.371	1533.3		90.00
91	35.167	34.000	21.412	661.06	0.376	1533.3		91.00
92	35.174	34.000	21.405	663.06	0.381	1533.3		92.00
93	35.181	34.000	21.398	665.06	0.386	1533.3		93.00
94	35.188	34.000	21.391	667.06	0.391	1533.3		94.00
95	35.195	34.000	21.384	669.06	0.396	1533.3		95.00
96	35.202	34.000	21.377	671.06	0.401	1533.3		96.00
97	35.209	34.000	21.370	673.06	0.406	1533.3		97.00
98	35.216	34.000	21.363	675.06	0.411	1533.3		98.00
99	35.223	34.000	21.356	677.06	0.416	1533.3		99.00
100	35.230	34.000	21.349	679.06	0.421	1533.3		100.00



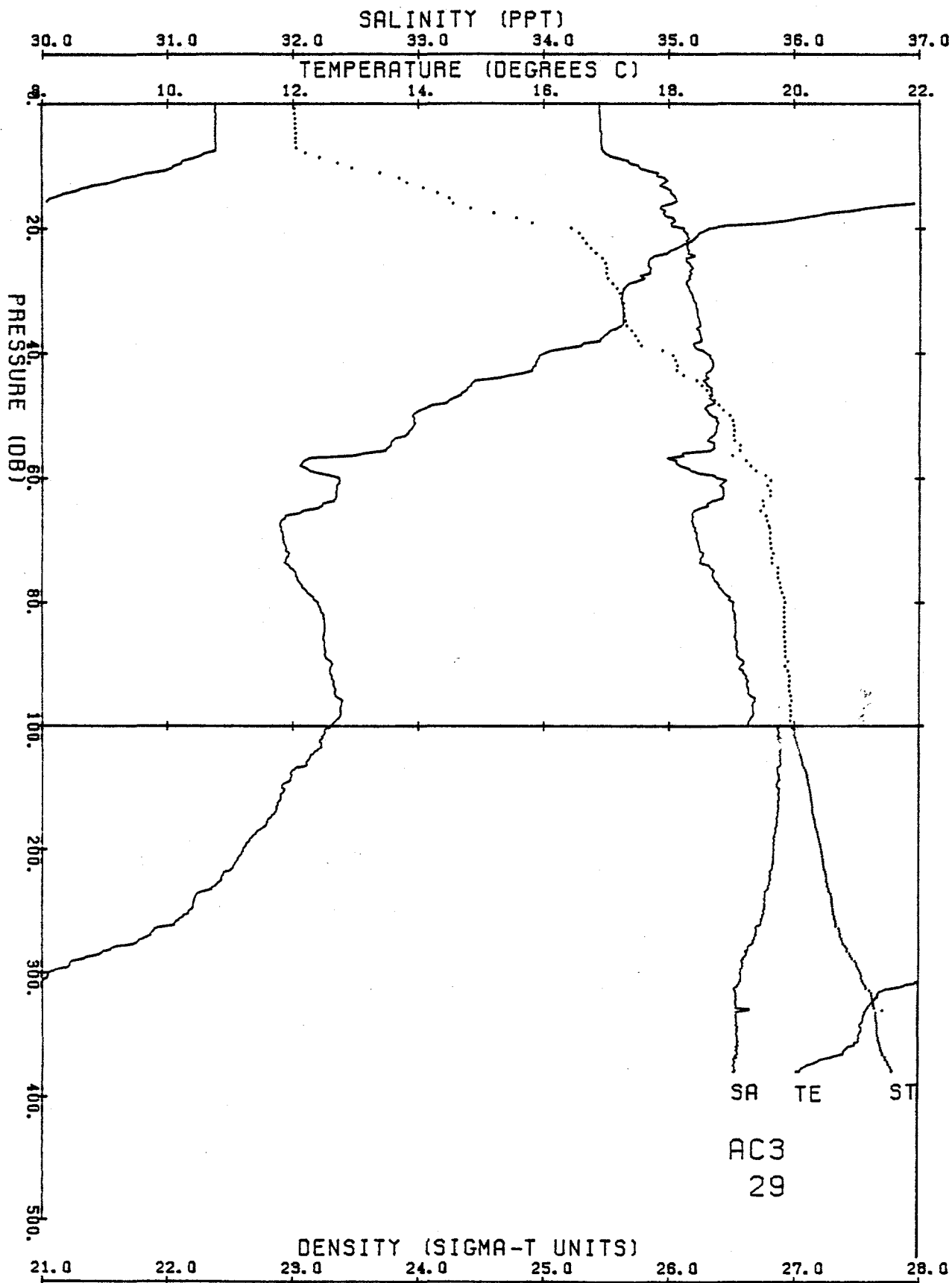
SHIP KN CRUISE ACE-3 STATION 28 CAST 1
 START 39 51 40 N 71 41.50 W AT 2201 77/ 8/ 8
 POS. = LC STA. TYPE = DT
 WIND = DIR = DEPTH = 259 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.628	33.51	32.965	488.82	0.000	153.33	0.00	0.00
1	24.627	33.50	32.965	488.90	0.005	153.33		1.1
2	24.626	33.50	32.966	488.83	0.010	153.33		1.1
3	24.626	33.51	32.966	488.89	0.015	153.33		1.1
4	24.625	33.50	32.968	488.69	0.020	153.33		1.1
5	24.625	33.50	32.973	488.26	0.025	153.33	1.09	1.1
6	24.625	33.50	32.977	487.99	0.029	153.33		1.1
7	24.625	33.50	32.977	487.96	0.034	153.33		1.1
8	24.625	33.50	32.978	487.88	0.039	153.33		1.1
9	24.625	33.50	32.978	487.98	0.044	153.33		1.1
10	24.625	33.50	32.978	487.98	0.049	153.33	4.41	1.1
11	24.625	33.50	32.978	487.98	0.053	153.33		1.1
12	24.625	33.50	32.978	487.98	0.057	153.33		1.1
13	24.625	33.50	32.978	487.98	0.061	153.33		1.1
14	24.625	33.50	32.978	487.98	0.065	153.33		1.1
15	24.625	33.50	32.978	487.98	0.069	153.33	12.46	1.1
16	24.625	33.50	32.978	487.98	0.072	153.33		1.1
17	24.625	33.50	32.978	487.98	0.076	153.33		1.1
18	24.625	33.50	32.978	487.98	0.080	153.33		1.1
19	24.625	33.50	32.978	487.98	0.084	153.33	3.98	1.1
20	24.625	33.50	32.978	487.98	0.087	153.33		1.1
21	24.625	33.50	32.978	487.98	0.091	153.33		1.1
22	24.625	33.50	32.978	487.98	0.094	153.33		1.1
23	24.625	33.50	32.978	487.98	0.098	153.33		1.1
24	24.625	33.50	32.978	487.98	0.101	153.33	8.02	1.1
25	24.625	33.50	32.978	487.98	0.104	153.33		1.1
26	24.625	33.50	32.978	487.98	0.108	153.33		1.1
27	24.625	33.50	32.978	487.98	0.111	153.33		1.1
28	24.625	33.50	32.978	487.98	0.114	153.33	10.94	1.1
29	24.625	33.50	32.978	487.98	0.116	153.33		1.1
30	24.625	33.50	32.978	487.98	0.119	153.33		1.1
31	24.625	33.50	32.978	487.98	0.121	153.33		1.1
32	24.625	33.50	32.978	487.98	0.124	153.33		1.1
33	24.625	33.50	32.978	487.98	0.126	153.33		1.1
34	24.625	33.50	32.978	487.98	0.128	153.33	7.48	1.1
35	24.625	33.50	32.978	487.98	0.131	153.33		1.1
36	24.625	33.50	32.978	487.98	0.133	153.33		1.1
37	24.625	33.50	32.978	487.98	0.135	153.33		1.1
38	24.625	33.50	32.978	487.98	0.136	153.33		1.1
39	24.625	33.50	32.978	487.98	0.138	153.33	5.82	1.1
40	24.625	33.50	32.978	487.98	0.140	153.33		1.1
41	24.625	33.50	32.978	487.98	0.142	153.33		1.1
42	24.625	33.50	32.978	487.98	0.144	153.33		1.1
43	24.625	33.50	32.978	487.98	0.146	153.33		1.1
44	24.625	33.50	32.978	487.98	0.148	153.33	4.06	1.1
45	24.625	33.50	32.978	487.98	0.149	153.33		1.1
46	24.625	33.50	32.978	487.98	0.151	153.33		1.1
47	24.625	33.50	32.978	487.98	0.153	153.33		1.1
48	24.625	33.50	32.978	487.98	0.154	153.33		1.1
49	24.625	33.50	32.978	487.98	0.156	153.33	6.17	1.1
50	24.625	33.50	32.978	487.98	0.157	153.33		1.1
51	24.625	33.50	32.978	487.98	0.159	153.33		1.1
52	24.625	33.50	32.978	487.98	0.165	153.33		1.1
53	24.625	33.50	32.978	487.98	0.172	153.33		1.1
54	24.625	33.50	32.978	487.98	0.179	153.33		1.1
55	24.625	33.50	32.978	487.98	0.185	153.33		1.1
56	24.625	33.50	32.978	487.98	0.189	153.33		1.1
57	24.625	33.50	32.978	487.98	0.191	153.33		1.1
58	24.625	33.50	32.978	487.98	0.197	153.33		1.1
59	24.625	33.50	32.978	487.98	0.203	153.33		1.1
60	24.625	33.50	32.978	487.98	0.209	153.33		1.1
61	24.625	33.50	32.978	487.98	0.214	153.33		1.1
62	24.625	33.50	32.978	487.98	0.219	153.33		1.1
63	24.625	33.50	32.978	487.98	0.225	153.33		1.1
64	24.625	33.50	32.978	487.98	0.230	153.33		1.1
65	24.625	33.50	32.978	487.98	0.235	153.33		1.1
66	24.625	33.50	32.978	487.98	0.240	153.33		1.1
67	24.625	33.50	32.978	487.98	0.245	153.33		1.1
68	24.625	33.50	32.978	487.98	0.250	153.33		1.1
69	24.625	33.50	32.978	487.98	0.255	153.33		1.1
70	24.625	33.50	32.978	487.98	0.259	153.33		1.1
71	24.625	33.50	32.978	487.98	0.264	153.33		1.1
72	24.625	33.50	32.978	487.98	0.269	153.33		1.1
73	24.625	33.50	32.978	487.98	0.271	153.33		1.1
74	24.625	33.50	32.978	487.98	0.275	153.33		1.1
75	24.625	33.50	32.978	487.98	0.277	153.33		1.1
76	24.625	33.50	32.978	487.98	0.279	153.33		1.1
77	24.625	33.50	32.978	487.98	0.281	153.33		1.1
78	24.625	33.50	32.978	487.98	0.283	153.33		1.1
79	24.625	33.50	32.978	487.98	0.285	153.33		1.1
80	24.625	33.50	32.978	487.98	0.287	153.33		1.1
81	24.625	33.50	32.978	487.98	0.289	153.33		1.1
82	24.625	33.50	32.978	487.98	0.291	153.33		1.1
83	24.625	33.50	32.978	487.98	0.293	153.33		1.1
84	24.625	33.50	32.978	487.98	0.295	153.33		1.1
85	24.625	33.50	32.978	487.98	0.297	153.33		1.1
86	24.625	33.50	32.978	487.98	0.299	153.33		1.1
87	24.625	33.50	32.978	487.98	0.301	153.33		1.1
88	24.625	33.50	32.978	487.98	0.303	153.33		1.1
89	24.625	33.50	32.978	487.98	0.305	153.33		1.1
90	24.625	33.50	32.978	487.98	0.307	153.33		1.1
91	24.625	33.50	32.978	487.98	0.309	153.33		1.1
92	24.625	33.50	32.978	487.98	0.311	153.33		1.1
93	24.625	33.50	32.978	487.98	0.313	153.33		1.1
94	24.625	33.50	32.978	487.98	0.315	153.33		1.1
95	24.625	33.50	32.978	487.98	0.317	153.33		1.1
96	24.625	33.50	32.978	487.98	0.319	153.33		1.1
97	24.625	33.50	32.978	487.98	0.321	153.33		1.1
98	24.625	33.50	32.978	487.98	0.323	153.33		1.1
99	24.625	33.50	32.978	487.98	0.325	153.33		1.1
100	24.625	33.50	32.978	487.98	0.327	153.33		1.1
101	24.625	33.50	32.978	487.98	0.329	153.33		1.1
102	24.625	33.50	32.978	487.98	0.331	153.33		1.1
103	24.625	33.50	32.978	487.98	0.333	153.33		1.1
104	24.625	33.50	32.978	487.98	0.335	153.33		1.1
105	24.625	33.50	32.978	487.98	0.337	153.33		1.1
106	24.625	33.50	32.978	487.98	0.339	153.33		1.1
107	24.625	33.50	32.978	487.98	0.341	153.33		1.1
108	24.625	33.50	32.978	487.98	0.343	153.33		1.1
109	24.625	33.50	32.978	487.98	0.345	153.33		1.1
110	24.625	33.50	32.978	487.98	0.347	153.33		1.1
111	24.625	33.50	32.978	487.98	0.349	153.33		1.1
112	24.625	33.50	32.978	487.98	0.351	153.33		1.1
113	24.625	33.50	32.978	487.98	0.353	153.33		1.1
114	24.625	33.50	32.978	487.98	0.355	153.33		1.1
115	24.625	33.50	32.978	487.98	0.357	153.33		1.1
116	24.625	33.50	32.978	487.98	0.359	153.33		1.1
117	24.625	33.50	32.978	487.98	0.361	153.33		1.1
118	24.625	33.50	32.978	487.98	0.363	153.33		1.1
119	24.625	33.50	32.978	487.98	0.365	153.33		1.1
120	24.625	33.50	32.978	487.98	0.367	153.33		1.1
121	24.625	33.50	32.978	487.98	0.369	153.33		1.1
122	24.625	33.50	32.978	487.98	0.371	153.33		1.1
123	24.625	33.50	32.978	487.98	0.373	153.33		1.1
124	24.625	33.50	32.978	487.98	0.375	153.33		1.1
125	24.625	33.50	32.978	487.98	0.377	153.33		1.1
126	24.625	33.50	32.978	487.98	0.379	153.33		1.1
127	24.625	33.50	32.978	487.98	0.381	153.33		1.1
128	24.625	33.50	32.978	487.98	0.383	153.33		1.1
129	24.625	33.50	32.978	487.98	0.385	153.33		1.1
130	24.625	33.50	32.978	487.98	0.387	153.33		1.1
131	24.625	33.50	32.978	487.98	0.389	153.33		1.1
132	24.625	33.50	32.978	487.98	0.391	153.33		1.1
133	24.625	33.50	32.978	487.98	0.393	153.33		1.1
134	24.625	33.50	32.978	487.98	0.395	153.33		1.1
135	24.625	33.50	32.978	487.98	0.397	153.33		1.1
136	24.625	33.50	32.978	487.98	0.399	153.33		1.1
137</								



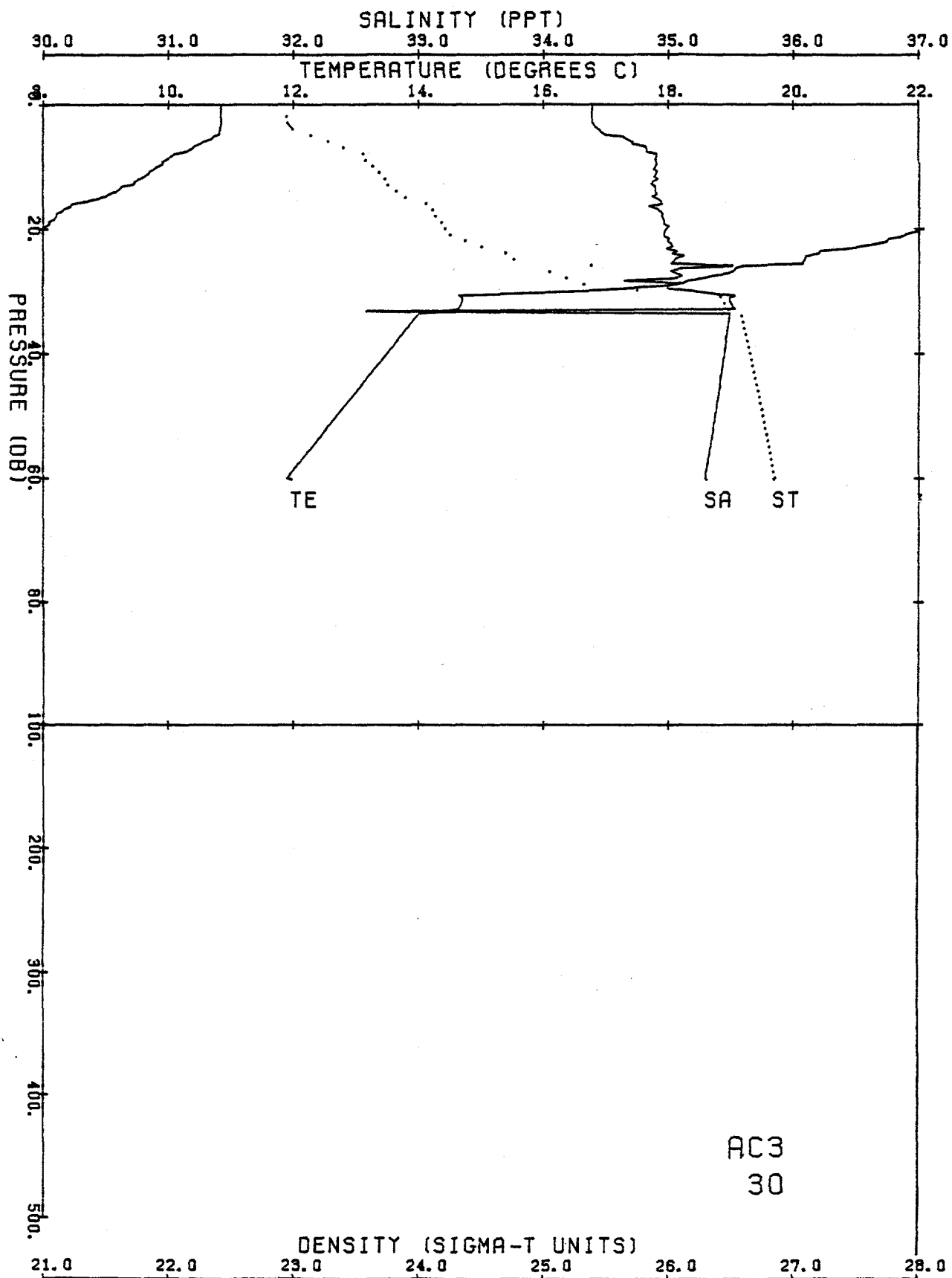
SHIP KN CRUISE ACE-3 STATION 29 CAST 1
 START 39 48.50 N 71 41.00 W AT 2352 77/ 8/ 8
 POS. = LC STA. TYPE = DT
 WIND = 11 knots DIR = 230 DEPTH = 380 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.766	24.442	22.993	486.21	0.000	1533.6	0.00	0.00
1	24.766	24.444	22.993	486.17	0.005	1533.7		1.00
2	24.767	24.450	22.998	485.78	0.010	1533.7		2.00
3	24.765	24.450	22.998	485.78	0.015	1533.7		3.00
4	24.765	24.449	22.998	485.94	0.019	1533.7		4.00
5	24.767	24.460	22.993	485.16	0.025	1533.8	1.39	5.11
6	24.767	24.461	22.993	485.16	0.029	1533.8		6.00
7	24.769	24.465	22.993	484.91	0.034	1533.8		7.00
8	24.589	24.497	22.993	477.52	0.039	1533.4		8.00
9	24.592	24.592	22.994	464.48	0.044	1533.3		9.00
10	24.094	24.761	22.993	444.37	0.048	1533.2	8.03	10.00
11	23.811	24.895	22.993	426.78	0.052	1533.2		11.00
12	23.271	24.972	22.993	406.15	0.057	1533.0		12.00
13	22.894	24.971	22.993	389.59	0.061	1532.9		13.00
14	22.529	24.021	22.994	368.08	0.064	1532.9		14.00
15	22.171	23.059	22.994	342.16	0.068	1532.8	10.72	15.00
16	21.996	23.027	22.994	326.49	0.072	1532.7		16.00
17	21.900	23.945	22.994	306.78	0.075	1532.5		17.00
18	21.829	23.931	22.994	289.00	0.079	1532.5		18.00
19	21.829	23.059	22.994	270.45	0.082	1532.2		19.00
20	21.634	23.131	22.994	254.95	0.085	1531.8	12.11	20.00
21	21.666	23.160	22.994	237.99	0.088	1531.8		21.00
22	21.554	23.154	22.994	226.66	0.090	1531.8		22.00
23	21.500	23.150	22.994	216.16	0.093	1531.7		23.00
24	21.458	23.171	22.994	205.16	0.096	1531.7		24.00
25	21.408	23.154	22.994	194.66	0.098	1531.6	6.06	25.00
26	21.367	23.197	22.994	184.00	0.101	1531.6		26.00
27	21.321	23.197	22.994	173.45	0.103	1531.6		27.00
28	21.275	23.197	22.994	162.90	0.106	1531.5		28.00
29	21.229	23.197	22.994	152.35	0.108	1531.5	4.47	29.00
30	21.183	23.197	22.994	141.80	0.111	1531.5		30.00
31	21.137	23.197	22.994	131.25	0.113	1531.5		31.00
32	21.091	23.197	22.994	120.70	0.116	1531.5		32.00
33	21.045	23.197	22.994	110.15	0.118	1531.5		33.00
34	21.000	23.197	22.994	99.60	0.120	1531.5	2.86	34.00
35	20.954	23.197	22.994	89.05	0.123	1531.4		35.00
36	20.908	23.197	22.994	78.50	0.125	1531.4		36.00
37	20.862	23.197	22.994	67.95	0.127	1531.4		37.00
38	20.816	23.197	22.994	57.40	0.130	1531.4		38.00
39	20.770	23.197	22.994	46.85	0.132	1531.4		39.00
40	20.724	23.197	22.994	36.30	0.134	1531.4	7.24	40.00
41	20.678	23.197	22.994	25.75	0.136	1531.4		41.00
42	20.632	23.197	22.994	15.20	0.138	1531.4		42.00
43	20.586	23.197	22.994	4.65	0.140	1531.4		43.00
44	20.540	23.197	22.994	-5.10	0.141	1531.4		44.00
45	20.494	23.197	22.994	-14.65	0.143	1531.4	6.12	45.00
46	20.448	23.197	22.994	-24.20	0.145	1531.4		46.00
47	20.402	23.197	22.994	-33.75	0.147	1531.4		47.00
48	20.356	23.197	22.994	-43.30	0.148	1531.4		48.00
49	20.310	23.197	22.994	-52.85	0.150	1531.4		49.00
50	20.264	23.197	22.994	-62.40	0.151	1531.4		50.00
51	20.218	23.197	22.994	-71.95	0.153	1531.4		51.00
52	20.172	23.197	22.994	-81.50	0.155	1531.4		52.00
53	20.126	23.197	22.994	-91.05	0.156	1531.4		53.00
54	20.080	23.197	22.994	-100.60	0.158	1531.4		54.00
55	20.034	23.197	22.994	-110.15	0.159	1531.4		55.00
56	19.988	23.197	22.994	-119.70	0.160	1531.4		56.00
57	19.942	23.197	22.994	-129.25	0.161	1531.4		57.00
58	19.896	23.197	22.994	-138.80	0.162	1531.4		58.00
59	19.850	23.197	22.994	-148.35	0.163	1531.4		59.00
60	19.804	23.197	22.994	-157.90	0.164	1531.4		60.00
61	19.758	23.197	22.994	-167.45	0.165	1531.4		61.00
62	19.712	23.197	22.994	-177.00	0.166	1531.4		62.00
63	19.666	23.197	22.994	-186.55	0.167	1531.4		63.00
64	19.620	23.197	22.994	-196.10	0.168	1531.4		64.00
65	19.574	23.197	22.994	-205.65	0.169	1531.4		65.00
66	19.528	23.197	22.994	-215.20	0.170	1531.4		66.00
67	19.482	23.197	22.994	-224.75	0.171	1531.4		67.00
68	19.436	23.197	22.994	-234.30	0.172	1531.4		68.00
69	19.390	23.197	22.994	-243.85	0.173	1531.4		69.00
70	19.344	23.197	22.994	-253.40	0.174	1531.4		70.00
71	19.298	23.197	22.994	-262.95	0.175	1531.4		71.00
72	19.252	23.197	22.994	-272.50	0.176	1531.4		72.00
73	19.206	23.197	22.994	-282.05	0.177	1531.4		73.00
74	19.160	23.197	22.994	-291.60	0.178	1531.4		74.00
75	19.114	23.197	22.994	-301.15	0.179	1531.4		75.00
76	19.068	23.197	22.994	-310.70	0.180	1531.4		76.00
77	19.022	23.197	22.994	-320.25	0.181	1531.4		77.00
78	18.976	23.197	22.994	-329.80	0.182	1531.4		78.00
79	18.930	23.197	22.994	-339.35	0.183	1531.4		79.00
80	18.884	23.197	22.994	-348.90	0.184	1531.4		80.00
81	18.838	23.197	22.994	-358.45	0.185	1531.4		81.00
82	18.792	23.197	22.994	-368.00	0.186	1531.4		82.00
83	18.746	23.197	22.994	-377.55	0.187	1531.4		83.00
84	18.700	23.197	22.994	-387.10	0.188	1531.4		84.00
85	18.654	23.197	22.994	-396.65	0.189	1531.4		85.00
86	18.608	23.197	22.994	-406.20	0.190	1531.4		86.00
87	18.562	23.197	22.994	-415.75	0.191	1531.4		87.00
88	18.516	23.197	22.994	-425.30	0.192	1531.4		88.00
89	18.470	23.197	22.994	-434.85	0.193	1531.4		89.00
90	18.424	23.197	22.994	-444.40	0.194	1531.4		90.00
91	18.378	23.197	22.994	-453.95	0.195	1531.4		91.00
92	18.332	23.197	22.994	-463.50	0.196	1531.4		92.00
93	18.286	23.197	22.994	-473.05	0.197	1531.4		93.00
94	18.240	23.197	22.994	-482.60	0.198	1531.4		94.00
95	18.194	23.197	22.994	-492.15	0.199	1531.4		95.00
96	18.148	23.197	22.994	-501.70	0.200	1531.4		96.00
97	18.102	23.197	22.994	-511.25	0.201	1531.4		97.00
98	18.056	23.197	22.994	-520.80	0.202	1531.4		98.00
99	18.010	23.197	22.994	-530.35	0.203	1531.4		99.00
100	17.964	23.197	22.994	-539.90	0.204	1531.4		100.00



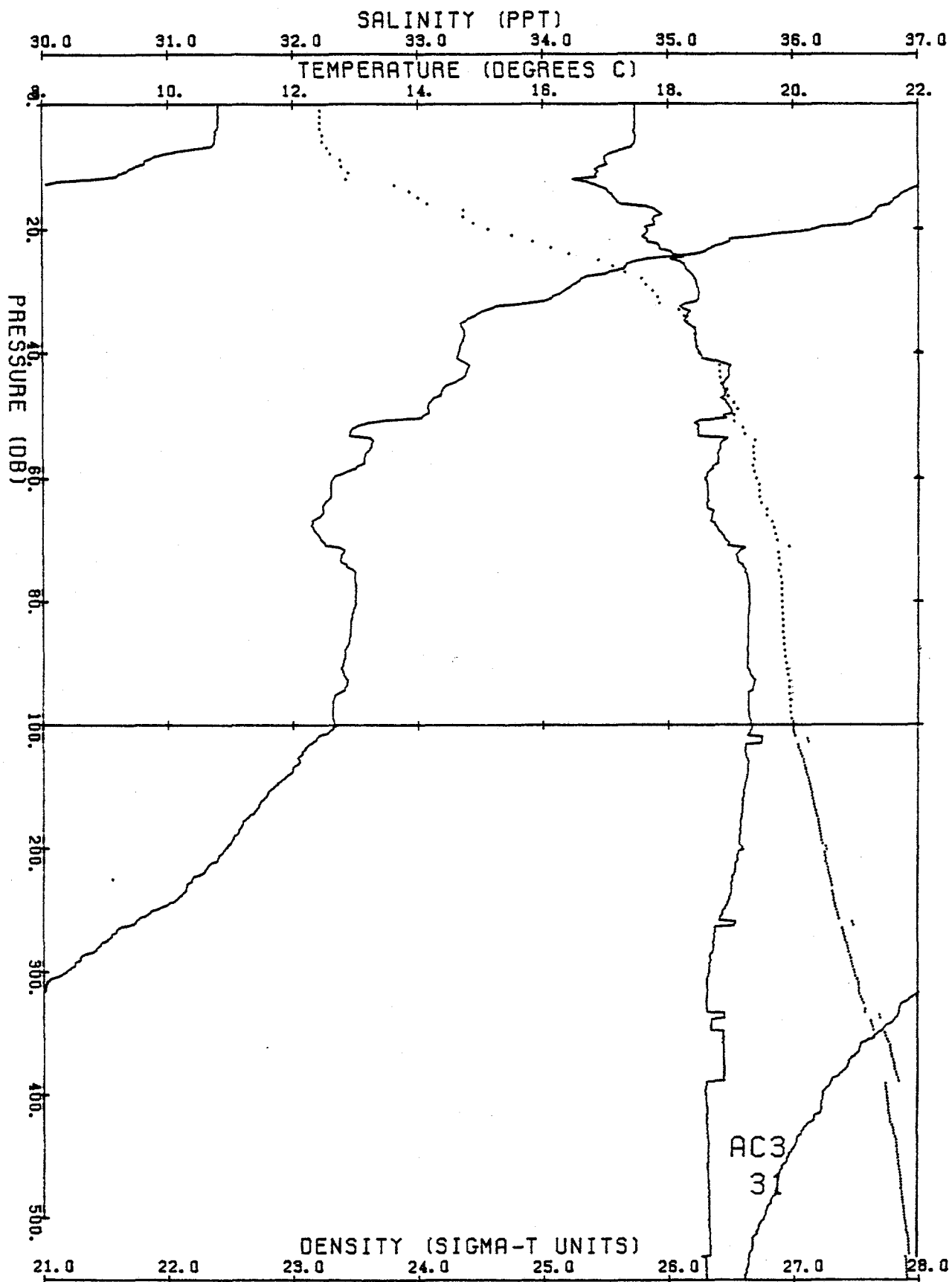
SHIP KN CRUISE ACE-3 STATION 30 CAST 1
 START 39 46.50 N 71 39.00 W AT 203 77/ 8/ 9
 POS. = LC STA. TYPE = DT
 WIND = 15 knots DIR = 240 DEPTH = 383 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.847	34.393	23.931	492.11	0.000	1533.8	0.00	0.0
1	24.847	34.393	23.931	492.17	.005	1533.8		1.0
2	24.847	34.389	23.928	492.30	.010	1533.8		2.0
3	24.843	34.396	23.934	491.94	.015	1533.8		3.0
4	24.755	34.449	23.938	485.84	.020	1533.7		4.0
5	24.726	34.538	23.152	471.16	.025	1533.9	5.66	5.1
6	24.557	34.718	23.363	460.57	.029	1533.6		6.0
7	24.413	34.827	23.389	448.50	.034	1533.4		7.0
8	24.092	34.909	23.347	433.56	.038	1532.7		8.0
9	23.985	34.894	23.367	431.69	.042	1532.4		9.0
10	23.820	34.900	23.621	426.61	.047	1532.0	8.39	10.0
11	23.676	34.914	23.674	421.58	.051	1531.7		11.0
12	23.520	34.919	23.723	416.93	.055	1531.4		12.0
13	23.344	34.885	23.748	414.53	.059	1530.9		13.0
14	23.161	34.905	23.817	408.03	.063	1530.5		14.0
15	22.918	34.907	23.888	401.30	.067	1529.9	6.27	15.0
16	22.463	34.950	23.038	385.06	.071	1528.8		16.0
17	22.280	34.934	23.106	380.66	.075	1528.4		17.0
18	22.203	34.958	23.131	378.23	.079	1528.0		18.0
19	22.092	34.981	23.179	373.63	.083	1528.0		19.0
20	22.022	34.998	23.211	370.62	.086	1527.8	6.90	20.0
21	21.800	34.969	23.252	366.82	.090	1527.2		21.0
22	21.485	35.013	23.272	363.38	.094	1526.6		22.0
23	21.036	35.027	23.306	363.63	.097	1525.3		23.0
24	20.291	35.054	23.757	318.73	.101	1523.4		24.0
25	20.160	35.059	23.766	317.95	.104	1523.0	8.94	25.0
26	19.156	35.275	23.193	277.31	.107	1520.5		26.0
27	18.946	35.055	23.101	288.06	.110	1519.7		27.0
28	18.419	34.862	23.054	289.64	.113	1518.0		28.0
29	18.156	35.117	23.324	264.88	.115	1517.6		29.0



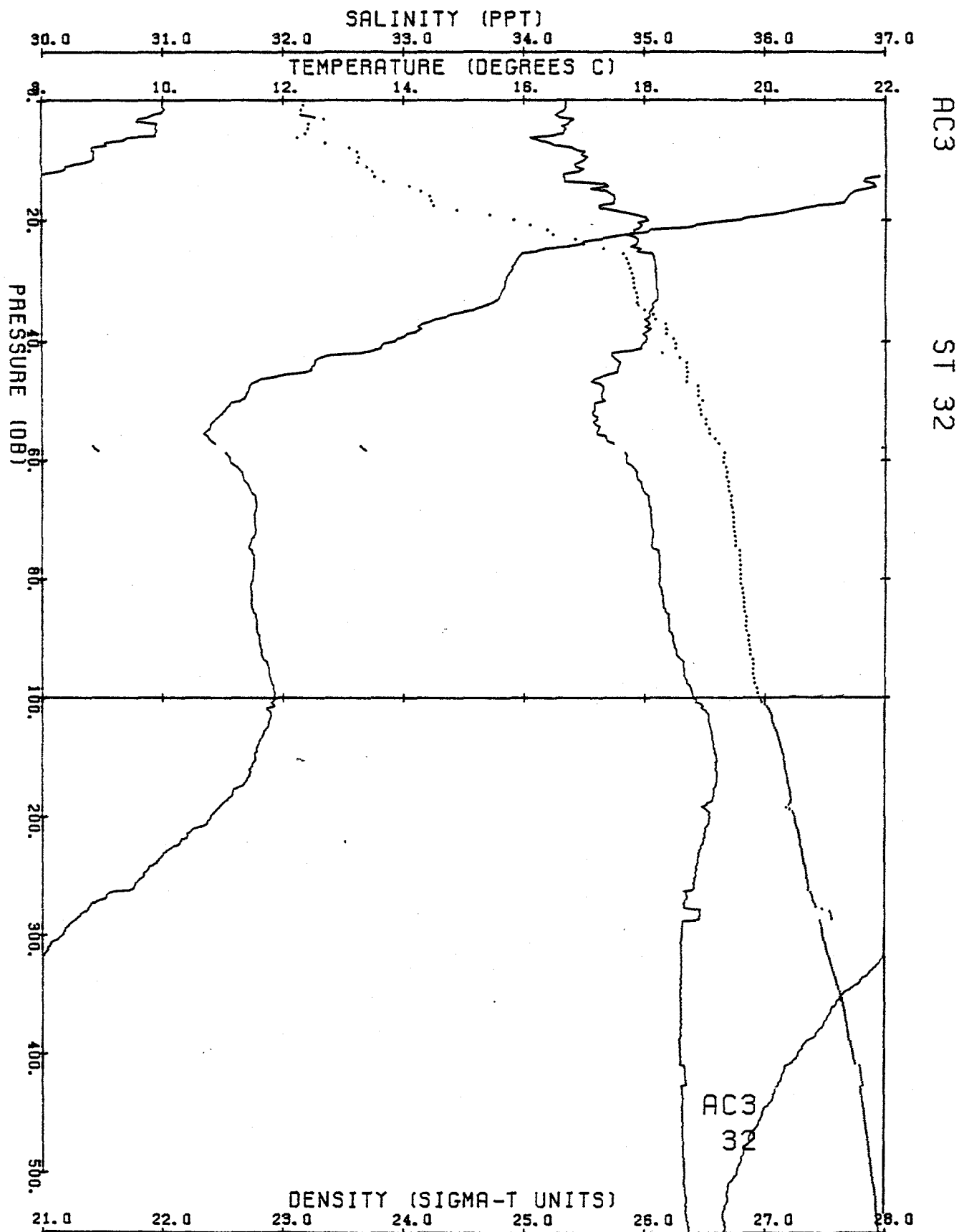
SHIP KN CRUISE ACE-3 STATION 31 CAST 1
 START 39 44.00 N 71 39.50 W AT 404 77/ 3/ 9
 POS. = LC STA. TYPE = DT
 WIND = 13 knots DIR = 230 DEPTH = 690 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	4.811	34.735	23.200	466.38	0.000	1534.1	0.00	0.0
1	4.811	34.736	23.201	466.39	0.003	1534.1		1.1
2	4.811	34.737	23.201	466.39	0.009	1534.1		2.2
3	4.811	34.738	23.202	466.39	0.014	1534.1		3.3
4	4.811	34.738	23.203	466.39	0.019	1534.1		4.4
5	4.811	34.740	23.203	466.39	0.024	1534.1	1.75	5.5
6	4.811	34.740	23.204	466.39	0.028	1534.1		6.6
7	4.811	34.740	23.204	466.39	0.033	1534.1		7.7
8	4.811	34.740	23.204	466.39	0.037	1534.1		8.8
9	4.811	34.740	23.204	466.39	0.042	1534.1		9.9
10	4.811	34.740	23.204	466.39	0.046	1534.1	4.95	10.0
11	4.811	34.740	23.204	466.39	0.051	1534.1		11.1
12	4.811	34.740	23.204	466.39	0.055	1534.1		12.2
13	4.811	34.740	23.204	466.39	0.059	1534.1		13.3
14	4.811	34.740	23.204	466.39	0.063	1534.1		14.4
15	4.811	34.740	23.204	466.39	0.067	1534.1	9.50	15.5
16	4.811	34.740	23.204	466.39	0.071	1534.1		16.6
17	4.811	34.740	23.204	466.39	0.075	1534.1		17.7
18	4.811	34.740	23.204	466.39	0.079	1534.1		18.8
19	4.811	34.740	23.204	466.39	0.083	1534.1	9.10	19.9
20	4.811	34.740	23.204	466.39	0.087	1534.1		20.0
21	4.811	34.740	23.204	466.39	0.091	1534.1		21.1
22	4.811	34.740	23.204	466.39	0.095	1534.1		22.2
23	4.811	34.740	23.204	466.39	0.099	1534.1		23.3
24	4.811	34.740	23.204	466.39	0.103	1534.1	11.39	24.4
25	4.811	34.740	23.204	466.39	0.107	1534.1		25.5
26	4.811	34.740	23.204	466.39	0.111	1534.1		26.6
27	4.811	34.740	23.204	466.39	0.115	1534.1		27.7
28	4.811	34.740	23.204	466.39	0.119	1534.1	7.91	28.8
29	4.811	34.740	23.204	466.39	0.123	1534.1		29.9
30	4.811	34.740	23.204	466.39	0.127	1534.1		30.0
31	4.811	34.740	23.204	466.39	0.131	1534.1		31.1
32	4.811	34.740	23.204	466.39	0.135	1534.1		32.2
33	4.811	34.740	23.204	466.39	0.139	1534.1	6.57	33.3
34	4.811	34.740	23.204	466.39	0.143	1534.1		34.4
35	4.811	34.740	23.204	466.39	0.147	1534.1		35.5
36	4.811	34.740	23.204	466.39	0.151	1534.1		36.6
37	4.811	34.740	23.204	466.39	0.155	1534.1		37.7
38	4.811	34.740	23.204	466.39	0.159	1534.1	3.59	38.8
39	4.811	34.740	23.204	466.39	0.163	1534.1		39.9
40	4.811	34.740	23.204	466.39	0.167	1534.1		40.0
41	4.811	34.740	23.204	466.39	0.171	1534.1		41.1
42	4.811	34.740	23.204	466.39	0.175	1534.1		42.2
43	4.811	34.740	23.204	466.39	0.179	1534.1	5.19	43.3
44	4.811	34.740	23.204	466.39	0.183	1534.1		44.4
45	4.811	34.740	23.204	466.39	0.187	1534.1		45.5
46	4.811	34.740	23.204	466.39	0.191	1534.1		46.6
47	4.811	34.740	23.204	466.39	0.195	1534.1		47.7
48	4.811	34.740	23.204	466.39	0.199	1534.1		48.8
49	4.811	34.740	23.204	466.39	0.203	1534.1		49.9
50	4.811	34.740	23.204	466.39	0.207	1534.1		50.0
51	4.811	34.740	23.204	466.39	0.211	1534.1		51.1
52	4.811	34.740	23.204	466.39	0.215	1534.1		52.2
53	4.811	34.740	23.204	466.39	0.219	1534.1		53.3
54	4.811	34.740	23.204	466.39	0.223	1534.1		54.4
55	4.811	34.740	23.204	466.39	0.227	1534.1		55.5
56	4.811	34.740	23.204	466.39	0.231	1534.1		56.6
57	4.811	34.740	23.204	466.39	0.235	1534.1		57.7
58	4.811	34.740	23.204	466.39	0.239	1534.1		58.8
59	4.811	34.740	23.204	466.39	0.243	1534.1		59.9
60	4.811	34.740	23.204	466.39	0.247	1534.1		60.0
61	4.811	34.740	23.204	466.39	0.251	1534.1		61.1
62	4.811	34.740	23.204	466.39	0.255	1534.1		62.2
63	4.811	34.740	23.204	466.39	0.259	1534.1		63.3
64	4.811	34.740	23.204	466.39	0.263	1534.1		64.4
65	4.811	34.740	23.204	466.39	0.267	1534.1		65.5
66	4.811	34.740	23.204	466.39	0.271	1534.1		66.6
67	4.811	34.740	23.204	466.39	0.275	1534.1		67.7
68	4.811	34.740	23.204	466.39	0.279	1534.1		68.8
69	4.811	34.740	23.204	466.39	0.283	1534.1		69.9
70	4.811	34.740	23.204	466.39	0.287	1534.1		70.0
71	4.811	34.740	23.204	466.39	0.291	1534.1		71.1
72	4.811	34.740	23.204	466.39	0.295	1534.1		72.2
73	4.811	34.740	23.204	466.39	0.299	1534.1		73.3
74	4.811	34.740	23.204	466.39	0.303	1534.1		74.4
75	4.811	34.740	23.204	466.39	0.307	1534.1		75.5
76	4.811	34.740	23.204	466.39	0.311	1534.1		76.6
77	4.811	34.740	23.204	466.39	0.315	1534.1		77.7
78	4.811	34.740	23.204	466.39	0.319	1534.1		78.8
79	4.811	34.740	23.204	466.39	0.323	1534.1		79.9
80	4.811	34.740	23.204	466.39	0.327	1534.1		80.0
81	4.811	34.740	23.204	466.39	0.331	1534.1		81.1
82	4.811	34.740	23.204	466.39	0.335	1534.1		82.2
83	4.811	34.740	23.204	466.39	0.339	1534.1		83.3
84	4.811	34.740	23.204	466.39	0.343	1534.1		84.4
85	4.811	34.740	23.204	466.39	0.347	1534.1		85.5
86	4.811	34.740	23.204	466.39	0.351	1534.1		86.6
87	4.811	34.740	23.204	466.39	0.355	1534.1		87.7
88	4.811	34.740	23.204	466.39	0.359	1534.1		88.8
89	4.811	34.740	23.204	466.39	0.363	1534.1		89.9
90	4.811	34.740	23.204	466.39	0.367	1534.1		90.0
91	4.811	34.740	23.204	466.39	0.371	1534.1		91.1
92	4.811	34.740	23.204	466.39	0.375	1534.1		92.2
93	4.811	34.740	23.204	466.39	0.379	1534.1		93.3
94	4.811	34.740	23.204	466.39	0.383	1534.1		94.4
95	4.811	34.740	23.204	466.39	0.387	1534.1		95.5
96	4.811	34.740	23.204	466.39	0.391	1534.1		96.6
97	4.811	34.740	23.204	466.39	0.395	1534.1		97.7
98	4.811	34.740	23.204	466.39	0.399	1534.1		98.8
99	4.811	34.740	23.204	466.39	0.403	1534.1		99.9
100	4.811	34.740	23.204	466.39	0.407	1534.1		100.0



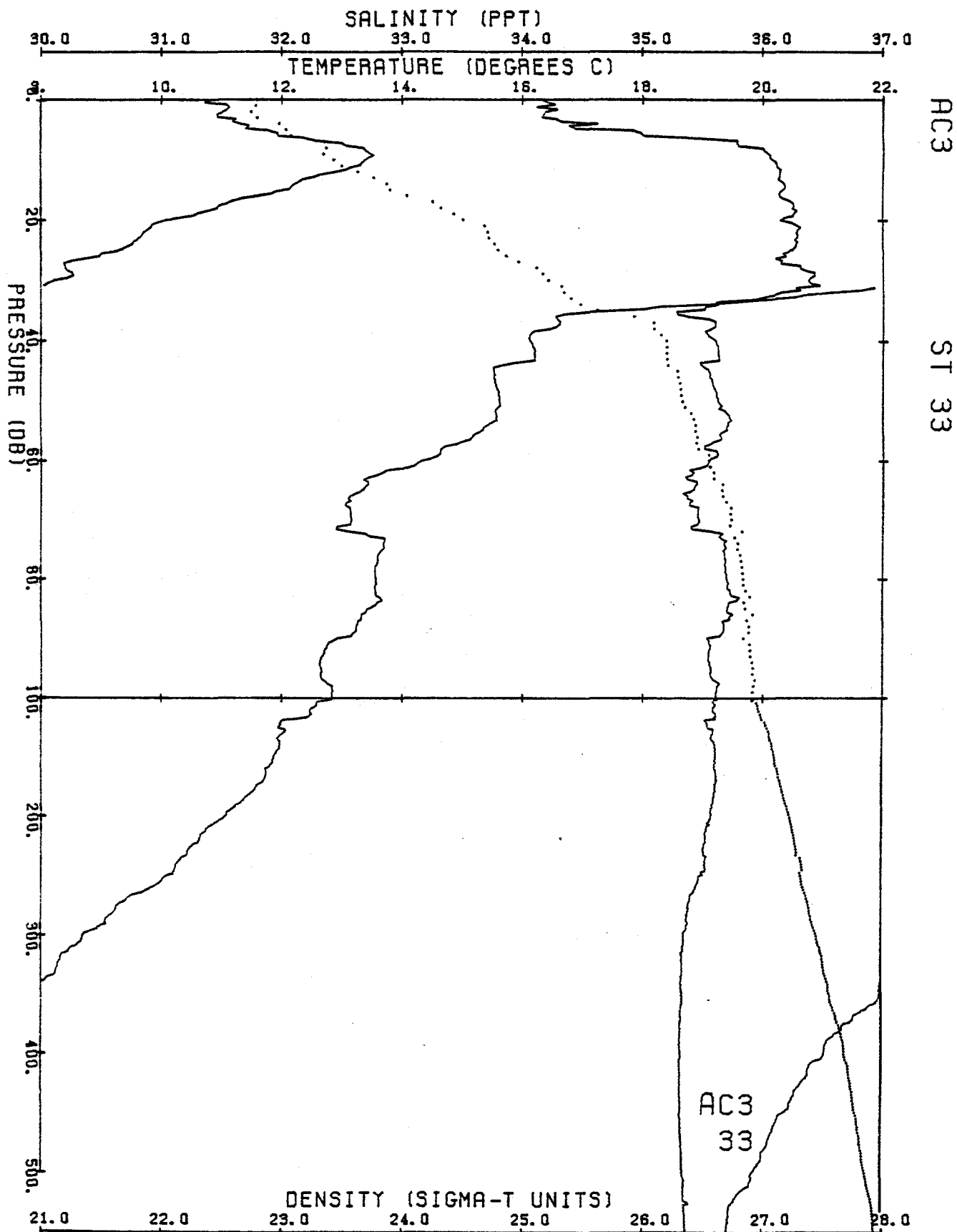
SHIP KN CRUISE ACE-3 STATION 32 CAST 1
 START 39 39 00 N 71 35 50 W AT 650 77/ 8/ 9
 POS. = LC STA. TYPE = DT
 WIND = 9 knots DIR = 250 DEPTH = 1442 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.000	34.350	2.151	471.05	0.000	1531.7	0.00	0.0
1	24.000	34.350	2.151	471.11	0.005	1531.7		0.0
2	24.000	34.350	2.151	471.17	0.010	1531.7		0.0
3	24.000	34.350	2.151	471.23	0.015	1531.7		0.0
4	24.000	34.350	2.151	471.29	0.020	1531.7		0.0
5	24.000	34.350	2.151	471.35	0.025	1531.7		0.0
6	24.000	34.350	2.151	471.41	0.030	1531.7		0.0
7	24.000	34.350	2.151	471.47	0.035	1531.7		0.0
8	24.000	34.350	2.151	471.53	0.040	1531.7		0.0
9	24.000	34.350	2.151	471.59	0.045	1531.7		0.0
10	24.000	34.350	2.151	471.65	0.050	1531.7		0.0
11	24.000	34.350	2.151	471.71	0.055	1531.7		0.0
12	24.000	34.350	2.151	471.77	0.060	1531.7		0.0
13	24.000	34.350	2.151	471.83	0.065	1531.7		0.0
14	24.000	34.350	2.151	471.89	0.070	1531.7		0.0
15	24.000	34.350	2.151	471.95	0.075	1531.7		0.0
16	24.000	34.350	2.151	472.01	0.080	1531.7		0.0
17	24.000	34.350	2.151	472.07	0.085	1531.7		0.0
18	24.000	34.350	2.151	472.13	0.090	1531.7		0.0
19	24.000	34.350	2.151	472.19	0.095	1531.7		0.0
20	24.000	34.350	2.151	472.25	0.100	1531.7		0.0
21	24.000	34.350	2.151	472.31	0.105	1531.7		0.0
22	24.000	34.350	2.151	472.37	0.110	1531.7		0.0
23	24.000	34.350	2.151	472.43	0.115	1531.7		0.0
24	24.000	34.350	2.151	472.49	0.120	1531.7		0.0
25	24.000	34.350	2.151	472.55	0.125	1531.7		0.0
26	24.000	34.350	2.151	472.61	0.130	1531.7		0.0
27	24.000	34.350	2.151	472.67	0.135	1531.7		0.0
28	24.000	34.350	2.151	472.73	0.140	1531.7		0.0
29	24.000	34.350	2.151	472.79	0.145	1531.7		0.0
30	24.000	34.350	2.151	472.85	0.150	1531.7		0.0
31	24.000	34.350	2.151	472.91	0.155	1531.7		0.0
32	24.000	34.350	2.151	472.97	0.160	1531.7		0.0
33	24.000	34.350	2.151	473.03	0.165	1531.7		0.0
34	24.000	34.350	2.151	473.09	0.170	1531.7		0.0
35	24.000	34.350	2.151	473.15	0.175	1531.7		0.0
36	24.000	34.350	2.151	473.21	0.180	1531.7		0.0
37	24.000	34.350	2.151	473.27	0.185	1531.7		0.0
38	24.000	34.350	2.151	473.33	0.190	1531.7		0.0
39	24.000	34.350	2.151	473.39	0.195	1531.7		0.0
40	24.000	34.350	2.151	473.45	0.200	1531.7		0.0
41	24.000	34.350	2.151	473.51	0.205	1531.7		0.0
42	24.000	34.350	2.151	473.57	0.210	1531.7		0.0
43	24.000	34.350	2.151	473.63	0.215	1531.7		0.0
44	24.000	34.350	2.151	473.69	0.220	1531.7		0.0
45	24.000	34.350	2.151	473.75	0.225	1531.7		0.0
46	24.000	34.350	2.151	473.81	0.230	1531.7		0.0
47	24.000	34.350	2.151	473.87	0.235	1531.7		0.0
48	24.000	34.350	2.151	473.93	0.240	1531.7		0.0
49	24.000	34.350	2.151	473.99	0.245	1531.7		0.0
50	24.000	34.350	2.151	474.05	0.250	1531.7		0.0
51	24.000	34.350	2.151	474.11	0.255	1531.7		0.0
52	24.000	34.350	2.151	474.17	0.260	1531.7		0.0
53	24.000	34.350	2.151	474.23	0.265	1531.7		0.0
54	24.000	34.350	2.151	474.29	0.270	1531.7		0.0
55	24.000	34.350	2.151	474.35	0.275	1531.7		0.0
56	24.000	34.350	2.151	474.41	0.280	1531.7		0.0
57	24.000	34.350	2.151	474.47	0.285	1531.7		0.0
58	24.000	34.350	2.151	474.53	0.290	1531.7		0.0
59	24.000	34.350	2.151	474.59	0.295	1531.7		0.0
60	24.000	34.350	2.151	474.65	0.300	1531.7		0.0
61	24.000	34.350	2.151	474.71	0.305	1531.7		0.0
62	24.000	34.350	2.151	474.77	0.310	1531.7		0.0
63	24.000	34.350	2.151	474.83	0.315	1531.7		0.0
64	24.000	34.350	2.151	474.89	0.320	1531.7		0.0
65	24.000	34.350	2.151	474.95	0.325	1531.7		0.0
66	24.000	34.350	2.151	475.01	0.330	1531.7		0.0
67	24.000	34.350	2.151	475.07	0.335	1531.7		0.0
68	24.000	34.350	2.151	475.13	0.340	1531.7		0.0
69	24.000	34.350	2.151	475.19	0.345	1531.7		0.0
70	24.000	34.350	2.151	475.25	0.350	1531.7		0.0
71	24.000	34.350	2.151	475.31	0.355	1531.7		0.0
72	24.000	34.350	2.151	475.37	0.360	1531.7		0.0
73	24.000	34.350	2.151	475.43	0.365	1531.7		0.0
74	24.000	34.350	2.151	475.49	0.370	1531.7		0.0
75	24.000	34.350	2.151	475.55	0.375	1531.7		0.0
76	24.000	34.350	2.151	475.61	0.380	1531.7		0.0
77	24.000	34.350	2.151	475.67	0.385	1531.7		0.0
78	24.000	34.350	2.151	475.73	0.390	1531.7		0.0
79	24.000	34.350	2.151	475.79	0.395	1531.7		0.0
80	24.000	34.350	2.151	475.85	0.400	1531.7		0.0
81	24.000	34.350	2.151	475.91	0.405	1531.7		0.0
82	24.000	34.350	2.151	475.97	0.410	1531.7		0.0
83	24.000	34.350	2.151	476.03	0.415	1531.7		0.0
84	24.000	34.350	2.151	476.09	0.420	1531.7		0.0
85	24.000	34.350	2.151	476.15	0.425	1531.7		0.0
86	24.000	34.350	2.151	476.21	0.430	1531.7		0.0
87	24.000	34.350	2.151	476.27	0.435	1531.7		0.0
88	24.000	34.350	2.151	476.33	0.440	1531.7		0.0
89	24.000	34.350	2.151	476.39	0.445	1531.7		0.0
90	24.000	34.350	2.151	476.45	0.450	1531.7		0.0
91	24.000	34.350	2.151	476.51	0.455	1531.7		0.0
92	24.000	34.350	2.151	476.57	0.460	1531.7		0.0
93	24.000	34.350	2.151	476.63	0.465	1531.7		0.0
94	24.000	34.350	2.151	476.69	0.470	1531.7		0.0
95	24.000	34.350	2.151	476.75	0.475	1531.7		0.0
96	24.000	34.350	2.151	476.81	0.480	1531.7		0.0
97	24.000	34.350	2.151	476.87	0.485	1531.7		0.0
98	24.000	34.350	2.151	476.93	0.490	1531.7		0.0
99	24.000	34.350	2.151	476.99	0.495	1531.7		0.0
100	24.000	34.350	2.151	477.05	0.500	1531.7		0.0

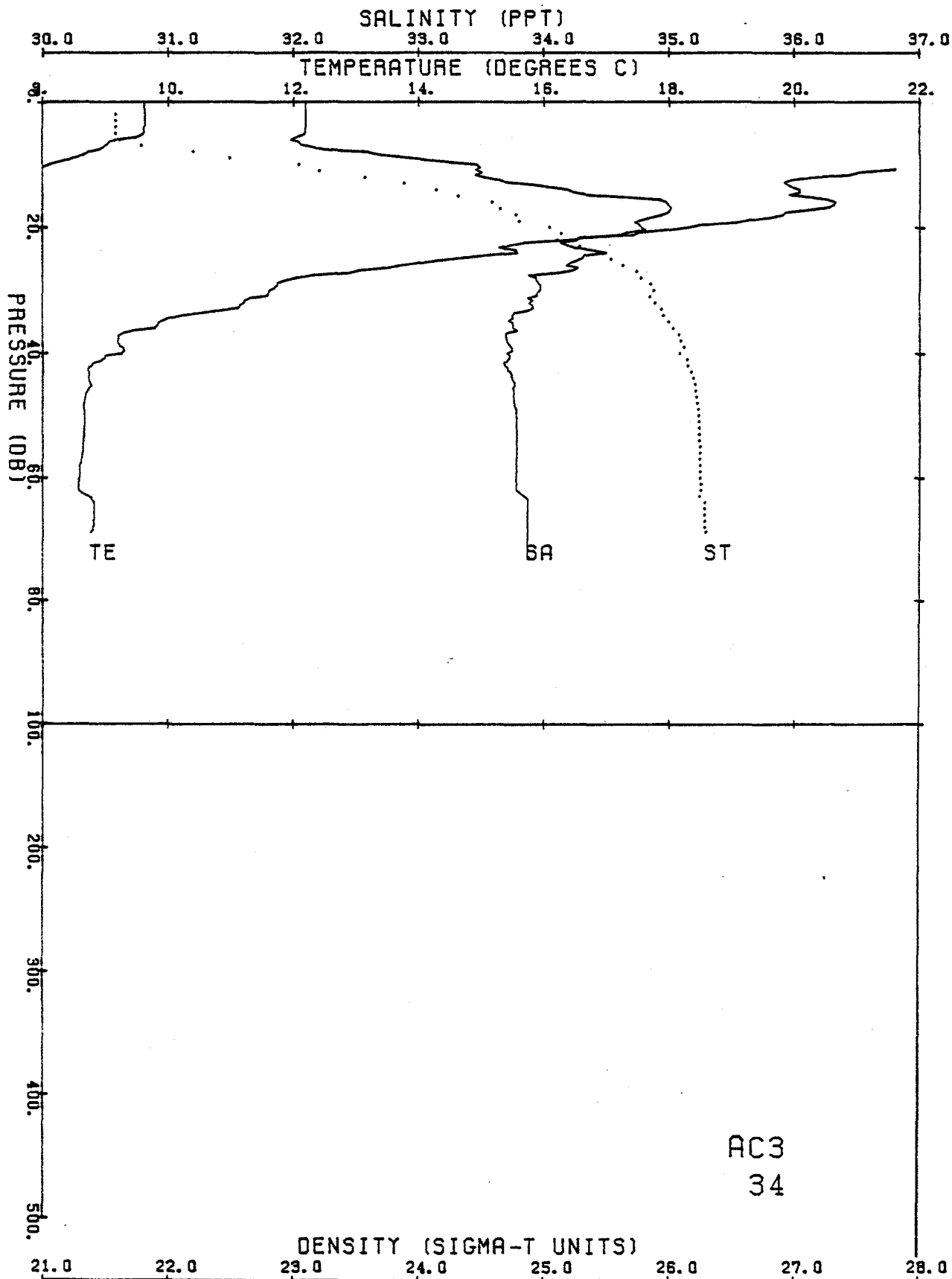


SHIP KN CRUISE ACE-3 STATION 33 CAST 1
 START 39 33.40 N 71 30.30 W AT 1117 77/ 8/ 9
 POS. = LC STA. TYPE = DT
 WIND = 5 knots DIR = 240 DEPTH = 1025 meters

DE	TE	SA	ST	AN	HZ	VE	3V	PR
0	787	34.166	32.777	506.81	0.000	1533.4	0.00	0.0
1	101	34.192	22.702	514.003	0.003	1533.4		1.1
2	012	34.186	22.725	511.888	0.010	1533.4		2.2
3	099	34.250	22.746	509.888	0.016	1533.4		3.3
4	278	34.413	22.814	503.400	0.020	1533.4		4.4
5	381	34.573	22.905	494.888	0.023	1533.4		5.5
6	437	34.013	22.065	479.888	0.030	1533.4	4.34	6.6
7	775	33.791	22.388	448.76	0.035	1533.4		7.7
8	366	33.007	22.361	451.36	0.039	1541.4		8.8
9	188	33.040	22.336	452.75	0.044	1541.4		9.9
10	381	33.091	22.419	449.888	0.048	1541.4	8.71	10.10
11	441	33.126	22.491	439.09	0.053	1541.4		11.11
12	823	33.154	22.646	424.31	0.057	1541.4		12.12
13	773	33.157	22.758	413.69	0.061	1541.4		13.13
14	100	33.190	22.888	403.24	0.065	1541.4		14.14
15	866	33.175	22.939	400.63	0.069	1541.4	8.37	15.15
16	885	33.153	22.935	387.64	0.073	1541.4		16.16
17	127	33.253	22.931	366.75	0.077	1541.4		17.17
18	915	33.232	22.920	359.97	0.081	1541.4		18.18
19	064	33.166	22.907	342.47	0.084	1541.4	9.49	19.19
20	888	33.307	22.654	325.70	0.091	1541.4		20.20
21	712	33.300	22.713	322.92	0.094	1541.4		21.21
22	433	33.332	22.723	322.06	0.098	1541.4		22.22
23	243	33.333	22.785	316.22	0.101	1541.4		23.23
24	433	33.233	22.800	314.80	0.104	1541.4	6.49	24.24
25	889	33.199	22.877	307.17	0.107	1541.4		25.25
26	773	33.173	22.905	295.34	0.110	1541.4		26.26
27	345	33.353	22.932	283.33	0.113	1541.4		27.27
28	452	33.407	22.958	279.11	0.116	1541.4	7.95	28.28
29	044	33.444	22.950	273.14	0.119	1541.4		29.29
30	066	33.555	22.988	262.81	0.123	1541.4		30.30
31	600	33.951	22.973	250.99	0.126	1541.4		31.31
32	100	33.644	22.963	242.43	0.130	1541.4		32.32
33	900	33.712	22.988	238.41	0.133	1541.4	8.31	33.33
34	555	33.456	22.981	230.67	0.136	1541.4		34.34
35	383	33.641	22.997	191.56	0.139	1541.4		35.35
36	111	33.562	22.103	191.14	0.142	1541.4		36.36
37	153	33.653	22.175	184.31	0.145	1541.4	9.60	37.37
38	000	33.653	22.216	180.44	0.148	1541.4		38.38
39	232	33.654	22.214	180.37	0.150	1541.4		39.39
40	000	33.654	22.142	180.66	0.153	1541.4		40.40
41	443	33.622	22.142	187.94	0.156	1541.4		41.41
42	443	33.554	22.333	174.17	0.159	1541.4		42.42
43	443	33.608	22.333	170.64	0.161	1541.4	3.88	43.43
44	443	33.608	22.333	169.60	0.164	1541.4		44.44
45	609	33.609	22.333	169.27	0.166	1541.4		45.45
46	000	33.609	22.333	168.42	0.168	1541.4		46.46
47	000	33.609	22.333	168.00	0.169	1541.4		47.47
48	000	33.609	22.333	166.63	0.171	1541.4		48.48
49	000	33.609	22.333	166.91	0.173	1541.4		49.49
50	000	33.609	22.333	166.91	0.175	1541.4		50.50
51	000	33.609	22.333	166.91	0.177	1541.4		51.51
52	000	33.609	22.333	166.91	0.179	1541.4		52.52
53	000	33.609	22.333	166.91	0.181	1541.4		53.53
54	000	33.609	22.333	166.91	0.183	1541.4		54.54
55	000	33.609	22.333	166.91	0.185	1541.4		55.55
56	000	33.609	22.333	166.91	0.187	1541.4		56.56
57	000	33.609	22.333	166.91	0.189	1541.4		57.57
58	000	33.609	22.333	166.91	0.191	1541.4		58.58
59	000	33.609	22.333	166.91	0.193	1541.4		59.59
60	000	33.609	22.333	166.91	0.195	1541.4		60.60
61	000	33.609	22.333	166.91	0.197	1541.4		61.61
62	000	33.609	22.333	166.91	0.199	1541.4		62.62
63	000	33.609	22.333	166.91	0.201	1541.4		63.63
64	000	33.609	22.333	166.91	0.203	1541.4		64.64
65	000	33.609	22.333	166.91	0.205	1541.4		65.65
66	000	33.609	22.333	166.91	0.207	1541.4		66.66
67	000	33.609	22.333	166.91	0.209	1541.4		67.67
68	000	33.609	22.333	166.91	0.211	1541.4		68.68
69	000	33.609	22.333	166.91	0.213	1541.4		69.69
70	000	33.609	22.333	166.91	0.215	1541.4		70.70
71	000	33.609	22.333	166.91	0.217	1541.4		71.71
72	000	33.609	22.333	166.91	0.219	1541.4		72.72
73	000	33.609	22.333	166.91	0.221	1541.4		73.73
74	000	33.609	22.333	166.91	0.223	1541.4		74.74
75	000	33.609	22.333	166.91	0.225	1541.4		75.75
76	000	33.609	22.333	166.91	0.227	1541.4		76.76
77	000	33.609	22.333	166.91	0.229	1541.4		77.77
78	000	33.609	22.333	166.91	0.231	1541.4		78.78
79	000	33.609	22.333	166.91	0.233	1541.4		79.79
80	000	33.609	22.333	166.91	0.235	1541.4		80.80
81	000	33.609	22.333	166.91	0.237	1541.4		81.81
82	000	33.609	22.333	166.91	0.239	1541.4		82.82
83	000	33.609	22.333	166.91	0.241	1541.4		83.83
84	000	33.609	22.333	166.91	0.243	1541.4		84.84
85	000	33.609	22.333	166.91	0.245	1541.4		85.85
86	000	33.609	22.333	166.91	0.247	1541.4		86.86
87	000	33.609	22.333	166.91	0.249	1541.4		87.87
88	000	33.609	22.333	166.91	0.251	1541.4		88.88
89	000	33.609	22.333	166.91	0.253	1541.4		89.89
90	000	33.609	22.333	166.91	0.255	1541.4		90.90
91	000	33.609	22.333	166.91	0.257	1541.4		91.91
92	000	33.609	22.333	166.91	0.259	1541.4		92.92
93	000	33.609	22.333	166.91	0.261	1541.4		93.93
94	000	33.609	22.333	166.91	0.263	1541.4		94.94
95	000	33.609	22.333	166.91	0.265	1541.4		95.95
96	000	33.609	22.333	166.91	0.267	1541.4		96.96
97	000	33.609	22.333	166.91	0.269	1541.4		97.97
98	000	33.609	22.333	166.91	0.271	1541.4		98.98
99	000	33.609	22.333	166.91	0.273	1541.4		99.99
100	000	33.609	22.333	166.91	0.275	1541.4		100.100

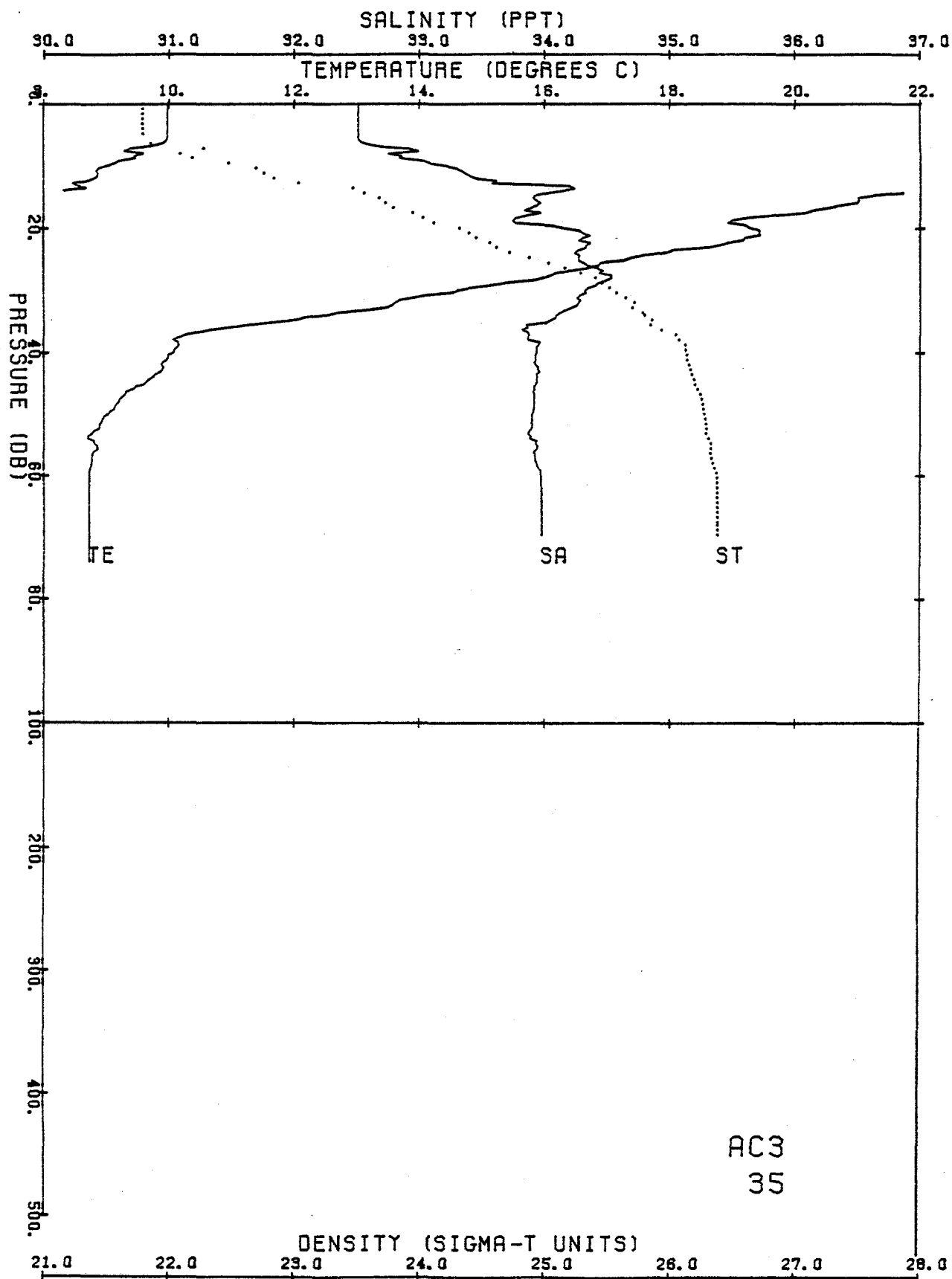






SHIP KN CRUISE ACE-3 STATION 35 CAST 1
 START 40 9 50 N 72 70 W AT 1253 77/ 8/10
 POS. = LC STA. TYPE = DT
 WIND = 15 knots DIR = 160 DEPTH = 71 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	9988	9988	9988	9988	9988	9988	9988	9988
1	9988	9988	9988	9988	9988	9988	9988	9988
2	9988	9988	9988	9988	9988	9988	9988	9988
3	9988	9988	9988	9988	9988	9988	9988	9988
4	9988	9988	9988	9988	9988	9988	9988	9988
5	9988	9988	9988	9988	9988	9988	9988	9988
6	9988	9988	9988	9988	9988	9988	9988	9988
7	9988	9988	9988	9988	9988	9988	9988	9988
8	9988	9988	9988	9988	9988	9988	9988	9988
9	9988	9988	9988	9988	9988	9988	9988	9988
10	9988	9988	9988	9988	9988	9988	9988	9988
11	9988	9988	9988	9988	9988	9988	9988	9988
12	9988	9988	9988	9988	9988	9988	9988	9988
13	9988	9988	9988	9988	9988	9988	9988	9988
14	9988	9988	9988	9988	9988	9988	9988	9988
15	9988	9988	9988	9988	9988	9988	9988	9988
16	9988	9988	9988	9988	9988	9988	9988	9988
17	9988	9988	9988	9988	9988	9988	9988	9988
18	9988	9988	9988	9988	9988	9988	9988	9988
19	9988	9988	9988	9988	9988	9988	9988	9988
20	9988	9988	9988	9988	9988	9988	9988	9988
21	9988	9988	9988	9988	9988	9988	9988	9988
22	9988	9988	9988	9988	9988	9988	9988	9988
23	9988	9988	9988	9988	9988	9988	9988	9988
24	9988	9988	9988	9988	9988	9988	9988	9988
25	9988	9988	9988	9988	9988	9988	9988	9988
26	9988	9988	9988	9988	9988	9988	9988	9988
27	9988	9988	9988	9988	9988	9988	9988	9988
28	9988	9988	9988	9988	9988	9988	9988	9988
29	9988	9988	9988	9988	9988	9988	9988	9988
30	9988	9988	9988	9988	9988	9988	9988	9988
31	9988	9988	9988	9988	9988	9988	9988	9988
32	9988	9988	9988	9988	9988	9988	9988	9988
33	9988	9988	9988	9988	9988	9988	9988	9988
34	9988	9988	9988	9988	9988	9988	9988	9988
35	9988	9988	9988	9988	9988	9988	9988	9988
36	9988	9988	9988	9988	9988	9988	9988	9988
37	9988	9988	9988	9988	9988	9988	9988	9988
38	9988	9988	9988	9988	9988	9988	9988	9988
39	9988	9988	9988	9988	9988	9988	9988	9988
40	9988	9988	9988	9988	9988	9988	9988	9988
41	9988	9988	9988	9988	9988	9988	9988	9988
42	9988	9988	9988	9988	9988	9988	9988	9988
43	9988	9988	9988	9988	9988	9988	9988	9988
44	9988	9988	9988	9988	9988	9988	9988	9988
45	9988	9988	9988	9988	9988	9988	9988	9988
46	9988	9988	9988	9988	9988	9988	9988	9988
47	9988	9988	9988	9988	9988	9988	9988	9988
48	9988	9988	9988	9988	9988	9988	9988	9988
49	9988	9988	9988	9988	9988	9988	9988	9988
50	9988	9988	9988	9988	9988	9988	9988	9988
51	9988	9988	9988	9988	9988	9988	9988	9988
52	9988	9988	9988	9988	9988	9988	9988	9988
53	9988	9988	9988	9988	9988	9988	9988	9988
54	9988	9988	9988	9988	9988	9988	9988	9988
55	9988	9988	9988	9988	9988	9988	9988	9988
56	9988	9988	9988	9988	9988	9988	9988	9988
57	9988	9988	9988	9988	9988	9988	9988	9988
58	9988	9988	9988	9988	9988	9988	9988	9988
59	9988	9988	9988	9988	9988	9988	9988	9988
60	9988	9988	9988	9988	9988	9988	9988	9988
61	9988	9988	9988	9988	9988	9988	9988	9988
62	9988	9988	9988	9988	9988	9988	9988	9988
63	9988	9988	9988	9988	9988	9988	9988	9988
64	9988	9988	9988	9988	9988	9988	9988	9988
65	9988	9988	9988	9988	9988	9988	9988	9988
66	9988	9988	9988	9988	9988	9988	9988	9988
67	9988	9988	9988	9988	9988	9988	9988	9988
68	9988	9988	9988	9988	9988	9988	9988	9988
69	9988	9988	9988	9988	9988	9988	9988	9988
70	9988	9988	9988	9988	9988	9988	9988	9988

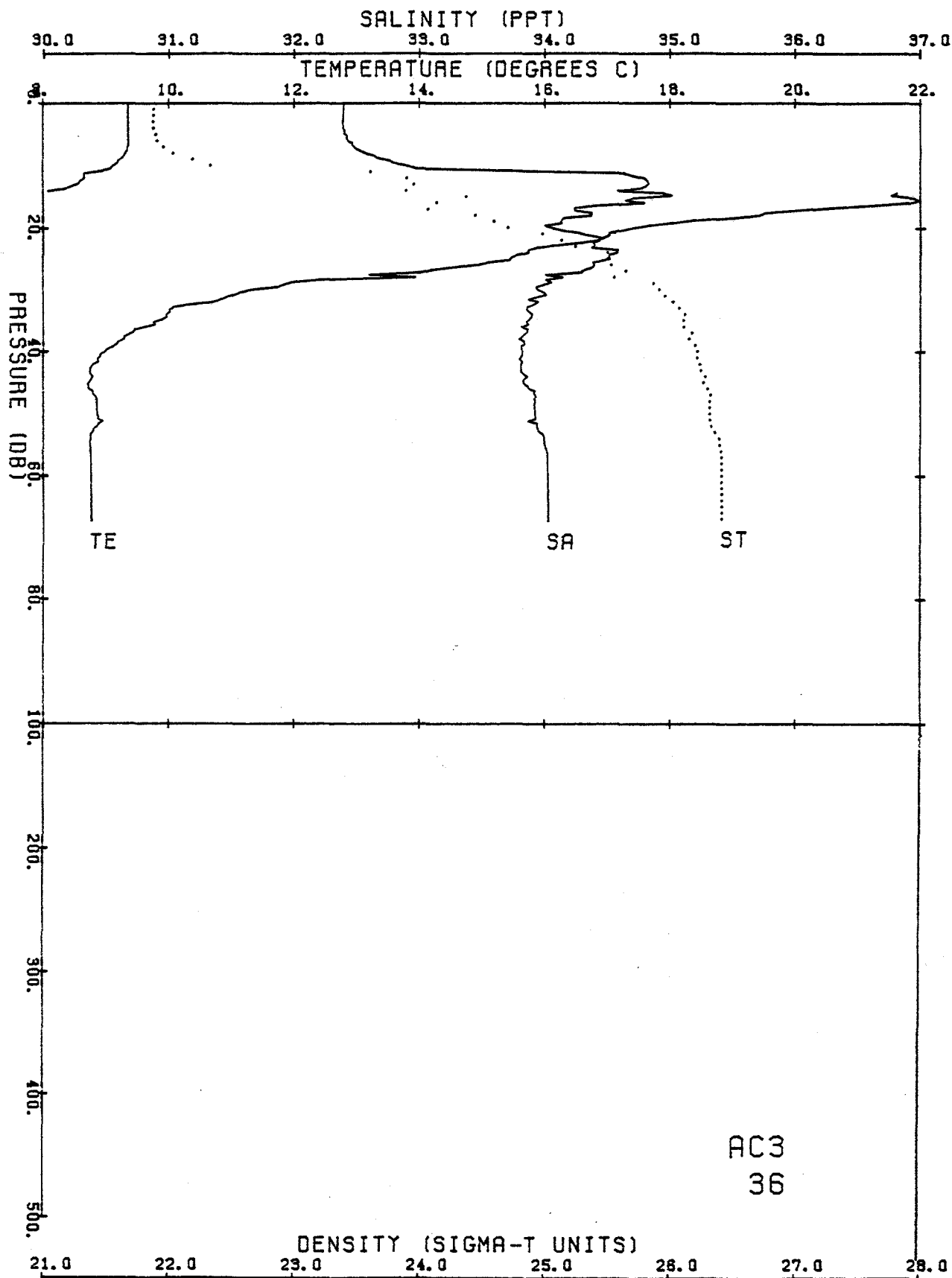


AC3
ST 35

AC3
35

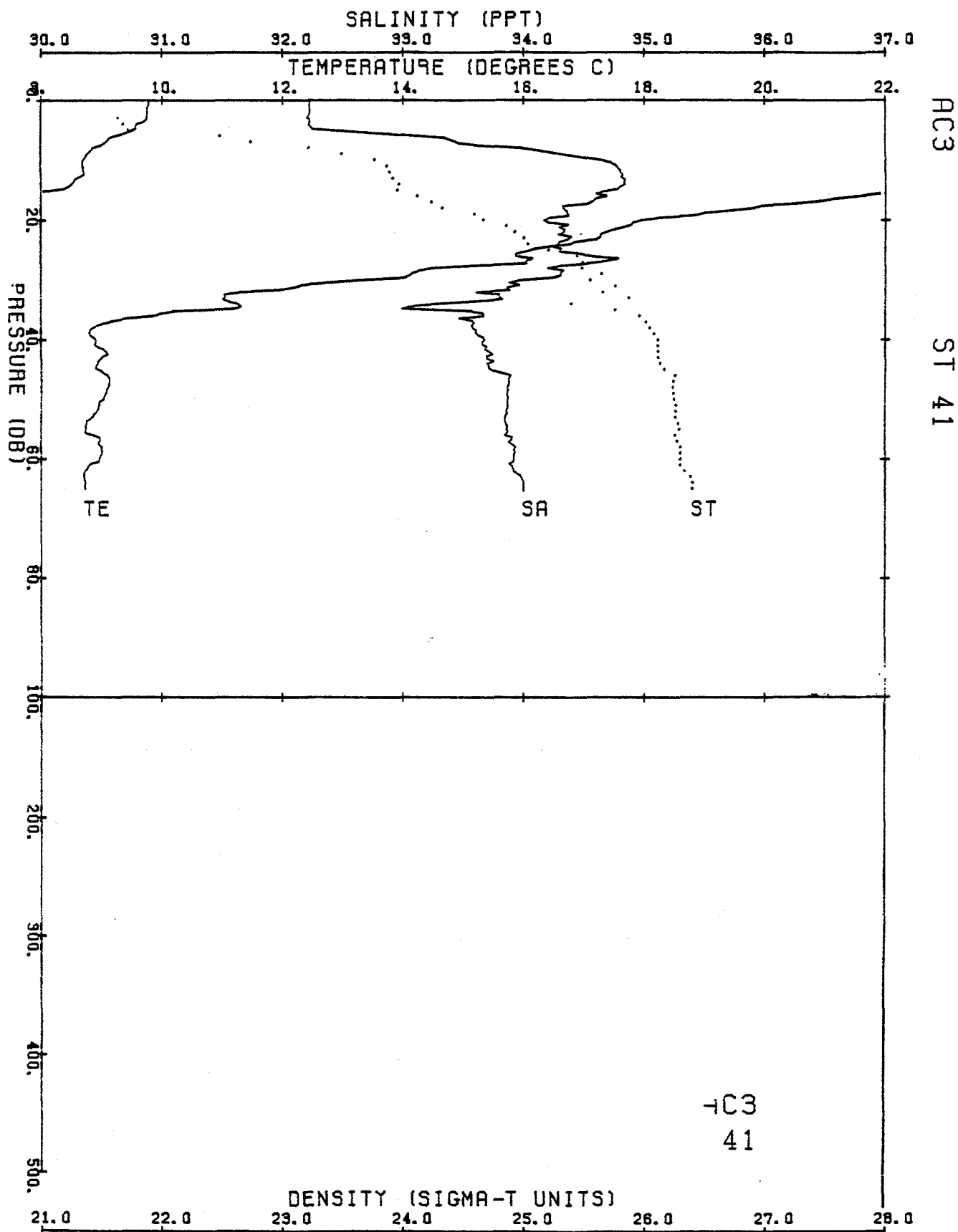
SHIP KN CRUISE ACE-3 STATION 35 CAST 1
 START 40 9.29 N 72.10 W AT 1913 77/ 8/10
 POS. = LC STA. TYPE = DT
 WIND = 12 knots DIR = 205 DEPTH = 68 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	0000	0000	0000	0000	0.000	1527.9	0.00	0.00
1	0000	0000	0000	0000	0.006	1527.7		0.00
2	0000	0000	0000	0000	0.012	1527.7		0.00
3	0000	0000	0000	0000	0.018	1527.7		0.00
4	0000	0000	0000	0000	0.023	1527.9		0.00
5	0000	0000	0000	0000	0.029	1528.0	1.67	5.1
6	0000	0000	0000	0000	0.035	1528.0		0.00
7	0000	0000	0000	0000	0.041	1528.0		0.00
8	0000	0000	0000	0000	0.046	1528.0		0.00
9	0000	0000	0000	0000	0.053	1528.0		0.00
10	0000	0000	0000	0000	0.058	1528.0	8.14	10.00
11	0000	0000	0000	0000	0.063	1528.0		0.00
12	0000	0000	0000	0000	0.067	1528.0		0.00
13	0000	0000	0000	0000	0.071	1528.0		0.00
14	0000	0000	0000	0000	0.075	1528.0		0.00
15	0000	0000	0000	0000	0.079	1528.0	16.63	15.00
16	0000	0000	0000	0000	0.082	1528.0		0.00
17	0000	0000	0000	0000	0.086	1528.0		0.00
18	0000	0000	0000	0000	0.090	1528.0		0.00
19	0000	0000	0000	0000	0.093	1528.0		0.00
20	0000	0000	0000	0000	0.097	1528.0	9.62	9.00
21	0000	0000	0000	0000	0.100	1528.0		0.00
22	0000	0000	0000	0000	0.103	1528.0		0.00
23	0000	0000	0000	0000	0.105	1528.0		0.00
24	0000	0000	0000	0000	0.108	1528.0	10.64	10.00
25	0000	0000	0000	0000	0.111	1528.0		0.00
26	0000	0000	0000	0000	0.113	1528.0		0.00
27	0000	0000	0000	0000	0.116	1528.0		0.00
28	0000	0000	0000	0000	0.118	1499.0		0.00
29	0000	0000	0000	0000	0.120	1499.0	9.15	9.00
30	0000	0000	0000	0000	0.122	1499.0		0.00
31	0000	0000	0000	0000	0.124	1499.0		0.00
32	0000	0000	0000	0000	0.126	1499.0		0.00
33	0000	0000	0000	0000	0.128	1499.0		0.00
34	0000	0000	0000	0000	0.130	1499.0	5.04	5.00
35	0000	0000	0000	0000	0.132	1499.0		0.00
36	0000	0000	0000	0000	0.134	1499.0		0.00
37	0000	0000	0000	0000	0.136	1499.0		0.00
38	0000	0000	0000	0000	0.138	1499.0		0.00
39	0000	0000	0000	0000	0.140	1499.0	4.07	4.00
40	0000	0000	0000	0000	0.141	1499.0		0.00
41	0000	0000	0000	0000	0.143	1499.0		0.00
42	0000	0000	0000	0000	0.145	1499.0		0.00
43	0000	0000	0000	0000	0.147	1499.0		0.00
44	0000	0000	0000	0000	0.149	1499.0	3.23	3.00
45	0000	0000	0000	0000	0.150	1499.0		0.00
46	0000	0000	0000	0000	0.152	1499.0		0.00
47	0000	0000	0000	0000	0.154	1499.0		0.00
48	0000	0000	0000	0000	0.155	1499.0		0.00
49	0000	0000	0000	0000	0.157	1499.0	2.07	2.00
50	0000	0000	0000	0000	0.159	1499.0		0.00
51	0000	0000	0000	0000	0.167	1499.0	3.51	3.00
52	0000	0000	0000	0000	0.175	1499.0	1.76	1.00
53	0000	0000	0000	0000	0.186	1499.0	8.84	8.00



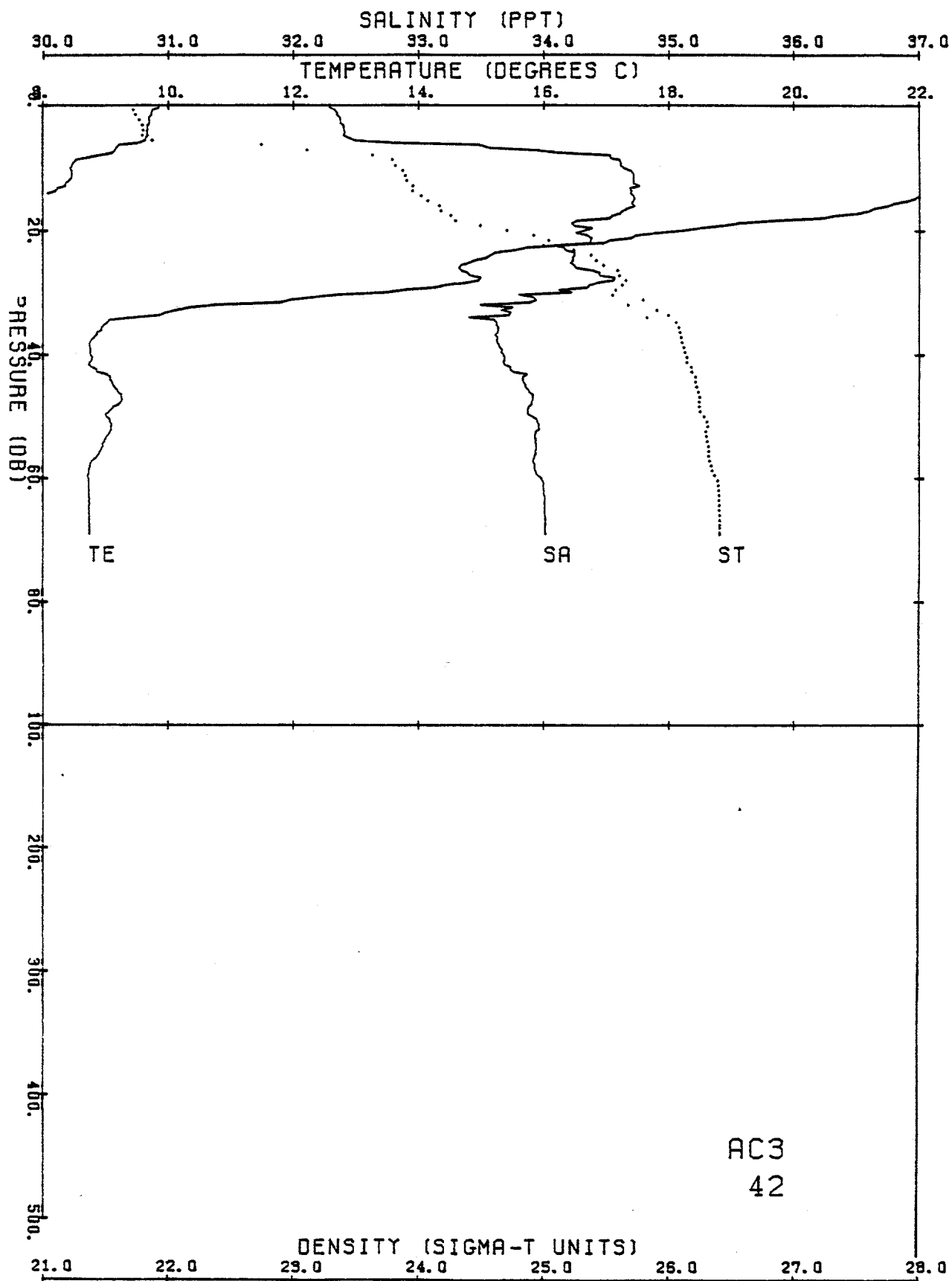
SHIP AN CRUISE ACE-3 STATION 41 CAST 1
 START 40 9.00 N 72 0.00 W AT 1216 77/ 8/11
 POS. = LC STA. TYPE = BT
 WIND = 3 knots DIR = 250 DEPTH = 66 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	780	3	1.606	618.92	0.000	15	0.00	0.00
1	780	3	1.606	618.97	0.006	15		1.1
2	780	3	1.614	618.21	0.121	15		1.1
3	780	3	1.616	618.01	0.121	15		1.1
4	780	3	1.614	618.40	0.121	15		1.1
5	780	3	1.614	618.40	0.121	15		1.1
6	780	3	1.614	618.40	0.121	15		1.1
7	780	3	1.614	618.40	0.121	15		1.1
8	780	3	1.614	618.40	0.121	15		1.1
9	780	3	1.614	618.40	0.121	15		1.1
10	780	3	1.614	618.40	0.121	15		1.1
11	780	3	1.614	618.40	0.121	15		1.1
12	780	3	1.614	618.40	0.121	15		1.1
13	780	3	1.614	618.40	0.121	15		1.1
14	780	3	1.614	618.40	0.121	15		1.1
15	780	3	1.614	618.40	0.121	15		1.1
16	780	3	1.614	618.40	0.121	15		1.1
17	780	3	1.614	618.40	0.121	15		1.1
18	780	3	1.614	618.40	0.121	15		1.1
19	780	3	1.614	618.40	0.121	15		1.1
20	780	3	1.614	618.40	0.121	15		1.1
21	780	3	1.614	618.40	0.121	15		1.1
22	780	3	1.614	618.40	0.121	15		1.1
23	780	3	1.614	618.40	0.121	15		1.1
24	780	3	1.614	618.40	0.121	15		1.1
25	780	3	1.614	618.40	0.121	15		1.1
26	780	3	1.614	618.40	0.121	15		1.1
27	780	3	1.614	618.40	0.121	15		1.1
28	780	3	1.614	618.40	0.121	15		1.1
29	780	3	1.614	618.40	0.121	15		1.1
30	780	3	1.614	618.40	0.121	15		1.1
31	780	3	1.614	618.40	0.121	15		1.1
32	780	3	1.614	618.40	0.121	15		1.1
33	780	3	1.614	618.40	0.121	15		1.1
34	780	3	1.614	618.40	0.121	15		1.1
35	780	3	1.614	618.40	0.121	15		1.1
36	780	3	1.614	618.40	0.121	15		1.1
37	780	3	1.614	618.40	0.121	15		1.1
38	780	3	1.614	618.40	0.121	15		1.1
39	780	3	1.614	618.40	0.121	15		1.1
40	780	3	1.614	618.40	0.121	15		1.1
41	780	3	1.614	618.40	0.121	15		1.1
42	780	3	1.614	618.40	0.121	15		1.1
43	780	3	1.614	618.40	0.121	15		1.1
44	780	3	1.614	618.40	0.121	15		1.1
45	780	3	1.614	618.40	0.121	15		1.1
46	780	3	1.614	618.40	0.121	15		1.1
47	780	3	1.614	618.40	0.121	15		1.1
48	780	3	1.614	618.40	0.121	15		1.1
49	780	3	1.614	618.40	0.121	15		1.1
50	780	3	1.614	618.40	0.121	15		1.1
51	780	3	1.614	618.40	0.121	15		1.1
52	780	3	1.614	618.40	0.121	15		1.1
53	780	3	1.614	618.40	0.121	15		1.1
54	780	3	1.614	618.40	0.121	15		1.1
55	780	3	1.614	618.40	0.121	15		1.1
56	780	3	1.614	618.40	0.121	15		1.1
57	780	3	1.614	618.40	0.121	15		1.1
58	780	3	1.614	618.40	0.121	15		1.1
59	780	3	1.614	618.40	0.121	15		1.1
60	780	3	1.614	618.40	0.121	15		1.1
61	780	3	1.614	618.40	0.121	15		1.1
62	780	3	1.614	618.40	0.121	15		1.1
63	780	3	1.614	618.40	0.121	15		1.1
64	780	3	1.614	618.40	0.121	15		1.1
65	780	3	1.614	618.40	0.121	15		1.1



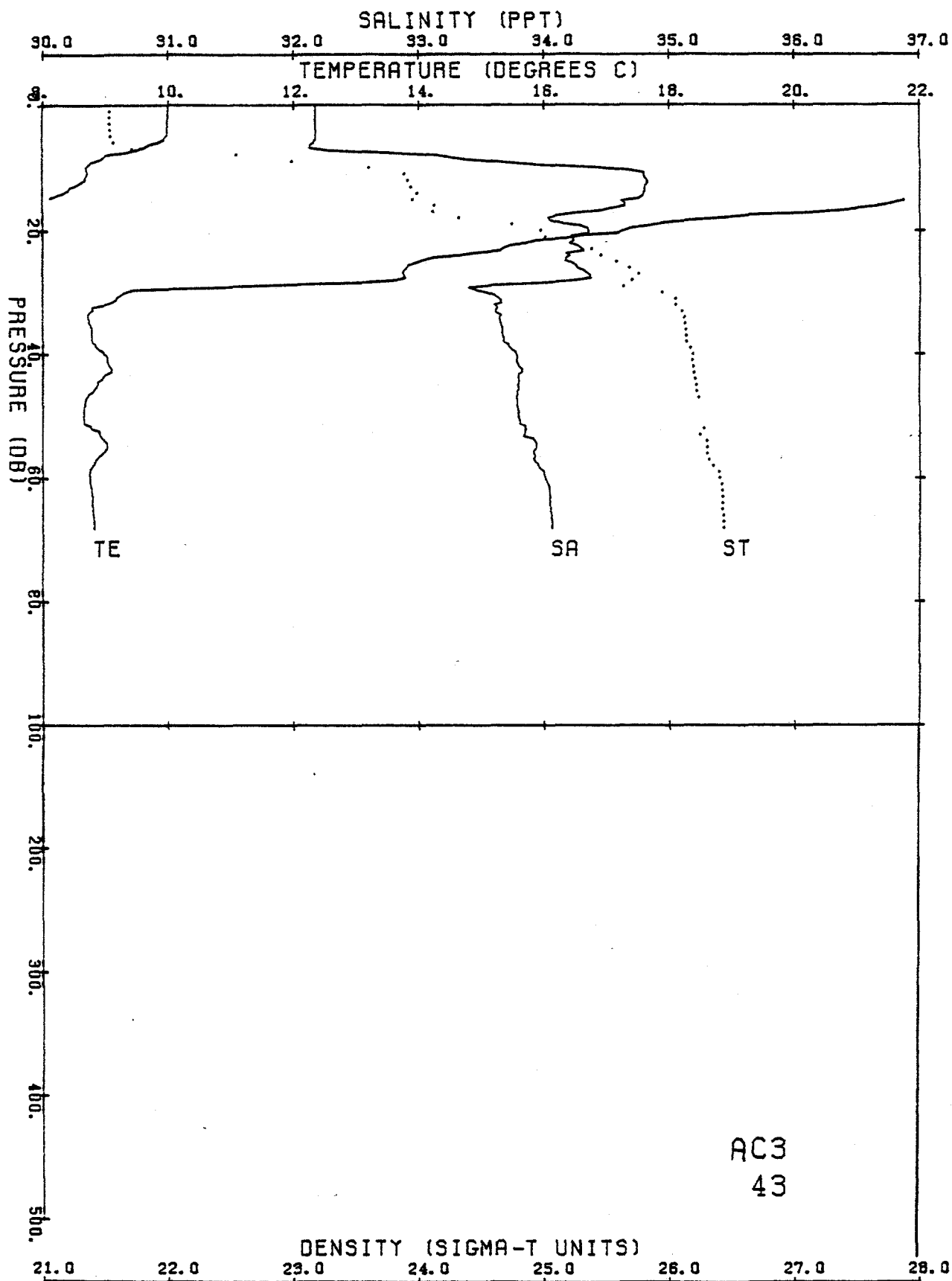
SHIP KN CRUISE ACE-3 STATION 42 CAST 1
 START 40 9.10 N 72.10 W AT 1607 77/ 8/11
 POS. = LC STA. TYPE = DT
 WIND = DIR = DEPTH = 70 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	00.851	00.000	01.636	616.04	0.000	1522.0	0.00	0.0
1	00.732	00.000	01.712	608.80	0.006	1522.0		1.00
2	00.691	00.000	01.749	605.23	0.012	1522.0		2.00
3	00.678	00.000	01.767	603.53	0.018	1522.0		3.00
4	00.279	00.000	01.814	503.40	0.024	1522.0		4.00
5	00.647	00.000	01.806	599.94	0.030	1522.0		5.00
6	00.505	00.000	01.799	569.69	0.035	1522.0	4.97	6.00
7	00.141	00.000	01.072	478.91	0.040	1522.0		7.00
8	00.903	00.000	01.638	424.91	0.045	1522.0		8.00
9	00.489	00.000	01.797	409.73	0.049	1522.0		9.00
10	00.430	00.000	01.832	406.43	0.053	1522.0	17.46	10.00
11	00.463	00.000	01.881	401.77	0.057	1522.0		11.00
12	00.408	00.000	01.939	400.13	0.061	1522.0		12.00
13	00.333	00.000	01.981	396.19	0.065	1522.0		13.00
14	00.080	00.000	01.973	393.11	0.069	1522.0		14.00
15	00.818	00.000	02.061	384.80	0.073	1522.0	5.80	15.00
16	00.11.492	00.000	02.160	375.38	0.077	1522.0		16.00
17	00.11.180	00.000	02.169	374.49	0.081	1522.0		17.00
18	00.00.461	00.000	02.288	362.24	0.084	1522.0		18.00
19	00.11.908	00.000	02.452	347.61	0.088	1518.0		19.00
20	00.18.242	00.000	02.704	332.87	0.091	1516.0	9.73	20.00
21	00.17.399	00.000	02.955	323.75	0.094	1514.0		21.00
22	00.16.954	00.000	03.060	308.74	0.097	1513.0		22.00
23	00.15.630	00.000	03.223	292.73	0.100	1508.0		23.00
24	00.15.102	00.000	03.385	275.84	0.103	1507.0		24.00
25	00.14.801	00.000	03.514	254.62	0.106	1506.0	10.21	25.00
26	00.14.625	00.000	03.514	246.64	0.108	1505.0		26.00
27	00.14.822	00.000	03.474	237.95	0.110	1506.0		27.00
28	00.14.382	00.000	03.514	226.36	0.113	1506.0		28.00
29	00.14.269	00.000	03.433	213.47	0.115	1504.0		29.00
30	00.13.082	00.000	03.123	192.99	0.118	1500.0	6.22	30.00
31	00.11.940	00.000	02.968	179.49	0.120	1496.0		31.00
32	00.10.640	00.000	02.741	162.32	0.122	1491.0		32.00
33	00.9.955	00.000	02.000	140.38	0.124	1489.0		33.00
34	00.9.174	00.000	01.936	126.41	0.126	1486.0		34.00
35	00.8.966	00.000	01.076	103.06	0.128	1483.0	7.46	35.00
36	00.8.917	00.000	00.833	93.50	0.130	1485.0		36.00
37	00.8.806	00.000	01.108	80.06	0.132	1484.0		37.00
38	00.8.732	00.000	01.129	68.47	0.134	1484.0		38.00
39	00.8.757	00.000	01.146	58.52	0.136	1484.0		39.00
40	00.8.773	00.000	01.161	48.13	0.138	1484.0	3.51	40.00
41	00.8.738	00.000	01.160	38.23	0.140	1484.0		41.00
42	00.8.790	00.000	01.188	28.66	0.142	1483.0		42.00
43	00.9.068	00.000	01.231	17.58	0.143	1486.0		43.00
44	00.9.101	00.000	01.231	7.53	0.145	1486.0		44.00
45	00.9.163	00.000	01.242	177.37	0.147	1486.0	3.40	45.00
46	00.9.250	00.000	01.266	175.31	0.149	1487.0		46.00
47	00.9.251	00.000	01.266	175.98	0.151	1487.0		47.00
48	00.9.119	00.000	01.266	175.72	0.152	1486.0		48.00
49	00.9.038	00.000	01.266	174.13	0.154	1486.0		49.00
50	00.9.058	00.000	01.323	169.80	0.156	1486.0	3.48	50.00
51	00.9.928	00.000	01.343	168.09	0.158	1486.0		51.00
52	00.9.724	00.000	01.423	160.66	0.160	1485.0	3.24	52.00
53	00.9.736	00.000	01.435	159.54	0.181	1485.0	1.37	53.00
54	00.9.744	00.000	01.444	158.78	0.186	1485.0		54.00



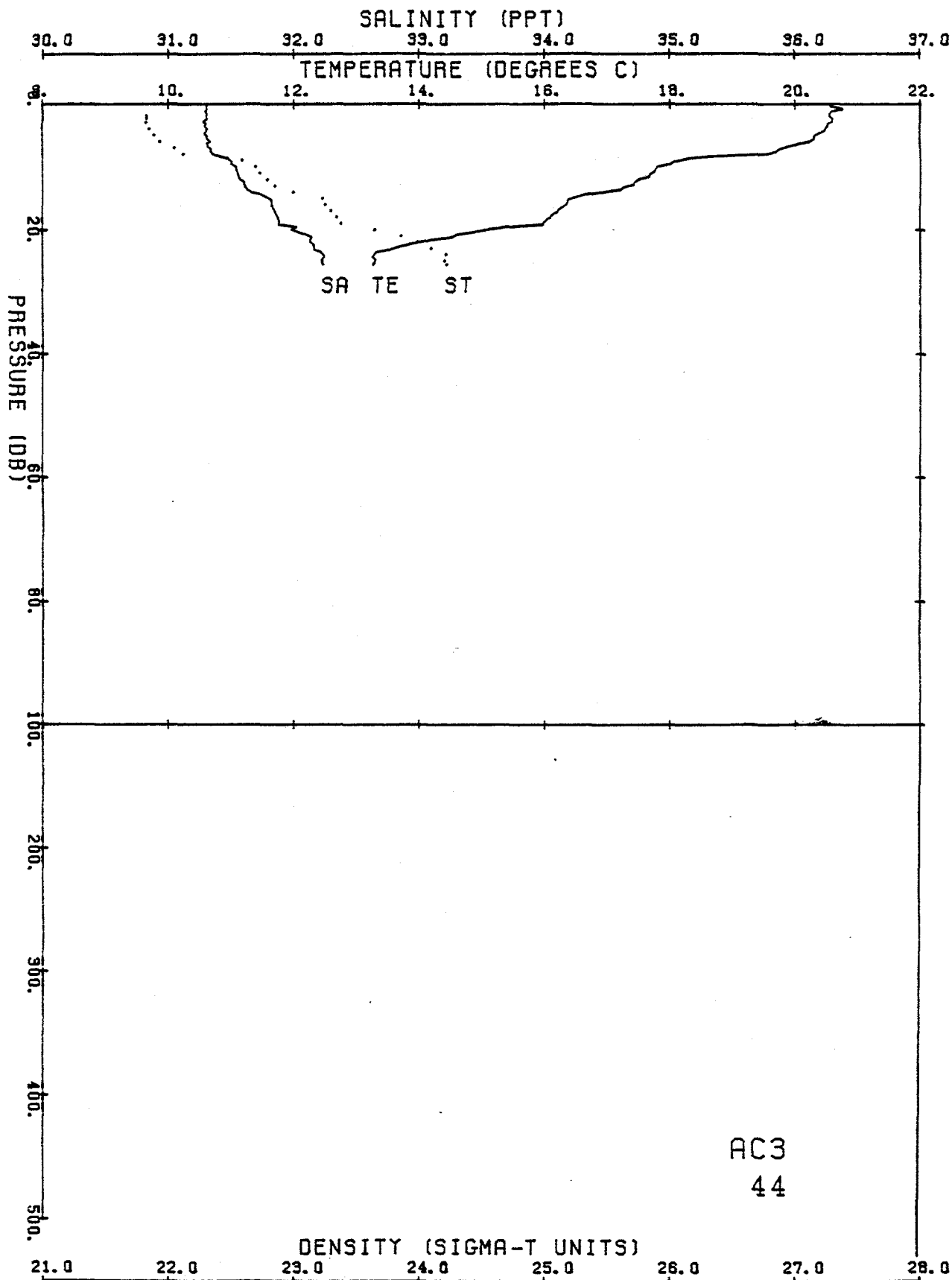
SHIP KN CRUISE ACE-3 STATION 43 CAST 1
 START 40 9.10 N 72.10 W AT 2033 77/ 9/11
 POS. = LC STA. TYPE = DT
 WIND = 8 knots DIR = 220 DEPTH = 59 meters

DE	TE	SA	ST	AN	HZ	VE	BV	FR
0	994	175	31.508	628.29	0.000	1529	0.00	0.00
1	994	175	31.508	628.29	0.006	1529		1.00
2	994	175	31.508	628.29	0.013	1529		2.00
3	994	175	31.508	628.29	0.019	1529		3.00
4	994	175	31.508	628.29	0.025	1529		4.00
5	994	175	31.508	628.29	0.031	1529	1.54	5.00
6	994	175	31.508	628.29	0.036	1529		6.00
7	994	175	31.508	628.29	0.043	1529		7.00
8	994	175	31.508	628.29	0.048	1529		8.00
9	994	175	31.508	628.29	0.053	1529		9.00
10	994	175	31.508	628.29	0.058	1529	17.65	10.00
11	994	175	31.508	628.29	0.063	1529		11.00
12	994	175	31.508	628.29	0.066	1529		12.00
13	994	175	31.508	628.29	0.070	1529		13.00
14	994	175	31.508	628.29	0.074	1529		14.00
15	994	175	31.508	628.29	0.078	1529	7.19	15.00
16	994	175	31.508	628.29	0.082	1529		16.00
17	994	175	31.508	628.29	0.086	1529		17.00
18	994	175	31.508	628.29	0.090	1529		18.00
19	994	175	31.508	628.29	0.093	1529		19.00
20	994	175	31.508	628.29	0.096	1529	12.30	20.00
21	994	175	31.508	628.29	0.099	1529		21.00
22	994	175	31.508	628.29	0.102	1529		22.00
23	994	175	31.508	628.29	0.104	1529		23.00
24	994	175	31.508	628.29	0.107	1529		24.00
25	994	175	31.508	628.29	0.110	1529	9.66	25.00
26	994	175	31.508	628.29	0.112	1529		26.00
27	994	175	31.508	628.29	0.114	1529		27.00
28	994	175	31.508	628.29	0.116	1529		28.00
29	994	175	31.508	628.29	0.119	1529		29.00
30	994	175	31.508	628.29	0.121	1529	7.29	30.00
31	994	175	31.508	628.29	0.123	1529		31.00
32	994	175	31.508	628.29	0.125	1529		32.00
33	994	175	31.508	628.29	0.127	1529		33.00
34	994	175	31.508	628.29	0.129	1529		34.00
35	994	175	31.508	628.29	0.131	1529	4.63	35.00
36	994	175	31.508	628.29	0.133	1529		36.00
37	994	175	31.508	628.29	0.135	1529		37.00
38	994	175	31.508	628.29	0.136	1529		38.00
39	994	175	31.508	628.29	0.138	1529		39.00
40	994	175	31.508	628.29	0.140	1529	3.15	40.00
41	994	175	31.508	628.29	0.142	1529		41.00
42	994	175	31.508	628.29	0.144	1529		42.00
43	994	175	31.508	628.29	0.146	1529		43.00
44	994	175	31.508	628.29	0.147	1529		44.00
45	994	175	31.508	628.29	0.149	1529	2.23	45.00
46	994	175	31.508	628.29	0.151	1529		46.00
47	994	175	31.508	628.29	0.153	1529		47.00
48	994	175	31.508	628.29	0.155	1529		48.00
49	994	175	31.508	628.29	0.156	1529		49.00
50	994	175	31.508	628.29	0.158	1529	2.37	50.00
51	994	175	31.508	628.29	0.166	1529	4.64	51.00
52	994	175	31.508	628.29	0.175	1529		52.00
53	994	175	31.508	628.29	0.183	1529	1.85	53.00
54	994	175	31.508	628.29	0.187	1529		54.00



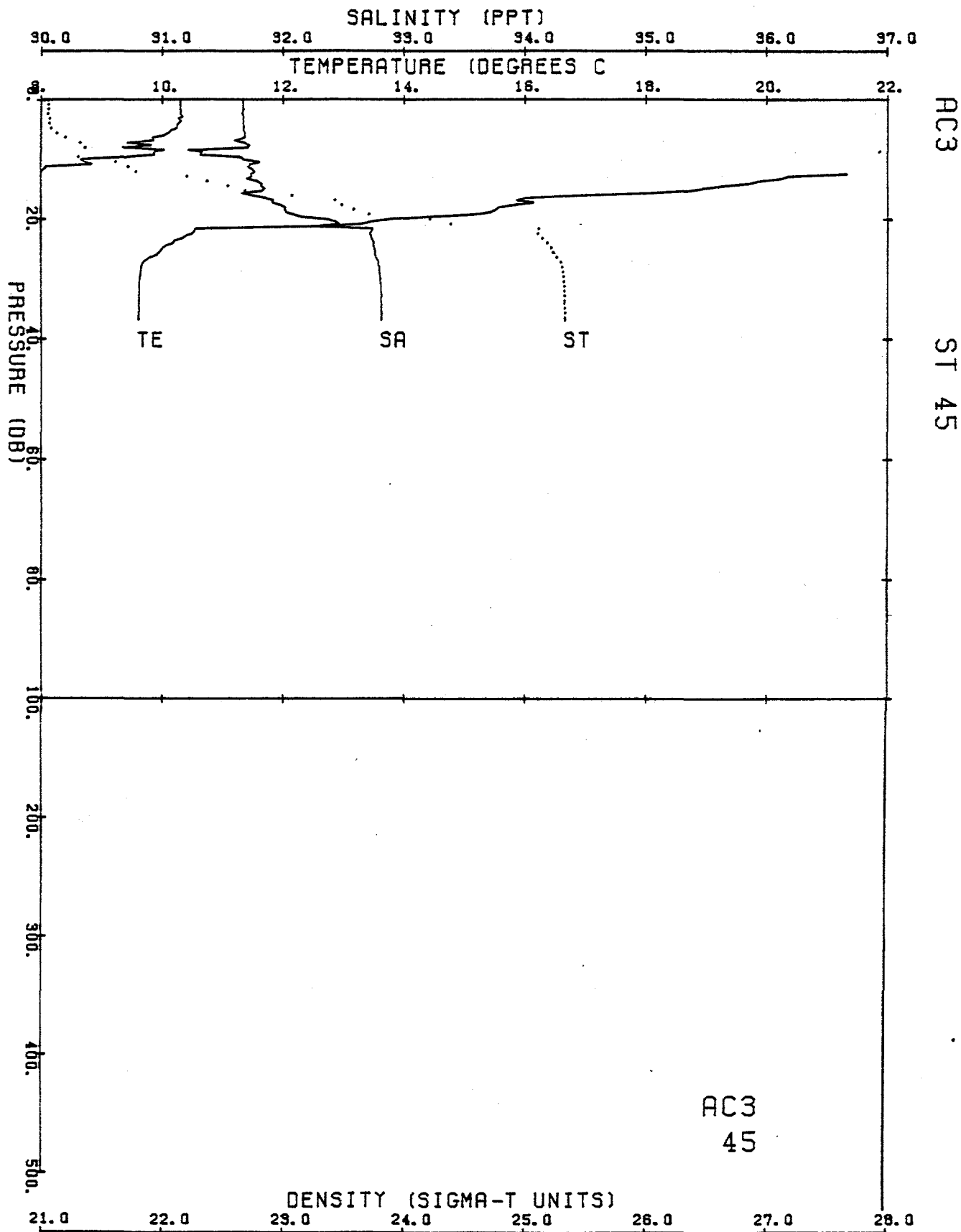
SHIP KN CRUISE ACE-3 STATION 44 CAST 1
 START 40 45.50 N 72 31.10 W AT 1315 77/ 8/12
 POS. = LC STA. TYPE = DT
 WIND = 13 knots DIR = 220 DEPTH = 27 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	20.583	31.304	21.795	600.31	0.000	1519.4	0.00	0.0
1	20.578	31.300	21.793	600.99	.006	1519.4		1.0
2	20.557	31.304	21.802	600.20	.012	1519.4		2.0
3	20.532	31.309	21.798	600.61	.018	1519.3		3.0
4	20.278	31.412	22.814	503.40	.024	1534.9		4.0
5	20.308	31.312	21.872	593.54	.030	1518.8	3.36	5.1
6	20.309	31.339	21.913	589.63	.035	1518.6		6.0
7	19.799	31.326	22.032	578.34	.041	1517.4		7.0
8	19.558	31.322	22.104	571.45	.046	1516.8		8.0
9	18.123	31.310	22.573	526.59	.052	1512.8		9.0
10	17.799	31.348	22.680	516.39	.057	1512.0	11.04	10.0
11	17.710	31.366	22.715	513.08	.062	1511.7		11.0
12	17.520	31.388	22.773	507.23	.067	1511.1		12.0
13	17.385	31.426	22.837	501.42	.072	1510.9		13.0
14	16.922	31.476	22.984	437.44	.077	1509.5		14.0
15	16.395	31.521	23.16	465.30	.082	1509.1	8.69	15.0
16	16.242	31.537	23.240	463.03	.087	1508.0		16.0
17	16.206	31.564	23.291	458.14	.091	1507.6		17.0
18	16.096	31.591	23.337	453.80	.096	1507.1		18.0
19	15.996	31.608	23.372	450.47	.101	1507.1		19.0
20	15.061	31.601	23.642	424.68	.105	1504.3	7.93	20.0
21	14.565	31.609	23.833	404.98	.109	1502.8		21.0
22	14.017	31.636	23.987	391.79	.113	1501.1		22.0
23	13.627	31.690	24.093	381.71	.117	1499.8		23.0
24	13.323	31.755	24.210	370.56	.121	1498.8		24.1
25	13.203	31.800	24.206	370.95	.125	1498.8	9.02	25.1
26	13.548	31.74	24.46	300.50	.126	1501.0		25.6



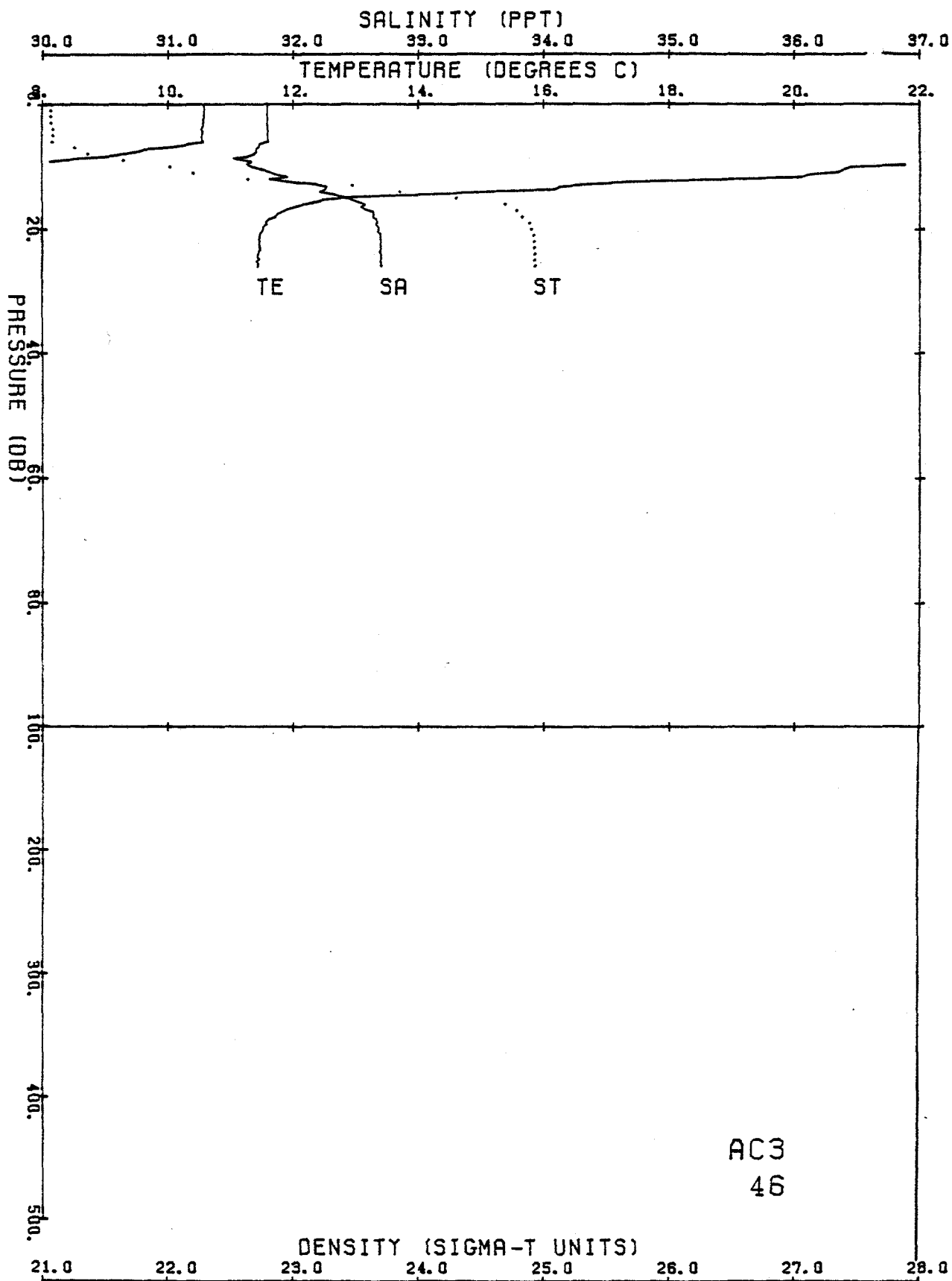
SHIP KN CRUISE ACE-3 STATION 45 CAST 1
 START 39 41.90 N 73 34.40 W AT 1149 77/ 8/14
 PCS. = LC STA. TYPE = DT
 WIND = 15 knots DIR = 220 DEPTH = 38 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.299	31.667	31.034	673.71	0.000	1529.4	0.00	0.00
1	24.299	31.666	31.034	673.76	.007	1529.4		0.00
2	24.305	31.664	31.031	674.13	.013	1529.5		0.00
3	24.347	31.671	31.023	674.84	.020	1529.6		0.00
4	24.278	31.412	31.814	503.40	.026	1534.9		0.00
5	24.144	31.674	31.085	668.99	.033	1529.1	2.73	0.00
6	24.012	31.685	31.132	664.49	.039	1528.8		0.00
7	23.737	31.684	31.166	661.28	.045	1528.1		0.00
8	23.733	31.473	31.053	672.23	.052	1527.9		0.00
9	23.520	31.572	31.189	659.14	.059	1527.5		0.00
10	23.648	31.685	31.323	627.20	.065	1525.5	8.14	0.00
11	23.542	31.731	31.337	621.09	.071	1525.3		0.00
12	23.006	31.776	31.770	603.60	.077	1524.0		0.00
13	20.198	31.738	31.825	559.99	.083	1519.1		0.00
14	19.712	31.824	31.484	540.97	.089	1517.9		0.00
15	19.878	31.828	31.630	521.28	.094	1515.5	12.80	0.00
16	16.860	31.761	31.064	479.28	.099	1509.9		0.00
17	15.770	31.006	31.458	438.40	.104	1506.4		0.00
18	15.565	31.024	31.564	432.08	.108	1505.8		0.00
19	15.410	31.048	31.609	427.51	.112	1505.4		0.00
20	13.796	31.386	31.210	370.51	.116	1500.6	15.26	0.00
21	10.476	31.476	31.353	354.06	.120	1499.0		0.00
22	10.328	31.755	31.100	284.73	.123	1489.9		0.00
23	10.378	31.749	31.132	282.69	.126	1489.9		0.00
24	10.114	31.772	31.194	276.74	.129	1488.8		0.00
25	9.982	31.784	31.266	273.78	.132	1487.9	12.09	0.00
26	9.949	31.793	31.271	271.07	.134	1487.7		0.00
27	9.949	31.800	31.277	266.78	.137	1486.6		0.00
28	9.949	31.806	31.112	265.58	.140	1486.6		0.00
29	9.949	31.800	31.112	265.10	.142	1486.6		0.00
30	9.949	31.808	31.275	264.37	.145	1486.7	3.86	0.00
31	9.949	31.819	31.284	264.04	.147	1486.7		0.00
32	9.949	31.817	31.284	263.62	.150	1486.7		0.00
33	9.949	31.818	31.284	263.61	.153	1486.8		0.00
34	9.949	31.800	31.287	263.37	.156	1486.6		0.00
35	9.949	31.819	31.286	263.42	.158	1486.6	1.25	0.00
36	9.949	31.809	31.286	263.17	.161	1486.6		0.00
37	9.949	31.808	31.241	263.04	.163	1486.6		0.00



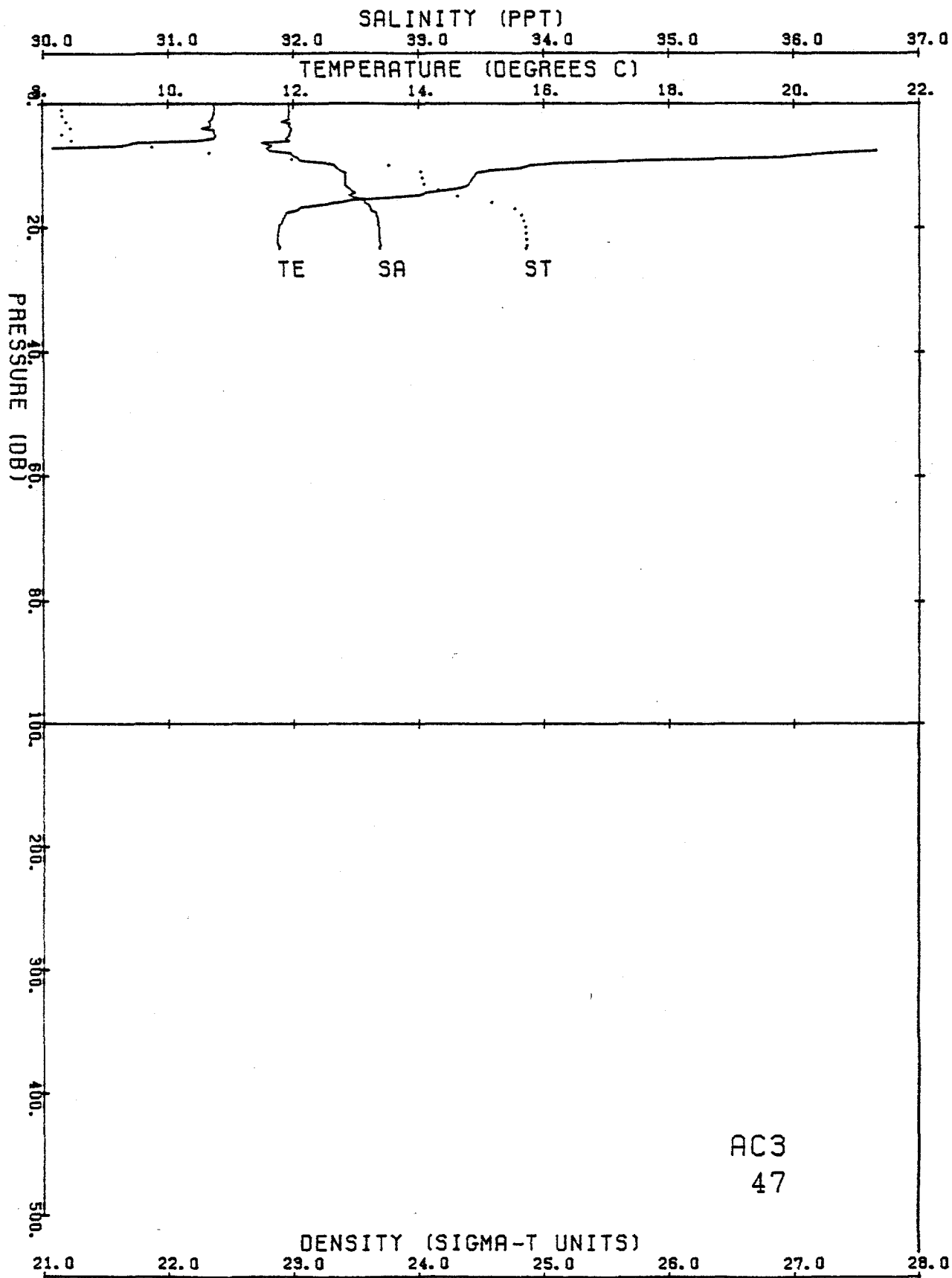
SHIP KN CRUISE ACE-3 STATION 46 CAST 1
 START 39 42.90 N 73 40.90 W AT 1329 77/ 8/14
 POS. = LC STA. TYPE = DT
 WIND = 20 knots DIR = 210 DEPTH = 28 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	3	5	31.795	672.05	0.000	1530.00	0.00	0.00
1	3	5	31.795	672.05	0.007	1530.00		1.00
2	3	5	31.795	672.05	0.013	1530.00		2.00
3	3	5	31.795	672.05	0.020	1530.00		3.00
4	3	5	31.795	672.05	0.026	1530.00		4.00
5	3	5	31.795	672.05	0.033	1530.00		5.00
6	3	5	31.795	672.05	0.039	1530.00	1.46	6.00
7	3	5	31.795	672.05	0.045	1530.00		7.00
8	3	5	31.795	672.05	0.052	1530.00		8.00
9	3	5	31.795	672.05	0.058	1530.00		9.00
10	3	5	31.795	672.05	0.064	1530.00	11.88	10.00
11	3	5	31.795	672.05	0.070	1530.00		11.00
12	3	5	31.795	672.05	0.075	1530.00		12.00
13	3	5	31.795	672.05	0.080	1530.00		13.00
14	3	5	31.795	672.05	0.084	1530.00		14.00
15	3	5	31.795	672.05	0.088	1497.66	18.59	15.00
16	3	5	31.795	672.05	0.091	1495.00		16.00
17	3	5	31.795	672.05	0.095	1494.00		17.00
18	3	5	31.795	672.05	0.098	1493.00		18.00
19	3	5	31.795	672.05	0.101	1493.00		19.00
20	3	5	31.795	672.05	0.104	1493.00	9.43	20.00
21	3	5	31.795	672.05	0.107	1493.00		21.00
22	3	5	31.795	672.05	0.110	1493.00		22.00
23	3	5	31.795	672.05	0.113	1493.00		23.00
24	3	5	31.795	672.05	0.116	1493.00		24.00
25	3	5	31.795	672.05	0.119	1493.00	2.13	25.00
26	3	5	31.795	672.05	0.122	1493.00		26.00
27	3	5	31.795	672.05	0.122	1493.00		27.00



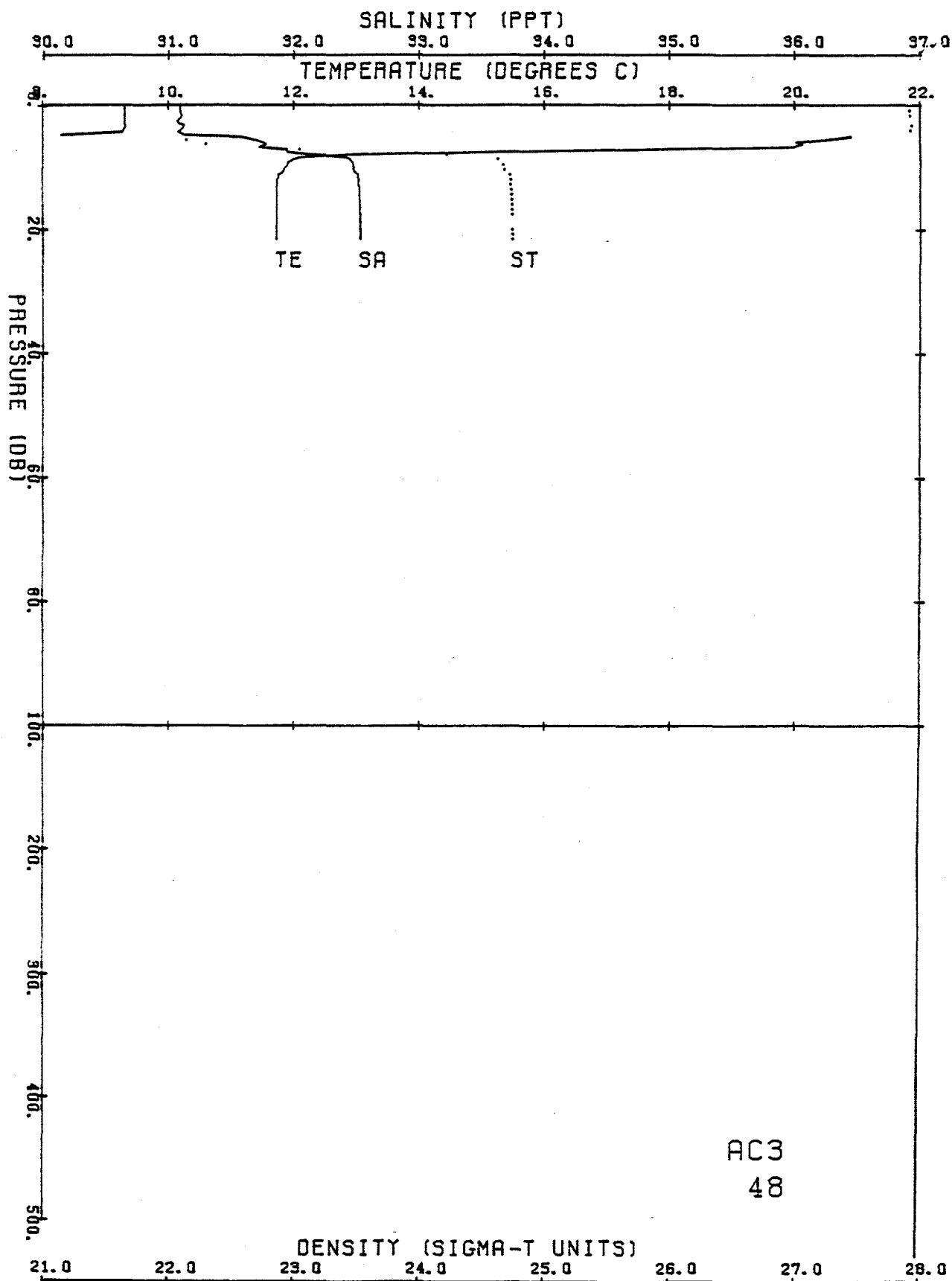
SHIP KN CRUISE ACE-3 STATION 47 CAST 1
 START 39 45.20 N 73 50.90 W AT 1443 77/ 8/14
 POS. = LC STA. TYPE = BT
 WIND = 21 knots DIR = 200 DEPTH = 25 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	024	738	01.962	21.130	664.47	0.000	1530.8	0.00
1	024	738	01.962	21.127	664.79	0.007	1530.8	1.00
2	024	716	01.962	21.134	664.21	0.013	1530.8	2.00
3	024	647	01.977	21.166	661.15	0.020	1530.7	3.00
4	024	678	01.412	22.814	503.40	0.026	1534.9	4.00
5	024	769	01.970	21.126	665.11	0.032	1531.0	5.1
6	024	476	01.973	21.214	656.69	0.038	1530.3	6.00
7	024	704	01.815	21.605	619.21	0.044	1525.7	7.00
8	024	590	01.989	22.313	551.40	0.050	1520.4	8.00
9	024	669	01.111	22.472	488.45	0.056	1514.4	9.00
10	024	789	01.339	23.749	414.23	0.060	1506.8	10.00
11	024	936	01.435	24.002	390.13	0.064	1504.2	11.00
12	024	867	01.436	24.018	388.68	0.068	1504.2	12.00
13	024	798	01.426	24.032	387.34	0.072	1503.7	13.00
14	024	441	01.475	24.146	376.48	0.076	1502.7	14.00
15	024	869	01.524	24.302	361.62	0.079	1500.9	15.00
16	024	730	01.587	24.577	335.41	0.083	1497.2	16.00
17	024	032	01.657	24.764	317.60	0.086	1494.9	17.00
18	024	697	01.685	24.816	312.65	0.089	1494.4	18.00
19	024	826	01.698	24.834	310.94	0.092	1494.0	19.00
20	024	768	01.710	24.854	309.07	0.095	1494.1	20.00
21	024	755	01.710	24.857	308.84	0.099	1494.1	21.00
22	024	751	01.715	24.862	308.42	0.102	1494.1	22.00
23	024	790	01.730	24.866	308.00	0.105	1494.2	23.00
24	024	777	01.716	24.857	308.84	0.106	1494.2	24.00



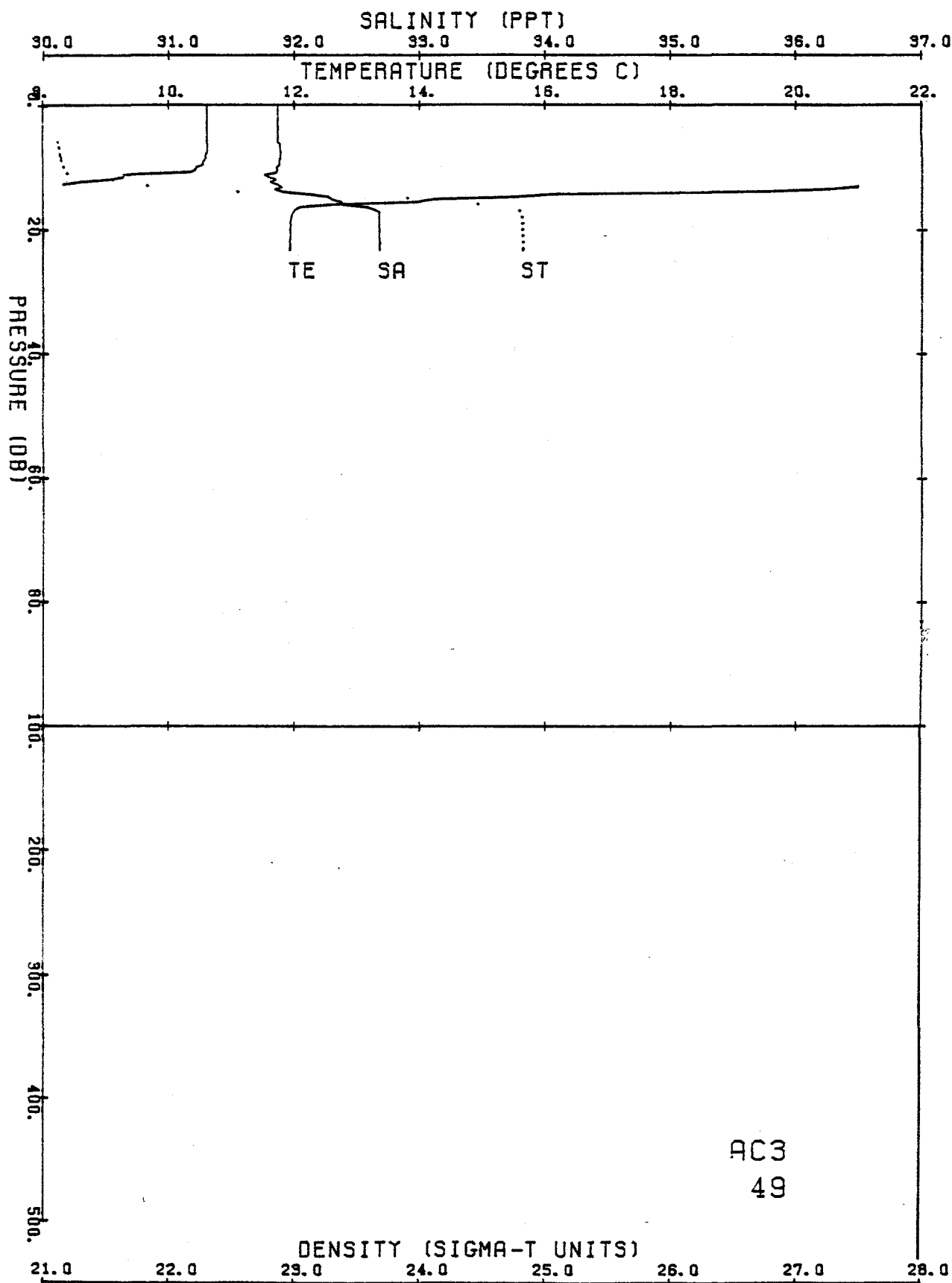
SHIP AN CRUISE ACE-3 STATION 48 CAST 1
 START 39 46.20 N 73 58.90 W AT 1621 77/ 8/14
 POS = LC STA. TYPE = DT
 WIND = 10 knots DIR = 210 DEPTH = 23 meters

DE	TE	SA	ST	AN	HZ	VE	SV	PR
0	23.306	31.099	20.893	687.29	0.000	15326.3	0.00	0.0
1	23.306	31.098	20.892	687.25	.007	15326.3		1.00
2	23.307	31.100	20.894	687.26	.014	15326.4		2.00
3	23.305	31.082	20.880	688.58	.021	15326.4		3.00
4	23.3078	31.412	22.814	503.40	.027	15326.9		4.00
5	20.889	31.586	21.928	588.20	.033	15200.7	12.26	5.1
6	20.010	31.757	22.289	553.68	.038	1518.5		6.00
7	18.683	31.944	22.767	507.97	.043	1519.0		7.00
8	12.928	32.153	24.203	370.89	.047	1497.2		8.00
9	11.928	32.471	24.540	329.26	.051	1494.4		9.00
10	11.862	32.489	24.665	326.85	.054	1494.4	20.29	10.00
11	11.780	32.520	24.705	323.10	.057	1493.8		11.00
12	11.736	32.534	24.724	321.33	.061	1493.6		12.00
13	11.738	32.532	24.722	321.54	.064	1493.7		13.00
14	11.731	32.541	24.730	320.73	.067	1493.7		14.00
15	11.730	32.543	24.732	320.63	.070	1493.7	3.12	15.00
16	11.729	32.546	24.733	320.38	.074	1493.7		16.00
17	11.729	32.547	24.735	320.36	.077	1493.7		17.00
18	11.729	32.551	24.738	320.06	.080	1493.7		18.00
19	11.729	32.552	24.739	320.04	.083	1493.8		19.00
20	11.726	32.554	24.741	319.84	.086	1493.8	1.18	20.00
21	11.726	32.555	24.742	319.75	.090	1493.8		21.00
22	11.723	32.554	24.742	319.32	.091	1493.8		22.6



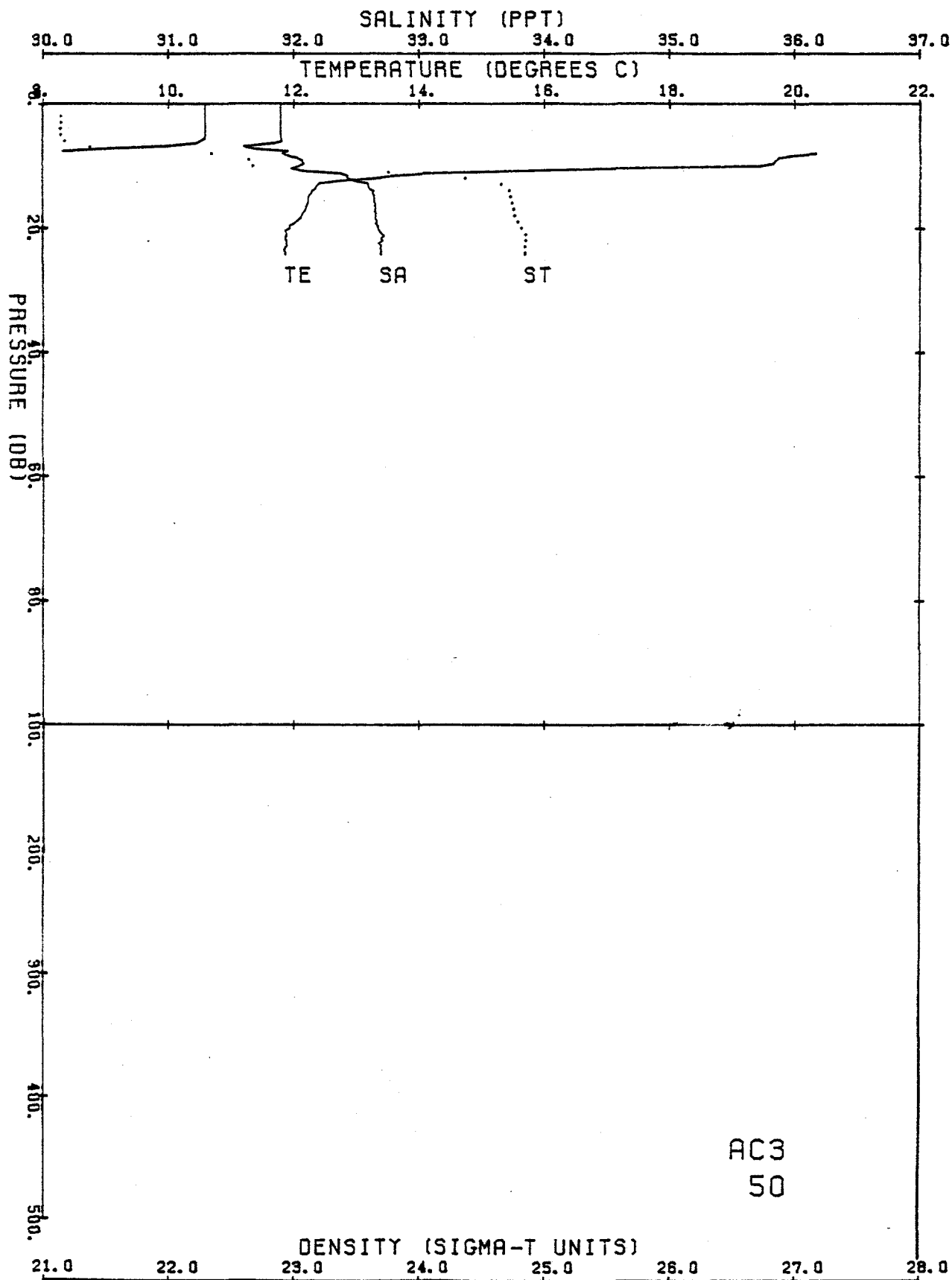
SHIP KN CRUISE ACE-3 STATION 49 CAST 1
 START 39 46.30 N 73 46.10 W AT 2020 77/ 8/14
 PGS. = LC STA. TYPE = DT
 WIND = 12 knots DIR = 210 DEPTH = 25 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.612	31.849	31.095	667.90	0.000	1530.4	0.00	0.0
1	24.611	31.849	31.095	667.93	.007	1530.4		1.0
2	24.610	31.849	31.097	667.72	.013	1530.4		2.0
3	24.612	31.873	31.097	667.75	.020	1530.5		3.0
4	24.612	31.873	31.097	667.75	.026	1534.9		4.0
5	24.615	31.873	31.099	667.72	.032	1530.5	.77	5.1
6	24.614	31.876	31.099	667.70	.038	1530.5		6.0
7	24.620	31.894	31.111	667.58	.045	1530.6		7.0
8	24.601	31.898	31.120	669.76	.052	1530.5		8.0
9	24.552	31.888	31.127	665.17	.058	1530.4		9.0
10	24.439	31.868	31.145	663.43	.065	1530.3	2.66	10.0
11	24.280	31.846	31.175	660.57	.072	1530.3		11.0
12	24.048	31.860	31.342	625.41	.078	1525.7		12.0
13	21.842	31.774	31.813	599.45	.084	1523.5		13.0
14	19.529	31.923	32.336	530.29	.090	1517.5		14.0
15	15.128	32.338	33.994	400.35	.094	1504.8	20.15	15.0
16	12.812	32.999	34.455	347.07	.098	1495.6		16.0
17	11.935	32.680	34.789	315.19	.101	1494.8		17.0
18	11.951	32.696	34.810	313.26	.105	1494.7		18.0
19	11.933	32.698	34.815	312.83	.108	1494.6		19.0
20	11.936	32.701	34.816	312.70	.111	1494.7	11.64	20.0
21	11.930	32.702	34.818	312.64	.114	1494.7		21.0
22	11.936	32.708	34.824	312.05	.117	1494.7		22.0
23	11.936	32.705	34.821	312.95	.120	1494.7		23.0
24	11.931	32.704	34.820	312.45	.121	1494.7		24.0



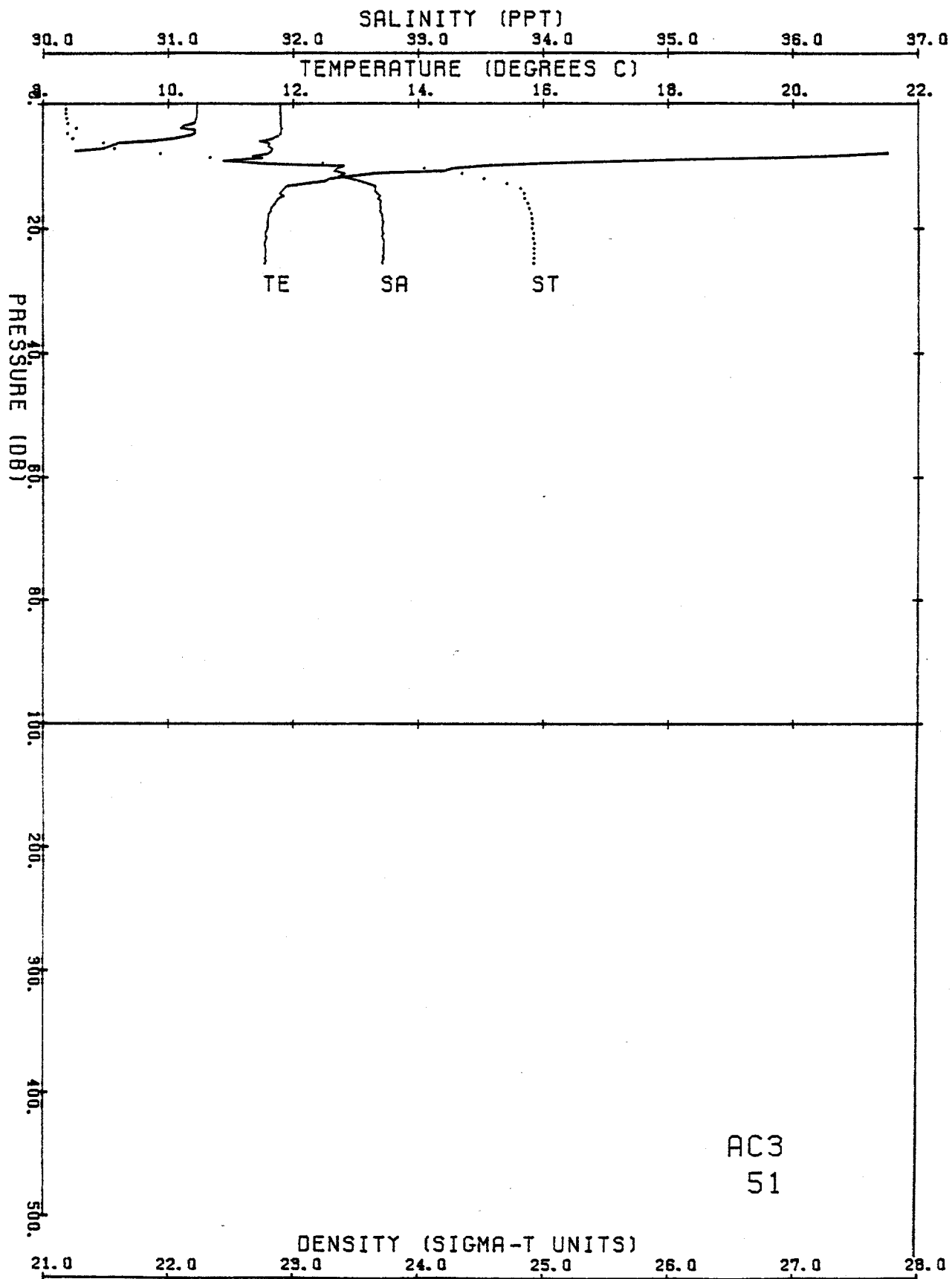
SHIP KN CRUISE ACE-3 STATION 50 CAST 1
 START 39 46.00 N 73 45.30 W AT 22 77/ 8/15
 POS. = LC STA. TYPE = DT
 WIND = 12 knots DIR = 250 DEPTH = 26 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.592	31.896	21.121	665.39	0.000	1530.4	0.00	0.0
1	24.585	31.892	21.130	665.48	0.007	1530.4		1.00
2	24.584	31.894	21.132	665.40	0.013	1530.4		2.00
3	24.586	31.894	21.121	665.46	0.030	1530.4		3.00
4	24.587	31.894	21.124	665.40	0.036	1530.4		4.00
5	24.588	31.898	21.124	665.30	0.032	1530.4	.68	5.1
6	24.589	31.906	21.136	662.22	0.038	1530.4		6.00
7	24.594	31.710	21.339	642.84	0.045	1527.1		7.00
8	24.593	31.914	21.324	550.27	0.051	1519.6		8.00
9	24.591	31.966	21.606	523.40	0.056	1518.0		9.00
10	24.593	31.947	21.658	518.51	0.061	1517.7	15.22	10.00
11	24.590	31.955	21.742	414.92	0.066	1505.5		11.00
12	24.588	31.444	24.357	356.25	0.070	1498.8		12.00
13	24.588	31.592	24.645	328.90	0.073	1496.0		13.00
14	24.588	31.652	24.712	322.48	0.076	1495.7		14.00
15	24.588	31.653	24.722	321.56	0.080	1495.6	17.43	15.00
16	24.588	31.665	24.735	320.32	0.083	1495.6		16.00
17	24.588	31.673	24.748	319.15	0.086	1495.4		17.00
18	24.588	31.673	24.758	318.21	0.089	1495.3		18.00
19	24.588	31.683	24.784	315.77	0.092	1495.0		19.00
20	24.588	31.696	24.813	313.03	0.096	1494.7	3.65	20.00
21	24.588	31.730	24.850	309.52	0.099	1494.5		21.00
22	24.588	31.731	24.849	309.60	0.102	1494.4		22.00
23	24.588	31.724	24.843	310.20	0.105	1494.4		23.00
24	24.588	31.720	24.844	310.19	0.108	1494.3		24.1
25	24.588	31.720	24.844	310.19	0.108	1494.3		24.1



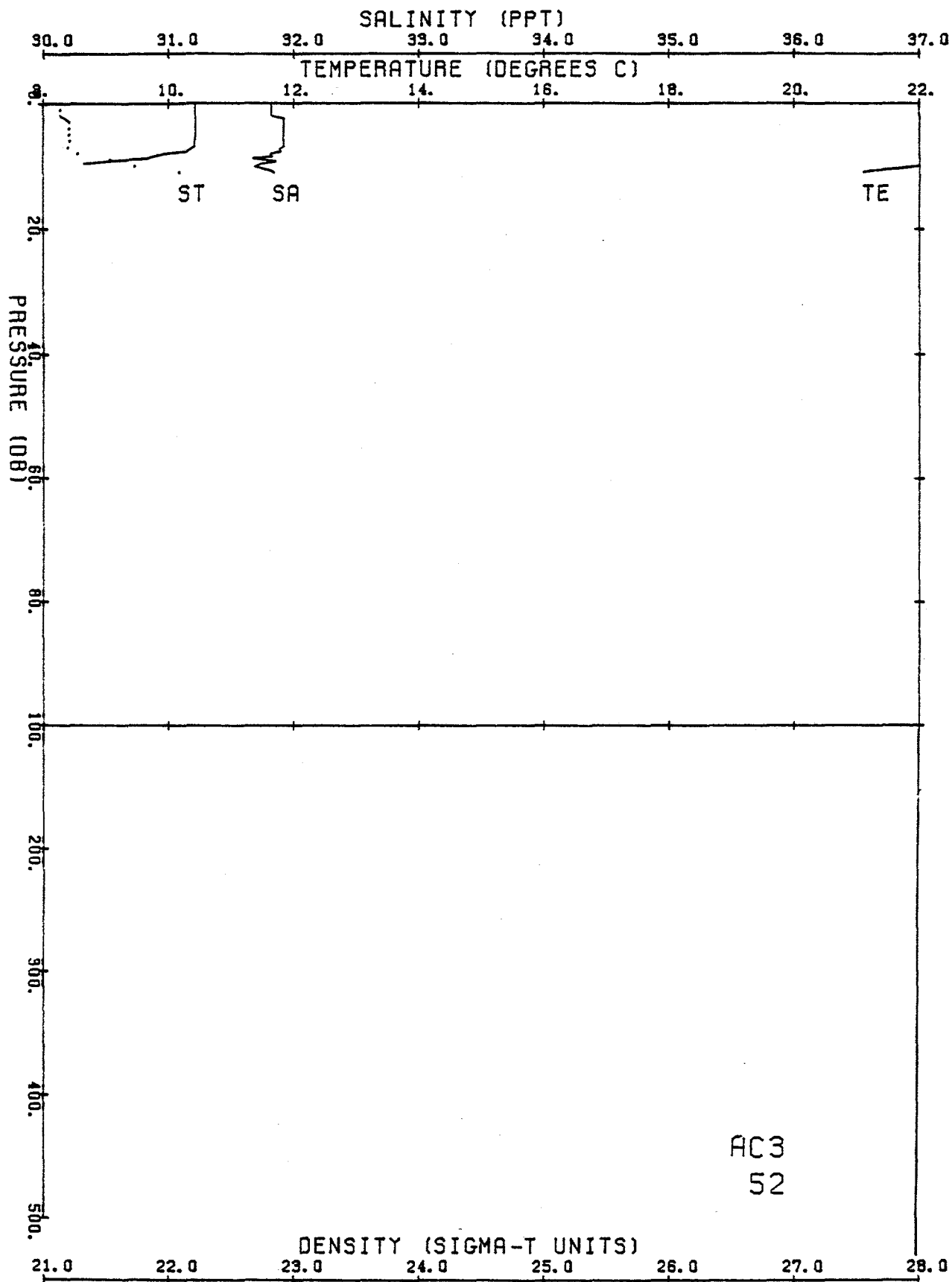
SHIP KN CRUISE ACE-3 STATION 51 CAST 1
 START 39 46.60 N 73 46.80 W AT 416 77/ 8/15
 POS. = LC STA. TYPE = DT
 WIND = 12 knots DIR = 280 DEPTH = 27 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.467	31.897	21.159	661.73	0.000	1530.1	0.00	0.0
1	24.462	31.898	21.151	661.60	0.007	1530.1		1.00
2	24.455	31.902	21.166	661.10	0.013	1530.1		2.00
3	24.408	31.900	21.178	659.98	0.020	1530.0		3.00
4	25.278	34.412	22.814	503.40	0.026	1534.9		4.00
5	24.346	31.882	21.183	659.58	0.032	1529.9	1.89	5.1
6	23.927	31.769	21.220	656.10	0.038	1528.7		6.00
7	22.894	31.797	21.538	625.60	0.044	1526.2		7.00
8	21.512	31.796	21.920	589.05	0.050	1522.6		8.00
9	18.825	31.760	22.592	524.82	0.056	1515.2		9.00
10	15.076	32.415	23.964	393.74	0.061	1504.6	20.47	10.00
11	14.148	32.446	24.184	372.75	0.064	1501.7		11.00
12	12.582	32.470	24.515	341.21	0.068	1496.3		12.00
13	12.165	32.592	24.689	324.65	0.071	1495.2		13.00
14	11.816	32.668	24.813	312.87	0.075	1494.1		14.00
15	11.842	32.685	24.821	312.12	0.078	1494.2	11.22	15.00
16	11.705	32.713	24.886	307.61	0.081	1493.8		16.00
17	11.633	32.716	24.884	306.18	0.084	1493.6		17.00
18	11.595	32.731	24.902	304.46	0.087	1493.5		18.00
19	11.587	32.733	24.905	304.18	0.090	1493.5		19.00
20	11.579	32.729	24.904	304.32	0.093	1493.5	3.49	20.00
21	11.546	32.739	24.918	303.01	0.096	1493.4		21.00
22	11.550	32.750	24.926	302.31	0.099	1493.4		22.00
23	11.552	32.748	24.924	302.53	0.102	1493.4		23.00
24	11.550	32.747	24.923	302.37	0.103	1493.5		24.1
25	11.559	32.738	24.915	303.44	0.108	1493.5	1.23	25.1
26	11.540	32.739	24.919	303.05	0.110	1493.4		25.6



SHIP KN CRUISE ACE-3 STATION 52 CAST 1
 START 39 46 CO N 73 46.00 W AT 306 77/ 8/15
 POS. = LC STA. TYPE = JT
 WIND = 8 knots DIR = 200 DEPTH = 25 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.430	31.823	21.114	666.06	0.000	1529.9	0.00	0.0
1	24.430	31.824	21.114	666.06	.007	1529.9		1.0
2	24.431	31.826	21.115	665.98	.013	1530.0		2.0
3	24.430	31.920	21.187	659.16	.020	1530.1		2.0
4	25.279	34.412	22.814	503.40	.026	1534.9		4.0
5	24.430	31.921	21.188	659.16	.032	1530.1	3.28	3.1
6	24.415	31.924	21.194	658.56	.038	1530.1		6.0
7	24.370	31.887	21.180	660.01	.045	1530.0		7.0
8	23.995	31.843	21.256	652.70	.051	1529.0		8.0
9	23.082	31.839	21.516	627.79	.058	1526.7		9.0
10	22.000	31.697	21.713	609.09	.064	1523.8	8.90	10.0
11	21.108	31.851	22.071	574.73	.070	1521.6		11.0
12	21.108	31.851	22.071	574.73	.070	1521.6		11.0



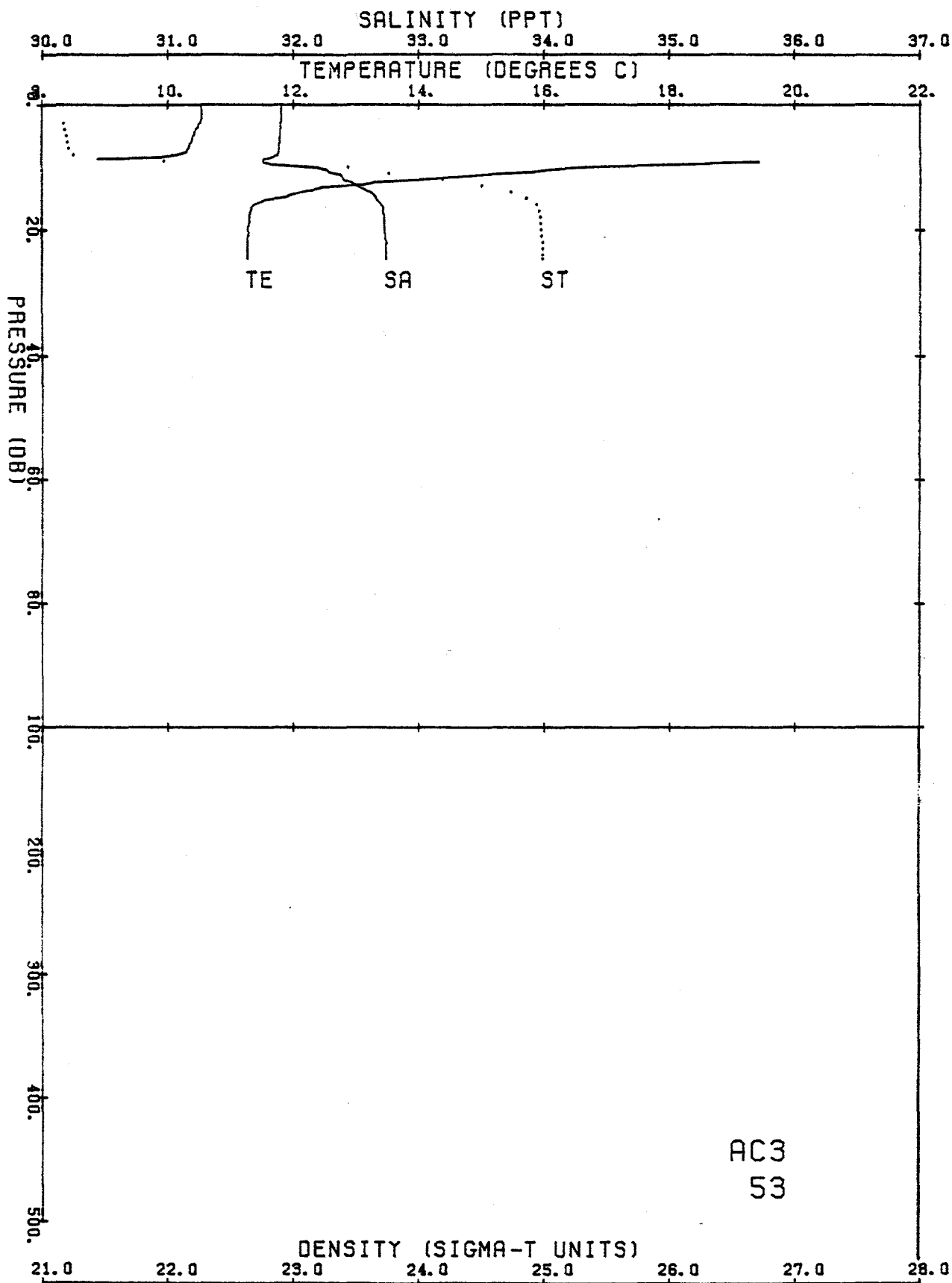
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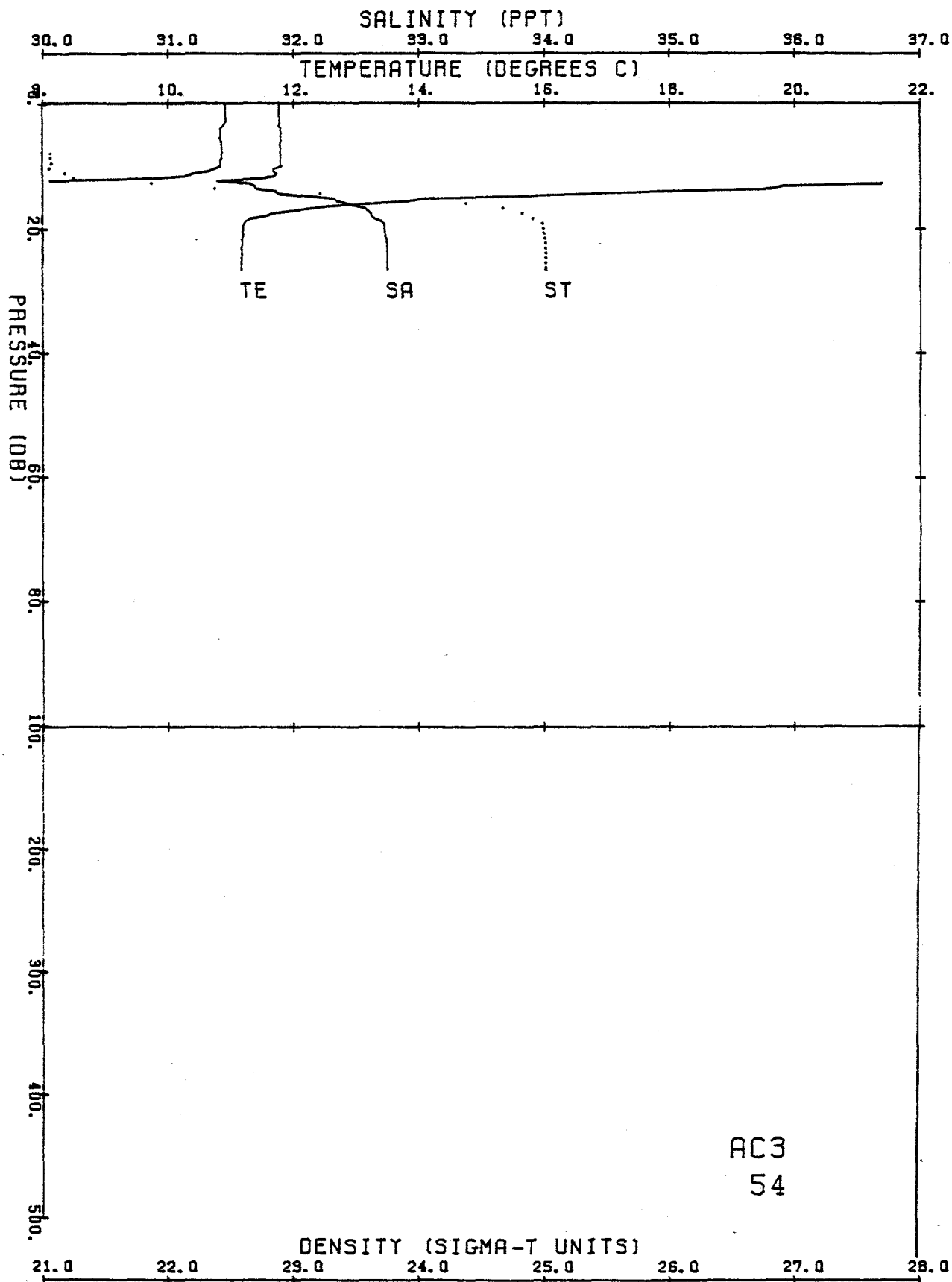
SHIP KN CRUISE ACE-3 STATION 53 CAST 1
 START 39 46.60 N 73 46.80 W AT 1204 77/ 8/15
 POS. = LC STA. TYPE = DT
 WIND = 7 knots DIR = 60 DEPTH = 26 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.537	31.905	21.144	663.20	0.000	1530.03	0.00	0.0
1	24.538	31.904	21.143	663.28	.007	1530.03		1.0
2	24.543	31.906	21.143	663.36	.013	1530.03		2.0
3	24.498	31.900	21.132	662.55	.020	1530.03		3.0
4	25.278	34.412	22.814	503.40	.026	1534.92		4.0
5	24.401	31.896	21.173	660.13	.032	1530.00	2.23	5.1
6	24.375	31.897	21.186	659.33	.038	1530.00		6.0
7	24.323	31.890	21.196	658.46	.045	1529.98		7.0
8	24.162	31.879	21.235	654.71	.051	1529.95		8.0
9	21.376	31.791	21.953	585.91	.057	1522.33		9.0
10	16.756	32.200	23.424	445.39	.063	1509.66	18.40	10.0
11	15.752	32.329	23.730	414.20	.067	1506.77		11.0
12	14.068	32.417	24.179	373.31	.071	1501.44		12.0
13	12.944	32.531	24.493	343.39	.074	1497.88		13.0
14	12.130	32.636	24.730	320.82	.078	1495.88		14.0
15	11.736	32.698	24.831	309.25	.081	1493.31	14.49	15.0
16	11.379	32.722	24.935	301.22	.084	1492.55		16.0
17	11.318	32.736	24.957	299.23	.087	1492.55		17.0
18	11.302	32.746	24.967	298.25	.090	1492.55		18.0
19	11.297	32.749	24.971	297.96	.093	1492.55		19.0
20	11.281	32.753	24.977	297.41	.096	1492.44	4.29	20.0
21	11.286	32.757	24.979	297.22	.099	1492.55		21.0
22	11.271	32.766	24.988	296.37	.102	1492.55		22.0
23	11.273	32.762	24.985	296.69	.105	1492.55		23.0
24	11.266	32.766	24.989	296.01	.108	1492.55		24.1
25	11.271	32.766	24.988	296.39	.110	1492.55		24.6



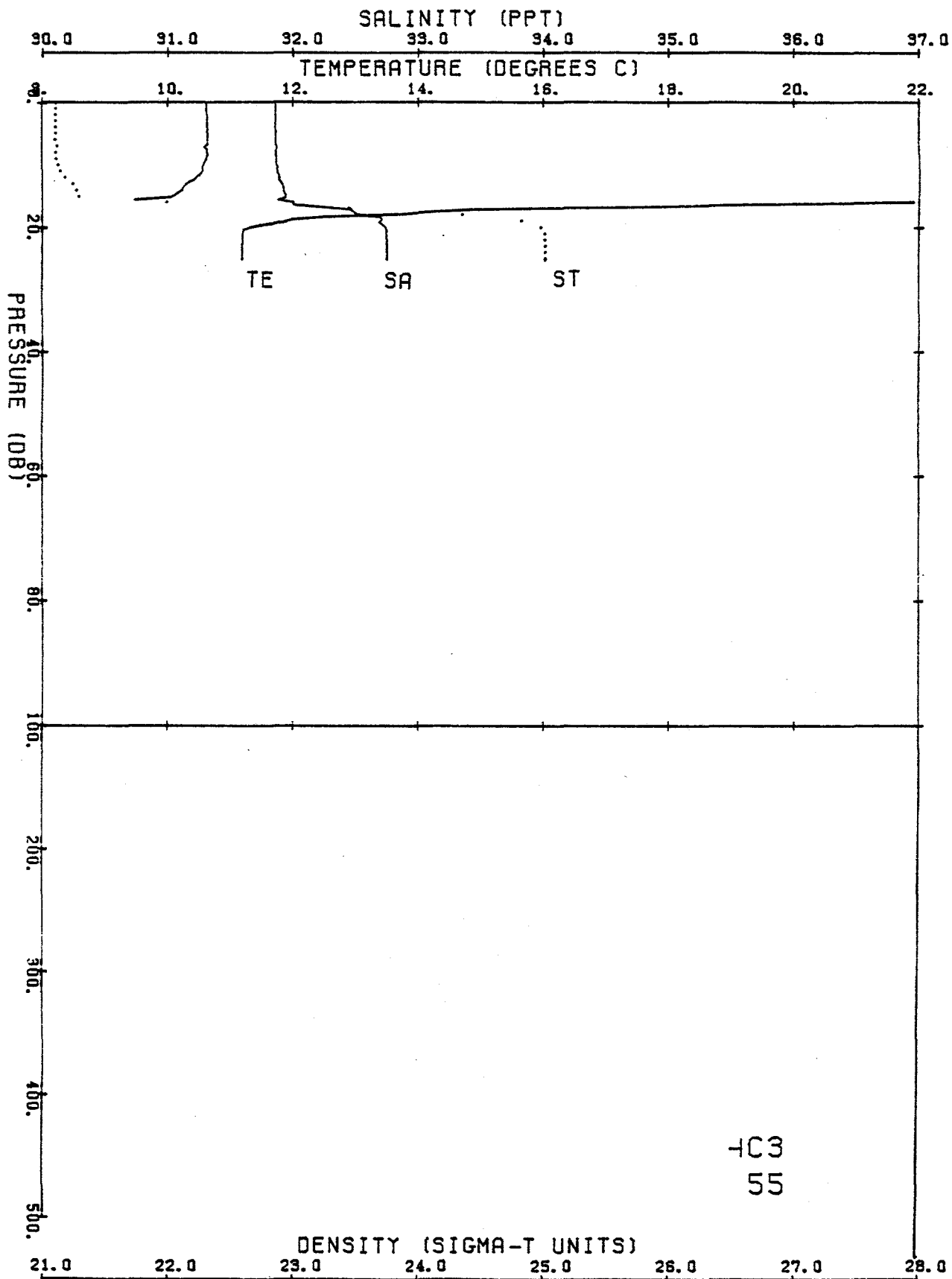
SHIP KN CRUISE ACE-3 STATION 54 CAST 1
 START 39 46.30 N 73 46.10 W AT 1618 77/ 8/15
 POS. = LC STA. TYPE = DT
 WIND = 5 knots DIR = 130 DEPTH = 28 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.915	31.886	21.017	675.36	0.000	1531.2	0.00	0.0
1	24.915	31.885	21.017	675.42	.007	1531.1		1.00
2	24.915	31.887	21.018	675.37	.014	1531.1		2.00
3	24.912	31.888	21.020	675.18	.020	1531.1		3.00
4	24.912	31.814	22.814	503.40	.026	1531.4		4.00
5	24.930	31.896	21.050	672.37	.033	1531.0	2.20	5.1
6	24.943	31.903	21.051	672.29	.039	1531.1		6.00
7	24.955	31.900	21.045	672.88	.045	1531.1		7.00
8	24.956	31.899	21.045	672.96	.052	1531.2		8.00
9	24.935	31.899	21.051	672.41	.059	1531.1		9.00
10	24.935	31.909	21.061	671.45	.066	1531.1	1.33	10.00
11	24.916	31.924	21.135	664.41	.072	1530.7		11.00
12	23.922	31.371	21.245	653.89	.079	1527.1		12.00
13	21.066	31.786	22.033	578.39	.085	1531.5		13.00
14	18.008	31.869	22.875	497.86	.090	1513.0		14.00
15	15.326	32.155	23.708	418.24	.095	1503.2	19.77	15.00
16	13.234	32.444	24.368	355.36	.099	1498.7		16.00
17	12.150	32.586	24.687	324.90	.102	1495.5		17.00
18	11.544	32.643	24.843	310.07	.105	1493.9		18.00
19	11.312	32.754	24.990	296.16	.108	1492.0		19.00
20	11.195	32.749	24.989	296.26	.111	1492.1	13.72	20.00
21	11.189	32.752	24.992	295.96	.114	1492.1		21.00
22	11.178	32.765	25.004	294.81	.117	1492.1		22.00
23	11.168	32.771	25.010	294.25	.120	1492.1		23.00
24	11.172	32.773	25.012	294.13	.124	1492.2		24.1
25	11.167	32.771	25.011	294.21	.126	1492.1	1.81	25.1
26	11.166	32.774	25.013	294.03	.129	1492.2		26.1
27	11.165	32.775	25.014	293.97	.131	1492.2		26.6



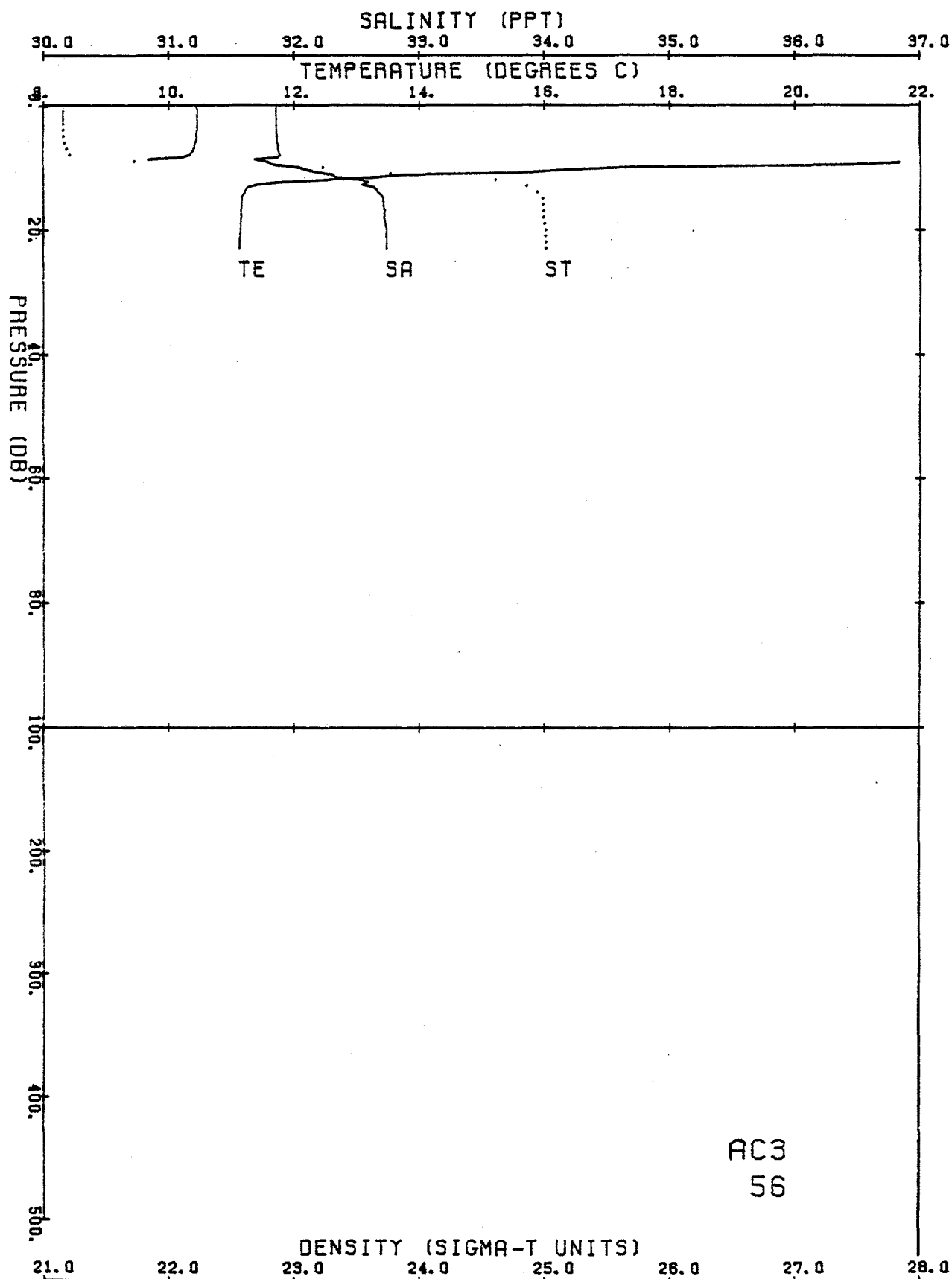
SHIP KN CRUISE ACE-3 STATION 55 CAST 1
 START 39 46.60 N 73 46.80 W AT 2017 77/ 8/15
 POS. = LC STA. TYPE = UT
 WIND = 5 knots DIR = 165 DEPTH = 25 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.622	31.660	21.085	668.86	0.000	1530.4	0.00	0.0
1	24.616	31.659	21.086	668.75	.007	1530.4		1.0
2	24.628	31.662	21.085	668.91	.013	1530.5		2.0
3	24.631	31.661	21.083	669.16	.020	1530.5		3.0
4	24.627	31.661	22.814	503.40	.026	1534.9		4.0
5	24.639	31.665	21.084	669.11	.032	1530.6	-1.26	5.1
6	24.639	31.666	21.084	669.11	.038	1530.6		6.0
7	24.637	31.673	21.100	667.44	.045	1530.5		7.0
8	24.621	31.670	21.088	668.80	.052	1530.6		8.0
9	24.675	31.673	21.095	668.16	.058	1530.6		9.0
10	24.675	31.678	21.110	666.88	.065	1530.5	2.08	10.0
11	24.646	31.685	21.127	665.83	.072	1530.4		11.0
12	24.458	31.900	21.154	661.69	.078	1530.3		12.0
13	24.299	31.921	21.226	655.76	.085	1529.9		13.0
14	24.228	31.937	21.259	652.62	.092	1529.8		14.0
15	24.080	31.903	21.277	650.93	.098	1529.4	4.95	15.0
16	21.912	32.017	21.979	583.74	.104	1524.0		16.0
17	16.831	32.239	23.436	444.31	.109	1510.0		17.0
18	13.704	32.534	24.543	357.76	.113	1500.4		18.0
19	11.869	32.684	24.816	312.70	.117	1494.4		19.0
20	11.322	32.759	24.974	297.68	.120	1492.6	23.35	20.0
21	11.192	32.770	25.006	294.68	.123	1492.2		21.0
22	11.189	32.771	25.007	294.56	.126	1492.2		22.0
23	11.185	32.773	25.009	294.35	.129	1492.2		23.0
24	11.184	32.776	25.011	294.18	.132	1492.2		24.1
25	11.185	32.775	25.011	294.24	.135	1492.2	2.32	25.1
26	11.185	32.775	25.011	294.24	.135	1492.2		25.1



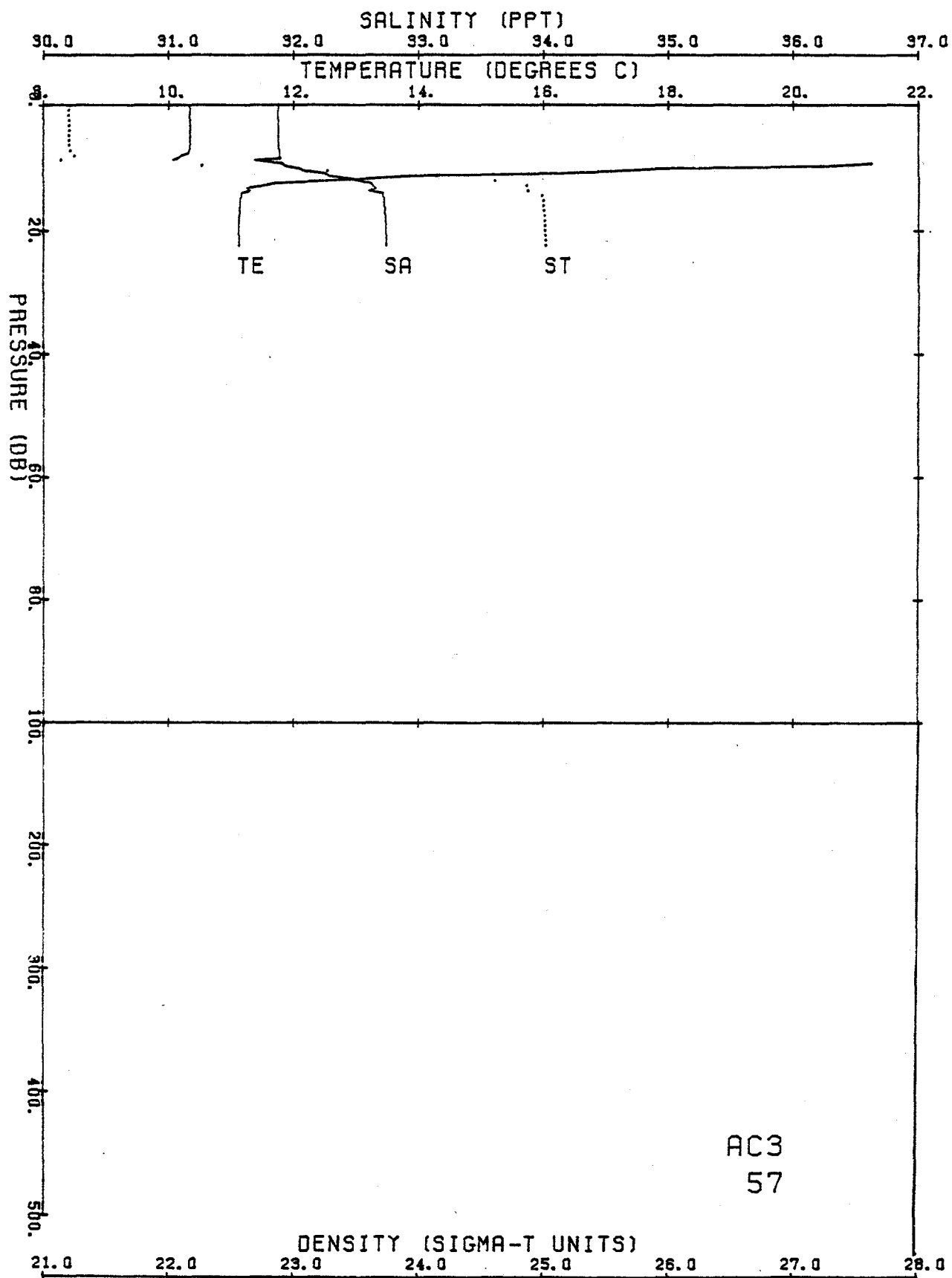
SHIP KN CRUISE ACE-3 STATION 56 CAST 1
 START 39 46.60 N 73 46.40 W AT 10 77/ 8/16
 POS. = LC STA. TYPE = DT
 WIND = 4 knots DIR = 260 DEPTH = 25 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	34.442	31.858	21.136	663.91	0.000	1530.0	0.00	0.0
1	34.438	31.859	21.133	664.28	.007	1530.0		1.0
2	34.439	31.860	21.133	664.26	.013	1530.1		2.0
3	34.439	31.861	21.134	664.26	.020	1530.1		3.0
4	34.437	31.412	22.814	503.40	.026	1534.9		4.0
5	34.450	31.367	21.141	663.65	.032	1530.1	.85	5.1
6	34.432	31.872	21.150	662.81	.038	1530.1		6.0
7	34.439	31.881	21.170	660.96	.045	1530.0		7.0
8	34.440	31.894	21.194	658.64	.051	1539.9		8.0
9	34.426	31.773	21.707	609.54	.058	1534.5		9.0
10	34.460	31.049	23.214	465.00	.063	1510.6	17.69	10.0
11	34.451	31.270	23.757	413.48	.057	1500.9		11.0
12	34.470	31.549	24.598	333.32	.071	1496.2		12.0
13	34.423	31.598	24.848	309.47	.074	1492.0		13.0
14	34.411	31.885	24.936	301.14	.077	1492.0		14.0
15	34.451	31.729	24.979	397.06	.080	1491.9	16.11	15.0
16	34.460	31.732	24.982	276.81	.083	1491.9		16.0
17	34.454	31.738	24.988	276.29	.085	1491.9		17.0
18	34.461	31.740	24.988	296.26	.089	1492.0		18.0
19	34.447	31.747	24.996	295.30	.090	1491.9		19.0
20	34.440	31.762	25.009	294.23	.095	1492.0	2.09	20.0
21	34.436	31.758	25.007	294.57	.098	1492.0		21.0
22	34.432	31.764	25.012	294.07	.101	1492.0		22.0
23	34.432	31.765	25.013	294.04	.104	1492.0		23.0
24	34.432	31.765	25.013	294.04	.104	1492.0		24.0



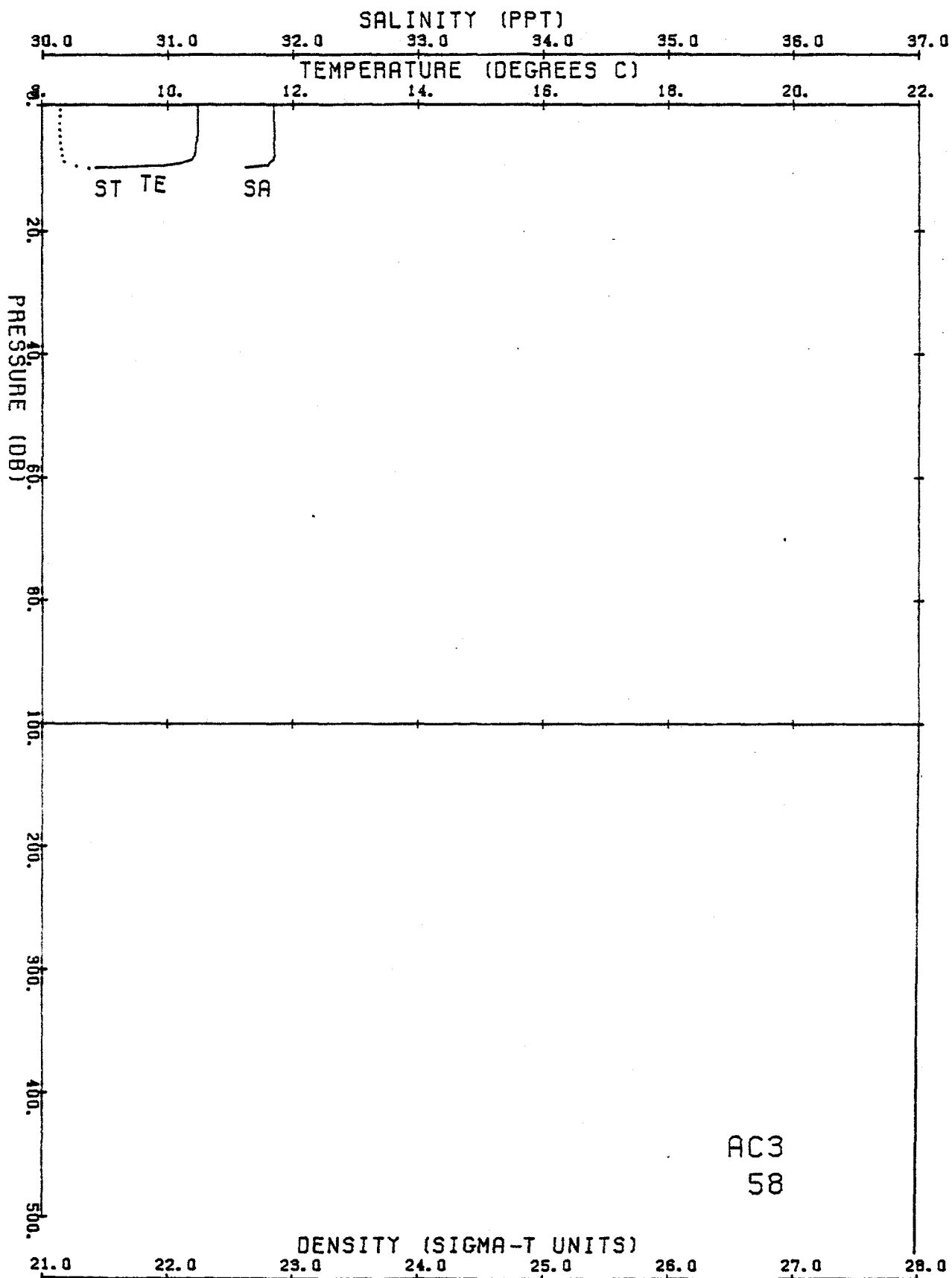
SHIP KN CRUISE ACE-3 STATION 57 CAST 1
 START 39 46.60 N 73 46.40 W AT 418 77/ 8/16
 POS. = LC STA. TYPE = DT
 WIND = DIR = DEPTH = 25 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	04.000	01.877	01.186	659.14	0.000	1529.7	0.00	0.0
1	04.000	01.874	01.178	659.91	0.007	1529.9		1.00
2	04.000	01.875	01.180	659.83	0.013	1529.9		2.00
3	04.000	01.876	01.181	659.78	0.020	1529.9		3.00
4	04.000	01.877	01.182	659.71	0.026	1529.9		4.00
5	04.000	01.879	01.183	659.62	0.032	1529.9	- .74	5.1
6	04.000	01.881	01.183	659.52	0.038	1529.9		6.00
7	04.000	01.888	01.193	658.73	0.045	1529.9		7.00
8	04.000	01.888	01.229	658.34	0.051	1529.9		8.00
9	04.000	01.886	01.876	658.31	0.057	1529.9		9.00
10	17.000	01.857	01.049	481.08	0.063	1512.2	16.78	10.00
11	19.000	01.874	01.690	419.94	0.067	1506.6		11.00
12	12.000	01.897	01.596	333.49	0.071	1496.1		12.00
13	11.000	01.838	01.856	307.84	0.074	1492.6		13.00
14	11.000	01.726	01.978	297.14	0.077	1491.1		14.00
15	11.000	01.738	01.991	295.95	0.080	1491.1	16.90	15.00
16	11.000	01.737	01.989	296.12	0.083	1491.1		16.00
17	11.000	01.743	01.995	295.59	0.086	1491.1		17.00
18	11.000	01.753	01.004	294.76	0.089	1491.1		18.00
19	11.000	01.753	01.012	294.02	0.092	1491.1		19.00
20	11.000	01.758	01.009	294.30	0.095	1491.1	1.65	20.00
21	11.000	01.758	01.009	294.35	0.098	1491.1		21.00
22	11.000	01.753	01.013	294.02	0.101	1491.1		22.00
23	11.000	01.752	01.013	294.03	0.102	1491.1		23.4



SHIP KN CRUISE ACE-3 STATION 58 CAST 1
 START 39 46.60 N 73 46.60 W AT 1218 77/ 8/16
 POS. = LC STA. TYPE = DT
 WIND = 14 knots DIR = 150 DEPTH = 25 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.483	31.848	21.117	665.79	0.000	1530.1	0.00	0.0
1	24.482	31.848	21.117	665.76	.007	1530.1		1.0
2	24.482	31.850	21.119	665.66	.013	1530.1		2.0
3	24.480	31.850	21.120	665.51	.020	1530.1		3.0
4	25.278	34.412	22.814	503.40	.026	1534.9		4.0
5	24.467	31.852	21.125	665.21	.032	1530.1	1.09	5.1
6	24.454	31.853	21.129	664.78	.038	1530.1		6.0
7	24.445	31.858	21.136	664.22	.045	1530.1		7.0
8	24.429	31.862	21.144	663.49	.052	1530.1		8.0
9	24.310	31.835	21.159	662.10	.058	1529.8		9.0
10	22.872	31.624	21.413	637.67	.065	1526.0	6.61	10.0
11	22.872	31.624	21.413	637.67	.065	1526.0		10.0



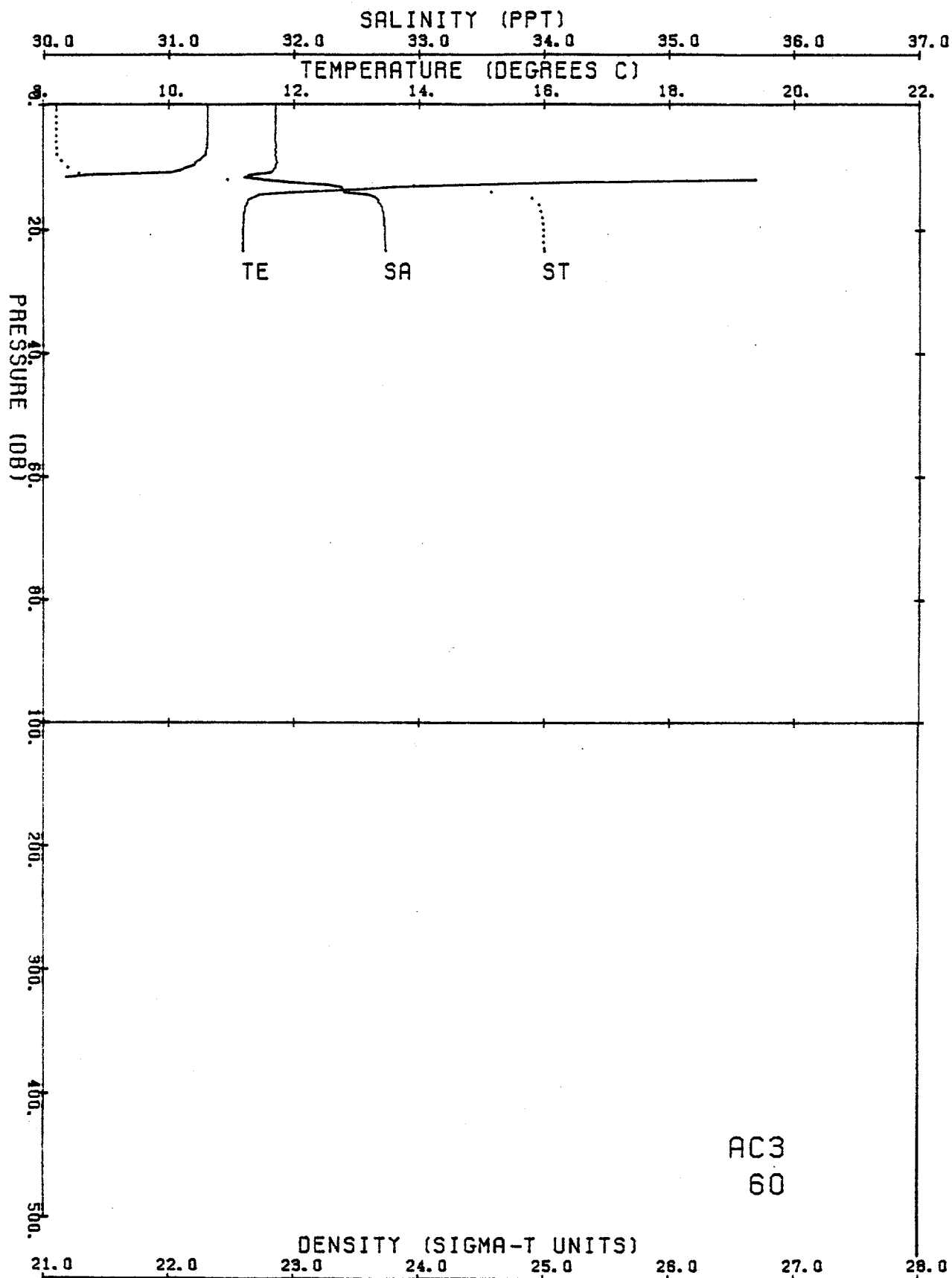
AC3

ST 58

AC3
58

SHIP KN CRUISE ACE-3 STATION 60 CAST 1
 START 39 46.60 N 73 46.60 W AT 1556 77/ 8/16
 PCS = LC STA. TYPE = DT
 WIND = DIR = DEPTH = 25 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.622	31.854	21.080	669.28	0.000	1530.4	0.00	0.0
1	24.622	31.854	21.080	669.34	.007	1530.4		1.0
2	24.622	31.854	21.081	669.29	.013	1530.4		2.0
3	24.622	31.854	21.081	669.35	.020	1530.5		3.0
4	25.278	31.411	22.814	503.40	.026	1534.9		4.0
5	24.614	31.854	21.081	669.40	.033	1530.5	.38	5.1
6	24.613	31.854	21.084	669.13	.038	1530.5		6.0
7	24.596	31.854	21.088	668.83	.045	1530.5		7.0
8	24.584	31.854	21.092	668.41	.052	1530.5		8.0
9	24.489	31.854	21.127	665.11	.058	1530.5		9.0
10	24.335	31.854	21.182	659.89	.065	1539.8	3.91	10.0
11	23.835	31.854	21.285	531.62	.072	1529.8		11.0
12	19.980	31.744	22.435	337.97	.078	1516.8		12.0
13	14.715	31.949	23.945	339.67	.082	1503.4		13.0
14	12.048	31.406	24.567	336.31	.086	1494.6		14.0
15	11.333	31.658	24.895	330.06	.089	1493.4	23.40	15.0
16	11.209	31.708	24.930	329.88	.092	1492.2		16.0
17	11.209	31.724	24.967	329.48	.095	1492.1		17.0
18	11.189	31.737	24.981	329.66	.098	1492.1		18.0
19	11.184	31.740	24.984	329.69	.101	1492.1		19.0
20	11.180	31.747	24.990	329.61	.104	1492.1	3.73	20.0
21	11.179	31.749	24.992	329.46	.107	1492.1		21.0
22	11.181	31.750	24.993	329.59	.110	1492.1		22.0
23	11.181	31.754	24.995	329.70	.113	1492.1		23.0
24	11.185	31.757	24.997	329.54	.114	1492.2		24.4





WATER CHEMISTRY DATA

141.42

TABLE OF UNITS

STATION	CAST	MAX DEPTH OF CAST M	DATE EDT	TIME EDT	LATITUDE DEG N	LONGITUDE DEG W
	SONIC DEPTH METERS	WIND DIRECTION DEGREES TRUE	WIND SPEED M/SEC	BAROMETRIC PRESSURE MBS (TRUNC)	AIR TEMP DRY BULB C	
DEPTH METERS	TEMPERATURE CELSIUS	SALINITY PARTS/1000	SIGMA-T	OXYGEN ML/L	CHLOROPHYLL UG/L	PHAEOPHYTIN UG/L
DEPTH METERS	PHOSPHATE UG-AT/L	SILICATE UG-AT/L	NITRATE UG-AT/L	NITRITE UG-AT/L	AMMONIUM UG-AT/L	
DEPTH METERS	PARTICLE VOLUME 100U MM**3/L	PARTICLE VOLUME 200U MM**3/L	PARTICLE VOLUME 280U MM**3/L	PARTICLE VOLUME 400U MM**3/L		

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
1	4 AUG 77	21:33:00	40 58.3 N	71 42.1 W	43
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	220	5	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	-	-
15	-	-	-	5.28	-	-
27	-	-	-	5.23	-	-
39	-	-	-	5.26	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.50	10.34	1.60	0.33	2.19
15	0.37	7.60	0.83	0.17	1.38
27	0.26	5.55	0.51	0.09	0.61
39	0.06	0.64	-	-	0.04

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
2	5 AUG 77	08:11:00	40 46.0 N	72 30.4 W	29
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
200		4	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	31.377	-	4.97	1.25	0.14
10	-	31.714	-	4.53	0.57	0.15
20	-	31.823	-	5.49	3.92	2.60
26	14.93	31.900	23.623	4.42	1.96	1.50

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.05	1.04	0.11	0.00	0.00
10	-	1.52	0.07	0.00	0.00
20	0.01	0.37	0.05	0.00	0.00
26	0.55	4.78	0.31	0.02	0.51

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC
3	5 AUG 77	15:10:00	40 45.7 N	72 29.5 W	DEPTH
					29

WIND	WIND	BAROMETRIC	AIR TEMP
DIRECTION	SPEED	PRESSURE	DRY BULB
200	7	-	-

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	5.75	-	-
10	-	-	-	6.25	0.52	0.11
15	-	-	-	5.96	-	-
20	-	31.792	-	5.55	-	-
27	14.80	32.992	24.489	5.04	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.04	1.60	0.18	0.00	0.05
10	0.00	1.25	0.02	0.00	0.02
15	0.01	0.96	0.07	0.00	0.00
20	0.11	0.92	0.03	0.00	0.00
27	0.34	3.61	0.51	0.05	0.15

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
4	5 AUG 77	21:06:00	40 45.1 N	72 30.4 W	31
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	250	5	30.1	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
18	-	-	-	-	4.24	1.50
27	13.00	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
18	0.50	7.21	1.47	0.20	1.15
27	0.28	2.25	0.18	0.05	0.06

- DATA NOT TAKEN

STATION 5	DATE 6 AUG 77	TIME 00:55:00	LATITUDE 40 44.3 N	LONGITUDE 72 28.4 W	SONIC DEPTH 30
	WIND DIRECTION 250	WIND SPEED 5	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	31.489	-	5.90	-	-
15	-	31.870	-	5.89	-	-
25	11.40	32.382	24.690	4.93	1.00	0.12

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	-	-	-	-
15	-	-	-	-	-
25	0.60	9.25	2.12	0.29	1.93

- DATA NOT TAKEN

STATION 6	DATE 6 AUG 77	TIME 05:02:00	LATITUDE 40 46.7 N	LONGITUDE 72 29.2 W	SONIC DEPTH 27
WIND DIRECTION 260		WIND SPEED 5	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
22	15.94	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
22	0.16	0.68	0.10	0.00	0.00

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC
7	6 AUG 77	08:59:00	40 46.2 N	72 28.9 W	DEPTH
					28

WIND	WIND	BAROMETRIC	AIR TEMP
DIRECTION	SPEED	PRESSURE	DRY BULB
230	5	-	-

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	31.459	-	5.40	-	-
20	-	31.779	-	5.81	4.79	1.60
25	15.82	31.814	23.363	5.12	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	-	-	-	-
20	0.00	0.70	0.00	0.02	0.00
25	0.30	0.62	0.07	0.01	0.00

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
8	6 AUG 77	14:02:00	40 46.4 N	72 28.7 W	28
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
220		6	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
21	-	-	-	-	5.84	1.46
26	13.60	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
21	0.42	2.08	0.04	0.02	0.00
26	0.74	8.40	1.60	0.18	1.09

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
9	6 AUG 77	16:32:00	40 46.2 N	72 29.8 W	28

WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB
240	5	-	-

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	31.457	-	5.45	-	-
20	-	31.831	-	4.14	6.83	2.71
22	15.31	31.866	23.515	4.67	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	-	-	-	-
20	0.51	1.28	0.15	0.01	0.00
22	0.62	3.12	0.18	0.02	0.00

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
10	6 AUG 77	20:45:00	40 46.0 N	72 29.9 W	27
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	240	7	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
20	15.71	-	-	-	3.14	0.58
24	-	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
20	0.08	0.45	0.06	0.00	0.00
24	0.37	1.00	0.00	0.00	0.00

- DATA NOT TAKEN

STATION 11	DATE 7 AUG 77	TIME 00:34:00	LATITUDE 40 46.2 N	LONGITUDE 72 29.9 W	SONIC DEPTH 28
	WIND DIRECTION 260	WIND SPEED 7	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	31.627	-	3.55	-	-
14	16.39	31.784	23.212	4.50	-	-
24	13.87	32.073	23.977	3.33	3.02	1.19

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	-	-	-	-
14	0.31	0.81	0.00	0.01	0.03
24	0.86	7.56	1.44	0.16	0.63

- DATA NOT TAKEN

STATION 12	DATE 7 AUG 77	TIME 04:50:00	LATITUDE 40 46.5 N	LONGITUDE 72 30.1 W	SONIC DEPTH 28
WIND DIRECTION 240		WIND SPEED 5	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
16	-	-	-	-	3.30	1.15
23	15.46	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
16	0.25	0.63	-	-	0.00
23	0.48	2.40	0.15	0.03	0.00

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
13	7 AUG 77	08:43:00	40 46.5 N	72 29.9 W	26
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	250	4	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	31.551	-	5.80	-	-
15	16.29	31.789	23.239	5.27	-	-
23	15.39	31.932	23.548	4.97	4.63	1.85

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	-	-	-	-
15	0.32	0.37	0.00	0.00	0.00
23	0.25	0.33	0.00	0.00	0.00

- DATA NOT TAKEN

STATION 14	DATE 7 AUG 77	TIME 12:18:00	LATITUDE 40 46.7 N	LONGITUDE 72 29.9 W	SONIC DEPTH 26
	WIND DIRECTION 230	WIND SPEED 5	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
20	16.30	-	-	-	-	-
22	15.83	-	-	-	5.89	1.82

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
20	-	-	-	-	-
22	0.36	0.30	0.00	0.00	0.00

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC
15	7 AUG 77	16:17:00	40 41.2 N	72 26.3 W	DEPTH
					36

WIND	WIND	BAROMETRIC	AIR TEMP
DIRECTION	SPEED	PRESSURE	DRY BULB
220	4	-	-

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	0.35	0.04
10	-	-	-	-	2.24	1.05
20	10.81	-	-	-	2.21	0.93
30	-	-	-	-	4.39	1.44
32	9.81	-	-	-	5.26	2.06

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.07	0.84	0.17	0.01	0.00
10	0.61	8.25	2.08	0.29	0.14
20	0.62	8.34	2.12	0.30	0.14
30	0.51	5.65	1.19	0.69	0.20
32	0.53	6.22	1.40	0.85	0.87

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
16	7 AUG 77	18:38:00	40 35.6 N	72 21.6 W	42
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
300		5	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	31.583	-	3.51	0.35	0.03
10	18.78	32.232	22.986	2.12	0.61	0.18
20	-	32.700	-	3.42	1.29	0.37
23	-	-	-	-	1.85	0.70
30	-	32.821	-	3.54	0.86	0.33
40	9.42	33.030	25.532	1.74	0.22	0.19

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.09	0.96	0.21	0.01	0.00
10	0.09	2.07	0.11	0.00	0.00
20	0.11	1.83	0.14	0.00	0.24
23	0.14	2.53	0.08	0.00	0.00
30	0.46	6.82	1.66	0.60	1.11
40	0.68	10.96	4.32	0.88	2.36

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
17	7 AUG 77	20:30:00	40 31.0 N	72 17.2 W	53
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	260	5	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	0.27	0.05
10	-	-	-	-	0.39	0.09
20	-	-	-	-	1.49	0.27
25	-	-	-	-	1.02	0.28
30	-	-	-	-	1.10	0.43
40	-	-	-	-	0.24	0.13
50	9.52	-	-	-	0.14	0.12

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.11	1.22	0.14	0.03	0.00
10	0.03	1.55	0.02	0.00	0.00
20	0.04	1.52	0.00	0.01	0.00
25	0.06	1.25	0.00	0.00	0.00
30	0.12	1.60	0.00	0.01	0.00
40	0.60	10.55	3.77	0.88	2.20
50	0.64	10.60	4.09	0.71	2.30

- DATA NOT TAKEN

STATION 17	DATE 7 AUG 77	TIME 20:30:00	LATITUDE 40 31.0 N	LONGITUDE 72 17.2 W	SONIC DEPTH 53
	WIND DIRECTION 260	WIND SPEED 5	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	0.48	-	-
10	-	0.68	-	-
20	-	1.55	-	-
25	-	0.91	-	-
30	-	1.12	-	-
40	-	0.64	-	-
50	-	0.24	-	-

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- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
18	7 AUG 77	22:37:00	40 25.4 N	72 12.6 W	57
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	-	-	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	0.24	0.04
10	-	-	-	-	0.35	0.16
19	12.13	-	-	-	1.02	0.37
30	-	-	-	-	1.83	0.38
40	-	-	-	-	0.13	0.10
50	-	-	-	-	0.12	0.11
53	9.48	-	-	-	0.15	0.14

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.05	1.48	0.00	0.01	0.00
10	0.00	1.72	0.00	0.00	0.00
19	0.00	1.97	0.00	0.00	0.00
30	0.12	2.36	0.38	0.24	0.00
40	0.45	9.81	4.01	0.80	2.66
50	0.52	10.27	3.87	0.74	2.88
53	0.56	11.90	4.34	0.66	3.08

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC
18	7 AUG 77	22:37:00	40 25.4 N	72 12.6 W	DEPTH
					57

WIND	WIND	BAROMETRIC	AIR TEMP
DIRECTION	SPEED	PRESSURE	DRY BULB
-	-	-	-

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	0.50	-	-
10	-	0.56	-	-
19	-	1.12	-	-
30	-	0.66	-	-
40	-	0.19	-	-
50	-	0.20	-	-
53	-	0.28	-	-

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- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
19	8 AUG 77	04:31:00	40 19.6 N	72 8.8 W	62
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	260	4	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	0.20	0.06
10	-	-	-	-	0.56	0.16
20	10.82	-	-	-	1.38	0.52
30	-	-	-	-	1.17	0.31
40	-	-	-	-	0.38	0.14
50	-	-	-	-	0.27	0.09
58	9.20	-	-	-	0.20	0.13

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.07	2.87	0.05	0.00	0.13
10	0.07	3.15	0.00	0.00	0.10
20	0.20	2.85	0.00	0.01	0.18
30	0.27	2.75	0.31	0.39	0.89
40	0.72	11.23	4.10	0.48	3.06
50	0.80	14.08	5.60	0.38	3.31
58	0.84	15.20	7.46	0.44	2.12

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
20	8 AUG 77	05:58:00	40 14.6 N	72 4.3 W	62
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	250	5	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	0.18	0.04
10	-	-	-	-	0.48	0.08
20	12.32	-	-	-	1.26	0.27
30	-	-	-	-	0.52	0.10
40	-	-	-	-	0.36	0.09
50	-	-	-	-	0.27	0.06
60	9.20	-	-	-	0.34	0.09

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.10	2.82	0.08	0.02	0.18
10	0.11	3.02	0.00	0.00	0.16
20	0.18	2.70	0.04	0.01	0.10
30	0.68	10.23	3.88	0.50	2.62
40	0.76	12.10	4.80	0.40	2.96
50	0.85	15.28	6.42	0.28	2.92
60	0.85	15.10	7.25	0.25	2.27

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
21	8 AUG 77	07:40:00	40 9.4 N	71 59.8 W	65

WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB
240	5	-	-

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	3.10	0.24	0.09
10	-	-	-	3.25	0.19	0.05
20	18.25	-	-	3.68	0.35	0.20
30	-	-	-	3.74	3.14	0.33
40	-	-	-	3.16	2.31	0.05
50	-	-	-	3.59	1.18	0.00
60	-	-	-	2.97	0.59	0.06
63	-	-	-	2.89	1.26	0.13

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.02	2.85	0.00	0.01	0.04
10	0.00	2.15	0.00	0.00	0.01
20	0.00	2.32	0.00	0.00	0.04
30	0.07	2.35	0.26	0.04	0.04
40	0.43	5.12	6.84	0.08	0.06
50	0.67	12.88	9.95	0.05	0.05
60	0.67	13.40	10.22	0.13	0.02
63	0.69	14.05	10.55	0.10	0.08

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC
22	8 AUG 77	12:01:00	40 7.3 N	71 58.4 W	DEPTH
					74
	WIND	WIND	BAROMETRIC	AIR TEMP	
	DIRECTION	SPEED	PRESSURE	DRY BULB	
	260	5	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	-	-
10	-	-	-	-	-	-
20	15.25	-	-	-	-	-
30	-	-	-	-	-	-
40	-	-	-	-	-	-
50	-	-	-	-	-	-
60	-	-	-	-	-	-
70	9.11	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.11	3.12	0.12	0.00	0.16
10	0.06	2.75	0.00	0.01	0.04
20	0.07	2.40	0.00	0.02	0.07
30	0.55	5.40	7.13	0.05	0.04
40	0.70	8.25	9.04	0.04	0.15
50	0.84	13.75	10.44	0.06	0.06
60	0.78	13.88	10.76	0.02	0.12
70	0.82	16.50	11.26	0.14	0.10

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
23	8 AUG 77	13:30:00	40 5.0 N	71 55.5 W	77
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	260	5	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	0.12	0.03
10	-	-	-	-	0.09	0.12
20	-	-	-	-	0.37	0.21
30	12.56	-	-	-	0.89	0.00
31	-	-	-	-	1.17	0.62
40	-	-	-	-	0.98	0.36
50	-	-	-	-	0.42	0.14
60	-	-	-	-	0.75	0.23
70	-	-	-	-	0.29	0.17
73	9.75	-	-	-	0.16	0.03

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.08	2.65	0.09	0.01	0.08
10	0.00	2.05	0.04	0.01	0.05
20	0.07	2.42	0.00	0.01	0.03
30	0.18	2.38	0.40	0.10	0.04
31	0.22	2.95	1.71	0.47	0.17
40	0.50	5.68	7.15	0.20	0.04
50	0.80	14.38	11.05	0.05	0.14
60	0.84	15.75	11.59	0.06	0.14
70	0.82	14.75	11.39	0.06	0.13
73	0.84	14.70	11.32	0.08	0.23

- DATA NOT TAKEN

STATION 23	DATE 8 AUG 77	TIME 13:30:00	LATITUDE 40 5.0 N	LONGITUDE 71 55.5 W	SONIC DEPTH 77
	WIND DIRECTION 260	WIND SPEED 5	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	0.40	0.40	-	-
10	0.39	-	0.39	-
20	0.84	-	0.84	-
30	3.07	-	3.07	-
31	1.02	-	1.02	-
40	0.69	-	0.69	-
50	0.70	-	-	0.70
60	0.49	-	-	0.49
70	-	-	-	-
73	-	-	-	-

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- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
24	8 AUG 77	15:24:00	40 2.5 N	71 53.3 W	83
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
250		6	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	3.61	0.14	0.01
10	-	-	-	3.80	0.11	0.03
20	-	-	-	3.97	0.13	0.03
30	13.27	-	-	5.27	0.84	0.25
35	-	-	-	5.70	1.76	0.37
40	-	-	-	4.62	1.37	0.13
50	-	-	-	4.18	1.08	0.12
60	-	-	-	4.67	-	-
70	-	-	-	4.68	-	-
79	10.26	-	-	4.96	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.07	2.52	0.11	0.01	0.09
10	0.00	1.88	0.00	0.00	0.01
20	0.00	1.55	0.00	0.00	0.01
30	0.11	2.10	0.10	0.00	0.04
35	0.31	3.60	2.76	0.12	0.00
40	0.65	7.85	8.70	0.05	0.40
50	0.56	6.65	8.18	0.10	0.08
60	0.64	9.48	10.17	0.05	0.01
70	0.75	13.15	11.60	0.05	0.00
79	0.75	13.20	11.64	0.06	0.00

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
25	8 AUG 77	16:56:00	39 59.5 N	71 52.0 W	95
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
240		7	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	0.32	0.05
10	-	-	-	-	0.19	0.08
20	-	-	-	-	0.31	0.06
30	13.46	-	-	-	0.29	0.25
40	-	-	-	-	0.96	0.19
50	-	-	-	-	0.57	0.12
60	-	-	-	-	0.25	0.10
70	-	-	-	-	-	-
90	-	-	-	-	-	-
92	-	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.02	2.25	1.01	0.01	0.00
10	0.00	1.72	0.04	0.01	0.00
20	0.00	2.05	0.04	0.01	0.17
30	0.00	2.10	0.04	0.01	0.00
40	0.41	5.25	6.97	0.23	0.00
50	0.67	10.60	10.76	0.04	0.00
60	0.68	10.25	11.31	0.04	0.01
70	0.68	9.60	11.64	0.06	0.02
80	0.74	10.15	11.96	0.06	0.10
92	0.79	10.70	12.18	0.10	0.62

- DATA NOT TAKEN

STATION 25	DATE 8 AUG 77	TIME 16:56:00	LATITUDE 39 59.5 N	LONGITUDE 71 52.0 W	SONIC DEPTH 95
	WIND DIRECTION 240	WIND SPEED 7	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	0.40	-	-
10	-	0.44	-	-
20	-	0.53	-	-
30	-	0.41	-	0.64
40	-	0.38	-	0.27
50	-	-	-	0.61
60	-	-	-	0.62
70	-	-	-	0.60
80	-	-	-	0.83
92	-	-	-	3.84

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- DATA NOT TAKEN

STATION 26	DATE 8 AUG 77	TIME 18:31:00	LATITUDE 39 56.5 N	LONGITUDE 71 49.6 W	SONIC DEPTH 113
	WIND DIRECTION 240	WIND SPEED 7	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	0.12	0.09
10	-	-	-	-	0.15	0.03
20	-	-	-	-	0.31	0.06
36	11.30	-	-	-	1.06	0.25
50	-	-	-	-	0.18	0.12
60	-	-	-	-	0.15	0.10
70	-	-	-	-	0.12	-
80	-	-	-	-	-	-
90	-	-	-	-	-	-
111	-	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.02	2.10	0.19	0.01	0.00
10	0.03	1.78	0.21	0.01	0.00
20	0.02	2.10	0.15	0.00	0.00
36	0.25	3.66	3.44	0.26	0.00
50	0.68	9.70	11.81	0.07	0.00
60	0.74	10.25	12.76	0.04	0.00
70	0.74	10.70	13.16	0.04	0.00
80	0.77	11.20	13.74	0.06	0.00
90	0.79	11.46	13.88	0.07	0.00
111	0.79	11.70	14.11	0.09	0.00

- DATA NOT TAKEN

STATION 26	DATE 8 AUG 77	TIME 18:31:00	LATITUDE 39 56.5 N	LONGITUDE 71 49.6 W	SONIC DEPTH 113
	WIND DIRECTION 240	WIND SPEED 7	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	0.37	-	-
10	-	0.60	-	-
20	-	0.72	-	-
36	-	-	-	0.46
50	-	-	-	0.30
60	-	-	-	2.14
70	-	-	-	0.22
80	-	-	-	0.52
90	-	-	-	-
111	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
27	8 AUG 77	20:03:00	39 54.4 N	71 48.0 W	137
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	230	7	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	24.64	-	-	-	0.12	0.02
15	-	-	-	-	0.14	0.02
30	-	-	-	-	0.33	0.11
42	-	-	-	-	1.49	0.50
50	13.88	-	-	-	0.94	0.31
60	-	-	-	-	0.55	0.12
70	-	-	-	-	0.24	0.04
80	-	-	-	-	0.14	0.03
100	-	-	-	-	0.20	0.09
137	-	-	-	-	0.05	0.08

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.05	2.05	0.14	0.01	0.00
15	0.00	1.62	0.63	0.00	0.00
30	0.02	2.10	0.01	0.00	-
42	0.08	2.74	0.63	0.05	-
50	0.29	3.64	4.70	0.26	-
60	0.56	6.32	10.36	0.08	-
70	0.52	6.97	12.03	0.04	-
80	0.69	7.67	13.66	0.04	0.00
100	0.84	12.45	15.94	0.04	0.00
137	0.84	12.76	15.96	0.05	0.00

- DATA NOT TAKEN

STATION 28	DATE 8 AUG 77	TIME 22:21:00	LATITUDE 39 51.4 N	LONGITUDE 71 45.1 W	SONIC DEPTH 253
WIND DIRECTION 250		WIND SPEED 5	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	0.15	0.02
10	-	-	-	-	0.13	0.03
20	-	-	-	-	0.16	0.07
30	17.56	-	-	-	0.39	0.14
40	-	-	-	-	1.26	0.69
45	-	-	-	-	0.59	0.34
50	-	-	-	-	0.31	0.20
100	-	-	-	-	0.05	0.02
175	-	-	-	-	0.03	0.04
253	10.41	-	-	-	0.03	0.04

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.01	1.28	0.00	0.01	0.07
10	0.00	0.92	0.00	0.00	0.04
20	0.00	0.96	0.00	0.00	0.07
30	0.00	1.56	0.00	0.00	0.12
40	0.00	2.34	0.24	0.16	0.16
45	0.16	3.28	3.23	0.45	0.08
50	0.34	4.05	7.57	0.23	0.25
100	0.74	9.69	15.51	0.01	0.06
175	0.79	8.63	17.19	0.01	0.09
253	1.02	12.65	20.65	0.05	0.13

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
28	8 AUG 77	22:21:00	39 51.4 N	71 45.1 W	253
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	250	5	-	-	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	-	-	0.45
10	-	-	-	0.44
20	-	-	-	0.41
30	-	-	-	0.78
40	-	-	-	0.76
45	-	-	-	0.93
50	-	-	-	0.50
100	-	-	-	0.35
175	-	-	-	-
253	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
29	9 AUG 77	00:09:00	39 49.4 N	71 43.7 W	372
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
230		6	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	34.521	-	2.88	0.05	0.13
10	-	34.748	-	2.97	0.11	0.01
20	-	35.173	-	3.94	0.38	0.09
30	16.67	35.277	25.823	3.47	0.53	0.20
40	-	35.354	-	3.25	1.18	0.77
45	-	35.358	-	2.90	1.12	0.58
50	-	35.241	-	3.04	0.44	0.26
150	-	35.554	-	3.15	0.02	0.02
250	-	35.363	-	2.52	0.04	0.04
372	6.05	35.047	27.604	3.17	0.03	0.04

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.00	0.92	0.07	0.00	0.00
10	0.00	0.75	0.01	0.00	0.00
20	0.00	1.25	0.00	0.00	0.00
30	0.00	1.45	0.00	0.00	0.01
40	0.00	2.35	0.18	0.08	0.03
45	0.13	2.85	3.01	0.40	0.26
50	0.31	4.20	6.94	0.25	0.02
150	0.70	7.50	16.25	0.00	0.01
250	1.04	11.90	21.36	0.00	0.00
372	1.17	14.85	22.55	0.05	0.04

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
30	9 AUG 77	02:20:00	39 46.4 N	71 41.5 W	583
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
240		8	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
20	-	-	-	-	0.15	0.00
30	-	-	-	-	0.44	0.10
43	-	-	-	-	0.91	0.56
75	-	-	-	-	0.11	0.07
200	-	-	-	-	0.09	0.07
400	-	-	-	-	-	-
560	-	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
20	0.00	0.65	0.07	0.00	0.00
30	0.00	1.30	0.00	0.00	0.06
43	0.11	3.15	3.43	0.27	0.07
75	0.65	8.65	13.58	0.00	0.00
200	-	-	-	-	-
400	1.14	14.65	22.36	0.00	0.05
560	1.01	13.35	19.98	0.00	0.11

- DATA NOT TAKEN

STATION 31	DATE 9 AUG 77	TIME 04:44:00	LATITUDE 39 44.0 N	LONGITUDE 71 39.5 W	SONIC DEPTH 847
	WIND DIRECTION 230	WIND SPEED 7	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	0.15	0.03
10	-	-	-	-	0.20	0.04
20	-	-	-	-	0.35	0.07
30	-	-	-	-	0.51	0.29
40	-	-	-	-	0.62	0.41
45	-	-	-	-	0.38	0.21
75	-	-	-	-	0.09	0.04
100	-	-	-	-	-	-
150	-	-	-	-	-	-
200	10.74	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.01	0.69	0.10	0.00	0.13
10	0.00	0.70	0.00	0.00	0.00
20	0.00	0.94	0.00	0.00	0.00
30	0.00	1.60	-	-	0.11
40	0.12	2.69	-	-	0.11
45	0.27	3.55	-	-	0.02
75	0.60	6.54	-	-	0.05
100	0.70	7.45	16.08	0.00	0.02
150	0.76	8.36	17.22	0.00	0.07
200	0.96	10.50	19.85	0.00	0.02

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
32	9 AUG 77	07:43:00	39 39.0 N	71 35.5 W	1442
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	250	5	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	34.297	-	3.93	0.14	0.02
10	-	34.382	-	3.48	0.12	0.06
20	20.64	34.792	24.445	3.14	0.40	0.15
30	-	35.036	-	3.67	1.25	0.53
36	-	-	-	-	1.23	0.46
40	-	34.630	-	3.06	0.53	0.26
50	-	34.664	-	3.63	0.21	0.11
75	-	35.125	-	2.79	0.05	0.03
100	-	35.341	-	2.49	0.03	0.03
150	11.51	35.504	27.092	2.12	0.04	0.03

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.00	0.88	0.25	0.00	0.01
10	0.00	0.95	0.20	0.00	0.00
20	0.00	1.00	0.22	0.00	0.01
30	0.00	2.25	0.25	0.00	0.03
36	0.17	2.75	0.91	0.09	0.08
40	0.25	4.50	7.43	0.12	0.06
50	0.38	5.35	9.81	0.04	0.00
75	0.49	6.75	13.20	0.00	0.00
100	0.58	7.50	15.40	0.00	0.00
150	0.72	8.50	17.65	0.00	0.11

- DATA NOT TAKEN

STATION 33	DATE 9 AUG 77	TIME 11:40:00	LATITUDE 39 33.4 N	LONGITUDE 71 30.3 W	SONIC DEPTH 1870
	WIND DIRECTION 340	WIND SPEED 3	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	34.305	-	-	0.16	0.04
10	-	36.139	-	-	0.15	0.04
20	-	36.152	-	-	0.22	0.12
30	22.08	36.481	25.339	-	0.13	0.10
40	-	35.578	-	-	0.63	0.53
50	-	35.730	-	-	0.10	0.37
75	-	35.651	-	-	-	-
100	-	35.767	-	-	-	-
500	-	35.460	-	-	-	-
800	4.66	35.027	27.757	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.05	1.28	0.19	0.03	0.13
10	0.00	1.40	0.09	0.03	0.14
20	0.00	1.75	0.00	0.02	0.10
30	0.00	2.19	2.12	0.22	0.32
40	0.06	1.91	1.88	0.43	0.22
50	0.38	3.58	7.51	0.13	0.16
75	0.69	6.20	13.41	0.04	0.79
100	0.85	8.19	17.66	0.05	0.16
500	1.19	13.81	21.96	0.02	0.11
800	1.03	12.76	19.37	0.02	0.00

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
34	10 AUG 77	08:21:00	40 9.6 N	72 1.2 W	66
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	160	7	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	32.165	-	-	-	-
10	-	33.520	-	-	-	-
20	-	34.588	-	-	-	-
26	12.86	34.162	25.791	-	14.59	0.02
30	-	33.966	-	-	-	-
40	-	33.662	-	-	-	-
50	-	33.749	-	-	-	-
60	-	33.801	-	-	-	-
63	8.82	33.805	26.232	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	-	-	-	-
10	-	-	-	-	-
20	-	-	-	-	-
26	0.22	1.22	0.35	0.06	0.13
30	-	-	-	-	-
40	-	-	-	-	-
50	-	-	-	-	-
60	-	-	-	-	-
63	0.79	10.86	9.77	0.08	0.02

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
35	10 AUG 77	13:07:00	40 9.5 N	72 0.7 W	66
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	160	8	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
30	11.85	-	-	-	4.15	0.98
63	8.94	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
30	0.27	1.78	1.16	0.09	0.02
63	0.86	14.38	11.14	0.12	0.00

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
36	10 AUG 77	19:22:00	40 9.3 N	72 0.1 W	68
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
200		6	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	32.368	-	4.07	-	-
10	-	34.218	-	3.75	-	-
20	-	34.242	-	3.36	-	-
35	10.08	33.886	26.089	3.70	2.09	0.61
40	-	33.788	-	2.89	-	-
50	-	33.986	-	3.10	-	-
62	8.83	33.982	26.369	2.43	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	-	-	-	-
10	-	-	-	-	-
20	-	-	-	-	-
35	0.42	2.85	4.91	0.17	0.00
40	-	-	-	-	-
50	-	-	-	-	-
62	0.87	15.45	11.44	0.09	0.05

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
38	11 AUG 77	00:46:00	40 9.3 N	72 0.1 W	66
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	220	7	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	23.44	-	-	-	0.29	0.10
5	22.10	-	-	-	0.56	0.15
10	22.62	-	-	-	0.26	0.06
15	-	-	-	-	0.21	0.06
20	18.48	-	-	-	0.54	0.14
25	16.33	-	-	-	0.94	0.31
30	10.10	-	-	-	4.38	0.32
40	9.19	-	-	-	4.40	0.32
50	8.79	-	-	-	1.19	0.26
60	9.10	-	-	-	0.88	0.06

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.07	4.25	0.03	0.01	0.24
5	0.04	4.05	0.03	0.01	0.23
10	0.00	3.85	0.17	0.01	0.35
15	0.01	3.82	0.17	0.01	0.44
20	0.03	4.20	0.00	0.00	0.13
25	0.05	4.20	0.03	0.01	0.16
30	0.29	5.60	4.10	0.17	0.18
40	0.56	7.80	7.62	0.08	0.05
50	0.75	13.80	10.13	0.04	0.11
60	0.83	17.58	11.28	0.07	0.08

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
39	11 AUG 77	04:52:00	40 9.3 N	72 0.1 W	66
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
-		-	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	23.46	-	-	-	0.38	0.12
5	22.45	-	-	-	0.50	0.12
10	20.98	-	-	-	0.36	0.11
15	18.16	-	-	-	0.48	0.14
20	17.02	-	-	-	0.60	0.20
25	14.52	-	-	-	0.55	0.18
30	12.04	-	-	-	5.87	0.47
40	9.38	-	-	-	2.89	0.40
50	8.94	-	-	-	6.61	0.63
60	8.82	-	-	-	0.82	0.15

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.08	2.15	0.04	0.00	0.03
5	0.00	1.80	0.04	0.00	0.03
10	0.02	1.95	0.04	0.00	0.17
15	0.04	2.15	0.03	0.01	0.35
20	0.05	2.20	0.03	0.01	0.06
25	0.10	2.40	0.02	0.02	0.48
30	0.22	2.55	1.62	0.15	0.46
40	0.48	5.25	6.08	0.09	0.10
50	0.67	8.10	9.47	0.06	0.12
60	0.83	15.95	11.41	0.08	0.10

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC
40	11 AUG 77	08:35:00	40 9.3 N	72 0.1 W	DEPTH
	WIND	WIND	BAROMETRIC	AIR TEMP	
	DIRECTION	SPEED	PRESSURE	DRY BULB	
	230	5	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	23.42	-	-	-	0.40	0.21
5	23.32	-	-	-	0.46	0.06
10	22.51	-	-	-	0.18	0.13
15	20.57	-	-	-	0.66	0.21
20	17.67	-	-	-	0.50	0.16
25	15.75	-	-	-	0.78	0.19
30	14.05	-	-	-	8.80	1.48
40	9.17	-	-	-	2.29	0.29
50	7.83	-	-	-	3.23	0.32
60	8.78	-	-	-	1.73	0.10

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.09	2.22	0.04	0.00	0.02
5	0.08	2.20	0.02	0.00	0.25
10	0.00	1.75	0.02	0.00	0.15
15	0.02	1.90	0.07	0.00	0.50
20	0.04	2.10	0.00	0.00	0.16
25	0.07	2.25	0.00	0.00	0.06
30	0.13	1.90	0.43	0.00	0.55
40	0.54	5.10	2.04	0.05	0.02
50	0.66	7.75	8.47	0.07	0.14
60	0.78	14.15	10.92	0.07	0.20

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
41	11 AUG 77	12:25:00	40 9.0 N	72 0.0 W	65
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
250		4	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	32.353	-	3.57	0.27	0.06
5	-	32.789	-	3.57	0.24	0.06
10	-	34.770	-	3.89	0.24	0.08
15	22.45	34.818	23.973	4.48	0.23	0.06
20	-	34.338	-	4.83	0.57	0.24
25	-	34.414	-	4.65	0.90	0.11
30	-	33.805	-	4.22	2.85	0.68
40	-	33.615	-	4.03	1.03	0.33
50	-	33.768	-	4.12	1.43	0.38
62	8.79	33.950	26.350	3.48	0.94	0.12

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.09	1.99	0.04	0.00	0.00
5	0.07	1.94	0.04	0.00	0.04
10	0.01	1.63	0.03	0.01	0.02
15	0.00	1.68	0.03	0.01	0.02
20	0.08	2.07	0.14	0.02	1.59
25	0.07	2.07	0.00	0.02	0.16
30	0.20	1.86	0.47	0.07	0.23
40	0.61	5.95	7.40	0.14	0.08
50	0.54	5.78	7.04	0.09	0.07
62	0.82	15.60	11.13	0.09	0.39

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
42	11 AUG 77	16:16:00	40 9.5 N	72 0.5 W	66
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	270	3	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	0.24	0.07
5	-	-	-	-	0.58	0.24
10	-	-	-	-	0.32	0.13
15	21.29	-	-	-	0.32	0.15
20	-	-	-	-	0.52	0.23
25	-	-	-	-	1.10	0.43
30	-	-	-	-	1.20	0.21
40	-	-	-	-	2.88	0.64
50	-	-	-	-	1.93	0.37
63	8.82	-	-	-	0.56	0.19

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.11	2.10	0.13	0.01	0.79
5	0.05	2.02	0.00	0.01	0.01
10	0.01	1.66	0.00	0.01	0.00
15	0.02	1.80	0.01	0.01	0.08
20	0.07	2.09	0.00	0.00	0.00
25	0.10	1.98	0.06	0.03	0.07
30	0.43	3.85	4.86	0.14	0.25
40	0.61	7.59	7.94	0.08	0.02
50	0.68	10.00	8.64	0.06	0.14
63	0.87	15.98	11.23	0.09	0.00

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
43	11 AUG 77	20:44:00	40 9.4 N	72 0.4 W	66
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	220	4	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	32.166	-	3.49	0.22	0.09
5	-	32.359	-	3.23	0.28	0.05
10	-	-	-	-	-	-
15	21.36	34.666	24.162	4.59	0.42	0.12
20	-	34.252	-	4.66	0.58	0.00
25	-	-	-	3.96	0.54	0.28
31	-	33.906	-	4.38	1.59	0.29
40	-	33.744	-	3.35	1.89	0.22
50	-	33.760	-	2.80	1.69	0.19
62	8.86	34.005	26.382	2.91	0.60	0.11

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.10	2.56	0.07	0.02	0.11
5	0.08	2.46	0.00	0.02	0.01
10	-	-	-	-	-
15	0.02	2.12	0.00	0.02	0.00
20	0.04	2.40	0.00	0.02	0.01
25	0.13	2.48	0.00	0.03	0.15
31	0.41	4.69	4.31	0.14	0.05
40	0.60	6.24	7.32	0.08	0.03
50	0.66	8.85	8.41	0.08	0.00
62	0.85	16.56	11.18	0.08	0.00

- DATA NOT TAKEN

STATION 44	DATE 12 AUG 77	TIME 13:23:00	LATITUDE 40 46.6 N	LONGITUDE 72 31.1 W	SONIC DEPTH 28
	WIND DIRECTION 230	WIND SPEED 6	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	31.286	-	-	-	-
5	-	31.293	-	-	-	-
10	-	31.546	-	-	-	-
17	-	31.825	-	-	-	-
22	14.21	32.158	23.972	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.13	1.10	0.09	0.00	0.06
5	0.11	1.00	0.04	0.00	0.09
10	0.22	1.10	0.02	0.00	0.04
17	0.62	2.78	0.08	0.01	0.27
22	0.84	7.07	0.48	0.06	0.37

- DATA NOT TAKEN

STATION 45	DATE 14 AUG 77	TIME 12:00:00	LATITUDE 39 41.9 N	LONGITUDE 73 34.4 W	SONIC DEPTH 35
	WIND DIRECTION 220	WIND SPEED 8	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
1	-	31.661	-	5.30	1.17	0.52
5	-	-	-	5.30	1.06	0.39
10	23.62	31.656	21.249	5.41	1.31	0.50
15	-	-	-	5.74	5.81	1.49
20	-	32.735	-	3.46	1.01	0.82
22	-	-	-	3.78	0.90	0.68
25	-	-	-	3.93	0.66	0.58
30	9.67	32.780	25.296	4.01	0.56	0.34

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
1	0.04	3.33	0.02	0.00	0.22
5	0.04	3.18	0.00	0.00	0.19
10	0.08	3.10	0.00	0.00	0.16
15	0.30	3.51	0.00	0.00	0.26
20	0.99	13.54	3.14	0.89	6.54
22	0.97	13.30	3.13	0.78	7.63
25	0.93	13.10	3.50	0.68	7.12
30	0.96	13.10	3.77	0.68	6.50

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
46	14 AUG 77	13:38:00	39 42.9 N	73 40.9 W	27
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	210	9	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
1	-	-	-	5.25	1.02	0.34
5	-	-	-	5.23	1.09	0.36
10	-	-	-	5.27	1.29	0.46
15	-	-	-	5.21	3.24	0.87
20	-	-	-	3.47	1.95	0.87
23	11.60	-	-	3.40	1.64	1.00

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
1	0.06	3.72	0.47	0.01	0.00
5	0.05	3.50	0.45	0.00	0.00
10	0.06	3.45	0.50	0.00	0.00
15	0.17	3.60	0.48	0.02	0.00
20	0.89	10.90	2.61	0.39	4.05
23	0.95	11.75	2.86	0.59	4.71

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
47	14 AUG 77	14:58:00	39 45.2 N	73 50.9 W	24
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
200		11	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	5.28	1.63	0.50
5	-	-	-	5.24	1.71	0.49
10	-	-	-	5.13	4.62	1.44
13	-	-	-	5.36	2.03	0.81
15	-	-	-	4.62	7.96	2.37
20	11.96	-	-	3.28	2.47	1.17

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.07	5.38	0.50	0.02	0.08
5	0.07	5.08	0.49	0.01	0.11
10	0.27	4.50	0.50	0.00	0.12
13	0.08	4.02	0.49	0.01	0.40
15	0.51	5.10	0.57	0.02	0.33
20	0.95	11.08	2.64	0.54	4.35

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC
48	14 AUG 77	16:30:00	39 46.2 N	73 58.9 W	DEPTH
	WIND	WIND	BAROMETRIC	AIR TEMP	
	DIRECTION	SPEED	PRESSURE	DRY BULB	
	210	5	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	5.58	7.50	1.66
5	-	-	-	5.54	7.17	1.86
10	-	-	-	1.97	1.31	0.99
15	-	-	-	1.77	0.62	0.66
19	11.80	-	-	1.75	0.51	0.57

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.30	5.80	0.01	0.15	0.24
5	0.30	5.75	0.00	0.14	0.21
10	0.97	13.58	0.27	0.21	0.56
15	1.57	22.25	3.64	0.83	8.06
19	1.60	21.40	3.98	0.92	10.01

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
49	14 AUG 77	20:28:00	39 46.3 N	73 46.1 W	25
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	210	6	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	-	-
5	-	-	-	-	-	-
10	-	-	-	-	-	-
15	-	-	-	-	-	-
18	-	-	-	-	2.39	1.13
20	11.98	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	-	-	-	-
5	-	-	-	-	-
10	-	-	-	-	-
15	-	-	-	-	-
18	-	-	-	-	-
20	-	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC
50	15 AUG 77	00:29:00	39 46.0 N	73 45.3 W	DEPTH
					24
	WIND	WIND	BAROMETRIC	AIR TEMP	
	DIRECTION	SPEED	PRESSURE	DRY BULB	
	250	6	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
13	-	-	-	-	3.85	1.46
21	-	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
13	-	-	-	-	-
21	-	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
51	15 AUG 77	04:24:00	39 46.0 N	73 45.3 W	24
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	280	6	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
15	-	-	-	-	3.70	1.06
21	-	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
15	-	-	-	-	-
21	-	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC
52	15 AUG 77	08:14:00	39 46.0 N	73 46.0 W	DEPTH
					25
	WIND	WIND	BAROMETRIC	AIR TEMP	
	DIRECTION	SPEED	PRESSURE	DRY BULB	
	200	4	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	31.903	-	3.97	-	-
5	-	31.922	-	2.86	-	-
10	-	31.899	-	3.04	-	-
15	-	32.494	-	2.94	-	-
17	-	-	-	-	4.97	2.30
21	11.93	32.666	24.813	1.81	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	-	-	-	-
5	-	-	-	-	-
10	-	-	-	-	-
15	-	-	-	-	-
17	-	-	-	-	-
21	-	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
53	15 AUG 77	12:08:00	39 46.6 N	73 46.8 W	24
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	60	4	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
15	-	-	-	-	3.84	1.56
20	-	-	-	3.38	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
15	-	-	-	-	-
20	-	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC
54	15 AUG 77	16:17:00	39 46.6 N	73 46.8 W	DEPTH
					24

WIND	WIND	BAROMETRIC	AIR TEMP
DIRECTION	SPEED	PRESSURE	DRY BULB
130	2	-	-

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
15	-	-	-	-	3.88	1.71
20	-	-	-	3.36	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
15	-	-	-	-	-
20	-	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
55	15 AUG 77	20:22:00	39 46.5 N	73 46.8 W	25
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
170		2	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
18	-	-	-	-	2.41	1.21
21	-	-	-	2.80	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
18	-	-	-	-	-
21	-	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
56	16 AUG 77	00:13:00	39 46.6 N	73 46.4 W	25

WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB
200	2	-	-

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
16	-	-	-	-	1.46	0.94
21	-	-	-	3.19	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
16	-	-	-	-	-
21	-	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
57	16 AUG 77	04:24:00	39 46.6 N	73 46.4 W	25
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	100	3	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
15	-	-	-	-	-	-
20	-	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
15	-	-	-	-	-
20	-	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
58	16 AUG 77	08:37:00	39 46.6 N	73 46.6 W	25
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	150	7	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	31.841	-	5.18	-	-
5	-	31.839	-	2.99	-	-
10	-	31.838	-	3.06	-	-
15	-	31.984	-	2.00	-	-
18	-	-	-	-	4.10	1.58
21	-	32.703	-	2.11	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	-	-	-	-
5	-	-	-	-	-
10	-	-	-	-	-
15	-	-	-	-	-
18	-	-	-	-	-
21	-	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
59	16 AUG 77	11:15:00	39 46.6 N	73 46.6 W	24
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
160		7	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
17	-	-	-	-	3.24	1.58
21	-	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
17	-	-	-	-	-
21	-	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
60	16 AUG 77	16:00:00	39 46.6 N	73 46.6 W	26
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	190	5	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
15	-	-	-	-	1.57	0.95
21	-	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
15	-	-	-	-	-
21	-	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
61	16 AUG 77	20:42:00	39 46.4 N	73 45.2 W	25
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
170		8	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	-	-	-	-	-	-
5	-	-	-	-	-	-
10	-	-	-	-	-	-
15	-	-	-	-	-	-
18	-	-	-	-	3.58	1.58
20	-	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	-	-	-	-
5	-	-	-	-	-
10	-	-	-	-	-
15	-	-	-	-	-
18	-	-	-	-	-
20	-	-	-	-	-

- DATA NOT TAKEN

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH
62	17 AUG 77	00:08:00	39 46.4 N	73 45.2 W	25
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	-	-	-	-	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	24.49	-	-	-	-	-
3	24.49	-	-	-	-	-
5	24.48	-	-	-	-	-
10	24.42	-	-	-	-	-
15	14.22	-	-	-	4.93	0.32
20	11.44	-	-	-	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	-	-	-	-
3	-	-	-	-	-
5	-	-	-	-	-
10	-	-	-	-	-
15	-	-	-	-	-
20	-	-	-	-	-

- DATA NOT TAKEN



HYDROGRAPHY 18-30 AUGUST

TABLE OF UNITS

STATION	DATE EDT	TIME EDT	LATITUDE DEG N	LONGITUDE DEG W	SONIC DEPTH METERS	
	WIND DIRECTION DEGREES TRUE	WIND SPEED M/SEC	BAROMETRIC PRESSURE MBS (TRUNC)	AIR TEMP DRY BULB C		

DEPTH METERS	TEMPERATURE CELSIUS	SALINITY PARTS/1000	SIGMA-T	OXYGEN ML/L	CHLOROPHYLL UG/L	PHAEOPHYTIN UG/L
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DEPTH METERS	PHOSPHATE UG-AT/L	SILICATE UG-AT/L	NITRATE UG-AT/L	NITRITE UG-AT/L	AMMONIUM UG-AT/L	
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DEPTH METERS	PARTICLE VOLUME 100U MM**3/L	PARTICLE VOLUME 200U MM**3/L	PARTICLE VOLUME 280U MM**3/L	PARTICLE VOLUME 400U MM**3/L		

STATION 63	CAST 1	MAX DEPTH OF CAST 21	DATE 18 AUG 77	TIME 15:49:00	LATITUDE 40 30.0 N	LONGITUDE 73 46.0 W
	SONIC DEPTH 23	WIND DIRECTION 270	WIND SPEED 6	BAROMETRIC PRESSURE 16.3	AIR TEMP DRY BULB 25.6	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.44	31.179	21.498	4.99	9.89	2.61
5	21.04	31.229	21.643	4.84	8.43	1.75
10	15.93	31.994	23.477	3.45	1.21	0.79
15	12.44	32.208	24.362	2.71	0.98	0.85
18	12.47	32.250	24.389	2.20	1.45	0.77
21	12.35	32.259	24.419	2.19	0.84	0.73

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.64	7.98	1.69	0.27	1.13
5	0.64	8.17	1.72	0.29	1.35
10	0.90	9.84	1.50	0.29	3.84
15	1.27	17.74	4.61	0.82	5.03
18	1.59	20.16	3.98	0.70	7.04
21	1.56	20.28	4.19	0.74	7.07

- DATA NOT TAKEN

STATION 63	CAST 1	MAX DEPTH OF CAST 21	DATE 18 AUG 77	TIME 15:49:00	LATITUDE 40 30.0 N	LONGITUDE 73 46.0 W
	SONIC DEPTH 23	WIND DIRECTION 270	WIND SPEED 6	BAROMETRIC PRESSURE 16.3	AIR TEMP DRY BULB 25.6	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.93	-	-
5	-	1.98	-	-
10	-	1.71	-	-
15	-	1.63	-	-
18	-	1.77	-	-
21	-	1.63	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
65	1	21	18 AUG 77	23:57:00	40 30.2 N	73 47.2 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	23	360	2	-	20.0	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.06	31.037	21.492	5.58	14.70	1.99
5	20.68	31.046	21.599	5.12	12.24	3.04
10	13.56	32.129	24.082	3.68	1.03	0.61
15	12.22	32.260	24.444	2.57	0.63	0.68
18	12.21	32.262	24.448	2.44	0.62	0.77
21	12.24	32.261	24.441	2.47	0.62	0.77

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.64	7.38	1.43	0.34	0.23
5	0.75	7.44	1.76	0.39	1.04
10	0.84	11.98	1.72	0.42	2.51
15	1.36	19.52	3.52	0.85	6.68
18	1.56	19.90	3.45	0.84	7.12
21	1.52	19.89	3.44	0.84	7.29

- DATA NOT TAKEN

STATION 65	CAST 1	MAX DEPTH OF CAST 21	DATE 18 AUG 77	TIME 23:57:00	LATITUDE 40 30.2 N	LONGITUDE 73 47.2 W
	SONIC DEPTH 23	WIND DIRECTION 360	WIND SPEED 2	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB 20.0	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.04	-	-
5	-	1.95	-	-
10	-	1.74	-	-
15	-	1.52	-	-
18	-	1.53	-	-
21	-	1.53	-	-

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- DATA NOT TAKEN

STATION 67	CAST 1	MAX DEPTH OF CAST 21	DATE 19 AUG 77	TIME 07:25:00	LATITUDE 40 30.1 N	LONGITUDE 73 46.6 W
	SONIC DEPTH 23	WIND DIRECTION 170	WIND SPEED 5	BAROMETRIC PRESSURE 20.0	AIR TEMP DRY BULB 18.3	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	20.22	30.984	21.672	5.11	10.38	2.25
5	20.33	31.000	21.656	-	11.85	3.11
10	18.53	31.986	23.335	3.52	1.46	0.94
15	12.36	32.235	24.398	-	0.91	0.66
18	12.08	32.301	24.502	-	0.45	0.48
21	12.01	32.317	24.528	-	0.51	0.51

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.96	7.94	1.18	0.35	0.96
5	0.78	7.52	0.71	0.26	0.57
10	0.88	9.52	0.87	0.26	3.70
15	1.14	14.41	1.94	0.64	4.76
18	1.56	20.15	2.46	0.84	7.91
21	1.60	21.20	2.45	0.85	8.56

- DATA NOT TAKEN

STATION 67	CAST 1	MAX DEPTH OF CAST 21	DATE 19 AUG 77	TIME 07:25:00	LATITUDE 40 30.1 N	LONGITUDE 73 46.6 W
	SONIC DEPTH 23	WIND DIRECTION 170	WIND SPEED 5	BAROMETRIC PRESSURE 20.0	AIR TEMP DRY BULB 18.3	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.97	-	-
5	-	1.94	-	-
10	-	1.72	-	-
15	-	1.69	-	-
18	-	1.57	-	-
21	-	1.58	-	-

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- DATA NOT TAKEN

STATION 69	CAST 1	MAX DEPTH OF CAST 21	DATE 19 AUG 77	TIME 15:09:00	LATITUDE 40 29.5 N	LONGITUDE 73 46.6 W
	SONIC DEPTH 23	WIND DIRECTION 170	WIND SPEED 4	BAROMETRIC PRESSURE 19.3	AIR TEMP DRY BULB 22.2	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.24	31.051	21.454	6.13	14.22	2.56
5	18.81	31.073	22.097	3.87	9.19	2.97
10	13.97	32.119	23.992	3.38	2.24	1.12
15	12.21	32.245	24.435	2.75	1.99	0.83
18	12.16	32.261	24.456	2.49	0.72	0.62
21	12.08	32.278	24.484	2.40	0.64	0.63

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.97	8.24	2.10	0.65	0.19
5	1.38	11.53	2.61	0.70	5.25
10	1.30	18.14	2.93	0.95	5.70
15	1.00	12.45	1.45	0.47	3.98
18	1.41	19.32	2.99	0.98	6.70
21	1.48	20.09	2.99	0.98	7.32

- DATA NOT TAKEN

STATION 69	CAST 1	MAX DEPTH OF CAST 21	DATE 19 AUG 77	TIME 15:09:00	LATITUDE 40 29.5 N	LONGITUDE 73 46.6 W
	SONIC DEPTH 23	WIND DIRECTION 170	WIND SPEED 4	BAROMETRIC PRESSURE 19.3	AIR TEMP DRY BULB 22.2	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.00	-	-
5	-	1.89	-	-
10	-	1.79	-	-
15	-	1.83	-	-
18	-	1.63	-	-
21	-	1.59	-	-

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- DATA NOT TAKEN

STATION 71	CAST 1	MAX DEPTH OF CAST 22	DATE 19 AUG 77	TIME 23:10:00	LATITUDE 40 29.7 N	LONGITUDE 73 45.7 W
	SONIC DEPTH 24	WIND DIRECTION 200	WIND SPEED 4	BAROMETRIC PRESSURE 18.3	AIR TEMP DRY BULB 20.0	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	20.34	30.738	21.455	5.59	15.01	2.94
4	20.00	30.795	21.586	5.20	14.51	3.54
8	17.74	31.422	22.622	3.38	5.25	1.57
12	14.15	32.043	23.896	3.93	1.18	0.72
16	12.55	32.220	24.387	2.65	0.75	0.60
22	12.00	32.286	24.505	2.44	0.75	0.55

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	1.02	7.21	2.17	0.60	0.36
4	1.12	7.83	2.36	0.64	2.16
8	1.28	10.79	2.16	0.56	5.86
12	0.84	8.66	0.95	0.37	2.19
16	1.38	16.73	3.04	0.95	6.30
22	1.45	18.44	3.25	1.02	7.76

- DATA NOT TAKEN

STATION 71	CAST 1	MAX DEPTH OF CAST 22	DATE 19 AUG 77	TIME 23:10:00	LATITUDE 40 29.7 N	LONGITUDE 73 45.7 W
	SONIC DEPTH 24	WIND DIRECTION 200	WIND SPEED 4	BAROMETRIC PRESSURE 18.3	AIR TEMP DRY BULB 20.0	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.99	-	-
4	-	1.95	-	-
9	-	1.91	-	-
12	-	1.73	-	-
16	-	1.66	-	-
22	-	1.68	-	-

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- DATA NOT TAKEN

STATION 73	CAST 1	MAX DEPTH OF CAST 20	DATE 20 AUG 77	TIME 06:55:00	LATITUDE 40 30.0 N	LONGITUDE 73 46.2 W
	SONIC DEPTH 22	WIND DIRECTION 100	WIND SPEED 4	BAROMETRIC PRESSURE 19.3	AIR TEMP DRY BULB 20.0	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	20.44	30.661	21.370	4.97	13.84	3.72
4	20.20	30.754	21.503	4.68	12.12	3.15
8	18.40	31.267	22.345	3.64	6.85	2.63
12	14.14	32.018	23.879	3.69	1.36	0.80
16	12.47	32.217	24.364	2.56	0.99	0.83
20	12.31	32.248	24.418	2.34	0.70	0.69

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	1.17	8.19	2.70	0.70	2.45
4	1.21	13.61	2.67	0.69	3.02
8	1.29	10.17	2.11	0.57	5.00
12	0.88	9.49	1.16	0.47	2.47
16	1.41	17.10	2.90	1.00	6.57
20	1.52	18.72	3.00	1.00	7.53

- DATA NOT TAKEN

STATION 73	CAST 1	MAX DEPTH OF CAST 20	DATE 20 AUG 77	TIME 06:55:00	LATITUDE 40 30.0 N	LONGITUDE 73 46.2 W
	SONIC DEPTH 22	WIND DIRECTION 100	WIND SPEED 4	BAROMETRIC PRESSURE 19.3	AIR TEMP DRY BULB 20.0	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.93	-	-
4	-	1.94	-	-
8	-	1.85	-	-
12	-	1.75	-	-
16	-	1.64	-	-
20	-	1.59	-	-

- DATA NOT TAKEN

STATION 75	CAST 1	MAX DEPTH OF CAST 20	DATE 20 AUG 77	TIME 15:21:00	LATITUDE 40 30.0 N	LONGITUDE 73 46.4 W
	SONIC DEPTH 23	WIND DIRECTION 270	WIND SPEED 6	BAROMETRIC PRESSURE 18.3	AIR TEMP DRY BULB 25.6	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	20.90	30.569	21.180	6.75	25.50	5.05
4	19.16	30.746	21.761	4.16	10.52	3.04
8	16.81	31.629	22.998	3.35	3.25	1.59
12	13.12	32.134	24.174	3.31	0.94	0.68
16	12.42	32.238	24.389	2.34	1.94	0.86
20	12.38	32.241	24.399	2.27	0.69	0.84

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.90	6.39	0.82	0.36	0.20
4	1.56	11.03	3.53	0.96	5.61
8	1.14	10.37	1.71	0.47	4.89
12	1.08	13.27	2.22	0.78	3.88
16	1.50	18.61	2.92	0.98	7.37
20	1.54	19.10	3.01	0.99	7.26

- DATA NOT TAKEN

STATION 75	CAST 1	MAX DEPTH OF CAST 20	DATE 20 AUG 77	TIME 15:21:00	LATITUDE 40 30.0 N	LONGITUDE 73 46.4 W
	SONIC DEPTH 23	WIND DIRECTION 270	WIND SPEED 6	BAROMETRIC PRESSURE 18.3	AIR TEMP DRY BULB 25.6	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.99	-	-
4	-	1.92	-	-
8	-	1.79	-	-
12	-	1.69	-	-
16	-	1.82	-	-
20	-	1.53	-	-

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- DATA NOT TAKEN

STATION 76	CAST - 1	MAX DEPTH OF CAST 20	DATE 20 AUG 77	TIME 18:52:00	LATITUDE 40 24.6 N	LONGITUDE 73 42.2 W
	SONIC DEPTH 23	WIND DIRECTION 285	WIND SPEED 8	BAROMETRIC PRESSURE 17.3	AIR TEMP DRY BULB 23.3	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.97	31.223	21.108	6.20	10.08	2.19
4	23.01	31.302	21.156	5.96	8.55	1.82
8	23.16	31.497	21.261	5.44	3.98	0.93
11	21.24	31.568	21.846	5.05	3.32	1.23
15	13.81	32.104	24.013	3.20	1.26	0.73
20	12.27	32.271	24.443	2.34	0.96	0.48

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.25	4.35	0.06	0.03	0.09
4	0.19	4.25	0.08	0.01	0.09
8	0.09	4.25	0.07	0.02	0.05
11	0.17	4.05	0.11	0.03	0.18
15	1.16	12.60	1.84	0.66	4.00
20	1.72	17.00	2.84	0.93	5.81

- DATA NOT TAKEN

STATION 76	CAST 1	MAX DEPTH OF CAST 20	DATE 20 AUG 77	TIME 18:52:00	LATITUDE 40 24.6 N	LONGITUDE 73 42.2 W
	SONIC DEPTH 23	WIND DIRECTION 295	WIND SPEED 8	BAROMETRIC PRESSURE 17.3	AIR TEMP DRY BULB 23.3	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	5.14	1.97	-	-
4	4.45	1.97	-	-
8	3.35	1.95	-	-
11	1.40	1.90	-	-
15	0.89	1.75	-	-
20	0.74	1.78	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
77	1	4	20 AUG 77	22:00:00	40 20.1 N	73 54.5 W
77	2	19	20 AUG 77	22:07:00	40 20.1 N	73 54.5 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	19	350	8	19.3	24.4	
	19	350	8	19.3	24.4	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	23.27	31.525	21.251	5.46	3.73	0.53
4	23.28	31.524	21.247	5.43	3.89	0.76
8	23.09	31.541	21.314	5.38	4.23	0.73
12	15.11	32.139	23.767	3.42	1.72	0.89
16	13.60*	32.238	24.158	1.87	0.76	0.62
19	12.36	32.343	24.482	1.54	0.44	0.73

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.07	4.40	0.02	0.02	0.09
4	0.05	4.35	0.03	0.01	0.06
8	0.05	4.35	0.03	0.01	0.06
12	0.98	12.40	1.65	0.44	4.06
16	1.76	22.25	3.94	0.96	9.25
19	1.92	25.90	4.52	1.11	10.59

- DATA NOT TAKEN

* SINGLE THERMOMETER ONLY

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
77	1	4	20 AUG 77	22:00:00	40 20.1 N	73 54.5 W
77	2	19	20 AUG 77	22:07:00	40 20.1 N	73 54.5 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	19	350	8	19.3	24.4	
	19	350	8	19.3	24.4	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	3.06	2.03	-	-
4	3.03	2.00	-	-
8	2.85	2.00	-	-
12	0.91	1.78	-	-
16	0.90	1.65	-	-
19	1.11	1.44	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
78	1	53	21 AUG 77	00:32:00	40 17.5 N	73 47.8 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
53	50	5	23.0	20.0		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	23.44	31.813	21.419	5.27	1.36	0.24
3	23.46	31.813	21.414	5.28	1.44	0.20
8	23.44	31.813	21.419	5.30	1.77	0.37
12	23.41	31.912	21.427	5.32	1.51	0.27
19	11.98	32.360	24.566	5.62	1.29	0.68
33	10.42	32.580	25.015	3.47	0.42	0.41
53	9.52	32.775	25.317	2.94	0.39	0.41

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.06	4.33	0.11	0.01	0.10
3	0.06	4.43	0.05	0.02	0.23
8	0.06	4.32	0.06	0.01	0.23
12	0.06	4.27	0.10	0.01	0.50
19	0.50	7.67	0.75	0.13	1.50
33	1.19	17.51	4.38	0.62	6.89
53	1.65	27.31	4.30	1.34	13.40

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
78	1	53	21 AUG 77	00:32:00	40 17.5 N	73 47.8 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	53	50	5	23.0	20.0	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.00	-	-
3	-	2.03	-	-
8	-	1.98	-	-
12	-	2.00	-	-
19	-	1.78	-	-
33	-	1.59	-	-
53	-	1.58	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
79	1	18	21 AUG 77	04:15:00	40 0.0 N	73 57.8 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	21	20	3	23.0	23.0	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.94	31.505	21.329	5.33	3.65	0.89
4	22.98	31.500	21.314	5.29	4.09	1.02
8	22.23	31.527	21.620	5.16	4.33	0.97
13	13.92	32.357	24.185	3.80	4.05	1.53
18	11.66	32.453	24.698	2.15	0.85	0.88

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.09	5.98	0.12	0.02	0.06
4	0.07	5.79	0.13	0.01	0.08
8	0.10	5.51	0.09	0.00	0.05
13	0.71	9.38	0.95	0.23	0.34
18	1.62	22.50	4.50	1.27	8.33

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.95	-	-
4	-	1.84	-	-
8	-	1.96	-	-
13	-	1.96	-	-
18	-	1.68	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
80	1	11	21 AUG 77	07:57:00	39 44.4 N	74 3.9 W
80	2	14	21 AUG 77	09:50:00	39 44.6 N	74 3.8 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	14	60	3	21.3	25.6	
	14	60	3	21.3	25.6	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.52	31.553	21.484	5.30	4.68	0.80
2	22.54	31.540	21.468	5.32	4.41	0.89
4	22.54	31.548	21.474	5.30	4.72	0.99
6	22.56	31.543	21.465	5.28	4.64	0.79
11	-	31.546	-	5.10	5.21	1.27
12	22.26	31.535	21.542	5.05	-	-
14	20.86	31.534	21.996	4.39	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.07	4.93	0.18	0.02	0.12
2	0.07	4.72	0.11	0.04	0.14
4	0.07	4.57	0.14	0.01	0.08
6	0.06	4.61	0.09	0.01	0.08
11	0.16	5.30	0.22	0.03	0.30
12	-	-	-	-	-
14	-	-	-	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
80	1	11	21 AUG 77	07:57:00	39 44.4 N	74 3.9 W
80	2	14	21 AUG 77	09:50:00	39 44.6 N	74 3.8 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	14	60	3	21.3	25.6	
	14	60	3	21.3	25.6	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	3.49	2.01	-	0.65
2	2.79	1.98	-	0.66
6	1.28	1.98	-	0.47
8	2.98	2.01	-	0.76
11	3.10	1.95	-	1.32
12	-	-	-	-
14	-	-	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
81	1	18	21 AUG 77	14:37:00	39 46.4 N	73 58.6 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	21	120	2	26.1	22.8	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.46	31.623	21.828	5.77	5.19	0.84
5	20.62	31.616	22.047	5.66	6.16	1.25
9	18.44	32.104	23.446	3.37	8.21	1.77
13	11.98	32.465	24.666	1.50	1.26	0.78
18	11.82	32.471	24.682	1.33	0.90	0.71

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.26	5.82	0.00	0.02	0.17
5	0.29	5.91	0.00	0.02	0.08
9	0.72	8.75	0.00	0.02	0.31
13	1.68	20.95	4.53	1.22	7.01
18	1.74	21.94	4.93	1.29	7.61

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.02	-	-
5	-	1.98	-	-
9	-	1.97	-	-
13	-	1.73	-	-
18	-	1.66	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
82	1	20	21 AUG 77	17:03:00	39 45.3 N	73 51.6 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
23	140	4	23.4	22.2		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	23.83	31.783	21.284	5.26	0.54	0.20
3	23.60	31.762	21.335	5.29	0.80	0.35
7	23.48	31.771	21.376	5.25	0.94	0.40
11	18.19	32.063	23.003	5.23	3.98	1.32
15	12.84	32.568	24.554	3.20	3.45	1.67
20	11.46	32.669	24.901	2.51	2.17	1.57

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	3.93	1.79	0.10	0.02	0.12
3	4.85	1.53	-	0.01	0.07
7	2.66	1.63	0.05	0.01	0.09
11	0.24	3.07	0.00	0.01	0.12
15	0.04	7.97	2.61	0.60	3.25
20	1.22	14.31	4.09	0.81	4.07

- DATA NOT TAKEN

STATION 82	CAST 1	MAX DEPTH OF CAST 20	DATE 21 AUG 77	TIME 17:03:00	LATITUDE 39 45.3 N	LONGITUDE 73 51.6 W
	SONIC DEPTH 23	WIND DIRECTION 140	WIND SPEED 4	BAROMETRIC PRESSURE 23.4	AIR TEMP DRY BULB 22.2	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	0.88	1.86	-	0.68
3	0.77	1.82	-	0.88
7	0.98	1.80	-	0.78
11	1.52	1.89	-	1.19
16	1.63	1.80	-	0.95
20	0.90	1.68	-	0.59

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
83	1	22	21 AUG 77	18:45:00	39 44.0 N	73 43.4 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	27	140	5	23.4	22.2	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	23.62	31.789	21.349	-	1.48	0.33
4	23.49	31.789	21.387	5.45	1.47	0.29
8	23.36	31.805	21.436	-	1.76	0.40
12	23.32	31.807	21.449	5.28	1.62	0.35
18	11.68	32.674	24.866	-	3.30	1.24
22	11.62	32.671	24.974	2.98	2.51	1.25

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.08	3.16	0.15	0.01	0.05
4	0.06	3.57	0.04	0.01	0.05
8	0.04	3.12	0.05	0.00	0.06
12	0.05	3.13	0.05	0.00	0.06
18	1.06	11.53	3.31	0.69	3.26
22	1.11	11.93	3.49	0.72	4.21

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
83	1	22	21 AUG 77	18:45:00	39 44.0 N	73 43.4 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	27	140	5	23.4	22.2	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.96	-	-
4	-	1.99	-	-
8	-	1.96	-	-
12	-	1.97	-	-
18	-	1.86	-	-
22	-	1.79	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
84	1	34	21 AUG 77	20:51:00	39 42.4 N	73 35.0 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	36	165	6	19.3	22.2	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	23.90	31.492	21.044	-	2.20	0.52
5	23.78	31.540	21.115	5.39	1.99	0.52
10	23.60	31.576	21.223	-	2.14	0.44
15	23.39	31.629	21.295	5.18	2.22	0.58
22	10.34	32.519	24.981	-	0.75	0.45
34	9.58	32.695	25.245	4.64	0.55	0.40

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.06	3.29	0.08	0.02	0.10
5	0.04	3.29	0.04	0.01	0.07
10	0.05	3.34	0.04	0.01	0.07
15	0.05	3.49	0.04	0.01	0.08
22	0.45	4.95	0.34	0.08	1.35
34	0.83	10.56	3.19	0.65	3.56

- DATA NOT TAKEN

STATION 84	CAST 1	MAX DEPTH OF CAST 34	DATE 21 AUG 77	TIME 20:51:00	LATITUDE 39 42.4 N	LONGITUDE 73 35.0 W
	SONIC DEPTH 36	WIND DIRECTION 165	WIND SPEED 6	BAROMETRIC PRESSURE 19.3	AIR TEMP DRY BULB 22.2	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	1.98	1.96	-	0.72
5	1.54	1.94	-	0.74
10	1.25	1.98	-	1.24
16	1.27	1.93	-	1.71
22	0.56	1.74	-	1.48
34	0.54	1.68	-	1.22

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
85	1	34	21 AUG 77	22:50:00	39 40.8 N	73 25.5 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	37	170	6	19.3	21.1	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.81	31.122	21.077	-	3.75	1.38
4	22.82	31.124	21.076	5.74	4.51	0.58
9	22.68	31.139	21.126	-	3.86	1.42
14	14.97	32.243	23.877	5.93	1.33	0.61
21	9.38	32.742	25.314	-	0.49	0.26
34	9.36	32.755	25.327	4.62	0.40	0.22

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.13	2.86	0.08	0.02	0.10
4	0.14	2.86	0.09	0.01	0.10
9	0.11	2.77	0.04	0.01	0.10
14	0.28	2.67	0.05	0.00	0.62
21	0.80	10.07	3.38	0.77	4.43
34	0.84	10.43	3.60	0.82	4.83

- DATA NOT TAKEN

STATION 85	CAST 1	MAX DEPTH OF CAST 34	DATE 21 AUG 77	TIME 22:50:00	LATITUDE 39 40.8 N	LONGITUDE 73 25.5 W
	SONIC DEPTH 37	WIND DIRECTION 170	WIND SPEED 6	BAROMETRIC PRESSURE 19.3	AIR TEMP DRY BULB 21.1	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.86	-	-
4	-	2.05	-	-
9	-	1.86	-	-
14	-	1.81	-	-
21	-	1.77	-	-
34	-	1.76	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
86	1	34	22 AUG 77	01:26:00	39 39.3 N	73 15.6 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
38	160	6	20.0	20.0		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.50	31.170	21.200	-	4.15	-
5	21.56	31.249	21.518	5.52	3.53	0.40
10	12.64	32.321	24.412	-	1.77	0.52
15	10.28	32.551	25.017	5.73	0.55	0.28
25	9.48	32.705	25.269	-	0.32	0.27
34	8.92	32.958	25.555	4.56	0.24	0.16

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.14	2.78	0.08	0.02	0.08
5	0.18	2.78	0.10	0.00	0.35
10	0.42	3.64	0.10	0.00	0.78
15	0.47	4.99	0.64	0.10	1.06
25	0.68	7.80	2.60	0.56	2.34
34	0.89	11.90	6.72	0.33	3.54

- DATA NOT TAKEN

STATION 86	CAST 1	MAX DEPTH OF CAST 34	DATE 22 AUG 77	TIME 01:26:00	LATITUDE 39 39.3 N	LONGITUDE 73 15.6 W
	SONIC DEPTH 38	WIND DIRECTION 160	WIND SPEED 6	BAROMETRIC PRESSURE 20.0	AIR TEMP DRY BULB 20.0	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.75	-	-
5	-	2.06	-	-
10	-	1.91	-	-
15	-	1.78	-	-
25	-	1.64	-	-
34	-	1.71	-	-

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- DATA NOT TAKEN

STATION 87	CAST 1	MAX DEPTH OF CAST 35	DATE 22 AUG 77	TIME 03:00:00	LATITUDE 39 37.9 N	LONGITUDE 73 8.1 W
	SONIC DEPTH 38	WIND DIRECTION 160	WIND SPEED 7	BAROMETRIC PRESSURE 16.6	AIR TEMP DRY BULB 19.8	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.90	31.549	21.374	-	4.90	-
5	22.86	31.553	21.388	5.57	3.36	0.37
10	18.43	31.825	22.763	-	1.98	0.40
15	10.57	32.556	24.971	5.60	0.66	0.30
22	9.04	32.843	25.446	-	0.21	0.25
35	8.96	32.949	25.541	4.52	0.19	0.21

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.03	3.35	-	-	0.07
5	-	3.19	-	-	0.46
10	0.18	3.18	-	-	0.43
15	0.43	5.46	0.67	0.12	0.52
22	0.84	11.70	5.49	0.56	3.54
35	0.87	12.34	6.48	0.36	3.36

- DATA NOT TAKEN

STATION 87	CAST 1	MAX DEPTH OF CAST 35	DATE 22 AUG 77	TIME 03:00:00	LATITUDE 39 37.9 N	LONGITUDE 73 8.1 W
	SONIC DEPTH 38	WIND DIRECTION 160	WIND SPEED 7	BAROMETRIC PRESSURE 16.6	AIR TEMP DRY BULB 19.8	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.71	-	-
5	-	2.06	-	-
10	-	1.98	-	-
15	-	1.81	-	-
22	-	1.55	-	-
35	-	1.56	-	-

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- DATA NOT TAKEN

STATION 88	CAST 1	MAX DEPTH OF CAST 60	DATE 22 AUG 77	TIME 05:17:00	LATITUDE 39 36.5 N	LONGITUDE 73 0.0 W
	SONIC DEPTH 64	WIND DIRECTION 180	WIND SPEED 11	BAROMETRIC PRESSURE 15.2	AIR TEMP DRY BULB 22.2	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.86	32.136	21.829	-	0.99	0.33
7	22.62	32.431	22.119	-	0.78	0.26
15	16.26	33.708	24.715	6.67	0.91	0.38
25	9.94	33.292	25.650	-	0.60	0.46
40	9.10	33.404	25.875	4.86	0.20	0.17
50	9.09	33.409	25.880	-	0.17	0.14
60	9.09	33.424	25.892	4.84	0.10	0.17

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.06	2.52	0.16	0.00	0.09
7	0.04	2.36	0.00	0.00	0.07
15	0.07	2.45	0.00	0.00	0.06
25	0.41	3.34	2.59	0.30	0.07
40	0.76	11.78	7.65	0.24	1.57
50	0.79	12.11	7.81	0.24	1.63
60	0.79	12.00	8.02	0.29	1.46

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
88	1	60	22 AUG 77	05:17:00	39 36.5 N	73 0.0 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
64	180	11	15.2	22.2		

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.89	-	-
7	-	1.53	-	-
15	-	1.84	-	-
25	-	1.67	-	-
40	-	1.65	-	-
50	-	1.64	-	-
60	-	1.44	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
89	1	89	22 AUG 77	08:16:00	39 33.9 N	72 50.4 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
61	200	10	14.9	26.7		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.44	31.914	21.779	-	0.25	0.06
5	22.44	31.912	21.777	-	0.23	0.06
10	22.22	32.048	21.941	5.37	0.24	0.07
18	19.48	32.723	23.184	-	0.31	0.09
28	10.56	33.128	25.417	6.83	0.60	0.23
40	9.31	33.607	26.000	-	0.12	0.16
55	9.36	33.638	26.016	4.98	0.18	0.15

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.05	2.05	0.12	0.00	0.24
5	0.03	2.04	0.01	0.00	0.28
10	0.04	2.09	0.01	0.00	0.47
18	0.02	2.08	0.01	0.00	0.29
28	0.21	2.33	0.06	0.00	0.98
40	0.78	12.32	9.59	0.09	0.27
55	0.84	12.02	9.58	0.10	0.30

- DATA NOT TAKEN

STATION 89	CAST 1	MAX DEPTH OF CAST 89	DATE 22 AUG 77	TIME 08:16:00	LATITUDE 39 33.9 N	LONGITUDE 72 50.4 W
	SONIC DEPTH 61	WIND DIRECTION 200	WIND SPEED 10	BAROMETRIC PRESSURE 14.9	AIR TEMP DRY BULB 26.7	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.95	-	-
5	-	1.94	-	-
10	-	1.92	-	-
18	-	1.91	-	-
28	-	1.85	-	-
40	-	1.50	-	-
55	-	1.64	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
90	1	60	22 AUG 77	10:36:00	39 33.4 N	72 42.9 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
62	200	10	14.6	25.0		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.10	32.015	21.950	-	0.22	0.05
7	22.05	32.084	22.016	-	0.18	0.05
15	19.42	-	-	6.06	0.35	0.08
25	11.94	33.960	25.813	-	2.30	0.51
37	8.97	33.657	26.093	5.82	1.94	0.27
50	8.96	33.774	26.186	-	3.58	-
60	9.49	34.081	26.340	5.60	4.44	0.25

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.06	1.72	0.10	0.00	0.29
7	0.02	1.71	0.04	0.00	0.28
15	0.00	1.96	0.04	0.00	0.25
25	0.21	2.30	1.34	0.06	0.30
37	0.52	4.60	7.20	0.04	0.30
50	0.71	8.89	9.68	0.03	0.30
60	0.63	7.64	9.49	0.06	0.23

- DATA NOT TAKEN

STATION 90	CAST 1	MAX DEPTH OF CAST 60	DATE 22 AUG 77	TIME 10:36:00	LATITUDE 39 33.4 N	LONGITUDE 72 42.9 W
	SONIC DEPTH 62	WIND DIRECTION 200	WIND SPEED 10	BAROMETRIC PRESSURE 14.6	AIR TEMP DRY BULB 25.0	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.97	-	-
7	-	1.92	-	-
15	-	1.96	-	-
25	-	1.97	-	-
37	-	2.04	-	-
50	-	2.18	-	-
60	-	2.12	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
91	1	78	22 AUG 77	12:39:00	39 32.3 N	72 34.5 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
84	200	10	14.2	26.7		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.56	32.892	22.485	-	0.51	0.02
7	22.50	32.979	22.567	5.32	0.96	0.02
15	18.31	34.613	24.918	-	0.30	0.07
29	12.24	34.127	25.885	6.35	2.21	0.31
41	8.96	33.775	26.187	-	8.92	-
52	10.16	34.441	26.508	5.06	1.54	0.11
65	10.26	34.495	26.533	-	0.64	0.10
78	10.27	34.494	26.530	4.97	0.95	0.07

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.03	1.78	0.07	0.01	0.31
7	0.02	1.78	0.00	0.02	0.22
15	0.08	2.02	0.01	0.01	0.30
29	0.28	2.82	2.39	0.04	0.29
41	0.70	8.36	9.61	0.03	0.23
52	0.69	11.51	10.92	0.03	0.19
65	0.73	12.30	11.32	0.04	0.39
78	0.75	12.30	11.47	0.05	2.55

- DATA NOT TAKEN

STATION 91	CAST 1	MAX DEPTH OF CAST 78	DATE 22 AUG 77	TIME 12:39:00	LATITUDE 39 32.3 N	LONGITUDE 72 34.5 W
	SONIC DEPTH 84	WIND DIRECTION 200	WIND SPEED 10	BAROMETRIC PRESSURE 14.2	AIR TEMP DRY BULB 26.7	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	0.50	2.14	-	-
7	0.35	2.15	-	-
15	0.51	1.96	-	-
29	-	2.04	-	1.42
41	-	2.18	-	5.56
52	-	2.10	-	2.12
65	-	2.01	-	1.01
78	-	2.10	-	1.24

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
92	1	110	22 AUG 77	15:28:00	39 31.0 N	72 26.5 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
119	210	9	13.9	25.6		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	23.12	32.943	22.364	-	0.45	0.15
7	23.12	32.944	22.365	5.16	0.62	0.20
15	22.28	33.968	23.377	-	2.00	0.27
25	17.48	34.982	25.404	6.30	0.27	0.10
37	15.22	35.226	26.115	-	1.00	0.45
60	13.34	35.376	26.633	4.53	0.32	0.10
85	12.15	35.361	26.859	-	0.16	0.06
110	11.88	35.427	26.962	4.16	0.06	0.05

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.03	2.33	0.10	0.00	0.24
7	0.01	1.78	0.16	0.00	0.34
15	0.00	1.77	0.00	0.00	0.24
25	0.02	2.07	0.05	0.00	0.22
37	0.13	3.06	0.80	0.20	0.28
60	0.39	6.06	11.57	0.05	0.47
85	0.90	10.00	15.54	0.03	0.23
110	0.91	10.75	17.33	0.03	0.26

- DATA NOT TAKEN

STATION 92	CAST 1	MAX DEPTH OF CAST 110	DATE 22 AUG 77	TIME 15:28:00	LATITUDE 39 31.0 N	LONGITUDE 72 26.5 W
	SONIC DEPTH 119	WIND DIRECTION 210	WIND SPEED 9	BAROMETRIC PRESSURE 13.9	AIR TEMP DRY BULB 25.6	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.89	-	-
7	-	1.89	-	-
15	-	2.04	-	-
25	-	1.86	-	-
37	-	1.81	-	-
60	-	1.89	-	-
85	-	1.88	-	-
110	-	1.63	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
93	1	500	22 AUG 77	18:35:00	39 29.0 N	72 17.4 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
512	210	10	13.5	25.0		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	23.76	33.728	22.771	-	0.16	0.43
15	23.74	33.758	22.799	5.18	0.20	0.06
25	17.47	35.152	25.536	-	1.18	0.28
50	13.10	35.237	26.575	4.69	0.48	0.24
75	11.79	35.176	26.784	-	0.09	0.05
100	11.96	35.421	26.942	4.13	0.05	0.06
150	11.71	35.510	27.060	4.27	-	-
200	10.74	35.403	27.154	4.00	-	-
350	6.30	35.058	27.581	4.48	-	-
500	5.33	35.020	27.673	5.11	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.00	1.54	0.05	0.00	0.23
15	0.00	2.14	0.00	0.00	0.29
25	0.00	2.33	0.00	0.00	0.26
50	0.49	6.23	9.58	0.15	0.30
75	0.81	9.92	14.31	0.05	0.37
100	0.86	10.77	17.11	0.04	0.52
150	0.90	9.91	18.14	0.06	0.28
200	1.08	12.21	21.25	0.05	0.36
350	1.33	15.95	24.41	0.05	0.36
500	1.21	15.10	22.47	0.04	0.36

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
93	1	500	22 AUG 77	18:35:00	39 29.0 N	72 17.4 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	512	210	10	13.5	25.0	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	0.21	1.92	-	0.32
15	0.20	1.93	-	0.37
25	0.52	1.18	-	1.12
50	0.44	1.79	-	0.80
75	0.29	1.78	-	0.56
100	0.14	1.56	-	0.41
150	0.11	-	-	0.38
200	0.14	-	-	0.10
350	-	-	-	-
500	-	-	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
94	1	450	22 AUG 77	20:41:00	39 27.9 N	72 7.5 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	475	210	9	14.2	24.4	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	24.34	34.410	23.115	-	0.12	0.02
15	24.64	34.743	23.278	4.91	0.12	0.02
25	19.89	35.453	25.155	-	1.21	0.20
42	15.00	35.389	26.289	5.10	0.91	0.42
75	13.06	35.452	26.749	-	0.19	0.08
100	12.81	35.497	26.834	4.16	0.05	0.04
150	12.10	35.557	27.021	4.44	-	-
200	11.03	35.420	27.116	3.94	-	-
300	8.44	35.169	27.359	3.64	-	-
450	5.56	35.022	27.646	4.94	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.00	1.76	0.10	0.00	0.13
15	0.00	1.74	0.00	0.00	0.14
25	0.00	1.78	0.00	0.00	0.14
42	0.29	3.97	4.88	0.06	1.93
75	0.65	6.51	13.44	0.02	0.15
100	0.73	7.25	15.29	0.02	0.18
150	0.82	8.09	17.09	0.01	0.18
200	1.08	11.18	21.49	0.02	0.28
300	1.39	16.17	26.59	0.03	0.28
450	1.22	15.01	22.86	0.02	0.17

- DATA NOT TAKEN

STATION 94	CAST 1	MAX DEPTH OF CAST 450	DATE 22 AUG 77	TIME 20:41:00	LATITUDE 39 27.9 N	LONGITUDE 72 7.5 W
	SONIC DEPTH 475	WIND DIRECTION 210	WIND SPEED 9	BAROMETRIC PRESSURE 14.2	AIR TEMP DRY BULB 24.4	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.01	-	-
15	-	1.98	-	-
25	-	2.01	-	-
42	-	1.81	-	-
75	-	1.83	-	-
100	-	1.63	-	-
150	-	-	-	-
200	-	-	-	-
300	-	-	-	-
450	-	-	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
95	1	650	22 AUG 77	23:20:00	39 25.7 N	71 59.4 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	739	230	8	14.9	24.4	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	25.14	35.338	23.576	-	0.14	0.05
15	25.16	35.341	23.570	4.91	0.15	0.04
25	25.02	35.366	23.632	-	0.27	-
41	16.81	35.646	26.072	4.70	0.72	0.51
65	14.78	35.785	26.643	-	0.17	0.16
100	13.61	35.751	26.866	3.47	0.03	0.04
150	11.72	35.483	27.036	3.39	-	-
200	10.64	35.344	27.127	3.38	-	-
400	6.63	35.059	27.536	4.39	-	-
650	4.85	35.989	28.498	5.50	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.00	1.35	0.16	0.00	0.20
15	0.00	1.29	0.00	0.00	0.19
25	0.00	1.28	0.00	0.00	0.25
41	0.23	3.22	4.84	0.52	0.22
65	0.57	6.05	12.85	0.04	0.15
100	0.83	8.44	18.13	0.02	0.17
150	1.11	11.68	22.50	0.01	0.23
200	1.26	13.62	30.08	0.01	0.26
400	1.32	15.81	30.30	0.00	0.19
650	1.11	13.95	21.36	0.00	0.19

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
95	1	650	22 AUG 77	23:20:00	39 25.7 N	71 59.4 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	739	230	8	14.9	24.4	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	0.22	1.88	-	0.43
15	0.27	1.93	-	0.44
25	0.24	2.18	-	0.32
41	0.28	1.69	-	0.37
65	0.19	1.60	-	0.16
100	0.08	1.47	-	0.08
150	0.11	-	-	0.07
200	0.06	-	-	0.07
400	-	-	-	-
650	-	-	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
96	1	400	23 AUG 77	01:13:00	39 26.3 N	71 49.1 W
96	2	1300	23 AUG 77	02:53:00	39 26.3 N	71 49.1 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	1354	250	5	14.9	24.4	
	1354	250	5	14.9	24.4	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	25.49	35.297	23.437	-	0.13	0.03
15	25.50	35.378	23.494	-	0.11	0.01
25	25.15	35.588	23.761	5.26	0.01	0.03
40	18.70	35.815	25.738	-	1.46	0.87
65	14.44	35.708	26.658	4.01	0.15	0.10
100	13.47	35.652	26.820	5.33	0.06	0.04
150	12.19	35.562	27.006	4.48	-	-
200	11.31	35.459	27.095	4.04	-	-
300	9.24	35.214	27.266	3.53	-	-
400	7.12	35.084	27.488	4.09	-	-
500	5.72	35.023	27.627	4.83	-	-
700	4.85	35.000	27.713	5.09	-	-
900	4.44	34.992	27.754	-	-	-
1100	4.06	34.964	27.772	6.16	-	-
1300	3.94	34.965	27.786	6.20	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
96	1	400	23 AUG 77	01:13:00	39 26.3 N	71 49.1 W
96	2	1300	23 AUG 77	02:53:00	39 26.3 N	71 49.1 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	1354	250	5	14.9	24.4	
	1354	250	5	14.9	24.4	

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.00	1.71	0.10	0.00	0.10
15	0.00	1.66	0.00	0.00	0.12
25	0.00	1.47	0.00	0.00	0.15
40	0.02	1.92	0.33	0.14	0.22
65	0.57	6.32	13.11	0.04	0.17
100	0.67	7.18	15.01	0.03	0.17
150	0.77	8.08	16.49	0.03	0.17
200	1.01	10.58	20.59	0.03	0.50
300	1.36	15.43	26.34	0.01	0.17
400	1.35	16.24	25.82	0.01	0.16
500	1.22	15.09	23.34	0.01	0.19
700	1.11	13.94	21.25	0.00	0.16
900	1.08	13.34	20.36	0.00	0.19
1100	1.02	13.20	19.83	0.00	0.28
1300	1.02	13.60	19.78	0.00	0.16

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
96	1	400	23 AUG 77	01:13:00	39 26.3 N	71 49.1 W
96	2	1300	23 AUG 77	02:53:00	39 26.3 N	71 49.1 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	1354	250	5	14.9	24.4	
	1354	250	5	14.9	24.4	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.94	-	-
15	-	2.04	-	-
25	-	1.90	-	-
40	-	1.74	-	-
65	-	1.70	-	-
100	-	1.75	-	-
150	-	-	-	-
200	-	-	-	-
300	-	-	-	-
400	-	-	-	-
500	-	-	-	-
700	-	-	-	-
900	-	-	-	-
1100	-	-	-	-
1300	-	-	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
97	1	275	23 AUG 77	07:22:00	39 38.3 N	72 26.5 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	292	250	3	16.3	23.9	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.97	33.358	22.720	-	0.15	0.07
15	22.99	34.566	23.629	-	0.20	0.05
25	17.22	34.922	25.421	6.29	0.31	0.09
40	12.31	34.778	26.375	4.92	0.63	0.26
65	10.68	34.627	26.562	4.89	0.17	0.12
80	10.67	34.644	26.577	4.65	0.11	0.09
100	11.08	34.831	26.648	4.14	0.12	0.12
150	11.95	35.424	26.946	-	-	-
200	11.18	35.404	27.076	4.07	-	-
275	7.24	35.116	27.497	4.20	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.03	5.39	0.10	0.00	0.18
15	0.00	4.87	0.05	0.00	0.20
25	0.02	4.96	0.05	0.00	0.25
40	0.47	8.34	8.68	0.10	0.24
65	0.71	12.33	11.80	0.04	0.21
80	0.72	12.71	12.17	0.03	0.46
100	0.75	13.00	13.05	0.05	0.24
150	0.86	12.23	17.27	0.03	0.37
200	1.02	13.26	19.90	0.04	0.57
275	1.32	17.65	24.82	0.11	0.78

- DATA NOT TAKEN

STATION 97	CAST 1	MAX DEPTH OF CAST 275	DATE 23 AUG 77	TIME 07:22:00	LATITUDE 39 38.3 N	LONGITUDE 72 26.5 W
	SONIC DEPTH 292	WIND DIRECTION 250	WIND SPEED 3	BAROMETRIC PRESSURE 16.3	AIR TEMP DRY BULB 23.9	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.79	-	-
15	-	1.94	-	-
25	-	1.92	-	-
40	-	1.83	-	-
65	-	1.69	-	-
80	-	1.64	-	-
100	-	1.60	-	-
150	-	-	-	-
200	-	-	-	-
275	-	-	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
98	1	78	23 AUG 77	10:37:00	39 35.5 N	72 37.1 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
83	250	2	17.3	23.5		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.08	32.809	22.556	-	-	-
15	18.22	34.356	24.744	6.44	-	-
30	12.42	34.453	26.103	-	-	-
45	9.15	33.888	26.245	5.16	-	-
60	9.22	34.000	26.321	-	-	-
78	9.79	34.272	26.439	5.05	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.04	1.16	0.16	0.00	0.27
15	0.02	1.60	0.05	0.00	0.14
30	0.28	3.28	2.60	0.14	0.10
45	0.78	10.97	10.43	0.04	0.05
60	0.81	12.76	11.22	0.04	0.25
78	0.75	12.15	11.19	0.07	0.06

- DATA NOT TAKEN

STATION 98	CAST 1	MAX DEPTH OF CAST 78	DATE 23 AUG 77	TIME 10:37:00	LATITUDE 39 35.5 N	LONGITUDE 72 37.1 W
	SONIC DEPTH 83	WIND DIRECTION 250	WIND SPEED 2	BAROMETRIC PRESSURE 17.3	AIR TEMP DRY BULB 23.5	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	-	-	-
15	-	-	-	-
30	-	-	-	-
45	-	-	-	-
60	-	-	-	-
78	-	-	-	-

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- DATA NOT TAKEN

STATION 99	CAST 1	MAX DEPTH OF CAST 76	DATE 23 AUG 77	TIME 15:38:00	LATITUDE 39 35.5 N	LONGITUDE 72 36.0 W
	SONIC DEPTH 78	WIND DIRECTION -	WIND SPEED -	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.36	32.751	22.434	-	0.19	0.03
15	19.84	34.793	24.665	-	0.20	0.11
25	16.84	34.825	25.436	1.40	0.60	0.19
30	14.60	34.613	25.779	6.81	1.18	0.53
35	13.70	34.598	25.958	6.14	2.23	0.66
40	9.56	33.953	26.229	5.37	0.41	0.19
45	9.14	33.945	26.291	5.06	0.30	0.10
50	9.24	33.988	26.308	5.11	0.28	0.11
60	9.78	34.265	26.435	5.09	-	-
76	9.88	34.314	26.457	5.07	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.03	2.08	0.24	0.00	0.16
15	0.03	2.15	0.14	0.00	0.14
25	0.03	3.99	0.09	0.00	0.14
30	0.10	3.61	0.15	0.03	0.27
35	0.20	4.12	1.86	0.17	0.13
40	0.64	10.09	8.45	0.08	0.11
45	0.78	13.05	10.63	0.05	0.13
50	0.74	13.02	10.48	0.05	0.10
60	0.70	12.93	10.71	0.06	0.12
76	0.70	12.90	10.70	0.07	0.12

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
99	1	76	23 AUG 77	15:38:00	39 35.5 N	72 36.0 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	78	-	-	-	-	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.03	-	-
15	-	1.77	-	-
25	-	1.90	-	-
30	-	1.82	-	-
35	-	1.91	-	-
40	-	1.80	-	-
45	-	1.88	-	-
50	-	1.85	-	-
60	-	-	-	-
76	-	-	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
100	1	65	23 AUG 77	18:19:00	39 46.0 N	72 52.3 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
69	999	1	17.6	25.6		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	23.58	32.028	21.541	-	0.37	0.06
10	22.26	32.014	21.905	-	0.25	0.04
20	15.68	33.815	24.929	6.94	0.93	0.23
30	11.73	33.771	25.706	-	1.21	0.37
37	10.26	33.673	25.893	6.10	1.07	0.35
45	9.42	33.604	25.979	4.90	0.29	0.10
55	9.32	33.624	26.011	4.86	0.37	0.10
65	9.36	33.628	26.008	4.87	0.34	0.13

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.05	2.66	0.16	0.01	0.11
10	0.05	2.48	0.16	0.01	0.29
20	0.09	2.64	0.00	0.01	0.12
30	0.22	2.51	0.26	0.20	0.17
37	0.36	3.72	2.83	0.23	0.14
45	0.68	11.49	8.75	0.16	0.18
55	0.73	12.20	9.62	0.14	0.32
65	0.76	12.32	9.92	0.08	0.12

- DATA NOT TAKEN

STATION 100	CAST 1	MAX DEPTH OF CAST 65	DATE 23 AUG 77	TIME 18:19:00	LATITUDE 39 46.0 N	LONGITUDE 72 52.3 W
	SONIC DEPTH 69	WIND DIRECTION 999	WIND SPEED 1	BAROMETRIC PRESSURE 17.6	AIR TEMP DRY BULB 25.6	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.01	-	-
10	-	2.00	-	-
20	-	1.94	-	-
30	-	1.90	-	-
37	-	1.89	-	-
45	-	1.87	-	-
55	-	1.93	-	-
65	-	1.86	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
101	1	65	23 AUG 77	21:00:00	39 56.8 N	73 8.5 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	68	100	2	17.3	23.3	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.64	31.551	21.725	-	1.84	0.50
10	21.58	31.552	21.742	-	2.36	0.47
20	11.42	32.873	25.067	6.57	1.01	0.47
30	9.30	32.975	25.508	-	0.91	-
37	8.93	33.177	25.724	4.64	0.17	0.12
45	9.12	33.267	25.765	4.68	0.22	0.10
55	9.36	33.389	25.821	4.83	-	-
65	9.38	33.413	25.837	4.80	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.02	3.39	0.09	0.01	0.11
10	0.00	2.82	0.00	0.00	0.09
20	0.24	3.85	0.02	0.18	0.13
30	0.58	8.08	4.88	0.37	1.03
37	0.76	12.21	7.71	0.19	2.04
45	0.76	11.94	7.79	0.21	1.72
55	0.72	11.22	8.08	0.27	0.74
65	0.72	11.50	8.46	0.29	0.69

- DATA NOT TAKEN

STATION 101	CAST 1	MAX DEPTH OF CAST 65	DATE 23 AUG 77	TIME 21:00:00	LATITUDE 39 56.8 N	LONGITUDE 73 8.5 W
	SONIC DEPTH 68	WIND DIRECTION 100	WIND SPEED 2	BAROMETRIC PRESSURE 17.3	AIR TEMP DRY BULB 23.3	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.93	-	-
10	-	1.98	-	-
20	-	1.81	-	-
30	-	5.43	-	-
37	-	1.71	-	-
45	-	1.82	-	-
55	-	-	-	-
65	-	-	-	-

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- DATA NOT TAKEN

STATION 102	CAST 1	MAX DEPTH OF CAST 45	DATE 23 AUG 77	TIME 23:30:00	LATITUDE 40 4.3 N	LONGITUDE 73 28.8 W
	SONIC DEPTH 48	WIND DIRECTION -	WIND SPEED -	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.92	31.201	21.384	-	6.29	-
10	21.60	31.275	21.527	-	5.49	1.45
20	14.90	32.296	23.933	6.81	1.08	0.30
30	9.72	32.608	25.154	4.73	0.40	0.30
37	9.32	32.692	25.284	4.02	0.32	0.06
45	9.24	32.767	25.355	4.12	0.20	0.15

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.24	3.38	0.07	0.03	0.12
10	0.21	3.06	0.00	0.02	0.12
20	0.13	3.24	0.00	0.01	0.40
30	0.70	10.76	4.39	0.51	2.74
37	0.88	13.59	6.63	0.57	3.88
45	0.91	14.17	7.10	0.50	3.48

- DATA NOT TAKEN

STATION 102	CAST 1	MAX DEPTH OF CAST 45	DATE 23 AUG 77	TIME 23:30:00	LATITUDE 40 4.3 N	LONGITUDE 73 28.8 W
	SONIC DEPTH 48	WIND DIRECTION -	WIND SPEED -	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.21	-	-
10	-	1.93	-	-
20	-	1.93	-	-
30	-	1.68	-	-
37	-	2.00	-	-
45	-	1.68	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
103	1	45	24 AUG 77	00:50:00	40 2.5 N	73 39.2 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
45	-	-	16.3	22.3		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.25	31.466	21.493	-	3.90	0.93
10	22.09	31.479	21.547	5.08	9.09	-
20	13.21	32.481	24.424	-	0.44	0.27
35	9.91	32.600	25.117	3.93	0.24	0.25
45	10.02	32.599	25.098	3.90	0.19	0.19

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.12	2.60	0.03	0.02	8.40
10	0.11	2.58	0.00	0.01	7.22
20	0.22	3.26	0.00	0.02	0.82
35	0.91	14.39	4.83	0.62	4.35
45	0.92	14.42	4.88	0.62	4.54

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.95	-	-
10	-	3.00	-	-
20	-	1.73	-	-
35	-	1.57	-	-
45	-	1.60	-	-

- DATA NOT TAKEN

STATION 104	CAST 1	MAX DEPTH OF CAST 26	DATE 24 AUG 77	TIME 01:49:00	LATITUDE 40 2.2 N	LONGITUDE 73 45.9 W
	SONIC DEPTH 28	WIND DIRECTION -	WIND SPEED -	BAROMETRIC PRESSURE 16.6	AIR TEMP DRY BULB 22.2	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.51	32.915	22.516	-	1.66	0.49
10	22.28	32.952	22.608	-	3.16	-
17	12.28	32.305	24.468	4.18	1.19	0.50
26	10.63	32.532	24.942	3.48	0.52	0.47

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.04	3.20	0.03	0.02	0.09
10	0.04	3.38	0.00	0.01	0.06
17	0.55	6.91	1.00	0.30	1.32
26	1.02	15.64	3.94	0.66	5.68

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.91	-	-
10	-	2.33	-	-
17	-	1.83	-	-
26	-	1.62	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
105	1	20	24 AUG 77	03:27:00	40 0.4 N	73 53.1 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
24	-	-	15.9	21.7		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.08	31.574	21.622	-	2.65	5.29
10	21.38	31.565	21.806	-	1.22	0.68
20	10.96	32.538	24.907	3.21	0.31	0.57

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.09	5.58	0.05	0.00	0.10
10	1.12	15.57	3.66	0.74	6.30
20	0.18	5.07	0.04	0.01	0.09

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.39	-	-
10	-	1.76	-	-
20	-	1.42	-	-

- DATA NOT TAKEN

STATION 106	CAST 1	MAX DEPTH OF CAST 19	DATE 24 AUG 77	TIME 04:41:00	LATITUDE 40 0.0 N	LONGITUDE 73 58.0 W
	SONIC DEPTH 21	WIND DIRECTION 220	WIND SPEED 3	BAROMETRIC PRESSURE 15.6	AIR TEMP DRY BULB 21.1	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.52	31.591	21.788	-	4.53	1.12
10	15.60	32.056	23.597	-	4.93	1.36
15	11.52	32.484	24.747	2.80	1.94	1.03
19	11.48	32.493	24.761	2.74	1.87	0.91

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.08	4.64	0.04	0.01	0.09
10	0.52	8.44	1.14	0.21	0.64
15	1.22	17.06	1.27	0.93	6.03
19	1.26	17.26	1.36	0.89	6.35

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.95	-	-
10	-	1.93	-	-
15	-	1.77	-	-
19	-	1.79	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
107	1	19	24 AUG 77	11:17:00	40 0.4 N	73 57.8 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	21	200	6	14.6	21.7	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.53	31.555	21.758	-	5.85	1.38
10	14.78	32.111	23.817	-	5.49	1.45
15	11.74	32.446	24.677	2.50	2.32	0.95
19	11.62	32.463	24.713	1.98	2.00	0.87

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.16	4.90	0.00	0.05	0.23
10	0.72	9.75	1.30	0.35	1.86
15	1.41	19.85	4.19	1.31	8.66
19	1.41	19.60	4.22	1.23	8.75

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.96	-	-
10	-	1.93	-	-
15	-	1.84	-	-
19	-	1.82	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
110	1	17	24 AUG 77	23:15:00	40 0.3 N	73 57.9 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
18	310	6	14.9	20.0		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.43	31.397	21.665	-	5.77	1.32
5	21.50	31.575	21.781	-	5.57	1.05
11	11.71	32.455	24.690	2.69	1.83	0.75
17	11.62	32.461	24.711	2.61	1.78	0.83

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.11	4.40	0.00	0.02	0.25
5	0.11	4.60	0.00	0.02	0.24
11	1.29	12.60	3.87	1.09	7.67
17	1.41	19.15	4.24	1.22	8.60

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.96	-	-
5	-	1.99	-	-
11	-	1.84	-	-
17	-	1.80	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
113	1	18	25 AUG 77	12:30:00	40 0.1 N	73 57.9 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
20	350	6	22.7	21.7		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.48	31.545	21.764	-	6.99	1.31
10	21.28	31.547	21.819	-	7.23	1.16
14	11.90	32.394	24.608	2.69	2.39	0.99
16	11.82	32.420	24.643	2.43	2.10	1.11
18	11.79	32.425	24.652	2.42	2.02	1.03

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.13	4.87	0.11	0.01	0.22
10	0.12	4.76	0.06	0.00	0.22
14	1.23	17.71	3.84	1.17	6.95
16	1.36	19.75	4.25	1.25	8.19
18	1.40	20.30	4.42	1.28	8.55

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.99	-	-
10	-	2.02	-	-
14	-	1.83	-	-
16	-	1.77	-	-
18	-	1.78	-	-

- DATA NOT TAKEN

STATION 115	CAST 1	MAX DEPTH OF CAST 19	DATE 25 AUG 77	TIME 19:03:00	LATITUDE 39 56.7 N	LONGITUDE 74 2.6 W
	SONIC DEPTH 20	WIND DIRECTION -	WIND SPEED -	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.14	31.538	21.850	5.86	7.16	1.76
3	21.10	31.537	21.860	5.77	7.36	2.03
7	20.96	31.529	21.891	5.75	6.98	2.23
11	20.14	31.487	22.075	5.38	10.00	2.26
17	16.88	32.040	23.523	2.44	2.27	0.93
19	12.60	32.333	24.428	1.76	1.93	1.10

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.16	5.56	0.07	0.03	0.30
3	0.15	5.32	0.02	0.03	0.30
7	0.18	5.57	0.03	0.02	0.27
11	0.33	6.83	0.08	0.02	0.28
17	1.24	18.34	2.70	1.05	8.64
19	1.92	22.65	4.13	1.47	9.65

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
115	1	19	25 AUG 77	19:03:00	39 56.7 N	74 2.6 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
20	-	-	-	-		

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	3.21	1.95	-	-
3	3.97	1.93	-	-
7	3.17	1.90	-	-
11	4.14	1.96	-	-
17	1.47	1.84	-	-
19	1.53	1.75	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
117	1	19	25 AUG 77	23:15:00	40 0.0 N	73 57.5 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	21	260	4	26.1	20.0	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.31	31.691	21.920	-	5.41	0.97
10	21.40	31.696	21.900	-	4.70	1.03
15	12.13	32.435	24.597	2.56	2.09	1.12
19	11.82	32.433	24.653	2.42	1.95	1.04

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.22	4.83	0.00	0.01	0.24
10	0.14	4.78	0.00	0.00	0.22
15	1.29	18.49	3.98	1.27	7.29
19	1.36	19.45	4.35	1.30	7.91

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.00	-	-
10	-	1.97	-	-
15	-	1.77	-	-
19	-	1.77	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
120	1	12	26 AUG 77	13:32:00	39 44.5 N	74 3.7 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
13	200	3	30.8	22.3		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.02	31.629	21.950	-	7.75	1.44
3	20.11	31.610	22.176	-	8.41	1.61
7	19.90	31.632	22.247	5.49	9.43	2.18
12	17.72	31.699	22.838	4.17	9.19	2.67

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.25	8.99	0.20	0.00	0.27
3	0.22	8.58	0.00	0.01	0.24
7	0.24	8.58	0.00	0.01	0.21
12	0.65	13.72	0.99	0.31	2.07

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	4.41	2.00	-	-
3	5.11	1.99	-	-
7	4.24	1.96	-	-
12	5.79	1.92	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
121	1	17	26 AUG 77	18:15:00	39 51.0 N	74 1.2 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	19	200	8	26.8	23.9	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	20.91	31.713	22.044	-	6.92	1.63
5	20.85	31.712	22.059	-	5.77	1.70
11	20.53	31.727	22.155	5.17	6.75	1.72
17	12.36	32.369	24.502	1.97	1.45	0.96

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	11.35	0.05	0.00	0.26
5	-	10.10	0.00	0.00	0.25
11	-	9.33	0.00	0.00	0.25
17	-	21.79	4.07	1.53	9.63

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.96	-	-
5	-	1.91	-	-
11	-	1.94	-	-
17	-	1.71	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
122	1	26	26 AUG 77	20:00:00	39 54.7 N	73 46.2 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
27	200	6	27.4	20.6		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.58	31.724	21.872	-	4.14	0.89
10	21.60	31.719	21.863	-	3.95	0.85
14	20.13	31.934	22.341	4.67	5.63	1.50
18	10.70	32.604	24.986	3.04	1.88	0.80
26	10.66	32.610	24.997	3.01	1.26	0.76

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	6.55	0.04	0.01	0.27
10	-	6.25	0.00	0.00	0.25
14	-	6.34	0.00	0.00	0.28
18	-	16.56	3.86	1.09	7.96
26	-	16.79	4.06	1.14	8.59

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	5.38	1.97	-	-
10	2.71	1.97	-	-
14	2.39	1.93	-	-
18	0.98	1.83	-	-
26	0.85	1.74	-	-

- DATA NOT TAKEN

STATION 123	CAST 1	MAX DEPTH OF CAST 20	DATE 26 AUG 77	TIME 22:45:00	LATITUDE 40 5.3 N	LONGITUDE 73 59.0 W
	SONIC DEPTH 24	WIND DIRECTION 210	WIND SPEED 5	BAROMETRIC PRESSURE 27.8	AIR TEMP DRY BULB 19.4	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.52	31.494	21.714	-	7.11	0.81
10	21.18	31.528	21.832	-	6.37	1.15
14	13.58	32.235	24.160	3.06	3.34	1.01
20	12.54	32.316	24.427	2.48	1.82	0.80

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	6.22	0.09	0.01	0.24
10	-	6.06	0.00	0.00	0.21
14	-	13.67	2.38	0.87	4.14
20	-	18.85	3.71	1.29	7.67

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	4.31	2.06	-	-
10	3.56	2.00	-	-
14	1.47	1.91	-	-
20	1.00	1.82	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
124	1	27	27 AUG 77	00:28:00	40 5.2 N	73 46.7 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	29	210	6	20.6	20.6	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.79	31.714	21.807	-	3.97	-
10	21.86	31.722	21.794	-	3.58	0.74
14	21.76	31.718	21.818	5.29	3.03	0.74
18	18.79	32.049	23.324	4.68	2.94	0.99
27	10.90	32.432	24.817	3.67	0.55	0.43

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	4.04	0.00	0.02	0.20
10	-	3.89	0.00	0.00	0.20
14	-	3.83	0.00	0.00	0.17
18	-	5.20	0.01	0.04	0.34
27	-	15.37	4.20	0.70	5.90

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	2.14	2.35	-	-
10	2.03	1.98	-	-
14	1.91	1.95	-	-
18	1.21	1.88	-	-
27	0.49	1.67	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
125	1	27	27 AUG 77	01:57:00	40 10.2 N	73 47.3 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
29	220	5	27.8	20.0		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.83	31.734	21.811	-	3.29	0.54
10	21.84	31.741	21.814	-	3.54	0.64
14	19.91	31.824	22.390	5.09	2.47	0.49
18	12.11	32.296	24.493	3.25	1.30	0.65
27	11.23	32.424	24.753	2.55	0.44	0.41

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	-	3.94	0.00	0.01	0.19
10	-	3.93	0.00	0.01	0.19
14	-	3.78	0.00	0.01	0.39
18	-	13.72	2.59	1.11	6.02
27	-	20.23	4.66	1.34	9.47

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.01	-	-
10	-	2.00	-	-
14	-	1.98	-	-
18	-	1.79	-	-
27	-	1.61	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
126	1	24	27 AUG 77	02:57:00	40 15.3 N	73 47.5 W
126	2	50	27 AUG 77	03:30:00	40 15.9 N	73 47.3 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	53	230	5	27.4	20.0	
	53	230	5	27.4	20.0	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.65	31.652	21.744	-	3.62	0.78
10	21.87	31.638	21.728	-	3.40	0.61
14	21.60	31.669	21.825	5.23	3.18	0.64
18	11.90	32.341	24.567	4.34	1.28	0.63
24	10.64	32.482	24.901	3.26	0.53	0.52
50	9.94	32.510	25.119	3.32	0.32	0.37

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.19	3.68	0.15	0.00	0.24
10	0.17	3.49	0.04	0.01	0.27
14	0.20	3.64	0.00	0.01	0.28
18	0.82	10.64	2.27	0.73	2.42
24	1.25	17.73	5.14	0.96	7.15
50	1.32	20.50	5.38	1.12	8.15

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
126	1	24	27 AUG 77	02:57:00	40 15.3 N	73 47.5 W
126	2	50	27 AUG 77	03:30:00	40 15.9 N	73 47.3 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	53	230	5	27.4	20.0	
	53	230	5	27.4	20.0	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	1.98	1.97	-	-
10	1.91	2.00	-	-
14	1.69	1.98	-	-
18	0.58	1.79	-	-
24	0.76	1.60	-	-
50	1.42	1.54	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
127	1	26	27 AUG 77	05:30:00	40 15.0 N	73 32.2 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
31	230	5	27.8	21.1		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.63	31.456	21.656	-	4.79	1.06
10	21.66	31.454	21.646	-	4.40	0.99
14	21.54	31.449	21.675	5.40	4.51	1.27
18	13.47	32.126	24.098	3.88	0.93	0.58
26	12.04	32.286	24.498	3.59	0.52	0.56

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.27	2.65	0.07	0.03	0.41
10	0.25	2.61	0.04	0.01	0.26
14	0.26	2.66	0.00	0.01	0.27
18	0.95	11.28	2.42	0.83	3.09
26	1.15	14.14	3.70	0.90	4.10

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	4.58	1.97	-	-
10	2.74	1.96	-	-
14	2.17	1.92	-	-
18	-	1.73	-	-
26	4.01	1.57	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
128	1	39	27 AUG 77	07:57:00	40 4.0 N	73 15.0 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	41	210	3	28.4	20.0	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	20.80	31.257	21.728	-	5.65	1.44
10	19.44	31.432	22.212	6.07	2.08	0.42
15	17.68	31.688	22.839	-	3.99	1.25
25	10.57	32.595	25.001	6.06	1.31	0.36
32	9.32	32.927	25.467	4.71	0.88	0.39
39	9.25	32.946	25.493	4.47	0.51	0.43

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.37	2.77	0.08	0.02	0.28
10	0.27	1.77	0.04	0.01	0.33
15	0.50	3.15	0.00	0.01	0.43
25	0.41	4.11	0.07	0.03	0.39
32	0.74	10.30	7.25	0.30	1.26
39	0.78	10.78	8.18	0.32	1.96

- DATA NOT TAKEN

STATION 128	CAST 1	MAX DEPTH OF CAST 39	DATE 27 AUG 77	TIME 07:57:00	LATITUDE 40 4.0 N	LONGITUDE 73 15.0 W
	SONIC DEPTH 41	WIND DIRECTION 210	WIND SPEED 3	BAROMETRIC PRESSURE 28.4	AIR TEMP DRY BULB 20.0	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.94	-	-
10	-	1.98	-	-
15	-	1.90	-	-
25	-	1.92	-	-
32	-	1.92	-	-
39	-	1.64	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
129	1	65	27 AUG 77	10:20:00	39 56.3 N	73 7.4 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
68	210	4	29.1	22.8		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.65	31.484	21.671	-	2.15	0.43
10	21.56	31.499	21.707	-	2.13	0.43
20	13.33	31.185	23.401	6.72	0.72	0.30
30	9.59	33.326	25.735	-	0.56	0.18
37	9.05	33.272	25.780	4.60	0.19	0.09
45	9.04	33.320	25.819	4.57	0.19	0.13
55	9.04	33.355	25.846	4.45	0.35	0.20
65	9.04	33.329	25.826	4.48	0.31	0.22

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.11	2.94	0.09	0.01	0.22
10	0.06	2.41	0.00	0.01	0.28
20	0.23	2.12	0.00	0.04	0.97
30	0.69	8.40	7.50	0.20	0.20
37	0.83	12.06	9.23	0.32	1.33
45	0.85	13.30	9.62	0.28	1.88
55	0.88	13.86	9.80	0.30	1.00
65	0.92	14.24	9.86	0.29	1.22

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
129	1	65	27 AUG 77	10:20:00	39 56.3 N	73 7.4 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
68	210	4	29.1	22.8		

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.98	-	-
10	-	1.98	-	-
20	-	1.83	-	-
30	-	1.89	-	-
37	-	1.91	-	-
45	-	1.70	-	-
55	-	1.75	-	-
65	-	1.68	-	-

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- DATA NOT TAKEN

STATION 130	CAST 1	MAX DEPTH OF CAST 65	DATE 27 AUG 77	TIME 11:33:00	LATITUDE 39 52.9 N	LONGITUDE 73 2.5 W
	SONIC DEPTH 70	WIND DIRECTION 220	WIND SPEED 4	BAROMETRIC PRESSURE 29.5	AIR TEMP DRY BULB 22.0	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.22	31.711	21.687	-	1.64	0.29
10	22.17	31.774	21.748	-	1.39	0.25
20	19.72	32.302	22.802	-	1.20	0.34
30	10.79	33.215	25.445	6.66	1.02	0.31
37	10.32	33.417	25.683	-	0.81	0.21
45	9.75	33.519	25.859	5.04	0.79	0.14
55	9.62	33.526	25.886	4.95	0.35	0.13
65	9.54	33.532	25.904	4.86	0.31	0.13

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.08	2.29	0.05	0.00	0.24
10	0.06	2.05	0.00	0.00	0.24
20	0.11	2.04	0.00	0.00	0.26
30	0.27	2.37	0.00	0.01	0.27
37	0.49	3.99	3.44	0.16	0.73
45	0.70	9.69	7.41	0.14	0.25
55	0.71	9.50	8.16	0.14	0.35
65	0.76	10.73	8.80	0.15	0.27

- DATA NOT TAKEN

STATION 130	CAST 1	MAX DEPTH OF CAST 65	DATE 27 AUG 77	TIME 11:33:00	LATITUDE 39 52.9 N	LONGITUDE 73 2.5 W
	SONIC DEPTH 70	WIND DIRECTION 220	WIND SPEED 4	BAROMETRIC PRESSURE 29.5	AIR TEMP DRY BULB 22.0	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.00	-	-
10	-	2.00	-	-
20	-	1.92	-	-
30	-	1.90	-	-
37	-	1.84	-	-
45	-	2.00	-	-
55	-	1.85	-	-
65	-	1.93	-	-

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- DATA NOT TAKEN

STATION 131	CAST 1	MAX DEPTH OF CAST 50	DATE 27 AUG 77	TIME 13:58:00	LATITUDE 39 52.7 N	LONGITUDE 72 44.5 W
	SONIC DEPTH 53	WIND DIRECTION 200	WIND SPEED 5	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.05	31.964	21.925	-	0.20	0.05
10	21.60	31.947	22.035	5.35	0.28	0.07
25	10.54	33.221	25.493	-	2.08	0.72
30	10.18	33.293	25.603	5.50	1.27	0.43
40	9.62	33.514	25.877	4.73	0.44	0.11
50	9.62	33.522	25.899	4.57	0.19	0.10

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.10	1.69	-	0.00	0.27
10	0.07	1.59	0.00	0.00	0.30
25	0.32	4.39	0.56	0.04	0.36
30	0.50	6.53	3.94	0.06	0.38
40	0.78	10.86	9.14	0.06	0.27
50	0.82	12.28	10.05	0.10	0.44

- DATA NOT TAKEN

STATION 131	CAST 1	MAX DEPTH OF CAST 50	DATE 27 AUG 77	TIME 13:58:00	LATITUDE 39 52.7 N	LONGITUDE 72 44.5 W
	SONIC DEPTH 53	WIND DIRECTION 200	WIND SPEED 5	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.96	0.50	-
10	-	1.95	0.41	-
25	-	1.98	1.16	-
30	-	1.88	0.64	-
40	-	1.95	0.74	-
50	-	1.77	4.99	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
132	1	60	27 AUG 77	15:27:00	39 52.6 N	72 33.2 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	66	230	4	-	24.4	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.69	31.954	22.016	-	0.20	0.05
10	21.31	32.186	22.295	-	0.33	0.12
20	21.36	33.031	22.922	4.99	0.28	0.13
30	14.90	34.139	25.350	-	0.84	0.31
40	10.62	33.714	25.862	6.27	3.53	0.99
50	9.48	33.938	26.230	5.03	0.89	0.12
60	9.54	33.975	26.249	4.96	1.27	0.17

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.13	4.46	0.15	0.00	0.22
10	0.10	2.87	0.00	0.00	0.20
20	0.10	2.66	0.00	0.00	0.24
30	0.15	3.26	0.00	0.00	0.26
40	0.41	4.19	4.00	0.30	0.30
50	0.75	10.70	9.95	0.15	0.39
60	0.78	11.06	10.31	0.24	0.32

- DATA NOT TAKEN

STATION 132	CAST 1	MAX DEPTH OF CAST 60	DATE 27 AUG 77	TIME 15:27:00	LATITUDE 39 52.6 N	LONGITUDE 72 33.2 W
	SONIC DEPTH 66	WIND DIRECTION 230	WIND SPEED 4	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB 24.4	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.94	-	-
10	-	1.87	-	-
20	-	1.81	-	-
30	-	1.86	-	-
40	-	1.92	-	-
50	-	2.04	-	-
60	-	2.04	-	-

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- DATA NOT TAKEN

STATION 133	CAST 1	MAX DEPTH OF CAST 69	DATE 27 AUG 77	TIME 17:03:00	LATITUDE 39 52.4 N	LONGITUDE 72 23.1 W
	SONIC DEPTH 73	WIND DIRECTION 230	WIND SPEED 4	BAROMETRIC PRESSURE 29.8	AIR TEMP DRY BULB 24.2	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.14	32.720	22.472	-	0.28	0.06
9	22.19	33.058	22.714	-	0.18	0.06
19	19.40	34.433	24.505	-	0.27	0.09
29	18.27	33.834	25.653	6.87	0.67	0.27
39	15.84	35.814	26.014	-	1.43	0.46
49	9.80	34.028	26.247	5.66	2.42	0.29
59	9.63	34.178	26.393	4.91	0.81	0.12
69	9.70	34.199	26.397	4.91	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.11	1.99	0.10	0.00	0.33
9	0.09	1.74	0.06	0.00	0.37
19	0.09	2.19	0.00	0.00	0.37
29	0.19	3.03	0.00	0.00	0.37
39	0.14	3.87	6.12	0.18	0.34
49	0.55	4.67	8.11	0.04	0.34
59	0.79	13.25	11.30	0.05	0.51
69	0.79	13.04	11.23	0.07	0.28

- DATA NOT TAKEN

STATION 133	CAST 1	MAX DEPTH OF CAST 69	DATE 27 AUG 77	TIME 17:03:00	LATITUDE 39 52.4 N	LONGITUDE 72 23.1 W
	SONIC DEPTH 73	WIND DIRECTION 230	WIND SPEED 4	BAROMETRIC PRESSURE 29.8	AIR TEMP DRY BULB 24.2	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.99	-	-
9	-	1.90	-	-
19	-	1.90	-	-
29	-	1.84	-	-
39	-	1.89	-	-
49	-	2.05	-	-
59	-	2.26	-	-
69	-	-	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
134	1	82	27 AUG 77	18:23:00	39 45.3 N	72 22.0 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	96	220	4	27.8	23.3	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	23.02	33.739	22.994	-	0.15	0.02
10	22.98	33.739	23.006	-	0.16	0.02
20	19.42	33.831	24.042	5.34	0.22	0.07
30	12.65	33.742	25.508	-	1.02	-
40	9.31	33.631	26.018	5.91	1.59	0.33
50	9.05	33.841	26.224	-	-	-
60	9.53	34.119	26.363	5.33	-	-
70	9.88	34.254	26.410	-	-	-
82	9.96	34.294	26.428	5.03	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.14	3.52	0.17	0.00	0.27
10	0.09	2.81	0.06	0.00	0.25
20	0.11	2.81	0.05	0.00	0.30
30	0.19	3.28	0.00	0.00	0.23
40	0.67	6.14	7.40	0.29	0.30
50	0.65	7.76	9.65	0.03	0.28
60	0.72	10.04	10.69	0.03	0.29
70	0.75	11.29	11.37	0.04	0.26
82	0.75	11.38	11.57	0.08	0.32

- DATA NOT TAKEN

STATION 134	CAST 1	MAX DEPTH OF CAST 82	DATE 27 AUG 77	TIME 18:23:00	LATITUDE 39 45.3 N	LONGITUDE 72 22.0 W
	SONIC DEPTH 86	WIND DIRECTION 220	WIND SPEED 4	BAROMETRIC PRESSURE 27.8	AIR TEMP DRY BULB 23.3	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.04	-	-
10	-	2.02	-	-
20	-	1.89	-	-
30	-	1.86	-	-
40	-	1.97	-	-
50	-	-	-	-
60	-	-	-	-
70	-	-	-	-
82	-	-	-	-

- DATA NOT TAKEN

STATION 135	CAST 1	MAX DEPTH OF CAST 62	DATE 27 AUG 77	TIME 21:20:00	LATITUDE 39 58.7 N	LONGITUDE 72 23.5 W
	SONIC DEPTH 66	WIND DIRECTION 200	WIND SPEED 5	BAROMETRIC PRESSURE 27.8	AIR TEMP DRY BULB 21.1	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.86	32.570	22.436	-	0.15	0.02
10	22.42	33.506	22.988	-	0.13	0.03
20	18.20	34.063	25.001	5.61	0.36	0.08
30	10.73	33.744	25.866	-	2.27	0.83
40	9.78	33.936	26.101	5.01	12.36	0.14
50	9.04	33.826	26.214	-	10.98	-
62	9.51	34.087	26.342	-	3.24	0.02

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.02	3.00	0.00	0.00	0.22
10	-	2.15	0.00	0.00	0.16
20	0.05	2.10	0.00	0.00	0.22
30	0.19	3.10	0.19	0.06	0.19
40	0.48	3.70	6.91	0.09	0.24
50	0.67	7.90	9.46	0.04	0.27
62	0.70	11.50	10.36	0.09	0.15

- DATA NOT TAKEN

STATION 135	CAST 1	MAX DEPTH OF CAST 62	DATE 27 AUG 77	TIME 21:20:00	LATITUDE 39 58.7 N	LONGITUDE 72 23.5 W
	SONIC DEPTH 66	WIND DIRECTION 200	WIND SPEED 5	BAROMETRIC PRESSURE 27.8	AIR TEMP DRY BULB 21.1	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.05	-	-
10	-	1.99	-	-
20	-	1.96	-	-
30	-	1.96	-	-
40	-	2.17	-	-
50	-	2.26	-	-
62	-	2.17	-	-

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- DATA NOT TAKEN

STATION 136	CAST 1	MAX DEPTH OF CAST 63	DATE 27 AUG 77	TIME 22:50:00	LATITUDE 40 2.5 N	LONGITUDE 72 24.0 W
	SONIC DEPTH 65	WIND DIRECTION 210	WIND SPEED 3	BAROMETRIC PRESSURE 27.8	AIR TEMP DRY BULB 20.0	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.47	32.066	22.161	-	0.24	0.04
10	21.82	33.216	22.936	-	0.16	0.04
20	17.70	34.321	24.845	6.55	0.38	0.11
30	13.10	34.102	25.697	-	2.68	0.44
40	9.54	33.600	25.957	4.75	0.90	0.12
50	9.20	33.636	26.196	-	3.45	-
63	9.28	33.924	26.252	4.88	1.29	0.13

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.03	1.50	0.05	0.00	0.16
10	0.06	1.20	0.00	0.00	0.21
20	0.02	1.40	0.00	0.00	0.29
30	0.11	1.15	0.16	0.09	0.23
40	0.70	11.00	8.77	0.03	0.17
50	0.61	7.60	9.16	0.09	0.16
63	0.74	11.15	10.38	0.22	0.26

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
136	1	63	27 AUG 77	22:50:00	40 2.5 N	72 24.0 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	65	210	3	27.8	20.0	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.00	-	-
10	-	1.93	-	-
20	-	1.91	-	-
30	-	2.02	-	-
40	-	2.05	-	-
50	-	2.19	-	-
63	-	2.07	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
137	1	60	28 AUG 77	00:14:00	40 7.5 N	72 23.8 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
64	230	6	27.8	21.1		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.54	32.054	22.133	-	0.32	0.01
10	20.38	32.376	22.687	-	0.24	0.04
20	17.76	32.789	23.660	6.24	0.55	0.12
30	12.60	33.846	25.598	-	0.72	0.27
40	9.94	33.737	25.997	5.75	2.47	0.26
50	9.14	33.756	26.143	-	4.07	-
60	9.20	33.884	26.234	4.85	1.74	0.22

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.00	1.40	0.09	0.01	0.22
10	0.05	1.55	0.00	0.00	0.16
20	0.05	1.65	0.00	0.00	-
30	-	2.50	0.00	0.00	0.20
40	0.40	3.00	5.28	0.12	0.15
50	0.66	6.70	9.32	0.03	0.11
60	0.76	10.95	10.44	0.36	0.15

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
137	1	60	28 AUG 77	00:14:00	40 7.5 N	72 23.8 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	64	230	6	27.8	21.1	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.14	-	-
10	-	2.00	-	-
20	-	1.96	-	-
30	-	1.86	-	-
40	-	2.07	-	-
50	-	2.18	-	-
60	-	2.05	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
138	1	60	28 AUG 77	01:27:00	40 12.0 N	72 24.5 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
64	230	6	27.8	21.7		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	20.52	31.917	22.302	-	0.59	0.06
10	20.71	32.157	22.434	-	0.75	0.09
20	13.40	33.285	25.006	5.68	1.03	0.19
30	11.18	33.499	25.596	-	0.86	0.25
40	9.80	33.670	25.968	4.68	0.47	0.13
50	9.72	33.568	25.902	-	1.02	0.18
60	9.33	33.686	26.058	5.40	0.69	0.22

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.02	1.84	0.06	0.00	0.12
10	0.03	1.32	0.00	0.00	0.09
20	0.10	1.95	0.00	0.00	0.10
30	0.37	5.33	3.27	0.10	0.10
40	0.66	10.12	7.24	0.04	0.10
50	0.59	6.10	7.03	0.10	0.14
60	0.70	5.38	8.23	0.30	0.28

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
138	1	60	28 AUG 77	01:27:00	40 12.0 N	72 24.5 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
64	230	6	27.8	21.7		

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.07	-	-
10	-	2.06	-	-
20	-	2.00	-	-
30	-	1.92	-	-
40	-	1.92	-	-
50	-	2.00	-	-
60	-	1.90	-	-

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- DATA NOT TAKEN

STATION 139	CAST 1	MAX DEPTH OF CAST 48	DATE 28 AUG 77	TIME 03:12:00	LATITUDE 40 21.0 N	LONGITUDE 72 24.6 W
	SONIC DEPTH 53	WIND DIRECTION 230	WIND SPEED 6	BAROMETRIC PRESSURE 27.8	AIR TEMP DRY BULB 21.1	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.03	31.974	22.210	-	0.36	0.04
10	20.45	32.243	22.557	-	0.53	0.05
20	13.62	33.097	24.817	-	0.86	0.29
30	9.96	33.013	25.430	4.92	1.23	0.34
40	9.60	33.095	25.553	-	0.43	0.10
48	9.66	33.141	25.579	4.42	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.06	0.66	-	-	0.53
10	0.06	0.89	-	-	0.16
20	0.12	1.57	-	-	0.21
30	0.52	8.10	4.89	0.06	0.27
40	0.75	12.83	8.87	0.03	0.37
48	0.73	12.96	8.77	0.04	0.10

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
139	1	48	28 AUG 77	03:12:00	40 21.0 N	72 24.6 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	53	230	6	27.8	21.1	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.05	-	-
10	-	2.08	-	-
20	-	1.89	-	-
30	-	1.93	-	-
40	-	1.95	-	-
48	-	-	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
140	1	37	28 AUG 77	04:47:00	40 32.9 N	72 26.1 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
41	220	6	28.7	20.6		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.22	31.820	22.042	-	0.27	0.07
10	20.30	31.932	22.371	-	0.33	0.13
20	11.52	32.748	24.952	6.04	2.14	0.85
30	10.56	32.930	25.263	-	0.96	0.35
37	9.88	32.988	25.424	4.53	0.86	0.19

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.01	0.54	0.11	0.00	0.20
10	0.01	0.57	0.07	0.00	0.37
20	0.25	6.00	0.26	0.06	0.16
30	0.45	6.73	3.38	0.29	0.62
37	0.65	11.42	7.12	0.06	0.09

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.94	-	-
10	-	1.86	-	-
20	-	1.84	-	-
30	-	1.87	-	-
37	-	1.96	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
141	1	25	28 AUG 77	10:50:00	40 46.3 N	72 30.8 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
28	230	6	28.8	29.4		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	18.80	31.493	22.419	-	-	-
8	18.70	31.525	22.468	-	-	-
16	15.47	32.004	23.586	4.96	-	-
25	13.66	32.328	24.216	4.54	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.13	1.43	0.00	0.00	0.30
8	0.17	1.37	0.00	0.00	0.20
16	0.53	6.66	0.80	0.10	1.79
25	0.83	12.80	2.17	0.28	2.30

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	-	-	-
8	-	-	-	-
16	-	-	-	-
25	-	-	-	-

- DATA NOT TAKEN

STATION 144	CAST 1	MAX DEPTH OF CAST 25	DATE 28 AUG 77	TIME 22:22:00	LATITUDE 40 46.2 N	LONGITUDE 72 30.8 W
	SONIC DEPTH 28	WIND DIRECTION 280	WIND SPEED 4	BAROMETRIC PRESSURE 26.4	AIR TEMP DRY BULB 18.9	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	19.22	31.512	22.329	-	-	-
8	18.78	31.775	22.638	-	-	-
16	14.53	32.215	23.949	5.02	-	-
25	13.90	32.300	24.145	4.58	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.32	1.11	0.01	0.00	0.19
8	0.30	1.55	0.00	0.00	0.22
16	0.73	7.32	1.15	0.15	1.64
25	0.98	11.66	2.01	0.24	2.10

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	-	-	-
8	-	-	-	-
16	-	-	-	-
25	-	-	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
147	1	25	29 AUG 77	09:08:00	40 46.5 N	72 31.5 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	28	220	5	26.8	20.6	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	19.28	31.873	22.588	-	1.29	0.27
8	19.30	31.870	22.829	-	1.04	0.26
16	15.00	32.128	23.783	4.95	1.85	0.65
25	13.90	32.314	24.177	4.35	1.26	0.91

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.32	1.22	0.00	0.01	0.76
8	0.30	1.95	0.00	0.01	0.30
16	0.72	7.91	0.99	0.13	1.37
25	1.10	14.30	2.30	0.27	2.68

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.98	-	-
8	-	1.94	-	-
16	-	1.87	-	-
25	-	1.68	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
148	1	53	29 AUG 77	11:38:00	40 30.4 N	72 16.5 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
53	230	6	27.1	20.6		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.52	31.899	22.021	-	0.38	0.09
7	21.28	31.908	22.093	-	0.41	0.09
19	11.42	32.701	24.933	-	2.35	0.94
27	10.80	32.807	25.126	4.86	1.70	0.45
37	10.42	32.957	25.231	5.34	1.17	0.32
53	10.04	33.080	25.469	4.57	0.35	0.22

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.02	0.95	0.12	0.00	0.30
7	0.01	0.95	0.00	0.00	0.39
19	0.30	5.84	0.42	0.13	0.18
27	0.41	7.03	3.10	0.25	0.17
37	0.57	9.99	5.24	0.36	0.58
53	0.66	11.14	6.60	0.30	0.22

- DATA NOT TAKEN

STATION 148	CAST 1	MAX DEPTH OF CAST 53	DATE 29 AUG 77	TIME 11:38:00	LATITUDE 40 30.4 N	LONGITUDE 72 16.5 W
	SONIC DEPTH 53	WIND DIRECTION 230	WIND SPEED 6	BAROMETRIC PRESSURE 27.1	AIR TEMP DRY BULB 20.6	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.96	-	-
7	-	1.96	-	-
19	-	1.84	-	-
27	-	1.94	-	-
37	-	1.93	-	-
53	-	1.73	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
149	1	58	29 AUG 77	14:11:00	40 20.0 N	72 8.5 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
61	220	6	25.7	25.6		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	20.97	32.147	22.357	-	0.29	0.06
10	18.96	32.578	23.205	-	0.32	0.07
20	12.94	33.207	25.038	-	0.70	0.25
30	10.84	33.438	25.609	6.28	1.35	0.40
40	9.79	33.477	25.820	5.43	0.90	0.25
58	9.28	33.686	26.066	5.01	0.74	0.17

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.09	1.58	0.10	0.00	0.26
10	0.08	1.30	0.00	0.00	0.23
20	0.12	2.59	0.00	0.00	0.23
30	0.20	2.40	0.17	0.03	0.28
40	0.47	4.55	4.60	0.05	0.32
58	0.00	11.89	10.41	0.09	0.31

- DATA NOT TAKEN

STATION 149	CAST 1	MAX DEPTH OF CAST 58	DATE 29 AUG 77	TIME 14:11:00	LATITUDE 40 20.0 N	LONGITUDE 72 8.5 W
	SONIC DEPTH 61	WIND DIRECTION 220	WIND SPEED 6	BAROMETRIC PRESSURE 25.7	AIR TEMP DRY BULB 25.6	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.97	-	-
10	-	1.96	-	-
20	-	1.87	-	-
30	-	1.91	-	-
40	-	1.93	-	-
58	-	1.96	-	-

- DATA NOT TAKEN

STATION 150	CAST 1	MAX DEPTH OF CAST 60	DATE 29 AUG 77	TIME 15:43:00	LATITUDE 40 14.5 N	LONGITUDE 72 4.0 W
	SONIC DEPTH 66	WIND DIRECTION 220	WIND SPEED 6	BAROMETRIC PRESSURE 24.4	AIR TEMP DRY BULB 23.3	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.33	33.228	23.079	-	0.16	0.08
10	18.32	32.938	23.638	-	0.31	0.10
20	12.02	33.297	25.284	6.69	0.50	0.22
30	10.26	33.317	25.616	-	1.06	0.55
40	9.58	33.480	25.857	5.87	0.52	0.32
50	9.22	33.714	26.098	4.81	1.58	0.18
60	9.20	33.717	26.103	4.78	1.30	0.23

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.14	2.53	0.15	0.00	0.08
10	0.06	2.23	0.00	0.04	0.08
20	0.16	2.64	0.00	0.04	0.10
30	0.31	2.86	1.55	0.10	0.10
40	0.45	2.09	4.47	0.73	0.09
50	0.76	10.26	10.02	0.08	0.05
60	0.78	10.53	9.59	0.76	0.13

- DATA NOT TAKEN

STATION 150	CAST 1	MAX DEPTH OF CAST 60	DATE 29 AUG 77	TIME 15:43:00	LATITUDE 40 14.5 N	LONGITUDE 72 4.0 W
	SONIC DEPTH 66	WIND DIRECTION 220	WIND SPEED 6	BAROMETRIC PRESSURE 24.4	AIR TEMP DRY BULB 23.3	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.79	-	-
10	-	1.90	-	-
20	-	1.82	-	-
30	-	1.78	-	-
40	-	1.73	-	-
50	-	2.06	-	-
60	-	2.00	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
151	1	63	29 AUG 77	17:07:00	40 9.2 N	72 0.0 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
65	230	6	24.4	23.0		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.62	32.756	22.642	-	0.36	0.07
10	21.40	32.743	22.693	-	0.15	0.07
20	18.21	33.930	24.422	-	0.33	0.13
35	9.30	33.465	25.890	5.78	0.87	0.30
40	9.18	33.578	25.998	5.70	1.70	0.38
50	9.10	33.821	26.200	4.96	1.54	0.18
63	9.12	33.829	26.203	4.87	1.39	0.15

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.05	1.28	0.14	0.01	0.12
10	0.04	1.25	0.00	0.00	0.13
20	0.02	1.39	0.00	0.01	0.19
35	0.46	1.95	5.95	0.05	0.19
40	0.54	2.93	7.71	0.04	0.36
50	0.74	11.68	10.56	0.04	0.19
63	0.78	12.42	10.70	0.05	0.22

- DATA NOT TAKEN

STATION 151	CAST 1	MAX DEPTH OF CAST 63	DATE 29 AUG 77	TIME 17:07:00	LATITUDE 40 9.2 N	LONGITUDE 72 0.0 W
	SONIC DEPTH 65	WIND DIRECTION 230	WIND SPEED 6	BAROMETRIC PRESSURE 24.4	AIR TEMP DRY BULB 23.0	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.98	-	-
10	-	1.80	-	-
20	-	1.85	-	-
35	-	1.88	-	-
40	-	1.96	-	-
50	-	2.06	-	-
63	-	2.06	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
152	1	80	29 AUG 77	19:00:00	40 2.3 N	71 53.5 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
82	210	5	26.8	23.3		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.25	32.908	22.583	-	0.35	0.03
10	21.89	33.359	23.025	-	0.17	0.05
20	17.73	33.658	24.331	-	0.34	0.09
30	12.20	33.516	25.420	7.47	0.76	0.18
40	10.02	33.639	25.907	6.25	3.04	1.06
50	8.08	33.486	26.095	5.91	1.15	0.28
65	8.84	33.848	26.263	5.49	0.45	0.09
80	9.84	34.276	26.434	4.95	0.36	0.19

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.04	1.49	0.13	0.00	0.24
10	0.00	2.19	0.00	0.00	0.22
20	0.00	2.47	0.00	0.00	0.22
30	0.00	1.50	0.00	0.00	0.21
40	0.35	3.87	4.54	0.16	0.23
50	0.57	8.24	9.68	0.01	0.21
65	0.60	11.70	10.73	0.01	0.23
80	0.65	14.12	11.22	0.06	0.25

- DATA NOT TAKEN

STATION 152	CAST 1	MAX DEPTH OF CAST 80	DATE 29 AUG 77	TIME 19:00:00	LATITUDE 40 2.3 N	LONGITUDE 71 53.5 W
	SONIC DEPTH 82	WIND DIRECTION 210	WIND SPEED 5	BAROMETRIC PRESSURE 26.8	AIR TEMP DRY BULB 23.3	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.08	-	-
10	-	1.90	-	-
20	-	1.94	-	-
30	-	1.95	-	-
40	-	1.88	-	-
50	-	1.95	-	-
65	-	1.98	-	-
80	-	1.78	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
153	1	105	29 AUG 77	20:41:00	39 56.4 N	71 45.5 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
112	230	5	24.0	22.0		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.40	33.275	22.819	-	0.25	0.03
10	21.91	33.285	22.963	-	0.21	0.04
20	19.51	33.303	23.617	-	0.37	0.08
30	13.62	33.558	25.172	6.90	0.55	0.19
40	9.84	33.643	25.941	5.89	1.46	0.13
50	8.86	33.708	26.150	5.67	0.27	0.14
65	10.86	34.523	26.449	5.05	-	-
85	11.96	35.140	26.724	4.30	-	-
105	12.20	35.418	26.893	4.02	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.05	4.17	0.05	0.00	0.32
10	0.00	2.86	0.00	0.00	0.35
20	0.00	2.18	0.00	0.00	0.24
30	0.02	1.68	0.00	0.00	0.27
40	0.42	4.99	6.79	0.16	0.24
50	0.58	9.11	9.83	0.02	0.28
65	0.55	10.04	10.12	0.03	0.32
85	0.66	10.54	13.35	0.05	0.55
105	0.77	12.23	15.87	0.08	0.31

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
153	1	105	29 AUG 77	20:41:00	39 56.4 N	71 45.5 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	112	230	5	24.0	22.0	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	2.05	-	-
10	-	2.00	-	-
20	-	1.97	-	-
30	-	1.88	-	-
40	-	2.08	-	-
50	-	1.78	-	-
65	-	-	-	-
85	-	-	-	-
105	-	-	-	-

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- DATA NOT TAKEN

STATION 154	CAST 1	MAX DEPTH OF CAST 600	DATE 29 AUG 77	TIME 22:11:00	LATITUDE 39 49.5 N	LONGITUDE 71 40.7 W
	SONIC DEPTH 688	WIND DIRECTION 210	WIND SPEED 5	BAROMETRIC PRESSURE 24.4	AIR TEMP DRY BULB 22.8	

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	22.26	33.378	22.936	-	0.14	0.03
25	18.18	34.540	24.895	-	0.32	0.07
50	12.28	35.205	26.713	-	0.08	0.05
75	12.57	35.453	26.848	4.09	0.04	0.04
100	12.20	35.475	26.937	4.06	0.04	0.03
200	10.51	35.378	27.177	3.92	-	-
300	7.98	35.117	27.389	3.63	-	-
400	6.76	35.068	27.526	4.20	-	-
500	6.29	35.048	27.574	4.43	-	-
600	5.65	35.020	27.634	4.91	-	-

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.00	1.71	0.15	0.00	0.26
25	0.00	2.14	0.00	0.00	0.23
50	0.53	7.38	12.58	0.02	0.13
75	0.63	8.76	15.09	0.01	0.12
100	0.70	10.04	16.20	0.00	0.16
200	0.94	12.28	20.95	0.00	0.07
300	1.22	16.28	25.40	0.00	0.09
400	1.15	16.09	23.95	0.00	0.07
500	1.11	15.76	23.20	0.00	0.16
600	1.06	15.14	21.94	0.01	0.16

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
154	1	600	29 AUG 77	22:11:00	39 49.5 N	71 40.7 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
688	210	5	24.4	22.8		

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.95	-	-
25	-	1.96	-	-
50	-	1.71	-	-
75	-	1.63	-	-
100	-	1.71	-	-
200	-	-	-	-
300	-	-	-	-
400	-	-	-	-
500	-	-	-	-
600	-	-	-	-

- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
155	1	50	30 AUG 77	05:57:00	41 4.9 N	71 42.8 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
53	240	6	21.3	18.9		

DEPTH	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	18.15	31.349	22.468	-	1.38	0.52
10	17.64	31.539	22.735	5.20	1.58	0.69
20	16.46	31.813	23.219	5.34	1.70	0.83
30	13.40	32.482	24.387	5.64	1.28	0.74
40	12.25	32.734	24.805	5.66	1.19	0.58
50	11.92	32.803	24.921	5.58	0.80	0.52

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
0	0.63	12.86	1.09	0.17	2.34
10	0.65	10.29	0.93	0.17	2.02
20	0.35	8.72	0.93	0.17	1.91
30	0.53	7.00	1.30	0.23	1.99
40	0.23	6.81	1.42	0.26	1.88
50	0.24	7.52	1.67	0.28	2.06

- DATA NOT TAKEN

STATION 155	CAST 1	MAX DEPTH OF CAST 50	DATE 30 AUG 77	TIME 05:57:00	LATITUDE 41 4.9 N	LONGITUDE 71 42.8 W
	SONIC DEPTH 53	WIND DIRECTION 240	WIND SPEED 6	BAROMETRIC PRESSURE 21.3	AIR TEMP DRY BULB 18.9	

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.86	-	-
10	-	1.82	-	-
20	-	1.79	-	-
30	-	1.75	-	-
40	-	1.79	-	-
50	-	1.72	-	-

- DATA NOT TAKEN

PRIMARY PRODUCTIVITY

TABLE OF UNITS

STATION	DATE	TIME EDT	LATITUDE DEG N	LONGITUDE DEG W	SONIC DEPTH METERS	RADIATION E/M ²	SURFACE TEMPERATURE CELSIUS
EXTINCTION COEFFICIENT	CARBON 14 TIME IN HRMIN	C14 TIME OUT (100,50,30%) HRMIN	C14 TIME OUT (15,5,1%) HRMIN	N15 INCUBN TIME (NO3) HRS	N15 INCUBN TIME (NH4) HRS		CRUISE
LIGHT DEPTH %	DEPTH METERS	CARBON 14 UPTAKE UG/L/HR	CARBON 14 UPTAKE >200 UG/L/HR	CARBON 14 UPTAKE <200 UG/L/HR	PARTICULATE CARBON UG/L	PARTICULATE NITROGEN UG-AT/L	
LIGHT DEPTH %	DEPTH METERS	CHLOROPHYLL UG/L	CHLOROPHYLL >200 UG/L	CHLOROPHYLL <200 UG/L	PHAEOPHYTIN UG/L	PHAEOPHYTIN >200 UG/L	PHAEOPHYTIN <200 UG/L
LIGHT DEPTH %	DEPTH METERS	NITRATE UG-AT/L	NITRATE UG-AT/L	AMMONIUM UG-AT/L	PHOSPHATE UG-AT/L	SILICATE UG-AT/L	INITIAL PART NITROGEN UG-AT/L
LIGHT DEPTH %	DEPTH METERS	FINAL PN NITRATE UG-AT/L	FINAL PN NITRATE UG-AT/L	RHO NITRATE UG-AT/L/HR	FINAL PN AMMONIUM UG-AT/L	AMMONIUM UPTAKE VLCTY PER HOUR	RHO AMMONIUM UG-AT/L/HR
LIGHT DEPTH %	DEPTH METERS	FINAL PN NO3 24HR UG-AT/L	FINAL PN UPTAKE VLCTY NO3 24HR PER HOUR	RHO NO3 24HR UG-AT/L/HR	FINAL PN NH4 24HR UG-AT/L	UPTAKE VLCTY NH4 24HR PER HOUR	RHO NH4 24HR UG-AT/L/HR
LIGHT DEPTH %	DEPTH METERS	PARTICLE VOLUME 1000 MM**3/L	PARTICLE VOLUME 2000 MM**3/L	PARTICLE VOLUME 2800 MM**3/L	PARTICLE VOLUME 4000 MM**3/L		

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	INCUBATION RADIATION	SURFACE TEMPERATURE
2	5 AUG 77	09:00:00	40 46.1 N	72 30.8 W	29	9.50	20
EXTINCTION COEFFICIENT 0.209							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN TIME (NH4) CRUISE							
		0945	1245	1330	6.1	5.9	6N68-1

LIGHT DEPTH	DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	0.0	3.63	0.55	3.08	-	-
50.0	3.0	11.95	0.99	10.96	-	-
50.0	3.0	-	-	-	-	-
30.0	6.0	4.40	0.23	4.17	-	-
15.0	9.0	1.38	0.11	1.27	-	-
5.0	14.0	0.64	0.22	0.42	-	-
1.0	22.0	0.40	0.13	0.27	-	-

LIGHT DEPTH	DEPTH	CHLOROPHYLL	CHLOROPHYLL >20U	CHLOROPHYLL <20U	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
100.0	0.0	1.35	0.28	1.07	0.23	0.07
50.0	3.0	1.35	0.19	1.16	0.20	0.05
50.0	3.0	-	-	-	-	-
30.0	6.0	0.81	0.17	0.64	0.23	0.06
15.0	9.0	0.59	0.12	0.47	0.16	0.03
5.0	14.0	1.12	0.22	0.90	0.42	0.08
1.0	22.0	5.33	2.27	3.06	1.34	0.60

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	INCUBATION		SURFACE TEMPERATURE
						RADIATION	TIME	
2	5 AUG 77	09:00:00	40 46.1 N	72 30.8 W	29	9.56		20
EXTINCTION COEFFICIENT								
	0.209	CARBON 14 TIME IN 0945	C14 TIME OUT 1245 (100,50,30%)	C14 TIME OUT 1330 (15,5,12)	N15 INCUBN TIME (NO3) 6.1	N15 INCUBN TIME (NH4) 5.9		CRUISE 6N68-1

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART	
							NITROGEN	AMMONIUM
100.0	0.0	0.06	0.01	0.00	0.08	2.34	5.24	
50.0	3.0	0.04	0.02	0.01	0.01	1.24	-	
50.0	3.0	-	-	-	-	-	-	
30.0	6.0	0.02	0.02	0.02	0.00	0.93	-	
15.0	9.0	0.04	0.00	0.01	0.00	0.73	-	
5.0	14.0	0.07	0.00	0.15	0.00	1.60	-	
1.0	22.0	0.05	0.00	0.01	0.13	0.47	-	

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO	
							AMMONIUM	AMMONIUM
100.0	0.0	5.54	0.0066	0.0363	5.56	0.0155	0.0861	
50.0	3.0	5.83	0.0025	0.0146	5.86	0.0058	0.0338	
50.0	3.0	4.72	0.0011	0.0053	5.49	0.0037	0.0205	
30.0	6.0	4.40	0.0050	0.0220	5.43	0.0085	0.0462	
15.0	9.0	5.77	0.0024	0.0137	5.28	0.0107	0.0563	
5.0	14.0	4.83	0.0093	0.0449	4.77	0.0160	0.0765	
1.0	22.0	4.95	0.0070	0.0349	4.95*	0.0086	0.0424	

- DATA NOT TAKEN

* PARTIAL SAMPLE LOSS DURING ANALYSIS

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	INCUBATION RADIATION	SURFACE TEMPERATURE
2	5 AUG 77	09:00:00	40 46.1 N	72 30.8 W	29	1.50	20
EXTINCTION COEFFICIENT	CARBON 14	C14 TIME OUT (100,50,30%)	C14 TIME OUT (15,5,1%)	N15 INCUBN TIME (N14)	N15 INCUBN TIME (N14)	CRUISE	
0.209	0945	1245	1330	6.1	5.9	6N68-1	

LIGHT DEPTH	DEPTH	FINAL PN NO3 24HR	UPTAKE VLCTY NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	0.0	-	-	-	-	-	-
50.0	3.0	-	-	-	-	-	-
50.0	3.0	-	-	-	-	-	-
30.0	6.0	-	-	-	-	-	-
15.0	9.0	-	-	-	-	-	-
5.0	14.0	-	-	-	-	-	-
1.0	22.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
100.0	0.0	-	-	2.63	-
50.0	3.0	-	-	2.33	-
50.0	3.0	-	-	-	-
30.0	6.0	-	-	1.24	-
15.0	9.0	-	-	0.71	-
5.0	14.0	-	-	1.79	-
1.0	22.0	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	INCUBATION RADIATION	SURFACE TEMPERATURE
7	6 AUG 77	10:40:00	40 45.2 N	72 29.4 W	28	5.80	20
EXTINCTION COEFFICIENT	0.219	CARBON 14 TIME IN 1125	C14 TIME OUT 1355	C14 TIME OUT (100,50,30%) (15,5,1%)	N15 INCUBN TIME (NO3) 5.8	N15 INCUBN TIME (NH4) 6.2	CRUISE 6N86-1

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	1.59	0.38	1.21	644	4.52
50.0	8.55	1.70	6.85	673	5.36
30.0	-	-	-	-	5.36
15.0	1.97	0.49	1.48	959	7.14
5.0	1.52	0.52	1.20	835	15.50
1.0	12.67	4.04	8.63	715	26.50
0.2	-	-	-	-	-
27.0	-	-	-	-	-
27.0	-	-	-	-	-

LIGHT DEPTH	CHLOROPHYLL	CHLOROPHYLL >20U	CHLOROPHYLL <20U	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
100.0	1.26	0.22	1.04	0.36	0.31
50.0	1.02	0.21	0.81	0.34	0.28
30.0	-	-	-	-	-
15.0	0.93	0.20	0.73	0.37	0.29
5.0	1.56	0.46	1.10	0.50	0.38
1.0	0.81	0.56	0.25	0.26	0.09
0.2	5.42	2.28	3.14	2.17	1.58
27.0	2.64	0.76	1.88	1.77	1.40
27.0	-	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	INCUBATION RADIATION	SURFACE TEMPERATURE
7	6 AUG 77	10:40:00	40 45.2 N	72 29.4 W	28	5.80	20
EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT (100,50,30%)	C14 TIME OUT (15,5,12)	N15 INCUBN TIME (N03)	N15 INCUBN TIME (NH4)	CRUISE 6N86-1	
0.219	1125	1355	1440	5.8	6.2		

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.13	0.02	0.00	0.00	1.14	4.00
50.0	3.0	0.04	0.01	0.00	0.08	0.75	-
50.0	3.0	-	-	-	-	-	-
30.0	6.0	0.04	0.01	0.00	0.00	0.66	-
15.0	10.0	0.05	0.00	0.00	0.00	0.50	-
5.0	15.0	0.05	0.00	0.00	0.12	0.46	-
1.0	21.0	0.11	0.01	0.00	0.35	0.65	-
0.2	27.0	1.46	0.15	0.78	0.65	7.18	-
0.2	27.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	9.11	0.0007	0.0067	5.54	0.0056	0.0308
50.0	3.0	4.17	0.0107	0.0445	5.28	0.0137	0.0725
50.0	3.0	4.77	0.0029	0.0140	5.62	0.0077	0.0436
30.0	6.0	6.58	0.0014	0.0094	4.92	0.0072	0.0355
15.0	10.0	12.33	0.0006	0.0073	4.10	0.0139	0.0570
5.0	15.0	6.89	0.0033	0.0226	6.19	0.0082	0.0506
1.0	21.0	7.57	0.0015	0.0117	6.83	0.0083	0.0566
0.2	27.0	5.64	0.0011	0.0063	6.19	0.0120	0.0743
0.2	27.0	5.41	0.0002	0.0009	6.49	0.0015	0.0099

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	INCUBATION		SURFACE TEMPERATURE
						RADIATION	TEMPERATURE	
7	6 AUG 77	10:40:00	40 45.2 N	72 29.4 W	28	25.80	20	
EXTINCTION COEFFICIENT								
	0.219	CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (N14)	N15 INCUBN TIME (N14)	CRUISE	
		1125	(100,50,30%)	(15,5,1%)	5.8	6.2	6N86-1	
			1355	1440				

LIGHT DEPTH	DEPTH	FINAL PN NO3 24HR	UPTAKE VLCTY NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	0.0	-	-	-	-	-	-
50.0	3.0	-	-	-	-	-	-
50.0	3.0	-	-	-	-	-	-
30.0	6.0	-	-	-	-	-	-
15.0	10.0	-	-	-	-	-	-
5.0	15.0	-	-	-	-	-	-
1.0	21.0	-	-	-	-	-	-
0.2	27.0	-	-	-	-	-	-
0.2	27.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
100.0	0.0	-	-	1.96	-
50.0	3.0	-	-	1.75	-
50.0	3.0	-	-	-	-
30.0	6.0	-	-	1.32	-
15.0	10.0	-	-	1.50	-
5.0	15.0	-	-	2.09	-
1.0	21.0	-	-	3.07	-
0.2	27.0	-	-	1.42	-
0.2	27.0	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	INCUBATION		SURFACE TEMPERATURE
						RADIATION	TIME (H:M)	
13	7 AUG 77	10:12:00	40 46.2 N	72 30.1 W	28	25.10		18
	EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT (100,50,30%)	C14 TIME OUT (15,5,1%)	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE	
	.0.242	1115	1415	1445	6.1,22.7	5.8,22.4	6N68-1	

LIGHT DEPTH	DEPTH	CARBON-14 UPTAKE	PARTICULATE	
			CARBON	NITROGEN
100.0	0.0	2.83	370	2.75
50.0	3.0	1.76	335	3.10
30.0	5.0	4.74	364	3.67
15.0	8.0	1.13	449	4.15
5.0	13.0	1.38	408	5.34
1.0	19.0	-	531	3.85
0.2	25.0	-	414	3.98

LIGHT DEPTH	DEPTH	CHLOROPHYLL	CHLOROPHYLL		PHAEOPHYTIN	PHAEOPHYTIN	
			>20U	<20U		>20U	<20U
100.0	0.0	1.23	0.18	1.05	0.41	0.07	0.34
50.0	3.0	1.21	0.26	0.95	0.48	0.10	0.38
30.0	5.0	1.54	0.56	0.98	0.49	0.13	0.36
15.0	8.0	0.90	0.15	0.75	0.36	0.09	0.27
5.0	13.0	1.08	0.26	0.82	0.51	0.13	0.38
1.0	19.0	1.88	0.59	1.29	1.19	0.40	0.79
0.2	25.0	4.05	1.89	2.16	1.99	0.68	1.31

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	INCUBATION	
						RADIATION	SURFACE TEMPERATURE
13	7 AUG 77	10:12:00	40 46.2 N	72 30.1 W	28	25.10	18
EXTINCTION COEFFICIENT		CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE
0.242		1115	(100,50,30%)	(15,5,12)	6.1,22.7	5.8,22.4	6N68-1
			1415	1445			

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.01	0.01	0.00	0.04	0.63	4.17
50.0	3.0	0.04	0.01	0.00	0.02	0.58	-
30.0	5.0	0.01	0.01	0.00	0.00	0.58	-
15.0	8.0	0.05	0.00	0.00	0.06	0.45	-
5.0	13.0	0.05	0.00	0.00	0.04	0.37	-
1.0	19.0	0.00	0.00	0.00	0.11	0.15	-
0.2	25.0	0.01	0.01	0.00	0.42	1.57	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	9.26	0.0022	0.0205	6.49	0.0091	0.0588
50.0	3.0	9.57	0.0004	0.0038	9.31	0.0018	0.0166
30.0	5.0	6.04	0.0027	0.0161	10.82	0.0029	0.0314
15.0	8.0	7.85	0.0021	0.0167	6.94	0.0051	0.0351
5.0	13.0	5.32	0.0014	0.0075	7.85	0.0029	0.0228
1.0	19.0	6.90	0.0020	0.0141	8.39	0.0064	0.0535
0.2	25.0	7.74	0.0091	0.0703	7.50	0.0101	0.0755

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	INCUBATION		SURFACE TEMPERATURE
						RADIATION	TEMPERATURE	
13	7 AUG 77	10:12:00	40 46.2 N	72 30.1 W	28	25.10	18	
EXTINCTION COEFFICIENT 0.242								
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN								
TIME IN (100,50,30%) (15,5,1%) TIME (NH4) TIME (NH4) CRUISE								
1115 1415 1445 6.1,22.7 5.8,22.4 6N68-1								

LIGHT DEPTH	DEPTH	FINAL PN NO3 24HR	UPTAKE VLCTY NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
50.0	3.0	5.95	0.00021	0.0012	7.49	0.00177	0.0133
30.0	5.0	7.56	0.00110	0.0083	5.76	0.00308	0.0177
15.0	8.0	4.95	0.00092	0.0046	6.59	0.00284	0.0187
5.0	13.0	5.03	0.00048	0.0024	5.50	0.00312	0.0172
1.0	19.0	8.20	0.00039	0.0032	5.65	0.00326	0.0184
0.2	25.0	10.82	0.01039	0.1124	10.37	0.01020	0.1058

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 1000		PARTICLE VOLUME 2000		PARTICLE VOLUME 2800		PARTICLE VOLUME 4000	
		VOLUME	PARTICLE	VOLUME	PARTICLE	VOLUME	PARTICLE	VOLUME	PARTICLE
100.0	0.0	-	-	-	-	1.26	-	-	-
50.0	3.0	-	-	-	-	1.45	-	-	-
30.0	5.0	-	-	-	-	1.59	-	-	-
15.0	8.0	-	-	-	-	1.29	-	-	-
5.0	13.0	-	-	-	-	1.34	-	-	-
1.0	19.0	-	-	-	-	2.03	-	-	-
0.2	25.0	-	-	-	-	1.68	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	INCUBATION		SURFACE TEMPERATURE
						RADIATION	TIME	
22	8 AUG 77	10:10:00	40 7.4 N	71 58.9 W	74	20.41		22
EXTINCTION COEFFICIENT								
	0.124							
CARBON 14								
		1045						
C14 TIME OUT C14 TIME OUT N15 INCUBN								
			(100,50,30%)	(15,5,12)	TIME (NO3)	TIME (N14)		
			1345	1445	6.0	5.8		
								CRUISE
								6N68-1

LIGHT DEPTH	DEPTH	CARBON 14 UPTAKE		CARBON 14 UPTAKE		PARTICULATE CARBON		PARTICULATE NITROGEN	
		>200	<200	>200	<200	>200	<200	>200	<200
100.0	0.0	0.41	0.03	0.38	0.38	293	3.06		
50.0	6.0	0.41	0.03	0.38	0.38	231	1.36		
50.0	6.0								
30.0	11.0	0.93	0.04	0.89	0.89	256	1.79		
15.0	16.0	0.32	0.01	0.31	0.31	301	2.39		
5.0	26.0	4.94	3.46	1.48	1.48	360	3.39		
2.0	32.0	-	-	-	-	303	1.77		
1.0	37.0	-	-	-	-	404	3.49		
0.1	50.0	-	-	-	-	695	12.93		
0.1	50.0	-	-	-	-				

LIGHT DEPTH	DEPTH	CHLOROPHYLL		CHLOROPHYLL		PHAEOPHYTIN		PHAEOPHYTIN	
		>200	<200	>200	<200	>200	<200	>200	<200
100.0	0.0	0.49	0.09	0.40	0.15	0.05	0.10		
50.0	6.0	0.56	0.27	0.29	0.12	0.06	0.06		
50.0	6.0								
30.0	11.0	0.44	0.03	0.41	0.14	0.02	0.12		
15.0	16.0	0.48	0.04	0.44	0.17	0.01	0.16		
5.0	26.0	1.75	0.59	1.16	0.41	0.08	0.33		
2.0	32.0	1.24	0.67	0.57	0.43	0.10	0.33		
1.0	37.0	3.38	2.94	0.44	0.50	0.30	0.20		
0.1	50.0	1.98	1.41	0.57	0.21	0.08	0.13		
0.1	50.0								

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	INCUBATION		SURFACE TEMPERATURE
						RADIATION	20.41	
22	8 AUG 77	10:10:00	40 7.4 N	71 58.9 W	74			22
EXTINCTION COEFFICIENT 0.124								
CARBON 14			C14 TIME OUT C14 TIME OUT	N15 INCUBN		CRUISE		
TIME IN			(100,50,50%) (15,5,12)	TIME (NO3)	TIME (NH4)	6N68-1		
1045			1445	6.0	5.8			

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.02	0.05	0.02	0.03	2.89	6.17
50.0	6.0	0.09	0.01	0.04	0.00	2.73	-
50.0	6.0	-	-	-	-	-	-
30.0	11.0	0.06	0.01	0.10	0.00	2.49	-
15.0	16.0	0.05	0.00	0.05	0.00	2.43	-
5.0	26.0	0.19	0.01	0.11	0.05	2.72	-
2.0	32.0	6.76	0.06	0.10	0.42	5.73	-
1.0	37.0	8.01	0.04	0.09	0.50	6.82	-
0.1	50.0	8.37	0.03	0.14	0.50	7.90	-
0.1	50.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	4.28	0.0006	0.0027	3.62	0.0055	0.0198
50.0	6.0	3.28	0.0005	0.0016	5.23	0.0031	0.0162
50.0	6.0	4.46	0.0001	0.0006	7.89	0.0031	0.0243
30.0	11.0	3.78	0.0011	0.0040	4.50	0.0052	0.0236
15.0	16.0	4.02	0.0007	0.0029	4.02*	0.0047	0.0189
5.0	26.0	7.22	0.0011	0.0079	4.79	0.0062	0.0299
2.0	32.0	-	-	-	-	-	-
1.0	37.0	5.75	0.0021	0.0123	3.91	0.0036	0.0141
0.1	50.0	5.43	0.0095	0.0517	4.83	0.0099	0.0479
0.1	50.0	6.43	0.0028	0.0178	4.55	0.0031	0.0142

- DATA NOT TAKEN

* PARTIAL SAMPLE LOSS DURING ANALYSIS

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	ENCUBATION RADIATION	SURFACE TEMPERATURE
22	8 AUG 77	10:10:00	40 7.4 N	71 58.9 W	74	20.41	22
EXTINCTION COEFFICIENT	0.124	CARBON 14 TIME IN 1045	C14 TIME OUT (100,50,30%) 1345	C14 TIME OUT (15,5,1%) 1945	N15 INCUB TIME (N14) 6.0	N15 INCUB TIME (N14) 5.8	CRUISE 6N68-1

LIGHT DEPTH	DEPTH	FINAL PN NO3 24HR	UPTAKE VLCTY NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	0.0	-	-	-	-	-	-
50.0	6.0	-	-	-	-	-	-
50.0	6.0	-	-	-	-	-	-
30.0	11.0	-	-	-	-	-	-
15.0	16.0	-	-	-	-	-	-
5.0	26.0	-	-	-	-	-	-
2.0	32.0	-	-	-	-	-	-
1.0	37.0	-	-	-	-	-	-
0.1	50.0	-	-	-	-	-	-
0.1	50.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
100.0	0.0	-	0.34	-	-
50.0	6.0	-	0.32	-	-
50.0	6.0	-	-	-	-
30.0	11.0	-	0.64	-	-
15.0	16.0	-	0.63	-	-
5.0	26.0	-	0.95	-	2.50
2.0	32.0	-	0.54	-	-
1.0	37.0	-	-	-	11.58
0.1	50.0	-	-	-	5.46
0.1	50.0	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	INCUBATION		SURFACE TEMPERATURE
						RADIATION	TIME	
33	9 AUG 77	10:27:00	39 33.5 N	71 30.3 W	1870	0.62		25
EXTINCTION COEFFICIENT								
	0.102	CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)		CRUISE
		1110	(100, 50, 30%)	(15, 5, 1%)	6.1	5.8		6N68-1
			1625	1720				

LIGHT DEPTH	DEPTH	CARBON 14 UPTAKE		CARBON 14 UPTAKE		PARTICULATE CARBON		PARTICULATE NITROGEN	
		>200	<200	>200	<200	>200	<200	>200	<200
100.0	0.0	0.19	0.03	0.16	0.16	306	3.36	3.36	
50.0	5.0	1.45	0.12	1.33	1.33	407	6.39	6.39	
50.0	5.0	-	-	-	-	-	-	-	-
30.0	13.0	0.33	0.02	0.31	0.31	273	2.47	2.47	
15.0	21.0	0.36	0.01	0.35	0.35	310	2.41	2.41	
5.0	30.0	0.26	0.03	0.23	0.23	62	0.35	0.35	
1.0	45.0	-	-	-	-	605	5.44	5.44	
0.1	61.0+	-	-	-	-	438	2.63	2.63	
0.1	61.0+	-	-	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	CHLOROPHYLL		CHLOROPHYLL		PHAEOPHYTIN		PHAEOPHYTIN	
		>200	<200	>200	<200	>200	<200	>200	<200
100.0	0.0	0.29	0.05	0.24	0.24	0.05	0.01	0.04	0.04
50.0	5.0	0.70	0.40	0.30	0.30	0.11	0.04	0.07	0.07
50.0	5.0	-	-	-	-	-	-	-	-
30.0	13.0	0.24	0.04	0.20	0.20	0.08	0.01	0.07	0.07
15.0	21.0	0.43	0.06	0.37	0.37	0.17	0.01	0.16	0.16
5.0	30.0	1.22	0.08	1.14	1.14	1.14	0.01	1.13	1.13
1.0	45.0	0.58	0.03	0.55	0.55	0.49	0.02	0.47	0.47
0.1	61.0+	0.21	0.03	0.18	0.18	0.19	0.03	0.16	0.16
0.1	61.0+	-	-	-	-	-	-	-	-

- DATA NOT TAKEN

+ ESTIMATED

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	INCUBATION		SURFACE TEMPERATURE
					RADIATION	30.62	
33	9 AUG 77	10:27:00	39 53.5 N	71 30.5 W	1870		25
EXTINCTION COEFFICIENT 0.102							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBEN N15 INCUBEN CRUISE							
TIME IN (100,50,30%) (15,5,1%) TIME (N14) TIME (N14) 6N68-1							
1110 1625 1720 6.1 5.8							

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.00	0.03	0.19	0.03	1.53	-
50.0	5.0	0.00	0.03	0.22	0.03	1.53	-
50.0	5.0	-	-	-	-	-	-
30.0	13.0	0.00	0.03	0.26	0.00	1.70	-
15.0	15.0	0.03	0.03	0.62	0.01	2.37	-
5.0	30.0	0.39	0.05	0.22	0.03	2.44	-
1.0	45.0	5.87	0.27	0.12	0.39	3.64	-
0.1	61.0+	10.22	0.09	0.14	0.58	5.10	-
0.1	61.0+	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLOCITY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLOCITY	RHO AMMONIUM
100.0	0.0	2.03	0.0004	0.0009	2.38	0.0045	0.0108
50.0	5.0	3.14	0.0012	0.0037	1.00	0.0538	0.0968
50.0	5.0	-	-	-	1.78	0.0073	0.0130
30.0	13.0	3.10	0.0010	0.0030	4.93	0.0056	0.0278
15.0	21.0	9.02	0.0017	0.0152	3.09	0.0098	0.0303
5.0	30.0	2.88	0.0008	0.0023	8.22	0.0024	0.0199
1.0	45.0	3.57	0.0006	0.0022	2.18	0.0021	0.0045
0.1	61.0+	1.02	0.0024	0.0024	1.09	0.0034	0.0037
0.1	61.0+	1.22	0.0008	0.0010	1.16	0.0036	0.0042

..... DATA NOT TAKEN
+ ESTIMATED

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	INCUBATION				SURFACE TEMPERATURE
			LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	
33	9 AUG 77	10:27:00	39 33.5 N	71 30.3 W	1870	0.62	25
EXTINCTION COEFFICIENT		CARBON 14	C14 TIME OUT	C14 TIME OUT	N15 INCUBN	N15 INCUBN	CRUISE
0.102		TIME IN	(100,50,30%)	(15,5,1%)	TIME (NO3)	TIME (NH4)	6N68-1
		1110	1625	1720	6.1	5.8	

LIGHT DEPTH	DEPTH	FINAL PN NO3 24HR	UPTAKE VLOCITY NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE VLOCITY NH4 24HR	RHO NH4 24HR
100.0	0.0	-	-	-	-	-	-
50.0	5.0	-	-	-	-	-	-
50.0	5.0	-	-	-	-	-	-
30.0	13.0	-	-	-	-	-	-
15.0	21.0	-	-	-	-	-	-
5.0	30.0	-	-	-	-	-	-
1.0	45.0	-	-	-	-	-	-
0.1	61.0+	-	-	-	-	-	-
0.1	61.0+	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
100.0	0.0	-	0.26	-	-
50.0	5.0	-	0.23	-	-
50.0	5.0	-	-	-	-
30.0	13.0	-	0.20	-	-
15.0	21.0	-	0.36	-	-
5.0	30.0	-	0.83	-	-
1.0	45.0	-	0.34	-	-
0.1	61.0+	-	0.38	-	-
0.1	61.0+	-	-	-	-

- DATA NOT TAKEN

+ ESTIMATED

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	CUBATION	
						RADIATION	SURFACE TEMPERATURE
34	10 AUG '77	11:00:00	40 9.4 N	72 1.0 W	66		24
EXTINCTION COEFFICIENT							
	0.131	CARBON ¹⁴ UPTAKE	C ¹⁴ TIME OUT (100,50,30%)	C ¹⁴ TIME OUT (15,5,1%)	N ¹⁵ INCUBN TIME (NO3)	N ¹⁵ INCUBN TIME (NH ₄)	CRUISE
		1145	1730	1830	5.9	5.6	6N68-1

LIGHT DEPTH	DEPTH	CARBON ¹⁴ UPTAKE		CARBON ¹⁴ UPTAKE <200		PARTICULATE CARBON		PARTICULATE NITROGEN	
100.0	0.0	0.64	0.00	0.64	246	1.20			
50.0	6.0	0.81	0.01	0.80	242	1.19			
50.0	6.0	-	-	-	-	-			
30.0	11.0	0.69	0.07	0.62	220	1.51			
15.0	17.0	0.10	0.02	0.08	237	0.71			
5.0	26.0	3.33	2.46	0.87	368	3.24			
1.0	35.0	0.27	0.18	0.09	246	1.94			
0.1	53.0	-	-	-	265	2.34			
0.1	53.0	-	-	-	-	-			

LIGHT DEPTH	DEPTH	CHLOROPHYLL		CHLOROPHYLL		PHAEOPHYTIN		PHAEOPHYTIN	
100.0	0.0	0.27	0.03	0.24	0.11	0.04	0.07		
50.0	6.0	0.27	0.03	0.24	0.10	0.02	0.08		
50.0	6.0	-	-	-	-	-	-		
30.0	11.0	0.88	0.49	0.59	0.53	0.41	0.12		
15.0	17.0	0.56	0.05	0.51	0.21	0.07	0.14		
5.0	26.0	3.18	1.10	2.08	0.80	0.15	0.55		
1.0	35.0	2.23	1.29	0.94	0.31	0.05	0.26		
0.1	53.0	1.32	1.18	0.14	0.23	0.12	0.11		
0.1	53.0	-	-	-	-	-	-		

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
34	10 AUG 77	11:00:00	40 9.4 N	72 1.0 W	66		24
EXTINCTION COEFFICIENT 0.131							
	CARBON 14	C14 TIME OUT	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (NO.3)	N15 INCUBN TIME (N14)	CRUISE
	TIME IN	(100,50,50%)	(15,5,12)	(15,5,12)	5.9	5.6	6N68-1
	0.131	1730	1830	1830			

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.09	0.05	0.11	0.12	1.48	3.03
50.0	6.0	0.00	0.01	0.06	0.06	1.30	-
50.0	6.0	-	-	-	-	-	-
30.0	11.0	0.00	0.02	0.05	0.04	1.10	-
15.0	17.0	0.00	0.01	0.06	0.06	1.25	-
5.0	26.0	0.12	0.02	0.08	0.14	1.30	-
1.0	35.0	3.93	0.16	0.10	0.33	2.72	-
0.1	53.0	10.09	0.08	0.08	0.80	11.28	-
0.1	53.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	9.15	0.0009	0.0087	3.36	0.0036	0.0120
50.0	6.0	4.88	0.0002	0.0012	3.47	0.0031	0.0107
50.0	6.0	10.08	0.0001	0.0011	2.84	0.0023	0.0065
30.0	11.0	2.69	0.0013	0.0036	2.44	0.0062	0.0151
15.0	17.0	3.54	0.0008	0.0030	3.20	0.0053	0.0169
5.0	26.0	5.48	0.0022	0.0121	5.56	0.0050	0.0276
1.0	35.0	4.20	0.0033	0.0139	3.89	0.0045	0.0174
0.1	53.0	2.66	0.0043	0.0115	2.66	0.0051	0.0135
0.1	53.0	2.86	0.0009	0.0027	2.77	0.0013	0.0035

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
34	10 AUG 77	11:00:00	40 9.4 N	72 1.0 W	66		24
EXTINCTION COEFFICIENT	CARBON 14	C14 TIME OUT	N15 INCUBN	N15 INCUBN	N15 INCUBN	CRUISE	
0.131	TIME IN	(100,50,30%)	(15,5,12)	TIME (NO3)	TIME (NH4)	6N68-1	
	1145	1750	1830	5.9	5.6		

DEPTH	FINAL PN	UPTAKE VLCTY	RHO NO3	FINAL PN	UPTAKE VLCTY	RHO NH4
100.0	NO3 24HR	NO3 24HR	24HR	NH4 24HR	NH4 24HR	24HR
50.0	-	-	-	-	-	-
50.0	-	-	-	-	-	-
30.0	-	-	-	-	-	-
15.0	-	-	-	-	-	-
5.0	-	-	-	-	-	-
1.0	-	-	-	-	-	-
0.1	-	-	-	-	-	-
0.1	-	-	-	-	-	-

DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
100.0	-	0.47	-	-
50.0	-	0.37	-	-
50.0	-	-	-	-
30.0	-	0.48	-	-
15.0	-	0.58	-	-
5.0	-	-	-	1.53
1.0	-	-	-	2.76
0.1	-	-	-	1.63
0.1	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
40	11 AUG 77	10:33:00	40 9.8 N	72 0.7 W	54		24
EXTINCTION COEFFICIENT	CARBON 14 TIME IN	CARBON 14 TIME OUT	C14 TIME OUT (100,50,30%)	C14 TIME OUT (15,5,1%)	N15 INCUBN TIME (NO.3)	N15 INCUBN TIME (N14)	CRUISE
0.135	1130	1730	1830	6.1	6.1	6.1	6N68-1

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >200	CARBON 14 UPTAKE <200	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	0.56	0.00	0.56	401	3.08
50.0	1.75	0.01	1.74	274	1.58
30.0	1.53	0.08	1.45	313	2.28
15.0	0.92	0.69	0.23	481	1.80
5.0	1.81	0.05	1.76	281	4.42
1.0	0.63	0.38	0.25	205	1.03
0.1	-	-	-	398	3.41

LIGHT DEPTH	CHLOROPHYLL	CHLOROPHYLL >200	CHLOROPHYLL <200	PHAEOPHYTIN	PHAEOPHYTIN >200	PHAEOPHYTIN <200
100.0	0.38	0.04	0.34	0.13	0.02	0.11
50.0	0.34	0.03	0.31	0.13	0.02	0.11
30.0	0.30	0.02	0.28	0.11	0.01	0.10
15.0	0.42	0.02	0.40	0.12	0.01	0.11
5.0	1.56	0.78	0.78	0.30	0.07	0.23
1.0	1.71	1.03	0.68	0.40	0.14	0.26
0.1	1.54	1.27	0.27	0.35	0.16	0.19

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
40	11 AUG 77	10:33:00	40 9.8 N	72 0.7 W	64		24
EXTINCTION COEFFICIENT							
	0.135	CARBON 14 TIME IN 1130	C14 TIME OUT 1730	C14 TIME OUT (15,5,1%) 1830	N15 INCUBN TIME (NO3) 6.1	N15 INCUBN TIME (NH4) 6.1	CRUISE 6N68-1

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.07	0.00	0.01	0.11	2.08	2.86
50.0	5.0	0.00	0.00	0.03	0.09	2.20	-
30.0	10.0	0.01	0.00	0.10	0.01	1.70	-
15.0	16.0	0.01	0.00	0.09	0.02	1.75	-
5.0	24.0	0.01	0.00	0.15	0.08	1.95	-
1.0	34.0	3.88	0.11	0.00	0.40	2.55	-
0.1	51.0	7.69	0.06	0.01	0.59	6.30	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	4.66	0.0048	0.0225	4.95	0.0073	0.0362
50.0	5.0	5.18	0.0044	0.0230	4.90	0.0102	0.0502
30.0	10.0	5.88	0.0064	0.0378	5.23	0.0102	0.0536
15.0	16.0	5.88	0.0053	0.0310	4.65	0.0094	0.0439
5.0	24.0	5.04	0.0037	0.0187	5.24	0.0059	0.0309
1.0	34.0	5.26	0.0052	0.0274	4.50	0.0066	0.0296
0.1	51.0	-	-	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE	
							TEMPERATURE	24
40	11 AUG 77	10:33:00	40 9.8 N	72 0.7 W	64	-	-	-
EXTINCTION COEFFICIENT 0.135								
		CARBON 14	C14 TIME OUT	C14 TIME OUT	N15 INCUBN	N15 INCUBN	CRUISE	
		TIME IN	(100,50,50%)	(15,5,12)	TIME (N03)	TIME (NH4)	6N58-1	
		1130	1730	1830	6.1	6.1		

LIGHT DEPTH	DEPTH	FINAL PN N03 24HR	UPTAKE VLCTY N03 24HR	RHO N03 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	0.0	-	-	-	-	-	-
50.0	5.0	-	-	-	-	-	-
30.0	10.0	-	-	-	-	-	-
15.0	16.0	-	-	-	-	-	-
5.0	24.0	-	-	-	-	-	-
1.0	34.0	-	-	-	-	-	-
0.1	51.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
100.0	0.0	-	0.49	-	-
50.0	5.0	-	0.36	-	-
30.0	10.0	-	0.28	-	-
15.0	16.0	-	0.48	-	-
5.0	24.0	-	-	-	4.98
1.0	34.0	-	-	-	3.00
0.1	51.0	-	-	-	3.36

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
44	12 AUG 77	10:14:00	40 46.5 N	72 30.9 W	28		
	EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT (100,50,30%)	C14 TIME OUT (15,5,1%)	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE
	0.242	1100	1745	1840	6.3,23.9	6.0,23.7	6N68-1

LIGHT DEPTH	DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >200	CARBON 14 UPTAKE <200	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	0.0	7.39	1.63	5.76	461	3.83
50.0	3.0	3.81	1.12	2.69	407	2.96
50.0	3.0					
30.0	5.0	4.86	0.84	4.01	493	3.02
15.0	9.0	0.58	0.16	0.42	419	2.46
5.0	13.0	3.11	1.35	1.75	357	3.03
1.0	19.0	4.86	0.95	3.91	576	5.36
0.1	24.0				773	5.53
0.1	24.0					

LIGHT DEPTH	DEPTH	CHLOROPHYLL	CHLOROPHYLL >200	CHLOROPHYLL <200	PHALOPHYTIN >200	PHAEOPHYTIN <200
100.0	0.0	0.97	0.24	0.73	0.22	0.15
50.0	3.0	1.23	0.42	0.81	0.41	0.26
50.0	3.0					
30.0	5.0	1.08	0.38	0.70	0.57	0.23
15.0	9.0	1.36	0.56	0.80	0.73	0.40
5.0	13.0	2.60	1.27	1.33	1.62	0.90
1.0	19.0	6.17	2.97	3.20	2.66	1.07
0.1	24.0	3.72	1.81	1.91	1.84	1.35
0.1	24.0					

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

ATLANTIC COASTAL EXPERIMENT - 3

R/V KNORR S/S PRODUCTIVITY REPORT 02 NOV 82

13:55:56

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
44	12 AUG 77	10:14:00	40 46.5 N	72 50.9 W	28		
EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	C14 TIME OUT	N15 INCUEN TIME (H03)	N15 INCUEN TIME (H14)	CRUISE
0.242	1100	(100,50,302)	1745	(15,5,12)	6.5,23.9	6.0,23.7	6N68-1
				1840			

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.00	0.03	0.21	0.10	2.99	10.00
50.0	3.0	0.00	0.02	0.09	0.10	2.09	-
50.0	3.0	-	-	-	-	-	-
30.0	5.0	0.00	0.01	0.24	0.11	1.50	-
15.0	9.0	0.00	0.01	0.13	0.17	1.27	-
5.0	13.0	0.00	0.01	0.11	0.38	1.32	-
1.0	19.0	0.14	0.03	0.16	0.78	5.13	-
0.1	24.0	1.23	0.13	1.01	1.09	10.65	-
0.1	24.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	6.91	0.0026	0.0180	5.70	0.0078	0.0446
50.0	3.0	8.12	0.0011	0.0091	6.97	0.0059	0.0408
50.0	3.0	7.32	0.0004	0.0032	5.81	0.0037	0.0217
30.0	5.0	8.64	0.0018	0.0155	8.93	0.0100	0.0392
15.0	9.0	7.71	0.0020	0.0156	6.84	0.0114	0.0779
5.0	13.0	9.23	0.0024	0.0221	8.01	0.0074	0.0590
1.0	19.0	11.31	0.0006	0.0064	8.56	0.0052	0.0446
0.1	24.0	9.86	0.0025	0.0249	8.64	0.0124	0.1073
0.1	24.0	7.49	0.0003	0.0022	8.09	0.0018	0.0148

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
44	12 AUG 77	10:14:00	40 46.5 N	72 30.9 W	28		
	EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT (100,50,30%)	C14 TIME OUT (15,5,1%)	N15 INCUBN TIME (N03)	N15 INCUBN TIME (N14)	CRUISE
	0.242	1100	1745	1840	6.5,23.9	6.0,23.7	6N68-1

LIGHT DEPTH	DEPTH	FINAL PN N03 24HR	UPTAKE VLCTY N03 24HR	RHO N03 24HR	FINAL PN N14 24HR	UPTAKE VLCTY N14 24HR	RHO N14 24HR
100.0	0.0	6.49	0.00164	0.0106	5.67	0.00493	0.0280
50.0	3.0	5.01	0.00044	0.0022	5.82	0.00372	0.0217
50.0	3.0	4.83	0.00027	0.0013	5.38	0.00374	0.0201
30.0	5.0	7.49	0.00075	0.0056	5.63	0.00970	0.0546
15.0	9.0	4.59	0.00082	0.0038	5.57	0.00742	0.0413
5.0	13.0	7.56	0.00067	0.0051	6.79	0.00346	0.0235
1.0	19.0	7.25	0.00028	0.0020	7.67	0.00276	0.0212
0.1	24.0	9.64	0.00689	0.0664	8.82	0.00749	0.0661
0.1	24.0	6.12	0.00013	0.0008	7.21	0.00111	0.0080

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
100.0	0.0	-	1.33	-	-
50.0	3.0	-	1.36	-	-
50.0	3.0	-	-	-	-
30.0	5.0	-	1.50	-	-
15.0	9.0	-	1.44	-	-
5.0	13.0	-	1.86	-	-
1.0	19.0	-	2.52	-	-
0.1	24.0	-	1.51	-	-
0.1	24.0	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
45	14 AUG 77	09:54:00	39 41.9 N	73 34.4 W	37		24
	EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUB TIME (NO3)	N15 INCUB TIME (NH4)	CRUISE 6N58-1
	0.200	1030	(100,50,30%) 1630	(15,5,12) 1825	6.5	6.2	

LIGHT DEPTH	DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >200	CARBON 14 UPTAKE <200	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	0.0	1.92	0.03	1.89	556	4.50
50.0	3.0	6.35	0.13	6.22	431	3.99
50.0	3.0	-	-	-	-	-
30.0	6.0	5.52	0.12	5.39	505	2.86
15.0	9.0	0.78	0.00	0.78	351	2.89
5.0	15.0	1.04	0.03	1.01	505	3.17
1.0	23.0	0.65	0.05	0.59	304	3.14
0.1	33.0	-	-	-	466	4.46
0.1	33.0	-	-	-	-	-

LIGHT DEPTH	DEPTH	CHLOROPHYLL	CHLOROPHYLL >200	CHLOROPHYLL <200	PHAEOPHYTIN >200	PHAEOPHYTIN <200
100.0	0.0	0.88	0.83	0.05	0.09	0.01
50.0	3.0	1.21	1.15	0.06	0.09	0.00
50.0	3.0	-	-	-	-	-
30.0	6.0	1.11	0.95	0.16	0.09	0.01
15.0	9.0	1.04	1.01	0.03	0.23	0.02
5.0	15.0	1.74	1.55	0.19	0.44	0.09
1.0	23.0	1.34	1.11	0.23	0.55	0.14
0.1	33.0	-	-	-	-	-
0.1	33.0	-	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
45	14 AUG 77	09:54:00	39 41.9 N	73 34.4 W	37	-	24
EXTINCTION COEFFICIENT							
	0.200	CARBON 14 TIME IN 1030	C14 TIME OUT 1630	C14 TIME OUT (15,5,12) (100,50,30%) 1825	N15 INCUBN TIME (NO3) 6.5	N15 INCUBN TIME (NH4) 6.2	CRUISE 6N68-1

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.00	0.02	0.40	0.07	3.92	4.63
50.0	3.0	0.00	0.01	0.26	0.07	3.68	-
50.0	3.0	-	-	-	-	-	-
30.0	6.0	0.00	0.00	0.30	0.06	3.55	-
15.0	9.0	0.00	0.00	0.69	0.09	3.51	-
5.0	15.0	0.00	0.00	0.18	0.21	3.33	-
1.0	23.0	0.58	0.10	1.01	0.46	5.54	-
0.1	33.0	2.56	0.46	2.94	0.68	9.36	-
0.1	33.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	4.00	0.0042	0.0170	4.42	0.0144	0.0636
50.0	3.0	4.77	0.0079	0.0378	5.34	0.0227	0.1213
50.0	3.0	4.46	0.0006	0.0029	5.07	0.0088	0.0447
30.0	6.0	4.59	0.0049	0.0227	4.55	0.0207	0.0944
15.0	9.0	4.18	0.0048	0.0201	4.36	0.0178	0.0778
5.0	15.0	3.73	0.0003	0.0011	3.31	0.0045	0.0149
1.0	23.0	3.96	0.0003	0.0011	4.06	0.0039	0.0159
0.1	33.0	2.24	0.0005	0.0011	2.09	0.0067	0.0140
0.1	33.0	1.81	0.0000	0.0000	1.79	0.0023	0.0041

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
45	14 AUG 77	09:54:00	39 41.9 N	73 34.4 W	37		24
EXTINCTION COEFFICIENT 0.200							
	CARBON 14	TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE
		1030	(100,50,30%)	(15,5,12)	6.5	6.2	6N68-1
			1630	1825			

LIGHT DEPTH	FINAL PN NO3 24HR	UPTAKE VLCTY NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	-	-	-	-	-	-
50.0	-	-	-	-	-	-
50.0	-	-	-	-	-	-
30.0	-	-	-	-	-	-
15.0	-	-	-	-	-	-
5.0	-	-	-	-	-	-
1.0	-	-	-	-	-	-
0.1	-	-	-	-	-	-
0.1	-	-	-	-	-	-

LIGHT DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
100.0	-	0.88	-	-
50.0	-	0.72	-	-
50.0	-	-	-	-
30.0	-	0.76	-	-
15.0	-	0.60	-	-
5.0	-	0.94	-	-
1.0	-	1.06	-	-
0.1	-	0.52	-	-
0.1	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
52	15 AUG 77	09:55:00	39 46.4 N	73 45.8 W	24	-	24
EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT (100, 50, 30%)	N15 INCUBN TIME (N03)	N15 INCUBN TIME (N14)	CRUISE	
0.230	1100	1735	1845	6.4	5.9	6N68-1	

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	3.08	0.05	3.03	375	3.33
50.0	8.64	0.08	8.56	306	2.31
50.0	-	-	-	-	-
30.0	5.74	0.06	5.69	373	4.31
15.0	2.67	0.02	2.64	392	5.87
5.0	11.90	0.40	11.50	617	6.14
1.0	8.80	0.33	8.47	574	3.57

LIGHT DEPTH	CHLOROPHYLL	CHLOROPHYLL >20U	CHLOROPHYLL <20U	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
100.0	1.72	0.36	1.36	0.44	0.16
50.0	1.65	0.16	1.49	0.30	0.08
50.0	-	-	-	-	-
30.0	1.65	0.20	1.45	0.32	0.08
15.0	4.28	0.18	4.10	1.55	0.13
5.0	1.47	0.10	1.37	0.41	0.05
1.0	3.03	0.34	2.69	1.43	0.15

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
52	15 AUG 77	09:55:00	39 46.4 N	73 45.8 W	24		24
EXTINCTION COEFFICIENT 0.230							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN CRUISE							
TIME IN (100,50,30%) (15,5,1%) TIME (NH4) TIME (NH4) 6N68-1							
1100 1735 1845 6.4 5.9							

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.00	0.00	0.20	0.09	5.55	3.68
50.0	3.0	0.00	0.00	0.05	0.08	5.51	-
50.0	3.0	-	-	-	-	-	-
30.0	6.0	0.00	0.00	0.06	0.08	5.52	-
15.0	9.0	0.00	0.00	0.07	0.08	5.51	-
5.0	14.0	0.00	0.01	0.10	0.37	5.76	-
1.0	20.0	2.29	0.42	2.66	0.92	10.16	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLOCITY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLOCITY	RHO AMMONIUM
100.0	0.0	7.78	0.0009	0.0068	7.60	0.0141	0.1070
50.0	3.0	7.71	0.0011	0.0083	7.74	0.0152	0.1176
50.0	3.0	6.80	0.0001	0.0004	7.12	0.0021	0.0152
30.0	6.0	7.85	0.0007	0.0057	8.57	0.0126	0.1083
15.0	9.0	7.71	0.0004	0.0029	7.43	0.0121	0.0900
5.0	14.0	7.67	0.0001	0.0010	6.83	0.0072	0.0492
1.0	20.0	7.39	0.0001	0.0004	7.19	0.0053	0.0383

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
52	15 AUG 77	09:55:00	39 46.4 N	73 45.8 W	24	-	24
EXTINCTION COEFFICIENT 0.230							
CARBON 14		C14 TIME OUT	C14 TIME OUT	N15 INCUBN	N15 INCUBN	N15 INCUBN	CRUISE
TIME IN		(100,50,30%)	(15,5,1%)	TIME (N03)	TIME (N04)	TIME (N04)	6N68-1
1100		1735	1845	6.4	5.9	5.9	

LIGHT DEPTH	DEPTH	FINAL PN N03 24HR	UPTAKE VLCTY N03 24HR	RHO N03 24HR	FINAL PN N04 24HR	UPTAKE VLCTY N04 24HR	RHO N04 24HR
100.0	0.0	-	-	-	-	-	-
50.0	3.0	-	-	-	-	-	-
50.0	3.0	-	-	-	-	-	-
30.0	6.0	-	-	-	-	-	-
15.0	9.0	-	-	-	-	-	-
5.0	14.0	-	-	-	-	-	-
1.0	20.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
100.0	0.0	-	0.37	-	-
50.0	3.0	-	0.47	-	-
50.0	3.0	-	-	-	-
30.0	6.0	-	0.39	-	-
15.0	9.0	-	0.40	-	-
5.0	14.0	-	1.35	-	-
1.0	20.0	-	1.08	-	-

DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
58	16 AUG 77	10:20:00	39 46.6 N	73 46.6 W	24	-	24
EXTINCTION COEFFICIENT							
	0.256	CARBON 14 TIME IN 1130	C14 TIME OUT 1645 (100,50,30%)	C14 TIME OUT 1740 (15,5,1%)	N15 INCUBN TIME (NO3) 6.2,23.2	N15 INCUBN TIME (NH4) 5.8,23.0	CRUISE 6N68-1

LIGHT DEPTH	DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >200	CARBON 14 UPTAKE <200	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	0.0	3.06	0.04	3.01	807	4.59
50.0	3.0	8.07	0.08	7.99	507	2.20
50.0	3.0	-	-	-	-	-
30.0	6.0	3.21	0.04	3.17	463	2.12
15.0	9.0	1.59	0.01	1.57	516	3.44
5.0	15.0	5.25	0.12	5.13	472	4.24
2.6	18.0	-	-	-	648	5.84
1.0	22.0	2.50	0.10	2.40	581	4.29
1.0	22.0	-	-	-	-	-

LIGHT DEPTH	DEPTH	CHLOROPHYLL	CHLOROPHYLL >200	CHLOROPHYLL <200	PHAEOPHYTIN >200	PHAEOPHYTIN <200
100.0	0.0	1.34	0.03	1.31	0.43	0.41
50.0	3.0	1.62	0.29	1.33	0.63	0.42
50.0	3.0	-	-	-	-	-
30.0	6.0	1.44	0.25	1.19	0.55	0.43
15.0	9.0	1.25	0.04	1.21	0.91	0.38
5.0	15.0	2.01	0.08	1.93	0.69	0.61
2.6	18.0	3.40	0.22	3.18	1.67	1.56
1.0	22.0	1.67	0.11	1.56	1.15	1.07
1.0	22.0	-	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
58	16 AUG 77	10:20:00	39 46.5 N	73 46.6 W	24	-	24
EXTINCTION COEFFICIENT 0.256							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN							
TIME IN (100,50,30%) (15,5,12) TIME (NO3) TIME (NH4) CRUISE							
1130 1645 1740 6.2,23.2 5.8,23.0 6N58-1							

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.00	0.03	0.30	0.08	4.80	4.98
50.0	3.0	0.00	0.01	0.14	0.07	4.62	-
50.0	3.0	-	-	-	-	-	-
30.0	6.0	0.00	0.01	0.12	0.06	4.58	-
15.0	9.0	0.00	0.01	0.24	0.08	4.53	-
5.0	15.0	0.00	0.01	0.16	0.22	3.94	-
2.6	18.0	1.44	0.26	0.44	0.68	8.09	-
1.0	22.0	2.92	0.54	2.37	1.01	11.76	-
1.0	22.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	4.48	0.0055	0.0249	6.10	0.0146	0.0888
50.0	3.0	4.31	0.0026	0.0114	5.12	0.0121	0.0617
50.0	3.0	4.69	0.0010	0.0049	4.69	0.0083	0.0388
30.0	6.0	4.53	0.0049	0.0224	5.94	0.0136	0.0811
15.0	9.0	3.86	0.0056	0.0215	5.09	0.0167	0.0852
5.0	15.0	5.43	0.0025	0.0135	5.53	0.0087	0.0482
2.6	18.0	5.30	0.0002	0.0008	4.20	0.0028	0.0118
1.0	22.0	7.49	0.0028	0.0211	7.71	0.0202	0.1554
1.0	22.0	7.93	0.0002	0.0017	6.58	0.0038	0.0251

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE
58	16 AUG 77	10:20:00	39 46.6 N	73 46.6 W	24		TEMPERATURE
							24
	EXTINCTION	CARBON 14	C14 TIME OUT	C14 TIME OUT	N15 INCUBN	N15 INCUBN	
	COEFFICIENT	TIME IN	(100,50,30%)	(15,5,1%)	TIME (NH4)	TIME (NH4)	CRUISE
	0.256	1130	1645	1740	6.2,23.2	5.8,23.0	6N68-1

LIGHT	DEPTH	FINAL PN	UPTAKE VLCTY	RHO NO3	FINAL PN	UPTAKE VLCTY	RHO NH4
		NO3 24HR	NO3 24HR	24HR	NH4 24HR	NH4 24HR	24HR
100.0	0.0	6.10	0.00354	0.0216	6.21	0.00738	0.0458
50.0	3.0	6.31	0.00144	0.0091	6.56	0.00509	0.0334
50.0	3.0	5.02	0.00054	0.0027	5.05	0.00037	0.0019
30.0	6.0	6.11	0.00270	0.0165	6.26	0.00631	0.0395
15.0	9.0	5.49	0.00218	0.0120	6.25	0.00568	0.0355
5.0	15.0	8.54	0.00053	0.0045	8.17	0.00272	0.0222
2.6	18.0	5.16	0.00006	0.0003	7.21	0.00110	0.0079
1.0	22.0	10.99	0.00497	0.0546	12.82	0.00997	0.1278
1.0	22.0	7.06	0.00007	0.0005	9.48	0.00191	0.0181

LIGHT	DEPTH	PARTICLE	PARTICLE	PARTICLE	PARTICLE
		VOLUME 1000	VOLUME 2000	VOLUME 2800	VOLUME 4000
100.0	0.0	-	0.65	-	-
50.0	3.0	-	0.52	-	-
50.0	3.0	-	-	-	-
30.0	6.0	-	-	-	-
15.0	9.0	-	0.40	-	-
5.0	15.0	-	0.41	-	-
2.6	18.0	-	0.56	-	-
1.0	22.0	-	1.38	-	-
1.0	22.0	-	0.89	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
67	19 AUG 77	07:05:00	40 29.3 N	73 47.5 W	23	-	20
EXTINCTION COEFFICIENT 0.383							
		CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (N03)	N15 INCUBN TIME (N14)	CRUISE
		0845	(100,50,30%)\$	(15,5,1%)	7.2	6.0	6N68-2
			1330	1420			

LIGHT DEPTH	DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	0.0	50.60	0.25	50.35	-	-
50.0	2.0	92.63	0.15	92.48	-	-
50.0	2.0	-	-	-	-	-
15.0	4.0	8.16	0.02	8.14	-	-
5.0	6.0	27.11	0.12	26.99	-	-
1.0	12.0	0.84	0.01	0.82	-	-
0.1	20.0	-	-	-	-	-
0.1	20.0	-	-	-	-	-

LIGHT DEPTH	DEPTH	CHLOROPHYLL	CHLOROPHYLL >20U	CHLOROPHYLL <20U	PHAEOPHYTTIN	PHAEOPHYTTIN >20U	PHAEOPHYTTIN <20U
100.0	0.0	10.60	0.69	9.91	3.08	0.34	2.74
50.0	2.0	11.43	0.75	10.68	3.22	0.34	2.88
50.0	2.0	-	-	-	-	-	-
15.0	4.0	11.22	0.79	10.43	3.10	0.34	2.76
5.0	6.0	7.00	0.40	6.60	2.48	0.20	2.28
1.0	12.0	1.39	0.14	1.25	0.75	0.11	0.64
0.1	20.0	0.67	0.12	0.55	0.74	0.11	0.63
0.1	20.0	-	-	-	-	-	-

- DATA NOT TAKEN
\$ 30% OUT AT 1420

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
67	19 AUG 77	07:05:00	40 29.3 N	73 47.5 W	23	..	20
EXTINCTION COEFFICIENT	CARBON 14	C14 TIME OUT C14 TIME OUT	N15 INCUBN	N15 INCUBN	N15 INCUBN		
0.383	0845	(100,50,30%)\$ (15,5,12)	7.2	6.0			
		1330	1420				
							CRUISE 6N68-2

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	2.56	0.70	4.83	1.38	11.30	13.62
50.0	2.0	2.46	0.67	3.89	1.27	10.92	-
50.0	2.0	-	-	-	-	-	-
15.0	4.0	2.51	0.64	4.14	1.26	10.66	-
5.0	6.0	2.19	0.59	4.26	1.22	10.81	-
1.0	12.0	1.40	0.46	4.36	1.06	11.96	-
0.1	20.0	2.59	0.85	7.86	1.56	19.68	-
0.1	20.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	24.20	0.0213	0.5159	17.06	0.0480	0.8189
50.0	2.0	21.97	0.0006	0.0127	18.10	0.0347	0.6288
50.0	2.0	28.30	0.0000	0.0014	15.47	0.0041	0.0642
15.0	4.0	17.05	0.0003	0.0053	12.02	0.0298	0.3581
5.0	6.0	10.03	0.0001	0.0011	8.94	0.0160	0.1434
1.0	12.0	10.22	0.0000	0.0005	4.44	0.0032	0.0141
0.1	20.0	2.82	0.0095	0.0268	2.64	0.0016	0.0044
0.1	20.0	3.44	0.0001	0.0002	4.34	0.0039	0.0169

- DATA NOT TAKEN
\$ 30% OUT AT 1420

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
67	19 AUG 77	07:05:00	40 29.3 N	73 47.5 W	23	-	20
EXTINCTION COEFFICIENT							
	0.383	CARBON 14 TIME IN 0845	C14 TIME OUT 1330	C14 TIME OUT 1420	N15 INCUBN TIME (N03) 7.2	N15 INCUBN TIME (N14) 6.0	CRUISE 6N68-2

LIGHT DEPTH	DEPTH	FINAL PN N03 24HR	UPTAKE VLCTY N03 24HR	RHO N03 24HR	FINAL PN N14 24HR	UPTAKE VLCTY N14 24HR	RHO N14 24HR
100.0	0.0	-	-	-	-	-	-
50.0	2.0	-	-	-	-	-	-
50.0	2.0	-	-	-	-	-	-
15.0	4.0	-	-	-	-	-	-
5.0	6.0	-	-	-	-	-	-
1.0	12.0	-	-	-	-	-	-
0.1	20.0	-	-	-	-	-	-
0.1	20.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
100.0	0.0	-	-	-	-
50.0	2.0	3.39	-	-	-
50.0	2.0	3.50	-	-	-
15.0	4.0	-	-	-	-
5.0	6.0	3.97	-	-	-
1.0	12.0	4.07	-	-	-
0.1	20.0	0.64	-	-	-
0.1	20.0	0.68	-	-	-
0.1	20.0	-	-	-	-

- DATA NOT TAKEN
\$ 30% OUT AT 1420

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
73	20 AUG 77	07:21:00	40 30.2 N	73 46.2 W	22	-	20
EXTINCTION COEFFICIENT 0.511							
		CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (N03)	N15 INCUBN TIME (N14)	CRUISE
		0830	(100,50,30%)	(15,5,1%)	5.8	6.3	6N68-2
			1345	1550			

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >200	CARBON 14 UPTAKE <200	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	99.84	0.44	99.41	-	-
50.0	121.76	0.35	121.41	932	9.93
50.0	-	-	-	-	-
15.0	24.76	0.07	24.69	1370	10.79
5.0	59.93	0.38	59.55	919	7.57
1.0	4.76	0.02	4.74	214	1.43
0.1	-	-	-	223	1.12
0.1	-	-	-	-	-

LIGHT DEPTH	CHLOROPHYLL	CHLOROPHYLL >200	CHLOROPHYLL <200	PHAEOPHYTIN	PHAEOPHYTIN >200	PHAEOPHYTIN <200
100.0	13.50	0.96	12.54	5.66	0.80	4.86
50.0	13.45	0.84	12.61	5.30	0.86	4.44
50.0	-	-	-	-	-	-
15.0	12.13	0.72	11.41	5.28	0.61	4.67
5.0	8.50	0.42	8.08	3.64	0.47	3.17
1.0	3.93	0.39	3.54	1.98	0.48	1.50
0.1	1.39	0.36	1.03	1.22	0.35	0.87
0.1	-	-	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
73	20 AUG 77	07:21:00	40 30.2 N	73 46.2 W	22	-	20
EXTINCTION COEFFICIENT 0.511							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN CRUISE							
TIME IN (100,50,30%) (15,5,1%) TIME (NO3) TIME (NH4) 6N68-2							
0830 1345 1550 5.8 6.3							

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	3.43	0.93	5.43	1.54	10.09	20.22
50.0	3.0	3.46	0.90	5.70	1.53	10.36	-
50.0	3.0	-	-	-	-	-	-
15.0	5.0	3.57	0.97	6.20	1.64	10.78	-
5.0	7.0	2.49	0.69	5.15	1.36	10.39	-
1.0	9.0	1.92	0.53	5.53	1.20	10.46	-
0.1	20.0	3.08	1.05	7.30	1.53	18.87	-
0.1	20.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	25.82	0.0220	0.5670	27.65	0.0413	1.1428
50.0	3.0	24.65	0.0051	0.1265	24.37	0.0372	0.9063
50.0	3.0	19.76	0.0000	0.0002	20.69	0.0020	0.0408
15.0	5.0	19.04	0.0001	0.0027	18.78	0.0205	0.3852
5.0	7.0	11.95	0.0000	0.0000	12.06	0.0101	0.1219
1.0	9.0	7.75	0.0000	0.0003	5.79	0.0028	0.0163
0.1	20.0	4.69	0.0001	0.0007	3.93	0.0036	0.0141
0.1	20.0	5.26	0.0000	0.0002	3.17	0.0015	0.0047

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
73	20 AUG 77	07:21:00	40 30.2 N	73 46.2 W	22	-	20

EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT (100,50,30%)	C14 TIME OUT (15,5,1%)	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE
0.511	0830	1345	1550	5.8	6.3	6N68-2

LIGHT DEPTH	DEPTH	FINAL PN NO3 24HR	UPTAKE VLCTY NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	0.0	-	-	-	-	-	-
50.0	3.0	-	-	-	-	-	-
50.0	3.0	-	-	-	-	-	-
15.0	5.0	-	-	-	-	-	-
5.0	7.0	-	-	-	-	-	-
1.0	9.0	-	-	-	-	-	-
0.1	20.0	-	-	-	-	-	-
0.1	20.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
100.0	0.0	-	-	-	-
50.0	3.0	-	-	-	-
50.0	3.0	-	-	-	-
15.0	5.0	-	-	-	-
5.0	7.0	-	-	-	-
1.0	9.0	-	-	-	-
0.1	20.0	-	-	-	-
0.1	20.0	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
80	21 AUG 77	07:04:00	39 44.5 N	74 3.8 W	14	-	22
EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (N03)	N15 INCUBN TIME (NH4)	CRUISE	
0.511	0830	(100,50,30%)	(15,5,1%)	6.6	6.2	6N68-2	
		1330	1500				

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >200	CARBON 14 UPTAKE <200	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	10.49	0.05	10.43	1230	9.93
50.0	8.51	0.05	8.46	2010	23.14
50.0	-	-	-	-	-
15.0	4.37	0.01	4.35	1710	15.50
6.2	10.47	0.05	10.42	1370	12.36
1.5	7.40	0.03	7.38	976	8.29
0.4	-	-	-	883	8.57
0.4	-	-	-	-	-

LIGHT DEPTH	CHLOROPHYLL	CHLOROPHYLL >200	CHLOROPHYLL <200	PHAEOPHYTIN >200	PHAEOPHYTIN <200
100.0	5.74	0.64	5.10	1.41	0.87
50.0	5.05	0.38	4.67	1.37	0.98
50.0	-	-	-	-	-
15.0	5.38	0.36	5.02	1.46	1.09
6.2	5.59	0.53	5.06	1.39	0.43
1.5	5.40	0.48	4.92	1.40	0.47
0.4	5.96	0.35	5.61	1.69	0.39
0.4	-	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
80	21 AUG 77	07:04:00	39 44.5 N	74 3.8 W	14		22
EXTINCTION COEFFICIENT	CARBON 14	C14 TIME OUT	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (N14)	N15 INCUBN TIME (N14)	CRUISE
0.511	0830	(100,50,30%)	1330	1500	6.6	6.2	6N68-2

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.08	0.01	0.18	0.16	4.60	13.32
50.0	2.0	0.10	0.04	0.18	0.15	4.59	-
50.0	2.0	-	-	-	-	-	-
15.0	4.0	0.10	0.04	0.18	0.25	4.54	-
6.2	6.0	0.06	0.02	0.08	0.14	4.43	-
1.5	9.0	0.01	0.02	0.10	0.14	4.58	-
0.4	12.0	0.00	0.02	0.12	0.23	5.57	-
0.4	12.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	15.75	0.0083	0.1301	16.57	0.0173	0.2868
50.0	2.0	15.46	0.0023	0.0362	16.12	0.0098	0.1573
50.0	2.0	14.82	0.0010	0.0154	15.31	0.0082	0.1262
15.0	4.0	14.96	0.0076	0.1132	15.60	0.0195	0.3044
6.2	6.0	14.62	0.0066	0.0969	14.96	0.0196	0.2928
1.5	9.0	13.82	0.0026	0.0354	13.95	0.0125	0.1741
0.4	12.0	16.65	0.0007	0.0123	16.73	0.0134	0.2242
0.4	12.0	16.80	0.0001	0.0012	16.04	0.0054	0.0866

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
80	21 AUG 77	07:04:00	39 44.5 N	74 3.8 W	14	-	22

EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT (100,50,30%)	C14 TIME OUT (15,5,1%)	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE
0.511	0830	1330	1500	6.6	6.2	6N68-2

LIGHT DEPTH	DEPTH	FINAL PN NO3 24HR	UPTAKE VLCTY NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	0.0	-	-	-	-	-	-
50.0	2.0	-	-	-	-	-	-
50.0	2.0	-	-	-	-	-	-
15.0	4.0	-	-	-	-	-	-
6.2	6.0	-	-	-	-	-	-
1.5	9.0	-	-	-	-	-	-
0.4	12.0	-	-	-	-	-	-
0.4	12.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
100.0	0.0	-	-	-	-
50.0	2.0	-	-	-	-
50.0	2.0	-	-	-	-
15.0	4.0	-	-	-	-
6.2	6.0	-	-	-	-
1.5	9.0	-	-	-	-
0.4	12.0	-	-	-	-
0.4	12.0	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
89	22 AUG 77	07:00:00	39 34.0 N	72 50.4 W	61		22
EXTINCTION COEFFICIENT 0.131							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN							
TIME IN (100,50,30%) (15,5,1%) TIME (NO3) TIME (NH4) CRUISE							
0830 1345 1435 6.4 6.2 6N68-2							

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	0.99	0.01	0.97	465	1.53
50.0	0.73	0.02	0.71	415	3.54
50.0	-	-	-	-	-
30.0	1.81	0.04	1.77	775	9.93
15.0	0.30	0.00	0.30	323	1.98
5.0	0.76	0.18	0.58	370	2.24
1.0	0.31	0.05	0.26	554	4.23
0.1	-	-	-	21	-
0.1	-	-	-	-	-

LIGHT DEPTH	CHLOROPHYLL	CHLOROPHYLL >20U	CHLOROPHYLL <20U	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
100.0	0.34	0.07	0.27	0.15	0.04
50.0	0.34	0.08	0.26	0.16	0.04
50.0	-	-	-	-	-
30.0	0.31	0.08	0.23	0.14	0.04
15.0	0.56	0.12	0.33	0.23	0.10
5.0	0.74	0.07	0.44	0.09	0.16
1.0	0.63	0.18	0.45	0.11	0.17
0.1	0.23	0.12	0.11	0.06	0.09
0.1	-	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
89	22 AUG 77	07:00:00	39 34.0 N	72 50.4 W	61	-	22
EXTINCTION COEFFICIENT 0.131							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN CRUISE							
TIME IN (100,50,30%) (15,5,12) TIME (NO3) TIME (NH4) 6N68-2							
0830 1345 1435 6.4 6.2 6.2							

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.19	0.01	0.37	0.10	2.38	3.27
50.0	5.0	0.04	0.00	0.24	0.27	2.28	-
50.0	5.0	-	-	-	-	-	-
30.0	9.0	0.03	0.00	0.47	0.09	2.12	-
15.0	15.0	0.00	0.00	0.28	0.04	2.47	-
5.0	23.0	0.00	0.00	0.32	0.16	2.51	-
1.0	35.0	5.77	0.04	0.31	0.53	6.06	-
0.1	52.0	9.56	0.08	0.41	0.74	12.20	-
0.1	52.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	2.23	0.0022	0.0049	2.81	0.0051	0.0142
50.0	5.0	2.82	0.0006	0.0018	3.18	0.0035	0.0113
50.0	5.0	2.96	0.0005	0.0015	3.67	0.0020	0.0074
30.0	9.0	2.06	0.0020	0.0042	3.59	0.0080	0.0286
15.0	15.0	3.12	0.0022	0.0069	4.44	0.0058	0.0256
5.0	23.0	4.08	0.0005	0.0020	5.31	0.0031	0.0166
1.0	35.0	2.03	0.0008	0.0017	3.89	0.0014	0.0054
0.1	52.0	1.99	0.0008	0.0015	3.18	0.0009	0.0029
0.1	52.0	1.70	0.0003	0.0005	2.16	0.0006	0.0014

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
89	22 AUG 77	07:00:00	39 34.0 N	72 50.4 W	61	-	22
EXTINCTION COEFFICIENT 0.131							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN CRUISE							
TIME IN (100,50,30%) (15,5,12) TIME (NH4) TIME (NH4) 6N68-2							
0830 1345 1435 6.4 6.2							

LIGHT DEPTH	FINAL PN N03 24HR	UPTAKE VLCTY N03 24HR	RHO N03 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	-	-	-	-	-	-
50.0	-	-	-	-	-	-
50.0	-	-	-	-	-	-
30.0	-	-	-	-	-	-
15.0	-	-	-	-	-	-
5.0	-	-	-	-	-	-
1.0	-	-	-	-	-	-
0.1	-	-	-	-	-	-
0.1	-	-	-	-	-	-

LIGHT DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
100.0	0.28	-	-	0.32
50.0	0.37	-	-	0.20
50.0	-	-	-	-
30.0	0.27	-	-	0.41
15.0	0.76	-	-	0.81
5.0	0.92	-	-	0.75
1.0	0.37	-	-	0.46
0.1	0.40	-	-	0.54
0.1	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
98	23 AUG 77	09:26:00	39 35.6 N	72 36.0 W	83	--	22
EXTINCTION COEFFICIENT	CARBON 14	C14 TIME OUT	C14 TIME OUT (100,50,30%)	C14 TIME OUT (15,5,1%)	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE
0.118	1030	1900	1945	6.3	6.0	6.0	6N68-2

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >200	CARBON 14 UPTAKE <200	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	0.43	0.01	0.42	302	1.66
50.0	1.68	0.06	1.62	371	1.45
50.0	-	-	-	-	-
30.0	1.32	0.05	1.27	508	1.49
15.0	0.11	0.00	0.11	457	1.77
5.0	1.82	1.53	0.29	434	1.71
2.6	-	-	-	424	2.25
2.6	-	-	-	-	-
1.0	0.14	0.01	0.13	278	1.41
0.1	-	-	-	351	1.74

LIGHT DEPTH	CHLOROPHYLL	CHLOROPHYLL >200	CHLOROPHYLL <200	PHAEOPHYTIN >200	PHAEOPHYTIN <200
100.0	0.22	0.03	0.19	0.07	0.05
50.0	0.23	0.02	0.21	0.07	0.06
50.0	-	-	-	-	-
30.0	0.34	0.04	0.30	0.75	0.72
15.0	0.43	0.04	0.39	0.13	0.11
5.0	1.64	0.65	0.99	0.54	0.49
2.6	1.74	1.31	0.43	0.30	0.25
2.6	-	-	-	-	-
1.0	1.25	1.13	0.12	0.18	0.13
0.1	1.46	1.13	0.33	0.17	0.14

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
98	23 AUG 77	09:26:00	39 35.6 N	72 36.0 W	83	-	22
EXTINCTION COEFFICIENT 0.118							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN							
TIME IN (100,50,30%) (15,5,1%) TIME (NO3) TIME (NH4) CRUISE							
1030 1900 1945 6.3 6.0 6N68-2							

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.15	0.01	0.20	0.06	2.40	2.30
50.0	6.0	0.00	0.01	1.80	0.01	2.09	-
50.0	6.0	-	-	-	-	-	-
30.0	11.0	0.00	0.01	0.15	0.00	1.88	-
15.0	17.0	0.00	0.01	0.16	0.01	1.87	-
5.0	27.0	0.05	0.03	0.16	0.08	1.86	-
2.6	32.0	6.73	0.09	0.20	0.52	7.04	-
2.6	32.0	-	-	-	-	-	-
1.0	39.0	10.20	0.07	0.13	0.76	9.33	-
0.1	56.0	10.41	0.06	0.19	0.76	10.17	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	2.15	0.0016	0.0035	3.52	0.0045	0.0157
50.0	6.0	2.30	0.0014	0.0031	3.11	0.0048	0.0150
50.0	6.0	1.86	0.0004	0.0008	2.45	0.0019	0.0048
30.0	11.0	2.86	0.0010	0.0030	2.53	0.0076	0.0193
15.0	17.0	3.26	0.0007	0.0024	2.86	0.0053	0.0150
5.0	27.0	3.78	0.0036	0.0138	4.44	0.0060	0.0266
2.6	32.0	3.18	0.0048	0.0152	3.05	0.0049	0.0150
2.6	32.0	2.30	0.0025	0.0058	2.74	0.0017	0.0047
1.0	39.0	2.46	0.0034	0.0083	2.44	0.0022	0.0053
0.1	56.0	-	-	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
98	23 AUG 77	09:26:00	39 35.6 N	72 36.0 W	83	-	22
EXTINCTION COEFFICIENT 0.118							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN CRUISE							
TIME IN (100,50,30%) (15,5,1%) TIME (N14) TIME (N14) 6N68-2							
1030 1900 1945 6.3 6.0							

LIGHT DEPTH	DEPTH	FINAL PN NO3 24HR	UPTAKE VLCTY NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	0.0	-	-	-	-	-	-
50.0	6.0	-	-	-	-	-	-
50.0	6.0	-	-	-	-	-	-
30.0	11.0	-	-	-	-	-	-
15.0	17.0	-	-	-	-	-	-
5.0	27.0	-	-	-	-	-	-
2.6	32.0	-	-	-	-	-	-
2.6	32.0	-	-	-	-	-	-
1.0	39.0	-	-	-	-	-	-
0.1	56.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
100.0	0.0	-	-	-	-
50.0	6.0	-	-	-	-
50.0	6.0	-	-	-	-
30.0	11.0	-	-	-	-
15.0	17.0	-	-	-	-
5.0	27.0	-	-	-	-
2.6	32.0	-	-	-	-
2.6	32.0	-	-	-	-
1.0	39.0	-	-	-	-
0.1	56.0	-	-	-	-

DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

ATLANTIC COASTAL EXPERIMENT - 3

R/V KNORR SIS PRODUCTIVITY REPORT 02-NOV-82

13:55:56

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
106	24 AUG 77	09:18:00	40 0.1 N	73 58.3 W	21	-	22
EXTINCTION COEFFICIENT 0.383							
CARBON 14 TIME IN 1010 C14 TIME OUT 1850 N15 INCUBN TIME (N14) 5.9 N15 INCUBN TIME (N03) 6.1 CRUISE 6N68-2							
(100,50,30%) (15,5,1%)							

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	-	-	-	-	-
59.0	10.82	0.09	10.74	784	8.71
59.0	14.35	0.06	14.29	1040	8.07
24.0	-	-	-	-	-
6.7	6.17	-	-	-	-
1.1	0.48	0.04	6.13	1040	-
0.2	0.33	0.00	0.48	1200	8.43
0.2	-	0.00	0.33	1280	13.21
18.5	-	-	-	785	12.57
18.5	-	-	-	-	7.50

LIGHT DEPTH	CHLOROPHYLL	CHLOROPHYLL >20U	CHLOROPHYLL <20U	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
100.0	-	-	-	-	-
59.0	6.81	0.41	6.40	0.15	1.39
59.0	7.12	0.18	6.94	0.09	1.55
24.0	-	-	-	-	-
6.7	6.72	-	-	-	-
1.1	6.82	0.10	6.62	0.06	1.67
0.2	4.04	0.08	6.74	0.05	1.17
0.2	2.26	0.17	3.87	0.09	1.26
18.5	-	0.14	2.12	0.08	0.84
18.5	-	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
106	24 AUG 77	09:18:00	40 0.1 N	73 58.3 W	21	-	22

EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT (15.5, 1%)	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE
0.383	1010	1810	1850	6.1	5.9	6N68-2

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.09	0.01	0.23	0.14	6.35	13.82
59.0	1.5	0.04	0.05	0.23	0.16	5.95	-
59.0	1.5	-	-	-	-	-	-
24.0	3.5	0.00	0.05	0.22	0.13	5.60	-
6.7	6.5	0.00	0.01	0.22	0.12	5.40	-
1.1	11.5	2.33	0.62	3.63	0.86	12.95	-
0.2	18.5	4.24	1.31	8.00	1.40	20.45	-
0.2	18.5	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	18.69	0.0080	0.1490	18.26	0.0211	0.3851
59.0	1.5	16.88	0.0063	0.1063	18.35	0.0171	0.3143
59.0	1.5	17.12	0.0021	0.0365	18.18	0.0128	0.2329
24.0	3.5	17.36	0.0057	0.0990	17.60	0.0205	0.3608
6.7	6.5	16.80	0.0037	0.0617	17.60	0.0168	0.2964
1.1	11.5	13.69	0.0001	0.0010	11.79	0.0036	0.0427
0.2	18.5	5.89	0.0001	0.0008	8.12	0.0065	0.0527
0.2	18.5	8.98	0.0001	0.0006	8.77	0.0009	0.0077

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
106	24 AUG 77	09:18:00	40 0.1 N	73 58.3 W	21	-	22
EXTINCTION COEFFICIENT 0.383							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN							
TIME IN (100,50,30%) (15,5,1%) TIME (NH4) CRUISE							
1010 1810 1850 6.1 5.9 6N68-2							

LIGHT DEPTH	DEPTH	FINAL PN NO3 24HR	UPTAKE VLCTY NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	0.0	-	-	-	-	-	-
59.0	1.5	-	-	-	-	-	-
59.0	1.5	-	-	-	-	-	-
24.0	3.5	-	-	-	-	-	-
6.7	6.5	-	-	-	-	-	-
1.1	11.5	-	-	-	-	-	-
0.2	18.5	-	-	-	-	-	-
0.2	18.5	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
100.0	0.0	4.61	-	-	1.16
59.0	1.5	3.44	-	-	1.21
59.0	1.5	-	-	-	-
24.0	3.5	3.50	-	-	1.41
6.7	6.5	3.52	-	-	1.47
1.1	11.5	2.30	-	-	1.29
0.2	18.5	1.90	-	-	0.56
0.2	18.5	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
111	25 AUG 77	07:12:00	39 59.8 N	73 58.7 W	21	-	21
EXTINCTION COEFFICIENT 0.368							
CRUISE 6N68-2							
C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN							
(100,50,30%) (15,5,1%) TIME (NO3) TIME (NH4)							
6.8 6.5							

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >200	CARBON 14 UPTAKE <200	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	-	-	-	424	3.29
50.0	-	-	-	682	6.74
50.0	-	-	-	-	-
30.0	-	-	-	849	8.79
15.0	-	-	-	902	9.79
5.0	-	-	-	781	7.57
1.0	-	-	-	815	7.79
0.3	-	-	-	532	4.62
0.3	-	-	-	-	-

LIGHT DEPTH	CHLOROPHYLL	CHLOROPHYLL >200	CHLOROPHYLL <200	PHAEOPHYTIN	PHAEOPHYTIN >200	PHAEOPHYTIN <200
100.0	6.48	0.38	6.10	1.58	0.19	1.39
50.0	6.45	0.13	6.32	1.36	0.08	1.28
50.0	-	-	-	-	-	-
30.0	6.31	0.09	6.22	1.53	0.07	1.46
15.0	6.93	0.35	6.58	1.35	0.12	1.23
5.0	7.02	0.10	6.92	1.47	0.03	1.44
1.0	3.98	0.14	3.84	1.09	0.07	1.02
0.3	2.29	0.28	2.01	0.93	0.10	0.83
0.3	-	-	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
111	25 AUG 77	07:12:00	39 59.8 N	73 58.7 W	21	-	21
EXTINCTION COEFFICIENT 0.368							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN TIME (NH4) CRUISE							
TIME IN (100,50,30%) (15,5,1%) 6.8 6.5 6N68-2							

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.03	0.04	0.23	0.17	4.75	16.49
50.0	1.5	0.00	0.01	0.21	-	4.75	-
50.0	1.5	-	-	-	-	-	-
30.0	3.0	0.00	0.01	0.21	0.14	4.70	-
15.0	4.5	0.05	0.01	0.21	0.13	4.70	-
5.0	7.0	0.05	0.01	0.21	0.16	4.75	-
1.0	12.5	1.99	0.62	2.60	0.73	11.25	-
0.3	20.0	4.49	1.16	8.29	1.41	19.00	-
0.3	20.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	16.65	0.0092	0.1540	15.82	0.0123	0.1952
50.0	1.5	16.49	0.0081	0.1342	17.60	0.0178	0.3129
50.0	1.5	16.42	0.0018	0.0291	16.42	0.0102	0.1683
30.0	3.0	16.65	0.0090	0.1498	17.60	0.0200	0.3520
15.0	4.5	15.97	0.0086	0.1375	16.65	0.0205	0.3420
5.0	7.0	15.60	0.0030	0.0473	15.53	0.0113	0.1755
1.0	12.5	12.53	0.0001	0.0019	11.85	0.0034	0.0398
0.3	20.0	9.23	0.0003	0.0025	7.97	0.0055	0.0438
0.3	20.0	6.65	0.0001	0.0010	6.40	0.0008	0.0054

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

ATLANTIC COASTAL EXPERIMENT - 3 R/V KNORR SIS PRODUCTIVITY REPORT 02-NOV-82 13:55:56

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
111	25 AUG 77	07:12:00	39 59.8 N	73 58.7 W	21	-	21
EXTINCTION COEFFICIENT 0.368							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN CRUISE							
TIME IN (100,50,30%) (15,5,12) TIME (N14) TIME (N14) 6N68-2							
0.368 6.8 6.5							

LIGHT DEPTH	DEPTH	FINAL PN NO3 24HR	UPTAKE VLCTY NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	0.0	-	-	-	-	-	-
50.0	1.5	-	-	-	-	-	-
50.0	1.5	-	-	-	-	-	-
30.0	3.0	-	-	-	-	-	-
15.0	4.5	-	-	-	-	-	-
5.0	7.0	-	-	-	-	-	-
1.0	12.5	-	-	-	-	-	-
0.3	20.0	-	-	-	-	-	-
0.3	20.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
100.0	0.0	-	-	-	-
50.0	1.5	-	-	-	-
50.0	1.5	-	-	-	-
30.0	3.0	-	-	-	-
15.0	4.5	-	-	-	-
5.0	7.0	-	-	-	-
1.0	12.5	-	-	-	-
0.3	20.0	-	-	-	-
0.3	20.0	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
119	26 AUG 77	07:05:00	39 59.8 N	73 57.8 W	21		21
	EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT (100,50,30%)	C14 TIME OUT (15,5,1%)	N15 INCUBN TIME (N03)	N15 INCUBN TIME (NH4)	CRUISE
	0.418	0830	1740	1845	6.6,25.6	6.4,25.1	6N68-2

LIGHT DEPTH	DEPTH	CARBON 14 UPTAKE		CARBON 14 UPTAKE >20U		CARBON 14 UPTAKE <20U		PARTICULATE CARBON		PARTICULATE NITROGEN	
100.0	0.0		4.47	0.99	3.48	353	3.32				
50.0	1.5		9.57	3.14	6.43	804	8.07				
50.0	1.5		-	-	-	-	-				
30.0	3.0		7.85	1.31	6.54	797	8.07				
15.0	4.5		0.93	0.24	0.68	686	7.02				
5.0	7.0		1.82	0.95	0.87	756	16.07				
1.0	11.0		0.26	0.12	0.14	873	8.07				
0.1	19.0		-	-	-	992	8.57				
0.1	19.0		-	-	-	-	-				

LIGHT DEPTH	DEPTH	CHLOROPHYLL		CHLOROPHYLL >20U		CHLOROPHYLL <20U		PHAEOPHYTIN >20U		PHAEOPHYTIN <20U	
100.0	0.0		7.60	1.01	6.59	1.99	0.48	1.51			
50.0	1.5		7.17	0.46	6.71	2.55	0.23	2.32			
50.0	1.5		-	-	-	-	-	-			
30.0	3.0		7.53	1.02	6.51	3.35	0.64	2.71			
15.0	4.5		6.25	0.28	5.97	1.58	0.13	1.45			
5.0	7.0		5.87	0.28	5.59	1.50	0.12	1.38			
1.0	11.0		6.47	0.28	6.19	1.60	0.16	1.44			
0.1	19.0		1.88	0.27	1.61	0.86	0.09	0.77			
0.1	19.0		-	-	-	-	-	-			

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
119	26 AUG 77	07:05:00	39 59.8 N	73 57.8 W	21	-	21
EXTINCTION COEFFICIENT 0.418							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN CRUISE							
TIME IN (100,50,30%) 1740 1845 6.6,25.6 6.4,25.1 6N68-2							
0830							

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.01	0.02	0.21	0.14	5.81	16.12
50.0	1.5	0.00	0.01	0.20	0.12	5.65	-
50.0	1.5	-	-	-	-	-	-
30.0	3.0	0.00	0.00	0.19	0.09	5.60	-
15.0	4.5	0.00	0.00	0.19	0.11	5.54	-
5.0	7.0	0.00	0.00	0.20	0.12	5.69	-
1.0	11.0	0.00	0.00	0.19	0.15	6.53	-
0.1	19.0	4.05	1.21	7.41	1.28	18.78	-
0.1	19.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	15.38	0.0077	0.1178	15.82	0.0130	0.2052
50.0	1.5	15.46	0.0122	0.1886	15.53	0.0225	0.3494
50.0	1.5	14.82	0.0032	0.0482	14.15	0.0152	0.2152
30.0	3.0	15.82	0.0124	0.1966	15.67	0.0256	0.4019
15.0	4.5	14.55	0.0114	0.1657	15.31	0.0236	0.3615
5.0	7.0	14.69	0.0052	0.0765	15.17	0.0169	0.2564
1.0	11.0	15.10	0.0043	0.0655	15.67	0.0161	0.2526
0.1	19.0	6.62	0.0004	0.0024	7.71	0.0091	0.0703
0.1	19.0	5.14	0.0001	0.0005	5.84	0.0014	0.0082

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
119	26 AUG 77	07:05:00	39 59.8 N	73 57.8 W	21	-	21
EXTINCTION COEFFICIENT 0.418							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN CRUISE							
TIME IN (100,50,30%) (15,5,1%) TIME (NH4) TIME (NH4) 6N68-2							
0830 1740 1845 6.6,25.6 6.4,25.1							

LIGHT DEPTH	DEPTH	FINAL PN NO3 24HR	UPTAKE VLCTY NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	0.0	15.53	0.00708	0.1100	13.38	0.00678	0.0907
50.0	1.5	15.97	0.00962	0.1536	16.73	0.01265	0.2116
50.0	1.5	12.59	0.00168	0.0212	12.83	0.00592	0.0750
30.0	3.0	15.67	0.00933	0.1462	15.89	0.01194	0.1897
15.0	4.5	14.82	0.00757	0.1122	14.62	0.01097	0.1604
5.0	7.0	12.89	0.00317	0.0409	12.47	0.00745	0.0929
1.0	11.0	13.50	0.00271	0.0366	13.63	0.00714	0.0973
0.1	19.0	8.77	0.00033	0.0029	8.40	0.01074	0.0902
0.1	19.0	4.51	0.00008	0.0004	3.64	0.00117	0.0043

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
100.0	0.0	-	-	-	-
50.0	1.5	-	-	-	-
50.0	1.5	-	-	-	-
30.0	3.0	-	-	-	-
15.0	4.5	-	-	-	-
5.0	7.0	-	-	-	-
1.0	11.0	-	-	-	-
0.1	19.0	-	-	-	-
0.1	19.0	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
128	27 AUG 77	08:27:00	40 3.8 N	73 15.0 W	41	-	21
EXTINCTION COEFFICIENT 0.383							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN							
TIME IN (100,50,30%) (15,5,1%) TIME (N03) TIME (NH4)							
-990 -990 -990							
CRUISE 6N68-2							

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >200	CARBON 14 UPTAKE <200	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	-	-	-	361	3.64
30.0	-	-	-	934	6.60
15.0	-	-	-	923	6.44
5.0	-	-	-	900	6.59
1.0	-	-	-	941	6.38
0.1	-	-	-	525	3.21

LIGHT DEPTH	CHLOROPHYLL	CHLOROPHYLL >200	CHLOROPHYLL <200	PHAEOPHYTIN	PHAEOPHYTIN >200	PHAEOPHYTIN <200
100.0	6.13	0.36	5.77	1.60	0.10	1.50
30.0	6.08	0.27	5.81	1.41	0.09	1.32
15.0	6.22	0.34	5.88	1.73	0.12	1.61
5.0	5.25	0.25	5.00	2.14	0.73	1.41
1.0	2.49	0.23	2.26	0.78	0.04	0.74
0.1	2.11	0.31	1.80	0.78	0.08	0.70

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
128	27 AUG 77	08:27:00	40 3.8 N	73 15.0 W	41	-	21
EXTINCTION COEFFICIENT 0.383							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN							
TIME IN (100,50,30%) (15,5,1%) TIME (NO.3) TIME (NH4)							
-990 -990							
CRUISE 6N68-2							

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.12	0.00	0.28	0.19	2.55	-
30.0	2.5	0.05	0.00	0.27	0.19	2.51	-
15.0	4.0	0.05	0.00	0.27	0.19	2.51	-
5.0	6.0	0.05	0.00	0.32	0.19	2.18	-
1.0	12.0	0.05	0.00	0.37	0.13	1.52	-
0.1	21.0	0.05	0.00	0.35	0.26	3.52	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	-	-	-	-	-	-
30.0	2.5	-	-	-	-	-	-
15.0	4.0	-	-	-	-	-	-
5.0	6.0	-	-	-	-	-	-
1.0	12.0	-	-	-	-	-	-
0.1	21.0	-	-	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
128	27 AUG 77	08:27:00	40 3.8 N	73 15.0 W	41	-	21
EXTINCTION COEFFICIENT 0.383							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN							
TIME IN (100,50,30%) (15,5,12) TIME (NH4) TIME (NH4)							
-990 -990							
CRUISE 6N68-2							

LIGHT DEPTH	DEPTH	FINAL PN NO3 24HR	UPTAKE VLCTY NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	0.0	-	-	-	-	-	-
30.0	2.5	-	-	-	-	-	-
15.0	4.0	-	-	-	-	-	-
5.0	6.0	-	-	-	-	-	-
1.0	12.0	-	-	-	-	-	-
0.1	21.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
100.0	0.0	-	-	-	-
30.0	2.5	-	-	-	-
15.0	4.0	-	-	-	-
5.0	6.0	-	-	-	-
1.0	12.0	-	-	-	-
0.1	21.0	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
141	28 AUG 77	07:02:00	40 46.4 N	72 30.6 W	29		
EXTINCTION COEFFICIENT 0.219							
		CARBON 14 TIME IN 0830	C14 TIME OUT 1845	C14 TIME OUT (100,50,30%) (15,5,1%)	N15 INCUBN TIME (N03) 6.4	N15 INCUBN TIME (NH1) 5.8	CRUISE 6N68-2

LIGHT DEPTH	DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	0.0	4.47	0.99	3.48	447	2.38
50.0	2.0	9.57	3.14	6.43	545	1.91
50.0	2.0	-	-	-	-	1.91
30.0	4.0	7.85	1.31	6.54	681	2.79
15.0	6.5	0.93	0.24	0.68	622	2.29
5.0	11.0	1.82	0.95	0.87	630	2.14
1.0	21.0	0.26	0.12	0.14	547	1.56
0.1	26.0	-	-	-	417	4.76
0.1	26.0	-	-	-	-	-

LIGHT DEPTH	DEPTH	CHLOROPHYLL	CHLOROPHYLL >20U	CHLOROPHYLL <20U	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
100.0	0.0	1.98	0.36	1.62	0.38	0.31
50.0	2.0	1.79	0.29	1.50	0.28	0.23
50.0	2.0	-	-	-	-	-
30.0	4.0	1.87	1.02	0.85	0.31	0.22
15.0	6.5	1.51	0.34	1.17	0.30	0.25
5.0	11.0	1.44	0.59	0.85	0.28	0.28
1.0	21.0	1.41	0.50	0.91	0.60	0.48
0.1	26.0	1.11	0.19	0.92	0.91	0.78
0.1	26.0	-	-	-	-	-

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
141	28 AUG 77	07:02:00	40 46.4 N	72 30.6 W	29	-	-

EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT (100,50,30%)	TIME OUT (15,5,12)	N15 INCUBN TIME (N03)	N15 INCUBN TIME (NH4)	CRUISE
0.219	0830	1845	1915	6.4	5.8	6N68-2

LIGHT DEPTH	DEPTH	NITRATE	NITRITE	AMMONIUM	PHOSPHATE	SILICATE	INITIAL PART NITROGEN
100.0	0.0	0.14	0.00	0.29	0.12	2.37	4.34
50.0	2.0	0.00	0.00	0.18	0.12	-	-
50.0	2.0	-	-	-	-	1.55	-
30.0	4.0	0.00	0.00	0.15	0.12	1.59	-
15.0	6.5	0.00	0.00	0.09	0.26	1.93	-
5.0	11.0	0.00	0.00	0.16	0.22	2.77	-
1.0	21.0	0.60	0.07	1.31	0.43	5.56	-
0.1	26.0	1.98	0.23	2.15	0.83	12.95	-
0.1	26.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	FINAL PN NITRATE	NITRATE UPTAKE VLCTY	RHO NITRATE	FINAL PN AMMONIUM	AMMONIUM UPTAKE VLCTY	RHO AMMONIUM
100.0	0.0	4.44	0.0073	0.0325	3.95	0.0138	0.0544
50.0	2.0	4.40	0.0140	0.0615	4.36	0.0263	0.1148
50.0	2.0	3.69	0.0030	0.0111	4.08	0.0102	0.0416
30.0	4.0	4.30	0.0204	0.0879	4.92	0.0253	0.1246
15.0	6.5	3.32	0.0059	0.0195	3.37	0.0130	0.0440
5.0	11.0	4.79	0.0027	0.0128	3.11	0.0151	0.0469
1.0	21.0	3.40	0.0001	0.0005	2.45	0.0045	0.0111
0.1	26.0	3.71	0.0005	0.0018	3.02	0.0102	0.0308
0.1	26.0	4.23	0.0000	0.0001	2.99	0.0028	0.0083

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	RADIATION	SURFACE TEMPERATURE
141	28 AUG 77	07:02:00	40 46.4 N	72 30.6 W	29	-	-
EXTINCTION COEFFICIENT 0.219							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN CRUISE							
TIME IN (100,50,30%) (15,5,1%) TIME (N03) TIME (NH4) 6N68-2							
0830 1845 1915 6.4 5.8							

LIGHT DEPTH	DEPTH	FINAL PN N03 24HR	UPTAKE VLCTY N03 24HR	RHO N03 24HR	FINAL PN NH4 24HR	UPTAKE VLCTY NH4 24HR	RHO NH4 24HR
100.0	0.0	-	-	-	-	-	-
50.0	2.0	-	-	-	-	-	-
50.0	2.0	-	-	-	-	-	-
30.0	4.0	-	-	-	-	-	-
15.0	6.5	-	-	-	-	-	-
5.0	11.0	-	-	-	-	-	-
1.0	21.0	-	-	-	-	-	-
0.1	26.0	-	-	-	-	-	-
0.1	26.0	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
100.0	0.0	-	-	1.91	-
50.0	2.0	-	-	1.82	-
50.0	2.0	-	-	-	-
30.0	4.0	-	-	1.79	-
15.0	6.5	-	-	1.89	-
5.0	11.0	-	-	1.07	-
1.0	21.0	-	-	-	-
0.1	26.0	-	-	-	-
0.1	26.0	-	-	-	-

DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.



BENTHIC FLUX

409/410



INTERFACE NUTRIENTS

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

T A B L E O F U N I T S

	LOCAL	LOCAL			SONIC
STATION	DATE	TIME	LATITUDE	LONGITUDE	DEPTH
			DEGREES	DEGREES	METERS
	BOTTOM				
	TEMPERATURE				
	CELSIUS				

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
METERS	UG-AT/L	UG-AT/L	UG-AT/L	UG-AT/L	UG-AT/L

ATLANTIC COASTAL EXPERIMENT - 3 - KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
70	19 AUG 77	20:00:00	40 30.2 N	73 46.0 W	23

BOTTOM
TEMPERATURE
12.0

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
19.50	1.33	19.01	2.93	0.94	5.65
20.17	1.38	19.09	2.94	0.98	5.80
20.46	1.44	19.16	2.94	0.98	6.05
20.65	1.43	19.45	2.98	0.98	6.14
20.84	1.60	19.42	2.97	0.99	6.15
21.02	1.61	19.29	2.97	0.99	6.24
21.20	1.44	19.63	2.96	1.00	6.37
21.38	1.41	19.91	2.96	0.99	6.51
21.74	1.42	19.78	3.01	0.99	6.83
21.92	1.47	19.85	3.00	1.00	6.84
22.11	1.46	20.19	2.99	1.01	6.97
22.29	1.41	19.80	2.99	1.01	6.95
22.47	1.43	19.98	3.03	1.01	7.38
22.64	1.41	19.95	2.99	1.01	7.18

- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
74	20 AUG 77	11:30:00	40 29.9 N	73 46.8 W	23

BOTTOM
TEMPERATURE
12.3

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
19.50	1.42	20.87	2.85	1.06	6.66
20.17	1.43	21.07	2.95	1.05	6.63
20.46	1.51	20.68	2.73	1.05	6.58
20.65	1.46	20.93	2.90	1.06	6.66
20.84	-	-	-	-	-
21.02	1.80	20.64	2.82	1.05	6.69
21.20	1.49	21.10	2.85	1.06	6.69
21.38	1.44	21.19	2.73	1.05	6.68
21.74	1.47	20.49	2.97	1.07	6.68
21.92	1.51	20.73	2.81	1.06	6.78
22.11	1.48	21.61	2.89	1.07	6.66
22.29	1.48	20.81	2.72	1.06	6.60
22.47	1.48	20.95	2.98	1.06	6.68
22.64	1.48	21.20	2.81	1.06	6.61

- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
75	20 AUG 77	17:15:00	40 30.1 N	73 46.4 W	23

BOTTOM
TEMPERATURE
12.3

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
19.73	1.54	19.19	2.87	0.99	7.23
20.40	1.54	19.48	2.83	0.99	7.31
20.70	1.46	17.22	2.59	0.96	5.99
20.88	1.54	19.51	3.25	1.02	7.31
21.06	1.76	19.40	3.31	1.00	7.18
21.25	1.76	19.49	3.30	1.01	7.35
21.41	1.56	19.98	3.35	1.01	7.40
21.97	1.57	19.62	3.34	1.06	7.52
22.15	1.57	19.96	3.34	1.02	7.63
22.33	1.57	20.39	3.34	1.02	7.62
22.51	1.62	20.38	3.31	1.00	7.44
22.70	1.64	20.37	3.33	1.03	7.61
22.87	1.78	20.86	3.31	1.05	7.68

- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
76	20 AUG 77	19:45:00	40 24.6 N	73 42.2 W	23

BOTTOM
TEMPERATURE
12.3

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
19.73	0.32	3.93	0.18	0.05	0.48
20.40	0.73	8.97	1.09	0.36	2.32
20.70	1.21	13.01	1.93	0.66	4.21
20.88	1.52	16.29	2.53	0.87	5.02
21.06	1.84	16.88	2.68	0.86	6.76
21.15	1.50	15.37	2.34	0.79	4.68
21.41	1.32	14.86	2.24	0.76	4.48
21.60	1.55	17.34	2.57	0.88	5.27
21.97	1.64	17.13	2.64	0.94	5.76
22.15	1.65	17.07	2.65	0.89	5.98
22.33	1.75	17.50	2.65	0.94	5.97
22.51	-	-	-	-	-
22.70	3.60	17.73	2.76	0.92	7.12
22.87	1.83	17.71	2.57	0.93	5.89

- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
77	20 AUG 77	22:45:00	40 20.1 N	73 54.5 W	19

BOTTOM
TEMPERATURE

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
15.73	1.78	23.00	3.42	1.47	9.55
16.40	1.78	22.75	3.42	1.47	9.55
16.70	1.41	19.10	3.10	0.74	7.53
16.88	1.81	23.20	4.00	0.97	9.75
17.06	1.88	23.20	4.00	0.97	9.77
17.25	1.92	23.70	4.11	0.99	9.88
17.41	1.84	23.95	4.20	0.99	10.02
17.60	1.89	24.50	4.35	1.02	10.15
17.97	1.96	25.65	5.08	1.06	10.15
18.15	1.97	25.90	5.08	1.06	10.16
18.33	1.96	26.10	5.08	1.06	10.23
18.51	1.94	25.70	5.08	1.06	10.00
18.70	0.00	-	-	-	-
18.87	2.02	26.35	5.21	1.06	10.11

- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
80	21 AUG 77	13:15:00	39 44.6 N	74 3.8 W	14

BOTTOM
TEMPERATURE

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
10.73	0.85	12.20	1.08	0.27	2.20
11.40	0.83	12.10	1.08	0.27	2.13
11.70	0.91	12.55	1.06	0.29	2.61
11.88	0.86	12.20	1.06	0.28	2.35
12.06	1.01	12.15	1.05	0.29	2.41
12.25	1.04	12.35	1.04	0.30	2.49
12.41	1.04	12.80	1.03	0.31	2.63
12.60	0.98	13.55	1.16	0.33	3.14
12.97	1.18	16.90	1.63	0.54	5.84
13.15	1.38	18.15	1.75	0.58	6.58
13.33	1.31	20.55	2.06	0.68	7.84
13.51	1.58	22.00	2.33	0.79	9.26
13.70	1.83	24.55	2.52	0.91	10.25
13.87	2.01	26.05	2.63	1.05	10.80

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- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
81	21 AUG 77	15:45:00	39 46.4 N	73 58.6 W	21

BOTTOM
TEMPERATURE
11.7

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
17.73	1.73	22.60	4.85	1.25	8.30
18.40	1.73	22.60	4.84	1.26	8.22
18.70	1.80	23.10	4.83	1.27	8.53
18.88	1.75	22.80	4.93	1.28	8.44
19.06	1.84	22.75	4.89	1.26	8.38
19.25	1.85	22.95	4.97	1.29	8.56
19.41	1.81	23.90	5.05	1.31	8.65
19.60	1.75	23.40	5.01	1.30	8.63
19.97	1.76	23.05	5.05	1.31	8.72
20.15	1.78	23.35	5.07	1.30	8.65
20.33	1.78	23.30	5.05	1.32	8.70
20.51	1.82	23.35	5.04	1.33	8.69
20.70	2.18	24.10	5.15	1.48	8.77
20.87	2.40	24.25	5.15	1.53	8.75

- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
83	21 AUG 77	19:00:00	39 44.0 N	73 43.4 W	27

BOTTOM
TEMPERATURE
11.1

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
23.73	1.09	11.41	3.41	0.67	3.42
24.40	1.13	11.87	3.48	0.70	3.66
24.70	1.18	12.47	3.41	0.71	3.68
24.88	1.12	11.57	3.41	0.70	3.61
25.06	1.17	11.52	3.31	0.69	3.56
25.25	1.18	11.58	3.35	0.70	3.59
25.41	1.13	12.33	3.38	0.72	3.59
25.60	1.09	11.73	3.30	0.69	3.54
25.97	1.09	11.33	3.33	0.70	3.47
26.15	1.11	11.64	3.36	0.72	3.59
26.33	1.11	11.84	3.37	0.71	3.52
26.51	1.03	11.24	3.14	0.67	3.25
26.70	1.11	11.79	3.35	0.71	3.58
26.87	1.09	11.65	3.22	0.68	3.37

- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
85	21 AUG 77	23:45:00	39 40.8 N	73 25.5 W	37

BOTTOM					
TEMPERATURE					
9.2					

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
33.73	0.88	11.28	3.73	0.79	4.09
34.40	0.86	11.12	3.62	0.80	4.02
34.70	0.85	11.32	3.62	0.80	3.86
34.88	0.81	11.06	3.57	0.80	3.89
35.06	0.86	10.86	3.57	0.80	3.70
35.25	0.85	10.85	3.58	0.79	3.75
35.41	0.84	11.19	3.58	0.79	3.97
35.60	0.83	11.04	3.60	0.77	3.88
35.97	0.80	10.83	3.60	0.77	3.18
36.15	0.84	10.83	3.64	0.78	3.88
36.33	0.84	10.92	3.59	0.78	4.17
36.51	0.80	10.77	3.54	0.77	3.77
36.70	0.82	10.81	3.54	0.77	3.42
36.87	0.80	10.41	3.21	0.69	3.29

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- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

	LOCAL	LOCAL			SONIC
STATION	DATE	TIME	LATITUDE	LONGITUDE	DEPTH
87	22 AUG 77	03:40:00	39 37.9 N	73 8.1 W	38

BOTTOM
TEMPERATURE
9.0

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
34.73	0.86	12.59	6.38	0.37	3.52
35.70	0.87	12.78	6.44	0.37	3.45
35.88	0.87	12.38	6.28	0.37	3.52
36.06	0.90	12.43	6.29	0.36	3.56
36.25	0.91	12.32	6.24	0.36	3.51
36.41	0.89	12.67	6.40	0.36	3.53
36.60	0.87	12.62	6.41	0.36	3.46
36.97	0.88	12.51	6.41	0.36	3.48
37.15	-	-	-	-	-
37.33	0.88	12.66	6.37	0.36	3.61
37.51	0.86	12.46	6.18	0.34	3.42
37.70	0.88	12.60	6.33	0.34	3.51
37.87	0.86	12.25	-	-	3.28

- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
91	22 AUG 77	14:00:00	39 32.3 N	72 34.5 W	84

BOTTOM
TEMPERATURE
11.2

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
80.73	0.77	12.22	11.62	0.04	0.18
81.70	0.77	12.52	11.62	0.04	0.18
81.88	0.74	12.07	11.61	0.04	0.18
82.06	0.83	12.08	11.29	0.04	0.16
82.25	0.83	11.93	11.55	0.04	0.32
82.41	0.74	12.13	11.55	0.04	0.18
82.60	0.74	12.18	11.59	0.05	0.18
82.97	0.76	11.99	11.64	0.05	0.30
83.15	0.76	12.09	11.69	0.05	0.28
83.51	0.75	12.24	11.47	0.05	0.27
83.70	0.74	11.90	11.52	0.05	0.22

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- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

	LOCAL	LOCAL			SONIC
STATION	DATE	TIME	LATITUDE	LONGITUDE	DEPTH
115	25 AUG 77	18:45:00	39 56.7 N	74 2.6 W	20

BOTTOM
TEMPERATURE
12.6

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
16.73	1.32	19.15	2.77	0.98	9.75
16.97	1.33	19.32	2.74	1.01	9.92
17.15	1.27	18.55	3.88	1.02	10.04
17.40	1.40	20.23	2.73	1.07	10.39
17.70	1.45	20.10	2.89	1.11	10.77
17.88	1.40	19.88	2.96	1.09	10.32
18.06	1.66	22.30	3.60	1.30	11.47
18.25	1.72	22.93	3.84	1.36	11.65
18.41	1.66	22.70	3.72	1.38	11.35
18.60	1.65	22.97	3.88	1.42	10.88
18.97	1.70	23.35	4.05	1.45	10.96
19.15	1.63	22.33	3.74	1.36	10.26
19.33	1.70	23.25	3.97	1.43	10.91
19.51	2.12	23.78	4.32	1.53	11.26
19.70	1.78	23.85	3.97	1.48	11.06
19.87	1.93	23.18	3.90	1.45	10.76

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- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
119	26 AUG 77	09:15:00	39 59.8 N	73 57.8 W	21

BOTTOM
TEMPERATURE

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
17.73	1.42	23.88	4.63	1.26	8.49
17.97	1.39	22.54	4.48	1.26	8.24
18.15	1.35	20.99	4.25	1.24	7.93
18.40	1.42	22.00	4.45	1.28	8.30
18.70	1.43	21.71	4.52	1.31	8.51
18.88	1.42	21.66	4.53	1.30	8.48
19.06	1.42	21.52	4.34	1.24	8.14
19.25	1.46	21.28	4.52	1.30	8.47
19.41	1.44	21.39	4.51	1.31	8.52
19.60	1.47	21.59	4.61	1.31	8.60
19.97	1.44	21.15	4.61	1.30	8.47
20.15	1.45	21.11	4.51	1.30	8.41
20.33	1.43	21.11	4.50	1.31	8.57
20.51	1.39	20.72	4.52	1.29	8.51
20.70	1.33	20.58	4.63	1.27	8.45
20.87	1.73	19.49	4.66	1.15	7.37

- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
120	26 AUG 77	14:20:00	39 44.5 N	74 3.7 W	13

BOTTOM
TEMPERATURE
16.7

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
9.73	0.41	9.36	0.14	0.01	0.30
9.97	0.30	8.46	0.05	0.00	0.25
10.15	0.31	8.26	0.05	0.00	0.26
10.40	0.28	8.55	0.10	0.00	0.27
10.70	0.37	8.00	0.05	0.00	0.26
10.88	0.38	8.89	0.30	0.00	0.29
11.06	0.34	7.94	0.05	0.00	0.24
11.25	-	-	-	-	-
11.41	0.32	7.68	0.15	0.00	0.23
11.60	0.31	7.93	0.10	0.00	0.23
11.97	0.46	9.42	0.41	0.04	0.55
12.15	0.33	7.92	0.10	0.00	0.25
12.33	0.35	7.87	0.05	0.00	0.25
12.51	1.20	17.66	2.19	0.61	5.26
12.70	1.53	19.76	2.76	0.79	6.78
12.87	-	-	-	-	-

- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
121	26 AUG 77	18:35:00	39 51.0 N	74 1.2 W	19

BOTTOM
TEMPERATURE
12.2

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
15.73	1.41	19.73	3.94	1.39	8.58
15.97	1.47	19.83	3.95	1.47	9.30
16.15	-	-	-	-	-
16.40	1.48	20.01	3.97	1.49	9.29
16.70	1.52	20.10	4.14	1.52	9.29
16.88	1.48	19.47	3.94	1.46	8.89
17.06	1.57	20.09	4.07	1.53	9.27
17.25	1.59	20.18	4.20	1.55	9.52
17.41	1.50	19.46	3.93	1.46	8.74
17.60	1.59	20.26	4.14	1.54	9.73
17.97	1.62	20.40	4.19	1.54	9.50
18.15	1.56	19.92	4.02	1.50	9.11
18.33	1.57	20.15	4.13	1.54	9.78
18.51	1.52	19.24	3.83	1.44	9.43
18.70	1.61	20.38	4.13	1.58	9.57
18.87	1.64	20.19	4.14	1.56	9.46

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- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
122	26 AUG 77	20:35:00	39 54.7 N	73 46.2 W	27

BOTTOM
TEMPERATURE
10.9

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
23.73	1.26	16.96	4.24	1.10	8.76
23.97	1.26	16.53	4.18	1.11	8.70
24.15	1.08	14.52	3.50	0.94	7.28
24.40	1.20	15.56	3.92	1.07	8.23
24.70	1.26	16.17	4.14	1.14	8.77
24.88	1.26	16.07	4.14	1.13	8.87
25.06	1.29	15.97	4.09	1.13	8.69
25.25	1.30	16.06	4.18	1.14	8.80
25.41	1.26	16.00	4.13	1.14	8.74
25.60	1.26	16.04	4.13	1.14	8.71
25.97	1.25	15.75	4.14	1.12	8.63
26.15	1.27	15.93	4.18	1.13	8.79
26.33	1.18	14.93	3.85	1.06	8.02
26.51	1.19	15.21	4.00	1.05	8.24
26.70	1.26	15.77	4.33	1.12	8.61
26.87	1.37	15.67	4.13	1.12	8.21

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- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

	LOCAL	LOCAL			SONIC
STATION	DATE	TIME	LATITUDE	LONGITUDE	DEPTH
123	26 AUG 77	23:10:00	40 5.3 N	73 59.0 W	24

BOTTOM
TEMPERATURE
12.0

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
20.73	1.41	22.86	4.21	1.29	7.93
20.97	1.39	21.53	4.20	1.30	8.26
21.15	1.17	18.44	3.41	1.04	6.66
21.40	1.30	19.49	3.85	1.20	7.87
21.70	1.45	21.15	4.34	1.36	9.27
21.88	1.46	21.16	4.43	1.37	9.63
22.06	1.47	21.06	4.43	1.37	9.42
22.25	1.50	21.11	4.51	1.39	9.76
22.41	-	-	-	-	-
22.60	1.47	21.02	4.51	1.39	10.01
22.97	1.43	20.36	4.34	1.31	9.39
23.15	1.44	20.46	4.41	1.34	9.87
23.33	1.46	20.70	4.48	1.37	9.88
23.51	1.34	19.41	4.14	1.26	8.07
23.70	1.56	21.03	4.64	1.41	9.08
23.87	1.56	20.66	4.61	1.39	8.89

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- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
124	27 AUG 77	01:00:00	40 5.2 N	73 46.7 W	29

BOTTOM
TEMPERATURE
11.1

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
25.73	1.02	16.23	4.15	0.70	5.84
25.97	1.01	15.47	3.99	0.71	5.98
26.15	0.91	14.14	3.62	0.63	5.36
26.40	0.86	13.47	3.39	0.61	5.08
26.70	1.05	15.80	4.35	0.80	6.16
26.88	1.06	15.71	4.40	0.80	6.16
27.06	1.08	16.04	4.63	0.82	6.28
27.25	1.08	15.90	4.57	0.83	6.33
27.41	1.06	15.76	4.48	0.82	6.28
27.60	1.06	15.66	4.49	0.81	6.28
27.97	1.08	15.90	4.58	0.82	6.37
28.15	1.06	15.42	4.41	0.79	6.28
28.33	1.09	15.80	4.53	0.82	6.36
28.51	1.07	15.42	4.48	0.77	6.05
28.70	1.09	15.76	4.54	0.81	6.27
28.87	1.08	15.47	4.45	0.80	6.09

- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
126	27 AUG 77	03:30:00	40 15.9 N	73 47.3 W	53

BOTTOM
TEMPERATURE
9.9

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
49.73	1.20	19.75	5.13	1.07	8.93
49.97	1.20	19.55	5.10	1.10	8.89
50.15	1.13	18.02	4.71	0.99	8.08
50.40	1.21	19.48	5.05	1.10	8.85
50.70	1.25	19.71	5.19	1.11	8.89
50.88	1.26	19.65	5.19	1.11	8.95
51.06	1.27	19.30	5.09	1.11	8.84
51.25	1.27	19.72	5.27	1.13	8.99
51.41	1.25	19.37	5.15	1.10	8.86
51.60	1.26	19.50	5.23	1.12	9.04
51.97	1.27	19.68	5.29	1.11	9.07
52.15	1.26	19.48	5.24	1.11	8.97
52.33	1.26	19.61	5.23	1.12	9.06
52.51	1.22	19.03	5.10	1.10	8.72
52.70	1.30	20.97	5.45	1.10	9.08
52.87	1.09	25.10	6.06	1.14	9.97

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- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
145	28 AUG 77	23:45:00	40 46.2 N	72 30.5 W	28

BOTTOM
TEMPERATURE

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
24.73	0.76	11.01	1.99	0.21	2.23
24.97	0.73	10.61	1.89	0.21	2.11
25.15	0.73	10.02	1.69	0.21	1.92
25.40	0.74	10.53	1.83	0.22	2.13
25.70	0.72	10.56	1.92	0.23	2.11
25.88	0.77	11.30	2.14	0.26	2.27
26.06	0.81	11.42	2.05	0.25	2.53
26.25	0.83	11.79	2.14	0.26	2.44
26.41	0.82	12.29	2.29	0.27	2.48
26.60	0.76	11.41	2.10	0.25	2.42
26.97	0.85	13.25	2.41	0.29	2.52
27.15	0.82	12.90	2.27	0.28	2.52
27.33	0.85	13.83	2.56	0.29	2.62
27.51	0.84	12.72	2.48	0.27	2.67
27.70	1.42	14.37	2.60	0.30	2.72
27.87	1.22	14.87	2.59	0.31	2.82

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- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
148	29 AUG 77	12:30:00	40 30.4 N	72 16.5 W	53

BOTTOM
TEMPERATURE
9.8

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
49.73	0.70	12.53	6.76	0.24	0.30
49.97	0.68	11.94	6.65	0.25	0.36
50.15	0.64	11.06	6.26	0.24	0.34
50.40	0.62	10.70	5.91	0.24	-
50.70	0.67	11.59	6.59	0.26	0.39
50.88	0.66	11.47	6.64	0.26	0.38
51.06	0.67	11.11	6.34	0.26	0.46
51.25	0.70	11.52	6.64	0.26	0.49
51.41	0.68	11.50	6.59	0.26	0.50
51.60	0.67	11.67	6.69	0.26	0.81
51.97	0.69	11.50	6.68	0.27	0.45
52.15	0.66	11.25	6.98	0.27	0.50
52.33	0.66	11.46	6.69	0.26	0.41
52.51	0.63	10.82	6.20	0.25	0.46
52.70	0.72	11.61	6.53	0.27	0.55
52.87	0.71	11.26	6.49	0.26	0.50

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- DATA NOT TAKEN

ATLANTIC COASTAL EXPERIMENT - 3 KNORR INTERFACE NUTRIENT DATA REPORT 20-AU

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC DEPTH
152	29 AUG 77	19:15:00	40 2.3 N	71 53.5 W	82

BOTTOM
TEMPERATURE
9.8

DEPTH	PHOSPHATE	SILICATE	NITRATE	NITRITE	AMMONIUM
78.73	0.73	13.95	11.26	0.04	0.23
78.97	0.76	13.69	11.20	0.05	0.32
79.16	0.68	13.14	10.90	0.05	0.28
79.40	0.76	12.92	10.85	0.05	-
79.70	0.70	13.28	11.10	0.05	0.43
79.88	0.72	13.49	11.20	0.05	0.41
80.06	0.73	13.42	11.15	0.05	0.38
80.25	0.72	13.49	11.15	0.05	0.32
80.41	0.70	13.47	11.20	0.05	0.31
80.60	0.70	13.40	11.15	0.05	0.31
80.97	0.73	13.42	11.21	0.04	0.32
81.15	0.71	13.40	11.21	0.04	0.39
81.33	0.71	13.33	11.16	0.04	0.42
81.51	0.70	13.16	-	0.04	0.40
81.70	0.78	13.33	10.90	0.05	0.70
81.87	0.76	13.35	11.10	0.05	0.50

- DATA NOT TAKEN

SEDIMENT-WATER FLUX, ORGANIC C/N COMPOSITION

Core Incubation, $\mu\text{moles } \ell^{-1}$ (Fluxes = $\mu\text{moles } \text{m}^{-2}\text{h}^{-1}$)						
Station		NH_4	NO_3	NO_2	ΣN	SiO_4
63-1	Initial	6.92	4.06	0.86	11.84	21.91
		6.90	3.93	0.80	11.63	24.04
	Final	3.46	4.33	0.77	8.56	27.75
		9.45	4.24	0.72	14.41	26.13
		7.19	4.55	0.75	12.49	26.57
	FLUX	-4.2	7.5*	-1.7*	1.7	76.3*
63-2	Initial	5.29	3.66	0.80	9.75	15.25
		5.23	3.73	0.80	9.76	14.58
	Final	5.67	5.82	0.80	12.29	20.49
		9.05	3.86	0.73	13.64	21.48
		5.02	4.62	0.72	10.36	21.73
		5.99	4.61	0.78	11.38	19.73
		7.25	4.29	0.81	12.35	19.37
		5.14	4.37	0.76	10.27	18.77
	FLUX	11.9	9.8	-0.4	21.4*	58.3*
63-3	Initial	8.82	4.69	1.10	14.61	21.91
		9.34	4.64	1.12	15.10	22.05
		8.56	4.45	1.10	14.11	21.55
	Final	26.39	3.38	0.76	30.53	46.40
		13.34	3.97	0.96	18.27	38.20
		10.24	4.46	1.06	15.76	23.60
		15.79	3.73	0.83	20.35	43.05
		8.32	5.04	1.05	14.41	21.55
	FLUX	52.5	-4.2	-1.6*	46.7	113.1
80	Initial	10.95	3.93	1.06	15.94	28.43
		12.90	4.09	0.93	17.92	35.14
		15.57	4.47	1.01	21.05	28.49
	Final	10.32	4.89	1.06	16.27	30.55
		23.74	1.73	0.80	26.27	52.00
		13.76	3.10	0.97	17.83	34.10
		16.99	3.51	0.97	21.47	32.25
		19.78	2.14	0.82	22.74	43.30
		16.63	1.93	0.80	19.36	35.75
	FLUX	32.7	-11.2	-0.8	20.6	64.0

*Indicates fluxes based on significantly different initial and final concentrations (Student's t test, 90% confidence level).

Core Incubation, $\mu\text{moles } \ell^{-1}$ (Fluxes = $\mu\text{moles } \text{m}^{-2}\text{h}^{-1}$)

Station		NH ₄	NO ₃	NO ₂	ΣN	SiO ₄
106-1	Initial	7.70	7.43	1.01	16.14	19.84
		6.15	7.83	0.94	14.92	19.53
	Final	7.78	6.67	1.07	15.52	20.33
		7.36	6.97	1.01	15.34	21.87
	FLUX	31.5	-39.5*	3.2	-4.9	69.0
106-2	Initial	8.57	6.85	1.27	16.69	24.73
		8.86	6.75	1.30	16.91	24.38
	Final	7.51	8.00	1.11	16.62	25.17
		10.71	8.35	1.31	20.37	34.31
		11.06	9.30	1.07	21.43	23.51
	FLUX	18.4	30.8*	-2.1	47.1	54.8
120	Initial	-	4.85	1.22	-	31.10
		8.82	5.15	1.13	15.10	24.40
		10.33	5.30	1.11	16.74	25.90
	Final	42.70	5.14	1.05	48.89	99.15
		15.25	6.43	1.17	22.85	25.16
		15.85	6.53	1.26	23.64	28.81
		25.60	4.63	0.87	31.10	34.65
	FLUX	334.3	12.7	-1.4	343.6	433.5
141	Initial	4.84	2.50	-	7.34	23.39
		6.78	3.35	0.25	10.38	19.57
	Final	10.80	1.60	0.33	12.73	41.90
		9.28	1.95	0.22	11.45	36.55
		12.40	1.55	0.18	14.13	38.73
	FLUX	52.8*	-12.9*	-0.1	41.2*	185.1*

*Indicates fluxes based on significantly different initial and final concentrations (Student's t test, 90% confidence level).

Pore Water Nutrient Concentrations, $\mu\text{moles l}^{-1}$

Station	Sediment Depth (cm)	NH ₄	NO ₃	NO ₂	SiO ₄
63*	0 - 3	932	734	5	125
	3 - 6	1712	1265	3	127
	6 - 9	1916	1390	2	116
120	0 - 3	352	14	0	580
	3 - 6	399	0	0	529
	6 - 9	404	0	0	478
	9 - 12	506	0	0	557
141	0 - 3	216	27	153	543
	3 - 6	323	4	0	139
	6 - 9	279	0	0	157
	9 - 12	456	0	0	352

*Squeezed sample; all others were diluted and the supernate filtered for analysis.

Organic Carbon and Nitrogen, and Sand Content
Percentage of Total Dry Sample

Station	Sediment Depth (cm)	Organic Carbon	Organic Nitrogen	C/N	Sand %
63	0 - 3	0.43	0.05	8.6	88.2
	3 - 6	0.25	0.04	6.3	
	6 - 9	0.18	0.02	9.0	
	9 - 12	0.20	0.03	6.7	
120	0 - 3	0.09	0.010	9.0	98.0
	3 - 6	0.04	0.007	5.7	
	6 - 9	0.08	0.009	8.9	
	9 - 12	0.08	0.010	8.0	
	12 - 15	0.03	0.007	4.3	
141	0 - 3	0.91	0.140	6.5	91.7
	3 - 6	0.10	0.050	2.0	
	6 - 9	0.04	0.010	4.0	
	9 - 12	0.04	0.008	5.0	
	12 - 15	0.08	0.010	8.0	