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 ($\mu\text{g l}^{-1}$): 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 L 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 µm 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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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	✓	✓					✓	✓	✓		✓	✓		
53	✓	✓		✓						✓	✓	✓		
54	✓	✓		✓							✓			
55	✓	✓		✓							✓			
56	✓	✓		✓					✓	✓	✓			
57	✓	✓												
58				✓			✓	✓	✓		✓	✓		
59	✓	✓		✓						✓	✓	✓		
60	✓	✓		✓							✓			

SEE ANCILLARY PUMP DATA

*Not Analyzed

STATION LOG

STA	TEMPERATURE, SALINITY	DISSOLVED O ₂	NUTRIENTS	CHLOROPHYLL a	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	21.765	603.66	0.000	1520.3	0.00	0.0
1	20.891	31.372	21.765	603.72	.006	1520.3		1.00
2	20.891	31.372	21.765	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	20.861	31.787	22.088	572.87	.031	1520.8	6.65	5.1
6	20.734	31.790	22.123	569.42	.036	1520.9		6.1
7	20.520	31.522	22.045	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	31.003	22.391	458.07	.071	1509.2		13.00
14	16.491	31.997	22.329	454.43	.076	1508.6		14.00
15	16.245	31.007	22.393	448.39	.080	1507.9	7.41	15.00
16	15.789	31.836	22.363	451.23	.085	1506.3		16.00
17	15.311	31.016	22.628	425.96	.089	1504.7		17.00
18	15.205	31.023	22.635	425.33	.093	1504.7		18.00
19	15.144	31.070	22.684	420.70	.098	1504.6		19.00
20	14.954	31.093	22.742	415.14	.102	1504.0	7.18	20.00
21	14.753	31.091	22.783	411.23	.106	1503.4		21.00
22	14.720	31.097	22.795	410.15	.110	1503.3		22.00
23	14.667	31.102	22.810	408.71	.114	1503.1		23.00
24	14.523	31.108	22.845	405.40	.119	1502.7		24.1
25	14.407	31.120	22.879	402.23	.123	1502.4	4.44	25.1
26	14.200	31.142	22.939	396.49	.127	1501.7		26.1
27	13.617	31.169	22.079	383.17	.130	1499.9		27.1
28	13.178	31.262	22.238	367.97	.134	1498.5		28.1
29	12.762	31.282	22.288	363.23	.138	1497.1		29.1
30	12.577	31.239	22.337	358.58	.141	1496.5	8.30	30.00
31	12.494	31.276	22.382	354.33	.145	1496.3		31.00
32	12.454	31.143	22.386	363.46	.149	1496.0		32.00
33	12.447	31.106	22.359	366.11	.153	1495.9		33.00
34	12.208	31.089	22.291	363.07	.156	1495.1		34.00
35	12.052	31.149	22.367	355.33	.160	1494.6	2.06	35.00
36	11.477	31.405	22.670	326.99	.163	1493.0		36.00
37	11.230	31.446	22.747	319.64	.167	1492.3		37.00
38	11.080	31.481	22.801	314.51	.170	1491.7		38.00
39	10.882	31.450	22.811	313.30	.173	1491.0		39.00
40	10.837	31.465	22.831	311.61	.176	1490.8	8.26	40.00
41	10.777	31.475	22.849	309.96	.179	1490.6		41.00
42	10.774	31.478	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 = 3 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	20.295	31.393	21.938	597.15	.006	1518.7		1.00
2	20.293	31.394	21.942	596.78	.012	1518.7		2.00
3	20.296	31.395	21.947	596.31	.018	1518.7		3.00
4	20.295	31.398	21.952	595.91	.023	1518.7		4.00
5	19.982	31.406	22.089	572.75	.030	1518.1	4.71	5.1
6	19.989	31.423	22.119	569.97	.035	1517.8		6.00
7	19.616	31.504	22.197	562.82	.041	1517.1		7.00
8	18.260	31.643	22.641	520.05	.046	1513.4		8.00
9	18.159	31.746	22.744	510.21	.051	1513.2		9.00
10	17.970	31.917	22.944	500.71	.056	1512.8	10.66	10.00
11	17.578	31.990	22.963	499.31	.061	1511.7		11.00
12	17.019	31.940	22.087	477.49	.066	1510.0		12.00
13	16.534	31.773	22.142	472.25	.071	1508.5		13.00
14	16.179	31.823	22.257	460.41	.075	1507.4		14.00
15	16.043	31.823	22.303	456.93	.080	1507.0	8.23	15.00
16	15.989	31.833	22.317	455.68	.085	1506.9		16.00
17	15.949	31.847	22.336	453.89	.089	1506.8		17.00
18	15.939	31.856	22.346	453.01	.094	1506.8		18.00
19	15.936	31.866	22.342	453.31	.098	1506.8		19.00
20	15.936	31.891	22.342	453.36	.103	1506.8	2.39	20.00
21	15.934	31.863	22.351	452.91	.107	1506.8		21.00
22	15.926	31.868	22.357	451.98	.112	1506.8		22.00
23	15.949	31.858	22.367	451.10	.116	1506.6		23.00
24	15.733	31.905	22.388	452.55	.121	1506.6		24.00
25	15.273	31.871	22.503	438.15	.125	1504.8	4.87	25.00
26	14.907	31.943	22.637	425.31	.130	1503.8		26.00
27	14.892	31.954	22.649	424.23	.134	1503.8		27.00
28	14.888	31.956	22.651	424.02	.138	1503.8		28.00
29	14.885	31.958	22.651	423.65	.142	1503.6		29.00
30	14.888	31.956	22.659	423.90	.143	1503.6		30.1

SHIP KN CRUISE ACE-3 STATION 3 CAST 1
 START 40 49.70 N 72 29.50 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		1.0
2	20.605	31.515	21.949	586.07	.012	1519.8		2.0
3	20.614	31.521	21.951	585.91	.018	1519.9		3.0
4	20.795	31.300	21.888	592.02	.023	1520.3		4.0
5	20.543	31.482	21.940	587.01	.030	1519.6	-1.63	5.1
6	20.563	31.413	21.883	592.51	.035	1519.6		6.0
7	19.508	31.477	22.204	561.80	.041	1516.8		7.0
8	18.734	31.558	22.460	537.41	.047	1514.7		8.0
9	19.266	31.571	22.585	525.47	.052	1513.3		9.0
10	18.056	31.614	22.668	517.53	.057	1512.8	10.47	10.0
11	17.172	31.639	22.889	496.38	.062	1510.2		11.0
12	16.925	31.633	22.988	486.94	.067	1509.9		12.0
13	16.861	31.693	23.011	484.79	.072	1509.4		13.0
14	16.809	31.716	23.041	482.02	.077	1509.2		14.0
15	16.727	31.723	23.065	479.70	.082	1509.0	7.66	15.0
16	16.478	31.771	23.159	470.79	.086	1508.3		16.0
17	16.472	31.883	23.246	462.51	.091	1508.9		17.0
18	16.135	31.833	23.283	458.93	.096	1507.4		18.0
19	16.044	31.867	23.330	454.45	.100	1507.2		19.0
20	15.932	31.871	23.358	451.84	.105	1506.8	6.57	20.0
21	15.968	31.878	23.378	449.99	.109	1506.7		21.0
22	15.824	31.890	23.397	448.20	.114	1506.5		22.0
23	15.612	31.930	23.474	440.83	.118	1505.9		23.0
24	15.556	31.942	23.496	438.79	.123	1505.8		24.0
25	15.483	31.945	23.515	437.02	.127	1505.6	4.80	25.0
26	15.096	31.952	23.603	428.37	.131	1504.4		26.0
27	14.384	32.106	23.873	402.82	.135	1502.3		27.0
28	13.788	32.079	23.975	393.12	.139	1500.3		28.0
29	13.628	32.122	24.040	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	1519.5		2.00
3	20.520	31.476	21.942	586.82	.018	1519.5		3.00
4	20.795	31.500	21.888	592.02	.024	1520.3		4.00
5	19.863	31.499	21.130	558.84	.030	1517.7	5.40	5.1
6	19.722	31.494	21.163	563.77	.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	539.62	.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	484.17	.076	1510.2		14.00
15	17.039	31.950	22.090	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	32.197	22.600	428.70	.095	1504.5		18.00
19	15.058	32.201	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	24.008	389.88	.128	1500.6		26.1
27	13.817	32.136	24.013	389.49	.132	1500.5		27.1
28	13.644	32.168	24.073	383.77	.136	1500.0		28.1
29	12.739	32.239	24.306	361.49	.139	1497.0		29.1
30	12.739	32.239	24.306	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		1.00
2	20.363	31.473	21.983	582.85	.013	1519.0		2.00
3	20.362	31.473	21.981	583.05	.017	1519.1		3.00
4	20.793	31.500	21.888	582.02	.023	1520.3		4.00
5	20.318	31.480	21.998	581.49	.030	1519.0	1.69	5.1
6	20.136	31.473	22.042	577.37	.035	1518.5		6.00
7	19.740	31.525	22.181	564.00	.041	1517.5		7.00
8	19.221	31.510	22.302	552.53	.046	1516.0		8.00
9	19.037	31.563	22.388	544.28	.052	1515.6		9.00
10	18.870	31.589	22.450	538.42	.057	1515.1	8.25	10.00
11	18.712	31.568	22.473	536.25	.063	1514.7		11.00
12	18.110	31.754	22.762	508.61	.068	1513.1		12.00
13	17.819	31.778	22.832	500.02	.073	1512.3		13.00
14	17.508	31.778	22.925	493.11	.078	1511.4		14.00
15	17.019	31.847	23.093	477.08	.083	1510.1	9.74	15.00
16	16.653	31.908	23.224	464.56	.087	1509.0		16.00
17	16.113	31.953	23.380	449.71	.092	1507.4		17.00
18	15.670	31.965	23.565	433.01	.096	1506.2		18.00
19	14.885	31.965	23.736	415.74	.101	1503.7		19.00
20	13.893	31.959	23.938	396.43	.105	1500.5	11.16	20.00
21	13.096	31.164	24.119	379.18	.109	1499.0		21.00
22	12.688	31.240	24.317	360.33	.112	1496.7		22.00
23	12.211	31.286	24.443	348.34	.116	1495.0		23.00
24	12.076	31.326	24.499	342.98	.120	1494.8		24.1
25	11.861	31.323	24.537	333.37	.123	1494.0	9.29	25.1
26	11.532	31.412	24.657	327.06	.126	1493.0		26.1
27	11.503	31.415	24.674	325.39	.130	1492.9		27.1
28	11.503	31.415	24.674	325.39	.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 = DT
 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	582.02	.023	1520.3		4.00
5	20.007	31.475	22.075	574.14	.039	1518.1	-1.56	5.1
6	20.005	31.471	22.073	574.39	.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	.012	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	1.31	6.0
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	17.123	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	23.131	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	16.069	31.821	23.289	458.48	.115	1507.2		22.0
23	16.033	31.831	23.297	457.73	.120	1507.1		23.0
24	15.883	31.937	23.343	453.36	.125	1506.7		24.1
25	15.855	31.949	23.358	451.95	.129	1506.6	3.70	25.1
26	15.831	31.955	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	1518.5		2.0
3	20.200	31.525	22.063	575.24	.017	1518.9		3.0
4	20.793	31.500	21.988	592.02	.023	1520.3		4.0
5	20.508	31.490	21.956	585.52	.030	1519.3	-3.68	5.1
6	20.017	31.508	22.097	572.05	.035	1518.2		6.0
7	19.573	31.624	22.299	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	17.165	31.717	22.939	489.74	.062	1510.3		11.0
12	16.986	31.766	23.038	482.22	.066	1509.0		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	1507.8	4.06	20.0
21	16.906	31.889	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	1502.2		26.5
27	16.424	32.111	23.972	393.40	.135	1500.0		27.1
28	16.426	32.158	24.084	382.69	.139	1499.6		28.8
29	16.527	32.159	24.089	382.25	.141	1499.6		29.8

SHIP KN CRUISE ACS-3 STATION 9 CAST 1
 START 40 45 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	0.00
1	20.2255	31.479	22.011	580.16	.006	1518.9		1.00
2	20.2255	31.505	22.040	577.37	.012	1518.7		2.00
3	20.427	31.501	21.985	582.66	.017	1519.		3.00
4	20.755	31.500	21.888	592.02	.023	1520.0		4.00
5	20.026	31.512	22.043	571.95	.030	1518.	3.34	5.1
6	19.928	31.517	22.127	569.17	.035	1518.		6.00
7	19.416	31.486	22.235	558.92	.040	1516.		7.00
8	17.929	31.505	22.616	522.40	.046	1512.		8.00
9	17.398	31.643	22.859	499.27	.051	1510.7		9.00
10	17.212	31.677	22.917	493.73	.056	1510.4	11.11	10.00
11	16.922	31.678	22.985	487.31	.061	1509.9		11.00
12	16.739	31.705	23.048	481.26	.066	1509.		12.00
13	16.564	31.723	23.080	478.19	.070	1508.		13.00
14	16.564	31.738	23.114	475.01	.075	1508.		14.00
15	16.420	31.768	23.170	469.71	.080	1508.	6.11	15.00
16	16.302	31.774	23.201	466.74	.085	1507.		16.00
17	16.229	31.792	23.228	464.22	.089	1507.		17.00
18	16.092	31.787	23.258	461.34	.094	1507.		18.00
19	15.749	31.810	23.307	456.64	.099	1506.		19.00
20	15.906	31.811	23.318	455.64	.103	1506.7	4.68	20.00
21	15.802	31.823	23.346	453.04	.108	1506.4		21.00
22	15.704	31.838	23.366	451.14	.112	1506.		22.00
23	15.741	31.841	23.377	450.08	.117	1505.		23.00
24	15.406	31.882	23.482	440.06	.122	1505.		24.00
25	15.333	31.905	23.512	437.30	.126	1505.1	5.29	25.1
26	15.353	31.905	23.512	437.30	.126	1505.1		26.1

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	20.535	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	1519.2		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	1503.1		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	31.793	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		3.0
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	17.625	31.737	22.960	489.49	.036	1510.4		7.0
8	17.132	31.748	22.990	486.69	.041	1510.2		8.0
9	16.818	31.750	23.065	479.56	.046	1509.9		9.0
10	16.686	31.752	23.097	476.54	.051	1508.9	6.15	10.0
11	16.558	31.761	23.132	473.16	.055	1508.5		11.0
12	16.351	31.771	23.140	472.50	.060	1508.5		12.0
13	16.359	31.797	23.206	466.21	.065	1508.0		13.0
14	16.230	31.832	23.262	460.87	.069	1507.6		14.0
15	16.158	31.856	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	31.952	23.636	425.20	.101	1503.8		21.0
22	14.914	31.966	23.653	423.66	.105	1503.8		22.0
23	14.813	32.037	23.771	412.42	.109	1502.9		23.0
24	14.806	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	25.1
26	13.510	32.079	24.031	387.73	.122	1499.4		26.1
27	13.664	32.073	23.995	391.11	.123	1499.9		26.4

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		1.00
2	18.790	31.564	22.460	537.15	.011	1514.6		2.00
3	18.685	31.569	22.481	535.25	.016	1514.5		3.00
4	20.795	31.500	21.888	592.02	.022	1520.3		4.00
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		6.00
7	16.672	31.750	23.098	476.34	.037	1508.8		7.00
8	16.645	31.758	23.117	474.54	.042	1508.7		8.00
9	16.386	31.761	23.126	473.70	.047	1508.5		9.00
10	16.482	31.772	23.138	470.66	.051	1508.3	6.37	10.00
11	16.423	31.789	23.184	468.26	.056	1508.1		11.00
12	16.335	31.812	23.219	464.94	.061	1507.9		12.00
13	16.335	31.819	23.228	464.10	.065	1507.9		13.00
14	16.269	31.830	23.251	461.88	.070	1507.7		14.00
15	16.133	31.847	23.365	457.77	.074	1507.3	4.48	15.00
16	16.026	31.878	23.343	453.21	.079	1507.1		16.00
17	15.929	31.927	23.379	449.76	.084	1506.8		17.00
18	15.851	31.915	23.410	446.85	.088	1506.6		18.00
19	15.810	31.921	23.424	445.55	.092	1506.5		19.00
20	15.789	31.922	23.429	445.02	.097	1506.4	4.46	20.00
21	15.817	31.925	23.425	445.44	.101	1506.6		21.00
22	15.833	31.923	23.420	445.94	.106	1506.5		22.00
23	15.840	31.923	23.420	445.97	.110	1506.7		23.00
24	15.401	31.942	23.530	435.54	.115	1505.3		24.1
25	15.464	31.926	23.511	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	18.752	31.564	22.460	537.19	.011	1514.6		2.00
3	18.724	31.585	22.483	535.02	.016	1514.6		3.00
4	20.795	31.500	22.858	552.02	.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	22.028	482.98	.032	1509.4		6.00
7	16.730	31.747	22.083	477.80	.037	1508.9		7.00
8	16.678	31.752	22.099	476.30	.042	1508.8		8.00
9	16.637	31.760	22.114	474.85	.046	1508.7		9.00
10	16.595	31.758	22.135	472.86	.051	1508.4	4.91	10.00
11	16.438	31.772	22.169	469.68	.056	1508.1		11.00
12	16.379	31.766	22.169	469.66	.060	1507.9		12.00
13	16.339	31.779	22.196	467.15	.065	1507.9		13.00
14	16.310	31.791	22.212	465.61	.070	1507.8		14.00
15	16.239	31.821	22.251	461.96	.074	1507.6	4.13	15.00
16	16.146	31.828	22.278	459.43	.079	1507.4		16.00
17	16.135	31.866	22.309	456.43	.084	1507.4		17.00
18	16.093	31.863	22.318	455.62	.088	1507.3		18.00
19	15.898	31.917	22.410	446.82	.093	1506.6		19.00
20	15.717	31.909	22.435	444.49	.097	1506.2	5.21	20.00
21	15.560	31.934	22.489	439.38	.102	1505.8		21.00
22	15.841	31.918	22.414	446.52	.106	1506.6		22.00
23	15.828	31.912	22.437	442.44	.110	1506.0		23.00
24	15.920	31.912	22.485	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	523.31	0.000	1513.4	0.00	0.0
1	18.335	31.618	32.603	523.44	.005	1513.5		1.0
2	18.332	31.614	32.604	523.43	.010	1513.4		2.0
3	18.197	31.614	32.604	520.56	.016	1513.1		3.0
4	20.795	31.600	31.888	592.02	.021	1520.3		4.0
5	17.970	31.647	32.809	503.86	.027	1511.3	5.45	5.1
6	17.310	31.674	32.892	496.03	.032	1510.6		6.0
7	17.055	31.698	32.969	488.82	.037	1509.9		7.0
8	16.903	31.746	32.042	481.73	.042	1509.5		8.0
9	16.798	31.732	32.056	480.43	.046	1509.2		9.0
10	16.718	31.758	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	32.115	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	1508.5		16.0
17	16.428	31.773	32.171	469.58	.084	1508.5		17.0
18	16.352	31.791	32.022	466.66	.089	1508.0		18.0
19	16.286	31.794	32.020	465.02	.094	1507.8		19.0
20	16.152	31.795	32.050	462.13	.098	1507.4	3.96	20.0
21	16.062	31.812	32.084	458.96	.103	1507.2		21.0
22	16.031	31.808	32.088	458.59	.107	1507.1		22.0
23	15.842	31.800	32.024	455.20	.112	1506.5		23.0
24	15.687	31.853	32.098	448.08	.117	1506.1		24.1
25	15.701	31.850	32.093	448.57	.118	1506.2		24.4

SHIP KN CRUISE ACE-3 STATION 15 CAST 1
 START 40 41.20 N 72 26.30 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	56.9.70	0.000	1520.6	0.00	0.0
1	20.795	31.805	22.119	56.9.77	.004	1520.6		1.00
2	20.793	31.805	22.120	56.9.73	.011	1520.6		2.00
3	20.791	31.805	22.120	56.9.74	.017	1520.6		3.00
4	20.795	31.500	22.888	56.9.02	.023	1520.6		4.00
5	20.610	31.836	22.192	56.9.93	.039	1520.6	3.24	5.1
6	20.408	31.862	22.265	56.9.02	.034	1519.7		6.00
7	19.558	32.036	22.617	56.9.32	.040	1517.7		7.00
8	19.154	32.143	22.801	56.9.74	.045	1516.6		8.00
9	18.456	31.853	22.739	51.0.76	.050	1514.4		9.00
10	17.570	31.933	22.029	48.3.04	.055	1511.1	11.23	10.00
11	17.039	31.943	22.151	47.0.45	.060	1510.0		11.00
12	16.632	31.827	22.291	45.9.00	.064	1508.0		12.00
13	15.089	31.688	22.402	44.7.44	.069	1503.8		13.00
14	14.281	31.827	22.679	42.0.99	.073	1501.4		14.00
15	13.846	32.068	22.954	39.4.75	.077	1500.0	11.68	15.00
16	13.501	32.076	22.031	38.7.51	.081	1499.9		16.00
17	13.194	32.088	22.100	38.0.87	.085	1498.8		17.00
18	12.729	32.297	22.353	35.6.81	.089	1496.9		18.00
19	11.863	32.312	22.527	34.0.80	.092	1493.9		19.00
20	11.574	32.421	22.666	32.7.01	.095	1493.3	10.22	20.00
21	11.317	32.465	22.746	31.9.35	.099	1492.2		21.00
22	11.056	32.469	22.796	31.4.62	.102	1491.1		22.00
23	10.859	32.487	22.844	31.0.04	.105	1490.7		23.00
24	10.756	32.510	22.881	30.6.62	.108	1490.0		24.1
25	10.700	32.514	22.873	30.9.44	.111	1490.0	5.72	25.1
26	10.629	32.522	22.912	30.3.70	.115	1489.9		26.1
27	10.533	32.505	22.912	30.3.71	.118	1489.6		27.1
28	10.425	32.457	22.896	30.3.23	.121	1489.1		28.1
29	10.390	32.467	22.909	30.3.86	.124	1489.0		29.1
30	10.362	32.482	22.906	30.3.53	.127	1489.7	2.19	30.0
31	10.343	32.490	22.901	30.3.53	.130	1488.8		31.0
32	10.161	32.492	22.968	30.3.84	.133	1488.3		32.0
33	9.923	32.502	22.015	30.3.96	.136	1487.7		33.0
34	9.827	32.527	22.049	30.0.73	.139	1487.7	4.60	34.0
35	9.805	32.548	22.070	29.8.73	.142	1487.1		35.0
36	9.723	32.559	22.092	29.6.53	.145	1486.6		36.0
37	9.715	32.625	22.145	28.8.60	.147	1486.4		37.0
38	9.710	32.572	22.105	28.9.47	.149	1486.8		37.8

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 = 300 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	621.95	.012	1524.1		2.00
3	22.217	31.593	21.573	622.11	.019	1524.1		3.00
4	20.795	31.500	21.888	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	21.858	594.85	.037	1521.0		6.00
7	20.073	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	17.689	32.104	23.131	473.23	.052	1512.3		9.00
10	17.355	32.255	23.319	455.29	.057	1511.6	15.54	10.00
11	16.833	32.281	23.333	441.10	.062	1510.0		11.00
12	15.367	32.113	23.333	421.97	.066	1505.2		12.00
13	13.194	32.270	23.421	367.37	.070	1498.3		13.00
14	12.189	32.509	23.421	331.33	.073	1495.2		14.00
15	11.609	32.585	23.421	315.42	.077	1493.3	14.69	15.00
16	11.091	32.622	23.421	303.81	.080	1491.5		16.00
17	10.842	32.654	23.421	297.29	.083	1490.7		17.00
18	10.763	32.675	23.421	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	3	747	31	624	21	456	633	23	0.000	1525	5	0.00	0.00
1	3	695	31	624	21	471	631	26	0.006	1525	5	0.00	1.00
2	3	695	31	624	21	471	631	26	0.013	1525	5	0.00	1.00
3	3	695	31	624	21	471	631	26	0.019	1525	5	0.00	1.00
4	3	695	31	624	21	471	631	26	0.024	1525	5	0.00	1.00
5	3	695	31	624	21	471	631	26	0.032	1525	5	0.00	1.00
6	3	695	31	624	21	471	631	26	0.037	1525	5	0.00	1.00
7	3	695	31	624	21	471	631	26	0.043	1525	5	0.00	1.00
8	3	695	31	624	21	471	631	26	0.048	1525	5	0.00	1.00
9	3	695	31	624	21	471	631	26	0.054	1525	5	0.00	1.00
10	3	695	31	624	21	471	631	26	0.059	1525	5	0.00	1.00
11	3	695	31	624	21	471	631	26	0.063	1525	5	0.00	1.00
12	3	695	31	624	21	471	631	26	0.068	1525	5	0.00	1.00
13	3	695	31	624	21	471	631	26	0.073	1525	5	0.00	1.00
14	3	695	31	624	21	471	631	26	0.075	1525	5	0.00	1.00
15	3	695	31	624	21	471	631	26	0.080	1525	5	0.00	1.00
16	3	695	31	624	21	471	631	26	0.083	1525	5	0.00	1.00
17	3	695	31	624	21	471	631	26	0.087	1525	5	0.00	1.00
18	3	695	31	624	21	471	631	26	0.090	1525	5	0.00	1.00
19	3	695	31	624	21	471	631	26	0.094	1525	5	0.00	1.00
20	3	695	31	624	21	471	631	26	0.097	1525	5	0.00	1.00
21	3	695	31	624	21	471	631	26	0.100	1525	5	0.00	1.00
22	3	695	31	624	21	471	631	26	0.103	1525	5	0.00	1.00
23	3	695	31	624	21	471	631	26	0.106	1525	5	0.00	1.00
24	3	695	31	624	21	471	631	26	0.109	1525	5	0.00	1.00
25	3	695	31	624	21	471	631	26	0.112	1525	5	0.00	1.00
26	3	695	31	624	21	471	631	26	0.115	1525	5	0.00	1.00
27	3	695	31	624	21	471	631	26	0.117	1525	5	0.00	1.00
28	3	695	31	624	21	471	631	26	0.120	1525	5	0.00	1.00
29	3	695	31	624	21	471	631	26	0.123	1525	5	0.00	1.00
30	3	695	31	624	21	471	631	26	0.126	1525	5	0.00	1.00
31	3	695	31	624	21	471	631	26	0.128	1525	5	0.00	1.00
32	3	695	31	624	21	471	631	26	0.131	1525	5	0.00	1.00
33	3	695	31	624	21	471	631	26	0.134	1525	5	0.00	1.00
34	3	695	31	624	21	471	631	26	0.136	1525	5	0.00	1.00
35	3	695	31	624	21	471	631	26	0.139	1525	5	0.00	1.00
36	3	695	31	624	21	471	631	26	0.141	1525	5	0.00	1.00
37	3	695	31	624	21	471	631	26	0.143	1525	5	0.00	1.00
38	3	695	31	624	21	471	631	26	0.146	1525	5	0.00	1.00
39	3	695	31	624	21	471	631	26	0.148	1525	5	0.00	1.00
40	3	695	31	624	21	471	631	26	0.151	1525	5	0.00	1.00
41	3	695	31	624	21	471	631	26	0.153	1525	5	0.00	1.00
42	3	695	31	624	21	471	631	26	0.155	1525	5	0.00	1.00
43	3	695	31	624	21	471	631	26	0.158	1525	5	0.00	1.00
44	3	695	31	624	21	471	631	26	0.160	1525	5	0.00	1.00
45	3	695	31	624	21	471	631	26	0.163	1525	5	0.00	1.00
46	3	695	31	624	21	471	631	26	0.165	1525	5	0.00	1.00
47	3	695	31	624	21	471	631	26	0.167	1525	5	0.00	1.00
48	3	695	31	624	21	471	631	26	0.169	1525	5	0.00	1.00
49	3	695	31	624	21	471	631	26	0.171	1525	5	0.00	1.00
50	3	695	31	624	21	471	631	26	0.174	1525	5	0.00	1.00
51	3	695	31	624	21	471	631	26	0.180	1525	5	0.00	1.00

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	00	446	31	861	21	713	608.67	0.000	1523.0	0.00	0.0
1	00	445	31	862	21	713	608.65	0.006	1523.0	0.00	0.0
2	00	445	31	862	21	713	608.65	0.012	1523.0	0.00	0.0
3	00	445	31	862	21	713	608.65	0.018	1523.0	0.00	0.0
4	00	445	31	862	21	713	608.65	0.024	1523.0	0.00	0.0
5	00	445	31	862	21	713	608.65	0.031	1523.0	0.00	0.0
6	00	445	31	862	21	713	608.65	0.037	1523.0	0.00	0.0
7	00	445	31	862	21	713	608.65	0.043	1523.0	0.00	0.0
8	00	445	31	862	21	713	608.65	0.049	1523.0	0.00	0.0
9	00	445	31	862	21	713	608.65	0.054	1523.0	0.00	0.0
10	00	445	31	862	21	713	608.65	0.059	1523.0	0.00	0.0
11	00	445	31	862	21	713	608.65	0.064	1523.0	0.00	0.0
12	00	445	31	862	21	713	608.65	0.068	1523.0	0.00	0.0
13	00	445	31	862	21	713	608.65	0.072	1523.0	0.00	0.0
14	00	445	31	862	21	713	608.65	0.076	1523.0	0.00	0.0
15	00	445	31	862	21	713	608.65	0.080	1523.0	0.00	0.0
16	00	445	31	862	21	713	608.65	0.083	1523.0	0.00	0.0
17	00	445	31	862	21	713	608.65	0.086	1523.0	0.00	0.0
18	00	445	31	862	21	713	608.65	0.090	1523.0	0.00	0.0
19	00	445	31	862	21	713	608.65	0.093	1523.0	0.00	0.0
20	00	445	31	862	21	713	608.65	0.096	1523.0	0.00	0.0
21	00	445	31	862	21	713	608.65	0.099	1523.0	0.00	0.0
22	00	445	31	862	21	713	608.65	0.102	1523.0	0.00	0.0
23	00	445	31	862	21	713	608.65	0.105	1523.0	0.00	0.0
24	00	445	31	862	21	713	608.65	0.108	1523.0	0.00	0.0
25	00	445	31	862	21	713	608.65	0.111	1523.0	0.00	0.0
26	00	445	31	862	21	713	608.65	0.114	1523.0	0.00	0.0
27	00	445	31	862	21	713	608.65	0.116	1523.0	0.00	0.0
28	00	445	31	862	21	713	608.65	0.119	1523.0	0.00	0.0
29	00	445	31	862	21	713	608.65	0.122	1523.0	0.00	0.0
30	00	445	31	862	21	713	608.65	0.124	1523.0	0.00	0.0
31	00	445	31	862	21	713	608.65	0.127	1523.0	0.00	0.0
32	00	445	31	862	21	713	608.65	0.129	1523.0	0.00	0.0
33	00	445	31	862	21	713	608.65	0.131	1523.0	0.00	0.0
34	00	445	31	862	21	713	608.65	0.134	1523.0	0.00	0.0
35	00	445	31	862	21	713	608.65	0.136	1523.0	0.00	0.0
36	00	445	31	862	21	713	608.65	0.138	1523.0	0.00	0.0
37	00	445	31	862	21	713	608.65	0.141	1523.0	0.00	0.0
38	00	445	31	862	21	713	608.65	0.143	1523.0	0.00	0.0
39	00	445	31	862	21	713	608.65	0.145	1523.0	0.00	0.0
40	00	445	31	862	21	713	608.65	0.147	1523.0	0.00	0.0
41	00	445	31	862	21	713	608.65	0.149	1523.0	0.00	0.0
42	00	445	31	862	21	713	608.65	0.152	1523.0	0.00	0.0
43	00	445	31	862	21	713	608.65	0.154	1523.0	0.00	0.0
44	00	445	31	862	21	713	608.65	0.156	1523.0	0.00	0.0
45	00	445	31	862	21	713	608.65	0.158	1523.0	0.00	0.0
46	00	445	31	862	21	713	608.65	0.161	1523.0	0.00	0.0
47	00	445	31	862	21	713	608.65	0.163	1523.0	0.00	0.0
48	00	445	31	862	21	713	608.65	0.165	1523.0	0.00	0.0
49	00	445	31	862	21	713	608.65	0.167	1523.0	0.00	0.0
50	00	445	31	862	21	713	608.65	0.169	1523.0	0.00	0.0
51	00	445	31	862	21	713	608.65	0.180	1523.0	0.00	0.0

SHIP KM CRUISE ACE-3 STATION 19 CAST 1
 START 40 19 59 N 72 E. 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	1525.4	0.00	0.00
1	481	172	939	587.07	0.006	1525.4		1.1
2	477	173	940	586.97	0.012	1525.4		0.00
3	477	174	941	586.86	0.018	1525.4		0.00
4	829	639	715	608.60	0.023	1525.4		0.00
5	303	065	912	589.71	0.030	1524.9	-1.99	0.00
6	104	033	387	544.27	0.035	1521.1		0.00
7	205	148	562	527.53	0.041	1519.9		0.00
8	205	148	779	506.87	0.046	1516.5		0.00
9	205	415	041	481.91	0.051	1516.5		0.00
10	440	401	175	463.06	0.055	1514.9	13.66	10.00
11	046	224	166	469.97	0.060	1513.3		11.1
12	046	247	491	438.96	0.065	1509.9		12.2
13	046	011	802	409.29	0.069	1505.7		13.3
14	046	407	031	387.40	0.073	1503.6		14.4
15	046	000	095	381.40	0.077	1501.9	11.64	15.5
16	046	444	008	361.02	0.081	1500.0		16.6
17	046	921	444	331.96	0.084	1501.4		17.7
18	046	921	444	331.06	0.087	1500.8		18.8
19	046	921	733	310.67	0.090	1498.8		19.9
20	046	077	077	297.91	0.094	1495.9	12.01	21.0
21	046	134	134	282.52	0.096	1495.9		22.1
22	046	034	274	269.16	0.099	1491.1		23.2
23	046	070	353	261.65	0.102	1490.3		24.3
24	046	117	465	251.03	0.105	1490.4		25.4
25	046	181	465	247.58	0.107	1490.0	7.42	26.5
26	046	201	505	247.26	0.110	1489.4		27.6
27	046	205	521	245.69	0.112	1489.9		28.7
28	046	205	539	242.12	0.114	1489.4		29.8
29	046	169	539	239.87	0.117	1489.9		30.9
30	046	099	603	238.00	0.120	1489.9	4.54	32.0
31	046	015	610	237.33	0.122	1489.9		33.1
32	046	033	623	236.11	0.124	1489.9		34.2
33	046	033	642	234.39	0.127	1489.9		35.3
34	046	033	674	231.34	0.129	1489.9		36.4
35	046	033	683	230.49	0.131	1490.0	3.42	37.5
36	046	033	782	221.14	0.134	1491.1		38.6
37	046	033	786	220.77	0.136	1491.7		39.7
38	046	033	792	220.27	0.138	1491.7		40.8
39	046	033	800	220.29	0.140	1490.4		41.9
40	046	033	824	217.22	0.142	1489.8	4.54	43.0
41	046	033	836	216.07	0.145	1489.7		44.1
42	046	033	889	211.00	0.147	1489.7		45.2
43	046	033	911	208.98	0.149	1489.7		46.3
44	046	033	914	208.64	0.151	1489.7		47.4
45	046	033	915	208.60	0.153	1489.7	3.63	48.5
46	046	033	931	208.08	0.155	1489.7		49.6
47	046	033	931	207.23	0.157	1489.7		50.7
48	046	033	958	204.62	0.159	1489.7		51.8
49	046	033	966	203.80	0.161	1489.9		52.9
50	046	033	990	201.59	0.163	1489.6	3.31	54.0
51	046	033	040	196.94	0.173	1489.7	2.73	55.1
52	046	033	076	193.61	0.183	1489.7	2.30	56.2
53	046	033	143	187.29	0.190	1488.6		57.3

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	0.018	0.045	21.971	583.94	0.000	1524.1	0.00	0.00
1	0.018	0.047	21.972	583.83	0.006	1524.1		0.00
2	0.019	0.048	21.973	583.79	0.012	1524.1		0.00
3	0.019	0.065	21.974	582.61	0.018	1524.1		0.00
4	0.829	0.639	21.715	608.60	0.023	1523.9		0.00
5	1.904	0.975	22.708	513.60	0.030	1524.9	10.33	0.00
6	1.300	0.286	22.110	475.24	0.034	1523.7		0.00
7	1.161	0.788	22.333	433.19	0.039	1524.0		0.00
8	1.797	0.439	22.404	404.66	0.043	1526.4		0.00
9	0.668	0.714	22.983	391.96	0.047	1527.4		0.00
10	0.499	0.048	22.113	379.47	0.051	1528.9	14.54	0.00
11	0.640	0.020	22.003	333.20	0.054	1529.3		0.00
12	0.659	0.026	22.003	333.20	0.058	1529.3		0.00
13	0.613	0.059	22.003	333.20	0.062	1529.3		0.00
14	0.002	0.763	22.003	333.20	0.066	1529.3		0.00
15	1.111	0.391	22.003	333.20	0.070	1529.3	2.54	0.00
16	0.155	0.764	22.003	333.20	0.074	1529.3		0.00
17	0.784	0.520	22.003	333.20	0.077	1529.3		0.00
18	0.686	0.466	22.003	333.20	0.081	1529.3		0.00
19	0.387	0.421	22.003	333.20	0.084	1517.7		0.00
20	0.977	0.511	22.003	333.20	0.087	1516.6	10.47	0.00
21	0.576	0.291	22.003	333.20	0.090	1511.1		0.00
22	0.667	0.057	22.003	333.20	0.093	1505.5		0.00
23	0.441	0.284	22.003	333.20	0.096	1505.5		0.00
24	0.875	0.234	22.003	333.20	0.098	1505.5		0.00
25	0.096	0.033	22.003	333.20	0.101	1500.5	10.19	0.00
26	0.584	0.434	22.003	333.20	0.103	1498.6		0.00
27	0.792	0.938	22.003	333.20	0.105	1495.5		0.00
28	0.083	0.807	22.003	333.20	0.107	1493.3		0.00
29	0.867	0.862	22.003	333.20	0.110	1493.3		0.00
30	0.750	0.933	22.003	333.20	0.112	1493.3		0.00
31	0.417	0.732	22.003	333.20	0.114	1490.0	6.90	0.00
32	0.834	0.690	22.003	333.20	0.116	1488.6		0.00
33	0.643	0.776	22.003	333.20	0.118	1488.6		0.00
34	0.723	0.771	22.003	333.20	0.120	1488.6		0.00
35	0.597	0.821	22.003	333.20	0.122	1488.6	4.57	0.00
36	0.401	0.795	22.003	333.20	0.124	1487.7		0.00
37	0.228	0.787	22.003	333.20	0.126	1486.6		0.00
38	0.119	0.801	22.003	333.20	0.128	1486.6		0.00
39	0.960	0.763	22.003	333.20	0.129	1486.6		0.00
40	0.728	0.750	22.003	333.20	0.131	1484.4	3.51	0.00
41	0.695	0.774	22.003	333.20	0.133	1484.4		0.00
42	0.720	0.808	22.003	333.20	0.135	1484.4		0.00
43	0.708	0.831	22.003	333.20	0.137	1484.4		0.00
44	0.745	0.819	22.003	333.20	0.139	1484.4		0.00
45	0.614	0.776	22.003	333.20	0.140	1484.4	2.32	0.00
46	0.547	0.815	22.003	333.20	0.142	1484.4		0.00
47	0.594	0.826	22.003	333.20	0.144	1484.4		0.00
48	0.595	0.831	22.003	333.20	0.146	1484.4		0.00
49	0.587	0.834	22.003	333.20	0.147	1484.4		0.00
50	0.586	0.840	22.003	333.20	0.149	1484.4		0.00
51	0.616	0.884	22.003	333.20	0.158	1484.4		0.00
52	0.607	0.921	22.003	333.20	0.166	1484.4		0.00
53	0.687	0.006	22.003	333.20	0.175	1484.4		0.00
54	0.675	0.023	22.003	333.20	0.177	1484.4		0.00

SHIP KN CRUISE ACE-3 STATION 22 CAST 1
 START 40 7 50 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	00	015	00	21.777	602.54	0.000	1527.4	0.00
1	00	000	00	21.770	603.23	0.006	1527.4	0.00
2	00	000	00	21.777	603.56	0.012	1527.4	0.00
3	00	000	00	21.789	601.44	0.018	1527.4	0.00
4	00	000	00	21.715	608.60	0.024	1527.4	0.00
5	00	000	00	22.078	573.99	0.030	1527.4	0.00
6	00	000	00	22.661	513.12	0.035	1527.4	0.00
7	00	000	00	23.312	453.96	0.040	1527.4	0.00
8	00	000	00	23.692	419.68	0.045	1519.9	0.00
9	00	000	00	23.939	386.13	0.049	1518.6	0.00
10	00	000	00	24.060	354.17	0.053	1518.6	0.00
11	00	000	00	24.937	324.49	0.057	1518.6	0.00
12	00	000	00	25.035	338.13	0.061	1519.9	0.00
13	00	000	00	24.048	366.82	0.064	1520.0	0.00
14	00	000	00	24.291	362.77	0.068	1518.6	0.00
15	00	000	00	24.430	349.51	0.072	1518.6	0.00
16	00	000	00	24.647	338.88	0.075	1517.7	0.00
17	00	000	00	24.687	333.14	0.078	1517.7	0.00
18	00	000	00	24.928	310.76	0.081	1517.6	0.00
19	00	000	00	24.947	300.40	0.084	1516.6	0.00
20	00	000	00	25.032	290.44	0.087	1519.9	0.00
21	00	000	00	25.193	277.07	0.090	1519.9	0.00
22	00	000	00	25.267	270.00	0.093	1510.0	0.00
23	00	000	00	25.272	257.53	0.096	1508.8	0.00
24	00	000	00	25.337	257.70	0.098	1509.9	0.00
25	00	000	00	25.633	239.17	0.101	1501.1	0.00
26	00	000	00	25.683	230.45	0.103	1498.8	0.00
27	00	000	00	25.714	227.43	0.106	1490.7	0.00
28	00	000	00	25.957	203.36	0.108	1486.6	0.00
29	00	000	00	26.004	199.80	0.110	1485.4	0.00
30	00	000	00	26.041	196.36	0.112	1484.4	0.00
31	00	000	00	26.057	194.82	0.114	1484.4	0.00
32	00	000	00	26.076	193.02	0.116	1483.7	0.00
33	00	000	00	26.102	190.52	0.118	1483.7	0.00
34	00	000	00	26.107	190.15	0.120	1483.7	0.00
35	00	000	00	26.109	189.98	0.122	1483.6	0.00
36	00	000	00	26.115	189.36	0.124	1483.4	0.00
37	00	000	00	26.121	188.95	0.126	1483.4	0.00
38	00	000	00	26.132	187.79	0.127	1483.3	0.00
39	00	000	00	26.146	186.53	0.129	1483.3	0.00
40	00	000	00	26.151	186.05	0.131	1483.4	0.00
41	00	000	00	26.163	184.96	0.133	1483.7	0.00
42	00	000	00	26.182	182.16	0.135	1484.4	0.00
43	00	000	00	26.216	179.90	0.137	1485.1	0.00
44	00	000	00	26.209	180.66	0.139	1485.1	0.00
45	00	000	00	26.222	179.46	0.140	1485.4	0.00
46	00	000	00	26.227	178.93	0.142	1485.3	0.00
47	00	000	00	26.224	179.31	0.144	1485.3	0.00
48	00	000	00	26.191	182.43	0.146	1485.9	0.00
49	00	000	00	26.229	178.84	0.148	1484.4	0.00
50	00	000	00	26.261	175.82	0.149	1484.4	0.00
51	00	000	00	26.298	173.39	0.158	1484.4	0.00
52	00	000	00	26.337	168.18	0.167	1485.9	0.00
53	00	000	00	26.397	163.11	0.175	1485.9	0.00
54	00	000	00	26.467	156.62	0.183	1486.6	0.00
55	00	000	00	26.510	152.64	0.191	1487.1	0.00
56	00	000	00	26.513	152.43	0.193	1487.2	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					0.000	1.5328	0.00	0.0
1					0.006	1.5323		0.0
1					0.011	1.5323		0.0
1					0.017	1.5323		0.0
1					0.022	1.5323		0.0
1					0.027	1.5323	12.78	0.0
1					0.031	1.5323		0.0
1					0.036	1.5323		0.0
1					0.040	1.5323		0.0
1					0.044	1.5323		0.0
1					0.048	1.5323	10.30	0.0
1					0.052	1.5327		0.0
1					0.056	1.5327		0.0
1					0.060	1.5327		0.0
1					0.063	1.5325		0.0
1					0.067	1.5324	7.99	0.0
1					0.070	1.5319		0.0
1					0.074	1.5316		0.0
1					0.077	1.5311		0.0
1					0.080	1.5310		0.0
1					0.082	1.5309	11.88	0.0
1					0.085	1.5308		0.0
1					0.088	1.5307		0.0
1					0.090	1.5307		0.0
1					0.093	1.5307		0.0
1					0.096	1.5306	6.85	0.0
1					0.098	1.5302		0.0
1					0.100	1.5300		0.0
1					0.102	1.5300		0.0
1					0.104	1.4998		0.0
1					0.106	1.4997		0.0
1					0.108	1.4997	7.78	0.0
1					0.110	1.5001		0.0
1					0.112	1.5001		0.0
1					0.114	1.5001		0.0
1					0.116	1.5001	3.37	0.0
1					0.118	1.4999		0.0
1					0.120	1.4999		0.0
1					0.121	1.4995		0.0
1					0.123	1.4993		0.0
1					0.125	1.4993	6.11	0.0
1					0.127	1.4991		0.0
1					0.128	1.4991		0.0
1					0.130	1.4991		0.0
1					0.132	1.4991		0.0
1					0.134	1.4989	3.47	0.0
1					0.136	1.4988		0.0
1					0.138	1.4987		0.0
1					0.139	1.4987		0.0
1					0.141	1.4987		0.0
1					0.143	1.4988	0.97	0.0
1					0.145	1.4988	2.54	0.0
1					0.147	1.4989	1.49	0.0
1					0.149	1.4989	1.01	0.0
1					0.151	1.4989	1.09	0.0
1					0.153	1.4989	2.4	0.0
1					0.155	1.4989	7.4	0.0
1					0.157	1.4989		0.0
1					0.159	1.4989		0.0
1					0.161	1.4989		0.0
1					0.163	1.4989		0.0
1					0.165	1.4989		0.0
1					0.167	1.4989		0.0
1					0.169	1.4989		0.0
1					0.171	1.4989		0.0
1					0.173

SHIP KN CRUISE ACE-3 STATION 24 CAST 1
 START 40 250 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	0000	018	158	565.99	0.000	1530.1	0.00	0.00
1	0001	018	158	565.99	0.006	1530.1		0.00
2	0002	018	158	565.99	0.011	1530.1		0.00
3	0003	018	158	565.99	0.017	1530.1		0.00
4	0004	018	158	565.99	0.022	1530.1		0.00
5	0005	018	158	565.99	0.028	1530.1		0.00
6	0006	018	158	565.99	0.033	1530.1		0.00
7	0007	018	158	565.99	0.038	1530.1	8.73	0.00
8	0008	018	158	565.99	0.043	1530.1		0.00
9	0009	018	158	565.99	0.047	1530.1		0.00
10	0010	018	158	565.99	0.052	1530.1	12.33	0.00
11	0011	018	158	565.99	0.056	1530.1		0.00
12	0012	018	158	565.99	0.060	1530.1		0.00
13	0013	018	158	565.99	0.064	1530.1		0.00
14	0014	018	158	565.99	0.068	1530.1		0.00
15	0015	018	158	565.99	0.072	1530.1	6.65	0.00
16	0016	018	158	565.99	0.076	1530.1		0.00
17	0017	018	158	565.99	0.079	1530.1		0.00
18	0018	018	158	565.99	0.083	1530.1		0.00
19	0019	018	158	565.99	0.087	1530.1		0.00
20	0020	018	158	565.99	0.091	1530.1	6.84	0.00
21	0021	018	158	565.99	0.094	1530.1		0.00
22	0022	018	158	565.99	0.098	1530.1		0.00
23	0023	018	158	565.99	0.101	1530.1		0.00
24	0024	018	158	565.99	0.104	1530.1		0.00
25	0025	018	158	565.99	0.107	1530.1	11.37	0.00
26	0026	018	158	565.99	0.110	1530.1		0.00
27	0027	018	158	565.99	0.113	1530.1		0.00
28	0028	018	158	565.99	0.116	1530.1		0.00
29	0029	018	158	565.99	0.121	1530.1	8.34	0.00
30	0030	018	158	565.99	0.123	1530.1		0.00
31	0031	018	158	565.99	0.125	1530.1		0.00
32	0032	018	158	565.99	0.127	1530.1		0.00
33	0033	018	158	565.99	0.129	1530.1		0.00
34	0034	018	158	565.99	0.131	1530.1	8.11	0.00
35	0035	018	158	565.99	0.133	1530.1		0.00
36	0036	018	158	565.99	0.135	1530.1		0.00
37	0037	018	158	565.99	0.136	1530.1		0.00
38	0038	018	158	565.99	0.138	1530.1		0.00
39	0039	018	158	565.99	0.140	1530.1	4.13	0.00
40	0040	018	158	565.99	0.142	1530.1		0.00
41	0041	018	158	565.99	0.143	1530.1		0.00
42	0042	018	158	565.99	0.145	1530.1		0.00
43	0043	018	158	565.99	0.147	1530.1		0.00
44	0044	018	158	565.99	0.149	1530.1	3.17	0.00
45	0045	018	158	565.99	0.150	1530.1		0.00
46	0046	018	158	565.99	0.152	1530.1		0.00
47	0047	018	158	565.99	0.154	1530.1		0.00
48	0048	018	158	565.99	0.155	1530.1		0.00
49	0049	018	158	565.99	0.157	1530.1		0.00
50	0050	018	158	565.99	0.157	1530.1		0.00
51	0051	018	158	565.99	0.154	1530.1		0.00
52	0052	018	158	565.99	0.172	1530.1		0.00
53	0053	018	158	565.99	0.179	1530.1		0.00
54	0054	018	158	565.99	0.186	1530.1		0.00
55	0055	018	158	565.99	0.193	1530.1		0.00
56	0056	018	158	565.99	0.200	1530.1	1.15	0.00
57	0057	018	158	565.99	0.205	1530.1	9.4	0.00
58	0058	018	158	565.99	0.205	1530.1		0.00

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	22.658	518.23	.005	1531.7		1.0
2	24.276	33.771	22.631	520.82	.010	1531.7		2.0
3	24.291	33.711	22.581	525.64	.016	1531.7		3.0
4	24.306	33.658	22.537	529.92	.021	1531.7		4.0
5	24.315	33.639	22.520	531.59	.027	1531.7	-3.53	5.1
6	24.266	33.402	22.724	511.19	.031	1531.7		6.5
7	24.104	34.533	22.259	461.05	.036	1532.3		7.7
8	24.029	34.822	22.375	430.88	.041	1532.5		8.8
9	23.774	35.036	22.730	416.16	.045	1532.1		9.9
10	23.656	35.053	22.735	410.95	.049	1531.8	13.79	10.0
11	23.472	35.076	22.836	404.22	.053	1531.4		11.1
12	23.300	35.103	22.926	397.33	.057	1531.0		12.2
13	23.172	35.092	22.955	394.78	.061	1530.7		13.3
14	22.972	35.098	22.015	388.87	.065	1530.2		14.4
15	22.446	35.141	22.201	371.46	.069	1529.9	7.82	15.5
16	22.842	35.194	22.411	351.45	.073	1529.7		16.6
17	22.576	35.211	22.498	343.24	.076	1529.9		17.7
18	22.1421	35.240	22.563	337.04	.079	1529.6		18.8
19	22.225	35.288	22.607	332.84	.083	1529.0		19.9
20	22.824	35.221	22.711	322.99	.086	1528.4	8.66	20.0
21	22.556	35.244	22.802	314.40	.089	1528.4		21.1
22	19.509	35.094	22.963	299.03	.092	1528.1		22.2
23	18.398	35.276	22.936	295.84	.095	1518.3		23.3
24	18.129	35.254	22.936	292.54	.098	1517.6		24.4
25	17.799	35.250	22.914	286.67	.100	1516.6	10.95	25.5
26	17.312	35.299	22.970	281.90	.103	1515.3		26.6
27	16.615	35.238	22.939	270.57	.105	1513.1		27.7
28	16.410	35.257	22.853	264.65	.107	1512.3		28.8
29	16.319	35.291	22.841	261.93	.109	1512.0		29.9
30	16.132	35.244	22.806	259.91	.112	1511.1	7.43	30.0
31	16.062	35.258	22.833	257.01	.114	1511.5		31.1
32	16.016	35.246	22.834	256.93	.116	1511.4		32.2
33	15.949	35.237	22.833	256.13	.118	1511.1		33.3
34	15.460	35.235	22.805	255.77	.120	1509.7		34.4
35	15.078	35.194	22.8106	190.70	.122	1508.4	5.40	35.5
36	14.901	35.214	22.8160	185.58	.124	1507.9		36.6
37	14.833	35.214	22.8174	184.31	.126	1507.7		37.7
38	14.746	35.209	22.8189	182.31	.127	1507.5		38.8
39	14.721	35.241	22.8200	179.95	.129	1507.4		39.9
40	14.060	35.067	22.8227	179.22	.131	1505.1	4.23	40.0
41	13.486	35.134	22.8398	162.99	.133	1503.0		41.1
42	12.769	34.768	22.8600	176.11	.134	1500.0		42.2
43	11.332	34.781	22.8455	157.85	.136	1497.7		43.3
44	11.447	34.799	22.8537	149.70	.138	1496.6		44.4
45	11.230	34.738	22.8530	150.07	.139	1495.5	6.68	45.5
46	11.223	34.751	22.8641	149.37	.141	1495.5		46.6
47	11.157	34.729	22.8636	149.55	.142	1495.5		47.7
48	10.939	34.677	22.8631	148.44	.144	1494.4		48.8
49	10.795	34.706	22.8684	145.33	.145	1493.3		49.9
50	10.735	34.696	22.8687	145.07	.146	1493.3	2.99	50.0
55	10.521	34.673	22.8607	143.89	.154	1492.7	1.71	55.5
60	10.459	34.677	22.8621	142.06	.151	1492.2	1.42	60.0
65	10.504	34.708	22.8537	140.66	.158	1492.2	1.93	65.5
70	10.482	34.721	22.8651	139.39	.173	1492.2	1.46	70.0
75	10.586	34.765	22.8667	138.01	.182	1493.4	1.53	75.0
80	10.801	34.859	22.8732	134.86	.199	1494.4	2.24	80.0
85	10.912	34.928	22.8736	131.81	.196	1493.0	2.21	85.0
90	10.919	34.951	22.8753	130.29	.202	1493.1	1.96	90.0
95	10.905	34.961	22.8763	129.48	.209	1493.1	1.20	95.0
97	10.905	34.961	22.8763	129.50	.211	1493.2		97.4

SHIP KN CRUISE ACE-3 STATION 26 CAST 1
 START 39 56.50 N 71 49.60 W AT 1817 77/ 8/ 8
 POS = LC STA. TYPE = DT
 WIND = 13 knots DIR = 240 DEPTH = 117 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	24.603	03.695	22.476	535.57	0.000	15.4	0.00	0.00
01	24.597	03.698	22.481	535.18	0.005	15.4		0.00
02	24.597	03.704	22.483	535.24	0.011	15.4		0.00
03	24.597	03.712	22.493	534.82	0.016	15.4		0.00
04	24.595	03.725	22.493	534.23	0.021	15.4		0.00
05	24.591	03.735	22.510	532.51	0.027	15.4	2.23	0.00
06	24.590	03.759	22.528	530.80	0.032	15.4		0.00
07	24.454	03.997	22.749	509.72	0.037	15.4		0.00
08	23.785	03.736	23.507	437.39	0.043	15.4		0.00
09	23.991	03.077	23.881	401.78	0.046	15.4		0.00
10	23.037	03.090	23.906	399.40	0.050	15.4	14.49	0.00
11	23.285	03.107	23.934	396.74	0.054	15.4		0.00
12	23.133	03.097	23.970	393.40	0.058	15.4		0.00
13	23.020	03.144	24.096	381.36	0.062	15.4		0.00
14	22.724	03.156	24.130	378.17	0.065	15.4		0.00
15	22.646	03.170	24.166	374.81	0.070	15.4	6.18	0.00
16	22.308	03.169	24.204	371.18	0.073	15.4		0.00
17	22.173	03.108	24.365	355.86	0.077	15.4		0.00
18	22.162	03.157	24.571	336.31	0.080	15.4		0.00
19	22.099	03.201	24.700	323.98	0.084	15.4		0.00
20	22.412	03.210	24.814	313.22	0.087	15.4	9.76	0.00
21	22.424	03.102	24.973	298.05	0.090	15.4		0.00
22	22.179	03.253	25.170	279.35	0.093	15.4		0.00
23	22.101	03.280	25.210	275.54	0.096	15.4		0.00
24	22.982	03.237	25.237	273.06	0.098	15.4		0.00
25	22.816	03.259	25.267	270.22	0.101	15.4	8.16	0.00
26	22.642	03.277	25.325	264.70	0.104	15.4		0.00
27	22.422	03.334	25.367	260.74	0.107	15.4		0.00
28	22.400	03.179	25.474	250.59	0.109	15.4		0.00
29	22.057	03.273	25.711	228.08	0.112	15.4		0.00
30	22.676	03.251	25.785	221.09	0.114	15.4	8.54	0.00
31	22.886	03.302	25.915	208.73	0.116	15.4		0.00
32	22.097	03.319	26.037	203.47	0.118	15.4		0.00
33	22.696	03.251	26.011	199.68	0.120	15.4		0.00
34	22.480	03.341	26.129	188.45	0.122	15.4		0.00
35	22.325	03.367	26.184	183.27	0.124	15.4	7.64	0.00
36	22.088	03.355	26.227	179.15	0.126	15.4		0.00
37	22.860	03.433	26.246	177.29	0.128	15.4		0.00
38	22.599	03.381	26.298	172.91	0.129	15.4		0.00
39	22.631	03.332	26.305	171.82	0.131	15.4		0.00
40	22.712	03.334	26.313	171.03	0.133	15.4	4.37	0.00
41	22.190	03.084	26.420	160.89	0.135	15.4		0.00
42	22.037	03.130	26.502	152.12	0.136	15.4		0.00
43	22.718	03.021	26.586	145.96	0.138	15.4		0.00
44	22.522	03.119	26.581	145.65	0.139	15.4		0.00
45	22.469	03.142	26.609	142.99	0.141	15.4	6.58	0.00
46	22.195	03.035	26.579	145.83	0.143	15.4		0.00
47	22.826	03.024	26.603	140.15	0.145	15.4		0.00
48	22.657	03.029	26.677	136.55	0.146	15.4		0.00
49	22.367	03.023	26.693	135.05	0.148	15.4		0.00
50	22.401	03.994	26.698	134.63	0.148	15.4	0.3	0.00
51	22.273	03.034	26.753	129.55	0.154	15.4		0.00
52	22.044	03.025	26.779	127.14	0.156	15.4	1.44	0.00
53	22.044	03.045	26.803	124.94	0.157	15.4	1.89	0.00
54	22.048	03.036	26.811	124.33	0.173	15.4	1.07	0.00
55	22.058	03.068	26.818	123.76	0.180	15.4	1.03	0.00
56	22.186	03.154	26.862	119.74	0.186	15.4	0.53	0.00
57	22.200	03.161	26.863	119.76	0.186	15.4	0.4	0.00
58	22.224	03.176	26.872	119.04	0.190	15.4	1.12	0.00
59	22.265	03.203	26.886	117.87	0.204	15.4	1.41	0.00
60	22.395	03.259	26.905	116.23	0.210	15.4	1.65	0.00
61	22.409	03.270	26.911	115.78	0.215	15.4	0.95	0.00
62	22.410	03.280	26.919	115.13	0.221	15.4	1.09	0.00
63	22.433	03.495	26.926	114.60	0.227	15.4	0.01	0.00
64	22.441	03.001	26.929	114.31	0.228	15.4		0.00

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	34.5330	34.423	34.049	480.36	0.000	1533.1	0.00	0.00
1	34.5337	34.417	34.042	481.51	0.005	1533.3		1.00
2	34.4458	34.381	34.000	485.58	0.010	1533.3		2.00
3	34.4458	34.475	34.111	475.06	0.014	1533.3		3.00
4	34.4458	34.650	34.317	455.35	0.019	1533.3		4.00
5	34.4458	34.772	34.447	442.99	0.024	1533.3	7.59	5.00
6	34.4458	34.861	34.559	432.33	0.028	1533.3		6.00
7	34.4458	34.927	34.639	424.74	0.032	1533.3		7.00
8	34.4458	34.983	34.714	417.68	0.036	1533.3		8.00
9	34.4458	35.007	34.754	413.83	0.041	1533.1		9.00
10	34.4458	35.035	34.806	408.95	0.045	1533.1	7.34	10.00
11	34.4458	35.040	34.833	407.33	0.049	1533.1		11.00
12	34.4458	35.040	34.833	407.33	0.053	1533.1		12.00
13	34.4458	35.040	34.833	407.33	0.057	1533.0		13.00
14	34.4458	35.040	34.833	407.33	0.061	1533.0		14.00
15	34.4458	35.040	34.833	407.33	0.065	1533.0	5.50	15.00
16	34.4458	35.040	34.833	407.33	0.069	1533.0		16.00
17	34.4458	35.040	34.833	407.33	0.072	1533.0		17.00
18	34.4458	35.040	34.833	407.33	0.076	1533.0		18.00
19	34.4458	35.040	34.833	407.33	0.080	1533.0	3.00	19.00
20	34.4458	35.040	34.833	407.33	0.084	1533.0		20.00
21	34.4458	35.040	34.833	407.33	0.088	1533.0		21.00
22	34.4458	35.040	34.833	407.33	0.091	1533.0		22.00
23	34.4458	35.040	34.833	407.33	0.095	1533.0		23.00
24	34.4458	35.040	34.833	407.33	0.098	1533.0		24.00
25	34.4458	35.040	34.833	407.33	0.102	1533.0	9.32	25.00
26	34.4458	35.040	34.833	407.33	0.105	1533.0		26.00
27	34.4458	35.040	34.833	407.33	0.108	1533.0		27.00
28	34.4458	35.040	34.833	407.33	0.111	1533.0		28.00
29	34.4458	35.040	34.833	407.33	0.114	1533.0	9.32	29.00
30	34.4458	35.040	34.833	407.33	0.117	1533.0		30.00
31	34.4458	35.040	34.833	407.33	0.120	1533.0		31.00
32	34.4458	35.040	34.833	407.33	0.122	1533.0		32.00
33	34.4458	35.040	34.833	407.33	0.124	1533.0		33.00
34	34.4458	35.040	34.833	407.33	0.127	1533.0	7.52	34.00
35	34.4458	35.040	34.833	407.33	0.129	1533.0		35.00
36	34.4458	35.040	34.833	407.33	0.131	1533.0		36.00
37	34.4458	35.040	34.833	407.33	0.134	1533.0		37.00
38	34.4458	35.040	34.833	407.33	0.136	1533.0		38.00
39	34.4458	35.040	34.833	407.33	0.138	1533.0		39.00
40	34.4458	35.040	34.833	407.33	0.140	1533.0	6.63	40.00
41	34.4458	35.040	34.833	407.33	0.142	1533.0		41.00
42	34.4458	35.040	34.833	407.33	0.144	1533.0		42.00
43	34.4458	35.040	34.833	407.33	0.146	1533.0		43.00
44	34.4458	35.040	34.833	407.33	0.148	1533.0		44.00
45	34.4458	35.040	34.833	407.33	0.149	1533.0	5.59	45.00
46	34.4458	35.040	34.833	407.33	0.151	1533.0		46.00
47	34.4458	35.040	34.833	407.33	0.153	1533.0		47.00
48	34.4458	35.040	34.833	407.33	0.155	1533.0		48.00
49	34.4458	35.040	34.833	407.33	0.156	1533.0		49.00
50	34.4458	35.040	34.833	407.33	0.158	1533.0	5.18	50.00
51	34.4458	35.040	34.833	407.33	0.166	1533.0	5.05	51.00
52	34.4458	35.040	34.833	407.33	0.174	1533.0	4.35	52.00
53	34.4458	35.040	34.833	407.33	0.180	1533.0	4.54	53.00
54	34.4458	35.040	34.833	407.33	0.186	1533.0	2.47	54.00
55	34.4458	35.040	34.833	407.33	0.193	1533.0	3.43	55.00
56	34.4458	35.040	34.833	407.33	0.199	1533.0	1.31	56.00
57	34.4458	35.040	34.833	407.33	0.204	1533.0	4.17	57.00
58	34.4458	35.040	34.833	407.33	0.210	1533.0	2.46	58.00
59	34.4458	35.040	34.833	407.33	0.216	1533.0	3.19	59.00
60	34.4458	35.040	34.833	407.33	0.221	1533.0	1.97	60.00
61	34.4458	35.040	34.833	407.33	0.226	1533.0	1.60	61.00
62	34.4458	35.040	34.833	407.33	0.231	1533.0	1.50	62.00
63	34.4458	35.040	34.833	407.33	0.236	1533.0	0.97	63.00
64	34.4458	35.040	34.833	407.33	0.241	1533.0	1.10	64.00
65	34.4458	35.040	34.833	407.33	0.246	1533.0	0.81	65.00
66	34.4458	35.040	34.833	407.33	0.251	1533.0	1.01	66.00
67	34.4458	35.040	34.833	407.33	0.256	1533.0	0.90	67.00
68	34.4458	35.040	34.833	407.33	0.261	1533.0	1.02	68.00
69	34.4458	35.040	34.833	407.33	0.263	1533.0		69.00

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	34.628	35.1	32.965	488.82	0.000	153.3	0.00	0.00
1	34.627	35.1	32.965	488.90	0.005	153.3		1.1
2	34.626	35.1	32.965	488.93	0.010	153.3		2.1
3	34.626	35.1	32.965	488.89	0.015	153.3		3.1
4	34.626	35.1	32.965	488.69	0.020	153.3		4.1
5	34.625	35.1	32.965	488.26	0.025	153.3	1.09	5.1
6	34.625	35.1	32.965	487.99	0.029	153.3		6.1
7	34.625	35.1	32.965	487.96	0.034	153.3		7.1
8	34.625	35.1	32.965	487.88	0.039	153.3		8.1
9	34.612	35.1	32.965	483.98	0.044	153.3		9.1
10	34.461	35.1	32.965	476.10	0.049	153.3	4.41	10.1
11	34.679	35.1	32.965	420.46	0.053	153.3		11.1
12	34.664	35.1	32.965	386.34	0.057	153.3		12.1
13	34.482	35.1	32.965	381.13	0.061	153.3		13.1
14	34.363	35.1	32.965	373.75	0.065	153.3		14.1
15	34.447	35.1	32.965	373.56	0.069	153.3	12.46	15.1
16	34.618	35.1	32.965	377.26	0.072	153.3		16.1
17	34.558	35.1	32.965	377.77	0.076	153.3		17.1
18	34.463	35.1	32.965	375.78	0.080	153.3		18.1
19	34.452	35.1	32.965	375.89	0.084	153.3		19.1
20	34.452	35.1	32.965	375.89	0.087	153.3	3.98	20.1
21	34.452	35.1	32.965	375.89	0.091	153.3		21.1
22	34.452	35.1	32.965	375.89	0.094	153.3		22.1
23	34.452	35.1	32.965	375.89	0.098	153.3		23.1
24	34.452	35.1	32.965	375.89	0.101	153.3		24.1
25	34.452	35.1	32.965	375.89	0.104	153.3	8.02	25.1
26	34.452	35.1	32.965	375.89	0.108	153.3		26.1
27	34.452	35.1	32.965	375.89	0.111	153.3		27.1
28	34.452	35.1	32.965	375.89	0.114	153.3		28.1
29	34.452	35.1	32.965	375.89	0.116	153.3	10.94	29.1
30	34.452	35.1	32.965	375.89	0.119	153.3		30.1
31	34.452	35.1	32.965	375.89	0.121	153.3		31.1
32	34.452	35.1	32.965	375.89	0.124	153.3		32.1
33	34.452	35.1	32.965	375.89	0.126	153.3		33.1
34	34.452	35.1	32.965	375.89	0.129	153.3		34.1
35	34.452	35.1	32.965	375.89	0.131	153.3	7.48	35.1
36	34.452	35.1	32.965	375.89	0.133	153.3		36.1
37	34.452	35.1	32.965	375.89	0.135	153.3		37.1
38	34.452	35.1	32.965	375.89	0.136	153.3		38.1
39	34.452	35.1	32.965	375.89	0.138	153.3		39.1
40	34.452	35.1	32.965	375.89	0.140	153.3	3.82	40.1
41	34.452	35.1	32.965	375.89	0.142	153.3		41.1
42	34.452	35.1	32.965	375.89	0.144	153.3		42.1
43	34.452	35.1	32.965	375.89	0.146	153.3		43.1
44	34.452	35.1	32.965	375.89	0.148	153.3		44.1
45	34.452	35.1	32.965	375.89	0.149	153.3	4.06	45.1
46	34.452	35.1	32.965	375.89	0.151	153.3		46.1
47	34.452	35.1	32.965	375.89	0.153	153.3		47.1
48	34.452	35.1	32.965	375.89	0.154	153.3		48.1
49	34.452	35.1	32.965	375.89	0.156	153.3		49.1
50	34.452	35.1	32.965	375.89	0.157	153.3	6.17	50.1
51	34.452	35.1	32.965	375.89	0.158	153.3		51.1
52	34.452	35.1	32.965	375.89	0.165	153.3		52.1
53	34.452	35.1	32.965	375.89	0.172	153.3		53.1
54	34.452	35.1	32.965	375.89	0.179	153.3		54.1
55	34.452	35.1	32.965	375.89	0.183	153.3		55.1
56	34.452	35.1	32.965	375.89	0.191	153.3		56.1
57	34.452	35.1	32.965	375.89	0.197	153.3		57.1
58	34.452	35.1	32.965	375.89	0.203	153.3		58.1
59	34.452	35.1	32.965	375.89	0.209	153.3		59.1
60	34.452	35.1	32.965	375.89	0.214	153.3		60.1
61	34.452	35.1	32.965	375.89	0.219	153.3		61.1
62	34.452	35.1	32.965	375.89	0.225	153.3		62.1
63	34.452	35.1	32.965	375.89	0.230	153.3		63.1
64	34.452	35.1	32.965	375.89	0.235	153.3		64.1
65	34.452	35.1	32.965	375.89	0.240	153.3		65.1
66	34.452	35.1	32.965	375.89	0.245	153.3		66.1
67	34.452	35.1	32.965	375.89	0.250	153.3		67.1
68	34.452	35.1	32.965	375.89	0.255	153.3		68.1
69	34.452	35.1	32.965	375.89	0.260	153.3		69.1
70	34.452	35.1	32.965	375.89	0.264	153.3		70.1
71	34.452	35.1	32.965	375.89	0.269	153.3		71.1
72	34.452	35.1	32.965	375.89	0.271	153.3		72.1
73	34.452	35.1	32.965	375.89	0.276	153.3		73.1
74	34.452	35.1	32.965	375.89	0.281	153.3		74.1
75	34.452	35.1	32.965	375.89	0.286	153.3		75.1
76	34.452	35.1	32.965	375.89	0.291	153.3		76.1
77	34.452	35.1	32.965	375.89	0.296	153.3		77.1
78	34.452	35.1	32.965	375.89	0.301	153.3		78.1
79	34.452	35.1	32.965	375.89	0.306	153.3		79.1
80	34.452	35.1	32.965	375.89	0.311	153.3		80.1
81	34.452	35.1	32.965	375.89	0.316	153.3		81.1
82	34.452	35.1	32.965	375.89	0.321	153.3		82.1
83	34.452	35.1	32.965	375.89	0.326	153.3		83.1
84	34.452	35.1	32.965	375.89	0.331	153.3		84.1
85	34.452	35.1	32.965	375.89	0.336	153.3		85.1
86	34.452	35.1	32.965	375.89	0.341	153.3		86.1
87	34.452	35.1	32.965	375.89	0.346	153.3		87.1
88	34.452	35.1	32.965	375.89	0.351	153.3		88.1
89	34.452	35.1	32.965	375.89	0.356	153.3		89.1
90	34.452	35.1	32.965	375.89	0.361	153.3		90.1
91	34.452	35.1	32.965	375.89	0.366	153.3		91.1
92	34.452	35.1	32.965	375.89	0.371	153.3		92.1
93	34.452	35.1	32.965	375.89	0.376	153.3		93.1
94	34.452	35.1	32.965	375.89	0.381	153.3		94.1
95	34.452	35.1	32.965	375.89	0.386	153.3		95.1
96	34.452	35.1	32.965	375.89	0.391	153.3		96.1
97	34.452	35.1	32.965	375.89	0.396	153.3		97.1
98	34.452	35.1	32.965	375.89	0.401	153.3		98.1
99	34.452	35.1	32.965	375.89	0.406	153.3		99.1
100	34.452	35.1	32.965	375.89	0.411	153.3		100.1

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	34.442	22.993	486.21	0.000	1533.6	0.00	0.00
1	24.766	34.444	22.993	486.17	0.003	1533.7		1.00
2	24.767	34.450	22.998	485.78	0.010	1533.7		2.00
3	24.765	34.450	22.998	485.78	0.015	1533.7		3.00
4	24.763	34.449	22.998	485.94	0.019	1533.7		4.00
5	24.767	34.460	22.998	485.16	0.025	1533.8	1.39	5.11
6	24.767	34.461	22.998	485.16	0.029	1533.8		6.00
7	24.769	34.465	22.999	484.91	0.034	1533.8		7.00
8	24.589	34.497	22.987	477.92	0.039	1533.4		8.00
9	24.372	34.592	22.944	464.48	0.044	1533.9		9.00
10	24.094	34.761	22.935	444.37	0.048	1533.6	8.03	10.00
11	23.811	34.895	22.919	426.78	0.052	1533.0		11.00
12	23.271	34.972	22.836	406.15	0.057	1533.0		12.00
13	22.894	34.971	22.944	395.90	0.061	1532.9		13.00
14	22.529	35.021	22.986	380.33	0.064	1532.9		14.00
15	22.171	35.059	22.944	370.00	0.068	1532.8	10.72	15.00
16	21.896	35.027	22.969	364.99	0.072	1532.7		16.00
17	21.645	35.045	22.944	364.78	0.075	1532.5		17.00
18	21.444	35.031	22.988	360.00	0.079	1532.5		18.00
19	21.299	35.059	22.953	350.45	0.082	1532.4		19.00
20	21.134	35.131	22.974	344.95	0.085	1531.8	12.11	20.00
21	20.968	35.160	22.979	338.89	0.088	1531.8		21.00
22	20.804	35.154	22.903	336.66	0.090	1531.8		22.00
23	20.640	35.160	22.956	326.11	0.093	1531.7		23.00
24	20.475	35.171	22.956	316.16	0.096	1531.7		24.00
25	20.310	35.154	22.966	305.13	0.098	1531.6	6.06	25.00
26	20.145	35.194	22.903	294.73	0.101	1531.6		26.00
27	20.000	35.197	22.900	284.10	0.103	1531.6		27.00
28	19.854	35.182	22.951	274.99	0.106	1531.5		28.00
29	19.709	35.173	22.974	264.09	0.108	1531.5	4.47	29.00
30	19.564	35.199	22.907	253.76	0.111	1531.5		30.00
31	19.419	35.219	22.966	243.26	0.113	1531.5		31.00
32	19.274	35.240	22.944	233.44	0.116	1531.5		32.00
33	19.129	35.249	22.943	223.44	0.118	1531.5		33.00
34	18.984	35.263	22.953	213.75	0.120	1531.5	2.86	34.00
35	18.839	35.276	22.963	203.82	0.123	1531.5		35.00
36	18.694	35.264	22.997	193.67	0.125	1531.4		36.00
37	18.549	35.281	22.953	183.35	0.127	1531.4		37.00
38	18.404	35.297	22.953	173.03	0.130	1531.4		38.00
39	18.259	35.348	22.974	162.22	0.132	1531.4		39.00
40	18.114	35.388	22.961	151.13	0.134	1531.2	7.24	40.00
41	17.969	35.408	22.966	140.69	0.136	1531.1		41.00
42	17.824	35.430	22.981	130.25	0.138	1531.1		42.00
43	17.679	35.434	22.979	119.49	0.140	1531.0		43.00
44	17.534	35.452	22.992	108.75	0.141	1530.9		44.00
45	17.389	35.499	22.966	97.67	0.143	1530.8	6.12	45.00
46	17.244	35.535	22.981	86.21	0.145	1530.7		46.00
47	17.099	35.575	22.948	74.03	0.148	1530.6		47.00
48	16.954	35.612	22.966	61.96	0.151	1530.6		48.00
49	16.809	35.647	22.953	49.01	0.153	1530.5		49.00
50	16.664	35.683	22.966	36.50	0.155	1530.4		50.00
51	16.519	35.720	22.981	24.00	0.156	1530.1		51.00
52	16.374	35.757	22.966	11.52	0.157	1530.1		52.00
53	16.229	35.794	22.981	-1.00	0.158	1530.1		53.00
54	16.084	35.831	22.997	-13.52	0.159	1530.1		54.00
55	15.939	35.868	22.966	-26.03	0.160	1530.1		55.00
56	15.794	35.905	22.981	-38.54	0.161	1530.1		56.00
57	15.649	35.942	22.997	-51.05	0.162	1530.1		57.00
58	15.504	35.979	22.966	-63.56	0.163	1530.1		58.00
59	15.359	36.016	22.981	-76.07	0.164	1530.1		59.00
60	15.214	36.053	22.997	-88.58	0.165	1530.1		60.00
61	15.069	36.090	22.966	-101.09	0.166	1530.1		61.00
62	14.924	36.127	22.981	-113.60	0.167	1530.1		62.00
63	14.779	36.164	22.997	-126.11	0.168	1530.1		63.00
64	14.634	36.201	22.966	-138.62	0.169	1530.1		64.00
65	14.489	36.238	22.981	-151.13	0.170	1530.1		65.00
66	14.344	36.275	22.997	-163.64	0.171	1530.1		66.00
67	14.199	36.312	22.966	-176.15	0.172	1530.1		67.00
68	14.054	36.349	22.981	-188.66	0.173	1530.1		68.00
69	13.909	36.386	22.997	-201.17	0.174	1530.1		69.00
70	13.764	36.423	22.966	-213.68	0.175	1530.1		70.00
71	13.619	36.460	22.981	-226.19	0.176	1530.1		71.00
72	13.474	36.497	22.997	-238.70	0.177	1530.1		72.00
73	13.329	36.534	22.966	-251.21	0.178	1530.1		73.00
74	13.184	36.571	22.981	-263.72	0.179	1530.1		74.00
75	13.039	36.608	22.997	-276.23	0.180	1530.1		75.00
76	12.894	36.645	22.966	-288.74	0.181	1530.1		76.00
77	12.749	36.682	22.981	-301.25	0.182	1530.1		77.00
78	12.604	36.719	22.997	-313.76	0.183	1530.1		78.00
79	12.459	36.756	22.966	-326.27	0.184	1530.1		79.00
80	12.314	36.793	22.981	-338.78	0.185	1530.1		80.00
81	12.169	36.830	22.997	-351.29	0.186	1530.1		81.00
82	12.024	36.867	22.966	-363.80	0.187	1530.1		82.00
83	11.879	36.904	22.981	-376.31	0.188	1530.1		83.00
84	11.734	36.941	22.997	-388.82	0.189	1530.1		84.00
85	11.589	36.978	22.966	-401.33	0.190	1530.1		85.00
86	11.444	37.015	22.981	-413.84	0.191	1530.1		86.00
87	11.299	37.052	22.997	-426.35	0.192	1530.1		87.00
88	11.154	37.089	22.966	-438.86	0.193	1530.1		88.00
89	11.009	37.126	22.981	-451.37	0.194	1530.1		89.00
90	10.864	37.163	22.997	-463.88	0.195	1530.1		90.00
91	10.719	37.200	22.966	-476.39	0.196	1530.1		91.00
92	10.574	37.237	22.981	-488.90	0.197	1530.1		92.00
93	10.429	37.274	22.997	-501.41	0.198	1530.1		93.00
94	10.284	37.311	22.966	-513.92	0.199	1530.1		94.00
95	10.139	37.348	22.981	-526.43	0.200	1530.1		95.00
96	10.000	37.385	22.997	-538.94	0.201	1530.1		96.00
97	9.855	37.422	22.966	-551.45	0.202	1530.1		97.00
98	9.710	37.459	22.981	-563.96	0.203	1530.1		98.00
99	9.565	37.496	22.997	-576.47	0.204	1530.1		99.00
100	9.420	37.533	22.966	-588.98	0.205	1530.1		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. 988	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. 547	433. 56	. 038	1533. 7		8. 0
9	23. 985	34. 894	23. 567	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. 886	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. 938	385. 06	. 071	1528. 8		16. 0
17	22. 280	34. 934	23. 106	380. 56	. 075	1528. 4		17. 0
18	22. 203	34. 958	23. 131	378. 23	. 079	1528. 2		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. 322	355. 38	. 094	1526. 6		22. 0
23	21. 036	35. 027	23. 366	342. 63	. 097	1525. 3		23. 0
24	20. 291	35. 054	23. 475	318. 73	. 101	1523. 4		24. 1
25	20. 160	35. 059	23. 476	317. 95	. 104	1523. 0	8. 94	25. 1
26	19. 156	35. 275	23. 193	277. 31	. 107	1520. 5		26. 1
27	18. 946	35. 055	23. 101	286. 06	. 110	1519. 7		27. 1
28	18. 419	34. 862	23. 064	289. 64	. 113	1518. 0		28. 1
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	24.811	24.735	23.200	466.38	0.000	1534.1	0.00	0.00
1	24.811	24.736	23.201	466.39	0.003	1534.1		1.00
2	24.812	24.737	23.202	466.40	0.009	1534.1		2.00
3	24.812	24.738	23.203	466.41	0.014	1534.1		3.00
4	24.813	24.739	23.204	466.42	0.019	1534.1		4.00
5	24.814	24.740	23.205	466.43	0.024	1534.1	1.75	5.00
6	24.815	24.741	23.206	466.44	0.028	1534.1		6.00
7	24.816	24.742	23.207	466.45	0.033	1534.1		7.00
8	24.817	24.743	23.208	466.46	0.037	1534.1		8.00
9	24.818	24.744	23.209	466.47	0.042	1534.1		9.00
10	24.819	24.745	23.210	466.48	0.046	1534.1	4.95	10.00
11	24.820	24.746	23.211	466.49	0.051	1534.1		11.00
12	24.821	24.747	23.212	466.50	0.055	1534.1		12.00
13	24.822	24.748	23.213	466.51	0.059	1534.1		13.00
14	24.823	24.749	23.214	466.52	0.063	1534.1		14.00
15	24.824	24.750	23.215	466.53	0.067	1534.1	9.50	15.00
16	24.825	24.751	23.216	466.54	0.071	1534.1		16.00
17	24.826	24.752	23.217	466.55	0.075	1534.1		17.00
18	24.827	24.753	23.218	466.56	0.079	1534.1		18.00
19	24.828	24.754	23.219	466.57	0.083	1534.1	9.10	19.00
20	24.829	24.755	23.220	466.58	0.087	1534.1		20.00
21	24.830	24.756	23.221	466.59	0.091	1534.1		21.00
22	24.831	24.757	23.222	466.60	0.095	1534.1		22.00
23	24.832	24.758	23.223	466.61	0.099	1534.1		23.00
24	24.833	24.759	23.224	466.62	0.103	1534.1	11.39	24.00
25	24.834	24.760	23.225	466.63	0.107	1534.1		25.00
26	24.835	24.761	23.226	466.64	0.111	1534.1		26.00
27	24.836	24.762	23.227	466.65	0.115	1534.1		27.00
28	24.837	24.763	23.228	466.66	0.119	1534.1		28.00
29	24.838	24.764	23.229	466.67	0.123	1534.1	7.91	29.00
30	24.839	24.765	23.230	466.68	0.127	1534.1		30.00
31	24.840	24.766	23.231	466.69	0.131	1534.1		31.00
32	24.841	24.767	23.232	466.70	0.135	1534.1		32.00
33	24.842	24.768	23.233	466.71	0.139	1534.1		33.00
34	24.843	24.769	23.234	466.72	0.143	1534.1	6.57	34.00
35	24.844	24.770	23.235	466.73	0.147	1534.1		35.00
36	24.845	24.771	23.236	466.74	0.151	1534.1		36.00
37	24.846	24.772	23.237	466.75	0.155	1534.1		37.00
38	24.847	24.773	23.238	466.76	0.159	1534.1		38.00
39	24.848	24.774	23.239	466.77	0.163	1534.1	3.59	39.00
40	24.849	24.775	23.240	466.78	0.167	1534.1		40.00
41	24.850	24.776	23.241	466.79	0.171	1534.1		41.00
42	24.851	24.777	23.242	466.80	0.175	1534.1		42.00
43	24.852	24.778	23.243	466.81	0.179	1534.1		43.00
44	24.853	24.779	23.244	466.82	0.183	1534.1		44.00
45	24.854	24.780	23.245	466.83	0.187	1534.1	5.19	45.00
46	24.855	24.781	23.246	466.84	0.191	1534.1		46.00
47	24.856	24.782	23.247	466.85	0.195	1534.1		47.00
48	24.857	24.783	23.248	466.86	0.199	1534.1		48.00
49	24.858	24.784	23.249	466.87	0.203	1534.1		49.00
50	24.859	24.785	23.250	466.88	0.207	1534.1		50.00
51	24.860	24.786	23.251	466.89	0.211	1534.1		51.00
52	24.861	24.787	23.252	466.90	0.215	1534.1		52.00
53	24.862	24.788	23.253	466.91	0.219	1534.1		53.00
54	24.863	24.789	23.254	466.92	0.223	1534.1		54.00
55	24.864	24.790	23.255	466.93	0.227	1534.1		55.00
56	24.865	24.791	23.256	466.94	0.231	1534.1		56.00
57	24.866	24.792	23.257	466.95	0.235	1534.1		57.00
58	24.867	24.793	23.258	466.96	0.239	1534.1		58.00
59	24.868	24.794	23.259	466.97	0.243	1534.1		59.00
60	24.869	24.795	23.260	466.98	0.247	1534.1		60.00
61	24.870	24.796	23.261	466.99	0.251	1534.1		61.00
62	24.871	24.797	23.262	467.00	0.255	1534.1		62.00
63	24.872	24.798	23.263	467.01	0.259	1534.1		63.00
64	24.873	24.799	23.264	467.02	0.263	1534.1		64.00
65	24.874	24.800	23.265	467.03	0.267	1534.1		65.00
66	24.875	24.801	23.266	467.04	0.271	1534.1		66.00
67	24.876	24.802	23.267	467.05	0.275	1534.1		67.00
68	24.877	24.803	23.268	467.06	0.279	1534.1		68.00
69	24.878	24.804	23.269	467.07	0.283	1534.1		69.00
70	24.879	24.805	23.270	467.08	0.287	1534.1		70.00
71	24.880	24.806	23.271	467.09	0.291	1534.1		71.00
72	24.881	24.807	23.272	467.10	0.295	1534.1		72.00
73	24.882	24.808	23.273	467.11	0.299	1534.1		73.00
74	24.883	24.809	23.274	467.12	0.303	1534.1		74.00
75	24.884	24.810	23.275	467.13	0.307	1534.1		75.00
76	24.885	24.811	23.276	467.14	0.311	1534.1		76.00
77	24.886	24.812	23.277	467.15	0.315	1534.1		77.00
78	24.887	24.813	23.278	467.16	0.319	1534.1		78.00
79	24.888	24.814	23.279	467.17	0.323	1534.1		79.00
80	24.889	24.815	23.280	467.18	0.327	1534.1		80.00
81	24.890	24.816	23.281	467.19	0.331	1534.1		81.00
82	24.891	24.817	23.282	467.20	0.335	1534.1		82.00
83	24.892	24.818	23.283	467.21	0.339	1534.1		83.00
84	24.893	24.819	23.284	467.22	0.343	1534.1		84.00
85	24.894	24.820	23.285	467.23	0.347	1534.1		85.00
86	24.895	24.821	23.286	467.24	0.351	1534.1		86.00
87	24.896	24.822	23.287	467.25	0.355	1534.1		87.00
88	24.897	24.823	23.288	467.26	0.359	1534.1		88.00
89	24.898	24.824	23.289	467.27	0.363	1534.1		89.00
90	24.899	24.825	23.290	467.28	0.367	1534.1		90.00
91	24.900	24.826	23.291	467.29	0.371	1534.1		91.00
92	24.901	24.827	23.292	467.30	0.375	1534.1		92.00
93	24.902	24.828	23.293	467.31	0.379	1534.1		93.00
94	24.903	24.829	23.294	467.32	0.383	1534.1		94.00
95	24.904	24.830	23.295	467.33	0.387	1534.1		95.00
96	24.905	24.831	23.296	467.34	0.391	1534.1		96.00
97	24.906	24.832	23.297	467.35	0.395	1534.1		97.00
98	24.907	24.833	23.298	467.36	0.399	1534.1		98.00
99	24.908	24.834	23.299	467.37	0.403	1534.1		99.00
100	24.909	24.835	23.300	467.38	0.407	1534.1		100.00

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		1.1
2	24.000	34.350	2.151	471.17	0.010	1531.7		2.2
3	24.000	34.350	2.151	471.23	0.015	1531.7		3.3
4	24.000	34.350	2.151	471.29	0.020	1531.7		4.4
5	24.000	34.350	2.151	471.35	0.025	1531.7		5.5
6	24.000	34.350	2.151	471.41	0.030	1531.7		6.6
7	24.000	34.350	2.151	471.47	0.035	1531.7		7.7
8	24.000	34.350	2.151	471.53	0.040	1531.7		8.8
9	24.000	34.350	2.151	471.59	0.045	1531.7		9.9
10	24.000	34.350	2.151	471.65	0.050	1531.7		10.0
11	24.000	34.350	2.151	471.71	0.055	1531.7		11.1
12	24.000	34.350	2.151	471.77	0.060	1531.7		12.2
13	24.000	34.350	2.151	471.83	0.065	1531.7		13.3
14	24.000	34.350	2.151	471.89	0.070	1531.7		14.4
15	24.000	34.350	2.151	471.95	0.075	1531.7		15.5
16	24.000	34.350	2.151	472.01	0.080	1531.7		16.6
17	24.000	34.350	2.151	472.07	0.085	1531.7		17.7
18	24.000	34.350	2.151	472.13	0.090	1531.7		18.8
19	24.000	34.350	2.151	472.19	0.095	1531.7		19.9
20	24.000	34.350	2.151	472.25	0.100	1531.7		20.0
21	24.000	34.350	2.151	472.31	0.105	1531.7		21.1
22	24.000	34.350	2.151	472.37	0.110	1531.7		22.2
23	24.000	34.350	2.151	472.43	0.115	1531.7		23.3
24	24.000	34.350	2.151	472.49	0.120	1531.7		24.4
25	24.000	34.350	2.151	472.55	0.125	1531.7		25.5
26	24.000	34.350	2.151	472.61	0.130	1531.7		26.6
27	24.000	34.350	2.151	472.67	0.135	1531.7		27.7
28	24.000	34.350	2.151	472.73	0.140	1531.7		28.8
29	24.000	34.350	2.151	472.79	0.145	1531.7		29.9
30	24.000	34.350	2.151	472.85	0.150	1531.7		30.0
31	24.000	34.350	2.151	472.91	0.155	1531.7		31.1
32	24.000	34.350	2.151	472.97	0.160	1531.7		32.2
33	24.000	34.350	2.151	473.03	0.165	1531.7		33.3
34	24.000	34.350	2.151	473.09	0.170	1531.7		34.4
35	24.000	34.350	2.151	473.15	0.175	1531.7		35.5
36	24.000	34.350	2.151	473.21	0.180	1531.7		36.6
37	24.000	34.350	2.151	473.27	0.185	1531.7		37.7
38	24.000	34.350	2.151	473.33	0.190	1531.7		38.8
39	24.000	34.350	2.151	473.39	0.195	1531.7		39.9
40	24.000	34.350	2.151	473.45	0.200	1531.7		40.0
41	24.000	34.350	2.151	473.51	0.205	1531.7		41.1
42	24.000	34.350	2.151	473.57	0.210	1531.7		42.2
43	24.000	34.350	2.151	473.63	0.215	1531.7		43.3
44	24.000	34.350	2.151	473.69	0.220	1531.7		44.4
45	24.000	34.350	2.151	473.75	0.225	1531.7		45.5
46	24.000	34.350	2.151	473.81	0.230	1531.7		46.6
47	24.000	34.350	2.151	473.87	0.235	1531.7		47.7
48	24.000	34.350	2.151	473.93	0.240	1531.7		48.8
49	24.000	34.350	2.151	473.99	0.245	1531.7		49.9
50	24.000	34.350	2.151	474.05	0.250	1531.7		50.0
51	24.000	34.350	2.151	474.11	0.255	1531.7		51.1
52	24.000	34.350	2.151	474.17	0.260	1531.7		52.2
53	24.000	34.350	2.151	474.23	0.265	1531.7		53.3
54	24.000	34.350	2.151	474.29	0.270	1531.7		54.4
55	24.000	34.350	2.151	474.35	0.275	1531.7		55.5
56	24.000	34.350	2.151	474.41	0.280	1531.7		56.6
57	24.000	34.350	2.151	474.47	0.285	1531.7		57.7
58	24.000	34.350	2.151	474.53	0.290	1531.7		58.8
59	24.000	34.350	2.151	474.59	0.295	1531.7		59.9
60	24.000	34.350	2.151	474.65	0.300	1531.7		60.0
61	24.000	34.350	2.151	474.71	0.305	1531.7		61.1
62	24.000	34.350	2.151	474.77	0.310	1531.7		62.2
63	24.000	34.350	2.151	474.83	0.315	1531.7		63.3
64	24.000	34.350	2.151	474.89	0.320	1531.7		64.4
65	24.000	34.350	2.151	474.95	0.325	1531.7		65.5
66	24.000	34.350	2.151	475.01	0.330	1531.7		66.6
67	24.000	34.350	2.151	475.07	0.335	1531.7		67.7
68	24.000	34.350	2.151	475.13	0.340	1531.7		68.8
69	24.000	34.350	2.151	475.19	0.345	1531.7		69.9
70	24.000	34.350	2.151	475.25	0.350	1531.7		70.0
71	24.000	34.350	2.151	475.31	0.355	1531.7		71.1
72	24.000	34.350	2.151	475.37	0.360	1531.7		72.2
73	24.000	34.350	2.151	475.43	0.365	1531.7		73.3
74	24.000	34.350	2.151	475.49	0.370	1531.7		74.4
75	24.000	34.350	2.151	475.55	0.375	1531.7		75.5
76	24.000	34.350	2.151	475.61	0.380	1531.7		76.6
77	24.000	34.350	2.151	475.67	0.385	1531.7		77.7
78	24.000	34.350	2.151	475.73	0.390	1531.7		78.8
79	24.000	34.350	2.151	475.79	0.395	1531.7		79.9
80	24.000	34.350	2.151	475.85	0.400	1531.7		80.0
81	24.000	34.350	2.151	475.91	0.405	1531.7		81.1
82	24.000	34.350	2.151	475.97	0.410	1531.7		82.2
83	24.000	34.350	2.151	476.03	0.415	1531.7		83.3
84	24.000	34.350	2.151	476.09	0.420	1531.7		84.4
85	24.000	34.350	2.151	476.15	0.425	1531.7		85.5
86	24.000	34.350	2.151	476.21	0.430	1531.7		86.6
87	24.000	34.350	2.151	476.27	0.435	1531.7		87.7
88	24.000	34.350	2.151	476.33	0.440	1531.7		88.8
89	24.000	34.350	2.151	476.39	0.445	1531.7		89.9
90	24.000	34.350	2.151	476.45	0.450	1531.7		90.0
91	24.000	34.350	2.151	476.51	0.455	1531.7		91.1
92	24.000	34.350	2.151	476.57	0.460	1531.7		92.2
93	24.000	34.350	2.151	476.63	0.465	1531.7		93.3
94	24.000	34.350	2.151	476.69	0.470	1531.7		94.4
95	24.000	34.350	2.151	476.75	0.475	1531.7		95.5
96	24.000	34.350	2.151	476.81	0.480	1531.7		96.6
97	24.000	34.350	2.151	476.87	0.485	1531.7		97.7
98	24.000	34.350	2.151	476.93	0.490	1531.7		98.8
99	24.000	34.350	2.151	476.99	0.495	1531.7		99.9
100	24.000	34.350	2.151	477.05	0.500	1531.7		100.0

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	378	34.412	32.814	503.400	0.020	1533.4		4.4
5	337	34.573	32.905	494.990	0.030	1533.4		5.5
6	437	35.013	23.069	479.990	0.035	1533.4	4.34	6.6
7	775	35.791	23.388	448.76	0.035	1533.4		7.7
8	366	36.007	23.361	451.36	0.039	1541.4		8.8
9	188	36.040	23.336	452.75	0.044	1541.4		9.9
10	391	36.091	23.419	449.89	0.048	1541.4	8.71	10.10
11	241	36.126	23.491	439.09	0.053	1541.4		11.11
12	823	36.154	23.646	424.31	0.057	1540.5		12.12
13	773	36.157	23.758	413.69	0.061	1540.5		13.13
14	100	36.190	23.858	403.24	0.065	1540.5		14.14
15	866	36.175	23.939	400.63	0.069	1540.5	8.37	15.15
16	585	36.153	24.035	387.64	0.073	1540.5		16.16
17	127	36.253	24.251	366.75	0.077	1540.5		17.17
18	915	36.262	24.303	359.97	0.081	1540.5		18.18
19	566	36.255	24.427	350.07	0.084	1540.5		19.19
20	064	36.166	24.507	342.47	0.088	1540.5	9.49	20.20
21	828	36.307	24.694	325.70	0.091	1540.5		21.21
22	712	36.300	24.713	322.92	0.094	1540.5		22.22
23	455	36.252	24.723	322.06	0.098	1540.5		23.23
24	243	36.244	24.789	316.22	0.101	1540.5		24.24
25	893	36.233	24.800	314.80	0.104	1540.5	6.49	25.25
26	389	36.199	24.877	307.17	0.107	1540.5		26.26
27	775	36.173	24.905	295.34	0.110	1540.5		27.27
28	342	36.359	25.122	283.33	0.113	1540.5		28.28
29	452	36.452	25.171	279.62	0.116	1540.5		29.29
30	407	36.407	25.240	273.11	0.119	1540.5	7.95	30.30
31	944	36.398	25.350	273.14	0.122	1540.5		31.31
32	096	36.155	25.488	266.81	0.125	1540.5		32.32
33	660	36.751	25.473	259.99	0.128	1540.5		33.33
34	180	36.644	25.563	242.43	0.130	1540.5		34.34
35	900	36.312	25.710	228.41	0.133	1540.5	8.31	35.35
36	511	36.456	25.781	202.67	0.136	1540.5		36.36
37	323	36.641	25.097	191.56	0.139	1540.5		37.37
38	333	36.562	25.103	191.14	0.142	1540.5		38.38
39	119	36.562	25.175	184.31	0.145	1540.5		39.39
40	153	36.553	25.216	180.44	0.148	1540.5	9.60	40.40
41	200	36.569	25.217	180.37	0.149	1540.5		41.41
42	122	36.564	25.214	180.66	0.149	1540.5		42.42
43	003	36.522	25.142	187.94	0.147	1540.5		43.43
44	266	36.554	25.283	174.17	0.149	1540.5		44.44
45	443	36.608	25.320	170.64	0.151	1540.5	3.88	45.45
46	441	36.603	25.322	169.60	0.153	1540.5		46.46
47	941	36.635	25.339	169.27	0.154	1540.5		47.47
48	609	36.669	25.345	168.42	0.156	1540.5		48.48
49	003	36.669	25.350	168.00	0.158	1540.5		49.49
50	000	36.690	25.364	166.63	0.159	1540.5		50.50
51	500	36.715	25.463	157.99	0.163	1540.5		51.51
52	130	36.445	25.679	136.66	0.168	1540.5		52.52
53	291	36.539	25.780	127.57	0.173	1540.5		53.53
54	154	36.739	25.833	122.73	0.179	1540.5		54.54
55	370	36.785	25.855	117.93	0.180	1540.5		55.55
56	411	36.786	25.919	114.83	0.180	1540.5		56.56
57	853	36.639	26.919	114.93	0.180	1540.5		57.57
58	622	36.708	26.977	109.71	0.182	1540.5		58.58
59	375	36.698	27.021	105.92	0.183	1540.5		59.59
60	470	36.688	27.032	104.63	0.183	1540.5		60.60
61	451	36.715	27.057	102.38	0.184	1540.5		61.61
62	992	36.646	27.093	99.01	0.186	1540.5		62.62
63	446	36.655	27.116	96.94	0.187	1540.5		63.63
64	001	36.708	27.139	94.92	0.188	1540.5		64.64
65	933	36.706	27.151	93.92	0.189	1540.5		65.65
66	763	36.739	27.171	92.20	0.190	1540.5		66.66
67	914	36.744	27.185	91.01	0.191	1540.5		67.67
68	866	36.752	27.200	89.71	0.192	1540.5		68.68
69	359	36.779	27.279	82.72	0.195	1540.5		69.69
70	222	36.767	27.370	74.60	0.199	1540.5		70.70
71	400	36.734	27.444	67.98	0.203	1540.5		71.71
72	300	36.716	27.506	62.45	0.207	1540.5		72.72
73	244	36.664	27.599	53.84	0.211	1540.5		73.73
74	689	36.651	27.587	49.74	0.214	1540.5		74.74
75	333	36.676	27.765	38.58	0.217	1540.5		75.75
76	707	36.707	27.833	31.87	0.220	1540.5		76.76
77	234	36.724	27.943	22.05	0.223	1540.5		77.77
78	866	36.758	28.018	15.16	0.226	1540.5		78.78
79	978	36.821	28.098	7.72	0.229	1540.5		79.79
80	044	36.865	28.230	-4.43	0.232	1540.5		80.80
81	914	36.914	28.300	-10.83	0.235	1540.5		81.81
82	000	36.988	28.420	-21.36	0.238	1540.5		82.82
83	044	36.990	28.512	-30.01	0.241	1540.5		83.83
84	024	36.175	28.607	-38.54	0.244	1540.5		84.84
85	227	36.265	28.699	-46.75	0.247	1540.5		85.85

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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		5.1
7	0000	0000	0000	0000	0.041	1528.0		5.1
8	0000	0000	0000	0000	0.046	1528.0		5.1
9	0000	0000	0000	0000	0.052	1528.0		5.1
10	0000	0000	0000	0000	0.058	1528.0	8.14	10.00
11	0000	0000	0000	0000	0.063	1528.0		10.00
12	0000	0000	0000	0000	0.067	1528.0		10.00
13	0000	0000	0000	0000	0.071	1528.0		10.00
14	0000	0000	0000	0000	0.075	1528.0		10.00
15	0000	0000	0000	0000	0.079	1528.0	16.63	15.00
16	0000	0000	0000	0000	0.082	1528.0		15.00
17	0000	0000	0000	0000	0.086	1528.0		15.00
18	0000	0000	0000	0000	0.090	1528.0		15.00
19	0000	0000	0000	0000	0.093	1528.0		15.00
20	0000	0000	0000	0000	0.097	1528.0	9.62	10.00
21	0000	0000	0000	0000	0.100	1528.0		10.00
22	0000	0000	0000	0000	0.103	1528.0		10.00
23	0000	0000	0000	0000	0.105	1528.0		10.00
24	0000	0000	0000	0000	0.108	1528.0	10.64	10.00
25	0000	0000	0000	0000	0.111	1528.0		10.00
26	0000	0000	0000	0000	0.113	1528.0		10.00
27	0000	0000	0000	0000	0.116	1528.0		10.00
28	0000	0000	0000	0000	0.118	1499.0		10.00
29	0000	0000	0000	0000	0.122	1499.0	9.15	10.00
30	0000	0000	0000	0000	0.124	1499.0		10.00
31	0000	0000	0000	0000	0.126	1499.0		10.00
32	0000	0000	0000	0000	0.128	1499.0		10.00
33	0000	0000	0000	0000	0.130	1499.0		10.00
34	0000	0000	0000	0000	0.132	1499.0	5.04	10.00
35	0000	0000	0000	0000	0.134	1499.0		10.00
36	0000	0000	0000	0000	0.136	1499.0		10.00
37	0000	0000	0000	0000	0.138	1499.0		10.00
38	0000	0000	0000	0000	0.140	1499.0		10.00
39	0000	0000	0000	0000	0.141	1499.0	4.07	10.00
40	0000	0000	0000	0000	0.143	1499.0		10.00
41	0000	0000	0000	0000	0.145	1499.0		10.00
42	0000	0000	0000	0000	0.147	1499.0		10.00
43	0000	0000	0000	0000	0.149	1499.0		10.00
44	0000	0000	0000	0000	0.150	1499.0	3.23	10.00
45	0000	0000	0000	0000	0.152	1499.0		10.00
46	0000	0000	0000	0000	0.154	1499.0		10.00
47	0000	0000	0000	0000	0.155	1499.0		10.00
48	0000	0000	0000	0000	0.157	1499.0		10.00
49	0000	0000	0000	0000	0.159	1499.0	2.07	10.00
50	0000	0000	0000	0000	0.160	1499.0	3.51	10.00
51	0000	0000	0000	0000	0.167	1499.0	1.76	10.00
52	0000	0000	0000	0000	0.175	1499.0	1.84	10.00
53	0000	0000	0000	0000	0.186	1499.0		10.00

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 = ET
 WIND = 3 knots DIR = 250 DEPTH = 66 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	780	322	21.606	618.92	0.000	15228	0.00	0.00
1	780	322	21.606	618.97	0.006	15228		1.1
2	761	322	21.614	618.21	0.123	15228		0.000
3	749	322	21.616	618.01	0.193	15228		0.000
4	738	322	21.624	5903.40	0.24	15228		0.000
5	707	322	21.873	5903.61	0.304	15228	6.22	3.1
6	701	322	21.467	5906.67	0.35	15228		6.6
7	700	322	21.731	512.42	0.41	15228		0.000
8	700	322	21.147	466.28	0.45	15228		0.000
9	700	322	21.204	440.04	0.50	15228		0.000
10	700	322	21.480	413.87	0.54	15228	15.83	1.0
11	700	322	21.734	404.19	0.58	15228		1.1
12	700	322	21.856	402.02	0.62	15228		1.2
13	700	322	21.903	399.60	0.66	15228		1.3
14	700	322	21.960	394.41	0.70	15228		1.4
15	700	322	21.944	393.69	0.74	15228	5.29	1.5
16	700	322	21.113	379.80	0.78	15228		1.6
17	700	322	21.323	368.99	0.82	15228		1.7
18	700	322	21.318	360.34	0.86	15228		1.8
19	700	322	21.409	334.44	0.89	15228	10.28	1.9
20	700	322	21.188	327.53	0.92	15228		2.0
21	700	322	21.371	309.15	0.96	15228		2.1
22	700	322	21.451	292.44	0.99	15228		2.2
23	700	322	21.416	290.03	1.02	15228		2.3
24	700	322	21.361	291.98	1.05	15228	8.92	2.4
25	700	322	21.320	274.94	1.08	15228		2.5
26	700	322	21.455	253.55	1.10	15228		2.6
27	700	322	21.400	239.31	1.13	15228		2.7
28	700	322	21.314	229.97	1.16	15228		2.8
29	700	322	21.309	223.4	1.18	15228	7.72	2.9
30	700	322	21.307	213.10	1.20	15228		3.0
31	700	322	21.306	203.66	1.22	15228		3.1
32	700	322	21.305	193.61	1.24	15228		3.2
33	700	322	21.304	183.66	1.26	15228		3.3
34	700	322	21.303	173.70	1.28	15228		3.4
35	700	322	21.302	163.73	1.30	15228	3.04	3.5
36	700	322	21.301	153.77	1.32	15228		3.6
37	700	322	21.300	143.81	1.34	15228		3.7
38	700	322	21.299	133.85	1.36	15228		3.8
39	700	322	21.298	123.89	1.38	15228		3.9
40	700	322	21.297	113.93	1.40	15228	7.96	4.0
41	700	322	21.296	103.97	1.42	15228		4.1
42	700	322	21.295	93.99	1.44	15228		4.2
43	700	322	21.294	84.03	1.46	15228		4.3
44	700	322	21.293	74.07	1.48	15228		4.4
45	700	322	21.292	64.11	1.50	15228	2.07	4.5
46	700	322	21.291	54.15	1.52	15228		4.6
47	700	322	21.290	44.19	1.54	15228		4.7
48	700	322	21.289	34.23	1.56	15228		4.8
49	700	322	21.288	24.27	1.58	15228		4.9
50	700	322	21.287	14.31	1.60	15228	4.22	5.0
51	700	322	21.286	4.35	1.62	15228		5.1
52	700	322	21.285	0.39	1.64	15228	2.46	5.2
53	700	322	21.284	0.43	1.66	15228		5.3
54	700	322	21.283	0.47	1.68	15228		5.4
55	700	322	21.282	0.51	1.70	15228	4.04	5.5

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	00	00	00	0.000	15229.0	0.00	0.0
1	00	00	00	00	0.006	15228.0		0.000
2	00	00	00	00	0.012	15228.0		0.000
3	00	00	00	00	0.018	15228.0		0.000
4	00	00	00	00	0.024	15228.0		0.000
5	00	00	00	00	0.030	15228.0	4.97	5.1
6	00	00	00	00	0.035	15228.0		5.0
7	00	00	00	00	0.040	15228.0		5.0
8	00	00	00	00	0.045	15228.0		5.0
9	00	00	00	00	0.049	15228.0		5.0
10	00	00	00	00	0.053	15228.0	17.46	10.0
11	00	00	00	00	0.057	15228.0		10.0
12	00	00	00	00	0.061	15228.0		10.0
13	00	00	00	00	0.065	15228.0		10.0
14	00	00	00	00	0.069	15228.0		10.0
15	00	00	00	00	0.073	15228.0	5.80	5.0
16	00	00	00	00	0.077	15228.0		5.0
17	00	00	00	00	0.081	15228.0		5.0
18	00	00	00	00	0.084	15228.0		5.0
19	00	00	00	00	0.088	15228.0		5.0
20	00	00	00	00	0.091	15228.0	9.73	9.0
21	00	00	00	00	0.094	15228.0		9.0
22	00	00	00	00	0.097	15228.0		9.0
23	00	00	00	00	0.100	15228.0		9.0
24	00	00	00	00	0.103	15228.0		9.0
25	00	00	00	00	0.106	15228.0	10.21	10.0
26	00	00	00	00	0.108	15228.0		10.0
27	00	00	00	00	0.110	15228.0		10.0
28	00	00	00	00	0.113	15228.0		10.0
29	00	00	00	00	0.115	15228.0		10.0
30	00	00	00	00	0.118	15228.0	6.22	6.0
31	00	00	00	00	0.120	1496.5		6.0
32	00	00	00	00	0.122	1491.4		6.0
33	00	00	00	00	0.124	1489.0		6.0
34	00	00	00	00	0.126	1486.6		6.0
35	00	00	00	00	0.128	1483.4	7.46	7.0
36	00	00	00	00	0.130	1485.2		7.0
37	00	00	00	00	0.132	1484.9		7.0
38	00	00	00	00	0.134	1484.6		7.0
39	00	00	00	00	0.136	1484.4		7.0
40	00	00	00	00	0.138	1484.4	3.51	3.0
41	00	00	00	00	0.140	1484.7		3.0
42	00	00	00	00	0.142	1483.5		3.0
43	00	00	00	00	0.143	1483.6		3.0
44	00	00	00	00	0.145	1483.6		3.0
45	00	00	00	00	0.147	1483.6	3.40	3.0
46	00	00	00	00	0.149	1483.7		3.0
47	00	00	00	00	0.151	1483.7		3.0
48	00	00	00	00	0.152	1483.6		3.0
49	00	00	00	00	0.154	1483.6		3.0
50	00	00	00	00	0.156	1483.4	3.48	3.0
51	00	00	00	00	0.158	1483.4		3.0
52	00	00	00	00	0.160	1483.4	3.34	3.0
53	00	00	00	00	0.161	1483.5		3.0
54	00	00	00	00	0.163	1483.5	1.37	1.0
55	00	00	00	00	0.166	1483.5		1.0

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 = 69 meters

DE	TE	SA	ST	AN	HZ	VE	BV	FR
0	994	175	31.508	628.29	0.000	1529	0.00	0.0
1	994	175	31.508	628.29	0.006	1529		1.1
2	994	175	31.508	628.29	0.013	1529		2.2
3	994	175	31.508	628.29	0.019	1529		3.3
4	994	175	31.508	628.29	0.025	1529		4.4
5	994	175	31.508	628.29	0.031	1529		5.5
6	994	175	31.508	628.29	0.036	1529	1.54	6.6
7	994	175	31.508	628.29	0.042	1529		7.7
8	994	175	31.508	628.29	0.048	1529		8.8
9	994	175	31.508	628.29	0.053	1529		9.9
10	994	175	31.508	628.29	0.058	1529	17.65	10.0
11	994	175	31.508	628.29	0.063	1529		11.1
12	994	175	31.508	628.29	0.068	1529		12.2
13	994	175	31.508	628.29	0.074	1529		13.3
14	994	175	31.508	628.29	0.078	1529	7.19	14.4
15	994	175	31.508	628.29	0.082	1529		15.5
16	994	175	31.508	628.29	0.086	1529		16.6
17	994	175	31.508	628.29	0.090	1529		17.7
18	994	175	31.508	628.29	0.093	1529		18.8
19	994	175	31.508	628.29	0.096	1529	12.30	19.9
20	994	175	31.508	628.29	0.099	1529		20.0
21	994	175	31.508	628.29	0.102	1529		21.1
22	994	175	31.508	628.29	0.104	1529		22.2
23	994	175	31.508	628.29	0.107	1529		23.3
24	994	175	31.508	628.29	0.110	1529	9.66	24.4
25	994	175	31.508	628.29	0.112	1529		25.5
26	994	175	31.508	628.29	0.114	1529		26.6
27	994	175	31.508	628.29	0.116	1529		27.7
28	994	175	31.508	628.29	0.119	1529		28.8
29	994	175	31.508	628.29	0.121	1529	7.29	29.9
30	994	175	31.508	628.29	0.123	1529		30.0
31	994	175	31.508	628.29	0.125	1529		31.1
32	994	175	31.508	628.29	0.127	1529		32.2
33	994	175	31.508	628.29	0.129	1529		33.3
34	994	175	31.508	628.29	0.131	1529	4.63	34.4
35	994	175	31.508	628.29	0.133	1529		35.5
36	994	175	31.508	628.29	0.135	1529		36.6
37	994	175	31.508	628.29	0.136	1529		37.7
38	994	175	31.508	628.29	0.138	1529		38.8
39	994	175	31.508	628.29	0.140	1529	3.15	39.9
40	994	175	31.508	628.29	0.142	1529		40.0
41	994	175	31.508	628.29	0.144	1529		41.1
42	994	175	31.508	628.29	0.146	1529		42.2
43	994	175	31.508	628.29	0.147	1529		43.3
44	994	175	31.508	628.29	0.149	1529	2.23	44.4
45	994	175	31.508	628.29	0.151	1529		45.5
46	994	175	31.508	628.29	0.153	1529		46.6
47	994	175	31.508	628.29	0.155	1529		47.7
48	994	175	31.508	628.29	0.156	1529		48.8
49	994	175	31.508	628.29	0.158	1529		49.9
50	994	175	31.508	628.29	0.160	1529	2.37	50.0
51	994	175	31.508	628.29	0.162	1529		51.1
52	994	175	31.508	628.29	0.164	1529		52.2
53	994	175	31.508	628.29	0.166	1529		53.3
54	994	175	31.508	628.29	0.168	1529	4.04	54.4
55	994	175	31.508	628.29	0.170	1529		55.5
56	994	175	31.508	628.29	0.172	1529		56.6
57	994	175	31.508	628.29	0.174	1529		57.7
58	994	175	31.508	628.29	0.176	1529	1.85	58.8
59	994	175	31.508	628.29	0.178	1529		59.9
60	994	175	31.508	628.29	0.180	1529		60.0
61	994	175	31.508	628.29	0.182	1529		61.1
62	994	175	31.508	628.29	0.184	1529		62.2
63	994	175	31.508	628.29	0.186	1529		63.3
64	994	175	31.508	628.29	0.188	1529		64.4
65	994	175	31.508	628.29	0.190	1529		65.5
66	994	175	31.508	628.29	0.192	1529		66.6
67	994	175	31.508	628.29	0.194	1529		67.7
68	994	175	31.508	628.29	0.196	1529		68.8
69	994	175	31.508	628.29	0.198	1529		69.9
70	994	175	31.508	628.29	0.200	1529		70.0

SHIP KN CRUISE ACE-3 STATION 44 CAST 1
 START 40 46.50 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	31.291	21.798	600.51	.018	1519.4		3.0
4	20.529	31.412	22.814	503.40	.024	1534.9		4.0
5	20.308	31.111	21.872	593.54	.030	1518.8	3.36	5.1
6	20.300	31.339	21.913	589.63	.035	1518.6		6.0
7	19.799	31.326	22.022	578.34	.041	1517.4		7.0
8	19.558	31.322	22.104	571.45	.046	1516.5		8.0
9	18.558	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	31.311	22.715	513.08	.062	1511.7		11.0
12	17.510	31.353	22.775	507.23	.057	1511.1		12.0
13	17.385	31.326	22.937	501.42	.072	1510.9		13.0
14	16.982	31.376	22.984	437.44	.077	1509.5		14.0
15	16.393	31.381	22.16	465.30	.082	1509.1	8.69	15.0
16	16.242	31.377	22.240	462.03	.087	1508.0		16.0
17	16.200	31.394	22.291	458.14	.091	1507.6		17.0
18	16.096	31.391	22.337	453.80	.096	1507.3		18.0
19	15.996	31.388	22.372	450.47	.101	1507.1		19.0
20	15.061	31.001	22.642	424.68	.105	1504.3	7.93	20.0
21	14.566	31.139	22.833	404.58	.109	1502.8		21.0
22	14.017	31.136	22.987	391.79	.113	1501.1		22.0
23	13.627	31.190	23.093	381.71	.117	1499.8		23.0
24	13.203	31.210	23.210	370.56	.121	1498.8		24.1
25	13.003	31.206	23.206	370.95	.125	1498.8	9.02	25.1
26	13.548	31.274	24.946	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
 POS. = LC STA. TYPE = BT
 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		1.11
2	24.305	31.664	31.031	674.13	.013	1529.5		3.00
3	24.347	31.671	31.023	674.84	.020	1529.6		3.00
4	25.278	31.412	31.814	503.40	.026	1534.9		4.00
5	24.144	31.674	31.035	668.99	.033	1529.1	2.73	5.11
6	24.012	31.685	31.132	664.49	.039	1528.8		5.00
7	23.737	31.524	31.166	661.28	.045	1528.1		7.00
8	23.733	31.472	31.052	672.23	.052	1527.9		8.00
9	23.320	31.572	31.182	659.14	.059	1527.5		9.00
10	22.648	31.685	31.323	627.20	.065	1525.5	8.14	10.00
11	22.542	31.731	31.337	621.09	.071	1525.3		11.00
12	22.006	31.776	31.770	603.60	.077	1524.0		12.00
13	20.198	31.738	31.825	559.99	.083	1519.1		13.00
14	19.712	31.824	31.484	540.97	.089	1517.9		14.00
15	19.878	31.828	31.630	521.28	.094	1515.5	12.80	15.00
16	16.860	31.761	31.064	479.28	.099	1509.9		16.00
17	15.770	31.006	31.458	438.40	.104	1506.4		17.00
18	15.565	31.024	31.564	432.08	.108	1505.8		18.00
19	15.410	31.048	31.609	427.91	.112	1505.4		19.00
20	13.796	31.386	31.210	370.51	.116	1500.6	15.26	20.00
21	13.285	31.476	31.383	354.06	.120	1499.0		21.00
22	10.329	31.753	31.100	284.73	.123	1489.9		22.00
23	10.378	31.749	31.132	282.69	.126	1489.9		23.00
24	10.114	31.772	31.194	276.74	.129	1488.8		24.00
25	9.982	31.784	31.266	273.78	.132	1487.9	12.09	25.00
26	9.908	31.793	31.354	271.07	.134	1487.7		26.00
27	9.852	31.801	31.442	266.78	.137	1486.6		27.00
28	9.822	31.806	31.512	263.58	.140	1486.6		28.00
29	9.800	31.808	31.577	263.10	.142	1486.6		29.00
30	9.629	31.838	31.643	264.37	.145	1486.7	3.86	30.00
31	9.619	31.844	31.654	264.04	.147	1486.7		31.00
32	9.617	31.846	31.663	263.82	.150	1486.7		32.00
33	9.618	31.846	31.663	263.61	.153	1486.8		33.00
34	9.620	31.850	31.663	263.37	.156	1486.8		34.00
35	9.619	31.851	31.663	263.42	.158	1486.8	1.25	35.00
36	9.609	31.851	31.663	263.17	.161	1486.8		36.00
37	9.608	31.853	31.641	263.04	.163	1486.8		37.00

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	34	569	31.795	21.051	677.05	0.000	1530.00	0.00
1	34	569	31.795	21.047	672.50	.007	1530.00	1.00
2	34	569	31.795	21.049	673.33	.013	1530.00	2.00
3	34	569	31.795	21.052	673.06	.020	1530.00	3.00
4	34	569	31.795	21.054	673.40	.026	1530.00	4.00
5	34	569	31.795	21.066	670.85	.033	1530.00	5.00
6	34	569	31.795	21.061	671.35	.039	1530.00	6.00
7	34	569	31.795	21.041	671.35	.045	1530.00	7.00
8	34	569	31.795	21.030	643.73	.052	1530.00	8.00
9	34	569	31.795	21.033	615.73	.058	1530.00	9.00
10	34	569	31.795	21.049	581.52	.064	1530.00	10.00
11	34	569	31.795	21.037	563.65	.070	1530.00	11.00
12	34	569	31.795	21.026	521.55	.075	1530.00	12.00
13	34	569	31.795	21.033	441.72	.080	1530.00	13.00
14	34	569	31.795	21.043	405.43	.084	1530.00	14.00
15	34	569	31.795	21.043	332.44	.088	1497.66	15.00
16	34	569	31.795	21.033	325.26	.091	1495.11	16.00
17	34	569	31.795	21.033	316.34	.095	1494.11	17.00
18	34	569	31.795	21.033	312.05	.098	1493.11	18.00
19	34	569	31.795	21.033	306.36	.101	1493.11	19.00
20	34	569	31.795	21.033	304.87	.104	1493.11	20.00
21	34	569	31.795	21.020	300.84	.107	1493.11	21.00
22	34	569	31.795	21.021	302.79	.110	1493.11	22.00
23	34	569	31.795	21.023	302.62	.113	1493.11	23.00
24	34	569	31.795	21.020	301.93	.116	1493.11	24.00
25	34	569	31.795	21.020	301.99	.119	1493.11	25.00
26	34	569	31.795	21.020	301.76	.122	1493.11	26.00
27	34	569	31.795	21.020	301.76	.122	1493.11	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 = DT
 WIND = 21 knots DIR = 200 DEPTH = 25 meters

DE	TE	SA	ST	AN	HZ	VE	BV	PR
0	04.738	01.962	21.130	664.47	0.000	1530.8	0.00	0.0
1	04.738	01.962	21.127	664.79	0.007	1530.9		1.0
2	04.716	01.962	21.134	664.21	0.013	1530.8		2.0
3	04.647	01.977	21.166	661.15	0.020	1530.7		3.0
4	05.798	04.412	22.814	503.40	0.026	1534.9		4.0
5	04.769	01.970	21.126	665.11	0.032	1531.0	- .80	5.1
6	04.476	01.973	21.214	656.69	0.038	1530.3		6.0
7	04.704	01.815	21.605	619.21	0.044	1525.7		7.0
8	04.390	01.989	23.313	551.40	0.050	1520.4		8.0
9	04.789	01.111	23.472	488.45	0.056	1511.4		9.0
10	04.789	01.339	23.749	414.23	0.060	1506.8	19.89	10.0
11	04.936	01.435	24.002	390.13	0.064	1504.2		11.0
12	04.867	01.436	24.018	388.68	0.068	1504.0		12.0
13	04.798	01.426	24.032	387.34	0.072	1503.7		13.0
14	04.441	01.475	24.146	376.48	0.076	1502.7		14.0
15	04.869	01.524	24.302	361.62	0.079	1500.9	9.02	15.0
16	04.730	01.587	24.577	335.41	0.083	1497.7		16.0
17	04.030	01.657	24.764	317.60	0.086	1494.9		17.0
18	04.897	01.685	24.816	312.65	0.089	1494.4		18.0
19	04.826	01.698	24.834	310.94	0.092	1494.0		19.0
20	04.768	01.710	24.854	309.07	0.095	1494.1	9.01	20.0
21	04.735	01.710	24.857	308.84	0.099	1494.1		21.0
22	04.751	01.715	24.862	308.42	0.102	1494.1		22.0
23	04.790	01.730	24.866	308.00	0.105	1494.3		23.0
24	04.777	01.716	24.857	308.84	0.106	1494.2		24.0

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 = JT
 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	1526.3	0.00	0.0
1	23.306	31.098	20.892	687.25	.007	1526.3		1.00
2	23.307	31.100	20.894	687.26	.014	1526.4		2.00
3	23.305	31.082	20.880	688.58	.021	1526.4		3.00
4	23.307	31.412	22.814	503.40	.027	1534.9		4.00
5	20.389	31.586	21.928	588.20	.033	1520.7	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	24.640	329.26	.051	1494.0		9.00
10	11.862	32.489	24.665	326.85	.054	1494.0	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	321.63	.061	1493.6		12.00
13	11.738	32.532	24.723	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	11.739	32.546	24.733	320.38	.074	1493.7		16.00
17	11.739	32.547	24.735	320.36	.077	1493.7		17.00
18	11.739	32.551	24.738	320.06	.080	1493.7		18.00
19	11.739	32.552	24.739	320.04	.083	1493.8		19.00
20	11.736	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

AC3

ST 48

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48

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	31.869	31.095	667.90	0.000	1530.4	0.00	0.0
1	24.611	31.869	31.095	667.93	.007	1530.4		1.0
2	24.610	31.873	31.097	667.72	.013	1530.4		2.0
3	24.610	31.873	31.097	667.75	.020	1530.5		3.0
4	24.610	31.873	31.097	667.75	.026	1534.9		4.0
5	24.615	31.875	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	669.17	.058	1530.4		9.0
10	24.439	31.868	31.145	669.43	.065	1530.3	2.66	10.0
11	24.380	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	19.539	31.923	32.536	530.29	.090	1517.5		14.0
15	15.128	32.338	33.994	400.55	.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	21.120	665.48	.007	1530.4		1.00
2	24.584	31.894	21.122	665.40	.013	1530.4		2.00
3	24.586	31.894	21.121	665.46	.020	1530.4		3.00
4	24.587	31.894	21.121	665.40	.026	1530.4		4.00
5	24.588	31.898	21.124	665.30	.032	1530.3	.68	5.1
6	24.409	31.906	21.156	662.22	.038	1530.3		6.00
7	24.294	31.710	21.339	642.84	.045	1527.1		7.00
8	20.023	31.914	22.024	550.37	.051	1519.6		8.00
9	19.691	32.066	22.606	523.40	.056	1518.0		9.00
10	19.432	32.047	22.658	518.51	.061	1517.3	15.22	10.00
11	19.320	32.195	23.742	414.92	.066	1505.2		11.00
12	19.388	32.444	24.357	356.25	.070	1498.8		12.00
13	19.401	32.592	24.645	328.90	.073	1496.0		13.00
14	19.288	32.652	24.712	322.48	.076	1495.7		14.00
15	19.241	32.653	24.722	321.56	.080	1495.6	17.43	15.00
16	19.221	32.665	24.735	320.32	.083	1495.6		16.00
17	19.182	32.672	24.748	319.15	.086	1495.4		17.00
18	19.132	32.673	24.758	318.21	.089	1495.3		18.00
19	19.037	32.683	24.784	315.77	.092	1495.0		19.00
20	11.934	32.696	24.813	313.03	.096	1494.7	3.65	20.00
21	11.877	32.730	24.850	309.52	.099	1494.5		21.00
22	11.886	32.731	24.849	309.60	.102	1494.6		22.00
23	11.890	32.724	24.843	310.20	.105	1494.6		23.00
24	11.871	32.720	24.844	310.19	.108	1494.5		24.1
25	11.871	32.720	24.844	310.19	.108	1494.5		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	.007	1530.1		1.0
2	24.455	31.902	21.166	661.10	.013	1530.1		2.0
3	24.408	31.900	21.178	659.98	.020	1530.0		3.0
4	25.278	34.412	22.814	503.40	.026	1534.9		4.0
5	24.346	31.892	21.183	659.58	.032	1529.9	1.89	5.1
6	23.927	31.769	21.220	656.10	.038	1528.7		6.0
7	22.894	31.797	21.538	625.60	.044	1526.2		7.0
8	21.512	31.796	21.920	589.05	.050	1523.6		8.0
9	18.825	31.760	22.592	534.82	.056	1515.2		9.0
10	15.076	32.415	23.964	393.74	.061	1504.6	20.47	10.0
11	14.148	32.446	24.184	372.75	.064	1501.7		11.0
12	12.582	32.470	24.515	341.21	.068	1496.3		12.0
13	12.165	32.592	24.689	324.65	.071	1495.2		13.0
14	11.816	32.668	24.813	312.87	.075	1494.1		14.0
15	11.842	32.685	24.821	312.12	.078	1494.2	11.22	15.0
16	11.705	32.713	24.886	307.61	.081	1493.8		16.0
17	11.633	32.716	24.884	306.18	.084	1493.6		17.0
18	11.595	32.731	24.902	304.46	.087	1493.5		18.0
19	11.587	32.733	24.905	304.18	.090	1493.5		19.0
20	11.579	32.729	24.904	304.32	.093	1493.5	3.49	20.0
21	11.546	32.739	24.918	303.01	.096	1493.4		21.0
22	11.550	32.750	24.926	302.31	.099	1493.4		22.0
23	11.552	32.748	24.924	302.53	.102	1493.4		23.0
24	11.550	32.747	24.923	302.57	.103	1493.5		24.1
25	11.559	32.738	24.915	303.44	.108	1493.5	1.23	25.1
26	11.540	32.739	24.919	303.05	.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	21.916	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	31.831	22.071	574.73	.070	1521.6		11.0

SHIP KN CRUISE ACE-3 STATION 53 CAST 1
 START 39 45.60 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	1530.33	0.00	0.0
1	24.538	31.904	21.143	663.28	.007	1530.33		1.0
2	24.543	31.906	21.143	663.36	.013	1530.33		2.0
3	24.498	31.900	21.132	662.55	.020	1530.33		3.0
4	25.278	34.412	22.814	503.40	.026	1534.99		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	659.46	.045	1529.99		7.0
8	24.162	31.879	21.235	654.71	.051	1529.99		8.0
9	21.976	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	23.750	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	1497.00		13.0
14	12.130	32.636	24.730	320.82	.078	1495.00		14.0
15	11.736	32.698	24.851	309.25	.081	1493.33	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	297.26	.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	296.31	.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	24.915	31.888	21.020	675.38	.020	1531.1		3.00
4	24.917	31.814	22.814	503.40	.026	1531.4		4.00
5	24.920	31.896	21.050	672.37	.033	1531.0	2.20	5.1
6	24.945	31.903	21.051	672.29	.039	1531.1		6.00
7	24.955	31.900	21.045	672.68	.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	578.99	.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	1505.2	19.77	15.00
16	12.234	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	1493.0		18.00
19	11.212	32.754	24.990	296.16	.108	1490.0		19.00
20	11.195	32.749	24.989	296.26	.111	1490.1	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	1492.2		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	31.859	21.086	668.75	.007	1530.4		1.0
2	24.628	31.862	21.085	668.91	.013	1530.5		2.0
3	24.631	31.861	21.083	669.16	.020	1530.5		3.0
4	25.278	34.412	22.814	503.40	.026	1534.9		4.0
5	24.639	31.865	21.084	669.11	.032	1530.6	-1.26	5.1
6	24.639	31.866	21.084	669.11	.038	1530.6		6.0
7	24.598	31.873	21.102	667.44	.045	1530.5		7.0
8	24.637	31.870	21.088	668.80	.052	1530.6		8.0
9	24.621	31.873	21.095	668.16	.058	1530.6		9.0
10	24.575	31.878	21.112	666.88	.065	1530.5	2.08	10.0
11	24.646	31.885	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	1532.9		13.0
14	24.228	31.937	21.259	652.62	.092	1532.9		14.0
15	24.080	31.903	21.277	650.93	.098	1532.9	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	24.442	31.858	21.136	663.91	0.000	1530.0	0.00	0.0
1	24.438	31.859	21.133	664.28	.007	1530.0		1.0
2	24.439	31.860	21.133	664.26	.013	1530.1		2.0
3	24.439	31.861	21.134	664.26	.020	1530.1		3.0
4	24.438	31.861	22.814	503.40	.026	1534.9		4.0
5	24.450	31.867	21.141	663.65	.032	1530.1	.85	5.1
6	24.432	31.872	21.150	662.81	.038	1530.1		6.0
7	24.390	31.881	21.170	660.96	.045	1530.0		7.0
8	24.340	31.894	21.194	658.64	.051	1529.9		8.0
9	22.226	31.773	21.707	609.54	.058	1524.5		9.0
10	17.160	32.049	23.214	465.30	.063	1510.6	17.69	10.0
11	15.514	32.270	23.757	413.46	.067	1505.9		11.0
12	12.470	32.549	24.598	333.32	.071	1496.2		12.0
13	11.323	32.598	24.848	309.47	.074	1492.3		13.0
14	11.211	32.685	24.936	301.14	.077	1492.0		14.0
15	11.151	32.729	24.979	297.06	.080	1491.9	16.11	15.0
16	11.160	32.732	24.982	296.81	.083	1491.9		16.0
17	11.154	32.738	24.988	296.29	.086	1491.9		17.0
18	11.161	32.740	24.988	296.26	.089	1492.0		18.0
19	11.147	32.747	24.996	295.33	.092	1491.9		19.0
20	11.140	32.762	25.009	294.23	.095	1492.0	2.09	20.0
21	11.136	32.758	25.007	294.57	.098	1492.0		21.0
22	11.132	32.764	25.012	294.07	.101	1492.0		22.0
23	11.132	32.765	25.013	294.04	.104	1492.0		23.0
24	11.132	32.765	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	.007	1529.9		1.00
2	04.000	01.875	01.180	659.83	.013	1529.9		2.00
3	04.000	01.876	01.181	659.78	.020	1529.9		3.00
4	04.000	01.412	02.814	503.40	.026	1534.9		4.00
5	04.000	01.879	01.182	659.71	.032	1529.9	- .74	5.1
6	04.000	01.881	01.183	659.62	.038	1529.9		6.00
7	04.000	01.888	01.193	658.73	.045	1529.9		7.00
8	04.000	01.888	01.193	658.34	.051	1529.9		8.00
9	04.000	01.886	01.187	659.31	.057	1529.9		9.00
10	04.000	01.897	02.049	481.08	.063	1512.9	16.78	10.00
11	04.000	01.874	02.690	419.94	.067	1506.9		11.00
12	04.000	01.837	04.596	333.49	.071	1496.1		12.00
13	04.000	01.838	04.856	307.84	.074	1492.6		13.00
14	04.000	01.726	04.978	297.14	.077	1491.1		14.00
15	04.000	01.738	04.991	295.95	.080	1491.1	16.90	15.00
16	04.000	01.737	04.989	296.12	.083	1491.1		16.00
17	04.000	01.743	04.995	295.59	.086	1491.1		17.00
18	04.000	01.753	05.004	294.76	.089	1491.1		18.00
19	04.000	01.753	05.012	294.02	.092	1491.1		19.00
20	04.000	01.758	05.009	294.30	.095	1491.1	1.65	20.00
21	04.000	01.758	05.009	294.35	.098	1491.1		21.00
22	04.000	01.763	05.013	294.03	.101	1491.1		22.00
23	04.000	01.762	05.013	294.03	.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		1.00
2	24.622	31.854	21.081	669.29	.013	1530.5		2.00
3	24.622	31.854	21.081	669.35	.020	1530.9		3.00
4	25.278	31.412	22.814	503.40	.026	1534.9		4.00
5	24.614	31.852	21.081	669.40	.032	1530.5	.38	5.1
6	24.613	31.856	21.084	669.12	.038	1530.5		6.00
7	24.596	31.856	21.088	668.83	.045	1530.5		7.00
8	24.584	31.855	21.092	668.41	.052	1530.5		8.00
9	24.489	31.854	21.127	665.11	.058	1530.3		9.00
10	24.285	31.856	21.182	459.89	.065	1539.0	3.91	10.00
11	23.885	31.860	21.255	337.97	.072	1522.0		11.00
12	19.980	31.764	22.453	337.97	.078	1516.8		12.00
13	14.715	32.289	23.945	335.67	.082	1503.4		13.00
14	12.048	32.406	24.567	336.31	.086	1494.6		14.00
15	11.322	32.658	24.895	330.06	.089	1492.4	23.40	15.00
16	11.235	32.708	24.930	329.88	.092	1492.2		16.00
17	11.209	32.724	24.967	329.48	.095	1492.1		17.00
18	11.189	32.737	24.981	329.67	.098	1492.1		18.00
19	11.184	32.740	24.984	329.69	.101	1492.1		19.00
20	11.180	32.747	24.990	329.61	.104	1492.1	3.73	20.00
21	11.179	32.749	24.992	329.61	.107	1492.1		21.00
22	11.181	32.750	24.993	329.94	.110	1492.1		22.00
23	11.181	32.754	24.995	329.70	.113	1492.1		23.00
24	11.185	32.757	24.997	329.54	.114	1492.2		23.4

WATER CHEMISTRY DATA

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

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 DEPTH
7	6 AUG 77	08:59:00	40 46.2 N	72 28.9 W	28

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

WIND	WIND	BAROMETRIC	AIR TEMP
DIRECTION	SPEED	PRESSURE	DRY BULB
260	5	-	-

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 18	DATE 7 AUG 77	TIME 22:37:00	LATITUDE 40 25.4 N	LONGITUDE 72 12.6 W	SONIC DEPTH 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 18	DATE 7 AUG 77	TIME 22:37:00	LATITUDE 40 25.4 N	LONGITUDE 72 12.6 W	SONIC DEPTH 57
	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP 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 19	DATE 8 AUG 77	TIME 04:31:00	LATITUDE 40 19.6 N	LONGITUDE 72 8.8 W	SONIC DEPTH 62
	WIND DIRECTION 260	WIND SPEED 4	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

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
21	8 AUG 77	07:40:00	40 9.4 N	71 59.8 W	DEPTH
					65

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

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	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	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	0.84	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 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	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	-	-	-	-	-	-
80	-	-	-	-	-	-
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	0.73	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	1.79	0.21	0.01	0.00
20	0.02	2.10	0.15	0.00	0.00
36	0.25	3.66	3.44	0.25	0.00
50	0.68	9.70	11.91	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	13.98	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	0.25	-
60	0.56	6.32	10.36	0.08	-
70	0.62	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
38	11 AUG 77	00:46:00	40 9.3 N	72 0.1 W	DEPTH
					66

WIND	WIND	BAROMETRIC	AIR TEMP
DIRECTION	SPEED	PRESSURE	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 DEPTH
40	11 AUG 77	08:35:00	40 9.3 N	72 0.1 W	66
WIND DIRECTION		WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP 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		WIND	BAROMETRIC	AIR TEMP	
DIRECTION		SPEED	PRESSURE	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 48	DATE 14 AUG 77	TIME 16:30:00	LATITUDE 39 46.2 N	LONGITUDE 73 58.9 W	SONIC DEPTH 22
WIND DIRECTION 210		WIND SPEED 5	BAROMETRIC PRESSURE -	AIR TEMP DRY BULB -	

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

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
	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
<hr/>					
	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	20.29	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 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	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	0.86	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	-	-

- 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	-	-

- 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	12.35	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	1.28	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	-	-

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- 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	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
75	1	20	20 AUG 77	15:21:00	40 30.0 N	73 46.4 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
23	270	6	18.3	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	CAST -	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
76	1	20	20 AUG 77	18:52:00	40 24.6 N	73 42.2 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
23	285	8	17.3	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	17.61	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	31.627	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	5.61	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	4.51	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	4.63	1.22	7.01
18	1.74	21.94	4.93	1.29	7.61

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 380U	PARTICLE VOLUME 480U
0	-	2.02	-	-
5	-	1.98	-	-
9	-	1.97	-	-
13	-	1.73	-	-
18	-	1.66	-	-

- 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	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	0.64	0.40
11	18.19	32.063	23.003	5.23	3.98	1.32
16	12.84	32.568	24.564	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	1.63	-	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
16	0.94	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	1.53	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	24.865	-	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	31.575	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	9.68	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
15	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	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	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	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
87	1	35	22 AUG 77	03:00:00	39 37.9 N	73 8.1 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
38	160	7	16.6	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	6.49	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 64	WIND DIRECTION 180	WIND SPEED 11	BAROMETRIC PRESSURE 15.2	AIR TEMP DRY BULB 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	-	-
29	-	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 62	WIND DIRECTION 200	WIND SPEED 10	BAROMETRIC PRESSURE 14.6	AIR TEMP DRY BULB 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	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	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	35.225	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	6.15	-	-
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	15.3	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	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	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	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	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	-	-	-	-

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- 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	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	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	-	-	-	-

- 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	0.92
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	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
104	1	26	24 AUG 77	01:49:00	40 2.2 N	73 45.9 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
28	-	-	16.6	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	10.86	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	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
106	1	19	24 AUG 77	04:41:00	40 0.0 N	73 58.0 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
21	220	3	15.6	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	-	1.95	-	-
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 117	CAST 1	MAX DEPTH OF CAST 19	DATE 25 AUG 77	TIME 23:15:00	LATITUDE 40 0.0 N	LONGITUDE 73 57.5 W
	SONIC DEPTH 21	WIND DIRECTION 260	WIND SPEED 4	BAROMETRIC PRESSURE 26.1	AIR TEMP DRY BULB 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	21.68	31.724	21.872	-	4.14	0.89
10	21.60	31.719	21.863	-	3.95	0.85
14	20.13	31.834	22.341	4.67	5.69	1.50
18	10.70	32.604	24.986	3.04	1.88	0.90
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	1.37	-	-
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	32.315	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 129	CAST 1	MAX DEPTH OF CAST 65	DATE 27 AUG 77	TIME 10:20:00	LATITUDE 39 56.3 N	LONGITUDE 73 7.4 W
	SONIC DEPTH 68	WIND DIRECTION 210	WIND SPEED 4	BAROMETRIC PRESSURE 29.1	AIR TEMP DRY BULB 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	-	-
40	-	1.91	-	-
50	-	1.70	-	-
60	-	1.75	-	-
68	-	1.68	-	-

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- DATA NOT TAKEN

STATION	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
130	1	65	27 AUG 77	11:33:00	39 52.9 N	73 2.5 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	70	220	4	29.5	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	-	1.83	-	-

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- DATA NOT TAKEN

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

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

DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
0	-	1.96	0.50	-
10	-	1.95	0.41	-
25	-	1.88	1.16	-
30	-	1.88	0.64	-
40	-	1.95	0.74	-
50	-	1.77	4.39	-

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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	12.27	33.834	25.653	6.87	0.67	0.27
39	10.64	33.914	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	0.44	3.87	6.12	0.18	0.34
49	0.55	4.47	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	26.429	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	3.29	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	0.29
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	-	-	-	-

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- 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	0.38
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	9.29	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 137	CAST 1	MAX DEPTH OF CAST 60	DATE 28 AUG 77	TIME 00:14:00	LATITUDE 40 7.5 N	LONGITUDE 72 23.8 W
	SONIC DEPTH 64	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	21.54	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	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	TEMPERATURE	SALINITY	SIGMA-T	OXYGEN	CHLOROPHYLL	PHAEOPHYTIN
0	21.03	31.974	22.210	-	0.36	0.04
10	20.45	32.243	22.567	-	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	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
144	1	25	28 AUG 77	22:22:00	40 46.2 N	72 30.8 W
SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB		
28	280	4	26.4	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	CAST	MAX DEPTH OF CAST	DATE	TIME	LATITUDE	LONGITUDE
150	1	60	29 AUG 77	15:43:00	40 14.5 N	72 4.0 W
	SONIC DEPTH	WIND DIRECTION	WIND SPEED	BAROMETRIC PRESSURE	AIR TEMP DRY BULB	
	66	220	6	24.4	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	1.29	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	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	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	-	-	-	-

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- 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	-	-

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- 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 >20U UG/L/HR	CARBON 14 UPTAKE <20U UG/L/HR	PARTICULATE CARBON UG/L	PARTICULATE NITROGEN UG-AT/L	
LIGHT DEPTH %	DEPTH METERS	CHLOROPHYLL UG/L	CHLOROPHYLL >20U UG/L	CHLOROPHYLL <20U UG/L	PHAEOPHYTIN UG/L	PHAEOPHYTIN >20U UG/L	PHAEOPHYTIN <20U 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	NITRATE UG-AT/L	RHO 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	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 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	INCUBATION		SURFACE
						RADIATION	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 TIME IN 0945	C14 TIME OUT (100,50,30%) 1245	C14 TIME OUT (15,5,1%) 1330	N15 INCUBN TIME (N03) 6.1	N15 INCUBN TIME (NH4) 5.9	CRUISE 6N68-1	

LIGHT DEPTH	DEPTH	CARBON 14		CARBON 14		PARTICULATE	
		UPTAKE	>20U	UPTAKE	<20U	CARBON	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		PHAEOPHYTIN	
		UPTAKE	>20U	UPTAKE	<20U	>20U	<20U
100.0	0.0	1.35	0.28	1.07	0.23	0.07	0.16
50.0	3.0	1.35	0.19	1.16	0.20	0.05	0.15
50.0	3.0	-	-	-	-	-	-
30.0	6.0	0.81	0.17	0.64	0.23	0.06	0.17
15.0	9.0	0.59	0.12	0.47	0.16	0.03	0.13
5.0	14.0	1.12	0.22	0.90	0.42	0.08	0.34
1.0	22.0	5.33	2.27	3.06	1.34	0.60	0.74

- DATA NOT TAKEN

DUPLICATE LIGHT DEPTHS ARE N15 DARK BOTTLE ANALYSES.

STATION	DATE	TIME	LATITUDE	LONGITUDE	SONIC DEPTH	INCUBATION		SURFACE TEMPERATURE
						TIME	RADIATION	
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 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBEN TIME (NO3)	N15 INCUBEN TIME (NH4)		CRUISE
		0945	1245	1330	6.1	5.9		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	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 0.209							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN CRUISE							
TIME IN (100,50,50%) (15,5,1%) TIME (NH4) TIME (NH4) 6N68-1							
0945 1245 1330 6.1 5.9							

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		SURFACE TEMPERATURE
						RADIATION	TIME	
7	6 AUG 77	10:40:00	40 45.2 N	72 29.4 W	28	5.80		20
<hr/>								
EXTINCTION COEFFICIENT		CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE	
0.219		1125	(100,50,30%)	(15,5,1%)	5.8	6.2	6N86-1	
			1355	1410				

LIGHT DEPTH	DEPTH	CARBON 14 UPTAKE		CARBON 14 UPTAKE		PARTICULATE CARBON		PARTICULATE NITROGEN
		>20U	<20U	>20U	<20U	>20U	<20U	
100.0	0.0	1.59	0.38	1.21	644	4.52		
50.0	3.0	8.55	1.70	6.05	673	5.36		
50.0	3.0	-	-	-	-	5.36		
30.0	6.0	1.97	0.49	1.48	959	7.14		
15.0	10.0	1.52	0.32	1.20	835	15.50		
5.0	15.0	12.67	4.04	8.63	715	26.50		
1.0	21.0	-	-	-	-	-		
0.2	27.0	-	-	-	-	-		
0.2	27.0	-	-	-	-	-		

LIGHT DEPTH	DEPTH	CHLOROPHYLL		CHLOROPHYLL		PHAEOPHYTIN		PHAEOPHYTIN
		>20U	<20U	>20U	<20U	>20U	<20U	
100.0	0.0	1.26	1.04	0.36	0.31	0.05	0.31	
50.0	3.0	1.02	0.81	0.34	0.28	0.06	0.28	
50.0	3.0	-	-	-	-	-	-	
30.0	6.0	0.93	0.73	0.37	0.29	0.08	0.29	
15.0	10.0	1.56	1.10	0.50	0.38	0.12	0.38	
5.0	15.0	0.81	0.25	0.26	0.09	0.17	0.09	
1.0	21.0	5.42	3.14	2.17	1.58	0.59	1.58	
0.2	27.0	2.64	1.88	1.77	1.40	0.37	1.40	
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	
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			C14 TIME OUT	C14 TIME OUT	N15 INCUBN	N15 INCUBN	CRUISE	
TIME IN			(100.50,30%)	(15.5,12)	TIME (NO3)	TIME (NH4)	6N86-1	
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
						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	C14 TIME OUT	C14 TIME OUT	N15 INCUBN	N15 INCUBN	CRUISE	
		TIME IN	(100, 50, 30%)	(15, 5, 1%)	TIME (N14)	TIME (N14)	6N86-1	
		1125	1355	1440	5.8	6.2		

LIGHT DEPTH	DEPTH	FINAL PN NO3 24HR	UPTAKE NO3 24HR	RHO NO3 24HR	FINAL PN NH4 24HR	UPTAKE 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	
						RADIATION	SURFACE 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 TIME IN 1115	C14 TIME OUT (100,50,30%) 1415	C14 TIME OUT (15,5,1%) 1445	N15 INCUBN TIME (NO3) 6.1,22.7	N15 INCUBN TIME (NH4) 5.8,22.4	CRUISE 6N68-1

LIGHT DEPTH	DEPTH	CARBON-14 UPTAKE		PARTICULATE CARBON		PARTICULATE 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	
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		SURFACE TEMPERATURE
						RADIATION	TIME	
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 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (N03)	N15 INCUBN TIME (N14)	CRUISE	
		1115	1415	1445	6.1,22.7	5.8,22.4	6N68-1	

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

LIGHT DEPTH	DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE		PARTICULATE CARBON	PARTICULATE NITROGEN
			>200	<200		
100.0	0.0	0.41	0.03	0.38	293	3.06
50.0	6.0	0.41	0.03	0.38	231	1.36
50.0	6.0	-	-	-	-	-
30.0	11.0	0.93	0.04	0.89	256	1.79
15.0	16.0	0.32	0.01	0.31	301	2.39
5.0	26.0	4.94	3.46	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		
100.0	0.0	0.49	0.09	0.40	0.15	0.10
50.0	6.0	0.56	0.27	0.29	0.12	0.06
50.0	6.0	-	-	-	-	-
30.0	11.0	0.44	0.03	0.41	0.14	0.12
15.0	16.0	0.48	0.04	0.44	0.17	0.16
5.0	26.0	1.75	0.59	1.16	0.41	0.33
2.0	32.0	1.24	0.67	0.57	0.43	0.33
1.0	37.0	3.38	2.94	0.44	0.50	0.20
0.1	50.0	1.98	1.41	0.57	0.21	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	TIME	
22	8 AUG 77	10:10:00	40 7.4 N	71 58.9 W	74	20.41		22
	EXTINCTION COEFFICIENT	CARBON 14	C14 TIME OUT	C14 TIME OUT	N15 INCUBN	N15 INCUBN	CRUISE	
	0.124	TIME IN	(100,50,50%)	(15,5,12)	TIME (NO3)	TIME (NH4)	6N58-1	
		10:45	1345	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	INCUBATION 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%) 1445	N15 INCUBEN TIME (NH4) 6.0	N15 INCUBEN TIME (NH4) 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	
			1825	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+	-	-	-	-	-	2.63	2.63	

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	0.01	0.04
50.0	5.0	0.70	0.40	0.30	0.30	0.11	0.04	0.04	0.07
50.0	5.0	-	-	-	-	-	-	-	-
30.0	13.0	0.24	0.04	0.20	0.20	0.08	0.01	0.01	0.07
15.0	21.0	0.43	0.06	0.37	0.37	0.17	0.01	0.01	0.16
5.0	30.0	1.22	0.08	1.14	1.14	1.14	0.01	0.01	1.13
1.0	45.0	0.58	0.03	0.55	0.55	0.49	0.02	0.02	0.47
0.1	61.0+	0.21	0.03	0.18	0.18	0.19	0.03	0.03	0.16
0.1	61.0+	-	-	-	-	-	-	-	-

- DATA NOT TAKEN

+ ESTIMATED

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 53.5 N	71 30.3 W	1870	30.62		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 (NH4) TIME (NH4) 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	21.0	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	
							AMMONIUM	
100.0	0.0	2.03	0.0004	0.0009	2.38	0.0045	0.0108	0.0108
50.0	5.0	3.14	0.0012	0.0037	1.00	0.0538	0.0968	0.0968
50.0	5.0	-	-	-	1.78	0.0073	0.0130	0.0130
30.0	13.0	3.10	0.0010	0.0030	4.93	0.0056	0.0278	0.0278
15.0	21.0	9.02	0.0017	0.0152	3.09	0.0098	0.0303	0.0303
5.0	30.0	2.88	0.0008	0.0023	8.22	0.0024	0.0199	0.0199
1.0	45.0	3.57	0.0006	0.0022	2.18	0.0021	0.0045	0.0045
0.1	61.0+	1.02	0.0024	0.0024	1.09	0.0034	0.0037	0.0037
0.1	61.0+	1.22	0.0008	0.0010	1.16	0.0036	0.0042	0.0042

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 - 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
<hr/>							
EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT (100,50,30%)	TIME OUT C14 (15,5,1%)	N15 INCUBN TIME (NH4)	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE
0.102	1110	1625	1720	5.8	6.1	5.8	6N68-1

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 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
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 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE
		1145	(100,50,30%)	(15,5,1%)	5.9	5.6	6N58-1
			1730	1830			

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	0.64	0.00	0.64	0.80	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	
		>200	<200	>200	<200	>200	<200	>200	<200
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 IN	C14 TIME OUT	N15 INCUBN TIME (NO.3)	N15 INCUBN TIME (N14)	CRUISE
	TIME IN	(100,50,50%)	(15,5,12)	1830	5.9	5.6	6N68-1
	0.131	1730	1145				

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	C14 TIME OUT	C14 TIME OUT	N15 INCUBN	N15 INCUBN	CRUISE
0.131	TIME IN	(100, 50, 30%)	(15, 5, 1%)	TIME (NO3)	TIME (NH4)	TIME (NH4)	6N68-1
	1145	1750	1830	5.9	5.6	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	PARTICLE VOLUME	PARTICLE VOLUME	PARTICLE VOLUME
100.0	1000	2000	2800	4000
50.0	-	0.47	-	-
50.0	-	0.37	-	-
30.0	-	-	-	-
15.0	-	0.48	-	-
5.0	-	0.58	-	-
1.0	-	-	-	1.53
0.1	-	-	-	2.76
0.1	-	-	-	1.63

- 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	6.1		24
EXTINCTION COEFFICIENT 0.135							
	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 6N68-1
	1130	1130	1730	1830	6.1	6.1	

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	224	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 C14 TIME OUT (100,50,30%) (15,5,1%) 1730 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
40	11 AUG 77	10:33:00	40 9.8 N	72 0.7 W	64	-	24
EXTINCTION COEFFICIENT 0.135							
CARBON 14 C14 TIME OUT C14 TIME IN (100,50,50%) (15,5,12) N15 INCUBEN TIME (NH4) CRUISE 6N58-1							
		1130	1730	1830	6.1	6.1	6N58-1

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	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 (N03)	N15 INCUBN TIME (NH4)	CRUISE
	0.242	1100	1745	1840	6.3,23.9	6.0,23.7	6N68-1

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

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

- 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	0.242	CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (H03)	N15 INCUBN TIME (H14)	CRUISE
		1100	(100,50,30%) 1745	(15,5,1%) 1840	6.5,23.9	6.0,23.7	6N68-1

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	0.0892
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, 12)	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 (100,50,30%)	TIME OUT (15,5,1%)	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE 6N58-1
0.200	1030	1630	1825	6.5	6.2		

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

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

- 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	(15,5,12) 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	CARBON 14	C14 TIME OUT	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (NH4)	N15 INCUBN TIME (NH4)	CRUISE
0.200	1030	(100,50,30%)	1630	1825	6.5	6.2	6N68-1

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%)	TIME (15, 5, 1%)	N15 INCUBN TIME (N03)	N15 INCUBN TIME (N14)	CRUISE
0.230	1100	1735	1845	6.4	5.9	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	CARBON 14	C14 TIME OUT	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE
0.230	1100	(100,50,30%)	(15,5,1%)	1845	6.4	5.9	6N68-1

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							
TIME IN (100,50,30%) (15,5,1%) TIME (NH4) TIME (NH4) CRUISE							
1100 1735 1845 6.4 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	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 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN CRUISE							
TIME IN (100,50,30%) (15,5,1%) TIME (NO3) TIME (NH4) TIME (NH4)							
1130 1645 1740 6.2,23.2 5.8,23.0 6N68-1							

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	3.06	0.04	3.01	807	4.59
50.0	8.07	0.08	7.99	507	2.20
50.0	-	-	-	-	-
30.0	3.21	0.04	3.17	463	2.12
15.0	1.59	0.01	1.57	516	3.44
5.0	5.25	0.12	5.13	472	4.24
2.6	-	-	-	648	5.84
1.0	2.50	0.10	2.40	581	4.29
1.0	-	-	-	-	-

LIGHT DEPTH	CHLOROPHYLL	CHLOROPHYLL >20U	CHLOROPHYLL <20U	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
100.0	1.34	0.03	1.31	0.43	0.41
50.0	1.62	0.29	1.33	0.63	0.42
50.0	-	-	-	-	-
30.0	1.44	0.25	1.19	0.55	0.43
15.0	1.25	0.04	1.21	0.41	0.38
5.0	2.01	0.08	1.93	0.69	0.61
2.6	3.40	0.22	3.18	1.67	1.56
1.0	1.67	0.11	1.56	1.15	1.07
1.0	-	-	-	-	-

- 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	CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT (100,50,30%)	(15,5,1%)	N15 INCUBN TIME (N03)	N15 INCUBN TIME (NH4)	CRUISE
0.256	1130	1645	1740	5.8,23.2	5.8,23.0	6N68-1	

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 TEMPERATURE
58	16 AUG 77	10:20:00	39 46.6 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%) (15,5,1%) TIME (NH4) CRUISE							
1130 1740 6.2,23.2 5.8,23.0 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	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	DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
100.0	0.0	-	0.65	-	-
50.0	3.0	-	0.52	-	-
50.0	3.0	-	-	-	-
30.0	6.0	-	0.40	-	-
15.0	9.0	-	0.41	-	-
5.0	15.0	-	0.56	-	-
2.6	18.0	-	1.38	-	-
1.0	22.0	-	0.89	-	-
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
67	19 AUG 77	07:05:00	40 29.3 N	73 47.5 W	23	-	20
<hr/>							
EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	TIME OUT	N15 INCUBN TIME (N03)	N15 INCUBN TIME (N14)	CRUISE
0.383	0845	(100,50,30%)\$	1330	1420	7.2	6.0	6N68-2

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	50.60	0.25	50.35	-	-
50.0	92.63	0.15	92.48	-	-
50.0	-	-	-	-	-
15.0	8.16	0.02	8.14	-	-
5.0	27.11	0.12	26.99	-	-
1.0	0.84	0.01	0.82	-	-
0.1	-	-	-	-	-
0.1	-	-	-	-	-

LIGHT DEPTH	CHLOROPHYLL	CHLOROPHYLL >20U	CHLOROPHYLL <20U	PHAEOPHYTIN	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
100.0	10.60	0.69	9.91	3.08	0.34	2.74
50.0	11.43	0.75	10.68	3.22	0.34	2.88
50.0	-	-	-	-	-	-
15.0	11.22	0.79	10.43	3.10	0.34	2.76
5.0	7.00	0.40	6.60	2.48	0.20	2.28
1.0	1.39	0.14	1.25	0.75	0.11	0.64
0.1	0.67	0.12	0.55	0.74	0.11	0.63
0.1	-	-	-	-	-	-

- 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	CRUISE	
0.383	0845	(100,50,30%)\$ (15,5,12)	7.2	6.0	6.0	6N68-2	
		1330	1420				

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 C14 TIME OUT (100,50,30%)\$ (15,5,1%)	N15 INCUBN TIME (N03)	N15 INCUBN TIME (N44)	CRUISE 6N68-2	
			1330	7.2	6.0		
			1420				

LIGHT DEPTH	FINAL PN N03 24HR	UPTAKE VLCTY N03 24HR	RHO N03 24HR	FINAL PN N44 24HR	UPTAKE VLCTY N44 24HR	RHO N44 24HR
100.0	-	-	-	-	-	-
50.0	-	-	-	-	-	-
50.0	-	-	-	-	-	-
15.0	-	-	-	-	-	-
5.0	-	-	-	-	-	-
1.0	-	-	-	-	-	-
0.1	-	-	-	-	-	-
0.1	-	-	-	-	-	-

LIGHT DEPTH	PARTICLE VOLUME 100U	PARTICLE VOLUME 200U	PARTICLE VOLUME 280U	PARTICLE VOLUME 400U
100.0	-	-	-	-
50.0	3.39	-	-	-
50.0	3.50	-	-	-
15.0	-	-	-	-
5.0	3.97	-	-	-
1.0	4.07	-	-	-
0.1	0.64	-	-	-
0.1	0.68	-	-	-
0.1	-	-	-	-

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 C14 TIME OUT C14 TIME IN (100,50,30%) (15,5,1%) N15 INCUBN TIME (N14) N15 INCUBN TIME (N14) CRUISE							
		0830	1345	1550	5.8	6.3	6N68-2

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	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 >20U	CHLOROPHYLL <20U	PHAEOPHYTIN	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
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	CARBON 14	C14 TIME OUT	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE
0.511	0830	(100,50,30%)	(15,5,1%)	1550	5.8	6.3	6N68-2

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		UPTAKE VLCTY		RHO NO3		FINAL PN		UPTAKE VLCTY		RHO NH4	
		NO3 24HR	NO3 24HR	NO3 24HR	NO3 24HR	NO3 24HR	NO3 24HR	NO3 24HR	NO3 24HR	NH4 24HR	NH4 24HR	NH4 24HR	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	
		NO3 24HR	NO3 24HR	NO3 24HR	NO3 24HR	NO3 24HR	NO3 24HR	NH4 24HR	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	-	-	-	-	-	-	-	-

- 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 (NO3)	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	PHAEOPHYTIN >200	PHAEOPHYTIN <200
100.0	5.74	0.64	5.10	1.41	0.54	0.87
50.0	5.05	0.38	4.67	1.37	0.39	0.98
50.0	-	-	-	-	-	-
15.0	5.38	0.36	5.02	1.46	0.37	1.09
6.2	5.59	0.53	5.06	1.39	0.43	0.96
1.5	5.40	0.48	4.92	1.40	0.47	0.93
0.4	5.96	0.35	5.61	1.69	0.39	1.30
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 IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE	
0.511	0830		(100,50,30%)	(15,5,12)	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	-	-	-	-	-	-
<hr/>							

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
<hr/>							

- 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	BN68-2

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 TIME IN 0830							
C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN TIME (NH4) CRUISE							
(100,50,30%) (15,5,12) 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	0.44	0.23	0.10
5.0	0.74	0.07	0.67	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.

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
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 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	DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
100.0	0.0	-	-	-	0.32
50.0	5.0	0.28	-	-	0.20
50.0	5.0	0.37	-	-	-
30.0	9.0	-	-	-	0.41
15.0	15.0	0.27	-	-	0.81
5.0	23.0	0.76	-	-	0.75
1.0	35.0	0.92	-	-	0.46
0.1	52.0	0.37	-	-	0.54
0.1	52.0	0.40	-	-	-

- 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
<hr/>							
EXTINCTION COEFFICIENT	CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE	
0.118	1030	(100,50,50%)	(15,5,1%)	6.3	6.0	6N68-2	
		1900	1945				

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	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 >20U	CHLOROPHYLL <20U	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
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 (INH) CRUISE							
		TIME IN (100,50,30%) 1900		(15,5,1%) 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	09:25:00	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 KNOX 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 (100.50,30%) 1810	C14 TIME OUT (15.5,12) 1850	N15 INCUBN TIME (NO3) 6.1	N15 INCUBN TIME (NH4) 5.9	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					
59.0	1.5	10.82	0.09	10.74	784	8.71
59.0	1.5	14.35	0.06	14.29	1040	8.07
24.0	3.5					
6.7	6.5	6.17	0.04	6.13	1040	
1.1	11.5	0.48	0.00	0.48	1200	8.43
0.2	18.5	0.33	0.00	0.33	1280	13.21
0.2	18.5				785	12.57
						7.50

LIGHT DEPTH	DEPTH	CHLOROPHYLL	CHLOROPHYLL >20U	CHLOROPHYLL <20U	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
100.0	0.0					
59.0	1.5	6.81	0.41	6.40	1.54	1.39
59.0	1.5	7.12	0.18	6.94	1.64	1.55
24.0	3.5					
6.7	6.5	6.72	0.10	6.62	1.73	
1.1	11.5	6.82	0.08	6.74	1.22	1.67
0.2	18.5	4.04	0.17	3.87	1.35	1.17
0.2	18.5	2.26	0.14	2.12	0.92	1.26
						0.84

- 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, 30%)	N15 INCUBN TIME (N03)	N15 INCUBN TIME (N14)	CRUISE
0.383	1010	1810	(15.5, 1%) 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) TIME (NH4)							
1010 1810 1850 6.1 5.9							
CRUISE 6N68-2							

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	-	-	-	-	-	-
59.0	-	-	-	-	-	-
59.0	-	-	-	-	-	-
24.0	-	-	-	-	-	-
6.7	-	-	-	-	-	-
1.1	-	-	-	-	-	-
0.2	-	-	-	-	-	-
0.2	-	-	-	-	-	-

LIGHT DEPTH	DEPTH	PARTICLE VOLUME 1000	PARTICLE VOLUME 2000	PARTICLE VOLUME 2800	PARTICLE VOLUME 4000
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							
	CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (NO3)	N15 INCUBN TIME (NH4)	CRUISE
		(100,50,30%)	(15,5,1%)		6.8	6.5	6N68-2

LIGHT DEPTH	DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	0.0	-	-	-	424	3.29
50.0	1.5	-	-	-	682	6.74
50.0	1.5	-	-	-	-	-
30.0	3.0	-	-	-	849	8.79
15.0	4.5	-	-	-	902	9.79
5.0	7.0	-	-	-	781	7.57
1.0	12.5	-	-	-	815	7.79
0.3	20.0	-	-	-	532	4.62
0.3	20.0	-	-	-	-	-

LIGHT DEPTH	DEPTH	CHLOROPHYLL	CHLOROPHYLL >20U	CHLOROPHYLL <20U	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
100.0	0.0	6.48	0.38	6.10	1.58	1.39
50.0	1.5	6.45	0.13	6.32	1.36	1.28
50.0	1.5	-	-	-	-	-
30.0	3.0	6.31	0.09	6.22	1.53	1.46
15.0	4.5	6.93	0.35	6.58	1.35	1.23
5.0	7.0	7.02	0.10	6.92	1.47	1.44
1.0	12.5	3.98	0.14	3.84	1.09	1.02
0.3	20.0	2.29	0.28	2.01	0.93	0.83
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
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, 1%)	TIME (N03)	TIME (NH4)	6N68-2
					6.8	6.5	

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.

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		CARBON 14	C14 TIME OUT	C14 TIME OUT	N15 INCUBN	N15 INCUBN	CRUISE
0.368		TIME IN	(100,50,30%)	(15,5,1%)	TIME (N03)	TIME (N14)	6N68-2
					6.8	6.5	

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	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 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	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	C14 TIME OUT (100,50,30%)	(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	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	PARTICULATE CARBON	PARTICULATE NITROGEN
100.0	4.47	0.99	3.48	353	3.32
50.0	9.57	3.14	6.43	804	8.07
50.0	-	-	-	-	-
30.0	7.85	1.31	6.54	797	8.07
15.0	0.93	0.24	0.68	686	7.02
5.0	1.82	0.95	0.87	756	16.07
1.0	0.26	0.12	0.14	873	8.07
0.1	-	-	-	992	8.57
0.1	-	-	-	-	-

LIGHT DEPTH	CHLOROPHYLL	CHLOROPHYLL >20U	CHLOROPHYLL <20U	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
100.0	7.60	1.01	6.59	1.99	1.51
50.0	7.17	0.46	6.71	2.55	2.32
50.0	-	-	-	-	-
30.0	7.53	1.02	6.51	3.35	2.71
15.0	6.25	0.28	5.97	1.58	1.45
5.0	5.87	0.28	5.59	1.50	1.38
1.0	6.47	0.28	6.19	1.60	1.44
0.1	1.88	0.27	1.61	0.86	0.77
0.1	-	-	-	-	-

- 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 (NO3) TIME (NH4) TIME (NH4) 6N68-2							
0830 1740 1845 6.6,25.6 6.4,25.1 6N68-2							

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							
TIME IN (100,50,30%) (15,5,1%) TIME (NH4) TIME (NH4) CRUISE							
0830 1740 1845 6.6,25.6 6.4,25.1 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	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) CRUISE							
-990 -990 -990 6N68-2							

LIGHT DEPTH	CARBON 14 UPTAKE	CARBON 14 UPTAKE >20U	CARBON 14 UPTAKE <20U	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 >20U	CHLOROPHYLL <20U	PHAEOPHYTIN	PHAEOPHYTIN >20U	PHAEOPHYTIN <20U
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		CARBON 14 TIME IN	C14 TIME OUT	C14 TIME OUT	N15 INCUBN TIME (NO.3)	N15 INCUBN TIME (NH4)	CRUISE
0.383		-990	(100,50,30%)	(15,5,1%)			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%) 1915	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 0.219							
CARBON 14 C14 TIME OUT C14 TIME OUT N15 INCUBN N15 INCUBN CRUISE							
TIME IN (100,50,30%) (15,5,12) TIME (N03) TIME (NH4) TIME (NH4) 6N68-2							
0830 1845 1915 6.4 5.8							

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 (N14) TIME (N14) 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 N14 24HR	UPTAKE VLCTY N14 24HR	RHO N14 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-AB

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

	LOCAL	LOCAL			SONIC
STATION	DATE	TIME	LATITUDE	LONGITUDE	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

- 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
12.5

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

	LOCAL	LOCAL			SONIC
STATION	DATE	TIME	LATITUDE	LONGITUDE	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

	LOCAL	LOCAL			SONIC
STATION	DATE	TIME	LATITUDE	LONGITUDE	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

- 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

STATION	LOCAL DATE	LOCAL TIME	LATITUDE	LONGITUDE	SONIC 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	1.47	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

- 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	2.28	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

	LOCAL	LOCAL			SONIC
STATION	DATE	TIME	LATITUDE	LONGITUDE	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
81.16	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, $\mu\text{moles } \ell^{-1}$

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	