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UNITED STATES COAST GUARD
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UNITED STATES COAST GUARD OCEANOGRAPHIC UNIT

REPORT No. 51 CG 373-51

INVESTIGATION OF THE WEDDELL SEA COASTAL CURRENT

FEBRUARY-MARCH 1970

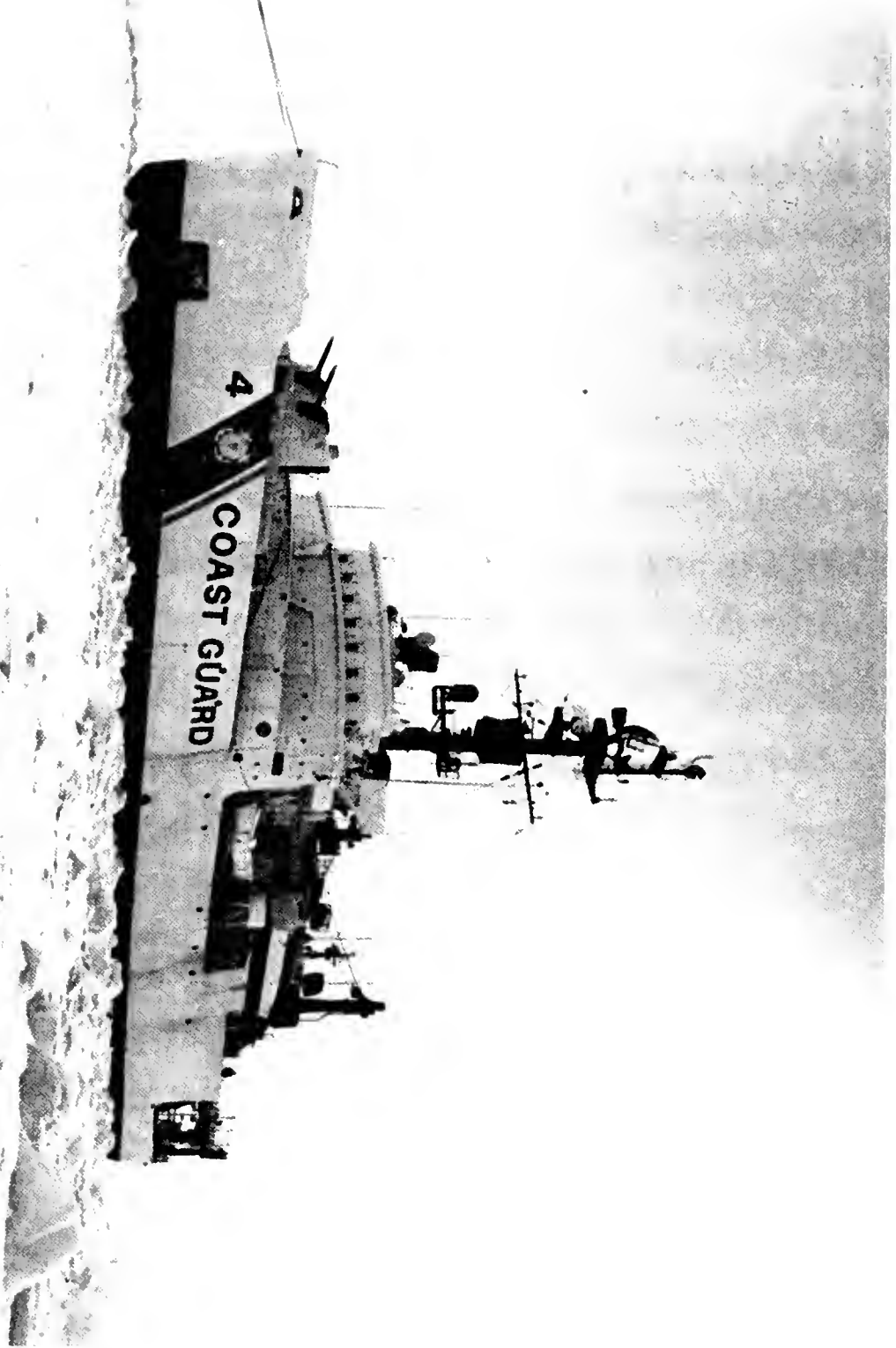
Gary L. Hufford
James M. Seabrooke



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COAST GUARD



Abstract

A physical and chemical investigation of the Weddell Sea Coastal Current was made during the austral summer of 1970 as part of the International Weddell Sea Oceanographic Expedition. This Coastal Current has been hypothesized to be a major component in the formation of Antarctic Bottom Water. The 1970 data indicated that the Coastal Current existed from the surface to the abyssal depths in the eastern Weddell Sea and that it decreased in temperature and increased in salinity as it flowed south over the continental shelf. This may be due to alteration of the shelf water as it flowed along and under the extensive ice shelves along the east coast or surface cooling. Nutrient concentrations below the surface layer remained relatively constant from station to station on the shelf. From the edge of the shelf to the depth of 2000 meters Warm Deep Water was found to have the highest nutrient concentrations. This warm water is believed to be carried into the Weddell Sea by a branch of the Circumpolar Current. Origin of the abyssal water in the eastern Coastal Current is unknown.

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Investigation of the Weddell Sea Coastal Current February-March 1970

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James M. Seabrooke²

INTRODUCTION

The Coastal Current in the Weddell Sea has been hypothesized as a major component in the formation of Antarctic Bottom Water (Seabrooke, Hufford, and Elder, 1971), but only a few observations have been made in it. This current has been found to exist from the surface to the bottom in the eastern Weddell Sea exhibiting uniformity in current direction (southerly) (Gordon, 1970). Sverdrup, et al. (1942), suggested that the westward flow of the Coastal Current east of the Weddell Sea is due to an extensive clockwise gyre which occurs in the Southern Ocean.

DATA ACQUISITION

From February 14 to March 21, 1970, an oceanographic investigation (32 stations) of the eastern Weddell Sea Coastal Current by the Coast Guard Oceanographic Unit was conducted aboard the icebreaker USCGC GLACIER (WAGB-4) as part of the International Weddell Sea Oceanographic Expedition (fig. 1). Hydrographic data were obtained using Nansen bottles with reversing thermometers, current meters, and a continuous salinity-temperature-depth recording system (STD) with a Niskin multisampler attached. Sampling was conducted to as close to the sea floor as possible. The resulting water samples were analyzed manually at sea for dissolved oxygen, inorganic phosphate, nitrate, nitrite, and silicate using the techniques described in the manual of Strickland and Parsons (1965). Salinity was

determined using an inductive salinometer. The conductivity values obtained were converted to salinity by use of the International Oceanographic Tables published jointly by UNESCO and the National Institute of Oceanography of Great Britain (1966). A summary of data collected at each station is given in Table 1.

Direct measurements of currents from the surface to the bottom were made at Halley Bay (fig. 1). The ship was anchored to the fast ice and continuous measurements were taken for two days. The current data are being processed by the University of Bergen, Norway, and the results will not be reported here.

Eight oceanographic stations of opportunity were occupied in the Bransfield Strait region during 6-29 January 1970 to determine if any flow of Antarctic Bottom Water from the Weddell Sea occurred there as suggested by Hollister and Elder (1969). The data indicated water with Antarctic Bottom Water characteristics (-4°C , 34.66 ‰) was not present.

WATER MASS DISTRIBUTION

Analysis of the temperature-salinity relations of the data obtained during IWSOE-70, revealed three water masses present in the Coastal Current: Antarctic Surface Water, Warm Deep Water, and a Bottom Water (fig. 2). The properties of these three water masses (Table 2) closely resemble those observed previously by Hufford and Seabrooke (1970).

Above the eastern continental shelf of the Weddell Sea, the water column is occupied by one water mass, Antarctic Surface Water ($T=-0.8$ to -1.9°C , $S=33.50$ to 34.50‰) (fig. 2). This water mass shows an increase in

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Table 1. IWSOE '70
OCEANOGRAPHIC STATION SUMMARY

STA NO.	POSITION		N AN S S ET NA	N AN O S E E P	S T O	N I S K I N	C O R E	P H O T O	P L A N V K. E T T R O O T N W	CHEMISTRY					DEPTH IN METERS	DATE 1970
	LAT.	LONG.								O ₂	NO ₂	NO ₃	PO ₄	SiO ₃		
1	74°21.5'S	38°18'W	✓		✓	✓	✓		✓	✓	✓	✓	✓	512	19 FEB	
2	76°35.6'S	31°45.0'W			✓	✓		✓		✓	✓	✓	✓	390	21 FEB	
3	76°50.4'S	32°30.0'W			✓					✓	✓	✓	✓	310	21 FEB	
4	76°55.1'S	32°47.5'W			✓		✓			✓	✓	✓	✓	322	21 FEB	
5	77°26.5'S	36°01.7'W	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	901	01 MAR	
6	77°34.6'S	35°39.9'W	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	585	03 MAR	
7	77°33.0'S	35°38.1'W			✓					✓	✓	✓	✓	575	03 MAR	
8	76°24.6'S	30°36.2'W	✓			✓			✓	✓	✓	✓	✓	320	06 MAR	
*9	75°25.5'S	26°28.5'W			✓		✓			✓	✓	✓	✓	238	07 MAR	
10	75°25.5'S	26°28.5'W	✓			✓			✓	✓	✓	✓	✓	235	08 MAR	
11	75°25.5'S	26°28.5'W			✓					✓	✓	✓	✓	235	08 MAR	
12	75°25.5'S	26°28.5'W	✓			✓		✓		✓	✓	✓	✓	235	08 MAR	
13	75°25.5'S	26°28.5'W			✓				✓	✓	✓	✓	✓	235	08 MAR	
14	75°25.5'S	26°28.5'W	✓			✓			✓	✓	✓	✓	✓	235	09 MAR	
15	75°25.5'S	26°28.5'W			✓					✓	✓	✓	✓	235	09 MAR	
16	75°25.5'S	26°28.5'W	✓			✓			✓	✓	✓	✓	✓	235	09 MAR	
17	75°25.5'S	26°28.5'W			✓		✓			✓	✓	✓	✓	235	09 MAR	
18	74°54.0'S	27°14.4'W	✓		✓	✓			✓	✓	✓	✓	✓	410	10 MAR	
19	74°52.3'S	25°47.1'W	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	481	10 MAR	
20	74°28.5'S	25°40.6'W	✓		✓	✓	✓		✓	✓	✓	✓	✓	506	11 MAR	
21	73°58.7'S	23°39.0'W	✓		✓	✓	✓		✓	✓	✓	✓	✓	274	11 MAR	
22	73°38.0'S	23°40.0'W	✓		✓	✓	✓		✓	✓	✓	✓	✓	1456	11 MAR	
23	72°08.2'S	24°08.8'W	✓		✓	✓	✓		✓	✓	✓	✓	✓	4078	12-13 MAR	
24	71°14.8'S	24°32.0'W	✓	✓		✓	✓		✓	✓	✓	✓	✓	4200	13-14 MAR	
25	70°25.2'S	24°33.1'W	✓		✓	✓	✓		✓	✓	✓	✓	✓	4279	14 MAR	
26	69°31.2'S	24°57.2'W	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	4572	14-15 MAR	
27	71°03.3'S	13°16.0'W	✓		✓	✓	✓		✓	✓	✓	✓	✓	1920	15-16 MAR	
28	71°04.0'S	12°09.2'W			✓	✓	✓		✓	✓	✓	✓	✓	1189	17 MAR	
29	71°10.0'S	12°22.7'W	✓			✓			✓	✓	✓	✓	✓	465	17 MAR	
30	70°57.5'S	11°21.6'W			✓				✓	✓	✓	✓	✓	320	17-18 MAR	
31	70°21.0'S	08°55.0'W	✓			✓			✓	✓	✓	✓	✓	503	18 MAR	
32	70°20.8'S	07°29.8'W			✓				✓	✓	✓	✓	✓	740	18 MAR	

*current meter station at Station No. 9 through 18 (Halley Bay)

salinity and a decrease in temperature as it flows into the Weddell Sea. This modification of properties is shown in a T-S diagram (fig. 3) where an "upstream" station (sta. 31) is compared to a "downstream" station (sta. 5). These changes are probably due to freezing of the shelf water as it flows south along and un-

der the extensive ice shelves of the east coast or surface cooling at the sea-air interface, which may be very rapid during periods of strong gradient winds.

A temperature maximum of -1.5 to -1.6 °C was found between 100 and 125 meters in the Antarctic Surface Water at stations 5, 6, and 7

TABLE 2.—*Properties of water masses in the Weddell Sea Coastal Current during IWSOE-70.*

Water mass	Temperature and salinity	PO _{4p} mean (μg-at/l)	Number of samples	NO _{3p} mean (μg-at l)	Number of samples
Antarctic Surface Water	T = -0.8 to -1.9 °C S = 33.50 to 34.50‰	1.70 ± .11	71	22.66 ± 2.13	67
Warm Deep Water	T = 0.0 to 0.6 °C S = 34.65 to 34.70‰	1.31 ± .10	23	14.85 ± 1.97	26
Eastern Weddell Sea Bottom Water	T = -0.2 to -0.3 °C S = 34.65 to 34.66‰	1.32 ± .13	7	17.24 ± 2.23	7

PO_{4p}, NO_{3p} = Preformed phosphate and nitrate.

(fig. 6). This feature has not been described before and its origin is unknown.

Past investigations have rarely found water temperatures below -1.8 °C in the Antarctic Surface Water east of 35°W (Lusquinos, 1963). However, low temperatures were observed in two different areas east of 35°W during 1970. In the Halley Bay area (stations 9 through 17), temperatures as low as -1.98 °C were observed with salinities ranging between 34.0 and 34.4‰ (figs. 4 and 5). This cold water was evident from the surface to the bottom suggesting formation at the surface, probably by intense cooling and evaporation imposed on the surface by gradient winds. During the occupation of the stations at Halley Bay, continuous winds of 40 knots were measured.

The area sampled near Halley Bay was in a polynya extending over 600 miles, which is a seasonal feature of the Weddell Sea. In the summer, southwesterly winds predominate in the area (Gordon, 1970). Since the direction of ice drift is approximately 45° to the left in the southern hemisphere, the pack ice would concentrate to the north leaving open the polynya in the eastern portion of the Weddell Sea. The mechanism which prevents the closing of the polynya by freezing is unknown. The heat content of the subsurface shelf water is not sufficient to prevent ice formation if it were brought to the surface by some upward process (convection, diffusion). The probable answer is that the surface water does freeze but the action of wind and currents removes the ice. The southward flowing average surface current in the area of Halley Bay is quite slow (Kvinge, 1969) and probably does not play a major role in removal of ice.

Another possible mechanism preventing the closing of the polynya by freezing is the formation of ice in small crystals kept separate and in suspension in the water by turbulence from the action of the wind. The formation of ice crystals in the surface layers has been studied by Littlepage (1965) and Zubov (1945). They found that the ice crystals were carried by vertical mixing to a depth where they would melt because of lowered freezing point (due to pressure). The heat required for melting the ice would come from the surrounding water, lowering its temperature further, possibly explaining the colder temperatures near the bottom at Halley Bay.

Sea water with temperatures near the freezing point was observed in the southeastern Weddell Sea at stations 5, 6, and 7 (fig. 6). Water temperatures below the freezing point were recorded at 19 subsurface levels (below 250 meters) at the three stations. All three stations are located near the Filchner Ice Shelf in a deep depression on the continental shelf. The greatest depth measured in the depression was 1200 meters with a sill depth of 400 meters (Kvinge, 1969). The underside of the edge of the ice shelf is approximately 250 meters below sea level, increasing to over 500 meters before the ice contacts the sea floor shoreward (Zumberge and Swithinbank, 1965). The salinity of the upper 250 meters at the three stations was less than 34.40‰, which is less than the salinity of the deeper cold water. Since no advection of near freezing water at depth in the Coastal Current was observed, it is reasonable to conclude that the very cold water was derived by freezing either at the surface or at the underside of the ice shelf.

From the edge of the continental shelf to a depth of 2000 meters, a relatively warm, saline water mass exists in the Weddell Sea Coastal Current (fig. 2). This water mass, called Warm Deep Water by Deacon (1937), is the major mass in the Coastal Current. We found it characterized by above-zero temperatures (0.0 to 0.6 °C) and salinities of 34.65 to 34.70‰. Deacon (1963) stated that this water mass consists of a mixture of Antarctic Circumpolar Water and small amounts of North Atlantic Deep Water. A. Gordon (personal communication) believes that part of the Warm Deep Water is bottom water from the Southeast Pacific Basin.

Origin of the bottom water in the eastern Weddell Sea (east of 35°W, fig. 2) is unknown. The first detailed description of this water mass, called Eastern Weddell Sea Bottom Water, was given by Seabrooke, Hufford, and Elder (1971). They found (during IWSOE 1968, 1969) the water mass properties to be slightly different from Antarctic Bottom Water. Results of the 1970 cruise (Table 2) substantiate this. They also suggested that Eastern Weddell Sea Bottom Water may be composed of deep Circumpolar Water and recirculated Antarctic Bottom Water, the Antarctic Bottom Water being the largest component. Further investigation is necessary to determine the origin of this water mass.

OXYGEN AND NUTRIENT DISTRIBUTION

Dissolved oxygen was measured at all stations where Nansen casts were made. Concentrations exceeded 7.1 ml/l on the continental shelf, with maximum concentrations of up to 8.9 ml/l occurring in the near-surface layers (fig. 7). The Warm Deep Water had the lowest dissolved oxygen content (4.2 to 4.9 ml/l) in the Weddell Sea, and Eastern Weddell Sea Bottom Water had slightly higher concentrations (5.2 to 5.6 ml/l) (fig. 7). Percent saturation, computed from solubility relationships developed by Green and Carritt (1967), varied from 90–97% in Antarctic Surface Water to 59–60% in the Warm Deep Water and 62–68% in the Eastern Weddell Sea Bottom Water. A possible reason for the higher saturation values in Eastern Weddell Sea Bottom Water is recirculation of some Antarctic Bottom Water back

into the Weddell Sea by way of the Antarctic Coastal Current where it is mixed with deep Circumpolar Water to form Eastern Weddell Sea Bottom Water. Antarctic Bottom Water formed in the Weddell Sea has a high saturation value (about 80%, Hufford and Tennyson, 1970) because of recent contact of one of its components (shelf water) with the sea surface.

According to Clowes (1938), the nutrient concentrations in the Antarctic rarely fall below the winter maximum concentrations of temperate regions. Concentrations of the various nutrients measured in the Weddell Sea support this. Ranges of concentrations found in 1970 were:

inorganic	
phosphate	0.6–2.5 $\mu\text{g-at/l}$.
nitrate—	
Nitrogen	14.0–33.0 $\mu\text{g-at/l}$.
nitrite—	
Nitrogen	0.1–0.5 $\mu\text{g-at/l}$.
silicate—	
Silicon	32–125 $\mu\text{g-at/l}$.

In general the vertical distributions of the nutrients in the Weddell Sea (figs. 8–13) fit the classical description. On the continental shelf, phosphate, nitrate, and silicate concentrations increased with depth to about 100 meters, then remained fairly constant to the bottom (figs. 8–10). Off the shelf, the nutrients increased with depth until a maximum was reached between 800 and 1000 meters (figs. 11–13). Below the maximum, concentrations decreased slightly and then remained constant to the bottom.

To differentiate further the principal water masses involved in the Weddell Sea Coastal Current, preformed phosphate and nitrate concentrations were computed using the equations of Pytkowicz (1968). Oxidative ratios were estimated from the changes in the concentration of oxygen and nutrient ions. Preformed concentrations were computed only from samples below 75 meters to eliminate discrepancies that exist in the surface layer because of exchange of oxygen with the atmosphere and mixing of the surface waters. Mean values and variation about the mean were computed separately for Antarctic Surface Water, Warm Deep Water, and Eastern Weddell Sea Bottom Water

(Table 2). The preformed nutrient concentrations in the Warm Deep Water and Eastern Weddell Sea Bottom Water are almost identical and significantly lower than that of Antarctic Surface Water. Because of the similarity in preformed values, Warm Deep Water and

Eastern Weddell Sea Bottom Water can only be separated by temperature, salinity, and oxygen characteristics. The 1970 preformed nutrient concentrations correspond closely with the 1968 and 1969 values found by Hufford and Seabrooke (1970).

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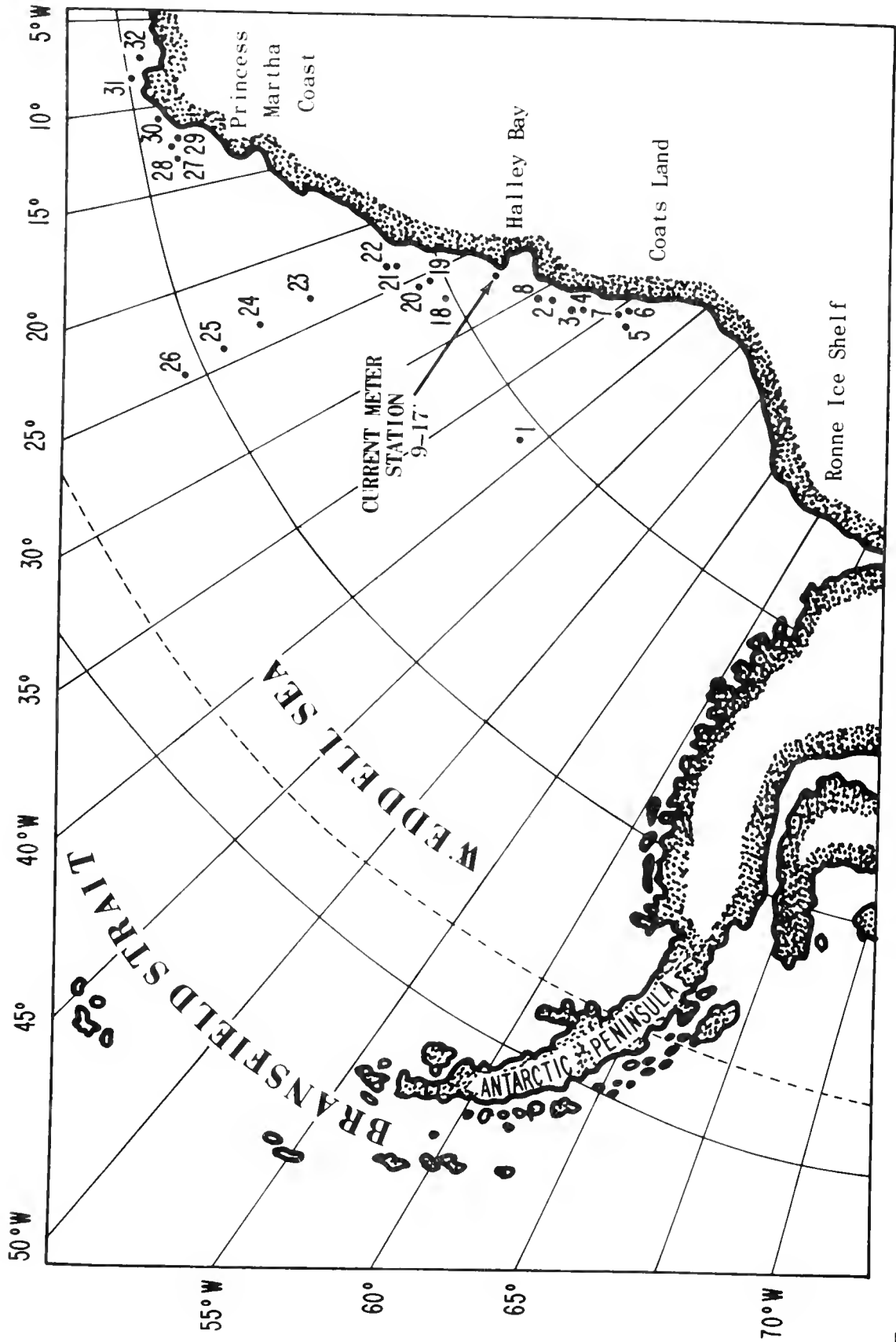


FIGURE 1. Location of stations for the 1970 International Weddell Sea Oceanographic Expedition (IWSOE-70), 14 February-21 March 1970.

TEMPERATURE °C

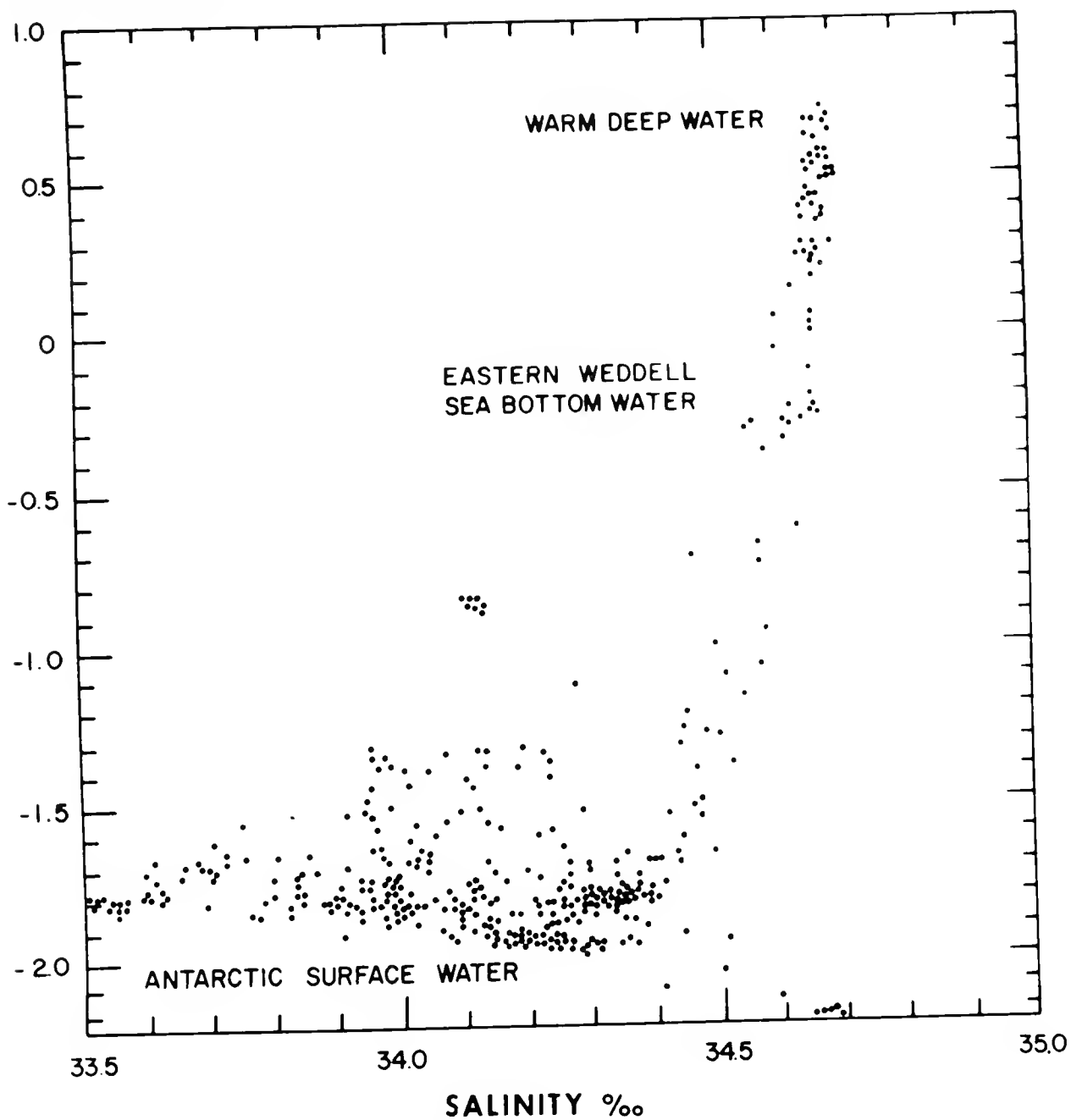


FIGURE 2. Scatter plot of temperature (°C)-salinity (‰) from all the stations taken in the eastern Weddell Sea during IWSOE-70, 14 February-21 March 1970.

TEMPERATURE °C

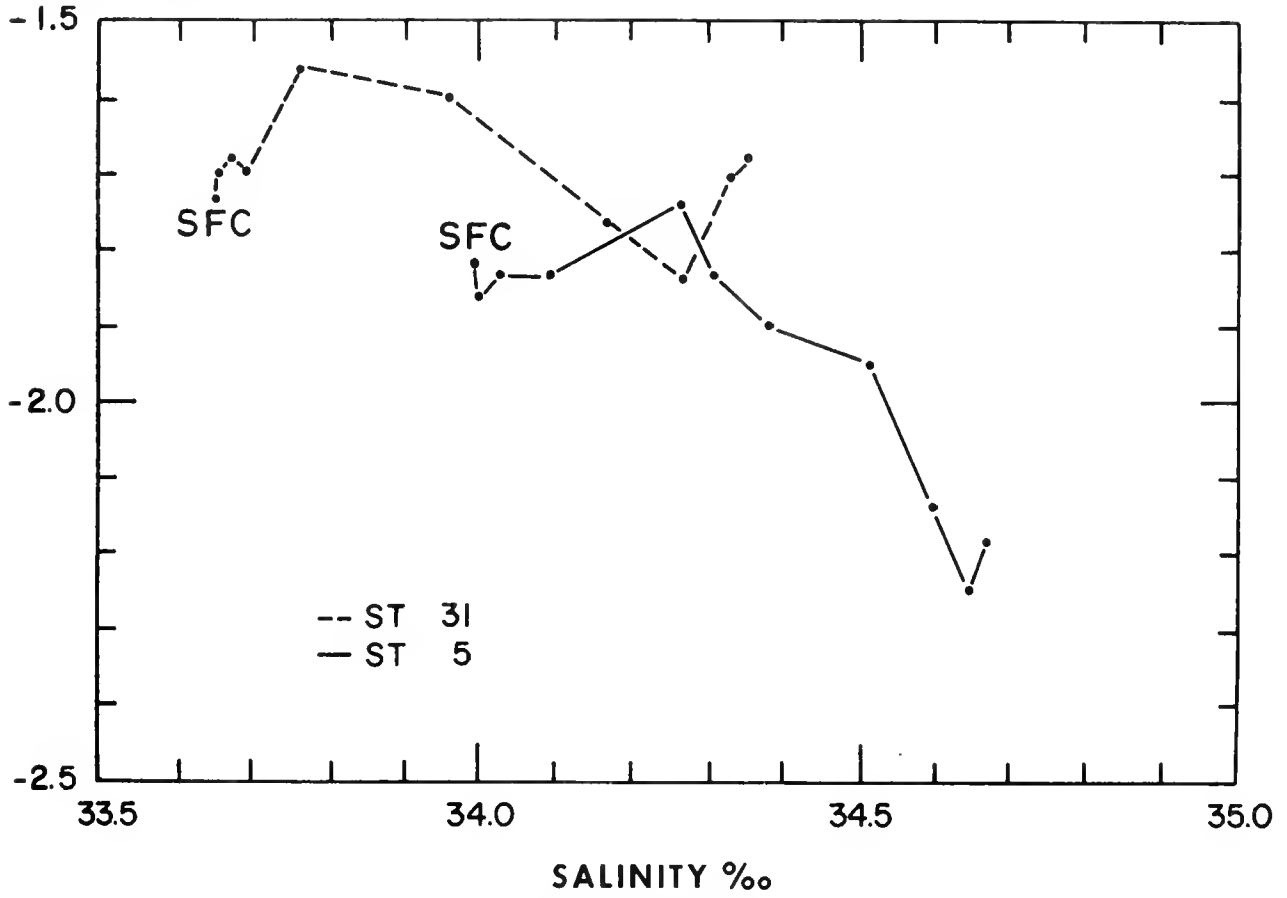


FIGURE 3. Temperature (°C)-salinity (‰) diagram of stations 5 and 31 from IWSOE-70, 14 February-21 March 1970.

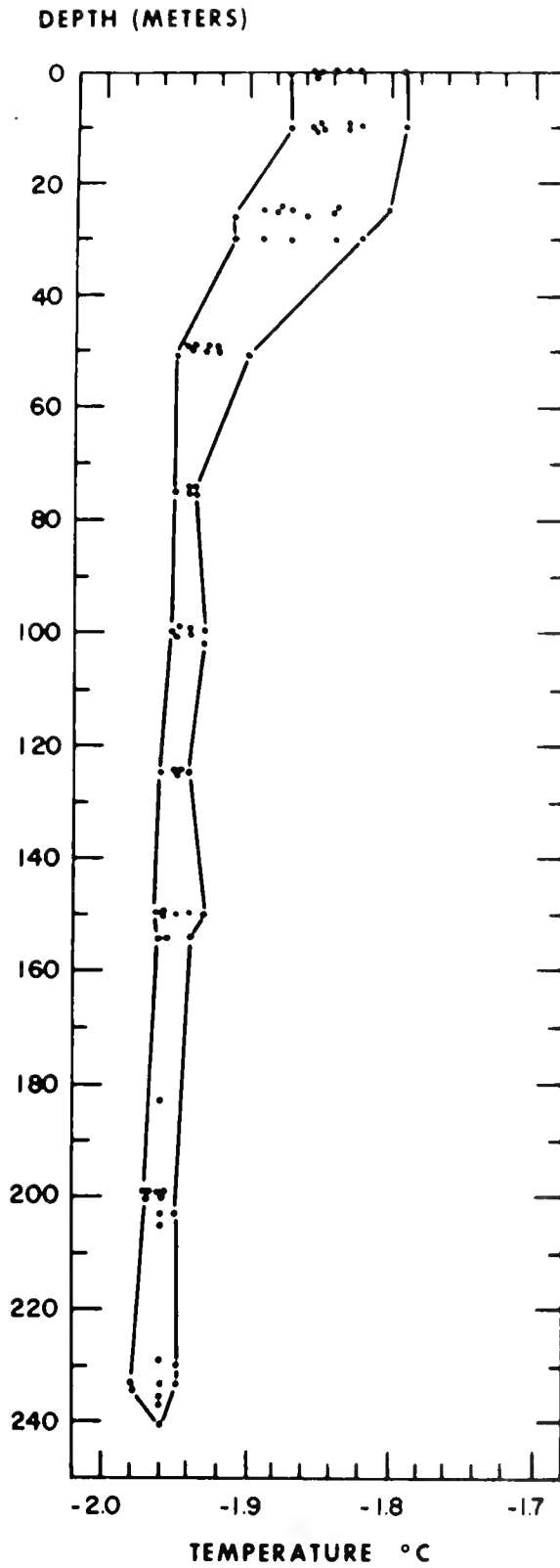


FIGURE 4. Envelope of temperature ($^{\circ}\text{C}$) versus depth (m) for stations 9 through 17 from IWSOE-70, 14 February-21 March 1970.

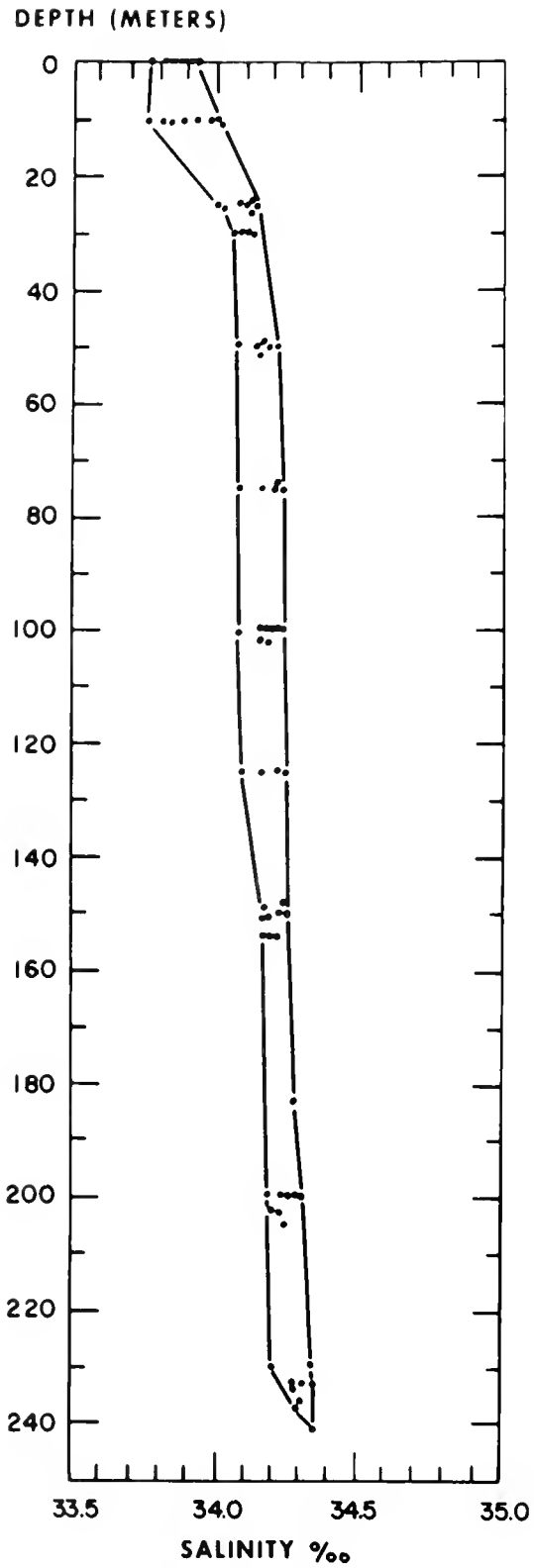


FIGURE 5. Envelope of salinity (‰) versus depth (m) for stations 9 through 17 from IWSOE-70, 14 February-21 March 1970.

TEMPERATURE °C

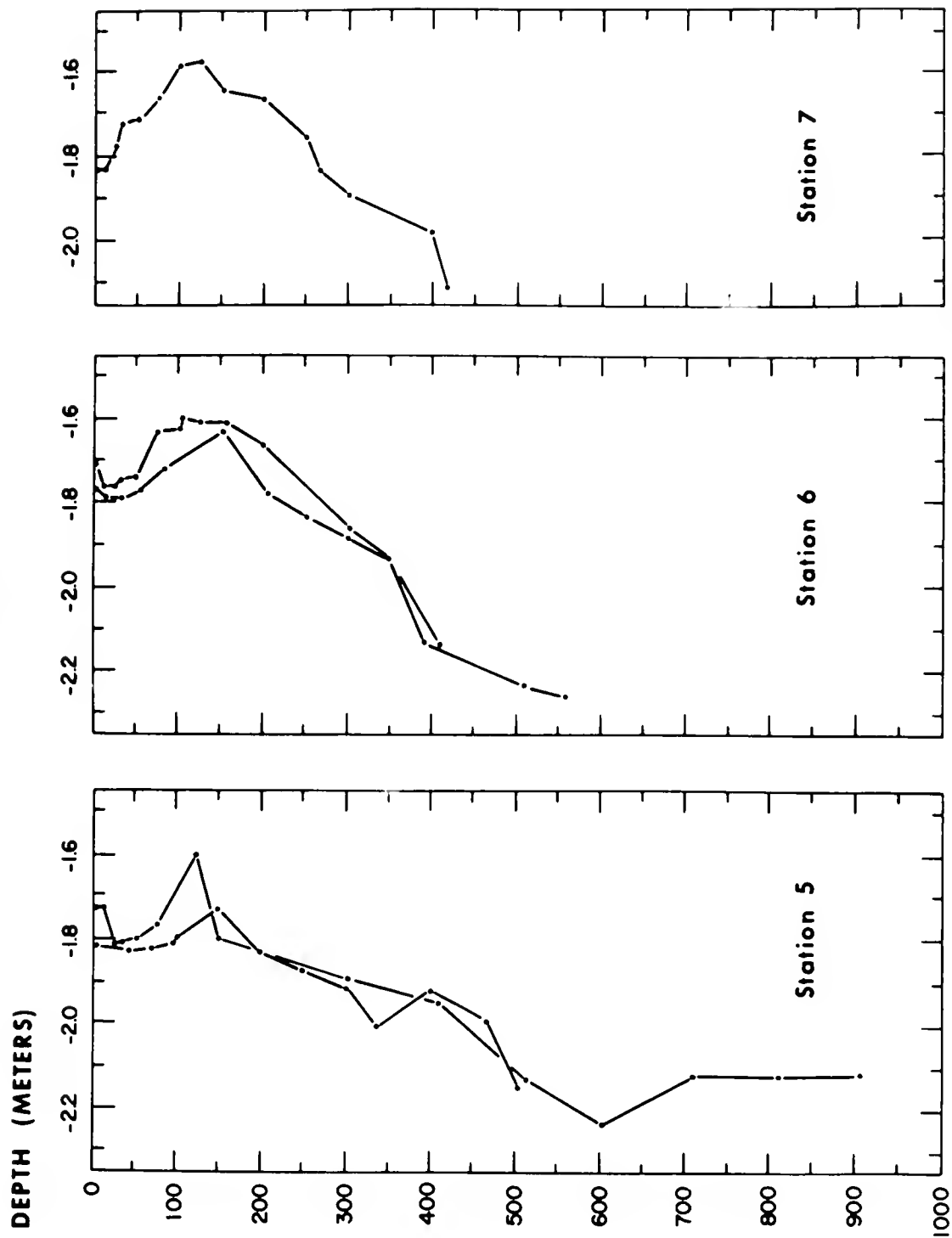


FIGURE 6. Temperature ($^{\circ}$ C) versus depth (m) for stations 5, 6, and 7 from IWSOE-70, 14 February-21 March 1970. Shallow casts by STD. Deeper casts by Nansen bottles.

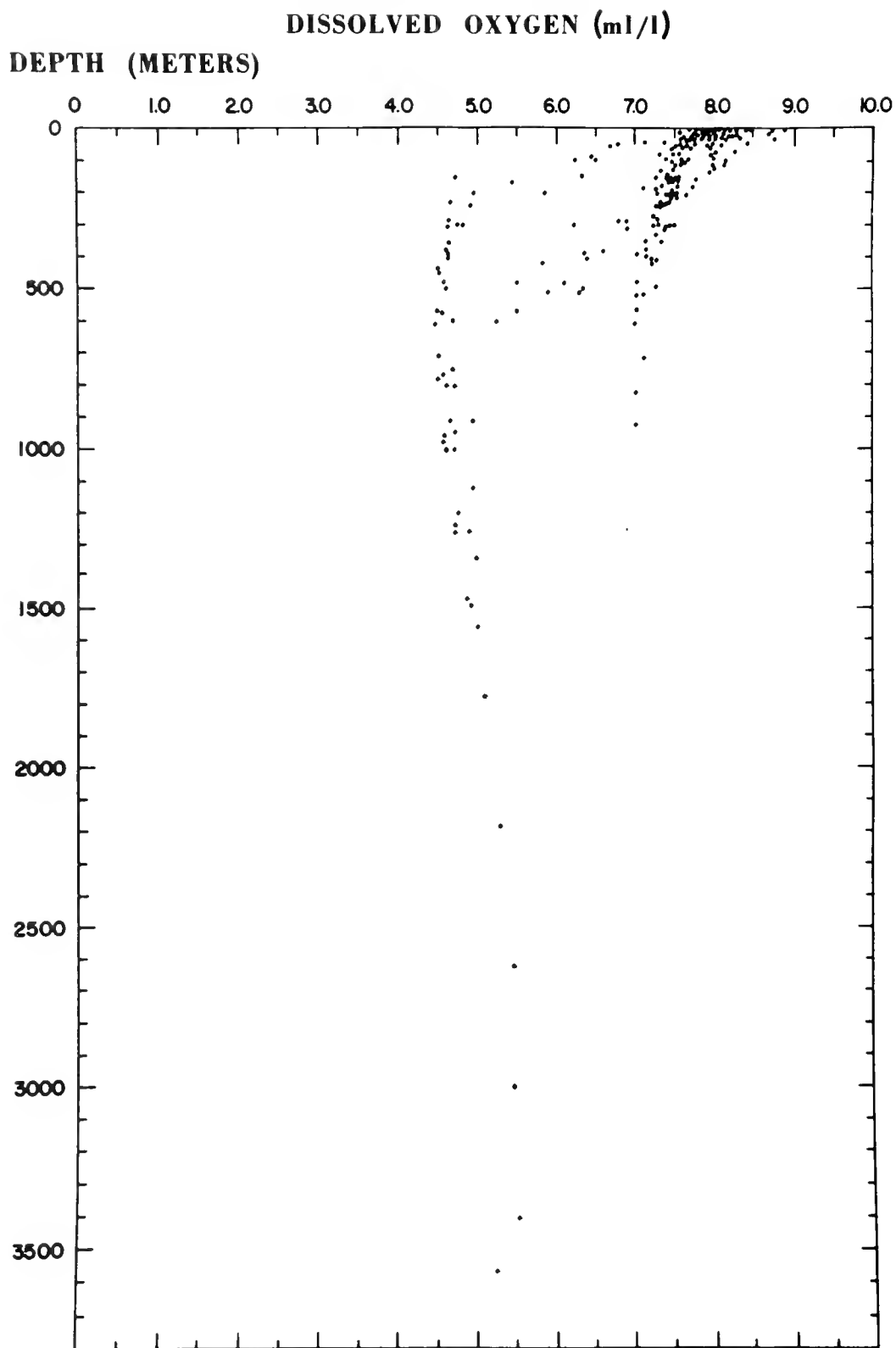


FIGURE 7. Dissolved oxygen (ml/l) versus depth (m) for all stations taken during IWSOE-70, 14 February-21 March 1970.

INORGANIC PHOSPHATE - P ($\mu\text{g-at/L}$)
DEPTH (METERS)

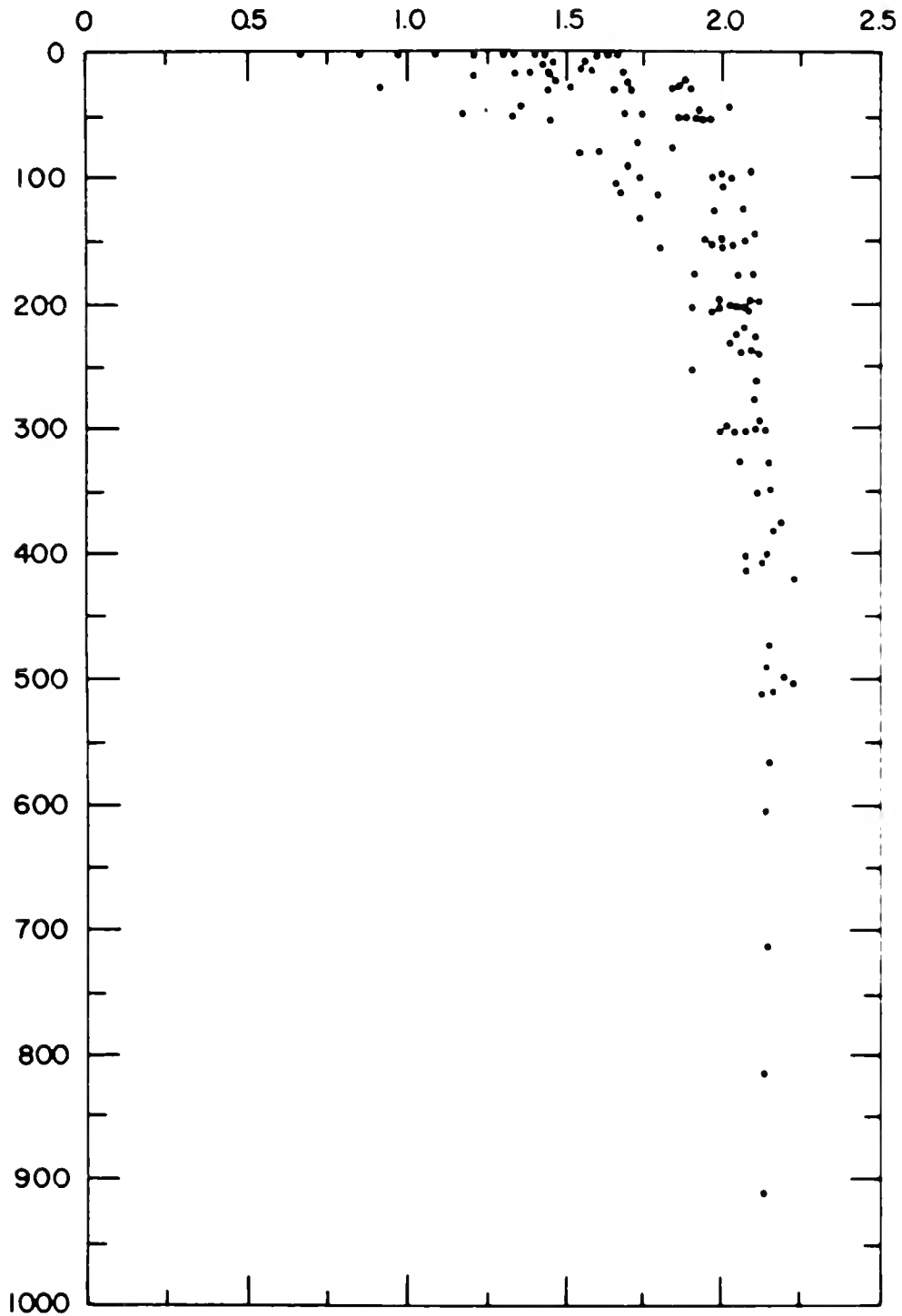


FIGURE 8. Envelope of inorganic phosphate ($\mu\text{g-at/l}$) versus depth (m) for all shelf stations taken during IWSOE-70, 14 February-21 March 1970.

REACTIVE NITRATE - N ($\mu\text{g-at/L}$)
DEPTH (METERS)

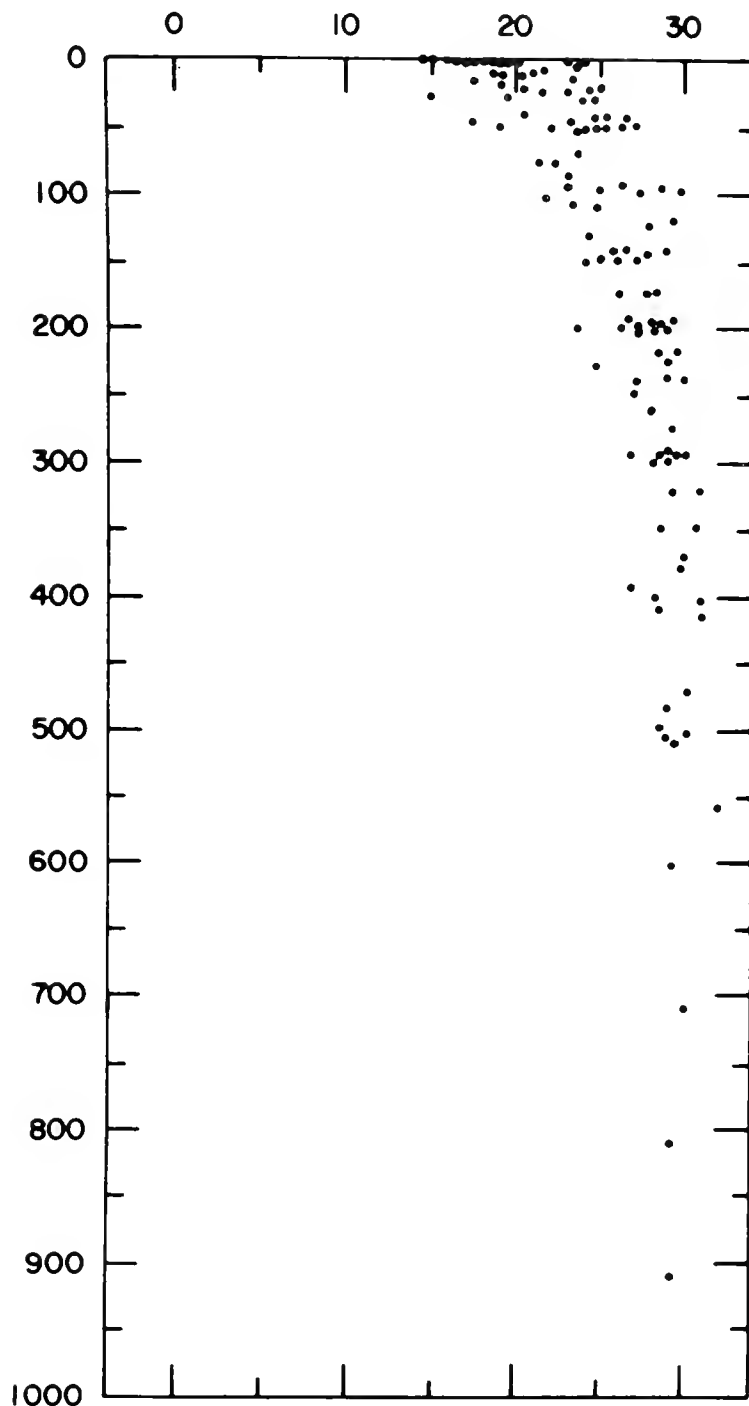


FIGURE 9. Envelope of nitrate ($\mu\text{g-at/l}$) versus depth (m) for all shelf stations taken during IWSOE-70, 14 February-21 March 1970.

SILICATE - Si ($\mu\text{g-at/L}$)

DEPTH (METERS)

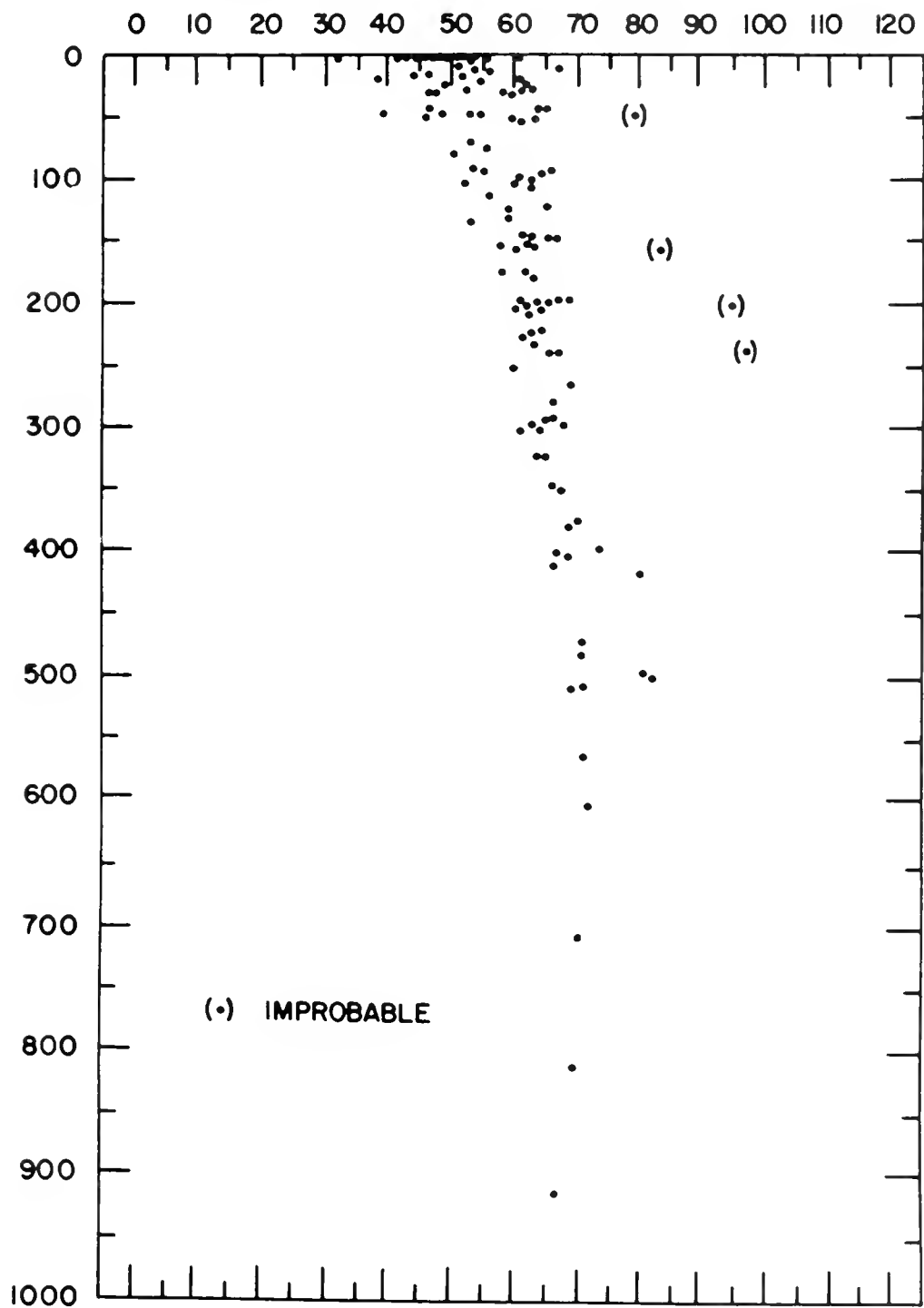


FIGURE 10. Envelope of silicate ($\mu\text{g-at/l}$) versus depth (m) for all shelf stations taken during IWSOE-70, 14 February-21 March 1970.

INORGANIC PHOSPHATE - P ($\mu\text{g-at/L}$)

DEPTH (METERS)

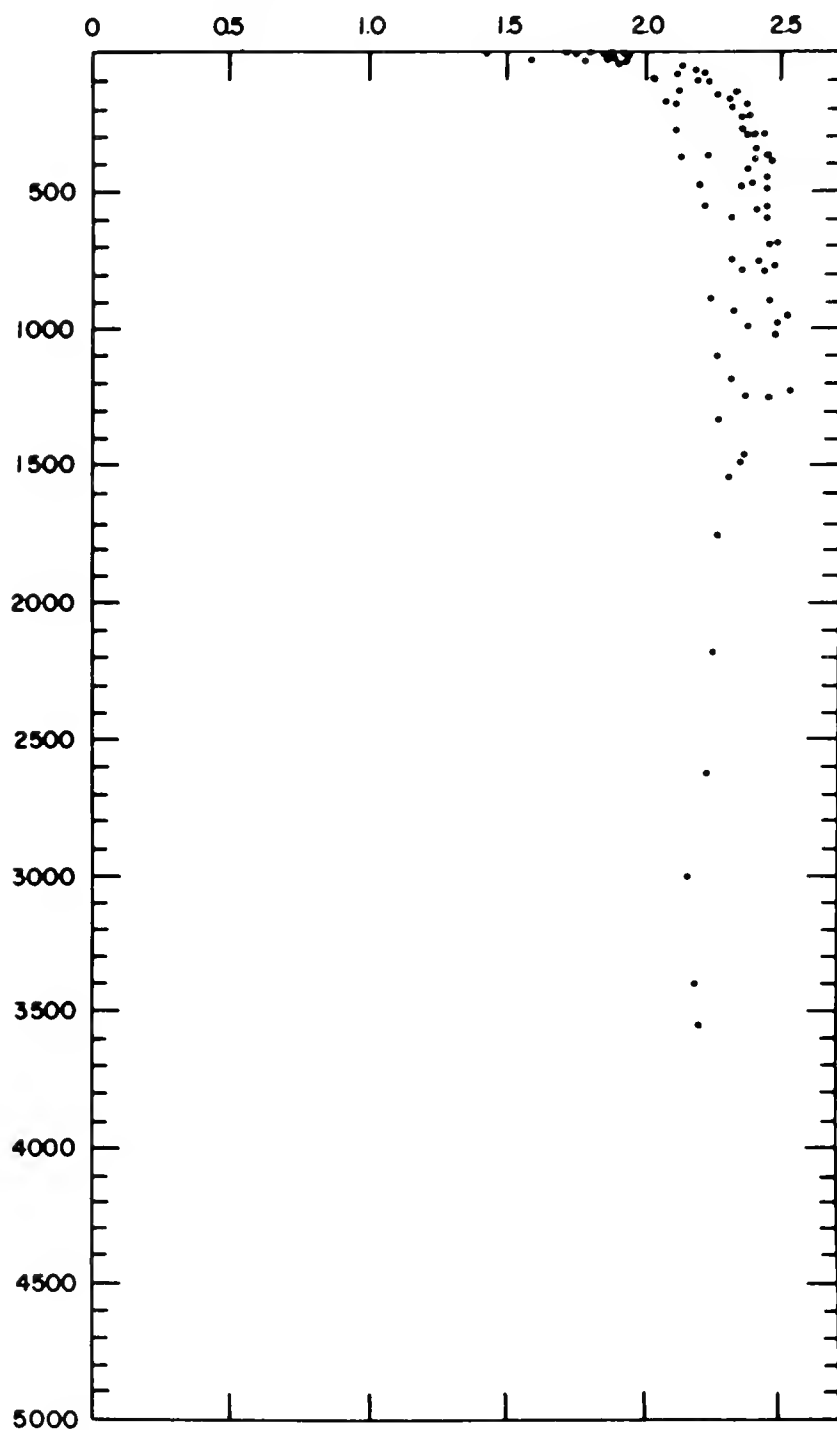


FIGURE 11. Envelope of inorganic phosphate ($\mu\text{g-at/l}$) versus depth (m) for all deep stations taken during IWSOE-70, 14 February-21 March 1970.

NITRATE - N ($\mu\text{g-at/L}$)

DEPTH (METERS)

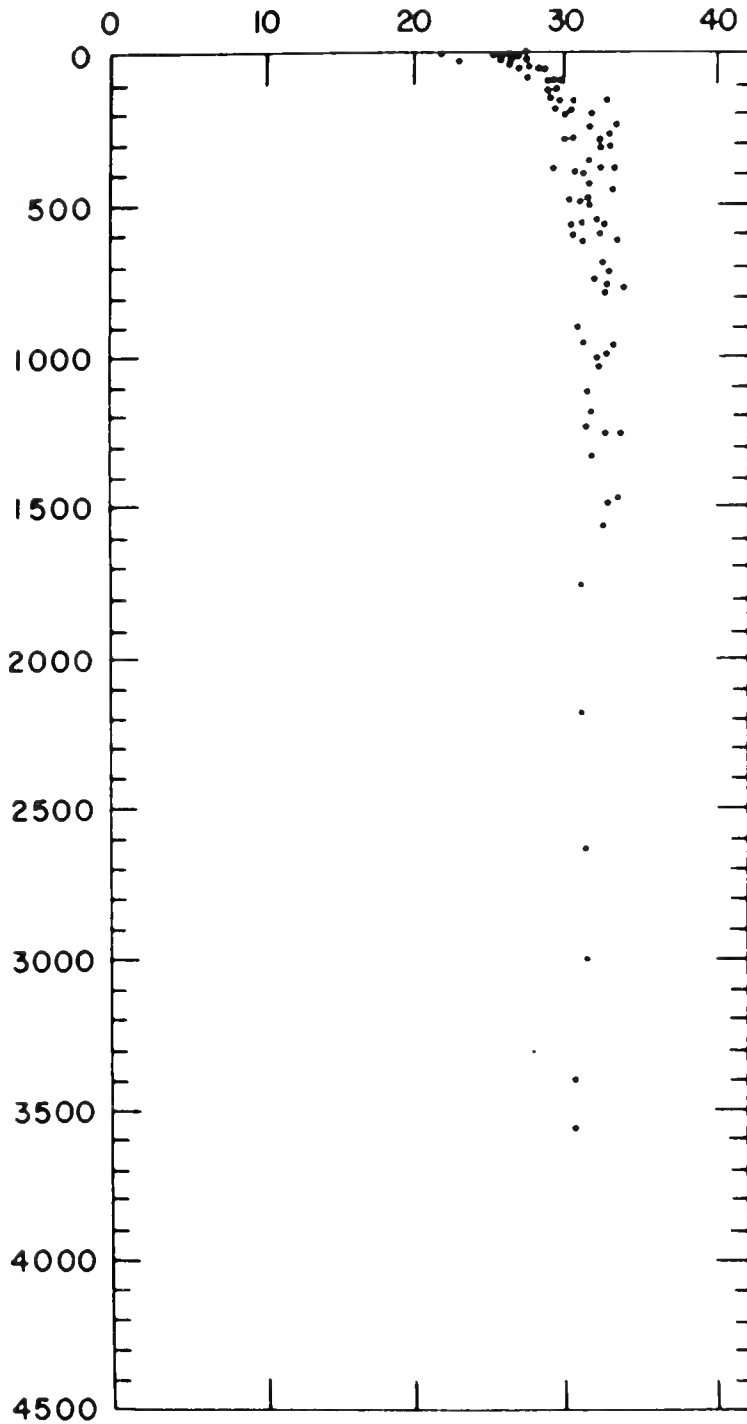


FIGURE 12. Envelope of nitrate ($\mu\text{g-at/l}$) versus depth (m) for all deep stations taken during IWSOE-70, 14 February-21 March 1970.

SILICATE - Si ($\mu\text{g-at/L}$)

DEPTH (METERS)

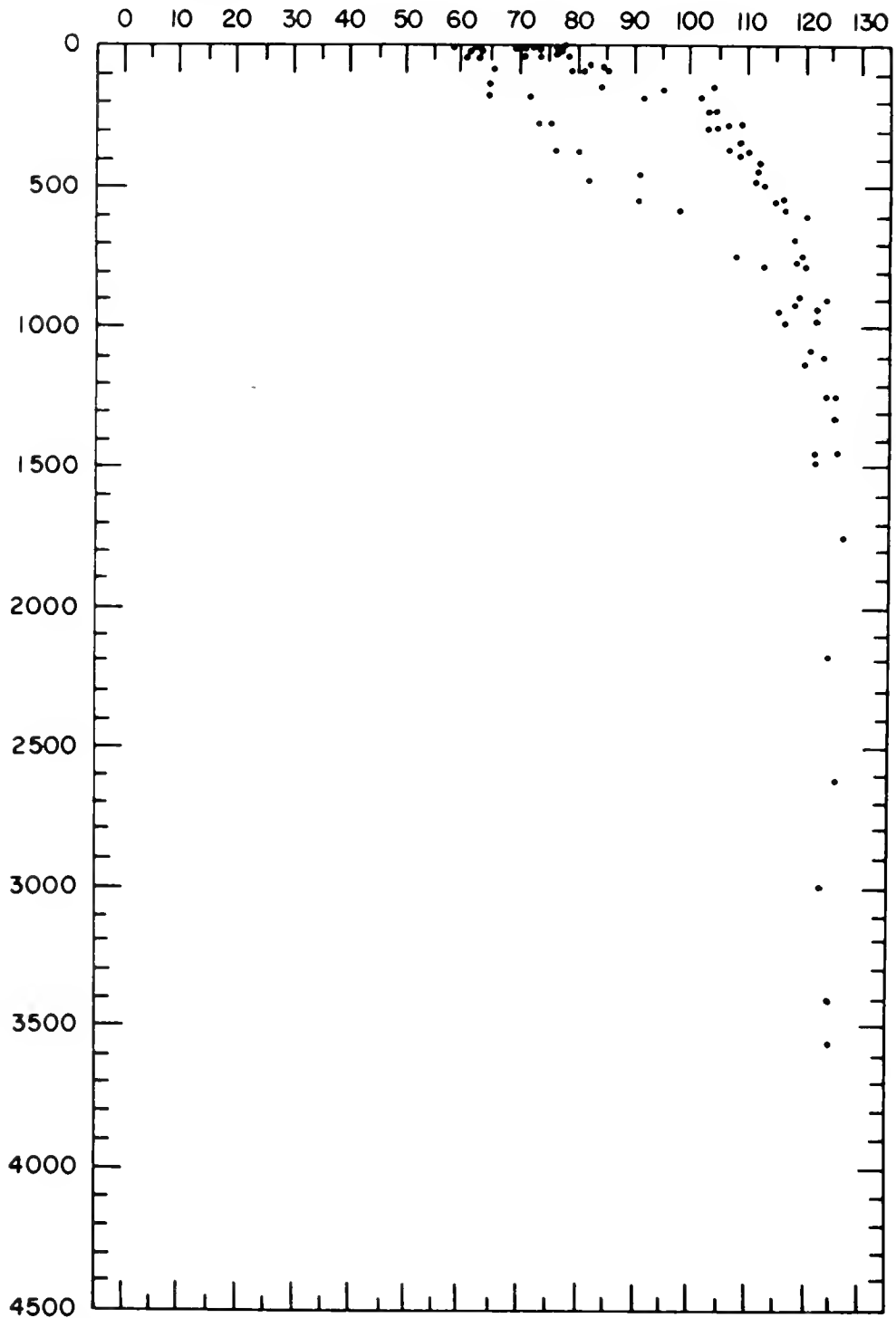


FIGURE 13. Envelope of silicate ($\mu\text{g-at/l}$) versus depth (m) for all deep stations taken during IWSOE-70, 14 February-21 March 1970.

APPENDIX A

OCEANOGRAPHIC DATA

Cruises Listed

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I. CGC GLACIER, January 1970	22
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Codes Utilized

A complete description of the codes utilized in the tabulation of oceanographic station data can be found in National Oceanographic Data Center publication M-2, Processing Physical and Chemical Data from Oceanographic Stations. (Rev. August 1964, supplement issued May 1966.)

To facilitate use of the oceanographic station data listing, entry headings which are not self-explanatory are described below.

Depth to Bottom	Corrected or uncorrected sounding in meters.
Max. Depth of Samples	Depth of deepest sample to nearest multiple of one hundred meters.
Wave observations	
DIR.	Rounded to nearest multiple of 10 degrees.
HGT.	Increments of ½ m. Sum of 5 meters plus increments of ½ m if 50 is added to direction.
PER.	If numerals 2 through 9 are entered, period in seconds is twice the numeric entry or 2X (numeric entry) + 1. For other entries see WMO Code 3155.
SEA	Sea state according to WMO Code 3700
Weather Code	If preceded by X, weather according to WMO Code 4501. If a two-digit entry, weather according to WMO Code 4677.
Cloud Code	
Type	Cloud type according to WMO Code 0500.
Amount	Cloud amount in eighths. Entry of the numeral 9 indicates cloud amount could not be estimated.
Water	
Color Code	Color according to Forel-Ule scale.
Trans.	Transparency in whole meters as determined by Secchi disc.
Wind	
Dir.	Rounded to nearest multiple of 10 degrees.
Speed or Force	If preceded by letter S, wind speed in knots; if preceded by letter F, wind force according to Beaufort scale.
Barometer	Barometric pressure given in tens, units, and tenths of millibars.
Air Temp. °C	Air temperature to tenths of a degree centigrade.
Vis. Code	Visibility according to WMO Code 4300.
No. obs. depths	Number of observed levels associated with the station.
Messenger time	Entered in hours and tenths of an hour GMT. For Nansen casts, indicates time of release of messenger applicable to the observational level. For STD casts, indicates the starting time of lowering the sensor.
Card type	OBS designates observed levels. STD indicates the values at this standard level were interpolated by a modified 3-point LaGrange formula.

Depth(m)	Depth to nearest meter. A postscript T indicates depth was obtained therometrically; Z indicates uncorrected "wire out" depth. Postscript Q indicates value was marked doubtful by originator; P indicates value was considered doubtful by NODC. Postscripts P and Q retain this meaning throughout the following entries.
T °C	Temperature to hundredths of a degree centigrade
S ‰	Salinity in parts-per-thousand.
SIGMA-T	Entered to hundredths.
Specific-volume	Multiply entry by 10^{-7} to obtain specific-volume anomaly in cubic centimeters per gram.
$\Sigma\Delta$ Dyn. M $\times 10^3$	Multiply entry by 10^{-3} to obtain anomaly of dynamic depth in dynamic meters referenced to the sea surface.
Sound Velocity	Sound velocity according to Wilson's formula entered to tenths of a meter per second.
O ₂ ml/l	Dissolved oxygen in milliliters per liter entered to hundredths.
PO ₄ -P $\mu\text{g-at/l}$	Inorganic phosphate in microgram-atoms per liter entered to hundredths.
Total-P $\mu\text{g-at/l}$	Total phosphous in microgram-atoms per liter entered to hundredths.
NO ₂ -N $\mu\text{g-at/l}$	Nitrite-nitrogen in microgram-atoms per liter entered to hundredths.
NO ₃ -N $\mu\text{g-at/l}$	Nitrate-nitrogen in microgram-atoms per liter entered to tenths.
SiO ₄ -Si $\mu\text{g-at/l}$	Silicate-silicon in microgram-atoms per liter entered to whole units.
pH	Entered to hundredths.

TABLE I.—CGC GLACIER, January 1970.

REFERENCE		SHIP CODE	LATITUDE	LONGITUDE	DEPTH INCH	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES	NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER			
318155	GL	6106 S	05539 W	521	15	01 06	209	1970	001	001	0045	27	6	4		X4	X	9	0001		
				WATER		WIND		BARO-METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
				COLOR CODE		TRANS. (m)		DIR.		SPEED OR FORCE		METER (mba)		DRY BULB		WET BULB		VIS. CODE			
						24		S14		893		006		005		3		04			

MESSAGE TIME of HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	SiO ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	S.C.C.
		STD	0000	-0012	3426	2754	0005559	0000	14477								
209		OBS	0000	-0012	34264	2754			14477								
		STD	0010	-0013	3426	2754	0005575	0005	14478								
209		OBS	0010	-0013	34262	2754			14478								
		STD	0020	-0013	3426	2754	0005564	0011	14480								
209		OBS	0025	-0013	34264	2754			14481								
		STD	0030	-0013	3426	2754	0005545	0016	14482								
209		OBS	0035	-0013	34266	2754			14483								

REFERENCE		SHIP CODE	LATITUDE	LONGITUDE	DEPTH INCH	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES	NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER			
318155	GL	6450S	06410 W	522	44	01 11	000	1970	002	002	0637	32	1	4		X1	7	7	0002		
				WATER		WIND		BARO-METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
				COLOR CODE		TRANS. (m)		DIR.		SPEED OR FORCE		METER (mba)		DRY BULB		WET BULB		VIS. CODE			
						22		S04		975		000		-001		7		11			

MESSAGE TIME of HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	SiO ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	S.C.C.
		STD	0000	-0098	3280	2639	0016446	0000	14417								
000		OBS	0000	-0098	32798	2639			14417								
000		OBS	0009	-0111	32797	2639			14412								
		STD	0010	-0113	3288	2646	0015751	0016	14413								
		STD	0020	-0125	3358	2703	0010364	0029	14419								
000		OBS	0023	-0125	33735	2716			14421								
		STD	0030	-0107	3386	2725	0008246	0038	14433								
000		OBS	0047	-0070	34080	2742			14456								
		STD	0050	-0065	3409	2742	0006671	0053	14459								
000		OBS	0070	-0035	34165	2747			14477								
		STD	0075	-0028	3421	2750	0005923	0069	14482								
000		OBS	0094	-0005	34336	2759			14497								
		STD	0100	-0002	3435	2760	0004970	0082	14500								
		STD	0125	0011	3439	2763	0004710	0094	14510								
000		OBS	0139	0016	3407P	2737P											
		STD	0150	0019	3442	2765	0004478	0106	14518								
000		OBS	0185	0027	34464	2768			14528								
		STD	0200	0028	3447	2768	0004202	0128	14532								
		STD	0250	0037	3449	2770	0004073	0148	14544								
000		OBS	0275	0043	34508	2771			14551								
		STD	0300	0054	3453	2772	0003863	0168	14561								
000		OBS	0360	0074	34586	2775			14580								
		STD	0400	0083	3461	2777	0003454	0205	14591								
000		OBS	T0443	0088	34640	2779			14601								

TABLE I.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT 10'	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NODC STATION NUMBER
CITY CODE	ID. NO.					10'	1'	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA		TYPE	AMT	
318155	GL	6114	S	05811	W	521	18	01	17	182	1970	003	0636		16	2	6	X1	8	2	0003	
		WATER		WIND		BARO-METER		AIR TEMP. °C		VIS. CODE		SPECIAL OBSERVATIONS										
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mb)	DRY BULB	WET BULB	NO. OBS. DEPTHS													
				03	S05	976	-010	-021	8	13												
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl/l}$	TOTAL-P $\mu\text{g} \cdot \text{dl/l}$	NO ₂ -N $\mu\text{g} \cdot \text{dl/l}$	NO ₃ -N $\mu\text{g} \cdot \text{dl/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl/l}$	pH	S. COC.					
		STO	0000	0066	3411	2738	0007103	0000	14511													
182		OBS	0000	0066	34115	2738			14511													
		STO	0010	0068	3395	2725	0008341	0007	14511													
182		OBS	0010	0068	33953	2725			14511													
		STO	0020	0049	3405	2733	0007501	0015	14506													
182		OBS	0025	0042	34083	2737			14504													
		STO	0030	0039	3408	2737	0007183	0023	14503													
		STO	0050	0027	3409	2738	0007073	0037	14501													
182		OBS	0051	0026	34090	2738			14501													
		STO	0075	0013	3412	2741	0006743	0054	14499													
182		OBS	0076	0012	34127	2742			14499													
		STO	0100	-0007	3423	2751	0005797	0070	14496													
182		OBS	0102	-0008	34241	2752			14496													
		STO	0125	-0014	3426	2754	0005539	0084	14497													
		STO	0150	-0022	3429	2756	0005298	0097	14498													
182		OBS	0152	-0023	34292	2757			14498													
		STO	0200	-0042	3435	2763	0004702	0122	14498													
182		OBS	0203	-0043	34358	2763			14498													
		STO	0250	-0017	3443	2767	0004251	0145	14519													
182		OBS	0254	-0015	34434	2768			14520													
		STO	0300	-0002	3448	2771	0003915	0165	14534													
182		OBS	0305	-0002	34486	2771			14535													
		STO	0400	-0026	3453	2776	0003387	0202	14541													
182		OBS	0406	-0028	34534	2776			14541													
		STO	0500	-0060	3453	2778	0003163	0235	14542													
182		OBS	0508	-0063	34535	2778			14542													
		STO	0600	-0096	3453	2779	0003017	0265	14542													
182		OBS	T0618	-0102	34523	2779			14542													

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT 10'	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NODC STATION NUMBER
CITY CODE	ID. NO.					10'	1'	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA		TYPE	AMT	
318155	GL	6236	S	05935	W	521	29	01	18	167	1970	004	0546		21	2	2	X2	6	8	0004	
		WATER		WIND		BARO-METER		AIR TEMP. °C		VIS. CODE		SPECIAL OBSERVATIONS										
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mb)	DRY BULB	WET BULB	NO. OBS. DEPTHS													
				21	S18	949	010	-004	7	12												
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl/l}$	TOTAL-P $\mu\text{g} \cdot \text{dl/l}$	NO ₂ -N $\mu\text{g} \cdot \text{dl/l}$	NO ₃ -N $\mu\text{g} \cdot \text{dl/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl/l}$	pH	S. COC.					
		STO	0000	0037	3409	2737	0007167	0000	14497													
167		OBS	0000	0037	34086	2737			14497													
167		OBS	0009	0038	34091	2737			14499													
		STO	0010	0038	3409	2737	0007130	0007	14499													
		STO	0020	0035	3409	2737	0007148	0014	14500													
167		OBS	0023	0035	34086	2737			14500													
		STO	0030	0035	3407	2736	0007237	0021	14501													
167		OBS	0046	0034	34074	2736			14503													
		STO	0050	0030	3409	2737	0007127	0035	14502													
167		OBS	0069	0011	34139	2743			14497													
		STO	0075	0003	3415	2744	0006471	0052	14495													
167		OBS	0092	-0015	34193	2748			14490													
		STO	0100	-0022	3422	2751	0005856	0068	14489													
		STO	0125	-0038	3428	2756	0005314	0082	14486													
167		OBS	0138	-0043	34300	2758			14486													
		STO	0150	-0043	3431	2759	0005064	0095	14489													
167		OBS	0182	-0042	34332	2761			14494													
		STO	0200	-0039	3435	2762	0004776	0119	14499													
167		OBS	0227	-0030	34378	2764			14508													
		STO	0250	-0014	3442	2767	0004316	0142	14520													
167		OBS	0270	-0003	34455	2769			14529													
		STO	0300	0007	3449	2771	0003914	0163	14539													
167		OBS	0356	0014	34538	2775			14552													
		STO	0400	0010	3456	2777	0003383	0199	14558													
167		OBS	T0438	0000	34572	2778			14560													

TABLE I.—Continued.

REFERENCE CITY CODE	SHIP NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH IN METERS	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
						10"	1"	MO.	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT.	PER.		SEA.	TYPE		AMT.
318155	GL	601255	04615	W	520	06	01	27	212	1970	005	2727	00	0	X		X4	X	9		0005		
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS									
		COLOR CODE		TRANS. (m)		DIR.		SPEED OR FORCE		METER (mb)		DRY BULB		WET BULB									
						32		S05		921		017		015		1		16					
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S OC						
		STD	0000	-0034	3334	2681	0012500	0000	14454														
212		OBS	0000	-0034	33344	2681			14454														
		STD	0010	-0034	3335	2682	0012415	0012	14456														
212		OBS	0010	-0034	33354	2682			14456														
		STD	0020	-0073	3339	2686	0012012	0024	14440														
212		OBS	0026	-0091	33431	2690			14433														
		STD	0030	-0095	3350	2696	0011029	0036	14433														
		STD	0050	-0118	3382	2722	0008550	0055	14430														
212		OBS	0052	-0120	33843	2724			14430														
		STD	0075	-0148	3409	2745	0006384	0074	14424														
212		OBS	0077	-0150	34104	2746			14424														
		STD	0100	-0115	3429	2760	0004928	0088	14446														
212		OBS	0103	-0111	34308	2762			14449														
		STD	0125	-0089	3437	2766	0004404	0100	14464														
		STD	0150	-0065	3443	2770	0004036	0110	14480														
		STD	0200	-0027	3452	2775	0003514	0129	14507														
212		OBS	0203	-0025	34524	2776			14508														
		STD	0250	0003	3456	2777	0003348	0146	14530														
		STD	0300	0019	3459	2778	0003233	0163	14546														
212		OBS	0303	0020	34590	2779			14547														
		STD	0400	0012	3460	2780	0003062	0194	14559														
212		OBS	0400	0012	34605	2780			14559														
		OBS	T0498	0007	34598	2780			14573														
		STD	0500	0007	3460	2780	0003079	0225	14574														
212		OBS	T0591	0011	34613	2781			14591														
		STD	0600	0011	3461	2781	0002982	0255	14592														
		STD	0700	0009	3462	2782	0002895	0285	14608														
212		OBS	0793	0007	34629	2782			14623														
		STD	0800	0007	3463	2782	0002834	0313	14624														
		STD	0900	0006	3463	2782	0002819	0342	14640														
212		OBS	0993	0004	34630	2783			14655														
		STD	1000	0004	3463	2783	0002790	0370	14656														
		STD	1100	-0000	3463	2783	0002728	0397	14671														
212		OBS	1193	-0004	34635	2783			14685														
		STD	1200	-0004	3463	2783	0002684	0424	14686														
		STD	1300	-0008	3463	2784	0002656	0451	14701														
		STD	1400	-0011	3463	2784	0002637	0477	14717														
212		OBS	T1492	-0013	34631	2784			14732														
		STD	1500	-0013	3463	2784	0002618	0504	14733														
		STD	1750	-0018	3463	2783	0002593	0569	14773														
		STD	2000	-0019	3462	2783	0002604	0634	14815														
212		OBS	T2008	-0019	34619	2783			14817														

TABLE I.--Continued.

REFERENCE CITY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS DEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	M.A.T. DEPTH OF S'AMPLE'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER																																		
					10'	1'	MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIP	HGT		PER	SEA		TYPE	AMT																																
318155	GL	6012 S	04615 W	520	06	01	28	050	1970	006					X1	0	3	0006																																				
<table border="1"> <thead> <tr> <th colspan="4">WATER</th> <th colspan="4">WIND</th> <th rowspan="2">BARO- METER (mb)</th> <th colspan="2">AIR TEMP. °C</th> <th rowspan="2">VIS CODE</th> <th rowspan="2">NO. OBS. DEPTHS</th> <th rowspan="2">SPECIAL OBSERVATIONS</th> </tr> <tr> <th>COLOR CODE</th> <th>TRANS. (m)</th> <th>DIR.</th> <th>SPEED OF FORCE</th> <th>DRY BULB</th> <th>WET BULB</th> <th>DRY BULB</th> <th>WET BULB</th> </tr> </thead> <tbody> <tr> <td>DT</td> <td>SD</td> <td>36</td> <td>SQ4</td> <td></td> <td></td> <td>015</td> <td></td> <td>7</td> <td>27</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>																				WATER				WIND				BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB	DT	SD	36	SQ4			015		7	27			
WATER				WIND				BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																									
COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB																																															
DT	SD	36	SQ4			015		7	27																																													
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta D$ DYN. M $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S C C																																					
		STD	0000	-0024	3342	2686	0011958	0000	14460																																													
050		OBS	0000	-0024	33420	2686			14460																																													
		STD	0010	-0024	3342	2686	0011955	0012	14462																																													
		OBS	0010	-0024	33420	2686			14462																																													
		STD	0020	-0045	3344	2689	0011688	0023	14454																																													
007		OBS	0025	-0069	33470	2692			14444																																													
		STD	0030	-0102	3351	2697	0010974	0035	14430																																													
		OBS	0030	-0102	33508	2697			14430																																													
		STD	0050	-0118	3388	2727	0008063	0054	14431																																													
		OBS	0050	-0118	33880	2727			14431																																													
		STD	0075	-0159	3420	2754	0005479	0071	14420																																													
		OBS	0075	-0159	34200	2754			14420																																													
		OBS	0078	-0162	34220	2756			14420																																													
		STD	0100	-0142	3441	2771	0003938	0082	14435																																													
		OBS	0100	-0142	34406	2771			14435																																													
		STD	0125	-0124	3444	2773	0003725	0092	14448																																													
		OBS	0125	-0124	34440	2773			14448																																													
		STD	0150	-0080	3454	2779	0003103	0101	14475																																													
		OBS	0150	-0080	34543	2779			14475																																													
		STD	0200	-0046	3458	2781	0002955	0116	14499																																													
		OBS	0200	-0046	34580	2781			14499																																													
		STD	0250	0015	3465	2784	0002746	0130	14536																																													
		OBS	0250	0015	34650	2784			14536																																													
		STD	0300	0015	3467	2785	0002610	0143	14545																																													
		OBS	0300	0015	34668	2785			14545																																													
		OBS	0338	0022	34690	2786			14555																																													
		OBS	0354	0005	34650	2784			14549																																													
		OBS	0374	0036	34710	2787			14567																																													
		STD	0400	0034	3471	2787	0002406	0168	14571																																													
		OBS	0400	0034	34710	2787			14571																																													
		OBS	0443	0026	34710	2788			14574																																													
		OBS	0470	0006	34710	2789			14570																																													
		STD	0500	-0001	3469	2788	0002299	0192	14571																																													
		OBS	0500	-0001	34695	2788			14571																																													
		STD	0600	0021	3472	2789	0002250	0215	14598																																													
		OBS	0600	0021	34720	2789			14598																																													
		STD	0700	0011	3472	2789	0002187	0237	14610																																													
		OBS	0700	0011	34720	2789			14610																																													
		STD	0800	0010	3473	2790	0002103	0258	14627																																													
		OBS	0800	0010	34730	2790			14627																																													
		STD	0900	0002	3472	2790	0002117	0279	14640																																													
		OBS	0900	0002	34720	2790			14640																																													
		STD	1000	-0001	3480	2797	0001450	0297	14656																																													
		OBS	1000	-0001	34805	2797			14656																																													
		STD	1100	-0007	3480	2797	0001402	0311	14670																																													
		OBS	1100	-0007	34805	2797			14670																																													
		STD	1200	-0012	3480	2798	0001354	0325	14685																																													
		OBS	1200	-0012	34805	2798			14685																																													

TABLE I.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES TYPE AMT	NODC STATION NUMBER																										
CTRY CODE	ID. NO.					10'	1'	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA																													
318155	GL	5627 S	04507 W	484	65	01	28	175	1970		007	0380		01	1	2		X7	03		0007																										
<table border="1"> <thead> <tr> <th colspan="2">WATER</th> <th colspan="2">WIND</th> <th rowspan="2">BARO-METER (mba)</th> <th colspan="2">AIR TEMP. °C</th> <th rowspan="2">VIS. CODE</th> <th rowspan="2">NO. OBS. DEPTHS</th> <th rowspan="2">SPECIAL OBSERVATIONS</th> </tr> <tr> <th>COLOR CODE</th> <th>TRANSL. (m)</th> <th>DIR.</th> <th>SPEED OR FORCE</th> <th>DRY BULB</th> <th>WET BULB</th> </tr> </thead> <tbody> <tr> <td>DT</td> <td>SD</td> <td>36</td> <td>504</td> <td>915</td> <td>018</td> <td>017</td> <td>7</td> <td>14</td> <td></td> </tr> </tbody> </table>																						WATER		WIND		BARO-METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANSL. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DT	SD	36	504	915	018	017	7	14	
WATER		WIND		BARO-METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																						
COLOR CODE	TRANSL. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB																																									
DT	SD	36	504	915	018	017	7	14																																							
MESSAGE TIME OF HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S %.	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S.C.C.																														
	175	STD	0000	-0007	3342	2686	0012030	0000	14468																																						
		OBS	0000	-0007	3342	2686			14468																																						
		STD	0010	-0007	3342	2686	0012027	0012	14469																																						
		OBS	0010	-0007	3342	2686			14469																																						
		STD	0020	-0069	3353	2697	0010954	0023	14444																																						
	005	OBS	0025	-0099	3362	2706			14432																																						
		STD	0030	-0129	3374	2716	0009111	0033	14421																																						
		OBS	0030	-0129	3374	2716			14421																																						
		STD	0050	-0149	3412	2748	0006136	0048	14420																																						
		OBS	0050	-0149	3412	2748			14420																																						
		STD	0075	-0164	3428	2761	0004847	0062	14419																																						
		OBS	0075	-0164	3428	2761			14419																																						
		OBS	0081	-0172	3429	2762			14416																																						
		STD	0100	-0166	3438	2769	0004066	0073	14424																																						
		OBS	0100	-0166	3438	2769			14424																																						
		STD	0125	-0144	3445	2774	0003582	0083	14439																																						
		OBS	0125	-0144	3445	2774			14439																																						
		STD	0150	-0099	3455	2781	0002969	0091	14466																																						
		OBS	0150	-0099	3455	2781			14466																																						
		STD	0200	-0056	3462	2785	0002608	0105	14495																																						
		OBS	0200	-0056	3462	2785			14495																																						
		STD	0250	-0043	3464	2786	0002507	0118	14510																																						
		OBS	0250	-0043	3464	2786			14510																																						
		STD	0300	-0039	3465	2786	0002448	0130	14520																																						
		OBS	0300	-0039	3465	2786			14520																																						
		OBS	0369	-0033	3466	2787			14534																																						

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES TYPE AMT	NODC STATION NUMBER																										
CTRY CODE	ID. NO.					10'	1'	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA																													
318155	GL	6030 S	04433 W	520	04	01	29	180	1970		008	0600		05	2	4		X4	03		0008																										
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WATER		WIND		BARO-METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																						
COLOR CODE	TRANSL. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB																																									
DT	SD	11	513	818	009	009	3	16																																							
MESSAGE TIME OF HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S %.	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S.C.C.																														
	180	STD	0000	-0039	3342	2687	0011894	0000	14453																																						
		OBS	0000	-0039	33420	2687			14453																																						
		STD	0010	-0039	3342	2687	0011891	0011	14455																																						
		OBS	0010	-0039	33420	2687			14455																																						
		STD	0020	-0087	3349	2694	0011197	0023	14435																																						
	005	OBS	0025	-0103	33620	2706			14430																																						
		STD	0030	-0114	3382	2722	0008552	0033	14429																																						
		OBS	0030	-0114	33820	2722			14429																																						
		STD	0050	-0156	3408	2745	0006414	0048	14416																																						
		OBS	0050	-0156	34080	2745			14416																																						
		OBS	0065	-0161	34320	2764			14419																																						
		STD	0075	-0156	3434	2766	0004371	0061	14424																																						
		OBS	0075	-0156	34345	2766			14424																																						
		STD	0100	-0148	3446	2775	0003503	0071	14433																																						
		OBS	0100	-0148	34460	2775			14433																																						
		STD	0125	-0122	3446	2774	0003563	0080	14450																																						
		OBS	0125	-0122	34462	2774			14450																																						
		STD	0150	-0096	3452	2779	0003177	0088	14467																																						
		OBS	0150	-0096	34524	2779			14467																																						
		STD	0200	-0054	3461	2784	0002654	0103	14496																																						
		OBS	0200	-0054	34615	2784			14496																																						
		STD	0250	-0037	3466	2787	0002386	0116	14513																																						
		OBS	0250	-0037	34660	2787			14513																																						
		STD	0300	-0026	3467	2787	0002360	0127	14526																																						
		OBS	0300	-0026	34670	2787			14526																																						
		STD	0400	-0023	3469	2789	0002217	0150	14544																																						
		OBS	0400	-0023	34690	2789			14544																																						
		STD	0500	-0021	3469	2789	0002173	0172	14562																																						
		OBS	0500	-0021	34695	2789			14562																																						
		OBS	0595	-0020	34710	2790			14579																																						

TABLE II.—CGC GLACIER, February–March 1970.

REFERENCE CITY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARSSEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER																									
						10'	1'	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER				SEA	TYPE	LMT																						
318154	GL		742145	038182W	555	48	02	19	055	1970		001	0512				X4	013	0001																									
<table border="1"> <thead> <tr> <th colspan="2">WATER</th> <th colspan="2">WIND</th> <th rowspan="2">BARO- METER (mb)</th> <th colspan="2">AIR TEMP. °C</th> <th rowspan="2">VIS CODE</th> <th rowspan="2">NO. OBS. DEPTHS</th> <th rowspan="2">SPECIAL OBSERVATIONS</th> </tr> <tr> <th>COLOR CODE</th> <th>TRANS. IMI</th> <th>DIR.</th> <th>SPEED OF FORCE</th> <th>DRY BULB</th> <th>WET BULB</th> </tr> </thead> <tbody> <tr> <td>DT</td> <td>SD</td> <td>14</td> <td>S08</td> <td>861</td> <td>+022</td> <td>+024</td> <td>6</td> <td>15</td> <td></td> </tr> </tbody> </table>																			WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. IMI	DIR.	SPEED OF FORCE	DRY BULB	WET BULB	DT	SD	14	S08	861	+022	+024	6	15	
WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																			
COLOR CODE	TRANS. IMI	DIR.	SPEED OF FORCE		DRY BULB	WET BULB																																						
DT	SD	14	S08	861	+022	+024	6	15																																				
MESSNGR TIME HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210?	Σ Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	Σ C																											
		STD	0000	-0176	3397	2736	0007239	0000	14397																																			
	055	OBS	0000	-0176	3397	2736			14397																																			
		STD	0010	-0179	3397	2736	0007225	0007	14397																																			
		OBS	0010	-0179	3397	2736			14397																																			
		STD	0020	-0179	3403	2741	0006758	0014	14399																																			
	005	OBS	0025	-0179	3407	2744			14401																																			
		STD	0030	-0178	3412	2748	0006062	0021	14403																																			
		OBS	0030	-0178	3412	2748			14403																																			
		STD	0050	-0181	3430	2763	0004661	0031	14407																																			
		OBS	0050	-0181	3430	2763			14407																																			
		STD	0075	-0182	3434	2766	0004336	0043	14411																																			
		OBS	0075	-0182	3434	2766			14411																																			
		STD	0100	-0182	3436	2768	0004167	0053	14416																																			
		OBS	0100	-0182	3436	2768			14416																																			
		STD	0125	-0180	3437	2769	0004080	0064	14421																																			
		OBS	0125	-0180	3437	2769			14421																																			
		STD	0150	-0179	3439	2770	0003915	0074	14426																																			
		OBS	0150	-0179	3439	2770			14426																																			
		STD	0200	-0174	3441	2772	0003747	0093	14437																																			
		OBS	0200	-0174	3441	2772			14437																																			
		STD	0250	-0162	3444	2774	0003528	0111	14451																																			
		OBS	0250	-0162	3444	2774			14451																																			
		STD	0300	-0152	3446	2775	0003385	0128	14465																																			
		OBS	0300	-0152	3446	2775			14465																																			
		STD	0371	-0139	3452	2780			14483																																			
		OBS	0371	-0139	3452	2780			14483																																			
		STD	0400	-0096	3458	2783	0002665	0158	14509																																			
		OBS	0400	-0096	3458	2783			14509																																			
		STD	0500	-0063	3463	2786	0002426	0184	14542																																			
		OBS	0500	-0063	3463	2786			14542																																			

REFERENCE CITY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARSSEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER																									
						10'	1'	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER				SEA	TYPE	LMT																						
318154	GL		742145	038182W	555	48	02	19	070	1970		001	0512				X4	618	0002																									
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																			
COLOR CODE	TRANS. IMI	DIR.	SPEED OF FORCE		DRY BULB	WET BULB																																						
		14	S08	861	-022	-024	6	10																																				
MESSNGR TIME HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210?	Σ Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	Σ C																											
		STD	0000	-0182	3390	2731	0007748	0000	14393	844																																		
	070	OBS	0000	-0182	33902	2731			14393	844	127		008	190	050																													
		STD	0010	-0181	3387	2728	0008012	0008	14394	867																																		
		OBS	0010	-0181	33867	2728			14394	867	131		008	189	050																													
		STD	0020	-0182	3391	2731	0007673	0016	14396	845																																		
		OBS	0025	-0182	33939	2734			14397	833	142		007	210	054																													
		STD	0030	-0182	3400	2739	0006975	0023	14399	817																																		
		OBS	0050	-0180	34216	2756	0005354	0035	14406	768																																		
		STD	0075	-0181	3427	2761	0004874	0048	14411	763																																		
		OBS	0100	-0183	3431	2764	0004548	0060	14415	760	189		008	268	062																													
		STD	0102	-0183	34316	2764			14415	760	202		005	285	065																													
		OBS	0125	-0184	3433	2766	0004378	0071	14419	752																																		
		STD	0150	-0184	3434	2766	0004284	0082	14423	743																																		
		OBS	0152	-0184	34342	2767			14423	742	207		003	295	067																													
		STD	0200	-0179	3436	2768	0004114	0103	14434	730																																		
		OBS	0203	-0179	34362	2768			14434	730	209		000	294	069																													
		STD	0250	-0176	3438	2769	0003941	0123	14444	714																																		
		OBS	0300	-0163	3441	2772	0003727	0142	14459	694																																		
		STD	T0308	-0160	34414	2772			14462	690			000	304	072																													
		OBS	T0400	-0105	3450	2777	0003231	0177	14504	642																																		
		STD	T0403	-0104	34504	2777			14505	640	216		000	303	084																													
		OBS	T0500	-0111	3459	2784	0002483	0206	14519	594																																		
		STD	T0508	-0114	34592	2785			14519	590	217		000	310	094																													

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NODC STATION NUMBER
CRUISE NO.	STATION NUMBER					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE	
318154	GL	763565	031450W	555	61	02	21	035	1970		002	0392					X2	0	3		0003	
		WATER		WIND		BARO-METER		AIR TEMP. °C				SPECIAL OBSERVATIONS										
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS CODE	NO. OBS. DEPTHS												
		DT	SD	03	516	903	-036	-044	7	15												
MESSAGE TIME & HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C C					
035		STD	0000	-0184	3399	2738	0007067	0000	14393													
		OBS	0000	-0184	3399	2738			14393													
		STD	0010	-0184	3399	2738	0007060	0007	14395													
		OBS	0010	-0184	3399	2738			14395													
		STD	0020	-0184	3399	2738	0007053	0014	14396													
005		OBS	0025	-0184	3399	2738			14397													
		STD	0030	-0184	3399	2738	0007047	0021	14398													
		OBS	0030	-0184	3399	2738			14398													
		OBS	0032	-0184	3399	2738			14398													
		OBS	0037	-0176	3425	2759			14407													
		STD	0050	-0179	3428	2761	0004819	0033	14408													
		OBS	0050	-0179	3428	2761			14408													
		STD	0075	-0183	3429	2762	0004717	0045	14410													
		OBS	0075	-0183	3429	2762			14410													
		STD	0100	-0184	3430	2763	0004622	0057	14414													
		OBS	0100	-0184	3430	2763			14414													
		STD	0125	-0184	3430	2763	0004606	0068	14418													
		OBS	0125	-0184	3430	2763			14418													
		STD	0150	-0184	3431	2764	0004514	0080	14423													
		OBS	0150	-0184	3431	2764			14423													
		STD	0200	-0184	3432	2765	0004406	0102	14431													
		OBS	0200	-0184	3432	2765			14431													
		STD	0250	-0183	3433	2766	0004302	0124	14440													
		OBS	0250	-0183	3433	2766			14440													
		STD	0300	-0181	3435	2767	0004125	0145	14449													
		OBS	0300	-0181	3435	2767			14449													
		OBS	0300	-0181	3439	2770			14465													

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NODC STATION NUMBER
CRUISE NO.	STATION NUMBER					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE	
318154	GL	765045	032300W	555	62	02	21	075	1970		003	0310						X2	0	3		0004
		WATER		WIND		BARO-METER		AIR TEMP. °C				SPECIAL OBSERVATIONS										
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS CODE	NO. OBS. DEPTHS												
		DT	SD	06	512	905	-028	-034	7	15												
MESSAGE TIME & HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C C					
075		STD	0000	-0182	3395	2735	0007379	0000	14394													
		OBS	0000	-0182	3395	2735			14394													
		STD	0010	-0182	3395	2735	0007372	0007	14395													
		OBS	0010	-0182	3395	2735			14395													
		STD	0020	-0181	3396	2736	0007290	0015	14397													
005		OBS	0025	-0181	3397	2736			14398													
		STD	0030	-0179	3398	2737	0007135	0022	14400													
		OBS	0030	-0179	3398	2737			14400													
		STD	0050	-0174	3401	2739	0006904	0036	14406													
		OBS	0050	-0174	3401	2739			14406													
		STD	0075	-0143	3410	2746	0006284	0052	14426													
		OBS	0075	-0143	3410	2746			14426													
		STD	0100	-0139	3413	2748	0006053	0068	14433													
		OBS	0100	-0139	3413	2748			14433													
		OBS	0112	-0145	3423	2756			14434													
		OBS	0116	-0133	3419	2753			14439													
		STD	0125	-0135	3422	2755	0005365	0082	14440													
		OBS	0125	-0135	3422	2755			14440													
		STD	0150	-0138	3423	2756	0005266	0095	14443													
		OBS	0150	-0138	3423	2756			14443													
		OBS	0192	-0153	3428	2761			14444													
		STD	0200	-0170	3429	2762	0004677	0120	14437													
		OBS	0200	-0170	3429	2762			14437													
		STD	0250	-0174	3433	2765	0004330	0143	14444													
		OBS	0250	-0174	3433	2765			14444													
		OBS	0291	-0179	3435	2767			14449													

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
CTRY CODE	ID. NO.					10'	1'	MO		DAY	HR./10			CRUISE NO.	STATION NUMBER	DIP			
318154	GL	76551S	032475W	555	62	02	21	137	1970	004	0340					X2	03	0005	
				WATER		WIND		BARO- METER	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mb)	DRY BULB	WET BULB									
				DT	SD	02	S05	911	-025	-027	7	17							
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S CODE		
	137	STD	0000	-0154	3394	2733	0007523	0000	14407										
		OBS	0000	-0154	3394	2733			14407										
		STD	0010	-0154	3394	2733	0007517	0008	14408										
		OBS	0010	-0154	3394	2733			14408										
	005	STD	0020	-0137	3395	2733	0007504	0015	14418										
		OBS	0025	-0134	3395	2733			14420										
		STD	0030	-0135	3395	2733	0007482	0023	14421										
		OBS	0030	-0135	3395	2733			14421										
		STD	0050	-0139	3396	2734	0007382	0037	14422										
		OBS	0050	-0139	3396	2734			14422										
		OBS	0054	-0137	3396	2734			14424										
		OBS	0073	-0139	3398	2736			14426										
		STD	0075	-0151	3398	2736	0007180	0056	14421										
		OBS	0075	-0151	3398	2736			14421										
		OBS	0091	-0140	3400	2738			14429										
		STD	0100	-0144	3401	2739	0006957	0073	14429										
		OBS	0100	-0144	3401	2739			14429										
		OBS	0107	-0157	3402	2740			14424										
		STD	0125	-0137	3410	2746	0006276	0090	14438										
		OBS	0125	-0137	3410	2746			14438										
		OBS	0133	-0134	3413	2748			14441										
		STD	0150	-0139	3418	2752	0005645	0105	14442										
		OBS	0150	-0139	3418	2752			14442										
		STD	0200	-0159	3423	2757	0005170	0132	14442										
		OBS	0200	-0159	3423	2757			14442										
		STD	0250	-0165	3425	2759	0004970	0157	14447										
		OBS	0250	-0165	3425	2759			14447										
		STD	0300	-0172	3429	2762	0004612	0181	14453										
		OBS	0300	-0172	3429	2762			14453										
		OBS	0335	-0182	3433	2766			14455										

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
CTRY CODE	ID. NO.					10'	1'	MO		DAY	HR./10			CRUISE NO.	STATION NUMBER	DIP			
318154	GL	77265S	036017W	555	76	03	01	232	1970	005	0937					X7	03	0006	
				WATER		WIND		BARO- METER	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mb)	DRY BULB	WET BULB									
				DT	SD	02	S06	925	-058		7	17							
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S CODE		
	232	STD	0000	-0173	3394	2734	0007476	0000	14398										
		OBS	0000	-0173	3394	2734			14398										
		STD	0010	-0173	3394	2734	0007470	0007	14399										
		OBS	0010	-0173	3394	2734			14399										
	006	STD	0020	-0180	3399	2738	0007063	0015	14398										
		OBS	0025	-0182	3400	2739			14398										
		STD	0030	-0182	3400	2739	0006974	0022	14399										
		OBS	0030	-0182	3400	2739			14399										
		STD	0050	-0181	3404	2742	0006656	0035	14404										
		OBS	0050	-0181	3404	2742			14404										
		STD	0075	-0177	3412	2748	0006036	0051	14411										
		OBS	0075	-0177	3412	2748			14411										
		STD	0100	-0180	3420	2755	0005399	0066	14415										
		OBS	0100	-0180	3420	2755			14415										
		OBS	0107	-0157	3430	2762			14428										
		STD	0125	-0160	3423	2757	0005210	0079	14429										
		OBS	0125	-0160	3423	2757			14429										
		STD	0150	-0180	3428	2761	0004755	0091	14424										
		OBS	0150	-0180	3428	2761			14424										
		STD	0200	-0183	3432	2765	0004409	0114	14431										
		OBS	0200	-0183	3432	2765			14431										
		STD	0250	-0186	3434	2766	0004216	0136	14439										
		OBS	0250	-0186	3434	2766			14439										
		STD	0300	-0190	3440	2771	0003715	0156	14446										
		OBS	0300	-0190	3440	2771			14446										
		OBS	0339	-0200	3446	2777			14449										
		STD	0400	-0192	3452	2781	0002731	0188	14463										
		OBS	0400	-0192	3452	2781			14463										
		OBS	0467	-0199	3458	2786			14472										
		STD	0500	-0211	3461	2789	0001918	0211	14472										
		OBS	0506	-0214	3462	2790			14472										

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRL INCH	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEATHER CODE	CLOUD CODES TYPE AMT	NODC STATION NUMBER		
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA				TYPE	AMT
318154	GL	77346S	035399W	555	75	03	03	08	1970			0585							X7	03		0009		
				WATER		WIND		BARO-METER		AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mb)	DRY BULB	WET BULB	VIS. CODE													
				DT	SD	00	S00	930	-056	-057	6			14										
MESSAGE TIME OF HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	S °C							
	087	STD	0000	-0172	3390	2730	0007786	0000	14398															
		OBS	0000	-0172	3390	2730			14398															
		STD	0010	-0172	3390	2730	0007779	0008	14399															
		OBS	0010	-0172	3390	2730			14399															
		STD	0020	-0172	3396	2735	0007312	0015	14402															
	005	OBS	0025	-0172	3398	2737			14403															
		STD	0030	-0171	3400	2738	0007001	0022	14404															
		OBS	0030	-0171	3400	2738			14404															
		STD	0050	-0170	3402	2740	0006837	0036	14408															
		OBS	0050	-0170	3402	2740			14408															
		STD	0075	-0159	3408	2745	0006391	0053	14419															
		OBS	0075	-0159	3408	2745			14419															
		STD	0100	-0158	3410	2746	0006226	0069	14424															
		OBS	0100	-0158	3410	2746			14424															
		STD	0125	-0157	3415	2750	0005831	0084	14429															
		OBS	0125	-0157	3415	2750			14429															
		STD	0150	-0158	3416	2751	0005737	0098	14433															
		OBS	0150	-0158	3416	2751			14433															
		STD	0200	-0162	3423	2757	0005161	0125	14440															
		OBS	0200	-0162	3423	2757			14440															
		STD	0250	-0179	3430	2763	0004543	0150	14441															
		OBS	0250	-0179	3430	2763			14441															
		STD	0300	-0184	3433	2766	0004268	0172	14448															
		OBS	0300	-0184	3433	2766			14448															
		OBS	0347	-0189	3436	2768			14454															
		OBS	0387	-0209	3456	2785			14454															

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRL INCH	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEATHER CODE	CLOUD CODES TYPE AMT	NODC STATION NUMBER		
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA				TYPE	AMT
318154	GL	77330S	035381W	555	75	03	03	229	1970			0575									X7	03		0010
				WATER		WIND		BARO-METER		AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mb)	DRY BULB	WET BULB	VIS. CODE													
				DT	SD	19	S03	907	-085		7			16										
MESSAGE TIME OF HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	S °C							
	229	STD	0000	-0178	3398	2737	0007157	0000	14396															
		OBS	0000	-0178	3398	2737			14396															
		STD	0010	-0178	3398	2737	0007151	0007	14397															
		OBS	0010	-0178	3398	2737			14397															
		STD	0020	-0175	3403	2741	0006767	0014	14401															
	005	OBS	0025	-0172	3404	2742			14404															
		STD	0030	-0167	3404	2742	0006704	0021	14407															
		OBS	0030	-0167	3404	2742			14407															
		STD	0050	-0166	3403	2741	0006770	0034	14411															
		OBS	0050	-0166	3403	2741			14411															
		STD	0075	-0161	3405	2742	0006615	0051	14417															
		OBS	0075	-0161	3405	2742			14417															
		STD	0100	-0153	3409	2745	0006317	0067	14426															
		OBS	0100	-0153	3409	2745			14426															
		STD	0125	-0152	3412	2748	0006076	0083	14431															
		OBS	0125	-0152	3412	2748			14431															
		STD	0150	-0159	3415	2750	0005811	0098	14432															
		OBS	0150	-0159	3415	2750			14432															
		STD	0200	-0161	3421	2755	0005317	0125	14440															
		OBS	0200	-0161	3421	2755			14440															
		STD	0229	-0182	3425	2759			14436															
		OBS	0229	-0182	3425	2759			14436															
		STD	0250	-0170	3426	2760	0004877	0151	14445															
		OBS	0250	-0170	3426	2760			14445															
		STD	0266	-0178	3429	2762			14444															
		OBS	0266	-0178	3429	2762			14444															
		STD	0300	-0184	3432	2765	0004345	0174	14448															
		OBS	0300	-0184	3432	2765			14448															
		STD	0400	-0193	3444	2775	0003338	0212	14462															
		OBS	0400	-0193	3444	2775			14462															
		STD	0414	-0206	3450	2780			14460															

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DRIFT INDICE	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES TYPE AMT	NOOC STATION NUMBER		
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.		1/10	CRUISE NO.			STATION NUMBER	DIR	HGT				PER	SEA
318154	GL	76246S	030362W	555	60	03	06	211	1970		008	0350						X7	8	6	0011		
		WATER		WIND		BARO-METER		AIR TEMP. °C		VIS		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS									
		COLOR CODE		TRANS. (m)		DIR.		SPEED OF FORCE		METER (mbars)		DRY BULB		WET BULB		VIS CODE							
								03		527		853		-089		5		08					
MESSNGR TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	S Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - 01/l	TOTAL-P μg - 01/l	NO ₂ -N μg - 01/l	NO ₃ -N μg - 01/l	SiO ₄ -Si μg - 01/l	PH	S C C						
	211	STD	0000	-0183	3403	2742	0006731	0000	14394	775													
		OBS	0000	-0183	34034	2742			14394	775	144		019	202	048								
		STD	0010	-0183	3404	2742	0006679	0007	14396	785													
		STD	0020	-0182	3405	2743	0006620	0013	14398	791													
	211	OBS	0025	-0182	34050	2743			14399	793	153		026	205	050								
		STD	0030	-0181	3406	2744	0006516	0020	14401	788													
		STD	0050	-0180	3408	2745	0006352	0033	14405	772													
		STD	0075	-0179	3412	2748	0006046	0048	14410	758													
	211	OBS	0075	-0179	34118	2748			14410	758	183		021	243	056								
		STD	0100	-0181	3416	2752	0005703	0063	14414	754													
		STD	0125	-0182	3420	2755	0005355	0077	14418	748													
	211	OBS	0125	-0182	34203	2755			14418	748	197		018	282	060								
		STD	0150	-0184	3425	2759	0004974	0090	14422	738													
	211	OBS	T0175	-0185	34284	2762			14426	732	211		026	284	062								
		STD	0200	-0185	3429	2762	0004634	0114	14430	732													
	211	OBS	T0225	-0184	34294	2763			14435	731	211		016	293	062								
		STD	0250	-0183	3430	2763	0004517	0137	14440	730													
		STD	0300	-0180	3432	2764	0004379	0159	14449	727													
	211	OBS	T0325	-0179	34325	2765			14454	725	216		015	297	065								
	211	OBS	T0348	-0180	34349	2767			14458	714	215		018	312	067								

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DRIFT INDICE	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES TYPE AMT	NOOC STATION NUMBER		
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.		1/10	CRUISE NO.			STATION NUMBER	DIR	HGT				PER	SEA
318154	GL	75255S	026285W	554	56	03	07	223	1970		009	0245						X2	0	3	0012		
		WATER		WIND		BARO-METER		AIR TEMP. °C		VIS		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS									
		COLOR CODE		TRANS. (m)		DIR.		SPEED OF FORCE		METER (mbars)		DRY BULB		WET BULB		VIS CODE							
								07		534		.936		-117		7		11					
MESSNGR TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	S Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - 01/l	TOTAL-P μg - 01/l	NO ₂ -N μg - 01/l	NO ₃ -N μg - 01/l	SiO ₄ -Si μg - 01/l	PH	S C C						
	223	STD	0000	-0183	3392	2732	0007607	0000	14393														
		OBS	0000	-0183	3392	2732			14393														
		STD	0010	-0183	3392	2732	0007600	0008	14394														
		OBS	0010	-0183	3392	2732			14394														
		STD	0020	-0181	3408	2745	0006369	0015	14399														
	005	OBS	0025	-0180	3412	2748			14401														
		STD	0030	-0182	3413	2749	0005976	0021	14401														
		OBS	0030	-0182	3413	2749			14401														
		STD	0050	-0194	3422	2757	0005244	0032	14400														
		OBS	0050	-0194	3422	2757			14400														
		STD	0075	-0195	3423	2758	0005148	0045	14404														
		OBS	0075	-0195	3423	2758			14404														
		STD	0100	-0195	3423	2758	0005131	0058	14408														
		OBS	0100	-0195	3423	2758			14408														
		STD	0125	-0195	3425	2759	0004961	0070	14412														
		OBS	0125	-0195	3425	2759			14412														
		STD	0150	-0195	3426	2760	0004868	0083	14417														
		OBS	0150	-0195	3426	2760			14417														
		STD	0200	-0196	3430	2763	0004526	0106	14425														
		OBS	0200	-0196	3430	2763			14425														
		OBS	0241	-0196	3437	2769			14433														

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDIC	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NDDC STATION NUMBER	
CTRY CODE	ID. NO.						10"	1"	MO		DAY	HR. 1/10			CRUISE NO.	STATION NUMBER	DIR				HGT
318154	GL	75255S	026285W	554	56	03	08	053	1970		010	0240					X7	X9	0013		
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
		COLDR CODE		TRANS. (m)		DIR.		SPEED OR FORCE		METER (mbal)		DRY BULB		WET BULB		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS	
						07		532		956		-144				3		08			
MESSNGR TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₂ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	PH	S CC				
		STD	0000	-0185	3392	2732	0007641	0000	14392	815											
	053	OBS	0000	-0185	33915	2732			14392	815	127		009	181	049						
		STD	0010	-0183	3400	2739	0006963	0007	14395	788											
	053	OBS	0010	-0183	34003	2739			14395	788	157		007	214	054						
		STD	0020	-0185	3408	2745	0006360	0014	14397	767											
	053	OBS	0026	-0186	34114	2748			14398	759	185		005	249	060						
		STD	0030	-0187	3412	2748	0006058	0020	14399	759											
		STD	0050	-0190	3414	2750	0005883	0032	14401	759											
	053	OBS	0051	-0190	34139	2750			14401	759	188		004	266	061						
		STD	0075	-0192	3416	2752	0005716	0047	14404	756											
		STD	0100	-0194	3418	2753	0005549	0061	14408	752											
	053	OBS	0102	-0194	34178	2753			14408	752	199		005	252	061						
		STD	0125	-0195	3419	2755	0005406	0074	14412	748											
		STD	0150	-0196	3421	2756	0005265	0088	14415	744											
	053	OBS	T0154	-0196	34210	2756			14416	743	205		006	261	064						
		STD	0200	-0196	3423	2758	0005062	0114	14424	744											
	053	OBS	T0203	-0196	34238	2758			14425	744	207		002	278	065						
	053	OBS	T0237	-0196	34298	2763			14431	727	212		003	302	067						

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDIC	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NDDC STATION NUMBER	
CTRY CODE	ID. NO.						10"	1"	MO		DAY	HR. 1/10			CRUISE NO.	STATION NUMBER	DIR				HGT
318154	GL	75255S	026285W	554	56	03	08	110	1970		011	0235					X3	013	0014		
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
		COLDR CODE		TRANS. (m)		DIR.		SPEED OR FORCE		METER (mbal)		DRY BULB		WET BULB		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS	
						DT		SD 07		530		981		-136		6		11			
MESSNGR TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₂ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	PH	S CC				
		STD	0000	-0182	3387	2728	0007994	0000	14392												
	110	OBS	0000	-0182	3387	2728			14392												
		STD	0010	-0182	3388	2729	0007910	0008	14394												
		OBS	0010	-0182	3388	2729			14394												
		STD	0020	-0183	3404	2742	0006671	0015	14397												
	205	OBS	0025	-0184	3408	2745			14399												
		STD	0030	-0189	3409	2746	0006267	0022	14397												
		OBS	0030	-0189	3409	2746			14397												
		STD	0050	-0193	3418	2754	0005553	0034	14400												
		OBS	0050	-0193	3418	2754			14400												
		STD	0075	-0194	3420	2755	0005381	0047	14404												
		OBS	0075	-0194	3420	2755			14404												
		STD	0100	-0195	3421	2756	0005285	0061	14408												
		OBS	0100	-0195	3421	2756			14408												
		STD	0125	-0195	3422	2757	0005191	0074	14412												
		OBS	0125	-0195	3422	2757			14412												
		STD	0150	-0196	3424	2759	0005019	0086	14416												
		OBS	0150	-0196	3424	2759			14416												
		STD	0200	-0197	3428	2762	0004676	0111	14424												
		OBS	0200	-0197	3428	2762			14424												
		OBS	0229	-0196	3434	2767			14430												

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1°/10	LONGITUDE 1°/10	DEPTH INDEX	MARSDEN SQUARE			STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEATHER CODE	CLOUD CODES	NODC STATION NUMBER
CRUISE NO.	STATION NUMBER					10'	1'	MO	DAY	HR./10	CRUISE NO.		STATION NUMBER	DIR			HGT	PER	SEA	TYPE			
319154	GL		752555	026285W	554	56	03	08	174	1970		012	0235						X2	6	8		0015
						WATER		WIND		AIR TEMP. °C			NO. OBS. DEPTHS		SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS (m)	DIR	SPEED OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS CODE										
								09	526	988	-112		7	08									
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \rho$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S.C.C.						
		STD	0000	-0184	3388	2729	0007905	0000	14392	817													
174		OBS	0000	-0184	33881	2729			14392	817	142		010	182	054								
		STD	0010	-0185	3401	2740	0006904	0007	14395	788													
174		OBS	0010	-0185	34010	2740			14395	788	158		009	200	067								
		STD	0020	-0187	3411	2748	0006125	0014	14397	773													
174		OBS	0025	-0188	34140	2750			14397	768	190		005	248	063								
		STD	0030	-0189	3415	2751	0005806	0020	14398	768													
		STD	0050	-0192	3417	2753	0005656	0031	14400	766													
174		OBS	0050	-0192	34167	2753			14400	766	193		006	238	079								
		STD	0075	-0192	3417	2753	0005600	0045	14404	762													
		STD	0100	-0193	3418	2753	0005535	0059	14408	758													
174		OBS	0100	-0193																			
		STD	0125	-0194	3418	2754	0005477	0073	14412	754													
		STD	0150	-0196	3419	2754	0005418	0087	14415	750													
174		OBS	T0154	-0196	34189	2754			14416	749	200		004	261	084								
		STD	T200	-0195	3421	2756	0005217	0113	14424	745													
174		OBS	T0203	-0195	34211	2756			14425	745	197		002	265	095								
174		OBS	0234	-0198	34283	2762			14429	739	206		004	273	098								

REFERENCE		SHIP CODE	LATITUDE 1°/10	LONGITUDE 1°/10	DEPTH INDEX	MARSDEN SQUARE			STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEATHER CODE	CLOUD CODES	NODC STATION NUMBER
CRUISE NO.	STATION NUMBER					10'	1'	MO	DAY	HR./10	CRUISE NO.		STATION NUMBER	DIR			HGT	PER	SEA	TYPE			
318154	GL		752555	026285W	554	56	03	08	232	1970		013	0235						X1	0	3		0016
						WATER		WIND		AIR TEMP. °C			NO. OBS. DEPTHS		SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS (m)	DIR	SPEED OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS CODE										
						DT	SD	07	526	996	-117		7	12									
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \rho$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S.C.C.						
		STD	0000	-0179	3384	2726	0008231	0000	14393														
		OBS	0000	-0179	3384	2726			14393														
		STD	0010	-0179	3384	2726	0008224	0008	14395														
		OBS	0010	-0179	3384	2726			14395														
		STD	0020	-0183	3400	2739	0006979	0016	14397														
005		OBS	0025	-0184	3406	2744			14398														
		STD	0030	-0184	3410	2747	0006202	0022	14400														
		OBS	0030	-0184	3410	2747			14400														
		STD	0050	-0194	3418	2754	0005551	0034	14399														
		OBS	0050	-0194	3418	2754			14399														
		STD	0075	-0194	3420	2755	0005381	0048	14404														
		OBS	0075	-0194	3420	2755			14404														
		STD	0100	-0195	3420	2755	0005362	0061	14407														
		OBS	0100	-0195	3420	2755			14407														
		STD	0125	-0196	3422	2757	0005189	0074	14411														
		OBS	0125	-0196	3422	2757			14411														
		STD	0150	-0189	3423	2758	0005113	0087	14419														
		OBS	0150	-0189	3423	2758			14419														
		OBS	0183	-0196	3428	2762			14422														
		STD	0200	-0196	3431	2764	0004449	0111	14425														
		OBS	0200	-0196	3431	2764			14425														
		OBS	0233	-0195	3435	2767			14432														

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH INDEX	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES TYPE AMT	NOOC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA				
318154	GL	752555	026285W	554	56	03	09	055	1970		014	0235						X3	X4		0017	
						WATER		WIND		BARO-METER (mba)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB										
								07	S21	987	-153		7	08								
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- $\times 10^3$	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S/C					
		STD	0000	-0187	3394	2734	0007483	0000	14391	817												
055		OBS	0000	-0187	33935	2734			14391	817	134		010	197	053							
		STD	0010	-0187	3399	2738	0007092	0007	14393	776												
055		OBS	0010	-0187	33985	2738			14393	776	159		010	217	057							
		STD	0020	-0187	3410	2747	0006202	0014	14397	771												
055		OBS	0025	-0188	34136	2750			14397	768	185		028	220	061							
		STD	0030	-0190	3415	2751	0005804	0020	14398	763												
		STD	0050	-0194	3417	2753	0005605	0031	14399	751												
055		OBS	0050	-0194	34173	2753			14399	751	195		014	247	063							
		STD	0075	-0194	3418	2754	0005535	0045	14404	760												
		STD	0100	-0193	3418	2754	0005512	0059	14408	762												
055		OBS	0100	-0193	34181	2754			14408	762	201		007	250	062							
		STD	0125	-0193	3413	2754	0005480	0073	14412	749												
		STD	0150	-0193	3418	2754	0005456	0086	14416	742												
055		OBS	0150	-0193	34184	2754			14416	742	197		010	251	063							
		STD	0200	-0196	3419	2755	0005361	0114	14423	744												
055		OBS	0200	-0196	34191	2755			14423	744	199		027	238	063							
055		OBS	0230	-0195	34201	2755			14429	739	204		013	252	063							

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH INDEX	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES TYPE AMT	NOOC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA				
318154	GL	752555	026285W	554	56	03	09	110	1970		015	0235						X1	03		0018	
						WATER		WIND		BARO-METER (mba)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB										
								DT	SD	09	S16	965	-133		7	11						
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- $\times 10^3$	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S/C					
		STD	0000	-0185	3376	2719	0008833	0000	14389													
110		OBS	0000	-0185	3376	2719			14389													
		STD	0010	-0185	3376	2719	0008826	0009	14391													
		OBS	0010	-0185	3376	2719			14391													
		STD	0020	-0186	3403	2741	0006741	0017	14396													
005		OBS	0025	-0187	3409	2746			14397													
		STD	0030	-0187	3409	2746	0006272	0023	14398													
		OBS	0030	-0187	3409	2746			14398													
		STD	0050	-0192	3414	2750	0005863	0035	14400													
		OBS	0050	-0192	3414	2750			14400													
		STD	0075	-0194	3416	2752	0005688	0050	14403													
		OBS	0075	-0194	3416	2752			14403													
		STD	0100	-0195	3416	2752	0005668	0064	14407													
		OBS	0100	-0195	3416	2752			14407													
		STD	0125	-0195	3417	2753	0005575	0078	14411													
		OBS	0125	-0195	3417	2753			14411													
		STD	0150	-0196	3418	2754	0005479	0092	14415													
		OBS	0150	-0196	3418	2754			14415													
		STD	0200	-0197	3426	2760	0004830	0118	14424													
		OBS	0200	-0197	3426	2760			14424													
		OBS	0233	-0196	3431	2764			14431													

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER				
CTRY CODE	ID. NO.					10"	1"	MO		DAY	HR./10							CRUISE NO.	STATION NUMBER		
318154	GL		75255S	026235W	554	56	03	09	175	1970		0238			XO	0	0019				
				WATER		WIND		BARO- METER		AIR TEMP. °C											
				COLOR CODE		TRANS. (m)		DIR.		SPEED OR FORCE		DRY BULB		WET BULB		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS	
				DT		SD		14		S05		927		-110		7		08			
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	SiO ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	S C C				
		STD	0000	-0182	3389	2730	0007832	0000	14393	802											
175		OBS	0000	-0182	33891	2730			14393	802	132		006	184	050						
		STD	0010	-0185	3393	2733	0007504	0008	14393	797											
175		OBS	0010	-0185	33932	2733			14393	797	146		009	193	052						
		STD	0020	-0189	3405	2743	0006581	0015	14395	787											
175		OBS	0026	-0191	34102	2747			14396	782	171		004	247	058						
		STD	0030	-0192	3411	2748	0006116	0021	14396	780											
		STD	0050	-0195	3415	2751	0005811	0033	14398	771											
175		OBS	0051	-0195	34148	2751			14399	771	187		004	255	060						
		STD	0075	-0194	3417	2753	0005611	0047	14403	764											
		STD	0100	-0193	3418	2754	0005520	0061	14408	756											
175		OBS	0102	-0193	34181	2754			14408	755	198		002	275	062						
		STD	0125	-0193	3419	2754	0005464	0075	14412	756											
		STD	0150	-0194	3419	2754	0005407	0088	14416	757											
175		OBS	0154	-0194	34191	2755			14417	757	200		002	276	063						
		STD	0200	-0196	3424	2759	0004986	0114	14424	744											
175		OBS	T0205	-0196	34248	2759			14425	742	210		000	288	066						
175		OBS	T0236	-0196	34303	2764			14431	730	210		003	292	067						

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER				
CTRY CODE	ID. NO.					10"	1"	MO		DAY	HR./10							CRUISE NO.	STATION NUMBER		
318154	GL		75255S	026285W	554	56	03	09	232	1970		0235			X1	03	0020				
				WATER		WIND		BARO- METER		AIR TEMP. °C											
				COLOR CODE		TRANS. (m)		DIR.		SPEED OR FORCE		DRY BULB		WET BULB		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS	
				DT		SD		14		S04		904		-107		7		11			
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	SiO ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	S C C				
		STD	0000	-0185	3382	2724	0008372	0000	14390												
232		OBS	0000	-0185	3382	2724			14390												
		STD	0010	-0185	3382	2724	0008365	0008	14392												
		OBS	0010	-0185	3382	2724			14392												
		STD	0020	-0187	3397	2736	0007200	0016	14395												
005		OBS	0025	-0189	3402	2741			14395												
		STD	0030	-0191	3406	2744	0006493	0023	14396												
		OBS	0030	-0191	3406	2744			14396												
		STD	0050	-0193	3407	2745	0006398	0036	14398												
		OBS	0050	-0193	3407	2745			14398												
		STD	0075	-0194	3408	2746	0006302	0052	14402												
		OBS	0075	-0194	3408	2746			14402												
		STD	0100	-0195	3408	2746	0006282	0067	14406												
		OBS	0100	-0195	3408	2746			14406												
		STD	0125	-0194	3413	2750	0005884	0083	14411												
		OBS	0125	-0194	3400P	2739P															
		STD	0150	-0196	3417	2753	0005555	0097	14415												
		OBS	0150	-0196	3417	2753			14415												
		STD	0200	-0197	3424	2759	0004983	0123	14424												
		OBS	0200	-0197	3424	2759			14424												
		OBS	0233	-0198	3428	2762			14429												

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES TYPE (AMT)	NODC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1'	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER				SEA
318154	GL	74540S	027144W	554	47	03	10	125	1970		018	0420						X1	4	1	0021	
						WATER		WIND		BARO-METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mbs)	DRY BULB	WET BULB	VIS. CODE									
								19	S04	889	-087		7	08								
MESSNGR TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ol/l}$	TOTAL-P $\mu\text{g} - \text{ol/l}$	NO ₂ -N $\mu\text{g} - \text{ol/l}$	NO ₃ -N $\mu\text{g} - \text{ol/l}$	SiO ₄ -Si $\mu\text{g} - \text{ol/l}$	pH	S.C.C.					
		STD	0000	-0180	3363	2709	0009851	0000	14390	886												
125		OBS	0000	-0180	33629	2709			14390	886	111		008	171	052							
		STD	0010	-0178	3374	2718	0008995	0009	14394	850												
		STD	0020	-0176	3384	2725	0008263	0018	14398	819												
125		OBS	0020	-0176	33835	2725			14398	819	149		007	205	055							
		STD	0030	-0176	3389	2730	0007833	0026	14400	800												
		STD	0050	-0176	3400	2739	0006975	0041	14405	770												
125		OBS	0072	-0178					748													
		STD	0075	-0179	3411	2748	0006108	0057	14410	748												
		STD	0100	-0186	3419	2754	0005460	0072	14412	747												
125		OBS	0123	-0190	34235	2758			14414	746	207		007	297	065							
		STD	0125	-0190	3424	2758	0005051	0085	14415	747												
		STD	0150	-0189	3425	2759	0004960	0097	14419	751												
125		OBS	T0176	-0188	34259	2760			14424	753	205		004	282	064							
		STD	0200	-0188	3428	2762	0004702	0122	14429	747												
		STD	0250	-0187	3432	2765	0004368	0144	14438	734												
125		OBS	T0276	-0186	34332	2766			14443	728	211		013	293	067							
		STD	0300	-0184	3434	2767	0004177	0166	14448	722												
125		OBS	T0379	-0177	34374	2769			14465	703	217		015	302	070							
		STD	0400	-0153	3441	2771	0003712	0205	14480	642												
125		OBS	T0416	-0129	34452	2774			14495	583	223		006	314	081							

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES TYPE (AMT)	NODC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1'	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER				SEA
318154	GL	74540S	027144W	554	47	03	10	131	1970		018	0410						X1	0	3	0022	
						WATER		WIND		BARO-METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mbs)	DRY BULB	WET BULB	VIS. CODE									
						DT	SD	19	S04	889	-087		7	15								
MESSNGR TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ol/l}$	TOTAL-P $\mu\text{g} - \text{ol/l}$	NO ₂ -N $\mu\text{g} - \text{ol/l}$	NO ₃ -N $\mu\text{g} - \text{ol/l}$	SiO ₄ -Si $\mu\text{g} - \text{ol/l}$	pH	S.C.C.					
		STD	0000	-0183	3342	2692	0011452	0000	14386													
131		OBS	0000	-0183	3342	2692			14386													
		STD	0010	-0183	3342	2692	0011444	0011	14387													
		OBS	0010	-0183	3342	2692			14387													
		STD	0020	-0178	3367	2712	0009525	0022	14395													
006		OBS	0025	-0176	3372	2716			14397													
		STD	0030	-0179	3372	2716	0009132	0031	14397													
		OBS	0030	-0179	3372	2716			14397													
		OBS	0045	-0189	3392	2732			14397													
		STD	0050	-0187	3403	2741	0006719	0047	14401													
		OBS	0050	-0187	3403	2741			14401													
		STD	0075	-0187	3407	2745	0006395	0064	14405													
		OBS	0075	-0187	3407	2745			14405													
		STD	0100	-0189	3412	2749	0005990	0079	14409													
		OBS	0100	-0189	3412	2749			14409													
		STD	0125	-0192	3414	2750	0005812	0094	14412													
		OBS	0125	-0192	3414	2750			14412													
		STD	0150	-0195	3415	2751	0005711	0108	14415													
		OBS	0150	-0195	3415	2751			14415													
		STD	0200	-0188	3421	2756	0005237	0136	14428													
		OBS	0200	-0188	3421	2756			14428													
		STD	0250	-0185	3429	2762	0004602	0160	14438													
		OBS	0250	-0185	3429	2762			14438													
		STD	0300	-0186	3432	2765	0004338	0182	14447													
		OBS	0300	-0186	3432	2765			14447													
		STD	0400	-0176	3441	2772	0003625	0222	14469													
		OBS	0400	-0176	3441	2772			14469													
		OBS	0410	-0141	3443	2773			14488													

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METERS	MARDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES TYPE AMT	NODC STATION NUMBER																																								
CRUISE CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER				SEA																																							
318154	GL		745235	025471W	554	45	03	10	212	1970		019	0491					X2	5	8	0023																																								
<table border="1"> <thead> <tr> <th colspan="2">WATER</th> <th colspan="2">WIND</th> <th colspan="2">BARO-METER</th> <th colspan="2">AIR TEMP. °C</th> <th rowspan="2">VIS CODE</th> <th rowspan="2">NO. OBS. DEPTHS</th> <th rowspan="2">SPECIAL OBSERVATIONS</th> </tr> <tr> <th>COLOR CODE</th> <th>TRANS. (m)</th> <th>DIR.</th> <th>SPEED OR FORCE</th> <th>(mbal)</th> <th>DRY BULB</th> <th>WET BULB</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>20</td> <td>503</td> <td>891</td> <td>-099</td> <td></td> <td>7</td> <td>09</td> <td></td> <td></td> </tr> </tbody> </table>																						WATER		WIND		BARO-METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mbal)	DRY BULB	WET BULB														20	503	891	-099		7	09		
WATER		WIND		BARO-METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																																			
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mbal)	DRY BULB	WET BULB																																																							
		20	503	891	-099		7	09																																																					
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t °	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg-at/l	TOTAL-P μg-at/l	NO ₂ -N μg-at/l	NO ₃ -N μg-at/l	SiO ₄ -Si μg-at/l	pH	S.C.C.																																												
		STD	0000	-0181	3378	2721	0008680	0000	14392	872																																																			
212		OBS	0000	-0181	3378	2721			14392	872	099		007	149	046																																														
		STD	0010	-0181	3379	2721	0008643	0009	14394	875																																																			
		STD	0020	-0180	3379	2722	0008606	0017	14395	877																																																			
212		OBS	0026	-0180	3379	2722			14397	879	092		008	155	046																																														
		STD	0030	-0181	3386	2727	0008051	0026	14397	852																																																			
		STD	0050	-0189	3412	2749	0006524	0040	14401	752																																																			
212		OBS	0051	-0189	3413	2750			14401	748	194		008	276	062																																														
		STD	0075	-0186	3416	2752	0005718	0054	14406	747																																																			
		STD	0100	-0186	3419	2754	0005491	0068	14411	746																																																			
212		OBS	0101	-0186	3418	2754			14412	746	202		008	302	063																																														
		STD	0125	-0188	3421	2756	0005286	0082	14415	750																																																			
212		OBS	T0149	-0189	3423	2758			14419	752	200		007	279	063																																														
		STD	0150	-0189	3424	2758	0005052	0095	14419	752																																																			
		STD	0200	-0187	3427	2761	0004803	0119	14429	746																																																			
212		OBS	0201	-0187	3426	2761			14429	746	204		004	283	064																																														
		STD	0250	-0187	3428	2762	0004672	0143	14437	747																																																			
212		OBS	T0299	-0187	3430	2763			14446	748	204		001	294	065																																														
		STD	0300	-0187	3430	2763	0004473	0166	14446	748																																																			
		STD	0400	-0181	3434	2767	0004118	0209	14466	722																																																			
212		OBS	T0404	-0181	3434	2767			14467	721	214		004	312	069																																														
212		OBS	T0487	-0188	3436	2769			14478	725	215		005	290	071																																														

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METERS	MARDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES TYPE AMT	NODC STATION NUMBER																																								
CRUISE CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER				SEA																																							
318154	GL		74285S	025406W	554	45	03	11	100	1970		020	0506					X7	0	3	0024																																								
<table border="1"> <thead> <tr> <th colspan="2">WATER</th> <th colspan="2">WIND</th> <th colspan="2">BARO-METER</th> <th colspan="2">AIR TEMP. °C</th> <th rowspan="2">VIS CODE</th> <th rowspan="2">NO. OBS. DEPTHS</th> <th rowspan="2">SPECIAL OBSERVATIONS</th> </tr> <tr> <th>COLOR CODE</th> <th>TRANS. (m)</th> <th>DIR.</th> <th>SPEED OR FORCE</th> <th>(mbal)</th> <th>DRY BULB</th> <th>WET BULB</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>01</td> <td>504</td> <td>891</td> <td>+143</td> <td></td> <td>7</td> <td>15</td> <td></td> <td></td> </tr> </tbody> </table>																						WATER		WIND		BARO-METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mbal)	DRY BULB	WET BULB														01	504	891	+143		7	15		
WATER		WIND		BARO-METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																																			
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mbal)	DRY BULB	WET BULB																																																							
		01	504	891	+143		7	15																																																					
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t °	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg-at/l	TOTAL-P μg-at/l	NO ₂ -N μg-at/l	NO ₃ -N μg-at/l	SiO ₄ -Si μg-at/l	pH	S.C.C.																																												
		STD	0000	-0184	3382	2724	0008374	0000	14391																																																				
100		OBS	0000	-0184	3382	2724			14391																																																				
		STD	0010	-0184	3382	2724	0008367	0008	14392																																																				
		OBS	0010	-0184	3382	2724			14392																																																				
		STD	0020	-0184	3407	2744	0006439	0016	14398																																																				
006		OBS	0025	-0184	3412	2749			14399																																																				
		STD	0030	-0185	3412	2749	0006046	0022	14399																																																				
		OBS	0030	-0185	3412	2749			14399																																																				
		STD	0050	-0186	3420	2755	0005416	0033	14403																																																				
		OBS	0050	-0186	3420	2755			14403																																																				
		STD	0075	-0187	3422	2757	0005244	0047	14407																																																				
		OBS	0075	-0187	3422	2757			14407																																																				
		STD	0100	-0188	3423	2758	0005148	0060	14411																																																				
		OBS	0100	-0188	3423	2758			14411																																																				
		STD	0125	-0188	3425	2759	0004979	0072	14416																																																				
		OBS	0125	-0188	3425	2759			14416																																																				
		STD	0150	-0189	3426	2760	0004884	0085	14419																																																				
		OBS	0150	-0189	3426	2760			14419																																																				
		STD	0200	-0189	3430	2763	0004545	0108	14428																																																				
		OBS	0200	-0189	3430	2763			14428																																																				
		STD	0250	-0184	3437	2769	0003993	0130	14440																																																				
		OBS	0250	-0184	3437	2769			14440																																																				
		STD	0300	-0184	3438	2770	0003886	0149	14448																																																				
		OBS	0300	-0184	3438	2770			14448																																																				
		STD	0400	-0179	3442	2773	0003539	0187	14468																																																				
		OBS	0400	-0179	3442	2773			14468																																																				
		OBS	0467	-0168	3448	2777			14485																																																				
		STD	0500	-0129	3451	2779	0003006	0419	14510																																																				
		OBS	0500	-0129	3451	2779			14510																																																				

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1'	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA		TYPE	AMT	
318154	GL	742855	025406W	554	45	03	11	112	1970		020	0506						X7	6	8	0025	
						WATER		WIND		BARO-METER		AIR TEMP. °C										
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
							00	500	892	-128		7	11									
MESSAGE TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S %.	SIGMA-T	SPECIFIC VOLUME ANOMALY- $\times 10^3$	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S.C.C.					
		STD	0000	-0174	3379	2722	0008603	0000	14395	840												
112		OBS	0000	-0174	33793	2722			14395	840	143			009	194	056						
112		OBS	0008	-0181	33848	2726			14394	847	145			009	195	056						
		STD	0010	-0181	3389	2730	0007835	0008	14395	833												
		STD	0020	-0181	3406	2744	0006522	0015	14399	779												
112		OBS	0022	-0181	34080	2745			14399	771	190			009	237	063						
		STD	0030	-0183	3412	2749	0006050	0022	14400	756												
112		OBS	0042	-0186	34174	2753			14402	739	203			009	256	065						
		STD	0050	-0186	3418	2753	0005569	0033	14403	739												
		STD	0075	-0187	3420	2755	0005398	0047	14407	739												
112		OBS	0093	-0187	34215	2756			14410	739	209			009	264	067						
		STD	0100	-0187	3422	2757	0005228	0060	14412	739												
		STD	0125	-0187	3423	2758	0005135	0073	14416	741												
112		OBS	0144	-0187	34236	2758			14419	742	210			008	265	066						
		STD	0150	-0187	3424	2758	0005042	0086	14420	743												
112		OBS	T0196	-0189	34270	2761			14427	744	210			005	268	067						
		STD	0200	-0189	3427	2761	0004753	0110	14428	743												
		STD	0250	-0185	3431	2764	0004418	0133	14439	735												
112		OBS	T0295	-0182	34350	2767			14448	728	213			003	270	068						
		STD	0300	-0182	3435	2767	0004114	0155	14449	727												
112		OBS	0397	-0179	34370	2769			14467	716	215			001	271	070						
		STD	0400	-0178	3437	2769	0003908	0195	14468	712												
112		OBS	T0498	-0127	34445	2773			14509	636	220			004	284	082						
		STD	0500		3445				635													
112		OBS	0504		34456				634	223				006	286	082						

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1'	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA		TYPE	AMT	
318154	GL	735875	023390W	554	33	03	11	174	1970		021	0274						X7	6	8	0026	
						WATER		WIND		BARO-METER		AIR TEMP. °C										
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
							00	500	897	-106		7	07									
MESSAGE TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S %.	SIGMA-T	SPECIFIC VOLUME ANOMALY- $\times 10^3$	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S.C.C.					
		STD	0000	-0181	3390	2730	0007781	0000	14393	818												
174		OBS	0000	-0181	33898	2730			14393	818	161			014	248	061						
		STD	0010	-0182	3390	2730	0007788	0008	14395	821												
		STD	0020	-0182	3389	2730	0007803	0016	14396	825												
174		OBS	0021	-0182	33893	2730			14396	825	171			013	249	061						
		STD	0030	-0182	3399	2738	0007052	0023	14399	805												
174		OBS	0046	-0181	34118	2748			14404	778	193			009	269	064						
		STD	0050	-0181	3412	2748	0006042	0036	14405	777												
		STD	0075	-0183	3417	2753	0005637	0051	14409	768												
174		OBS	0096	-0184	34201	2755			14412	760	203			010	287	065						
		STD	0100	-0184	3421	2756	0005312	0064	14413	759												
		STD	0125	-0183	3425	2759	0004992	0077	14418	750												
174		OBS	0146	-0182	34278	2761			14422	742	209			011	291	068						
		STD	0150	-0182	3428	2761	0004749	0089	14423	740												
174		OBS	T0195	-0184	34311	2764			14430	724	212			010	294	069						
		STD	0200	-0184	3431	2764	0004460	0112	14431	724												
		STD	0250	-0182	3433	2766	0004304	0134	14440	724												
174		OBS	T0265	-0182	34335	2766			14443	724	212			074	283	069						

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH INDICATOR	MARSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NODC STATION NUMBER			
CRUISE CODE	IO. NO.					10'	1'	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT PER	SEA		TYPE	AMT				
318154	GL	735875	023390W	554	33	03	11	184	1970		021	0274					X7	0	3		0027				
				WATER		WIND		BARO-METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS											
				COLOR CODE		TRANS. (m)		DIR.		SPEED OR FORCE		BARO-METER (mb)		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
				DT		SD		00		500		897		-106		7		12							
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \rho$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S.C.C.								
		STD	0000	-0181	3390	2731	0007765	0000	14393																
184		OBS	0000	-0181	3390	2731			14393																
		STD	0010	-0181	3390	2731	0007759	0008	14395																
		OBS	0010	-0181	3390	2731			14395																
		STD	0020	-0182	3393	2733	0007543	0015	14397																
005		OBS	0025	-0182	3394	2734			14398																
		STD	0030	-0179	3402	2740	0006828	0023	14401																
		OBS	0030	-0179	3402	2740			14401																
		OBS	0038	-0176	3404	2742			14404																
		STD	0050	-0180	3413	2749	0005968	0035	14405																
		OBS	0050	-0180	3413	2749			14405																
		STD	0075	-0180	3422	2757	0005249	0049	14408																
		OBS	0075	-0185	3422	2757			14408																
		STD	0100	-0184	3428	2762	0004775	0062	14414																
		OBS	0100	-0184	3428	2762			14414																
		STD	0125	-0184	3432	2765	0004453	0073	14419																
		OBS	0125	-0184	3432	2765			14419																
		STD	0150	-0184	3435	2767	0004208	0084	14423																
		OBS	0150	-0184	3435	2767			14423																
		STD	0200	-0183	3437	2769	0004027	0105	14432																
		OBS	0200	-0183	3437	2769			14432																
		STD	0250	-0183	3439	2770	0003843	0125	14441																
		OBS	0267	-0183	3439	2770			14444																

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH INDICATOR	MARSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NODC STATION NUMBER			
CRUISE CODE	IO. NO.					10'	1'	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT PER	SEA		TYPE	AMT				
318154	GL	733805	023400W	554	33	03	12	012	1970		022	1490					X2	6	8		0028				
				WATER		WIND		BARO-METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS											
				COLOR CODE		TRANS. (m)		DIR.		SPEED OR FORCE		BARO-METER (mb)		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
				DT		SD		25		503		901		-110		7		13							
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \rho$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S.C.C.								
		STD	0000	-0179	3363	2708	0009868	0000	14390	830															
012		OBS	0000	-0179	33627	2708			14390	830	143		010	216	058										
		STD	0010	-0180	3363	2709	0009836	0010	14392	829															
		STD	0020	-0181	3365	2710	0009673	0020	14393	824															
		STD	0030	-0182	3369	2714	0009346	0029	14395	816															
012		OBS	0030	-0182	33691	2714			14395	816	158		010	228	061										
		STD	0050	-0180	3396	2735	0007272	0046	14403	768															
		STD	0075	-0179	3421	2756	0005342	0062	14411	723															
012		OBS	0081	-0178	34263	2760			14413	714	211		010	286	071										
		STD	0100	-0179	3428	2761	0004788	0074	14416	714															
		STD	0125	-0180	3431	2764	0004540	0086	14420	713															
		STD	0150	-0181	3433	2766	0004368	0097	14424	713															
012		OBS	0183	-0183	34352	2767			14429	712	207		001	302	072										
		STD	0200	-0181	3436	2768	0004110	0118	14433	706															
		STD	0250	-0174	3437	2769	0004025	0138	14445	688															
012		OBS	0285	-0169	34388	2770			14453	675	216		000	304	076										
		STD	0300	-0165	3439	2770	0003873	0158	14458	673															
012		OBS	0387	-0122	34450	2774			14493	638	222		000	308	081										
		STD	0400	-0107	3447	2775	0003450	0195	14503	624															
012		OBS	T0488	-0031	34550	2778			14554	552	234		000	314	092										
		STD	0500	-0027	3456	2779	0003160	0228	14557	549															
012		OBS	T0596	0005	34601	2780			14589	524	231		000	321	098										
		STD	0600	0007	3460	2780	0003039	0259	14590	522															
		STD	0700	0047	3464	2781	0003034	0289	14626	490															
012		OBS	0796	0068	34677	2783			14652	470	235		000	325	113										
		STD	0800	0068	3468	2783	0002910	0319	14652	470															
		STD	0900	0061	3468	2783	0002870	0348	14666	468															
		STD	1000	0055	3468	2784	0002829	0376	14680	466															
012		OBS	T1002	0055	34681	2784			14681	466	238		001	321	117										
		STD	1100	0052	3468	2784	0002812	0405	14696	470															
		STD	1200	0047	3467	2783	0002852	0433	14710	474															
012		OBS	1259	0043	34667	2783			14718	477	237		000	325	125										
		STD	1300	0038	3467	2784	0002816	0461	14723	479															
		STD	1400	0029	3466	2784	0002777	0489	14736	484															
012		OBS	T1468	0025	34657	2784			14745	488	236		001	332	122										
012		OBS	T1487	0024	34666	2784			14748	492	235		000	328	122										

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10'	1'	MO		DAY	HR. 1/10			CRUISE NO.	STATION NUMBER	DIR.	HGT		PER	SEA	
318154	GL		7338 S	02340 W	554 33	03	12	020	1970	022		1490					X2	X	3	0029	
					WATER		WIND		BARO-		AIR TEMP. °C										
					COLOR	TRANS.	DIR.	SPEED	METER	DRY	WET	VIS.	NO.	SPECIAL							
					CODE	(m)		OR FORCE	(mb)	BULB	BULB	CODE	OBS.	OBSERVATIONS							
					DT	SD	00	S00	903	-111		7	26								
MESSING TIME HR 1/10	CASE NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t ?	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SI O ₄ -S $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S C C				
		STD	0000	-0181	3359	2705	0010149	0000	14389												
020		OBS	0000	-0181	3359	2705			14389												
		STD	0010	-0181	3359	2705	0010141	0010	14391												
		OBS	0010	-0181	3359	2705			14391												
		STD	0020	-0181	3361	2707	0009980	0020	14392												
007		OBS	0025	-0181	3362	2708			14393												
		STD	0030	-0181	3362	2708	0009896	0030	14394												
		OBS	0030	-0181	3362	2708			14394												
		OBS	0044	-0182	3377	2720			14398												
		STD	0050	-0174	3431	2764	0004601	0045	14411												
		OBS	0050	-0174	3431	2764			14411												
		OBS	0054	-0165	3430	2763			14415												
		STD	0075	-0174	3429	2762	0004740	0056	14415												
		OBS	0075	-0174	3429	2762			14415												
		STD	0100	-0180	3433	2765	0004402	0068	14416												
		OBS	0100	-0180	3433	2765			14416												
		STD	0125	-0182	3435	2767	0004228	0079	14420												
		OBS	0125	-0182	3435	2767			14420												
		STD	0150	-0182	3438	2770	0003983	0089	14424												
		OBS	0150	-0182	3438	2770			14424												
		STD	0200	-0179	3441	2772	0003732	0108	14435												
		OBS	0200	-0179	3441	2772			14435												
		STD	0250	-0175	3442	2773	0003639	0127	14445												
		OBS	0250	-0175	3442	2773			14445												
		STD	0300	-0168	3446	2776	0003328	0144	14457												
		OBS	0300	-0168	3446	2776			14457												
		STD	0400	-0122	3452	2779	0003003	0176	14496												
		OBS	0400	-0122	3452	2779			14496												
		STD	0500	-0028	3462	2783	0002700	0204	14558												
		OBS	0500	-0028	3462	2783			14558												
		STD	0600	0007	3467	2786	0002534	0230	14591												
		OBS	0600	0007	3467	2786			14591												
		STD	0700	0051	3472	2787	0002470	0255	14629												
		OBS	0700	0051	3472	2787			14629												
		STD	0800	0066	3474	2788	0002446	0280	14652												
		OBS	0800	0066	3474	2788			14652												
		STD	0900	0063	3474	2788	0002435	0304	14668												
		OBS	0900	0063	3474	2788			14668												
		STD	1000	0056	3474	2789	0002389	0328	14681												
		OBS	1000	0056	3474	2789			14681												
		STD	1100	0048	3474	2789	0002331	0352	14695												
		OBS	1100	0048	3474	2789			14695												
		STD	1200	0043	3474	2789	0002297	0375	14709												
		OBS	1200	0043	3474	2789			14709												
		STD	1300	0037	3474	2790	0002251	0398	14723												
		OBS	1300	0037	3474	2790			14723												
		STD	1400	0025	3473	2790	0002223	0420	14735												
		OBS	1400	0025	3473	2790			14735												
		OBS	1480	0022	3473	2790			14747												

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT DIRECTION	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NOOC STATION NUMBER
CRUISE CODE	ID. NO.					10'	1'	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE	
318154	GL		720825	024088W		554	24	03	13	036	1970		023	4078					X2	6	8	0030
						WATER		WIND		AIR TEMP. °C			NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (mm)	DIR.	SPEED GA. FORCE	BARO-METER (mba)	DRY BULB	WET BULB	VIS. CODE									
								12	505	923	-067		7	14								
MESSNGR TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma_t$ OYN. M $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SIO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S.C.C.					
		STD	0000	-0183	3396	2736	0007292	0000	14393	789												
036		OBS	0000	-0183	33961	2736			14393	789	184		012	252	074							
		STD	0010	-0189	3397	2737	0007172	0007	14392	776												
036		OBS	0010	-0189	33974	2737			14392	776	189		006	255	073							
		STD	0020	-0188	3397	2737	0007175	0014	14394	774												
036		OBS	0025	-0187	33973	2737			14396	773	190		008	252	074							
		STD	0030	-0182	3408	2745	0006360	0021	14400	747												
		STD	0050	-0169	3440	2771	0003893	0031	14414	667												
036		OBS	0050	-0169	34404	2771			14414	667	213		005	289	080							
		STD	0075	-0170	3441	2772	0003832	0041	14418	658												
036		OBS	0099	-0170	34433	2774			14422	650	221		002	289	082							
		STD	0100	-0169	3444	2774	0003626	0050	14423	650												
		STD	0125	-0154	3448	2777	0003343	0059	14435	646												
036		OBS	0149	-0140	34515	2779			14446	635	226		000	295	085							
		STD	0150	-0139	3452	2780	0003045	0067	14447	634												
036		OBS	0199	-0072	3446P	2772P				586	232		000	296	092							
		STD	0200	-0070	3458	2782	0002843	0082	14488	585												
		STD	0250	-0002	3463	2783	0002797	0096	14528	524												
036		OBS	T0298	0043	34660	2783			14557	485	243		000	324	105							
		STD	0300	0044	3466	2783	0002835	0110	14558	484												
036		OBS	T0395	0072	34689	2783			14587	466	245		000	313	109							
		STD	0400	0072	3469	2784	0002812	0138	14588	466												
036		OBS	T0499	0069	34691	2784			14603	464	245		000	317	114							
		STD	0500	0069	3469	2784	0002804	0166	14603	464												
036		OBS	T0597	0063	34666	2782			14616	470	248		000	307	117							
		STD	0600	0063	3467	2782	0002924	0195	14617	470												
		STD	0700	0055	3468	2784	0002800	0224	14630	469												
036		OBS	0793	0049	34685	2785			14643	468	245		006	323	120							
		STD	0800	0049	3468	2784	0002764	0251	14644	468												
		STD	0900	0042	3468	2785	0002716	0279	14657	471												
036		OBS	T0995	0036	34677	2785			14671	474	248		009	325	123							
		STD	1000	0036	3468	2785	0002697	0306	14672	474												
		STD	1100	0030	3467	2785	0002696	0333	14686	481												
		STD	1200	0025	3467	2784	0002702	0360	14700	488												
036		OBS	T1250	0022	34662	2784			14707	491	245		003	326	124							

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1°/10'	LONGITUDE 1°/10'	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NODC STATION NUMBER	
CRUISE CODE	IO. NO.					10"	1'	MO		DAY	HR./10			CRUISE NO.	STATION NUMBER	DIR		HGT	PER		SEA
318154	GL		72082S	024088W	554	24	03	13	050	1970		023					X7	0	3	0031	
						WATER		WIND		BARO-METER (mb)		AIR TEMP. °C		VIS CODE		SPECIAL OBSERVATIONS					
						COLOR CODE	TRANS (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB									
						DT	SU	13	504	922	-068		7	33							
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \sigma_{\theta}$ DYN. M. x 10 ⁶	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S.C.C.				
	050	STD	0000	-0184	3400	2739	0006990	0000	14393												
		OBS	0000	-0184	3400	2739			14393												
		STD	0010	-0184	3400	2739	0006983	0007	14395												
		OBS	0010	-0184	3400	2739			14395												
	009	STD	0020	-0183	3413	2749	0005981	0013	14399												
		OBS	0025	-0182	3422	2757			14401												
		STD	0030	-0179	3432	2765	0004524	0019	14405												
		OBS	0030	-0179	3432	2765			14405												
		STD	0050	-0176	3446	2776	0003445	0027	14412												
		OBS	0050	-0176	3446	2776			14412												
		STD	0075	-0174	3448	2778	0003283	0035	14417												
		OBS	0075	-0174	3448	2778			14417												
		STD	0100	-0164	3452	2780	0002991	0043	14427												
		OBS	0100	-0164	3452	2780			14427												
		STD	0125	-0149	3454	2782	0002871	0050	14438												
		OBS	0125	-0149	3454	2782			14438												
		STD	0150	-0139	3455	2782	0002815	0057	14447												
		OBS	0150	-0139	3455	2782			14447												
		STD	0200	-0099	3465	2789	0002184	0070	14476												
		OBS	0200	-0099	3465	2789			14476												
		STD	0250	-0014	3470	2789	0002200	0081	14524												
		OBS	0250	-0014	3470	2789			14524												
		STD	0300	0041	3472	2788	0002370	0092	14557												
		OBS	0300	0041	3472	2788			14557												
		STD	0400	0070	3474	2788	0002420	0116	14587												
		OBS	0400	0070	3474	2788			14587												
		STD	0500	0068	3474	2788	0002421	0140	14603												
		OBS	0500	0068	3474	2788			14603												
		STD	0600	0063	3474	2788	0002398	0165	14618												
		OBS	0600	0063	3474	2788			14618												
		STD	0700	0055	3474	2789	0002350	0188	14631												
		OBS	0700	0055	3474	2789			14631												
		STD	0800	0049	3474	2789	0002314	0212	14645												
		OBS	0800	0049	3474	2789			14645												
		STD	0900	0041	3474	2789	0002259	0234	14658												
		OBS	0900	0041	3474	2789			14658												
		STD	1000	0036	3474	2790	0002226	0257	14672												
		OBS	1000	0036	3474	2790			14672												
		STD	1100	0028	3474	2790	0002165	0279	14686												
		OBS	1100	0028	3474	2790			14686												
		STD	1200	0024	3474	2790	0002135	0300	14701												
		OBS	1200	0024	3474	2790			14701												
		STD	1300	0019	3473	2790	0002169	0322	14715												
		OBS	1300	0019	3473	2790			14715												
		STD	1400	0014	3473	2790	0002126	0343	14730												
		OBS	1400	0014	3473	2790			14730												
		STD	1500	0011	3473	2790	0002098	0364	14745												
		OBS	1500	0011	3473	2790			14745												
		OBS	1600	0060 ^P	3473	2787 ^P															
		OBS	1700	0001	3473	2791			14775												
		STD	1750	0000	3473	2790	0002028	0416	14783												
		OBS	1800	-0001	3472	2790			14791												
		OBS	1900	-0005	3472	2790			14806												
		STD	2000	-0007	3472	2790	0001985	0466	14822												
		OBS	2000	-0007	3472	2790			14822												
		OBS	2100	-0011	3472	2791			14838												
		OBS	2200	-0013	3472	2791			14854												
		OBS	2300	-0014	3472	2791			14871												
		OBS	2400	-0016	3472	2791			14887												

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	NODC INDIC	MARSOON SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE	
318	154	GL	711485	024320W	554	14	03	13	210	1970	024	4224	03	2	6	X1	7	4	0032			
		WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS										
		COLOR		DIR.		METER		DRY		VIS												
		CODE		SPEED		(mb)		BULB		CODE												
				12		S15		911		-076		7		23								
MESSNGR TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₂ -N µg - at/l	NO ₃ -N µg - at/l	SID ₄ -S µg - at/l	pH	S C					
		STD	0000	-0168	3398	2736	0007211	0000	14401	812												
210		OBS	0000	-0168	33976	2736			14401	812	188			017	257	077						
210		OBS	0008	-0168	33961	2735			14402	800	188			016	258	076						
		STD	0010	-0167	3395	2735	0007322	0007	14402	801												
		STD	0020	-0165	3396	2735	0007322	0015	14405	803												
210		OBS	0022	-0164	33561	2735			14406	804	188			016	264	077						
		STD	0030	-0155	3402	2740	0006888	0022	14412	787												
210		OBS	0043	-0145	34114	2747			14420	757	192			011	273	079						
		STD	0050	-0147	3419	2753	0005596	0034	14422	735												
		STD	0075	-0153	3441	2771	0003878	0046	14426	567												
210		OBS	0085	-0156	34474	2777			14427	644	220			012	287	085						
		STD	0100	-0131	3450	2778	0003247	0055	14442	622												
		STD	0125	-0092	3453	2779	0003152	0063	14465	589												
		STD	0150	-0057	3456	2780	0003066	0071	14485	560												
210		OBS	T0165	-0038	34581	2781			14497	545	230			000	305	095						
		STD	0200	0007	3461	2781	0003002	0086	14524	514												
210		OBS	T0235	0034	3386P	2714P			493		236			000	315	104						
		STD	0250	0036	3464	2782	0002940	0101	14546	489												
210		OBS	0292	0040	34656	2783			14555	479	239			000	322	105						
		STD	0300	0044	3466	2783	0002843	0115	14558	477												
210		OBS	T0351	0062	34676	2783			14575	466	239			000	312	109						
		STD	0400	0067	3469	2783	0002815	0143	14585	456												
210		OBS	T0426	0069	34690	2784			14591	453	237			000	315	112						
		STD	0500	0067	3469	2784	0002790	0171	14602	454												
210		OBS	0562	0064	34690	2784			14611	454	245			000	320	116						
		STD	0600	0062	3469	2784	0002766	0199	14616	454												
		STD	0700	0056	3469	2785	0002733	0227	14630	454												
210		OBS	T0708	0055	34688	2784			14631	454	245			007	328	118						
		STD	0800	0048	3468	2784	0002745	0254	14643	474												
		STD	0900	0039	3467	2784	0002748	0282	14656	495												
015		OBS	0905	0039	34672	2784			14657	496	224			000	309	124						
210		OBS	T0909	0021	34682	2786			14650	468	245			000	309	120						
		STD	1000	0020	3467	2785	0002620	0308	14664	483												
		STD	1100	0018	3467	2785	0002608	0335	14680	495												
015		OBS	1112	0018	34667	2785			14682	406	228			000	312	125						
		STD	1200	0013	3467	2785	0002595	0361	14695	499												
		STD	1300	0008	3467	2785	0002558	0386	14709	502												
015		OBS	1333	0007	34665	2785			14714	503	229			000	315	126						
		STD	1400	0006	3467	2785	0002538	0412	14725	505												
		STD	1500	0005	3466	2785	0002534	0437	14742	508												
015		OBS	1555	0004	34664	2785			14751	509	231			000	323	126						
		STD	1750	-0002	3467	2786	0002451	0500	14781	513												
015		OBS	1761		34665				513		228			001	310	127						
		STD	2000	-0008	3466	2786	0002415	0560	14821	522												
015		OBS	2185	-0012	34655	2785			14851	529	225			000	313	125						
		STD	2500	-0018	3465	2786	0002315	0679	14903	544												
015		OBS	T2621	-0020	34653	2786			14923	547	225			000	317	126						
		STD	3000	-0024	3465	2786	0002213	0792	14987	548												
015		OBS	T3001	-0024	34652	2786			14987	548	219				318	123						
015		OBS	T3409	-0025	34658	2786			15058	554	222			000	309	125						
015		OBS	3565	-0026	34661	2787			15086	524	222			014	309	125						

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	MO	DAY	HR./10	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF 'SAMPL'S	WAVE OBSERVATIONS				WEATHER CODE	CLOUD CODES		NOOC STATION NUMBER
CRUISE NO.	STATION NUMBER								DIR.	HGT.			PER.	SEA.	TYPE	AMT.				
CRUISE NO.	STATION NUMBER	DEPTH TO BOTTOM	MAX. DEPTH OF 'SAMPL'S	DIR.	HGT.	PER.	SEA.	TYPE	AMT.	NOOC STATION NUMBER										
318154	GL	70252S	024331W	554	04	03	14	178	1970	025	4279	09	4	16		X1	5	6		0033
WATER		WIND		BARO-METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB														
		12	513	886	-038	7	13													
MESSNGR TIME OF HR 1/10	CASI NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ OYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	SEC			
		STD	0000	-0089	3413	2746	0006266	0000	14440	783										
178		OBS	0000	-0089	34130	2746			14440	783	180			014	253	076				
178		OBS	0009	-0088	34129	2746			14442	785	186			015	264	077				
		STD	0010	-0088	3413	2746	0006266	0006	14442	785										
		STD	0020	-0087	3413	2746	0006265	0013	14444	784										
178		OBS	0024	-0087	34136	2747			14445	783	186			015	267	077				
		STD	0030	-0094	3417	2750	0005931	0019	14443	753										
178		OBS	0048	-0113	34274	2759			14439	680	193			007	281	078				
		STD	0050	-0116	3428	2760	0005004	0030	14438	678										
		STD	0075	-0143	3439	2769	0004062	0041	14431	651										
178		OBS	0097	-0150	34474	2776			14432	626	222			007	291	085				
		STD	0100	-0143	3448	2777	0003361	0050	14436	620										
		STD	0125	-0090	3453	2779	0003160	0058	14466	577										
		STD	0150	-0045	3457	2780	0003045	0066	14491	541										
178		OBS	T0195	0014	34631	2782			14527	493	236			000	317	103				
		STD	0200	0017	3463	2782	0002883	0081	14529	491										
		STD	0250	0042	3465	2782	0002880	0095	14549	472										
178		OBS	T0283	0052	34667	2783			14559	464	235			000	321	109				
		STD	0300	0052	3467	2783	0002821	0110	14562	464										
178		OBS	0378	0054	34671	2783			14576	462	239			000	329	110				
		STD	0400	0054	3467	2783	0002826	0138	14579	462										
178		OBS	T0473	0055	34676	2783			14592	461	239			000	312	112				
		STD	0500	0056	3468	2783	0002811	0166	14597	459										
178		OBS	T0568	0058	34680	2784			14609	455	241			002	324	116				
		STD	0600	0058	3468	2784	0002812	0194	14615	455										
		STD	0700	0055	3468	2784	0002800	0222	14630	455										
178		OBS	0765	0053	34678	2784			14640	455	242			001	326	120				
		STD	0800	0051	3468	2784	0002794	0250	14645	456										
		STD	0900	0046	3468	2784	0002763	0278	14659	458										
178		OBS	T0958	0043	34678	2784			14668	460	252			008	332	123				
		STD	1000	0041	3468	2784	0002737	0305	14674	462										
		STD	1100	0035	3467	2784	0002715	0333	14688	467										
		STD	1200	0030	3467	2785	0002692	0360	14702	473										
178		OBS	T1234	0028	34671	2785			14707	476	253			000	316	120				

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARDEN SQUARE			STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES TYPE AMT	NODC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER				SEA
318154	GL	693125	024572W	518	94	03	15	080	1970		026	2500		09	4	6		X2	7	8	0034	
				WATER		WIND		BARO-METER		AIR TEMP. °C												
				COLOR CODE	TRANSL	DIR.	SPEED OR FORCE	METER	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
							16	509	879	-044	7	13										
MESSAGE TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₂ -Si μg - dl/l	pH	S C C					
		STD	0000	-0085	3411	2744	0006457	0000	14441	769												
080		OBS	0000	-0085	34107	2744			14441	769	172		018	253	069							
080		OBS	0007	-0087	34110	2745			14442	758	176		018	256	071							
		STD	0010	-0087	3411	2745	0006416	0006	14442	759												
080		OBS	0019	-0086	34114	2745			14444	760	194		018	258	071							
		STD	0020	-0086	3412	2745	0006384	0013	14444	760												
		STD	0030	-0086	3412	2746	0006327	0019	14446	763												
080		OBS	0037	-0086	34127	2746			14447	765	178		018	259	071							
		STD	0050	-0127	3427	2759	0005044	0031	14432	714												
080		OBS	0074	-0167	34480	2777			14420	632	219		014	293	083							
		STD	0075	-0163	3448	2777	0003298	0041	14422	629												
		STD	0100	-0080	3454	2779	0003155	0049	14466	562												
		STD	0125	-0017	3459	2781	0003010	0057	14500	511												
		STD	0150	0025	3465	2783	0002814	0064	14524	476												
080		OBS	T0150	0025	34648	2783			14524	476	233		000	323	105							
		STD	0200	0027	3465	2783	0002811	0078	14534	470												
080		OBS	0225	0029	34651	2783			14539	469	236		000	332	105							
		STD	0250	0032	3465	2783	0002820	0092	14544	469												
080		OBS	0297	0037	34658	2783			14554	470	239		000	326	107							
		STD	0300	0037	3466	2783	0002800	0106	14555	470												
080		OBS	T0382	0042	34664	2783			14571	464	243		000	323	108							
		STD	0400	0046	3467	2784	0002787	0134	14576	461												
080		OBS	0447	0053	34674	2783			14587	455	244		000	330	112							
		STD	0500	0055	3468	2784	0002778	0162	14596	453												
		STD	0600	0058	3469	2784	0002736	0190	14615	449												
080		OBS	T0608	0058	34692	2785			14616	449	245		000	335	120							
		STD	0700	0054	3469	2785	0002718	0217	14630	451												
080		OBS	T0777	0050	34686	2785			14641	453	248		006	336	125							
		STD	0800	0049	3469	2785	0002719	0244	14644	454												
		STD	0900	0044	3468	2785	0002702	0271	14658	456												
		STD	1000	0038	3468	2785	0002675	0298	14672	459												
080		OBS	T1018	0037	34682	2785			14675	460	248		000	322	120							

TABLE II.—Continued.

REFERENCE	SHIP CODE	LATITUDE °	LONGITUDE °	DEPTH (m)	MARDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEATHER CODE	CLOUD CODES		NODC STATION NUMBER
					10'	1'	MO	DAY		HR.	MIN.			CRUISE NO.	STATION NUMBER	DIR.	HGT		PER	SEA	
318154	GL	71033S	013160W	553	13	03	17	037	1970	027		1920					X4	X9		0035	
					WATER		WIND			AIR TEMP. °C			NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS. CODE									
							11	526	776	-007		3	14								
MESSAGE TIME	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	$\frac{\delta \Delta D}{\delta t}$ DYN. IN $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	S °C				
		STD	0000	-0177	3399	2738	0007083	0000	14396	794											
037		OBS	0000	-0177	33990	2738			14396	794	189		016	258	063						
037		OBS	0009	-0177	33988	2738			14398	794	191		016	262	063						
		STD	0010	-0177	3399	2738	0007092	0007	14398	794											
		STD	0020	-0176	3399	2738	0007086	0014	14400	794											
037		OBS	0024	-0176	33988	2738			14401	794	190		016	265	063						
		STD	0030	-0176	3399	2738	0007080	0021	14402	796											
037		OBS	0047	-0177	33989	2738			14404	798	189		015	268	064						
		STD	0050	-0176	3400	2739	0006975	0035	14405	796											
		STD	0075	-0170	3407	2744	0006438	0052	14413	778											
037		OBS	0094	-0169	34133	2749			14418	764	203		013	271	065						
		STD	0100	-0171	3416	2751	0005730	0067	14418	757											
		STD	0125	-0176	3426	2760	0004934	0081	14421	734											
037		OBS	0141	-0178	34306	2763			14424	725	213		011	288	064						
		STD	0150	-0179	3431	2764	0004528	0092	14425	726											
037		OBS	T0188	-0180	34329	2765			14431	727	212		004	293	065						
		STD	0200	-0179	3433	2765	0004343	0115	14433	722											
		STD	0250	-0176	3436	2768	0004094	0136	14444	700											
037		OBS	T0283	-0174	34372	2769			14450	688	212		002	298	074						
		STD	0300	-0172	3438	2769	0003925	0156	14454	684											
037		OBS	0375	-0154	34419	2772			14476	660	214		000	293	077						
		STD	0400	-0143	3444	2773	0003523	0193	14485	649											
037		OBS	T0474	-0100	34490	2776			14518	610	220		000	301	082						
		STD	0500	-0077	3451	2777	0003260	0227	14534	592											
037		OBS	T0562	-0029	34563	2779			14567	552	222		000	307	091						
		STD	0600	-0001	3459	2790	0003084	0259	14586	528											
		STD	0700	0053	3465	2781	0003011	0289	14629	483											
037		OBS	T0748	0068	34670	2782			14644	470	232		000	317	108						
		STD	0800	0065	3467	2782	0002955	0319	14651	471											
		STD	0900	0059	3467	2783	0002896	0348	14665	473											
037		OBS	T0946	0056	34675	2783			14671	474	234		006	310	115						
		STD	1000	0053	3468	2784	0002842	0377	14679	475											
		STD	1100	0046	3468	2784	0002784	0405	14693	477											
037		OBS	T1100	0040	34678	2784			14705	479	232		000	315	122						

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MAGNETIC INDICATOR	MARS DEN SQUARE			STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10	CRUISE NO.		STATION NUMBER	DIR			HGT	PER	SEA	TYPE		AMT		
318154	GL	710335	01316	W	553	13	03	17	047	1970	027	1920					X1	0	3			0036		
				WATER		WIND		BARO- METER		AIR TEMP °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS								
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mb)	DRY BULB	WET BULB														
				DT	SD	00	500	916	-056			7	28											
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	SiO ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	S C C							
		STD	0000	-0174	3405	2743	0006629	0000	14399															
047		OBS	0000	-0174	3405	2743			14399															
		STD	0010	-0174	3405	2743	0006622	0007	14400															
		OBS	0010	-0174	3405	2743			14400															
		STD	0020	-0174	3405	2743	0006616	0013	14402															
008		OBS	0025	-0174	3405	2743			14403															
		STD	0030	-0174	3405	2743	0006609	0020	14404															
		OBS	0030	-0174	3405	2743			14404															
		STD	0050	-0174	3405	2743	0006597	0033	14407															
		OBS	0050	-0174	3405	2743			14407															
		STD	0075	-0172	3407	2744	0006432	0049	14412															
		OBS	0075	-0172	3407	2744			14412															
		STD	0100	-0176	3428	2761	0004796	0063	14418															
		OBS	0100	-0176	3428	2761			14418															
		STD	0125	-0181	3435	2767	0004231	0075	14420															
		OBS	0125	-0181	3435	2767			14420															
		STD	0150	-0180	3436	2768	0004142	0085	14425															
		OBS	0150	-0180	3436	2768			14425															
		STD	0200	-0181	3438	2770	0003956	0105	14433															
		OBS	0200	-0181	3438	2770			14433															
		STD	0250	-0175	3440	2771	0003792	0125	14445															
		OBS	0250	-0175	3440	2771			14445															
		STD	0300	-0169	3442	2773	0003630	0143	14456															
		OBS	0300	-0169	3442	2773			14456															
		STD	0400	-0130	3450	2778	0003120	0177	14492															
		OBS	0400	-0130	3450	2778			14492															
		STD	0500	-0074	3458	2782	0002746	0206	14536															
		OBS	0500	-0074	3458	2782			14536															
		STD	0600	-0010	3462	2783	0002800	0234	14583															
		OBS	0600	-0010	3462	2783			14583															
		STD	0700	0048	3467	2783	0002823	0262	14627															
		OBS	0700	0048	3467	2783			14627															
		STD	0800	0074	3470	2784	0002809	0290	14655															
		OBS	0800	0074	3470	2784			14655															
		STD	0900	0070	3471	2785	0002716	0318	14671															
		OBS	0900	0070	3471	2785			14671															
		STD	1000	0059	3471	2786	0002637	0345	14682															
		OBS	1000	0059	3471	2786			14682															
		STD	1100	0051	3471	2786	0002580	0371	14696															
		OBS	1100	0051	3471	2786			14696															
		STD	1200	0044	3470	2786	0002603	0397	14709															
		OBS	1200	0044	3470	2786			14709															
		STD	1300	0033	3471	2787	0002438	0422	14721															
		OBS	1300	0033	3471	2787			14721															
		STD	1400	0030	3470	2787	0002490	0447	14737															
		OBS	1400	0030	3470	2787			14737															
		STD	1500	0023	3470	2787	0002429	0471	14750															
		OBS	1500	0023	3470	2787			14750															
		STD	1600	0017	3470	2788			14765															
		OBS	1600	0017	3470	2788			14765															
		STD	1700	0011	3470	2788			14779															
		OBS	1700	0011	3470	2788			14779															
		STD	1750	0009	3470	2788	0002334	0531	14787															
		OBS	1750	0009	3470	2788			14787															
		STD	1800	0007	3469	2787			14794															
		OBS	1800	0007	3469	2787			14794															
		STD	1900	0005	3469	2787			14811															
		OBS	1900	0005	3469	2787			14811															

TABLE II.—Continued.

REFERENCE CITY CODE	SHIP NO.	SHIP CODE	LATITUDE °	LONGITUDE °	DEPTH M	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
						10'	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	
318154	GL		7104 S	012091W	553	12	03	17	110	1970		028	1189		36	0	X			X1	0	3	0037
						WATER		WIND		BARO- METER	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH'S	SPECIAL OBSERVATIONS								
					COLOR CODE	TRANS (m)	DIR.	SPEED OR FORCE	(mb)	DRY BULB	WET BULB												
						DT	SD	08	S04	933	-048		7	23									
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- $\times 10^3$	$\Sigma \Delta D$ DYN. M. $\times 10^2$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	SiO ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	S CIC						
110		STD	0000	-0180	3352	2700	0010689	0000	14388														
		OBS	0000	-0180	3352	2700			14388														
		STD	0010	-0180	3352	2700	0010681	0011	14390														
		OBS	0010	-0180	3352	2700			14390														
007		STD	0020	-0181	3354	2701	0010518	0021	14391														
		OBS	0025	-0182	3355	2702			14392														
		STD	0030	-0181	3355	2702	0010434	0032	14393														
		OBS	0030	-0181	3355	2702			14393														
		STD	0050	-0180	3356	2703	0010345	0053	14397														
		OBS	0050	-0180	3356	2703			14397														
		STD	0075	-0179	3359	2705	0010098	0078	14402														
		OBS	0075	-0179	3359	2705			14402														
		STD	0100	-0174	3361	2707	0009939	0103	14409														
		OBS	0100	-0174	3361	2707			14409														
		STD	0125	-0170	3369	2713	0009319	0127	14416														
		OBS	0125	-0170	3369	2713			14416														
		STD	0150	-0168	3372	2716	0009077	0150	14422														
		OBS	0150	-0168	3372	2716			14422														
		OBS	0196	-0166	3385	2726			14432														
		STD	0200	-0171	3386	2727	0007964	0193	14431														
		OBS	0200	-0171	3386	2727			14431														
		OBS	0208	-0176	3394	2734			14431														
		OBS	0225	-0167	3404	2742			14439														
		STD	0250	-0176	3410	2747	0006081	0228	14440														
		OBS	0250	-0176	3410	2747			14440														
		STD	0300	-0179	3424	2758	0004971	0256	14449														
		OBS	0300	-0179	3424	2758			14449														
		STD	0400	-0186	3434	2766	0004124	0301	14464														
		OBS	0400	-0186	3434	2766			14464														
		STD	0500	-0182	3438	2770	0003773	0341	14483														
		OBS	0500	-0182	3438	2770			14483														
		STD	0600	-0176	3441	2772	0003511	0377	14503														
		OBS	0600	-0176	3441	2772			14503														
		STD	0700	-0168	3446	2776	0003112	0410	14524														
		OBS	0700	-0168	3446	2776			14524														
		STD	0800	-0117	3454	2781	0002719	0439	14566														
		OBS	0800	-0117	3454	2781			14566														
		STD	0900	-0029	3462	2783	0002642	0466	14624														
		OBS	0900	-0029	3462	2783			14624														
		STD	1000	0029	3469	2786	0002544	0492	14669														
		OBS	1000	0029	3469	2786			14669														
		OBS	1066	0052	3470	2786			14690														

TABLE II.—Continued.

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SEMPL'S	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NODC STATION NUMBER
CRUISE CODE	ID. NO.					10'	1'	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE	
318154		GL	71100S	012227W	553	12	03	17	162	1970		029	0465		07	0	2		X2	5	7	0038
						WATER		WIND		BARO-METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS				
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
								08	504	937	-034		7	09								
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg · dl/l	TOTAL-P μg · dl/l	NO ₂ -N μg · dl/l	NO ₃ -N μg · dl/l	SiO ₄ -Si μg · dl/l	pH	ST. CODE					
		STD	0000	-0181	3349	2697	0010948	0000	14387	808												
		OBS	0000	-0181	33486	2697			14387	808	167		019	236	052							
		STD	0010	-0180	3350	2698	0010865	0011	14390	812												
162		OBS	0014	-0180	33500	2698			14390	813	169		016	240	052							
		STD	0020	-0181	3350	2698	0010796	0022	14391	813												
162		OBS	0027	-0181	33509	2699			14392	813	167		018	241	052							
		STD	0030	-0179	3352	2700	0010669	0032	14394	813												
162		OBS	0048	-0171	33591	2705			14402	811	175		015	248	054							
		STD	0050	-0171	3359	2705	0010113	0053	14402	810												
162		OBS	0070	-0167	33612	2707			14407	802	175		017	237	054							
		STD	0075	-0167	3362	2708	0009898	0078	14408	802												
		STD	0100	-0166	3369	2713	0009345	0102	14414	799												
162		OBS	0113	-0166	33729	2716			14417	797	179		016	248	057							
		STD	0125	-0167	3377	2720	0008715	0125	14419	790												
		STD	0150	-0166	3385	2726	0008083	0146	14424	778												
		STD	0200	-0170	3401	2739	0006820	0183	14433	759												
162		OBS	T0205	-0170	34022	2740			14434	757	204		011	275	063							
		STD	0250	-0179	3418	2753	0005461	0214	14440	749												
162		OBS	T0294	-0184	34263	2760			14446	741	211		015	292	066							
		STD	0300	-0184	3427	2761	0004726	0239	14447	740												
162		OBS	T0351	-0186	34282	2762			14455	732	211		009	286	068							

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SEMPL'S	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NODC STATION NUMBER
CRUISE CODE	ID. NO.					10'	1'	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE	
318154		GL	70575S	011216W	553	01	03	17	227	1970		030	0320		36	0	X		X2	0	3	0039
						WATER		WIND		BARO-METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS				
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						DT	SD	11	S09	955	-044		7	15								
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg · dl/l	TOTAL-P μg · dl/l	NO ₂ -N μg · dl/l	NO ₃ -N μg · dl/l	SiO ₄ -Si μg · dl/l	pH	ST. CODE					
		STD	0000	-0182	3354	2701	0010531	0000	14388													
		OBS	0000	-0182	3354	2701			14388													
		STD	0010	-0182	3354	2701	0010524	0011	14389													
		OBS	0010	-0182	3354	2701			14389													
		STD	0020	-0182	3355	2702	0010462	0021	14391													
005		OBS	0025	-0182	3355	2702			14392													
		STD	0030	-0182	3355	2702	0010432	0031	14393													
		OBS	0030	-0182	3355	2702			14393													
		STD	0050	-0181	3356	2702	0010342	0052	14397													
		OBS	0050	-0181	3356	2703			14397													
		STD	0075	-0177	3362	2708	0009873	0078	14404													
		OBS	0075	-0177	3362	2708			14404													
		STD	0100	-0162	3370	2714	0009280	0101	14416													
		OBS	0100	-0162	3370	2714			14416													
		STD	0125	-0167	3375	2718	0008867	0124	14418													
		OBS	0125	-0167	3375	2718			14418													
		OBS	0142	-0174	3383	2725			14419													
		STD	0150	-0172	3384	2726	0008147	0145	14422													
		OBS	0150	-0172	3384	2726			14422													
		OBS	0173	-0145	3395	2734			14440													
		STD	0200	-0162	3402	2740	0006767	0183	14437													
		OBS	0200	-0162	3402	2740			14437													
		OBS	0217	-0182	3422	2757			14433													
		STD	0250	-0184	3425	2759	0004910	0212	14438													
		OBS	0250	-0184	3425	2759			14438													
		OBS	0282	-0186	3428	2762			14443													

TABLE II.—Continued.

REFERENCE OBSY CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT DIRECTION	MARS DEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NOOC STATION NUMBER	
					10"	1'	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER				SEA
318154	GL	702085	007208W		552	07	03	19	015	1970		032	0740		0	X		X2	03		0041
				WATER		WIND		BARO- METER		AIR TEMP °C		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
				COLOR CODE	TRANS. 1/10	DIR.	SPEED OR FORCE	METER	DRY BULB	WET BULB	°C	NO.	DEPTHS								
				DT	SD	00	S00	940	+050			7	27								
MESSNGR TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-t	SPECIFIC VOLUME ANOMALY-σ _t ?	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₂ -S μg - dl/l	pH	S CC				
		STD	0000	-0179	3359	2705	0010153	0000	14390												
015		OBS	0000	-0179	3359	2705			14390												
		STD	0010	-0179	3359	2705	0010146	0010	14392												
		OBS	0010	-0179	3359	2705			14392												
		STD	0020	-0174	3368	2713	0009458	0020	14397												
007		OBS	0025	-0173	3370	2714			14398												
		STD	0030	-0172	3370	2714	0009302	0029	14400												
		OBS	0030	-0172	3370	2714			14400												
		STD	0050	-0167	3380	2722	0008533	0047	14407												
		OBS	0050	-0167	3380	2722			14407												
		STD	0075	-0154	3391	2731	0007708	0067	14419												
		OBS	0075	-0154	3391	2731			14419												
		STD	0100	-0149	3394	2733	0007478	0086	14426												
		OBS	0100	-0149	3394	2733			14426												
		STD	0125	-0140	3404	2741	0006726	0104	14435												
		OBS	0125	-0140	3404	2741			14435												
		STD	0150	-0135	3407	2743	0006499	0121	14442												
		OBS	0150	-0135	3407	2743			14442												
		OBS	0171	-0132	3412	2747			14448												
		OBS	0191	-0172	3419	2754			14433												
		STD	0200	-0174	3422	2756	0005201	0150	14434												
		OBS	0200	-0174	3422	2756			14434												
		STD	0250	-0180	3431	2764	0004464	0174	14441												
		OBS	0250	-0180	3431	2764			14441												
		STD	0300	-0178	3434	2766	0004211	0196	14451												
		OBS	0300	-0178	3434	2766			14451												
		STD	0400	-0169	3439	2770	0003803	0236	14472												
		OBS	0400	-0169	3439	2770			14472												
		OBS	0435	-0128	3448	2776			14499												
		OBS	0443	-0132	3444P	2773P															
		OBS	0451	-0111	3452	2779			14510												
		OBS	0490	-0107	3457	2783			14519												
		STD	0500	-0074	3457	2781	0002821	0269	14536												
		OBS	0500	-0074	3457	2781			14536												
		OBS	0526	-0068	3457	2781			14543												
		OBS	0546	-0034	3461	2783			14563												
		OBS	0569	-0030	3462	2784			14568												
		OBS	0577	-0024	3466	2786			14573												
		STD	0600	0028	3467	2785	0002676	0297	14601												
		OBS	0600	0028	3467	2785			14601												
		STD	0700	0051	3469	2785	0002695	0323	14628												
		OBS	0700	0051	3469	2785			14628												
		OBS	0722	0051	3470	2786			14632												

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