U.S. Coast Guard Oceanographic Report

UNITED STATES COAST GUARD
OCEANOGRAPHIC
REPORT No. 40

CG 373-40

Woods Hole Oceanographic Institution
ATLAS - GAZETTEER COLLECTION

OCEANOGRAPHIC INVESTIGATIONS
IN THE
NORTHERN BERING SEA AND BERING STRAIT

June-July 1968

PLEASE RETURN
TO
INSTITUTION DATA LIBRARY
MCLEAN

GC
3
U7
H3
W-40

—Atlas—
—532-AA—
—CG-373-40

UNITED STATES COAST GUARD
OCEANOGRAPHIC

UNITED STATES COAST GUARD OCEANOGRAPHIC UNIT

REPORT No. 40 ^{CG 373-40}

OCEANOGRAPHIC INVESTIGATIONS IN THE NORTHERN BERING SEA AND BERING STRAIT

June-July 1968

By David M. Husby

WASHINGTON, D.C.

ABSTRACT

Oceanographic data collected on 79 stations in the northern Bering Sea and Bering Strait during 8–19 July 1968 are presented and interpreted. The data include observations of temperature, salinity, dissolved oxygen, and current velocity made at 5-meter intervals from sea surface to the bottom. Contoured sections of the data are also presented.

Editor's note: Reference to a product or comment with respect to it in this publication does not indicate, or permit any person to hold out by republication in whole or in part or otherwise, that the product has been endorsed, authorized, or approved by the Coast Guard.

TABLE OF CONTENTS

	Page
Title Page	i
Abstract	iii
Table of Contents	v
List of Illustrations	v
Introduction	1
Data Collection and Processing	1
Cruise Chronology	1
Anchored Instrument Packages	2
Direct Measurements of Current on Station	2
Time-Series Current Measurements	2
Oceanographic Stations	2
Suspended Sediment Study	2
Results	3
Water Masses	3
Currents	3
Dissolved Oxygen Distribution	4
References	4
Illustrations	5
Appendix A—Oceanographic Data	23

LIST OF ILLUSTRATIONS

Figure	Page
1. Location of anchored sensing systems and oceanographic stations ..	5
2. Configuration of anchored instrument packages	6
3. Vertical distribution of temperature on section H-H', 8-11 July 1968 ..	7
4. Vertical distribution of temperature on section G-G', 11-12 July 1968 ..	7
5. Vertical distribution of temperature on section F-F', 13-14 July 1968 ..	8
6. Vertical distribution of temperature on section E-E', 15-16 July 1968 ..	8
7. Vertical distribution of temperature on section D-D', 17-18 July 1968 ..	9
8. Vertical distribution of temperature on section C-C', 18-19 July 1968 ..	9
9. Vertical distribution of salinity on section H-H', 8-11 July 1968	10
10. Vertical distribution of salinity on section G-G', 11-12 July 1968	10
11. Vertical distribution of salinity on section F-F', 13-14 July 1968	11
12. Vertical distribution of salinity on section E-E' 15-16 July 1968	11
13. Vertical distribution of salinity on section D-D', 17-18 July 1968	12
14. Vertical distribution of salinity on section C-C', 18-19 July 1968	12
15. Horizontal distribution of sea surface temperature between section H-H and section C-C', 8-19 July 1968	13

Figure	Page
16. Horizontal distribution of surface salinity between section H-H' and section C-C', 8-19 July 1968	14
17. Horizontal distribution of temperature at a depth of 20 meters between section H-H' and section C-C', 8-19 July 1968	15
18. Horizontal distribution of salinity at a depth of 20 meters between section H-H' and section C-C', 8-19 July 1968	16
19. Current velocity at depth of 5 meters at oceanographic stations taken 8-19 July 1968	17
20. Current velocity at depth of 20 meters at oceanographic stations taken 8-19 July 1968	18
21. Vertical distribution of dissolved oxygen on section H-H', 8-11 July 1968	19
22. Vertical distribution of dissolved oxygen on section G-G' 11-12 July 1968	19
23. Vertical distribution of dissolved oxygen on section F-F', 13-14 July 1968	20
24. Vertical distribution of dissolved oxygen on section E-E', 15-16 July 1968	20
25. Vertical distribution of dissolved oxygen on section D-D', 17-18 July 1968	21
26. Vertical distribution of dissolved oxygen on section C-C', 18-19 July 1968	21

Oceanographic Investigations in the Northern Bering Sea and Bering Strait

June–July 1968

David M. Husby¹

INTRODUCTION

Results of past investigations in the Bering Sea and Bering Strait (Aagaard, 1964; Coachman and Aagaard, 1966; Coachman and Rankin, 1968; Husby, 1969) have shown four problem areas: (1) turbulent mixing and transfer processes, (2) time-dependence of the velocity field, (3) the role of atmospheric circulation in driving or modifying oceanic circulation, and (4) general physical oceanography of the northern Bering Sea. A cooperative cruise with the U.S.

Coast Guard Oceanographic Unit and University of Washington was conducted on the USCGC STATEN ISLAND (WAGB-278) during June–July 1968 to investigate the general physical oceanography of the northern Bering Sea and Bering Strait, current flow through the Bering Strait, and transport of suspended sediments by currents.

¹ U.S. Coast Guard Oceanographic Unit, Washington, D.C. Present Address: Oceanography Department, University of Washington, Seattle, Washington.

DATA COLLECTION AND PROCESSING

Cruise Chronology

1968 25 June	Departed Kodiak, Alaska en route to northern Bering Sea.
1 July	Moored current meter arrays and temperature-pressure recorders at 64°00'N, 171°55'W and 65°37.9'N, 168°30'W.
4 July	Moored temperature-pressure recorder at 65°00'N, 170°20'W. Vessel anchored nearby for period of 26 hours while hourly current meter lowerings and two-hourly Nansen casts made for time-series study.
6 July	Vessel anchored at 63°20'N, 168°29'W for 30 hours for time-series observations.
9 July	Completed third time-series study at 64°00'N, 172°00'W with total of 31 hours spent on this station. Arrived at first oceanographic station at 2100 hours (GMT).
16 July	Completed station number 55, but then operations halted due to fog and reports of heavy concentrations of Soviet vessels in the western channel of the Bering Strait.
17 July	Survey resumed at 1000 hours on station 56.

19 July	Completed station 76 at 0400 hours. Re-occupied stations 56–58, to verify the strong (180 cm/sec) current and marked temperature inversions. Initiated search for current meter array originally moored at 65°37.9'N, 168°30'W.
20 July	Continued search for current meter array with no success. Abandoned search and proceeded to Norton Sound to begin a study of suspended sediments.
21 July	Completed suspended sediment study and en route Nome, Alaska.
22 July	Disembarked scientific party at Nome with the exception of Mr. P. Joppa who remained aboard to assist in search for anchored instrument packages. Instruments anchored at 65°37.9'N, 168°20'W never located; one of orange surface floats was observed in fisherman's boat. Temperature-pressure recorder anchored at 65°00'N, 170°20'W was retrieved.
23 July	Instruments anchored at 64°00'N, 171°55'W were located but lost during retrieval.

Anchored Instrument Packages

To determine the tidal wave pattern in the northern Bering Sea and to continuously monitor the flow through the Bering Strait, three instrument arrays were anchored (fig. 1). The basic configuration of the arrays is shown in figure 2. At the 64°00'N, 171°55'W location, the instrument array was placed at a depth of approximately 28 meters in water depth of 48 meters. The second instrument array, anchored at 65°37.9'N, 168°30.2'W in 55 meters of water, was suspended at a depth of approximately 25 meters. The third, consisting of only a temperature-pressure recorder, was placed near the bottom in 40 meters of water at 65°00'N, 170°20'W. Unfortunately, neither of the current meters was retrieved and no useable data were obtained from the one temperature-pressure recorder which was retrieved.

Direct Measurements of Current on Station

At each of the 79 oceanographic stations, the ship was anchored and allowed to swing on the anchor until it achieved a fairly stable heading. A current meter was then lowered and raised through the water column stopping at 5-meter intervals to record current velocity for about 15 minutes. The deflection of the cable from the vertical was measured at each current reading along with the length of cable paid out to determine actual depth of the meter. The current meter used was the "Magnesyn" current meter, designed and built at the Department of Oceanography, University of Washington. It combined a Hydro Products Model 460 current speed sensor and Model 451 current speed readout module with a Marine Remote Compass system for measuring magnetic direction. The current velocity data are retained by the Department of Oceanography, University of Washington, for later transfer to the National Oceanographic Data Center, Washington, D.C. (NODC).

Time-Series Current Measurements

At three locations (fig. 1), the ship was anchored and hourly current meter lowerings were made over periods of 26, 30, and 31 hours to measure the time-dependent variation of the velocity field. Nansen bottle casts were made approximately every two hours to measure tem-

perature, salinity, and dissolved oxygen content at 5-meter intervals. The current and physical oceanographic data from these three stations are retained by the Department of Oceanography, University of Washington, for later transfer to NODC.

Oceanographic Stations

At each of the 79 oceanographic stations, a Nansen bottle cast was accomplished by personnel from the U.S. Coast Guard Oceanographic Unit. Observations of temperature, salinity, and dissolved oxygen were made at 5-meter intervals from the surface to near the bottom. Water temperatures were measured by a pair of deep-sea reversing thermometers in each Nansen bottle. The salinities were determined using an inductive salinometer. 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 (UNESCO, 1966). Methods of collecting and processing the temperature and salinity data essentially followed those outlined in H.O. Pub. 607 (U.S. Naval Oceanographic Office, 1968). Upon retrieval of each cast, water samples were drawn immediately for the determination of dissolved oxygen content. The method used was a modified Winkler determination involving the titration of a 50 ml aliquot of the treated sample with a 0.01 normal sodium thiosulfate solution using starch as the end point indicator. The temperature, salinity, and dissolved oxygen data were forwarded to NODC and are listed as Ref. No. 31-1270.

Suspended Sediment Study

To determine the transport of material of fluvial origin through Norton Sound and the northern Bering Sea, Mr. Stephen Smyth (Univ. of Washington) conducted an investigation during the occupation of the 79 oceanographic stations. A Hydro Products Model 412T Towable One Meter Transmissometer was lowered into the water at 53 stations until contact was made with the bottom. Water depth and transmissivity were recorded on a strip chart recorder in the oceanographic laboratory. When the transmissometer recordings indicated unusual optical characteristics, water samples were obtained from the Nansen casts for later

analysis of suspended sediment concentration. A total of 62 transmissometer lowerings were accomplished and 142 water samples were collected.

During the Norton Sound operations on 21 July, four stations were occupied. At each station a Nansen bottle cast was made to obtain water samples at 5 meter intervals from the

surface to near the bottom, current speed and direction were measured at 5-meter intervals to near the bottom, a gravity core sample was obtained, a Van Veen grab sample was obtained, and a transmissometer lowering was accomplished. These data and samples are retained by the Department of Oceanography, University of Washington.

RESULTS

Water Masses

Hydrographic conditions in the northern Bering Sea and Bering Strait in July 1968 closely paralleled the summer regime observed in previous surveys, showing a relatively warm ($>5^{\circ}\text{C}$), low salinity ($<32.5\%$) water mass in the upper 10 meters and a layer of gradients between 10 and 15 meters overlying a colder ($<3^{\circ}\text{C}$), more saline ($>32.5\%$) water mass (figs. 3-14). Large zonal gradients of temperature and salinity were observed at the surface in the eastern portion of the survey area (figs. 15 and 16). The warm ($>7.0^{\circ}\text{C}$), low salinity ($<31.0\%$) water mass which extended along the Alaskan coast in the surface layer corresponded closely with the Alaskan Coastal Water ($8-10^{\circ}\text{C}$, $20-30\%$) first defined by Saur, et al. (1954). The low salinity of this water mass is attributed to dilution by the effluents of the Yukon and Kuskokwim rivers. The isolated parcel of warm, low salinity water found at the surface northwest of St. Lawrence Island (figs. 15 and 16) may be the result of the advection of some river runoff through the Strait of Anadyr, possibly from the Anadyr River to the southwest.

The distribution of properties at 20 meters revealed two distinct deeper water masses (figs. 17 and 18). One, in the western half of the survey area, was characterized by a temperature range of 1.0 to 3.0°C and a salinity greater than 33.0% . This mass was definitely the Modified Shelf Water (1.0 to 4.0°C , 32.0 to 33.0%) described by Saur, et al. (1954) which usually has been found over the bottom in the northern Bering Sea in the late summer. The second water mass was found close to the northern coast of St. Lawrence Island and was characterized by temperatures less than 1.0°C and salinities between 32.7 and 32.8% (figs. 17 and 18). This water mass is the Deep Shelf Water,

described by Saur, et al. (1954) and Barnes and Thompson (1938) which attains its low temperatures from ice formation in the winter. The source of this water mass has been hypothesized to be the Gulf of Anadyr. The north-eastward flow of water in the Strait of Anadyr observed in July 1968 would tend to confirm this hypothesis. Goodman, et al. (1942) reported an eddy of this water mass in the summers of 1937 and 1938 between St. Lawrence Island and St. Matthew Island with a temperature in the bottom water of -1.6°C . They suggested this water was a remnant of winter conditions when ice formation was occurring.

Currents

The current meter data were analyzed in an unpublished research paper (Grider, 1969) at the University of Washington. The direct measurements of currents on station were resolved into north and east components, which were averaged over two depth layers. The upper layer contained the average of all measured currents between the surface and the 10 meter depth; the lower layer averaged all measurements from 15 meters and deeper. The choice of those layers was based on the fact that the pycnocline in the northern Bering Sea is normally located between 10 and 15 meters in the summer.

Results of observations at the three time-series current stations revealed semi-diurnal fluctuations in the current records which were of a tidal nature with a 12.4 hour period. This tidal species was then subtracted from the current records obtained at stations 1 to 28 which had obvious semi-diurnal oscillations. The current records for stations 29 through 76 were not corrected because there were no obvious periodic fluctuations and the time difference between the occupation of these stations and the first time-series current station was too

large. Transport calculations were then made for the lines of stations and the most interesting result of those calculations was the net southward transport of 0.1 Sv (Sverdrup = $10^6 \text{ m}^3/\text{sec}$) through section G-G'. This section was occupied during a period of average wind speed of 18 knots from the north. A southerly transport had been observed in this area only once before, in July 1967, aboard the CGC NORTHWIND. The net transport through section D-D' and C-C', 1.6 Sv to the north, showed good correlation with the net transport through section H-H', 1.7 Sv to the north. The current regime in the Bering Strait showed the usual summer conditions of greatest flow in the eastern half of the Strait. The highest speed, 180 cm/sec (3.6 knots), was measured in the lower layer at station 56 (figs. 19 and 20).

There was good correlation between the net

transport through the four southernmost sections computed from the current meter data and the average wind components normal to each section. However, Grider stated that the wind probably does not have a casual effect on the change in net transport, but is more symptomatic of atmospheric pressure zones which exert pressure differentials on the sea surface over a large distance.

Dissolved Oxygen Distribution

Measurements of dissolved oxygen concentrations revealed that the surface layer in the entire survey area was supersaturated or nearly supersaturated with oxygen at the temperatures which were observed. The Modified Shelf Water and Deep Shelf Water masses were about 90% saturated, indicating recent contact with the surface and low oxygen utilization.

REFERENCES

- Aagaard, K. (1964). Features of the physical oceanography of the Chukchi Sea in the autumn, M. S. thesis. Univ. Washington, Dept. of Oceanography, 44 pp.
- Barnes, C. S. and T. G. Thompson (1938). Physical and Chemical Investigations in the Bering Sea and portions of the North Pacific Ocean. Univ. Washington Publ. Oceanog., 3(2), 35-79 and appen.
- Coachman, L. K. and K. Aagaard (1966). On the water exchange through Bering Strait, *Limol. and Ocean*, 11, 44-59.
- Coachman, L. K. and D. A. Rankin (1968). Currents in Long Strait, Arctic Ocean, *Artic*, 21(1), 27-38.
- Goodman, J. R., J. H. Lincoln, T. G. Thompson, and F. A. Zeusler (1942). Physical and Chemical investigations: Bering Sea, Bering Strait, Chukchi Sea during the summers of 1937 and 1938. Univ. Washington Publ. Oceanog., 3(4), 105 pp.
- Grider, G. W., Jr. (1969). The current and hydrographic regime of the northern Bering Sea and Bering Strait, July 1968 (Unpublished). Univ. Washington, Dept. of Oceanography, 15 pp.
- Husby, D. M. (1969). Report of Oceanographic cruise, USCGC NORTHWIND, northern Bering Sea-Bering Strait-Chukchi Sea, July 1967, U.S. Coast Guard Oceanographic Report No. 24, CG-373-24.
- Saur, J. F. T., J. P. Tully, and E. C. LaFond (1954). Oceanographic cruise to the Bering and Chukchi seas, summer 1949. Part IV: Physical oceanographic studies V. 2. Descriptive report. U.S.N. Electron. Lab. Res. Rept. 416, 31 pp.
- UNESCO (1966). International Oceanographic Tables, UNESCO Office of Oceanography, Paris, 118 pp.
- U.S. Naval Oceanographic Office (1968). Instruction Manual for Oceanographic Observations, 3rd Edition. Pub. No. 607.

Figure 1. Location of anchored sensing systems and oceanographic stations occupied by USCGC STATEN ISLAND, 1-21 July 1968. ●=oceanographic stations, ▲=anchored instrument package, +=time-series current station, ■=Norton Sound station.

CURRENT METER ARRAY

Figure 2. Configuration of current meter and pressure-temperature recorder arrays anchored by USCGC STATION ISLAND in Bering Strait and Strait of Anadyr, 30 June-1 July 1968.

Figure 3. Distribution of temperature (°C) along section H-H', from USCGC STATEN ISLAND 8-11 July 1968. Contour interval 1.0°C except for -0.5°C contour.

Figure 4. Distribution of temperature (°C) along section G-G', from USCGC STATEN ISLAND 11-12 July 1968. Contour interval 1.0°C.

Figure 5. Distribution of temperature ($^{\circ}\text{C}$) along section F-F', from USCGC STATEN ISLAND data of 13-14 July 1968. Contour interval 1.0°C .

Figure 6. Distribution of temperature ($^{\circ}\text{C}$) along section E-E', from USCGC STATEN ISLAND data of 15-16 July 1968. Contour interval 1.0°C .

Figure 7. Distribution of temperature (°C) along section D-D', from USCGC STATEN ISLAND data of 17-18 July 1968. Contour interval 1.0°C.

Figure 8. Distribution of temperature (°C) along section C-C', from USCGC STATEN ISLAND data of 18-19 July 1968. Contour interval 1.0°C.

Figure 9. Distribution of salinity (‰) along section H-H', from USCGC STATEN ISLAND data of 8-11 July 1968. Contour interval 0.5‰, except for 24.0-32.0‰ contours.

Figure 10. Distribution of salinity (‰) along section G-G', from USCGC STATEN ISLAND data of 11-12 July 1968. Contour interval 0.5‰.

Figure 11. Distribution of salinity (‰) along section F-F', from USCGC STATEN ISLAND data of 13-14 July 1968. Contour interval 0.5‰.

Figure 12. Distribution of salinity (‰) along section E-E', from USCGC STATEN ISLAND data of 15-16 July 1968. Contour interval 0.5‰.

Figure 13. Distribution of salinity (‰) along section D-D', from USCGC STATEN ISLAND data of 17-18 July 1968. Contour interval 0.5‰.

Figure 14. Distribution of salinity (‰) along section C-C', from USCGC STATEN ISLAND data of 18-19 July 1968. Contour interval 0.5‰.

Figure 15. Horizontal distribution of sea surface temperature (°C) from USCGC STATEN ISLAND data of 8-19 July 1968.

Figure 16. Horizontal distribution of surface salinity (‰) from USCGC STATEN ISLAND data of 8-19 July 1968.

Figure 17. Horizontal distribution of temperature (°C) at depth of 20 meters from USCGC STATEN ISLAND data of 8-19 July 1968.

Figure 18. Horizontal distribution of salinity (%) at depth of 20 meters from USCGC STATEN ISLAND data of 8-19 July 1968.

Figure 19. Current velocity at a depth of 5 meters at stations occupied by USCGC STATEN ISLAND, 8-19 July 1968.

Figure 20. Current velocity at a depth of 20 meters at stations occupied by USCGC STATEN ISLAND, 8-19 July 1968.

Figure 21. Distribution of dissolved oxygen (ml/l) along section II-II', from USCGC STATEN ISLAND data of 8-11 July 1968. Contour interval 0.5 ml/l.

Figure 22. Distribution of dissolved oxygen (ml/l) along section G-G', from USCGC STATEN ISLAND data of 11-12 July 1968. Contour interval 0.5 ml/l.

Figure 23. Distribution of dissolved oxygen (ml/l) along section F-F', from USCGC STATEN ISLAND data of 13-14 July 1968. Contour interval 0.5 ml/l.

Figure 24. Distribution of dissolved oxygen (ml/l) along section E-E', from USCGC STATEN ISLAND data of 15-16 July 1968. Contour interval 0.5 ml/l.

Figure 25. Distribution of dissolved oxygen (ml/l) along section D-D', from USCGC STATEN ISLAND data of 17-18 July 1968. Contour interval 0.5 ml/l.

Figure 26. Distribution of dissolved oxygen (ml/l) along section C-C', from USCGC STATEN ISLAND data of 18-19 July 1968. Contour interval 0.5 ml/l.

APPENDIX A

OCEANOGRAPHIC DATA

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 ten degrees.
HGT.....	In increments of $\frac{1}{2}$ m. Sum of 5 meters plus increments of $\frac{1}{2}$ m if 50 is added to direction.
PER.....	If numerals 2 through 9 are entered, period in seconds is twice the numeric entry or $2 \times$ (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 eights. 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 ten 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 thermometrically; Σ 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.
Anomaly — $\times 10^7$	
$\Sigma \Delta \text{Dyn. M} \times 10^3$	Multiply entry by 10^{-3} to obtain anomaly of dynamic height 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 phosphorus 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 1.—Observed and interpolated oceanographic data from stations taken by USCGC STATEN ISLAND, 8-19 July 1968, prepared from NODC Listing No. 31-1270.

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	W/250N SQUARE	STATION TIME (GMT)					YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'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		TYPE	AMT
311270	SI	6405 N	172300W	234	42	07	08	210	1968	BS2	001			0058	00	29	0	2		X1	0	1	0001		
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS- MIT	DIR	SPEED OF FORCE	DRY BULB	WET BULB														
								29		S15	055	069	062	8	11										
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}		$\Sigma \Delta$ D DTN. 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							
		STD	0000	0779	3225	2517	0028035		0000		14785	719													
212		OBS	0000	0779	32253	2517					14785	719													
212		OBS	0005	0775	32253	2518					14785	719													
		STD	0010	0759	3226	2521	0027699		0028		14779	721													
212		OBS	0010	0759	32264	2521					14779	721													
212		OBS	0015	0255	32975	2633					14582	676													
212		OBS	0019	0196	33031	2642					14557	673													
		STD	0020	0194	3303	2642	0016130		0050		14556	676													
212		OBS	0024	0189	33040	2643					14555	680													
212		OBS	0029	0189	33042	2644					14556	670													
		STD	0030	0189	3304	2643	0016044		0066		14556	671													
212		OBS	0034	0189	33033	2643					14556	674													
212		OBS	0039	0190	33036	2643					14558	680													
212		OBS	0044	0189	33046	2644					14558	670													
212		OBS	0048	0186	33042	2644					14558	671													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	W/250N SQUARE	STATION TIME (GMT)					YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'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		TYPE	AMT
311270	SI	64012N	17222 W	234	42	07	08	230	1968	BS2	002			0058	00	29	0	2		X1	0	2	0002		
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS- MIT	DIR	SPEED OF FORCE	DRY BULB	WET BULB														
								29		S15	060	086	077	8	11										
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}		$\Sigma \Delta$ D DTN. 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							
		STD	0000	0811	3237	2522	0027586		0000		14799	708													
228		OBS	0000	0811	32372	2522					14799	708													
228		OBS	0005	0810	32374	2522					14800	706													
		STD	0010	0803	3237	2523	0027483		0028		14798	708													
228		OBS	0010	0803	32373	2523					14798	708													
228		OBS	0015	0248	32867	2625					14577	685													
		STD	0020	0152	3299	2642	0016188		0049		14537	670													
228		OBS	0020	0152	32988	2642					14537	670													
228		OBS	0025	0148	32992	2642					14536	660													
		STD	0030	0149	3299	2642	0016147		0066		14537	667													
228		OBS	0030	0149	32991	2642					14537	667													
228		OBS	0035	0147	32991	2642					14537	667													
228		OBS	0040	0147	32993	2643					14538	664													
228		OBS	0045	0147	32989	2642					14539	668													
		STD	0050	0149	3299	2642	0016149		0098		14541	665													
228		OBS	0050	0149	32991	2642					14541	665													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	W/250N SQUARE	STATION TIME (GMT)					YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'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		TYPE	AMT
311270	SI	63578N	172136W	234	32	07	10	000	1968	BS2	003			0064	00	29	1	2		X1	3	2	0003		
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS- MIT	DIR	SPEED OF FORCE	DRY BULB	WET BULB														
								31		S14	055	090	090	8	11										
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}		$\Sigma \Delta$ D DTN. 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							
		STD	0000	0822	3205	2495	0030107		0000		14799	705													
008		OBS	0000	0822	32054	2495					14799	705													
008		OBS	0005	0820	32063	2496					14800	707													
		STD	0010	0352	3268	2602	0020022		0025		14619	736													
008		OBS	0010	0352	32684	2602					14619	736													
008		OBS	0015	0138	32988	2643					14530	673													
		STD	0020	0134	3300	2644	0015990		0043		14529	663													
008		OBS	0020	0134	32999	2644					14529	663													
008		OBS	0025	0130	32998	2644					14528														
		STD	0030	0131	3300	2644	0015979		0059		14529	667													
008		OBS	0030	0131	32998	2644					14529	667													
008		OBS	0035	0130	32998	2644					14530	667													
008		OBS	0040	0133	32991	2643					14532	658													
008		OBS	0045	0129	33002	2644					14531	664													
		STD	0050	0126	3300	2645	0015911		0091		14531	660													
008		OBS	0050	0126	33003	2645					14531	660													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	ORIGINATOR'S STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH 10 BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CHRY CODE	ID. NO.						CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE	
311270	SI	6348 N	17152 W	234 31	07 10 050	1968	BS2 006	0034	00	29	1 2	X1	3 4			0006	
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS					
		COLOR CODE	TRANS- MITS	DIR.	SPEED OR FORCE			DRY BULB	WET BULB								
					00	500	052	092	083	8	07						
MISSING TIME HR 1/10	CAS T NO.	CARD TYPE	DEPTH (m)	1 °C	5 °C	SIGMA-T	SPECIFIC VOLUME ANOMALY-SIG?	S Δ O DTN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P µg - ml/l	TOTAL-P µg - ml/l	NO ₂ -N µg - ml/l	NO ₃ -N µg - ml/l	SiO ₂ -Si µg - ml/l	pH	
		STD	0000	0667	3242	2546	0025333	0000	14744	754							
	053	OBS	0000	0667	32421	2546			14744	754							
	053	OBS	0005	0669	32421	2545			14745	749							
		STD	0010	0596	3243	2555	0024406	0025	14717	794							
	053	OBS	0010	0596	32433	2555			14717	794							
	053	OBS	0015	-0002	32718	2629			14663	785							
		STD	0020	-0022	3273	2631	0017213	0046	14455	735							
	053	OBS	0020	-0022	32732	2631			14455	735							
	053	OBS	0025	-0026	32740	2632			14454	721							
		STD	0030	-0025	3274	2632	0017136	0063	14455	724							
	053	OBS	0030	-0025	32740	2632			14455	724							

REFERENCE CTRY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	1/250EN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'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	

MESSAGE TIME HR 1/10	CST 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 - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CODE
		STD	0000	0275	3264	2605	0019714	0000	14583	1038							
197		OBS	0000	0275	32639	2605			14583	1038							
197		OBS	0005	0254	32633	2606			14575	1028							
		STD	0010	0035	3268	2624	0017908	0019	14478	814							
197		OBS	0010	0035	32675	2624			14478	814							
197		OBS	0015	-0018	32693	2628			14455	757							
		STD	0020	-0037	3270	2629	0017413	0036	14447	754							
197		OBS	0020	-0037	32698	2629			14447	754							
197		OBS	0025	-0045	32698	2629			14444	720							
		STD	0030	-0050	3270	2630	0017335	0054	14443	715							
197		OBS	0030	-0050	32701	2630			14443	715							
197		OBS	0035	-0050	32705	2630			14444	716							

REFERENCE CTRY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	1/250EN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'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	

MESSAGE TIME HR 1/10		CST 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 - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CODE
			STD	0000	0138	3266	2616	0018606	0000	14523	882							
221			OBS	0000	0138	32658	2616			14523	882							
221			OBS	0005	0143	32658	2616			14526	888							
			STD	0010	0033	3267	2623	0017975	0018	14477	826							
221			OBS	0010	0033	32665	2623			14477	826							
221			OBS	0015	-0003	32669	2625			14462	777							
			STD	0020	-0009	3267	2625	0017780	0036	14460	758							
221			OBS	0020	-0009	32665	2625			14460	758							
221			OBS	0025	-0019	32672	2626			14456	747							
			STD	0030	-0035	3268	2627	0017577	0054	14449	735							
221			OBS	0030	-0035	32677	2627			14449	735							

REFERENCE CTRY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	1/250EN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'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	

MESSING TIME HR 1/10	CST 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 - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CODE
		STD	0000	0205	3264	2610	0019177	0000	14553	901							
239		OBS	0000	0205	32641	2610			14553	901							
239		OBS	0005	0196	32640	2611			14549	896							
		STD	0010	0180	3264	2612	0019007	0019	14543	926							
239		OBS	0010	0180	32641	2612			14543	926							
239		OBS	0015	0017	32647	2622			14471	816							
		STD	0020	0003	3265	2623	0017962	0038	14465	823							
239		OBS	0020	0003	32648	2623			14465	823							
239		OBS	0025	-0001	32648	2623			14464	814							
		STD	0030	0000	3265	2623	0017930	0056	14465	811							
239		OBS	0030	0000	32650	2623			14465	811							
239		OBS	0035	-0002	32654	2624			14465	806							
239		OBS	0040	-0003	32654	2624			14466	801							

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	STATION 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
CIRCUIT CODE	ID. NO.					10"	1"	MO	DAY		HR:1/10	CRUISE NO.			STATION NUMBER	DR.	HGT		PER	SEA	
311270	SI		6240 N	16821 W	233	28	07	11	015	1968	BS2	010	0037	00	18	1	2		X4	X9	0010
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS					
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB										
									17	S07	083	075	072	0	07						
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DTN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{ml}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{ml}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{ml}^{-1}$	pH	1 C				
		STD	0000	0624	3245	2554	0024566	0000	14727	704											
018		OBS	0000	0624	32454	2554			14727	704											
018		OBS	0005	0424	32503	2580			14646	865											
		STD	0010	0153	3260	2610	0019172	0022	14531	942											
018		OBS	0010	0153	32596	2610			14531	942											
018		OBS	0015	0098	32618	2616			14507	917											
		STD	0020	0085	3263	2617	0018524	0041	14502	880											
018		OBS	0020	0085	32628	2617			14502	880											
018		OBS	0025	0082	32626	2617			14501	878											
		STD	0030	0081																	
018		OBS	0030	0081																	

DIFFERENCE CIRCUIT CODE	SHIP ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	STATION 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	
							10"	1"		CRUISE NO.	STATION NUMBER			DR.	HGT	PER		SEA	1/10		1/10
							MO	DAY		HR	1/10										
311270	SI		6234 N	16804 W	233	28 07 11 037	1968	BS2 011				0029	00	19	1	2		X4	X9	0011	
						WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE									
									00	S00	087	072	071								0
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _θ	Σ Δ D DTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg · ml ⁻¹	TOTAL-P μg · ml ⁻¹	NO ₃ -N μg · ml ⁻¹	NO ₃ -N μg · ml ⁻¹	SiO ₄ -Si μg · ml ⁻¹	pH	1 C				
		STD	0000	0670	3228	2534	0026454	0000	14743	725											
042		OBS	0000	0670	32276	2534			14743	725											
042		OBS	0005	0609	32277	2542			14719	734											
		STD	0010	0245	3239	2587	0021387	0024	14568	800											
042		OBS	0010	0245	32388	2587			14568	800											
042		OBS	0015	0227	32392	2589			14561	802											
		STD	0020	0226	3239	2589	0021234	0045	14562	799											
042		OBS	0020	0226	32390	2589			14562	799											
042		OBS	0025	0224	32393	2589			14562												

REFERENCE CIRCUIT CODE	SHIP ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	STATION 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	
							10"	1"		CRUISE NO.	STATION NUMBER			DR.	HGT	PER		SEA	1/10		1/10
311270	SI		6232 N	16742 W	233	27 07 11 070	1968	BS2 012				0029	00	23	0	2		X4	X9	0012	
						WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE									
									00	S00	093	083	073	1	06						
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _θ		Σ Δ D DTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg · ml ⁻¹	TOTAL-P μg · ml ⁻¹	NO ₃ -N μg · ml ⁻¹	NO ₃ -N μg · ml ⁻¹	SiO ₄ -Si μg · ml ⁻¹	pH	1 C			
		STD	0000	0708	3231	2531	0026707		0000	14758	713										
067		OBS	0000	0708	32306	2531				14758	713										
067		OBS	0005	0628	32349	2545				14728	715										
		STD	0010	0350	3241	2580	0022065		0024	14614	786										
067		OBS	0010	0350	32411	2580				14614	786										
067		OBS	0015	0190	32499	2600				14546	822										
		STD	0020	0189	3250	2600	0020140		0045	14547	826										
067		OBS	0020	0189	32500	2600				14547	826										
067		OBS	0025	0187	32494	2600				14547	824										

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W/25DEN SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER	
					CRUISE NO.	STATION NUMBER		DIR	HGT			PER					
311270	SI	6226 N	16726 W	233	27 07 11	090	1968	852	013	0031	00	00	0	X	X4	X 9	0013
				WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
				COLOR CODE	TRANSL. (m)	DIR.	SPEED OR FORCE	BARO-METER (mba)	DRY BULB	WET BULB	VIS. CODE						
							00 S00	100	083	072	0	06					
MESSAGING TIME HR 1/10	CARD 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 - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH
		STD	0000	0719	3202	2508	0028954		0000	14759							
	087	OBS	0000	0719	32024	2508				14759							
	087	OBS	0005	0652	32026	2516				14733							
		STD	0010	0139	3232	2589	0021206		0025	14520							
	087	OBS	0010	0139	32317	2589				14520							
	087	OBS	0015	0125	32321	2590				14515							
		STD	0020	0124	3232	2590	0021077		0046	14515							
	087	OBS	0020	0124	32322	2590				14515							
	087	OBS	0025	0122	32325	2591				14515							

REFERENCE CSTY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	W/25DEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'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	
311270	SI	6222 N	16707 W	233	27	07	11	105	1968	852	014	0034	00	00	0	X		X4	X	9		0014
					WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS									
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO-METER (mba)	DRY BULB	WET BULB	VIS. CODE										
								00	S00	095	069	064	0	07								
MISSING TIME OF HR 1/10	CARD 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 - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C C		
		STD	0000	0829	3071	2389		0040239		0000		14785	692									
110		OBS	0000	0829	30707	2389						14785	692									
110		OBS	0005	0814	30831	2401						14781	690									
		STD	0010	0519	3162	2500		0029669		0035		14675	686									
110		OBS	0010	0519	31618	2500						14675	686									
110		OBS	0015	0142	32345	2591						14523	776									
		STD	0020	0139	3236	2592		0020909		0060		14523	785									
110		OBS	0020	0139	32356	2592						14523	785									
110		OBS	0025	0137	32359	2592						14523	774									
		STD	0030	0137	3236	2592		0020874		0081		14523	767									
110		OBS	0030	0137	32359	2592						14523	767									

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH FOOT	W/25DEN SQUARE		STATION TIME LGMT			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					04"	1"	MD	QAT	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
311270	SI	6218 N	16651 W	233	26	07	11	127	1968	852	015	0032	00	36	0	2			X4	X	9	0015	
						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											
									33	S05	091	083	080	5	06								
MISSING TIME OF HR 1/10		CARD 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 - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C		
			STD	0000	1122	2370	1801		0096702		0000		14806	649									
	129		OBS	0000	1122	23703	1801						14806	649									
	129		OBS	0005	0434	30094	2388						14618	689									
			STD	0010	0410	3140	2494		0030271		0063		14626	783									
	129		OBS	0010	0410	31395	2494						14626	783									
	129		OBS	0015	0179								784										
			STD	0020	0178	3140	2513		0028460		0093		14527	784									
	129		OBS	0020	0178	31395	2513						14527	784									
	129		OBS	0025	0173	31392	2513						14525	788									

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W/250EN SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- TER CODE	CLOUD CODES	WMO STATION NUMBER
CRU- NO.	IO. NO.					CRUISE NO.	STATION NUMBER		DR.	HGT			PER	SEA				
311270	S1	63185N	16838 W	233	38 07 11	221	1968	B52 016	0016	00				1	X4	X9	0016	
				WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS. m1	DIR.	SPEED OR FORCE	BARO- METER (mbal)	DRY BULB	WET BULB	VTL CODE							
							32	520	085	067	061							1
MESSAGE TIME HR 1/10	CARD 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SIO ₄ -Si μg - ml/l	pH	STATION NUMBER	
		STD	0000	0467	3223	2554	0024561	0000	14659	763								
	223	OBS	0000	0467	32225	2554			14659	763								
	223	OBS	0005	0437	32288	2562			14649	770								
		STD	0010	0372	3235	2573	0022691	0024	14623	773								
	223	OBS	0010	0372	32354	2573			14623	773								

REFERENCE CST CODE	IO. NO.	SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	W/250EN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES TYPE AMT	MOOC STATION NUMBER		
						10"	1"	MO	DAY		HR	1/10			CRUISE NO.	STATION NUMBER	DIR.				HGT	PER
311270		S1	6324 N	16820 W	233	38	07	12	000	1968	B52	017	0034	00	32	1	1		X4	X9	0017	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS				
						COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	DRY BULB	WET BULB											
									32	512	085	055	047	6	07							
MESSAGE TIME HR 1/10	CARD 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	STATION NUMBER			
		STD	0000	0394	3257	2588		0021257		0000	14633	1032										
002		OBS	0000	0394	32570	2588					14633	1032										
002		OBS	0005	0389	32572	2589					14632	1033										
		STD	0010	0138	3263	2614		0018827		0020	14524	862										
002		OBS	0010	0138	32629	2614					14524	862										
002		OBS	0015	0009	32696	2627					14468	767										
		STD	0020	-0022	3271	2629		0017358		0038	14454	751										
002		OBS	0020	-0022	32713	2629					14454	751										
002		OBS	0025	-0026	32721	2630					14453	749										
		STD	0030	-0026	3271	2629		0017346		0055	14454	744										
002		OBS	0030	-0026	32712	2629					14454	744										

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W/250EN SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	WMO STATION NUMBER
CRUISE CODE	IO. NO.					MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DR.	HGT			
311270	S1	63293N	16802 W	233	38 07 12	020	1968	B52 018	0034	00	35	2	2		X4	4 8	0018	
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS			
					COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB						
								01	518	075	060	7						06
MESSAGE TIME HR 1/10	CARD 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH		
		STD	0000	0382	3258	2591	0021048	0000	14628	919								
022		OBS	0000	0382	32583	2591			14628	919								
022		OBS	0005	0382	32593	2591			14629	916								
		STD	0010	0117	3262	2615	0018746	0020	14515	890								
022		OBS	0010	0117	32623	2615			14515	890								
022		OBS	0015	0028	32669	2624			14476	858								
		STD	0020	0005	3265	2623	0017933	0038	14466	851								
022		OBS	0020	0005	32653	2623			14466	851								
022		OBS	0025	0001	32678	2626			14465	849								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DATE INDICATOR	1/250EN 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		
CITY CODE	IO. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER				SEA	TYPE
311270	SI		6334 N	16747 W	233	37	07	12	050	1968	BS2	019	0033	00	33	12	12		X2	7 8		0019	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DIR.	WET BULB	WET BULB											
								32		S15	065	067	056	7		06							
MESSNGR TIME HR 1/10	CAST 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C						
		STD	0000	0411	3248	2580	0022087	0000	14639	815													
052		OBS	0000	0411	32481	2580			14639	815													
052		OBS	0005	0411	32498	2581			14640														
		STD	0010	0408	3250	2581	0021937	0022	14640	827													
052		OBS	0010	0408	32498	2581			14640	827													
052		OBS	0015	0353	32513	2588			14618	828													
		STD	0020	0172	3262	2611	0019107	0043	14541	847													
052		OBS	0020	0172	32621	2611			14541	847													
052		OBS	0025	0116	32651	2617			14517	834													

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DATE INDIC	1/250EN 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	
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER				SEA
311270	SI	6340 N	167275 W	233	37	07	12	072	1968	BS2	020	0029	00	33	12	12		X2	7 8		0020	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DIR.	WET BULB	WET BULB										
						33		S23	060	069	055	5	06									
MESSNGR TIME HR 1/10	CAST 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 - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S					
		STD	0000	0493	3250	2573	0022745	0000	14674	792												
072		OBS	0000	0493	32502	2573			14674	792												
072		OBS	0005	0482	32509	2575			14670	799												
		STD	0010	0475	3251	2575	0022537	0023	14668	797												
072		OBS	0010	0475	32506	2575			14668	797												
072		OBS	0015	0226	32567	2603			14563	836												
		STD	0020	0180	3258	2607	0019479	0044	14544	839												
072		OBS	0020	0180																		
072		OBS	0025	0175	32590	2608			14543	842												

REFERENCE CITY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DATE INDICATOR	1/250EN 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./10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER				SEA	TYPE	AMT
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		BARO- METER (mba)	DIR.			WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
311270	SI	63457N	167105W	233	37	07	12	090	1968	BS2	021	0033	00	34	15	14		X2	7 8		0021		
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DIR.	WET BULB	WET BULB												
							34		S25	045	061	056	5		06								
MISSING TIME HR 1/10	CAST 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C						
		STD	0000	0691	3179	2493	0030334	0000	14745	722													
090		OBS	0000	0691	31792	2493			14745	722													
090		OBS	0005	0635	31935	2511			14725	748													
		STD	0010	0214	3260	2606	0019577	0025	14558	849													
090		OBS	0010	0214	32597	2606			14558	849													
090		OBS	0015	0202	32615	2608			14553	842													
		STD	0020	0201	3262	2609	0019342	0044	14554	840													
090		OBS	0020	0201	32616	2609			14554	840													
090		OBS	0025	0198	32618	2609			14553	835													

REFERENCE		SHIP CODE	LATITUDE " 1/10	LONGITUDE " 1/10	PORT CODE	W. 2500N 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			DR.	HC	PER			
311270	SI	63512N	166520W	233	36	07	12	107	1968	BS2	022	0032	00	01	4	4		X4	X 9	0022
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS				
						COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB							
									01	525	040	064	058	0	06					
MISSING TIME HR 1/10	CST 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C	
		STD	0000	0815	3114	2425	0036842		0000		14785	690								
109		OBS	0000	0815	31137	2425					14785	690								
109		OBS	0005	0540	31904	2520					14686	771								
		STD	0010	0175	3251	2602	0019999		0028		14539	822								
109		OBS	0010	0175	32506	2602					14539	822								
109		OBS	0015	0156	32525	2605					14532	819								
		STD	0020	0154	3253	2605	0019688		0048		14532	819								
109		OBS	0020	0154	32529	2605					14532	819								
109		OBS	0025	0151	32531	2605					14531	819								

REFERENCE		SHIP CODE	LATITUDE " 1/10	LONGITUDE " 1/10	PORT CODE	W. 2500N 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			DR.	HC	PER			
311270	SI	6356 N	166355W	233	36	07	12	126	1968	BS2	023	0031	00	34	2	2		X4	X 9	0023
						WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS					
						COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE		DRY BULB	WET BULB								
									32	523	025	062	058	5	06					
MISSING TIME HR 1/10	CST 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	1 CODE	
		STD	0000	0746	3146	2460	0033514		0000		14762	702								
129		OBS	0000	0746	31460	2460					14762	702								
129		OBS	0005	0223	32380	2588					14558	840								
		STD	0010	0083	3254	2610	0019207		0026		14498	857								
129		OBS	0010	0083	32537	2610					14498	857								
129		OBS	0015	0077	32543	2611					14496	855								
		STD	0020	0073	3254	2611	0019106		0046		14495	849								
129		OBS	0020	0073	32543	2611					14495	849								
129		OBS	0025	0073	32542	2611					14496	844								

REFERENCE		SHIP CODE	LATITUDE " 1/10	LONGITUDE " 1/10	PORT CODE	W. 2500N 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			DR.	HC	PER			
311270	SI	6402 N	16618 W	233	46	07	12	147	1968	BS2	024	0027	00	35	2	2		X4	X 9	0024
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS				
						COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB							
									32	522	025	075	067	6	05					
MISSING TIME HR 1/10	CST 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C	
		STD	0000	0772	3178	2481	0031483		0000		14776	692								
150		OBS	0000	0772	31778	2481					14776	692								
150		OBS	0005	0679	31830	2498					14741	713								
		STD	0010	0190	3221	2577	0022316		0027		14542	826								
150		OBS	0010	0190	32214	2577					14542	826								
150		OBS	0015	0183	32233	2579					14540	826								
		STD	0020	0182	3222	2579	0022188		0049		14540	833								
150		OBS	0020	0182	32224	2579					14540	833								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W/SDEN SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER		
CTRY CODE	IO. NO.					10"	1"		MO	DAY			HR./10	CRUISE NO.	STATION NUMBER			DR.	HGT
311270	SI		64078N	16600 W	233	46	07 12 170	1968	BS2	025	0023	00	30	2	2		X1	6 7	0025
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
		COLOR CODE	TRANS. m	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB								
				31	S20	000	097	087	7	04									
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	$\Sigma \Delta \rho$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{ml}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{ml}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{ml}^{-1}$	pH	S C C		
		STD	0000	0934	3075	2376	0041445	0000	14825	667									
170		OBS	0000	0934	30746	2376			14825	667									
170		OBS	0005	0702	31677	2483			14749										
		STD	0010	0202	3201	2560	0023985	0033	14544	840									
170		OBS	0010	0202	32005	2560			14544	840									
170		OBS	0015	0200	32008	2560			14544	840									

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W/SDEN SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'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.
311270	SI		64134N	165411W	233	45	07 12 190	1968	BS2	026	0023	00	32	2	2		X4	X 9	0026
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
		COLOR CODE	TRANS. m	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB								
				32	S22	997	076	072	3	04									
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	$\Sigma \Delta \rho$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{ml}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{ml}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{ml}^{-1}$	pH	S C C		
		STD	0000	0898	2923	2264	0052222	0000	14792	670									
190		OBS	0000	0898	29228	2264			14792	670									
190		OBS	0005	0613	30355	2390			14696	733									
		STD	0010	0395	3148	2502	0029523	0041	14621	790									
190		OBS	0010	0395	31476	2502			14621	790									
190		OBS	0015	0394	31497	2503			14621	793									

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DRIFT INDIC	W/SDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'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
311270	SI		6419 N	165227W		233	45	07 12 210	1968	BS2	027		0024	00	31	2	2		X1	8 1		0027
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. m	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB									
									31	S10	995	104	094	7	04							
MESSAGE TIME HR 1/10	CARD 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 - dl/l	TOTAL-P μg - dl/l	NO ₃ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	S C C					
		STD	0000	1074	2930	2241	0054341	0000	14858	656												
211		OBS	0000	1074	29299	2241			14858	656												
211		OBS	0005	1070	29292	2242			14858	658												
		STD	0010	1056	2930	2244	0054079	0054	14853	693												
211		OBS	0010	1056	29298	2244			14853	693												
211		OBS	0015	0634					14853	660												

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W/SDEN SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER			
CTRY CODE	IO. NO.					10"	1"		CRUISE NO.	STATION NUMBER			DR.	HGT	PER	SEA		TIME	AMT	
311270	SI		64235N	165073W	233	45	07 12 226	1968	BS2	028	0027	00	13	0	2		X1	7 2		0028
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
		COLOR CODE	TRANS. m	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB									
				13	S10	995				6	04									
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	$\Sigma \Delta \rho$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{ml}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{ml}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{ml}^{-1}$	pH	S C C			
		STD	0000	1214	2889	2185	0059724	0000	14903	647										
227		OBS	0000	1214	28886	2185			14903	647										
227		OBS	0005	0900	29365	2274			14795	681										
		STD	0010	0794	2957	2305	0048295	0054	14758	688										
227		OBS	0010	0794	29566	2305			14758	688										
227		OBS	0015	0725	29693	2324			14733	688										

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W. 150N SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"		MO	Q.Z.T.			HR./10	CRUISE NO.	STATION NUMBER		DIR.	HGT		PER
311270	SI	64368N	166335W	233	46 07 13	183	1968	852	029	0022	00	32	1	1		X4	9	9	0029	
					WATER		WIND		BARO- METER		AIR TEMP. °C		VSL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS					
					COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	UNIT	DRY BULB	WET BULB									
								13	S11	010	084	084	1	04						
MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Δ ρ DTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -S μg - ml/l	pH	T C			
		STD	0000	0825	2949	2295	0049248	0000	14767	703										
	183	OBS	0000	0825	29492	2295			14767	703										
	183	OBS	0005	0807	29502	2298			14761	703										
		STD	0010	0517	3029	2396	0039613	0044	14656	728										
	183	OBS	0010	0517	30293	2396			14656	728										
	183	OBS	0015	0446	30673	2433			14632	741										

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W. 150N SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'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
311270	SI	6433 N	16652 W	233	46	07	13	200	1968	852	030	0029	00			1	X4	X	9	0030
					WATER		WIND		BARO- METER		AIR TEMP. °C		VSL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS					
					COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	UNIT	DRY BULB	WET BULB									
								13	S10	012	086	082	0	05						
MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Δ ρ DTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -S μg - ml/l	pH	T C		
		STD	0000	0839	3005	2336	0045311		0000	14780	679									
	204	OBS	0000	0839	30045	2336				14780	679									
	204	OBS	0005	0188	32174	2574				14539	814									
		STD	0010	0202	3233	2586	0021495		0033	14549	819									
	204	OBS	0010	0202	32333	2586				14549	819									
	204	OBS	0015	0199	32339	2587				14548	822									
		STD	0020	0197	3234	2587	0021378		0055	14548	819									
	204	OBS	0020	0197	32344	2587				14548	819									

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	W. 150N SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR.	HGT		PER	SEA	
311270	SI	64287N	16712 W	233	47 07 13	220	1968	852	031		0032	00				1	X4	X	9		0031
						WATER		WIND		BARO- METER		AIR TEMP °C		VSL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS					
						COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	UNIT	DRY BULB	WET BULB									
									00	S00	010	111	097	0	06						
MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Δ ρ DTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -S μg - ml/l	pH	T C			
		STD	0000	0919	3158	2444	0035003		0000	14830	652										
222		OBS	0000	0919	31583	2444				14830	652										
222		OBS	0005	0745	32218	2519				14773	688										
		STD	0010	0435	3244	2574	0022664		0029	14650	759										
222		OBS	0010	0435	32436	2574				14650	759										
222		OBS	0015	0178	32584	2608				14542	834										
		STD	0020	0174	3259	2609	0019332		0050	14541	828										
222		OBS	0020	0174	32593	2609				14541	828										
222		OBS	0025	0177	32592	2608				14544	883										

REFERENCE	SHIP	LATITUDE	LONGITUDE	DRIFT	W/ASDEN		STATION TIME		YEAR	ORIGINATOR'S		DEPTH	MAX.	WAVE			WEA-	CLOUD		NODC	
CODE	CODE	1/10	1/10	INDIC	SQUARE		TIME	MO		DAY	HR./10			CRUISE	STATION	TO		DEPTH	OBS		PER
					10"	1"					NO.	NUMBER	BOTTOM	OF					NUMBER		
311270	SI	64255N	16731 W		233	47	07	13	239	1968	B52	032	0034	00	27	1	2		X4	X 9	0032
					WATER		WIND		BARO-		AIR TEMP. °C		VIL		NO.		SPECIAL				
					COLOR	TRANS.	DIR.	SPEED	METER	DRY	WET			CODE	OBS.	DEPTHS	OBSERVATIONS				
					CODE	(m)		OF	(mb)	BULB	BULB										
								FORCE													
								21	S09	011	089	084	1	06							
MESSAGE	CARD	CARD	DEPTH	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME	Σ Δ σ _t	SOUND	O ₂	PO ₄ -P	TOTAL-P	NO ₃ -N	NO ₃ -N	SiO ₄ -Si	pH	TEMP.				
TIME	NO.	TYPE	(m)				ANOMALY-210?	DTN, M.	VELOCITY	ml/l	μg · dl/l	μg · dl/l	μg · dl/l	μg · dl/l	μg · dl/l		°C				
HR 1/10								± 10 ³													
		STD	0000	0673	3228	2533	0026499	0000	14744	714											
240		OBS	0000	0673	32275	2533			14744	714											
240		OBS	0005	0657	32294	2537			14739	722											
		STD	0010	0351	3244	2582	0021840	0024	14615	781											
240		OBS	0010	0351	32442	2582			14615	781											
240		OBS	0015	0178	32640	2612			14543	853											
		STD	0020	0178	3263	2612	0019063	0045	14544	841											
240		OBS	0020	0178	32632	2612			14544	841											
240		OBS	0025	0180	32634	2612			14546	841											

REFERENCE CITY CODE	SHIP CODE	LATITUDE +	LONGITUDE 1/10	DRIFT INDIC	W/ASDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODE		NODC STATION NUMBER	
					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR	HGT		PER	SEA		TYPE
311270	SI	64215N	167495W		233	47	07	14	020	1968	B52	033	0037	00	25	1	2		X4	X 9	0033
					WATER		WIND				AIR TEMP. °C		NO. OBS. DEPTHS		SPECI L OBSERVATIONS						
					COLOR CODE	TRANSL (m)	DIR.	SPEED OR FORCE	BARO- METER (mb)		DRY BULB	WET BULB	VIS. CODE								
								02	S04	010	075	072	0	07							
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210?	$\Sigma \Delta \sigma_t$ DTN, 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 ₃ -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	TEMP.				
		STD	0000	0645	3233	2541	0025775	0000	14734	739											
	022	OBS	0000	0645	32326	2541			14734	739											
	022	OBS	0005	0559	32308	2550			14699	752											
		STD	0010	0504	3232	2557	0024259	0025	14678	770											
	022	OBS	0010	0504	32317	2557			14678	770											
	022	OBS	0015	0325	32504	2590			14605	803											
		STD	0020	0129	3260	2612	0019000	0047	14521	806											
	022	OBS	0020	0129	32599	2612			14521	806											
	022	OBS	0025	0111	32633	2616			14515	804											
		STD	0030	0091	3263	2617	0018518	0065	14506	803											
	022	OBS	0030	0091	32633	2617			14506	803											

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDIC	W/ASDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODE		NODC STATION NUMBER					
					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER		SEA	TYPE		AMT				
311270	SI	64179N	168100W		233	48	07	14	040	1968	B52	034	0040	00	01	1	2		X1	3	6		0034			
					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														
							33		S10	020	078		072	7	08											
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210?	$\Sigma \Delta \sigma_t$ DTN, 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 ₃ -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	TEMP.									
		STD	0000	0694	3228	2531	0026701	0000	14752	712																
043		OBS	0000	0694	32283	2531			14752	712																
043		OBS	0005	0691	32289	2532			14752	712																
		STD	0010	0637	3237	2545	0025369	0026	14733	734																
043		OBS	0010	0637	32369	2545			14733	734																
043		OBS	0015	0529	32663	2581			14693	768																
		STD	0020	0424	3280	2603	0019846	0049	14652	733																
043		OBS	0020	0424	32797	2603			14652	733																
043		OBS	0025	0411	32791	2604			14648	732																
		STD	0030	0364	3277	2607	0019530	0068	14628	726																
043		OBS	0030	0364	32765	2607			14628	726																
043		OBS	0035	0232	32675	2611			14571	736																

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPT MOOR	1/25 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
CRUISE NO.	STATION NUMBER					10"	1"	MO	DAY	HR./10	CRUISE NO.		STATION NUMBER	DIR			HGT	PER	SEA			
311270	SI	64144N	168289W	233	48	07	14	060	1968	B52	035	0042	00	32	1	2			X2	7	8	0035
						WATER		WIND		BARO- METER UNITS	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS- MIT	DIR.	SPEED OF FORCE		DRY BULB	WET BULB										
								36		S09	023	067	061	7	08							
MESSAGE TIME HR 1/10	CAS 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₂ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH				
		STD	0000	0574	3295	2598		0020305		0000	14713	741										
063		OBS	0000	0574	32945	2598					14713	741										
063		OBS	0005	0572	32952	2599					14713	746										
		STD	0010	0572	3295	2599		0020248		0020	14714	748										
063		OBS	0010	0572	32951	2599					14714	748										
063		OBS	0015	0569	32952	2600					14714	748										
		STD	0020	0522	3300	2609		0019325		0040	14696	750										
063		OBS	0020	0522	33001	2609					14696	750										
063		OBS	0025	0362	32944	2621					14629	717										
		STD	0030	0370	3297	2622		0018077		0059	14633	712										
063		OBS	0030	0370	32965	2622					14633	712										
063		OBS	0035	0370	32973	2623					14634	720										

REFERENCE	SHIP CODE	LATITUDE + 1/10	LONGITUDE - 1/10	DEPT MOOR	STATION 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./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER				SEA
311270	SI	6410 N	168545W	233	48	07	14	083	1968	B52	036	0038	00	35	1	2		X2	7	8	0036
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
					COLOR CODE	TRANSL UNIT	DIR.	SPEED OF FORCE	UNIT	DRY BULB	WET BULB										
							35		S12	035	069	063	6	07							
MESSAGE TIME HR 1/10	CAS 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₂ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH				
		STD	0000	0677	3266	2563	0023686		0000	14751											
085		OBS	0000	0677	32658	2563				14751											
085		OBS	0005	0562	32672	2578				14705											
		STD	0010	0333	3271	2605	0019645		0022	14611											
085		OBS	0010	0333	32712	2605				14611											
085		OBS	0015	0284	32716	2610				14591											
		STD	0020	0282	3274	2612	0019043		0041	14591											
085		OBS	0020	0282	32736	2612				14591											
085		OBS	0025	0280	32732	2612				14591											
		STD	0030	0282	3273	2612	0019077		0060	14592											
085		OBS	0030	0282	32732	2612				14592											

REFERENCE CITY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPT MOOR	1/25 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	
					10"	1"	MO	DAY	HR./10	CRUISE NO.		STATION NUMBER	DIR			HGT	PER	SEA					
311270	SI	64065N	16914 W	233	49	07	14	100	1968	B52	037	0038	00	34					1	X2	7	8	0037
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
					COLOR CODE	TRANSL UNIT	DIR.	SPEED OF FORCE	UNIT	DRY BULB	WET BULB												
							34		S11	040	056	053	6	06									
MESSAGE TIME HR 1/10	CAS 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₂ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH						
		STD	0000	0636	3248	2554	0024529		0000	14732	680												
102		OBS	0000	0636	32478	2554				14732	680												
102		OBS	0005	0634	32482	2555				14732	758												
		STD	0010	0623	3248	2556	0024363		0024	14728	768												
102		OBS	0010	0623	32481	2556				14728	768												
102		OBS	0015	0288	32671	2606				14592	774												
		STD	0020	0282	3267	2607	0019527		0046	14590	758												
102		OBS	0020	0282	32672	2607				14590	758												
102		OBS	0025	0280	32672	2607				14590	750												

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	1/25 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	
CITY CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DR.	HGT	PER		SEA	TYPE		AMT
311270	SI	6402 N	16928 W	233	49	07	14	119	1968	BS2 038		0040	00	34	2	2		X4	X	9			0038
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mba)		DRY BULB	WET BULB														
				34	S14	040		057	056	6	09												
MESSAGE TIME HR 1/10	CARD 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 ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	SCC						
		STD	0000	0672	3249	2550	0024879	0000	14746														
119		OBS	0000	0672	32490	2550			14746														
119		OBS	0005	0592	32580	2568			14716														
		STD	0010	0334	3276	2609	0019313	0022	14612														
119		OBS	0010	0334	32757	2609			14612														
119		OBS	0015	0295	32758	2612			14596														
		STD	0020	0272	3276	2614	0018797	0041	14587														
119		OBS	0020	0272	32758	2614			14587														
119		OBS	0025	0271	32759	2615			14587														
		STD	0030	0271	3275	2614	0018823	0060	14588														
119		OBS	0030	0271	32754	2614			14588														
119		OBS	0035	0271	32753	2614			14589														
119		OBS	0040	03390	32751	26080																	

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT DIRECTION	1/25 DEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER																																			
CITY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT																																		
311270	SI	64065N	169565W	233	49	07	14	144	1968	BS2 039	0038	00	34	2	2			X2	7	8		0039																																			
<table><tr><th colspan="4">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>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th></tr><tr><td></td><td></td><td></td><td>31</td><td>S10</td><td>049</td><td>064</td><td>058</td><td>7</td><td>06</td><td></td><td></td><td></td></tr></table>																								WATER				WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB				31	S10	049	064	058	7	06			
WATER				WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																													
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB																																																		
			31	S10	049	064	058	7	06																																																
MESSAGE TIME HR 1/10	CARD 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 ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	SCC																																								
		STD	0000	0762	3241	2532	0026666	0000	14781	652																																															
144		OBS	0000	0762	32406	2532			14781	652																																															
144		OBS	0005	0271	32718	2611			14583	721																																															
		STD	0010	0174	3282	2627	0017577	0022	14543	712																																															
144		OBS	0010	0174	32824	2627			14543	712																																															
144		OBS	0015	0172	32860	26300			707																																																
		STD	0020	0169	3284	2629	0017416	0040	14543	709																																															
144		OBS	0020	0169	32841	2629			14543	709																																															
144		OBS	0025	0169	32837	2629			14543	701																																															

REFERENCE CITY CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT DIRECTION	1/25 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																																			
						10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DR.	HGT	PER		SEA	TYPE		AMT																																		
311270	SI	64096N	17024 W		234	40	07	14	160	1968	BS2 040	0034	00	02	1	2			X5	6	8		0040																																		
<table><tr><th colspan="4">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>DRY BULB</th><th>WET BULB</th><th>DRY BULB</th><th>WET BULB</th></tr><tr><td></td><td></td><td></td><td>35</td><td>S10</td><td>055</td><td>064</td><td>060</td><td>7</td><td>06</td><td></td><td></td><td></td></tr></table>																								WATER				WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB				35	S10	055	064	060	7	06			
WATER				WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																													
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB																																																		
			35	S10	055	064	060	7	06																																																
MESSAGE TIME HR 1/10	CARD 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 ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	SCC																																								
		STD	0000	0880	3212	2492	0030455	0000	14822																																																
163		OBS	0000	0880	32118	2492			14822																																																
163		OBS	0005	0881	32118	2492			14824																																																
		STD	0010	0252	3285	2623	0017979	0024	14578																																																
163		OBS	0010	0252	32845	2623			14578																																																
163		OBS	0015	0185	32902	2633			14550																																																
		STD	0020	0182	3290	2633	0017033	0042	14549																																																
163		OBS	0020	0182	32903	2633			14549																																																
163		OBS	0025	0182	32903	2633			14550																																																

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W. 25 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	
CITE CODE	ID. NO.					10"	1"	MO		DAY	HR./10			CRUISE NO.	STATION NUMBER	DR.		HGT	PER		SEA
311270	SI	64124N	17050 W	234	40	07	14	180	1968	BS2 041	0034	00	35	1	2		X2	6	8	0041	
					WATER		WIND		BARO- METER (mbars)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. M	DIR.	SPED OR FORCE		DRY BULB	WET BULB										
								01	S11	064	070	066	7	06							
MESSAGE TIME HR. 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D OYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₃ -N pg - ml/l	NO ₃ -N pg - ml/l	SiO ₄ -Si pg - ml/l	pH	S C				
		STD	0000	0960	3209	2477	0031887	0000	14852	655											
184		OBS	0000	0960	32086	2477			14852	655											
184		OBS	0005	0958	32097	2478			14852	656											
		STD	0010	0121	3281	2630	0017324	0025	14519	705											
184		OBS	0010	0121	32813	2630			14519	705											
184		OBS	0015	0116	32817	2630			14518	701											
		STD	0020	0114	3282	2630	0017267	0042	14518	701											
184		OBS	0020	0114	32815	2630			14518	701											
184		OBS	0025	0114	32817	2631			14519	701											

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	OBS NO.	W. 25 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				
CITE CODE	IO. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT			
311270	SI	64167N	171175W		234	41	07	14	205	1968	BS2 042		0046	00	02	2	2		X1	4	5	0042				
						WATER		WIND		BARO- METER (mbars)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS											
						COLOR CODE	TRANS. (m)	DIR.	SPED OR FORCE		DRY BULB	WET BULB														
								02	S11	070	071	061	7	09												
MESSAGE TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ D OYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₃ -N pg - ml/l	NO ₃ -N pg - ml/l	SiO ₄ -Si pg - ml/l	pH	S C								
		STD	0000	0956	3145	2428	0036538		0000	14842																
208		OBS	0000	0956	31451	2428				14842																
208		OBS	0005	0951	31464	2430				14841																
		STD	0010	0140	3286	2632	0017076		0027	14528																
208		OBS	0010	0140	32861	2632				14528																
208		OBS	0015	0126	32851	2633				14523																
		STD	0020	0122	3285	2633	0017041		0044	14522																
208		OBS	0020	0122	32851	2633				14522																
208		OBS	0025	0122	32856	2633				14523																
		STD	0030	0124	3286	2633	0016985		0061	14524																
208		OBS	0030	0124	32860	2633				14524																
208		OBS	0035	0124	32856	2633				14525																
208		OBS	0040	0125	32857	2633				14527																

REFERENCE CITE ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	ORIG PROJECT	W. 25 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	
					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
311270	SI	64192N	171350W		234	41	07	14	220	1968	BS2 043	0054	00	01	1	2		X1	3	3	0043	
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. M	DIR.	SPED OR FORCE	meter (mbars)	DRY BULB	WET BULB											
									01	S08	075	099	078	8	10							
MESSAGE TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D OYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₃ -N pg - ml/l	NO ₃ -N pg - ml/l	SiO ₄ -Si pg - ml/l	pH	S C					
		STD	0000	1023	3151	2421	0037170	0000	14868	654												
223		OBS	0000	1023	31506	2421			14868	654												
223		OBS	0005	1016	31508	2423			14866	656												
		STD	0010	0271	3292	2627	0017574	0027	14587	668												
223		OBS	0010	0271	32918	2627			14587	668												
223		OBS	0015	0200	33001	2639			14558	656												
		STD	0020	0191	3300	2640	0016390	0044	14555	646												
223		OBS	0020	0191	32996	2640			14555	646												
223		OBS	0025	0182	32984	2639			14551	645												
		STD	0030	0181	3299	2640	0016361	0061	14552	643												
223		OBS	0030	0181	32991	2640			14552	643												
223		OBS	0035	0180	32986	2640			14552	641												
223		OBS	0040	0181	32992	2640			14553	641												
223		OBS	0045	0178	32986	2640			14553	643												

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W/250M SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPLE'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CRUISE CODE	IO, NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DR.	NGT		PER	SEA		TYPE
311270	SI	6510 N	171085W	234	51	07	15	030	1968	BS2	044	0045	00				1	X1	7	1		0044
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB		WET BULB		VIS. CODE		NO. OBS. DEPTHS							
					16		S05	075	055		050		8		08							
MESSAGE TIME HR 1/10	CAS 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S COC					
		STD	0000	0482	3314	2624	0017858	0000	14678	659												
035		OBS	0000	0482	33137	2624			14678	659												
035		OBS	0005	0449	33135	2628			14665	661												
		STD	0010	0356	3314	2637	0016640	0017	14626	656												
035		OBS	0010	0356	33137	2637			14626	656												
035		OBS	0015	0301	33144	2643			14604	661												
		STD	0020	0295	3315	2644	0016019	0034	14602	640												
035		OBS	0020	0295						640												
035		OBS	0025	0277						621												
		STD	0030	0277	3315	2645	0015876	0050	14596	621												
035		OBS	0030	0277						621												
035		OBS	0035	0278	33151	2645			14597	619												

REFERENCE		SNIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W/250M SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPLE'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER		
CTRY CODE	IO. NO.					10"	1"	MO		DAY	HR./10			CRUISE NO.	STATION NUMBER	DR.		NGT	PER		SEA	TYPE
311270	SI		6512 N	170405W	234	50	07	15	050	1968	BS2	045	0046	00				1	X1	2	4	0045
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mba)		DRY BULB	WET BULB										
					00		S00	080		072		061	8	08								
MESSAGE TIME HR 1/10	CAS 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH					
		STD	0000	0465	3307	2621	0018156		0000	14670												
052		OBS	0000	0465	33074	2621				14670												
052		OBS	0005	0396	33092	2630				14642												
		STD	0010	0319	3312	2639	0016420		0017	14610												
052		OBS	0010	0319	33123	2639				14610												
052		OBS	0015	0295	33109	2640				14601												
		STD	0020	0292	3311	2641	0016274		0034	14600												
052		OBS	0020	0292	33113	2641				14600												
052		OBS	0025	0289	33116	2642				14600												
		STD	0030	0290	3312	2642	0016232		0050	14601												
052		OBS	0030	0290	33117	2642				14601												
052		OBS	0035	0289	33119	2642				14602												

REFERENCE CST CODE	SNIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W/250M SQUARE 10" 1"	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPLE'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
					MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
311270	SI	6509 N	17011 W	234	50	07	15 070	1968	BS2	046	0046	00	02	1	2		X1	7	3	0046	
					WATER		WIND		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				
								00	S00	085							067	058	6	08	
MESSAGE TIME HR 1/10	CAS 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	1 C				
		STD	0000	0463	3302	2617	0018579	0000	14668	723											
072		OBS	0000	0463	33015	2617			14668	723											
072		OBS	0005	0462	33010	2616			14669	730											
		STD	0010	0437	3302	2619	0018318	0018	14659	723											
072		OBS	0010	0437	33016	2619			14659	723											
072		OBS	0015	0280	33032	2636			14593	655											
		STD	0020	0278	3304	2636	0016749	0036	14593	650											
072		OBS	0020	0278	33035	2636			14593	650											
072		OBS	0025	0276	33052	2638			14593	639											
		STD	0030	0279	3306	2638	0016580	0053	14596	642											
072		OBS	0030	0279	33059	2638			14596	642											
072		OBS	0035	0279	33063	2638			14596	638											

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W/35DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			CLOUD CODES	HDDC STATION NUMBER			
CRUISE CODE	ID. NO.					10"	1"	MO		DAY	HRL/10			CRUISE NO.	STATION NUMBER	DIR			HGT	PER	SEA
311270	SI	65065N	16941 W	233	59	07	15	095	1968	852	047	0055	00				1	X4	X 9		0047
				WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
				COLOR CODE	TRANS- MIT	DIR.	SPEED OF FORCE	METER	DRY BULB	WET BULB											
							00	500	095	053	050	0	10								

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %.	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - 01/l	TOTAL-P pg - 01/l	NO ₂ -N pg - 01/l	NO ₃ -N pg - 01/l	SiO ₂ -Si pg - 01/l	PH	S C C
		STD	0000	0514	3301	2611	0019129	0000	14689								
097		OBS	0000	0514	33013	2611			14689								
097		OBS	0005	0511	33009	2611			14689								
		STD	0010	0511	3302	2611	0019084	0019	14690								
097		OBS	0010	0511	33016	2611			14690								
097		OBS	0015	0468	33023	2617			14673								
		STD	0020	0298	3298	2630	0017314	0037	14601								
097		OBS	0020	0298	32982	2630			14601								
097		OBS	0025	0279	32984	2632			14594								
		STD	0030	0265	3299	2633	0017020	0054	14588								
097		OBS	0030	0265	32986	2633			14588								
097		OBS	0035	0258	32989	2634			14586								
097		OBS	0040	0260	32989	2634			14588								
097		OBS	0045	0262	33000	2635			14590								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	W/35DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	HDDC STATION NUMBER
CRUISE CODE	ID. NO.					10"	1"	MO		DAY	HR/10			CRUISE NO.	STATION NUMBER	DR			
311270	SI	6504 N	16911 W	233	59	07	15 121	1968	852	048	0052	00				0	X4	X 9	0048
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS				
					COLOR CODE	TRANSL (m)	DIR	SPEED OF FORCE	METER	DRY BULB	WET BULB								
								00	500	095	050	047	0	10					

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %.	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - 01/l	TOTAL-P pg - 01/l	NO ₂ -N pg - 01/l	NO ₃ -N pg - 01/l	SiO ₂ -Si pg - 01/l	PH	S C C
		STD	0000	0465	3298	2614	0018855	0000	14669								
121		OBS	0000	0465	32981	2614			14669								
121		OBS	0005	0466	32977	2613			14670								
		STD	0010	0421	3299	2619	0018387	0019	14652								
121		OBS	0010	0421	32986	2619			14652								
121		OBS	0015	0333	32995	2628			14616								
		STD	0020	0264	3299	2634	0016978	0036	14586								
121		OBS	0020	0264													
121		OBS	0025	0235	32983	2635			14575								
		STD	0030	0224	3298	2636	0016766	0053	14570								
121		OBS	0030	0224	32978	2636			14570								
121		OBS	0035	0224	32979	2636			14571								
121		OBS	0040	0224	32976	2636			14572								
121		OBS	0045	0222	32979	2636			14572								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	W/35DEN SQUARE EIGHT DIGIT	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		HDDC STATION NUMBER
REF CODE	ID. NO.					10"	1"	MO DAY HRL/10		CRUISE NO.	STATION NUMBER			DR	HGT	PER	SEA		TYPE	AMT	
311270	SI	65031N	168417W	233	58	07	15	146	1968	BS2	049	0051	00				0	X4	X 9		0049
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
					COLOR CODE	TRANSL (m)	DRL	SPEED OF FORCE	METER	DRY BULB	WET BULB										
								00	500	095	060	053	0	10							

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %.	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P pg - 01/l	TOTAL-P pg - 01/l	NO ₂ -N pg - 01/l	NO ₃ -N pg - 01/l	SiO ₂ -Si pg - 01/l	PH	S C C
		STD	0000	0588	3299	2601	0020099	0000	14719	737							
146		OBS	0000	0588	32994	2601			14719	737							
146		OBS	0005	0587	32998	2601			14720	740							
		STD	0010	0586	3300	2601	0020073	0020	14720	733							
146		OBS	0010	0586	32996	2601			14720	733							
146		OBS	0015	0411	33027	2623			14649	718							
		STD	0020	0284	3301	2634	0016979	0039	14595	694							
146		OBS	0020	0284	33011	2634			14595	694							
146		OBS	0025	0271	33019	2635			14591	655							
		STD	0030	0280	3305	2637	0016657	0055	14596	636							
146		OBS	0030	0280	33050	2637			14596	636							
146		OBS	0035	0285	33070	2638			14599	628							
146		OBS	0040	0286	33075	2639			14600	628							
146		OBS	0045	0284	33069	2638			14600	628							

REFERENCE CTRY CODE	SHIP ID. NO.	LATITUDE 1/10	LONGITUDE 1/10	DEPT MO	W/SZEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'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
311270	SI	64584N	168115W	233	48	07	15	170	1968	B52	050	0046	00				1	X4	X 9	0050
					WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	BARO-METER (mbars)	DRY BULB	WET BULB	VIS. CODE								
								00	500	100	042	042	0	09						
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C			
		STD	0000	0672	3249	2550	0024902	0000	14746	719										
	172	OBS	0000	0672	32487	2550			14746	719										
	172	OBS	0005	0672	32484	2550			14747	717										
		STD	0010	0666	3254	2555	0024444	0025	14746	769										
	172	OBS	0010	0666	32540	2555			14746	769										
	172	OBS	0015	0545	32868	2596			14703	723										
		STD	0020	0450	3292	2610	0019216	0047	14665	679										
	172	OBS	0020	0450	32915	2610			14665	679										
	172	OBS	0025	0438	32920	2612			14661	679										
		STD	0030	0436	3292	2612	0019054	0066	14661	676										
	172	OBS	0030	0436	32919	2612			14661	676										
	172	OBS	0035	0436	32931	2613			14662	665										
	172	OBS	0040	0435	32928	2613			14662	659										

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	V-250N SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER	
CTRY CODE	ID. NO.					CRUISE NO.	STATION NUMBER		DIR.	HGT			PER	SEA	TYPE (AWI)					
311270	SI		64587N	167535W	233	47	07 15	190	1968	B52 051	0047	00				2	X4	X 9		0051
					WATER		WIND		BARO- METER (mbal)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
					COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE		DRY BULB	WET BULB									
								00		500	105				066	055	1	08		
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°			Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C	
		STD	0000		3219															
	196	OBS	0000	07210	32191	25200														
	196	OBS	0005	0735	32180	2518					14768									
		STD	0010	0557	3253	2567	0023265				14702									
	196	OBS	0010	0557	32526	2567					14702									
	196	OBS	0015	0417	32746	2600					14648									
		STD	0020	0396	3273	2601	0020083				14640									
	196	OBS	0020	0396	32730	2601					14640									
	196	OBS	0025	0156	32653	2615					14535									
		STD	0030	0147	3266	2616	0018679				14532									
	196	OBS	0030	0147	32656	2616					14532									
	196	OBS	0035	0145	32653	2615					14532									

REFERENCE CTRY CODE	SHIP ID. NO.	LATITUDE 1/10	LONGITUDE 1/10	DEPT MO	W/SZEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER	
					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	OR.	HGT				PER
311270	SI	64588N	16743 W	233	47	07	15	205	1968	B52	052	0039	00				2	X4	X 7	0052
					WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	BARO-METER (mbars)	DRY BULB	WET BULB	VIS. CODE								
								00	500	104	053	050	1	07						
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C			
		STD	0000	0927	3099	2397	0039528	0000	14826	640										
207		OBS	0000	0927	30990	2397			14826	640										
207		OBS	0005	0713	32204	2522			14760	692										
		STD	0010	0688	3228	2532	0026676	0033	14752	701										
207		OBS	0010	0688	32278	2532			14752	701										
207		OBS	0015	0436	32539	2582			14653	862										
		STD	0020	0113	3267	2619	0018349	0056	14515	828										
207		OBS	0020	0113	32672	2619			14515	828										
207		OBS	0025	0109	32667	2619			14514	830										
		STD	0030	0109	3268	2620	0018302	0074	14515	830										
207		OBS	0030	0109	32675	2620			14515	830										

REFERENCE	SHIP ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W/2SDEN 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						10"	1"	MD	OAT	HRL/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT																																	
311270	SI		64595N	16734 W	233	47	07	15	215	1968	B52	053		0035	00					1	X4	X 9		0053																															
<table><tr><th colspan="3">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. UNIT</th><th>DIR.</th><th>SPEED OR FORCE</th><th>UNIT</th><th>ORT. BULB</th><th>WET BULB</th></tr><tr><td></td><td></td><td></td><td>00</td><td>S00</td><td>118</td><td>056</td><td>055</td><td>1</td><td>06</td><td></td><td></td></tr></table>																									WATER			WIND		BARO-METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	UNIT	ORT. BULB	WET BULB				00	S00	118	056	055	1	06		
WATER			WIND		BARO-METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																												
COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	UNIT	ORT. BULB	WET BULB																																																	
			00	S00	118	056	055	1	06																																														
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 ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH																																					
		STD	0000	0923	3013	2330		0045894		0000	14813																																												
218		OBS	0000	0923	30126	2330					14813																																												
218		OBS	0005	0688	32358	2538					14752																																												
		STD	0010	0490	3249	2572		0022842		0034	14674																																												
218		OBS	0010	0490	32486	2572					14674																																												
218		OBS	0015	0222	32619	2607					14562																																												
		STD	0020	0218	3262	2607		0019463		0056	14561																																												
218		OBS	0020	0218	32616	2607					14561																																												
218		OBS	0025	0216	32622	2608					14561																																												

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W/2SDEN 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.					CRUISE NO.	STATION NUMBER										
311270	SI		65005N	16725 W	233	57 07 15	1968	B52	054	0024	00			1 X4 7 8		0054	
						WATER		WIND		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS			
						COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	BARO-METER (mbal)	ORT. BULB				WET BULB		
									00	S00	117	064	060	7	04		
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 ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	1 C
		STD	0000	0922	2952	2283	0050397	0000	14805	656							
231		OBS	0000	0922	29519	2283			14805	656							
231		OBS	0005	0551	32233	2545			14695	740							
		STD	0010	0264	3236	2583	0021736	0036	14576	796							
231		OBS	0010	0264	32361	2583			14576	796							
231		OBS	0015	0258	32369	2585			14575	801							

REFERENCE CRUISE CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W/2SDEN 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																																																																																																						
					MO	DAY		HR	1/10			CRUISE NO.	STATION NUMBER	DIR		HGT	PER		SEA	TYPE	AMT																																																																																																			
311270	SI	6501 N	16715 W	233	57	07 16	006	1968	B52	055	0020	00			1	X2	7 8	0055																																																																																																						
<table><tr><td colspan="2">WATER</td><td colspan="2">WIND</td><td colspan="2">AIR TEMP. °C</td><td rowspan="2">VIS. CODE</td><td rowspan="2">NO. OBS. DEPTHS</td><td rowspan="2">SPECIAL OBSERVATIONS</td></tr><tr><td>COLOR CODE</td><td>TRANS. UNIT</td><td>DIR.</td><td>SPEED OR FORCE</td><td>BARO-METER (mbal)</td><td>DRY BULB</td><td>WET BULB</td></tr><tr><td></td><td></td><td></td><td>24</td><td>S06</td><td>119</td><td>073</td><td>069</td><td>7</td><td>03</td><td></td></tr></table>																			WATER		WIND		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	BARO-METER (mbal)	DRY BULB	WET BULB				24	S06	119	073	069	7	03																																																																												
WATER		WIND		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																																																																																																
COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	BARO-METER (mbal)	DRY BULB				WET BULB																																																																																																															
			24	S06	119	073	069	7	03																																																																																																															
<table><tr><th>MESSAGE TIME HR 1/10</th><th>CAST NO.</th><th>CARD TYPE</th><th>DEPTH (m)</th><th>T °C</th><th>S ‰</th><th>SIGMA-T</th><th>SPECIFIC VOLUME ANOMALY-σ_t</th><th>Σ Δ D DYN. M. x 10³</th><th>SOUND VELOCITY</th><th>O₂ ml/l</th><th>PO₂-P μg - ml/l</th><th>TOTAL-P μg - ml/l</th><th>NO₂-N μg - ml/l</th><th>NO₃-N μg - ml/l</th><th>SiO₄-Si μg - ml/l</th><th>pH</th></tr><tr><td></td><td></td><td>STD</td><td>0000</td><td>0885</td><td>2994</td><td>2321</td><td>0046756</td><td>0000</td><td>14796</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>007</td><td></td><td>OBS</td><td>0000</td><td>0885</td><td>29937</td><td>2321</td><td></td><td></td><td>14796</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>007</td><td></td><td>OBS</td><td>0005</td><td>0749</td><td>30809</td><td>2408</td><td></td><td></td><td>14756</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td>STD</td><td>0010</td><td>0393</td><td>3168</td><td>2518</td><td>0027958</td><td>0037</td><td>14623</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>007</td><td></td><td>OBS</td><td>0010</td><td>0393</td><td>31681</td><td>2518</td><td></td><td></td><td>14623</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>																			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 ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH			STD	0000	0885	2994	2321	0046756	0000	14796								007		OBS	0000	0885	29937	2321			14796								007		OBS	0005	0749	30809	2408			14756										STD	0010	0393	3168	2518	0027958	0037	14623								007		OBS	0010	0393	31681	2518			14623							
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 ₂ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH																																																																																																								
		STD	0000	0885	2994	2321	0046756	0000	14796																																																																																																															
007		OBS	0000	0885	29937	2321			14796																																																																																																															
007		OBS	0005	0749	30809	2408			14756																																																																																																															
		STD	0010	0393	3168	2518	0027958	0037	14623																																																																																																															
007		OBS	0010	0393	31681	2518			14623																																																																																																															

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY HR 1/10	W/RSN SQUARE 10° 1"	STATION TIME ICMT	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS DIR NCR PER SEA	WEA- THER CODE	CLOUD CODES TPT AMT	NOOC STATION NUMBER
CRUISE NO.	STATION NUMBER															
311270	SI	65351N	168105W	233	58 07 17 100	1968	B52 056		0039	00	18		3	X2	7 8	0056
WATER																
COLOR CODE		TRANS. UN	DIR.	SPED OR FORCE	WIND		BARO- METER (mb)	AIR TEMP. °C DRY BULB		WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS			
				18	520	125	080	078	6	07						

MISSING 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 - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C
		STD	0000	0811	3031	2361	0042948	0000	14773								
	104	OBS	0000	0811	30311	2361			14773								
	104	OBS	0005	0844	30968	2407			14795								
	104	OBS	0009	0844	31162	2422			14798								
		STD	0010	0842	3121	2426	0036689	0040	14798								
	104	OBS	0013		31324												
	104	OBS	0017	0830	31427	2445			14797								
		STD	0020	0798	3150	2456	0033932	0075	14786								
	104	OBS	0022	0752	31564	2467			14770								
	104	OBS	0026	0603	31732	2499			14713								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY HR 1/10	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NOOC STATION NUMBER																												
CRUISE NO.	STATION NUMBER																																									
311270	SI	65351N	168184W	233	58 07 17 111	1968	B52	057	0048	00		2	X4	7 8	0057																											
<table><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. (m)</th><th>DIR.</th><th>SPED OR FORCE</th><th>DRY BULB</th><th>WET BULB</th></tr><tr><td></td><td></td><td></td><td>20</td><td>514</td><td>125</td><td>079</td><td>077</td><td>6</td><td>09</td><td></td></tr></table>																WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. (m)	DIR.	SPED OR FORCE	DRY BULB	WET BULB				20	514	125	079	077	6	09	
WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																	
COLOR CODE	TRANS. (m)	DIR.	SPED OR FORCE		DRY BULB	WET BULB																																				
			20	514	125	079	077	6	09																																	

MISSING 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 - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C
		STD	0000	0880	3152	2445	0034917	0000	14815	717							
	116	OBS	0000	0880	31518	2445			14815	717							
	116	OBS	0005	0877	31516	2445			14814	738							
		STD	0010	0876	3154	2447	0034733	0035	14815	735							
	116	OBS	0010	0876	31537	2447			14815	735							
	116	OBS	0014	0808	31522	2456			14789	754							
	116	OBS	0019	0701	32260	2528Q			680								
		STD	0020	0697	3155	2473	0032263	0068	14747	679							
	116	OBS	0023	0663	31560	2478			14734	675							
	116	OBS	0028	0528	32146	2541			14688	719							
		STD	0030	0496	3227	2554	0024545	0097	14677	742							
	116	OBS	0033	0446	32402	2570			14658	772							
	116	OBS	0038	0357	32514	2588			14623	809							

REFERENCE CRST CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY HR 1/10	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER																												
						CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT																													
311270	SI	6535 N	16826 W	233	58 07 17 120	1968	B52 058	0048	00	19	1	2		X2	7	8	0058																												
<table><tr><th colspan="3">WATER</th><th colspan="2">WIND</th><th rowspan="2">BARO- METER mbars</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. mm</th><th>DIR.</th><th>SPEED OR FORCE</th><th>DRY BULB</th><th>WET BULB</th></tr><tr><td></td><td></td><td></td><td>20</td><td>515</td><td>125</td><td>078</td><td>072</td><td>7</td><td>09</td><td></td></tr></table>																		WATER			WIND		BARO- METER mbars	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	DRY BULB	WET BULB				20	515	125	078	072	7	09	
WATER			WIND		BARO- METER mbars	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																			
COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	DRY BULB		WET BULB																																							
			20	515	125	078	072	7	09																																				

MISSING 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 - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C
		STD	0000	0692	3235	2536	0026206	0000	14753								
	130	OBS	0000	0692	32346	2536			14753								
	130	OBS	0005	0690	32354	2537			14753								
		STD	0010	0691	3236	2537	0026116	0026	14754								
	130	OBS	0010	0691	32358	2537			14754								
	130	OBS	0015	0387	32647	2595			14634								
		STD	0020	0267	3264	2605	0019688	0049	14583								
	130	OBS	0020	0267	32635	2605			14583								
	130	OBS	0024	0255	32639	2606			14578								
	130	OBS	0029	0251	32646	2607			14578								
		STD	0030	0250	3265	2607	0019477	0069	14577								
	130	OBS	0034	0248	32645	2607			14577								
	130	OBS	0039	0248	32644	2607			14578								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W. ZONE 1/10	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"		CRUISE NO.	STATION NUMBER			DR.	HGT	PER	SEA		TYPE	AMT			
311270	SI		6535 N	168338 W	233	58	07	17	140	1968	B52	059	0058	00	21	2	3		X2	7	8	0059
						WATER		WIND		BARO- METER		AIR TEMP. °C		VSL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS UNIT	DIR.	SPEED OR FORCE	UNIT	DRY BULB	WET BULB										
									23	522		078	071	7	09							

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₂ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	ST C
		STD	0000	0664	3258	2559	0024100	0000	14744	742							
143		OBS	0000	0664	32581	2559			14744	742							
143		OBS	0005	0663	32584	2559			14745	748							
		STD	0010	0646	3272	2571	0022890	0023	14741	767							
143		OBS	0010	0646	32715	2571			14741	767							
143		OBS	0015	0289	32751	2612			14593	765							
		STD	0020	0243	3274	2615	0018701	0044	14574	795							
143		OBS	0020	0243	32741	2615			14574	795							
143		OBS	0025	0238													
		STD	0030	0234	3273	2616	0018689	0063	14572	797							
143		OBS	0030	0234	32734	2616			14572	797							
143		OBS	0034	0226	32715	2615			14568	800							
143		OBS	0039	0226	32733	2616			14569	802							

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W. ZONE 1/10	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
311270	SI		6535 N	168410 W	233	58	07	17	154	1968	B52	060	0054	00	18	2	2		X2	7	8	0060
						WATER		WIND		BARO- METER		AIR TEMP. °C		VSL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS UNIT	DIR.	SPEED OR FORCE	UNIT	DRY BULB	WET BULB										
									18	520	125	078	072	7	10							

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₂ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	ST C
		STD	0000	0625	3296	2593	0020813	0000	14734								
158		OBS	0000	0625	32957	2593			14734								
158		OBS	0005	0622	32959	2594			14733								
		STD	0010	0620	3296	2594	0020758	0021	14733								
158		OBS	0010	0620	32958	2594			14733								
158		OBS	0015	0287	32781	2615			14593								
		STD	0020	0266	3276	2615	0018712	0041	14584								
158		OBS	0020	0266	32763	2615			14584								
158		OBS	0025	0266	32756	2615			14585								
		STD	0030	0265	3276	2615	0018760	0059	14585								
158		OBS	0030	0265	32756	2615			14585								
158		OBS	0035	0262	32764	2616			14585								
158		OBS	0040	0259	32765	2616			14585								
158		OBS	0045	0262	32759	2615			14587								

REFERENCE		SHIP ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	W. ZONE 1/10	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"		CRUISE NO.	STATION NUMBER			DR.	HGT	PER	SEA		TYPE	AMT		
311270	SI		65372N	16857 W	233	58	07	17	172	1968	B52	061	0051	00	17	2	2		X4	X	9	0061
						WATER		WIND		BARO- METER		AIR TEMP. °C		VSL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS UNIT	DIR.	SPEED OR FORCE	UNIT	DRY BULB	WET BULB										
									17	514	125	078	075	2	09							

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₂ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	ST C
		STD	0000	0536	3302	2609	0019294	0000	14699	802							
174		OBS	0000	0536	33023	2609			14699	802							
174		OBS	0005	0536	33019	2609			14699	813							
		STD	0010	0535	3302	2609	0019338	0019	14700	913							
174		OBS	0010	0535	33017	2609			14700	813							
174		OBS	0015	0512	33021	2612			14691	782							
		STD	0020	0318	3304	2633	0017067	0038	14610	718							
174		OBS	0020	0318	33037	2633			14610	718							
174		OBS	0025	0280	33064	2638			14595	664							
		STD	0030	0280	3306	2638	0016566	0054	14596	655							
174		OBS	0030	0280	33062	2638			14596	655							
174		OBS	0035	0277	33070	2639			14596	655							
174		OBS	0040	0266	33072	2640			14592	594							

REFERENCE		SHIP CODE	LATITUDE 1°/10	LONGITUDE 1°/10	PORT INDIC	1/2 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			DR.	HGT	PER				SEA	TPP
311270	SI	65277N	169055W		233	59	07	17	197	1968	BS2	062	0053	00				3	X4	X19		0062
		WATER COLOR CODE	WIND TRANS. (mi)	DIR.	SPEED OR FORCE	BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
							DRY BULB	WET BULB														
													17	S22	125	069	067	4	10			
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ D DTN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	S C C					
		STD	0000	0504	3298	2609	0019284	0000	14685													
200		OBS	0000	0504	32978	2609			14685													
200		OBS	0005	0503	32968	2609			14685													
		STD	0010	0503	3298	2610	0019253	0019	14686													
200		OBS	0010	0503	32982	2610			14686													
200		OBS	0015	0411	32988	2620			14649													
		STD	0020	0249	3298	2634	0016937	0037	14580													
200		OBS	0020	0249	32980	2634			14580													
200		OBS	0025	0246	32998	2636			14580													
		STD	0030	0244	3299	2635	0016857	0054	14579													
200		OBS	0030	0244	32986	2635			14579													
200		OBS	0035	0241	32992	2636			14579													
200		OBS	0040	0240	32971	2634			14579													
200		OBS	0045	0241	32999	2636			14581													

REFERENCE		SHIP CODE	LATITUDE 1°/10	LONGITUDE 1°/10	PORT INDIC	1/2 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			DR.	HGT	PER			
311270	SI	65291N	169172W	233	59	07	17	211	1968	BS2	063	0046	00				3	X4	X9	0063
		WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
		COLOR CODE	TRANS (mi)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB												
				18	S22	120	072	068	0	09										
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ D DTN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	S C C			
		STD	0000	0540	3300	2607	0019503	0000	14700	782										
213		OBS	0000	0540	33001	2607			14700	782										
213		OBS	0005	0539	32997	2607			14700	793										
		STD	0010	0539	3300	2607	0019532	0020	14701	795										
213		OBS	0010	0539	32997	2607			14701	795										
213		OBS	0015	0539	32997	2607			14702	806										
		STD	0020	0342	3301	2628	0017464	0038	14620	740										
213		OBS	0020	0342	33012	2628			14620	740										
213		OBS	0025	0275	33004	2634			14592	683										
		STD	0030	0258	3300	2635	0016844	0055	14586	678										
213		OBS	0030	0258	33002	2635			14586	678										
213		OBS	0035	0254	32999	2635			14585	673										
213		OBS	0040	0255	33001	2635			14586	669										

REFERENCE	SHIP CODE	LATITUDE 1°/10	LONGITUDE 1°/10	DRIFT DIR	DRIFT SPEED	1/2 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	
						10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR	HGT				PER
311270	SI	65318N	169285W	233	59	07	17	227	1968	BS2	064	0050	00				3	X4	79		0064
		WATER		WIND		BARO- METER		AIR TEMP. °C				VIL CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
		COLOR CODE		TRANS. (mi)		DIR.		SPEED OR FORCE		DRY BULB		WET BULB		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS			
				16		S20		120		069		065		5		09					
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ D DTN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	S C C				
		STD	0000	0519	3300	2609	0019288	0000	14691												
229		OBS	0000	0519	32999	2609			14691												
229		OBS	0005	0517	32997	2609			14691												
		STD	0010	0517	3300	2609	0019276	0019	14692												
229		OBS	0010	0517	32999	2609			14692												
229		OBS	0015	0477	33008	2615			14677												
		STD	0020	0270	3300	2634	0016950	0037	14589												
229		OBS	0020	0270	33000	2634			14589												
229		OBS	0025	0265	32988	2633			14588												
		STD	0030	0264	3298	2633	0017027	0054	14588												
229		OBS	0030	0264	32984	2633			14588												
229		OBS	0035	0261	32988	2634			14588												
229		OBS	0040	0259	32989	2634			14588												

REFERENCE CIRCUIT NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	1/25 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	
					10"	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
311270	SI	65352N	169375W	233	59	07	18	009	1968	BS2 065	0060	00	20	2	2		X6	7	8	0065
				WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB											
						18		515	120	086	075	7	10							
MESSAGE TIME HR. 1/10	CASST 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 ₂ -P pg - ml/l	TOTAL-P pg - ml/l	NO ₃ -N pg - ml/l	NO ₃ -N pg - ml/l	SiO ₂ -S pg - ml/l	pH	S C	
		STD	0000	0533	3307	2613		0018923		0000	14698	772								
009		OBS	0000	0533	33068	2613					14698	772								
009		OBS	0005	0531	33069	2613					14698	779								
		STD	0010	0524	3306	2613		0018887		0019	14696	772								
009		OBS	0010	0524	33061	2613					14696	772								
009		OBS	0015	0364	33054	2630					14630	703								
		STD	0020	0280	3305	2637		0016690		0037	14594	666								
009		OBS	0020	0280	33045	2637					14594	666								
009		OBS	0025	0287	33066	2638					14598	664								
		STD	0030	0289	3307	2638		0016579		0053	14600	666								
009		OBS	0030	0289	33070	2638					14600	666								
009		OBS	0035	0287	33068	2638					14600	666								
009		OBS	0040	0289	33074	2638					14602	662								
009		OBS	0045	0291	33076	2638					14603	662								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	1/25 DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S' MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
CIRCUIT CODE	ID. NO.					10"	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE	
311270	SI	6539 N	16944 W	233	59 07 18	018	1968	BS2 066		0051	00	18	2	2		X6	7	8	0066	
				WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB										
						17	523	115	071	068	6	09								
MESSAGE TIME HR 1/10	CASST 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 pg - ml/l	TOTAL-P pg - ml/l	NO ₃ -N pg - ml/l	NO ₃ -N pg - ml/l	SiO ₂ -S pg - ml/l	pH			
		STD	0000	0478	3309	2621	0018184		0000	14676										
021		OBS	0000	0478	33088	2621				14676										
021		OBS	0005	0477	33088	2621				14676										
		STD	0010	0475	3309	2621	0018132		0018	14676										
021		OBS	0010	0475	33092	2621				14676										
021		OBS	0015	0375	33111	2633				14635										
		STD	0020	0294	3313	2642	0016154		0035	14601										
021		OBS	0020	0294	33131	2642				14601										
021		OBS	0025	0294	33134	2643				14602										
		STD	0030	0294	3313	2642	0016144		0051	14603										
021		OBS	0030	0294	33133	2642				14603										
021		OBS	0035	0292	33134	2643				14603										
021		OBS	0040	0291	33133	2643				14603										

REFERENCE CIRCUIT NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	1/25 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	
					10"	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
311270	SI	65436N	16948 W	233	59	07	18	031	1968	BS2 067	0052	00	16	2	2		X5	7	8	0067
				WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB											
							18	524	110	073	066	3	09							
MESSAGE TIME HR. 1/10	CASST 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 ₂ -P µg - ml/l	TOTAL-P µg - ml/l	NO ₃ -N µg - ml/l	NO ₃ -N µg - ml/l	SiO ₂ -S µg - ml/l	pH			
		STD	0000	0513	3308	2616	0018653		0000	14690	834									
034		OBS	0000	0513	33075	2616				14690	834									
034		OBS	0005	0512	33081	2616				14690	836									
		STD	0010	0512	3308	2617	0018599		0019	14691	833									
034		OBS	0010	0512	33082	2617				14691	833									
034		OBS	0015	0472	33090	2622				14676	809									
		STD	0020	0295	3314	2643	0016095		0036	14602	597									
034		OBS	0020	0295	33140	2643				14602	597									
034		OBS	0025	0295	33142	2643				14603	650									
		STD	0030	0294	3314	2643	0016076		0052	14603	652									
034		OBS	0030	0294	33142	2643				14603	652									
034		OBS	0035	0292	33140	2643				14603	654									
034		OBS	0040	0293	33139	2643				14604	655									

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	250N SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER	
						10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DR.	HGT	PER				SEA
311270	SI		66235N	166205W		233	66	07	18	145	1968	BS2	068	0017	00	23	12	13	X2	6	8	0068
						WATER		WIND		BARO- METER		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									
									00	500	148	103	089	8	03							
MESSAGE TIME HR 1/10	CAS 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	D ₂ m/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -S μg - ml/l	pH	1 C	2 C	3 C		
		STD	0000	0689	3064	2403	0038926		0000	14729	731											
146		OBS	0000	0689	30640	2403				14729	731											
146		OBS	0005	0689	30647	2403				14730	740											
		STD	0010	0648	3077	2418	0037471		0038	14716	740											
146		OBS	0010	0648	30770	2418				14716	740											

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	250N SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER		
						10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DR.	HGT	PER				SEA	TYPE
311270	SI		6630 N	16641 W		233	66	07	18	162	1968	BS2	069	0023	00	15	1	2		X6	5	8	0069
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. m	DIR.	SPEED OF FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB										
									15	515	145	089	083	6	04								
MESSAGE TIME HR 1/10	CAS 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	1 C	2 C	3 C			
		STD	0000	0699	3045	2387	0040471		0000	14730													
165		OBS	0000	0699	30450	2387				14730													
165		OBS	0005	0697	30452	2387				14731													
		STD	0010	0689	3049	2391	0040089		0040	14729													
165		OBS	0010	0689	30486	2391				14729													
165		OBS	0015	0578	30699	2421				14687													

REFERENCE CTRY CODE	ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	250N SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER	
						10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DR.	HGT	PER				SEA
311270	SI		6633 N	16712 W		233	67	07	18	179	1968	BS2	070	0032	00	16	1	2	X6	5	8	0070
						WATER		WIND		BARO- METER		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									
								16		512	140	096	086	6	06							
MESSAGE TIME HR 1/10	CAS 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	D ₂ m/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -S μg - ml/l	pH	1 C	2 C	3 C		
		STD	0000	0736	3046	2382	0040894		0000	14745	703											
179		OBS	0000	0736	30455	2382				14745	703											
179		OBS	0005	0735	30452	2382				14746	702											
		STD	0010	0736	3050	2386	0040546		0041	14747	702											
179		OBS	0010	0736	30503	2386				14747	702											
179		OBS	0015	0738	30625	2395				14751	702											
		STD	0020	0731	3076	2407	0038596		0080	14750	698											
179		OBS	0020	0731	30757	2407				14750	698											
179		OBS	0025	0710																		

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	250N SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'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			DR	HGT	PER				SEA	TYPE	AMT
311270	SI	66341N	167360W	233	67	07	18	190	1968	BS2	071	0029	00				2	X2	6	8	0071		
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
					COLOR CODE	TRANS. m	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB											
								14	515	137	089	083	7	05									
MESSAGE TIME HR 1/10	CAS 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	D ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -S μg - ml/l	pH					
		STD	0000	0639	3205	2520		0027769		0000	14728												
193		OBS	0000	0639	32050	2520					14728												
193		OBS	0005	0628	32084	2524					14724												
		STD	0010	0626	3209	2525		0027326		0028	14724												
193		OBS	0010	0626	32090	2525					14724												
193		OBS	0015	0626	32093	2525					14725												
		STD	0020	0623	3216	2530		0026792		0055	14726												
193		OBS	0020	0623	32158	2530					14726												

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MO	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NOOC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO		DAY	HR			10/10	CRUISE NO.	STATION NUMBER				DIR.
311270	SI	66357N	167541W	233	67	07	18	205	1968	BS2	072	0026	00			2	X2	6 8	0072	
				WATER		WIND		BARO- METER		AIR TEMP. °C		VSL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
COLOR CODE		TRANSL (m)	DIR.	SPEED OF FORCE		METERS (mbs)		DRY BULB	WET BULB											
				14		S16		132		086		080	7	04						

MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DTN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \mu l/l$	TOTAL-P $\mu g - \mu l/l$	NO ₂ -N $\mu g - \mu l/l$	NO ₃ -N $\mu g - \mu l/l$	SiO ₄ -Si $\mu g - \mu l/l$	PH	S C
		STD	0000	0642	3210	2523	0027438	0000	14729	721							
	206	OBS	0000	0642	32099	2523			14729	721							
	206	OBS	0005	0638	32121	2526			14729	728							
		STD	0010	0627	3221	2534	0026409	0027	14726	735							
	206	OBS	0010	0627	32214	2534			14726	735							
	206	OBS	0015	0608	32281	2542			14721	741							

REFERENCE CTRY NO.		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	OUT BOAT	SDIN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'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
311270		SI	6636 N	16821 W		233	68	07	18	220	1968	BS2	073	0034	00	16	02		X4	7 8		0073
COLOR CODE		WATER		WIND		BARO- METER		AIR TEMP. °C		VSL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS										
		TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB															
			14	516	128	094	088	6	06													

MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DTN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \mu l/l$	TOTAL-P $\mu g - \mu l/l$	NO ₂ -N $\mu g - \mu l/l$	NO ₃ -N $\mu g - \mu l/l$	SiO ₄ -Si $\mu g - \mu l/l$	PH	S C
		STD	0000	0509	3258	2577	0022327	0000	14682								
	222	OBS	0000	0509	32580	2577			14682								
	222	OBS	0005	0508	32580	2577			14682								
		STD	0010	0504	3259	2578	0022238	0022	14681								
	222	OBS	0010	0504	32586	2578			14681								
	222	OBS	0015	0506	32597	2579			14683								
		STD	0020	0508	3261	2580	0022109	0044	14685								
	222	OBS	0020	0508	32610	2580			14685								
	222	OBS	0025	0502	32616	2581			14683								

REFERENCE CTRY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MO	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NOOC STATION NUMBER			
					10'	1"		MO	DAY			HR./10	CRUISE NO.	STATION NUMBER				DIR.	HGT	PER
311270	SI	66355N	16848 W	233	68	07	18	239	1968	BS2	074	0051	00	18	22		X2	6 8	0074	
				WATER		WIND		BARO- METER		AIR TEMP. °C		VTL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
COLOR CODE		TRANSL (m)	DIR.	SPEED OR FORCE		METERS (mbs)		DRY BULB	WET BULB											
				17		S18		126		075		067	7	09						

MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DTN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \mu l/l$	TOTAL-P $\mu g - \mu l/l$	NO ₂ -N $\mu g - \mu l/l$	NO ₃ -N $\mu g - \mu l/l$	SiO ₄ -Si $\mu g - \mu l/l$	PH	S C
		STD	0000	0357	3280	2610	0019163	0000	14621	778							
	240	OBS	0000	0357	32803	2610			14621	778							
	240	OBS	0005	0354	32801	2611			14620	781							
		STD	0010	0356	3281	2611	0019129	0019	14622	786							
	240	OBS	0010	0356	32807	2611			14622	786							
	240	OBS	0015	0359	32808	2611			14624	775							
		STD	0020	0359	3281	2611	0019139	0038	14625	776							
	240	OBS	0020	0359	32810	2611			14625	776							
	240	OBS	0025	0363	32814	2611			14628	771							
		STD	0030	0364	3282	2611	0019138	0057	14629	770							
	240	OBS	0030	0364	32817	2611			14629	770							
	240	OBS	0035	0362	32821	2611			14629	768							
	240	OBS	0040	0364	32823	2611			14631	765							

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DRIFT MOUSE	SDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER		
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR	NGT		PER	SEA		TYPE	AMT
311270	SI		66325N	16911 W		233	69	07	19	018	1968	BS2 075	0055	00	18	2	12		X4	7	6	0075	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB					DEPTHS					
									18	523	111	071	068	6	10								
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?		Σ Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S CC					
		STD	0000	0506	3304	2614	0018833		0000	14687													
	018	OBS	0000	0506	33041	2614				14687													
	018	OBS	0005	0495	33051	2616				14683													
		STD	0010	0486	3306	2618	0018487		0019	14680													
	018	OBS	0010	0486	33060	2618				14680													
	018	OBS	0015	0480	33061	2618				14678													
		STD	0020	0476	3306	2619	0018407		0037	14678													
	018	OBS	0020	0476	33058	2619				14678													
	018	OBS	0025	0396	33060	2627				14645													
		STD	0030	0377	3306	2629	0017425		0055	14638													
	018	OBS	0030	0377	33060	2629				14638													
	018	OBS	0035	0373	33060	2629				14637													
	018	OBS	0040	0374	33060	2629				14638													
	018	OBS	0045	0375	33064	2630				14639													

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DRIFT INDIC	SDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR	NGT		PER	SEA		TYPE
311270	SI		66275N	169335W		233	69	07	19	038	1968	BS2 076	0058	00	16	2	12		X2	7	8	0076
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB									
										16	525	120	073	067	6	10						
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?	Σ Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S CC					
		STD	0000	0552	3289	2597	0020461	0000	14703	841												
	040	OBS	0000	0552	32891	2597			14703	841												
	040	OBS	0005	0549	32896	2598			14703	841												
		STD	0010	0415	3298	2619	0018381	0019	14649	728												
	040	OBS	0010	0415	32979	2619			14649	728												
	040	OBS	0015	0352	33068	2632			14625	694												
		STD	0020	0351	3307	2632	0017099	0037	14625	697												
	040	OBS	0020	0351	33071	2632			14625	697												
	040	OBS	0025	0352	33069	2632			14626	689												
		STD	0030	0352	3307	2632	0017152	0054	14627	694												
	040	OBS	0030	0352	33066	2632			14627	694												
	040	OBS	0035	0348	33069	2632			14626	687												
	040	OBS	0039	0350	33076	2633			14628	694												
	040	OBS	0044	0350	33069	2632			14629	689												

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DRIFT INDIC	P. SDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	NGT	PER		SEA	TYPE		AMT
311270	SI		6534 N	16809 W		233	58	07	19	115	1968	BS2 077		0038	00	16	2	12		X2	7	8	0077
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB										
									16	521	140	073	070	7	07								
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?	Σ Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S CC						
		STD	0000	0723	3016	2361	0042907	0000	14736														
	115	OBS	0000	0723	30164	2361			14736														
	115	OBS	0004	0722	30162	2361			14737														
	115	OBS	0009	0722	30163	2361			14737														
		STD	0010	0722	3016	2361	0042920	0043	14738														
	115	OBS	0013	0722	30160	2361			14738														
	115	OBS	0017	0719	30168	2362			14738														
		STD	0020	0720	3017	2362	0042863	0086	14738														
	115	OBS	0022	0720	30166	2362			14739														
	115	OBS	0026	0718	30178	2363			14739														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	TIME GMT	NDC	11. SDSEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NDC STATION NUMBER	
CTRY CODE	IO. NO.						10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR.	HGT				SEA
311270	SI		6535 N	16826 W	233	58	07	19	142	1968	BS2	079	0056	00	16	2	5		X4	7	8	0079
		WATER		WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	ORT BULB	WET BULB																	
		17	S20	145	064	061	6	10														
MESSING 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 - 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						
		STD	0000	0487	3268	2587	0021352	0000	14674													
145	OBS	0000	0487	32679	2587				14674													
145	OBS	0005	0477	32670	2588				14670													
	STD	0010	0460	3266	2589	0021226	0021		14664													
145	OBS	0010	0460	32660	2589				14664													
145	OBS	0015	0434	32640	2590				14654													
	STD	0020	0419	3263	2591	0021070	0042		14648													
145	OBS	0020	0419	32628	2591				14648													
145	OBS	0025	0411	32619	2591				14645													
	STD	0030	0406	3262	2591	0021043	0063		14644													
145	OBS	0030	0406	32616	2591				14644													
145	OBS	0035	0397	32609	2591				14641													
145	OBS	0039	0408	32616	2591				14646													
145	OBS	0044	0408	32612	2590				14647													

532. AA

Woods Hole Oceanographic Institution
ATLAS - GAZETTEER COLLECTION