BILL DUNKLE

H.O. 212

# DYNAMIC OCEANOGRAPHIC DATA

## For the Central Eastern Pacific Ocean

## SURFACE TEMPERATURE AND SALINITY DATA

### For the Eastern Pacific Ocean

Issued by the Hydrographic Office under the Authority of the Secretary of the Navy

Woods Hole Oceanographic Institution
ATLAS GAZETTEER COLLECTION

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BILL DUNKLE

# DYNAMIC OCEANOGRAPHIC DATA

## For the Central Eastern Pacific Ocean

Collected by the
U.S.S. "HANNIBAL" AND THE YACHT "VELERO III"

and

## SURFACE TEMPERATURE AND SALINITY DATA

For the Eastern Pacific Ocean

Collected by
U.S. NAVAL VESSELS

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of the Secretary of the Navy

H.O. 212

Woods Hole Oceanographic Institution
ATLAS-GAZETTEER COLLECTION

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ATLAS-GAZETTEER COLLECTION

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## PREFACE

This report is the result of the dynamic oceanographic work inaugurated in the year 1933 by the U.S.S. *Hannibal* in Pacific Panaman and Costa Rican waters. Commanders C. C. Slayton and R. M. Hinckley, United States Navy, were in command of the U.S.S. *Hannibal*.

The leading oceanographical institutions of this country, including the Scripps Institution of Oceanography; the Woods Hole Oceanographic Institution; and the Carnegie Institution of Washington, D.C., greatly aided the Hydrographic Office in making possible the inauguration of the dynamic oceanographic surveys by their advice relating to methods, the loan of equipment, and their encouragement.

Mr. R. H. Fleming of the Scripps Institution of Oceanography, University of California, La Jolla, Calif., Dr. T. Wayland Vaughan, director, was granted permission by the United States Navy Department to accompany the U.S.S. *Hannibal* and greatly assisted in making observations necessary for the dynamical study of the waters traversed, and in addition made observations on the dissolved oxygen, phosphate, silicate, nitrite and other chemicals, and plankton. The values of the samples of water collected were determined and checked at the Scripps Institution of Oceanography for temperature, chlorinity, salinity, specific gravity, and other quantitative hydrodynamic data.

There are also included in this report the dynamic oceanographic data collected by the yacht *Velero III*, G. Allan Hancock, captain and owner, and surface temperature and salinity data collected by United States naval vessels. These data were also checked by the Scripps Institution of Oceanography and the resulting values determined.

W. R. Gherardi,
*Rear Admiral, United States Navy, Hydrographer.*

United States Hydrographic Office,
*August 1934.*

# U.S.S. "HANNIBAL" TEMPERATURE AND SALINITY DATA

Richard H. Fleming,
*Scripps Institution of Oceanography,*
*University of California, La Jolla, Calif.*

The following tables contain the corrected temperature and salinity data for the 127 oceanographic stations occupied by the U.S.S. *Hannibal* between March 9, 1933, and May 24, 1933, in the Pacific Ocean. These are stations H–17 to H–102, located in the Gulf of Panama and occupied between March 9 and March 24, and stations H–105 to H–145, situated off the Pacific coast of Costa Rica and Panama and occupied between May 16 and May 24. The prefix "H–" has been used to denote the collecting vessel, namely, the U.S.S. *Hannibal.* H–103 was a test station run in shallow water and the results are not included. The serial number H–104 was accidentally omitted.

The tables contain the temperature observations, which have been carefully corrected and checked, and the chlorinity and salinity determinations, which were made at the Scripps Institution of Oceanography. All of this material has been checked and all doubtful observations thrown out. For those stations at which the collections were not obtained at the standard depths, tables have been prepared that give the interpolated temperature and salinity values at standard depths. This has been done to facilitate comparisons between stations and to simplify the dynamic computations. For the stations H–105 to H–145, for which the preliminary dynamic computations have been made, the $\sigma_t$ and $V_{s,\,t,\,p}$ values are included in these tables.

The temperature observations have been corrected in the following ways. For those thermometers for which the $V_o$ value was known, the temperature readings were corrected from tables compiled from data based on Schumacher's formula. The $V_o$ is the volume of mercury in the thermometer when reversed at 0° C. expressed in degrees. For those thermometers for which the $V_o$ value was not given the corrections were made from tables compiled from graphs for each thermometer based upon the calibration data supplied by the United States Bureau of Standards. After these corrections had been applied it was found that certain of the thermometers showed small constant errors. These were determined by comparison with trustworthy thermometers and the necessary corrections applied. The probable error of the corrected temperature observations was

computed and found to be $\pm 0.02°$ for single observations and $\pm 0.015°$ for the mean of duplicate observations.

Unprotected reversing thermometers were used in conjunction with protected thermometers to determine the depth of sampling. At stations where the cable was vertical the accuracy of this method could be checked. The probable error in depth of sampling, when relying on the unprotected thermometers, was computed and found to be less than $\pm 5$ meters.

Chlorinities were determined by titration with silver nitrate solutions standardized against standard sea water. The corresponding salinities were then found by referring to Knudsen's tables. The accuracy of the results obtained by this method is of the order of $\pm 0.02‰$.

The $\sigma_t$ and $V_{s,\ t,\ p}$ values were computed from tables prepared by Dr. G. F. McEwen of the Scripps Institution of Oceanography.

In the tables are indicated certain other observations, collections, and analyses that were made at the stations. Surface plankton collections were made at most of the stations and at other locations in the region covered by the survey. Certain chemical analyses were made on board the U.S.S. *Hannibal* during the course of the survey. These include serial determinations of the amount of dissolved oxygen in the water column at 93 stations, phosphate series at 5 stations, silica and nitrite series each at 2 stations. At the Scripps Institution of Oceanography serial water samples from three stations have been analyzed for boron content by Miss K. Gehring, technical assistant.

The chlorinity determinations were all made by Miss K. Gehring. The temperature corrections, thermometric depth computations, checking, and the preparation of these tables were carried out at the Scripps Institution of Oceanography, where the author is preparing a complete report on the physical oceanography of this region based on these data and the additional observations as indicated in the tables.

## EXPLANATION OF TABLES

For each station a general form has been used that gives the location of the station and other pertinent material as well as the temperature and salinity data on the samples collected. Most of this material has been taken from the forms used to record field notes and observations, namely, "Oceanographic Observations—Temperatures and Salinities" (H.O.Misc. No. 8027–3). For those stations at which the observations were not made at the standard depths a second table is attached which contains the temperatures and salinities at standard depths obtained by interpolation from graphs constructed from the observed data.

Most of the headings on these tables are self-explanatory. "Wire angle" is that which was found by measuring the angle that the cable

made with the vertical at the time the messenger was released. "Soundings" and "depths of observation" are given in meters. The sounding recorded is usually that obtained by the hydrographic cable. The direction from which the wind blew is given in degrees and the force of the wind is noted by values according to the Beaufort scale. A number following "bottom sample" indicates that the sample was retained and is now stored at the Scripps Institution of Oceanography. The "type" of the bottom sediment is that which was recorded at the time of collection. Under "additional observations" are recorded collections and analyses other than those for temperature, salinity, and bottom samples. The following symbols have been used:

O = Analyses for the dissolved oxygen content of samples.
Pl = Quantitative surface plankton collection.
$PO_4$ = Analyses of water samples for phosphate content.
$SiO_2$ = Analyses of water samples for silica content.
$NO_2$ = Analyses of water samples for nitrite content.
Boron = Analyses of water samples for boron content.

The columns contain the following data:

*Estimated depth.*—This is the depth to which the closing bottles were lowered. This column has only been filled in when the cable was vertical. Depths are in meters below the surface.

*Depth by pressure.*—This column contains the depths as computed from the values obtained by using an unprotected reversing thermometer in conjunction with a protected thermometer. Where the wire angle is zero the comparison of the estimated depth with the thermometric depth gives a measure of their accuracy. In those cases where the cable was not vertical the depths of sampling are based entirely upon the thermometric depths. As unprotected thermometers were not attached to all the sampling bottles, depths at which certain of the bottles closed had to be obtained by interpolating upon a graph constructed from the available observations of thermometric depths for that cast.

*Temperature.*—This column contains the corrected temperature in °C. If duplicate thermometers were used the value recorded is the average of the two corrected readings.

*Chlorinity.*—Determined by titration with silver nitrate solution standardized against "standard sea water." Reported as grams per kilogram of sea water.

*Salinity.*—Obtained from the chlorinity by reference to Knudsen's Hydrographical Tables. Reported as grams per kilogram of sea water.

$\sigma_t$.—This is defined as $\sigma_t = (\rho_{s,t,o} - 1) \times 10^3$, where $\rho_{s,t,o}$ is the specific gravity of the water *in situ* not corrected for pressure. $\sigma_t$ should not be confused with $\sigma_o$, as $\sigma_o = (s_o - 1) \times 10^3$, where $s_o$ is the

specific gravity of the sample at 0° C., referred to distilled water at 4° C.

$V_{s,t,p}$.—This is the specific volume of the sample *in situ*, that is, corrected for temperature and pressure, multiplied by $10^5$.

In the general tables, where observations were lacking or had been discarded, the values have been substituted by interpolating upon graphs drawn from the available observations. These interpolated or extrapolated values have been indicated by the symbol *.

## U.S.S. "HANNIBAL" OCEANOGRAPHIC STATIONS

### Physical and Chemical Data

### STATION H–17

[Lat. 8°13′00″ N.; long. 80°05′00″ W.; Mar. 9, 1933; time, 0710–0724; wire angle, 0°; sounding, 35 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 340°, force 3; bottom sample, P–1; type, green mud]

| Estimated depth | Depth by pressure | Temperature | Chlorinity °/oo | Salinity °/oo | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | | 21.73 | *19.09 | *34.49 | | |
| 5 | | | | | | |
| 10 | | 21.72 | 19.09 | 34.49 | | |
| 25 | | 20.90 | 19.31 | 34.88 | | |

### STATION H–18

[Lat. 8°09′30″ N.; long. 80°09′00″ W.; Mar. 9, 1933; time, 0830–0848; wire angle, 0°; sounding, 30 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 340°, force 3; bottom sample, none; type, green mud]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 21.33 | 19.09 | 34.49 | | |
| 5 | | 21.32 | 19.11 | 34.52 | | |
| 10 | | 21.24 | 19.12 | 34.54 | | |
| 25 | | 21.06 | 19.35 | 34.96 | | |

### STATION H–19

[Lat. 8°06′30″ N.; long. 80°12′30″ W.; Mar. 9, 1933; time, 0931–0942; wire angle, 0°; sounding 30 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 350°, force 3; bottom sample, none; type, green mud]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 21.45 | 19.13 | 34.56 | | |
| 5 | | 21.49 | 19.13 | 34.56 | | |
| 10 | | 21.37 | 19.14 | 34.58 | | |
| 25 | | 17.10 | 19.23 | 34.74 | | |

### STATION H–20

[Lat. 8°11′30″ N.; long, 80°16′00″ W.; Mar. 9, 1933; time, 1120–1132; wire angle, 0°; sounding, 27 m; depth of observation, 20 m; weather, fair; sea, calm; wind, 350°, force 4; bottom sample, none; type, green mud]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 21.65 | 19.07 | 34.45 | | |
| 5 | | 21.71 | 19.07 | 34.45 | | |
| 10 | | 21.57 | 19.07 | 34.45 | | |
| 20 | | 20.71 | 19.16 | 34.61 | | |
| 25 | | *20.20 | *19.20 | *34.69 | | |

## STATION H–21

[Lat. 8°02′45″ N.; long, 80°15′45″ W.; Mar. 9, 1933; time, 1340–1358; wire angle, 0°; sounding, 30 m; depth of observation, 20 m; weather, fair; sea, light; wind, 355°, force 4; bottom sample, none; type, green mud]

| Estimated depth | Depth by pressure | Temperature | Chlorinity ‰ | Salinity ‰ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | | 21.90 | 19.05 | 34.42 | | |
| 5 | | 21.82 | 19.06 | 34.43 | | |
| 10 | | 21.50 | 19.06 | 34.43 | | |
| 20 | | 21.71 | 19.06 | 34.43 | | |
| 25 | | *21.60 | *19.06 | *34.43 | | |

## STATION H–22

[Lat. 7°48′00″ N.; long. 80°09′00″ W.; Mar. 9, 1933; time, 1649–1657; wire angle, 0°; sounding, 22 m; depth of observation, 10 m; weather, overcast, sea, light; wind, 340°, force 4; bottom sample, P–6; type, green mud; additional observations, O]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 25.20 | 18.90 | 34.14 | | |
| 5 | | *25.00 | 18.90 | 34.14 | | |
| 10 | | 22.70 | 18.95 | 34.23 | | |

## STATION H–23

[Lat. 7°51′30″ N.; long. 80°05′30″ W.; Mar. 9, 1933; time, 1808–1826; wire angle, 0°; sounding, 35 m; depth of observation, 20 m; weather, overcast; sea, light; wind, 350°, force 5; bottom sample, none; type, green mud; additional observations, O]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 22.36 | *19.09 | *34.49 | | |
| 5 | | *22.20 | 19.09 | 34.49 | | |
| 10 | | 21.96 | 19.10 | 34.51 | | |
| 20 | | 21.57 | 19.16 | 34.61 | | |
| 25 | | *21.40 | *19.18 | *34.65 | | |

## STATION H–24

[Lat. 7°56′00″ N.; long. 80°02′00″ W.; Mar. 10, 1933; time, 0630–0703; wire angle, 0°; sounding, 41 m; depth of observation, 25 m; weather, fair; sea, smooth; wind, 70°, force 3; bottom sample, P–8; type, green mud; additional observations, O]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 21.07 | 19.16 | 34.61 | | |
| 5 | | 21.21 | 19.15 | 34.60 | | |
| 10 | | 21.17 | 19.17 | 34.63 | | |
| 25 | | 21.95 | 19.17 | 34.63 | | |

## STATION H–25

[Lat. 7°59′00″ N.; long. 79°58′00″ W.; Mar. 10, 1933; time, 0802–0818; wire angle, 0°; sounding, 55 m.; depth of observation, 45 m; weather, fair; sea, calm; wind, 40°, force 3; bottom sample, none; type, green mud]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 21.04 | 19.15 | 34.60 | | |
| 5 | | 21.10 | 19.15 | 34.60 | | |
| 10 | | 21.02 | 19.15 | 34.60 | | |
| 25 | | 20.80 | 19.15 | 34.60 | | |
| 44 | | 20.68 | 19.34 | 34.94 | | |
| 50 | | *20.60 | *19.36 | *34.97 | | |

## STATION H–26

[Lat. 7°46′00″ N.; long. 79°50′00″ W.; Mar. 10, 1933; time, 1052–1115; wire angle, 15°; sounding, 80 m; depth of observation, 46 m; weather, fair; sea, calm; wind, 350°, force 3; bottom sample, none; type, green mud; additional observations, O]

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 20.75 | 19.15 | 34.60 | | |
| | 5 | 20.72 | 19.15 | 34.60 | | |
| | 10 | 20.59 | 19.15 | 34.60 | | |
| | 22 | 20.01 | 19.16 | 24.61 | | |
| | 46 | 14.86 | 19.37 | 34.99 | | |

## STATION H–26

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | | 20.75 | | 34.60 | | |
| 5 | | 20.72 | | 34.66 | | |
| 10 | | 20.59 | | 34.60 | | |
| 25 | | 19.70 | | 34.62 | | |
| 50 | | 14.00 | | 34.99 | | |

## STATION H–27

[Lat. 7°41′30″ N.; long. 79°56′30″ W.; Mar. 10, 1933; time, 1230–1246; wire angle, 0°; sounding, 63 m; depth of observation, 50 m; weather, fair; sea, calm; wind, 350°, force 3; bottom sample, none; type, sand and shell]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 22.59 | 19.05 | 34.42 | | |
| 5 | | 22.74 | 19.05 | 34.42 | | |
| 10 | | 21.67 | 19.08 | 34.47 | | |
| 25 | | 20.58 | 19.17 | 34.63 | | |
| 50 | | 14.44 | 19.36 | 34.97 | | |

## STATION H–28

[Lat. 7°39′00″ N.; long. 79°58′45″ W.; Mar. 10, 1933; time, 1323–1340; wire angle, 0°; sounding, 60 m; depth of observation, 50 m; weather, fair; sea, calm; wind, 350°, force 3; bottom sample, P–12; type, green sand, shell, and pebbles]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 22.90 | 19.05 | 34.42 | | |
| 5 | | 22.83 | 19.06 | 34.44 | | |
| 10 | | 21.04 | 19.15 | 34.60 | | |
| 25 | | 20.18 | 19.18 | 34.65 | | |
| 50 | | 14.57 | 19.35 | 34.96 | | |

## STATION H–29

[Lat. 7°30′20″ N.; long. 79°53′50″ W.; Mar. 10, 1933; time, 1517–1533; wire angle, 15°; sounding, 75 m; depth of observation, 67 m; weather, fair; sea, calm; wind, 360°, force 3; bottom sample, P–13; type, shell and pebbles]

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 21.11 | 19.16 | 34.61 | | |
| | 5 | 20.85 | 19.18 | 34.65 | | |
| | 10 | 20.25 | 19.18 | 34.65 | | |
| | 24 | | 19.28 | 34.83 | | |
| | 48 | 14.51 | 19.37 | 34.99 | | |
| | 67 | | 19.37 | 34.99 | | |

## STATION H–29

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 21.11 | | 34.61 | | |
| 5 | | 20.85 | | 34.65 | | |
| 10 | | 20.25 | | 34.65 | | |
| 25 | | 17.50 | | 34.83 | | |
| 50 | | 14.40 | | 34.99 | | |
| 75 | | | | 34.99 | | |

## STATION H–30

[Lat. 7°26′30″ N.; long. 79°52′00″ W.; Mar. 10, 1933; time, 1611–1634; wire angle, 20°; sounding, 106 m; depth of observation, 94 m; weather, fair; sea, smooth; wind, 360°, force 3; bottom sample, none; additional observations, O]

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 21.07 | 19.19 | 34.67 | | |
| | 5 | 20.31 | 19.20 | 34.69 | | |
| | 10 | 19.90 | 19.17 | 34.63 | | |
| | 23 | 15.23 | 19.37 | 34.99 | | |
| | 47 | *15.18 | 19.38 | 35.01 | | |
| | 70 | 15.06 | 19.37 | 34.99 | | |
| | 94 | 14.54 | 19.37 | 34.99 | | |

## STATION H–30

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | °/oo | °/oo | | |
| 0 | | 21.07 | | 34.67 | | |
| 5 | | 20.31 | | 34.69 | | |
| 10 | | 19.90 | | 34.63 | | |
| 25 | | 15.22 | | 34.99 | | |
| 50 | | 15.15 | | 35.01 | | |
| 75 | | 14.95 | | 34.99 | | |
| 100 | | 14.40 | | 34.99 | | |

## STATION H–31

[Lat. 7°24′00″ N.; long. 79°40′00″ W.; Mar. 10, 1933; time, 1836–1935; wire angle, 50°; sounding, 485 m; depth of observation, 294 m; weather, fair; sea, moderate; wind, 020°, force 7; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 19.26 | 19.27 | 34.81 | | |
| | 10 | 19.34 | 19.27 | 34.81 | | |
| | 20 | *19.20 | 19.26 | 34.79 | | |
| | 40 | 14.79 | 19.36 | 34.97 | | |
| | 75 | 14.50 | 19.35 | 34.96 | | |
| | 90 | 14.20 | 19.37 | 34.99 | | |
| | 115 | 13.94 | 19.36 | 34.97 | | |
| | 131 | 13.77 | 19.35 | 34.96 | | |
| | 294 | 11.97 | 19.34 | 34.94 | | |

## STATION H–31

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | |
|---|---|---|---|---|---|
| 0 | | 19.26 | | 34.81 | |
| 10 | | 19.34 | | 34.81 | |
| 25 | | 19.20 | | 34.79 | |
| 50 | | 14.65 | | 34.97 | |
| 75 | | 14.50 | | 34.98 | |
| 100 | | 14.10 | | 34.99 | |
| 150 | | 13.55 | | 34.96 | |
| 200 | | 13.00 | | 34.95 | |
| 300 | | 11.90 | | 34.94 | |

## STATION H–32

[Lat. 7°14′00″ N.; long. 79°38′00″ W.; Mar. 10, 1933; time, 2044–2227; wire angle, 50°; sounding, 800 m; depth of observation 421 m; weather, fair; sea, moderate; wind, 360°, force 7; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 18.96 | 19.28 | 34.83 | | |
| | 10 | 18.74 | 19.23 | 34.74 | | |
| | 25 | 14.64 | 19.35 | 34.96 | | |
| | 40 | 14.59 | 19.41 | 35.07 | | |
| | 66 | 14.16 | *19.39 | *35.03 | | |
| | 85 | 14.10 | 19.37 | 34.99 | | |
| | 110 | 13.91 | 19.35 | 34.96 | | |
| | 162 | 13.36 | 19.31 | 34.88 | | |
| | 295 | 12.68 | 19.28 | 34.83 | | |
| | 421 | 9.84 | 19.22 | 34.72 | | |

## STATION H–32

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| Estimated depth | Depth by pressure | Temperature | Chlorinity ‰ | Salinity ‰ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | | 18.96 | | 34.83 | | |
| 10 | | 18.74 | | 34.74 | | |
| 25 | | 14.64 | | 34.96 | | |
| 50 | | 14.40 | | 35.05 | | |
| 75 | | 14.15 | | 35.01 | | |
| 100 | | 14.00 | | 34.97 | | |
| 200 | | 13.20 | | 34.87 | | |
| 300 | | 12.60 | | 34.83 | | |
| 400 | | 10.10 | | 34.75 | | |

## STATION H–33

[(1) Lat. 7°23′00″ N.; long. 79°27′00″ W.; (2) lat. 7°24′00″ N.; long. 79°30′00″ W.; Mar. 11, 1933; time, 0639–0849; wire angle, 45°; sounding, 1,400 m; depth of observation, 1,060 m; weather, fair; sea, moderate; wind, 340°, force, 7; bottom sample, none; type, gray sand; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 18.04 | 19.20 | 34.69 | | |
| | 5 | 17.96 | 19.23 | 34.74 | | |
| | 25 | 16.62 | 19.27 | 34.81 | | |
| | 50 | 14.50 | 19.31 | 34.88 | | |
| | 75 | 14.33 | 19.35 | 34.96 | | |
| | 99 | 14.19 | 19.36 | 34.97 | | |
| | 165 | 13.72 | 19.33 | 34.92 | | |
| | 190 | | 19.32 | 34.90 | | |
| | 290 | 13.00 | 19.30 | 34.87 | | |
| | 350 | 12.31 | 19.28 | 34.83 | | |
| | 720 | 6.03 | 19.15 | 34.60 | | |
| | 1,060 | 4.79 | 19.15 | 34.60 | | |

NOTE.—Due to the adverse conditions this series is not very trustworthy.

## STATION H–33

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | |
|---|---|---|---|---|---|
| 0 | | 18.04 | | 34.69 | |
| 5 | | 17.96 | | 34.74 | |
| 10 | | 17.70 | | 34.76 | |
| 25 | | 16.62 | | 34.81 | |
| 50 | | 14.50 | | 34.88 | |
| 75 | | 14.33 | | 34.96 | |
| 100 | | 14.19 | | 34.97 | |
| 150 | | 13.90 | | 34.93 | |
| 200 | | 13.70 | | 34.90 | |
| 300 | | 12.90 | | 34.86 | |
| 400 | | 11.50 | | 34.79 | |
| 500 | | 9.70 | | 34.72 | |
| 600 | | 8.00 | | 34.66 | |
| 800 | | 5.60 | | 34.60 | |
| 1,000 | | 5.00 | | 34.60 | |

## STATION H–34

[Lat. 7°23′00″ N.; long. 79°05′00″W.; Mar. 11, 1933; time, 1400–1649; wire angle, 60°; sounding, 3,380 m: depth of observation, 1,500 m; weather, fair; sea, moderate; wind, 020°, force 5; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 19.44 | 19.28 | 34.83 | | |
| | 35 | 14.89 | 19.39 | 35.03 | | |
| | 45 | 14.50 | 19.39 | 35.03 | | |
| | 50 | | 19.38 | 35.01 | | |
| | 70 | | 19.39 | 35.03 | | |
| | 100 | 14.11 | 19.38 | 35.01 | | |
| | 115 | 13.94 | 19.39 | 35.03 | | |
| | 195 | | 19.37 | 34.99 | | |
| | 253 | 12.19 | | | | |
| | 397 | 9.49 | 19.22 | 34.72 | | |
| | 717 | 7.06 | | | | |
| | 1,300 | 3.34 | 19.19 | 34.67 | | |
| | 1,500 | 3.16 | 19.20 | 34.69 | | |

NOTE.—Due to the adverse conditions this series is not very trustworthy.

## STATION H–34

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| Estimated depth | Depth by pressure | Temperature | Chlorinity ‰ | Salinity ‰ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | *°C.* | | | | |
| 0 | | 19.44 | | 34.83 | | |
| 10 | | 19.30 | | 34.85 | | |
| 25 | | 17.20 | | 35.01 | | |
| 50 | | 14.40 | | 35.03 | | |
| 75 | | 14.20 | | 35.03 | | |
| 100 | | 14.11 | | 35.01 | | |
| 200 | | 12.80 | | 34.99 | | |
| 300 | | 11.30 | | 34.86 | | |
| 400 | | 9.49 | | 34.72 | | |
| 500 | | 8.50 | | | | |
| 600 | | 7.80 | | | | |
| 800 | | 6.50 | | | | |
| 1,000 | | 5.00 | | | | |
| 1,300 | | 3.34 | | 34.67 | | |
| 1,500 | | 3.16 | | 34.69 | | |

## STATION H–35

[(1) Lat., 7°26′00″ N., long. 78°55′00″ W.; (2) lat. 7°25′03″ N., long. 78°55′08″ W.; Mar. 11, 1933; time, 2010–2256; wire angle, 55°; sounding, 3,100 m; depth of observation, 1,500 m; weather, fair; sea, moderate; wind, 330°, force 7 to 5; bottom sample, none; additional observations, O, Pl., Boron]

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 19.35 | 19.23 | 34.74 | | |
| | 10 | 18.97 | 19.25 | 34.78 | | |
| | 25 | 14.60 | 19.39 | 35.03 | | |
| | 50 | | 19.39 | 35.03 | | |
| | 100 | 14.37 | 19.35 | 34.96 | | |
| | 150 | 13.39 | 19.34 | 34.94 | | |
| | 400 | 10.09 | 19.27 | 34.81 | | |
| | 540 | 8.36 | 19.23 | 34.74 | | |
| | 736 | 6.66 | 19.18 | 34.65 | | |
| | 878 | 5.68 | 19.17 | 34 63 | | |
| | 1,500 | 3.20 | 19.20 | 34.69 | | |

NOTE.—Due to the adverse conditions this series is not very trustworthy.

## STATION H–35

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | |
|---|---|---|---|---|---|
| 0 | 19.35 | | 34.74 | | |
| 10 | 18.97 | | 34.78 | | |
| 25 | 14.60 | | 35.03 | | |
| 50 | 14.45 | | 35.03 | | |
| 75 | 14.41 | | 35.00 | | |
| 100 | 14.37 | | 34.96 | | |
| 150 | 13.39 | | 34.94 | | |
| 200 | 13.00 | | 34.91 | | |
| 300 | 12.15 | | 34.86 | | |
| 400 | 10.09 | | 34.81 | | |
| 500 | 8.80 | | 34.76 | | |
| 600 | 7.80 | | 34.71 | | |
| 800 | 6.20 | | 34.64 | | |
| 1,000 | 5.00 | | 34.62 | | |
| 1,500 | 3.20 | | 34.69 | | |

## STATION H–36

[Lat. 7°15′45″ N., long. 78°23′30″ W.; Mar. 12, 1933; time, 0632–0900; wire angle, 45°; sounding, 2,300 m; depth of observation, 2,183 m; weather, cloudy; sea, smooth; wind, 360°, force 4; bottom sample, P–20; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 20.72 | 19.22 | 34.72 | | |
| | 510 | 9.10 | 19.18 | 34.65 | | |
| | 610 | 7.35 | 19.19 | 34.67 | | |
| | 862 | 5.25 | 19.13 | 34.56 | | |
| | 985 | | 19.14 | 34.58 | | |
| | 1,500 | 3.12 | 19.16 | 34.61 | | |
| | 2,183 | 2.18 | 19.20 | 34.69 | | |

## STATION H–36

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| Estimated depth | Depth by pressure | Temperature | Chlorinity ‰ | Salinity ‰ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | | 20.72 | | 34.72 | | |
| 500 | | 9.30 | | 34.67 | | |
| 600 | | 7.50 | | 34.65 | | |
| 800 | | 5.70 | | 34.57 | | |
| 1,000 | | 4.75 | | 34.58 | | |
| 1,500 | | 3.12 | | 34.61 | | |
| 2,000 | | 2.30 | | 34.68 | | |

## STATION H–37

[Lat. 7°21′30″ N., long. 78°27′30″ W., Mar. 12, 1933; time, 1400–1521; wire angle, 20°; sounding, 1,400 m; depth of observation, 870 m; weather, fair; sea, smooth; wind, 330°, force 4; bottom sample, P–21; type; green mud and sand; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 18.36 | 19.27 | 34.81 | | |
| | 10 | 18.20 | 19.27 | 34.81 | | |
| | 25 | 15.04 | 19.36 | 34.97 | | |
| | 45 | 14.57 | 19.38 | 35.01 | | |
| | 99 | 14.12 | 19.39 | 35.03 | | |
| | 150 | 13.76 | 19.38 | 35.01 | | |
| | 200 | 13.37 | 19.34 | 34.94 | | |
| | 300 | 12.43 | 19.30 | 34.87 | | |
| | 370 | 10.56 | 19.23 | 34.74 | | |
| | 465 | 9.00 | 19.20 | 34.69 | | |
| | 530 | 8.03 | 19.17 | 34.63 | | |
| | 563 | 7.72 | 19.16 | 34.61 | | |
| | 870 | 5.19 | 19.17 | 34.63 | | |

## STATION H–37

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | |
|---|---|---|---|---|---|
| 0 | | 18.36 | | 34.81 | |
| 10 | | 18.20 | | 34.81 | |
| 25 | | 15.04 | | 34.97 | |
| 50 | | 14.50 | | 35.01 | |
| 75 | | 14.35 | | 35.03 | |
| 100 | | 14.12 | | 35.03 | |
| 150 | | 13.76 | | 35.01 | |
| 200 | | 13.37 | | 34.94 | |
| 300 | | 12.43 | | 34.87 | |
| 400 | | 10.00 | | 34.72 | |
| 500 | | 8.40 | | 34.66 | |
| 600 | | 7.40 | | 34.61 | |
| 800 | | 5.75 | | 34.62 | |

## STATION H–38

[Lat. 7°23′30″ N., long. 78°22′30″ W.; Mar. 12, 1933; time, 1627–1718; wire angle, 0°; sounding, 1,650 m; depth of observation, 1,000 m; weather, fair; sea, smooth; wind, 330°, force 4; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 19.66 | 19.14 | 34.58 | | |
| 10 | | 18.60 | 19.21 | 34.70 | | |
| 25 | | 15.20 | 19.33 | 34.92 | | |
| 50 | | 14.23 | 19.36 | 34.97 | | |
| 100 | | 14.19 | 19.36 | 34.97 | | |
| 200 | 202 | 13.18 | 19.38 | 35.01 | | |
| 300 | | 11.90 | 19.31 | 34.88 | | |
| 500 | 500 | 8.35 | 19.21 | 34.70 | | |
| 600 | | *7.55 | | *34.63 | | |
| 631 | 631 | 7.35 | 19.15 | 34.60 | | |
| 800 | | *5.20 | | *34.61 | | |
| 1,000 | | 4.92 | 19.17 | 34.63 | | |

## STATION H–39

[Lat. 7°28′00″ N., long. 78°17′00″ W.; Mar. 12, 1933; time, 1833–1907; wire angle, 0°; sounding, 290 m; depth of observation, 232 m; weather, fair; sea, calm; wind, 350°, force 3; bottom sample, P–23; type, green sand and shell; additional observations, O]

| Estimated depth | Depth by pressure | Temperature | Chlorinity °/₀₀ | Salinity °/₀₀ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | | 20.45 | 19.11 | 34.52 | | |
| 10 | | 17.53 | 19.27 | 34.81 | | |
| 15 | | 15.70 | 19.32 | 34.90 | | |
| 40 | | 14.93 | 19.36 | 34.97 | | |
| 90 | | 14.43 | 19.37 | 34.99 | | |
| 127 | 127 | 13.95 | 19.36 | 34.97 | | |
| 180 | | 13.52 | 19.35 | 34.96 | | |
| 232 | 232 | 12.97 | 19.30 | 34.87 | | |

## STATION H–39

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 20.45 | | 34.52 | | |
| 10 | | 18.95 | | 34.81 | | |
| 25 | | 15.20 | | 34.93 | | |
| 50 | | 14.82 | | 34.98 | | |
| 75 | | 14.60 | | 34.99 | | |
| 100 | | 14.35 | | 34.99 | | |
| 150 | | 13.75 | | 34.98 | | |
| 200 | | 13.30 | | 34.94 | | |
| 300 | | 12.20 | | 34.80 | | |

## STATION H–40

[Lat. 7°31′20″ N., long. 78°14′45″ W.; Mar. 12, 1933; time, 2012–2028; wire angle, 0°; sounding, 90 m; depth of observation, 80 m; weather, fair; sea, calm; wind, 350°, force 3; bottom sample, P–24; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 18.60 | 19.14 | 34.58 | | |
| 5 | | 17.11 | 19.23 | 34.74 | | |
| 10 | | 16.57 | 19.24 | 34.76 | | |
| 25 | | *15.75 | 19.29 | 34.85 | | |
| 50 | | 15.35 | 19.30 | 34.87 | | |
| 75 | | *14.90 | *19.34 | *34.94 | | |
| 80 | | 14.82 | 19.35 | 34.96 | | |

## STATION H–41

[Lat. 7°39′40″ N., long. 78°20′00″ W.; Mar. 13, 1933; time, 0819–0839; wire angle, 0°; sounding, 85m; depth of observation, 75 m; weather, fair; sea, calm; wind, 040°, force 2; bottom sample, P–25; type, green mud, sand; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 17.66 | 19.22 | 34.72 | | |
| 5 | | 17.69 | 19.23 | 34.74 | | |
| 10 | | 17.16 | 19.24 | 34.76 | | |
| 25 | 31 | 15.22 | 19.29 | 34.85 | | |
| 50 | 49 | 14.86 | 19.35 | 34.96 | | |
| 75 | | 14.72 | 19.35 | 34.96 | | |

## STATION H–42

[Lat. 7°52′00″ N., long. 78°20′20″ W.; Mar. 13, 1933; time, 1112–1125; wire angle, 0°; sounding, 75; depth of observation, 50 m; weather, fair; sea, smooth; wind, 355°, force 2; bottom sample, P–26; type, green sand; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 17.61 | 19.30 | 34.87 | | |
| 5 | | 16.38 | 19.29 | 34.85 | | |
| 10 | | 15.88 | 19.30 | 34.87 | | |
| 25 | 24 | 15.33 | 19.28 | 34.83 | | |
| 50 | | 15.02 | 19.35 | 34.96 | | |

## STATION H–43

[Lat. 7°50′00″ N., long. 78°31′00″ W.; Mar. 13, 1933; time, 1243–1300; wire angle, 0°; sounding, 80 m; depth of observation, 50 m; weather, fair; sea, smooth; wind, 355°, force 3; bottom sample, none; additional observations, O, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity ‰ | Salinity ‰ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | | 16.45 | 19.27 | 34.81 | | |
| 5 | | 16.42 | 19.30 | 34.87 | | |
| 10 | | 16.30 | 19.32 | 34.90 | | |
| 25 | | 15.90 | 19.36 | 34.97 | | |
| 50 | | (*) | 19.36 | 34.97 | | |

## STATION H–44

[Lat. 7°48′00″ N., long. 78°38′30″ W.; Mar. 13, 1933; time, 1422–1440; wire angle, 0°; sounding, 75 m; depth of observation, 50 m; weather, fair; sea, calm; wind, 310°, force 3; bottom sample, P–28; type, green sand; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 17.44 | 19.24 | 34.76 | | |
| 5 | | 17.42 | 19.28 | 34.83 | | |
| 10 | | 16.56 | 19.29 | 34.85 | | |
| 25 | 26 | 15.20 | 19.37 | 34.99 | | |
| 50 | | 14.69 | 19.35 | 34.96 | | |

## STATION H–45

[Lat. 7°45′00″ N., long. 78°49′00″ W.; Mar. 13, 1933; time, 1628–1644; wire angle, 0°; sounding, 80 m; depth of observation, 75 m; weather, hazy; sea, calm; wind, 310°, force 3; bottom sample, P–29; type, green sand and shell; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 18.53 | 19.27 | 34.81 | | |
| 5 | | 18.41 | 19.26 | 34.79 | | |
| 10 | | 17.41 | 19.29 | 34.85 | | |
| 25 | | 14.99 | 19.35 | 34.96 | | |
| 50 | 48 | 14.47 | 19.35 | 34.96 | | |
| 75 | | 14.37 | 19.37 | 34.99 | | |

## STATION H–46

[Lat. 7°43′00″ N., long. 79°00′00″ W.; Mar. 13, 1933; time, 1826–1845; wire angle, 13°; sounding, 110 m; depth of observation, 95 m; weather, cloudy; sea, calm; wind, 310°, force 6; bottom sample, P–30; type, green sand; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 18.84 | 19.26 | 34.79 | | |
| | 8 | 16.61 | 19.28 | 34.83 | | |
| | 12 | 16.15 | 19.30 | 34.87 | | |
| | 26 | 15.05 | 19.37 | 34.99 | | |
| | 54 | 14.61 | 19.35 | 34.96 | | |
| | 95 | 13.77 | | | | |

## STATION H–46

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 18.84 | | 34.79 | | |
| 5 | | 17.20 | | 34.81 | | |
| 10 | | 16.40 | | 34.95 | | |
| 25 | | 15.10 | | 34.99 | | |
| 50 | | 14.70 | | 34.97 | | |
| 100 | | 13.65 | | | | |

## STATION H–47

Lat. 7°39′45″ N., long. 79°08′30″ W.; Mar. 14, 1933; time, 0804–0823; wire angle, 0°; sounding, 150 m; depth of observation, 145 m; weather, fair; sea, calm; wind, 360°, force 5; bottom sample, P-31; type, green sand, shell; additional observations, O, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity ‰ | Salinity ‰ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | ---------- | 18.87 | 19.26 | 34.79 | -------- | -------- |
| 5 | ---------- | 18.46 | 19.26 | 34.79 | -------- | -------- |
| 10 | ---------- | 18.14 | 19.26 | 34.79 | -------- | -------- |
| 20 | 17 | 17.07 | 19.28 | 34.83 | -------- | -------- |
| 45 | 46 | 14.69 | 19.34 | 34.94 | -------- | -------- |
| 70 | ---------- | 14.30 | 19.32 | 34.90 | -------- | -------- |
| 95 | 93 | 13.87 | 19.31 | 34.88 | -------- | -------- |
| 145 | ---------- | 12.69 | 19.31 | 34.88 | -------- | -------- |

## STATION H–47

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 18.87 | ---------- | 34.79 | -------- | -------- |
| 5 | ---------- | 18.46 | ---------- | 34.79 | -------- | -------- |
| 10 | ---------- | 18.14 | ---------- | 34.79 | -------- | -------- |
| 25 | ---------- | 16.50 | ---------- | 34.86 | -------- | -------- |
| 50 | ---------- | 14.60 | ---------- | 34.94 | -------- | -------- |
| 75 | ---------- | 14.25 | ---------- | 34.89 | -------- | -------- |
| 100 | ---------- | 13.78 | ---------- | 34.88 | -------- | -------- |
| 150 | ---------- | 12.60 | ---------- | 34.88 | -------- | -------- |

## STATION H–48

[Lat. 7°33′45″ N., long. 79°00′45″ W.; Mar. 14, 1933; time, 1006–1055; wire angle, 20°; sounding, 1040 m; depth of observation, 850 m; weather, cloudy; sea, smooth; wind, 360°, force 3; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | 0 | 18.14 | 19.28 | 34.83 | -------- | -------- |
| ---------- | 10 | 17.77 | 19.28 | 34.83 | -------- | -------- |
| ---------- | 25 | 16.33 | 19.30 | 34.87 | -------- | -------- |
| ---------- | 40 | 14.56 | 19.37 | 34.99 | -------- | -------- |
| ---------- | 60 | 14.07 | 19.36 | 34.97 | -------- | -------- |
| ---------- | 111 | 13.68 | 19.35 | 34.96 | -------- | -------- |
| ---------- | 190 | 13.14 | 19.35 | 34.96 | -------- | -------- |
| ---------- | 341 | 11.04 | 19.26 | 34.79 | -------- | -------- |
| ---------- | 440 | ---------- | 19.23 | 34.74 | -------- | -------- |
| ---------- | 646 | 6.79 | 19.16 | 34.61 | -------- | -------- |
| ---------- | 850 | 5.36 | 19.17 | 34.63 | -------- | -------- |

## STATION H–48

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 18.14 | ---------- | 34.83 | -------- | -------- |
| 10 | ---------- | 17.77 | ---------- | 34.83 | -------- | -------- |
| 25 | ---------- | 16.33 | ---------- | 34.87 | -------- | -------- |
| 50 | ---------- | 14.25 | ---------- | 34.99 | -------- | -------- |
| 75 | ---------- | 13.90 | ---------- | 34.97 | -------- | -------- |
| 100 | ---------- | 13.70 | ---------- | 34.96 | -------- | -------- |
| 150 | ---------- | 13.50 | ---------- | 34.96 | -------- | -------- |
| 200 | ---------- | 13.05 | ---------- | 34.96 | -------- | -------- |
| 300 | ---------- | 11.60 | ---------- | 34.84 | -------- | -------- |
| 400 | ---------- | 10.15 | ---------- | 34.76 | -------- | -------- |
| 500 | ---------- | 8.60 | ---------- | 34.70 | -------- | -------- |
| 600 | ---------- | 7.30 | ---------- | 34.62 | -------- | -------- |
| 800 | ---------- | 5.70 | ---------- | 34.63 | -------- | -------- |

## STATION H–49

[Lat. 7°31′07″ N., long. 78°47′00″ W.; Mar. 14, 1933; time, 1308–1631; wire angle, 30°; sounding, 2400 m; depth of observation, 2,060 m; weather, fair; sea, calm; wind, 340°, force 3; bottom sample, none; additional observations, O, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity ‰ | Salinity ‰ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °*C.* | | | | |
| | 0 | 17.66 | 19.30 | 34.87 | | |
| | 10 | 17.15 | 19.28 | 34.83 | | |
| | 25 | 15.48 | 19.37 | 34.99 | | |
| | 50 | 14.45 | 19.33 | 34.92 | | |
| | 100 | 14.39 | 19.36 | 34.97 | | |
| | 150 | 13.77 | 19.36 | 34.97 | | |
| | 200 | 13.43 | 19.33 | 34.92 | | |
| | 300 | 12.90 | 19.33 | 34.92 | | |
| | 500 | 9.33 | 19.22 | 34.72 | | |
| | 840 | 5.15 | 19.15 | 34.60 | | |
| | 1,030 | 4.22 | 19.18 | 34.65 | | |
| | 1,230 | 3.65 | 19.18 | 34.65 | | |
| | 1,760 | 2.57 | 19.19 | 34.67 | | |
| | 2,060 | 2.23 | 19.21 | 34.70 | | |

## STATION H–49

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | |
|---|---|---|---|---|---|
| 0 | 17.66 | | 34.87 | | |
| 10 | 17.15 | | 34.83 | | |
| 25 | 15.48 | | 34.99 | | |
| 50 | 14.45 | | 34.92 | | |
| 100 | 14.39 | | 34.97 | | |
| 150 | 13.77 | | 34.97 | | |
| 200 | 13.43 | | 34.92 | | |
| 300 | 12.90 | | 34.92 | | |
| 400 | 11.10 | | 34.84 | | |
| 500 | 9.33 | | 34.72 | | |
| 600 | 7.80 | | 34.68 | | |
| 800 | 5.50 | | 34.60 | | |
| 1,000 | 4.35 | | 34.64 | | |
| 1,500 | 3.05 | | 34.67 | | |
| 2,000 | 2.30 | | 34.70 | | |

## STATION H–50

[Lat. 7°38′00″ N., long. 78°39′15″ W.; Mar. 14, 1933; time, 1920–1940; wire angle, 0°; sounding, 123 m; depth of observation, 100 m; weather, fair; sea, calm; wind, 335°, force 3; bottom sample, P–34; type, green sand; additional observations, O, Pl.]

| | | | | | |
|---|---|---|---|---|---|
| 0 | 18.05 | 19.28 | 34.83 | | |
| 10 | 17.54 | 19.30 | 34.87 | | |
| 25 | *15.70 | (*) | *34.97 | | |
| 50 | 14.53 | 19.40 | 35.05 | | |
| 75 | 14.23 | 19.37 | 34.99 | | |
| 100 | 14.04 | 19.40 | 35.05 | | |

## STATION H–51

[Lat. 8°05′30″ N., long. 78°29′45″ W.; Mar. 15, 1933; time, 0739–0749; wire angle, 0°; sounding, 55 m; depth of observation, 25 m; weather, fair; sea, smooth; wind, 040°, force 3; bottom sample, P–35; type, green sand; additional observations, O, Pl.]

| | | | | | |
|---|---|---|---|---|---|
| 0 | 16.18 | 19.31 | 34.88 | | |
| 5 | 16.04 | 19.33 | 34.92 | | |
| 10 | 15.65 | 19.36 | 34.97 | | |
| 25 | 15.32 | 19.36 | 34.97 | | |

## STATION H–52

[Lat. 8°05′40″ N., long 78°35′00″ W.; Mar. 15, 1933; time, 0849–0907; wire angle, 0°; sounding, 35 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 040°, force 2; bottom sample, none; type, sand and shell; additional observations, O, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | °/₀₀ | °/₀₀ | | |
| 0 | | 18.25 | 19.30 | 34.87 | | |
| 5 | | 17.59 | 19.28 | 34.83 | | |
| 10 | | 16.20 | 19.33 | 34.92 | | |
| 25 | | *15.80 | 19.34 | 34.94 | | |

## STATION H–53

[Lat. 8°05′30″ N., long. 78°40′15″ W.; Mar. 15, 1933; time, 0954–1021; wire angle, 0°; sounding, 115 m; depth of observation, 100 m; weather, fair; sea, calm; wind, 040°, force 2; bottom sample, P–37; type, green mud, sand; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 16.30 | 19.36 | 34.97 | | |
| 10 | | 16.31 | 19.35 | 34.96 | | |
| 25 | | 16.27 | 19.33 | 34.92 | | |
| 50 | | 15.71 | 19.33 | 34.92 | | |
| 75 | 89 | 15.60 | 19.33 | 34.92 | | |
| 100 | | *15.50 | 19.35 | 34.96 | | |

## STATION H–54

[Lat. 8°03′00″ N., long. 78°43′45″ W.; Mar. 15, 1933; time, 1058–1115; wire angle, 0°; sounding, 55 m; depth of observation, 50 m; weather, fair; sea, calm; wind, 345° force 1; bottom sample, P–38; type, shell, pebbles; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 18.03 | 19.33 | 34.92 | | |
| 5 | | 16.85 | 19.29 | 34.85 | | |
| 10 | | 15.71 | 19.35 | 34.96 | | |
| 25 | | 15.42 | 19.37 | 34.99 | | |
| 50 | 50 | 15.34 | 19.38 | 35.01 | | |

## STATION H–55

[Lat. 8°01′00″ N., long. 78°52′00″ W.; Mar. 15, 1933; time, 1256–1308; wire angle, 0°; sounding, 50 m; depth of observation, 48 m; weather, fair; sea, calm; wind, 360°, force 2; bottom sample, P–39; type, green sand, shell; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 18.80 | 19.25 | 34.78 | | |
| 3 | | 18.16 | 19.25 | 34.78 | | |
| 8 | | 17.30 | 19.28 | 34.83 | | |
| 23 | | 15.60 | 19.33 | 34.92 | | |
| 48 | 45 | 15.09 | 19.35 | 34.96 | | |

## STATION H–55

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 18.80 | | 34.78 | | |
| 5 | | 17.80 | | 34.79 | | |
| 10 | | 17.00 | | 34.84 | | |
| 25 | | 15.50 | | 34.93 | | |
| 50 | | 15.09 | | 34.96 | | |

## STATION H–56

[Lat. 7°57′40″ N., long. 79°02′30″ W.; Mar. 15, 1933; time, 1501–1514; wire angle, 0°; sounding, 74 m; depth of observation, 50 m; weather, fair; sea, calm; wind, 260°, force, 2; bottom sample, none; type, fine green sand; additional observations, O, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity °/₀₀ | Salinity °/₀₀ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | | 20.52 | 19.27 | 34.81 | | |
| 5 | | 18.49 | 19.24 | 34.76 | | |
| 10 | | 17.95 | 19.27 | 34.81 | | |
| 25 | | 15.69 | 19.38 | 35.01 | | |
| 50 | | 14.71 | 19.36 | 34.97 | | |

## STATION H–57

[Lat. 8°03′00″ N., long. 79°08′00″ W.; Mar. 15, 1933; time, 1649–1703; wire angle, 0°; sounding, 80 m; depth of observation, 75 m; weather, fair; sea, calm; wind, 260°, force 2; bottom sample, none; type, green sand; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 19.27 | 19.28 | 34.83 | | |
| 10 | | 18.20 | 19.25 | 34.78 | | |
| 25 | 27 | 15.01 | 19.34 | 34.94 | | |
| 50 | | 14.69 | 19.37 | 34.99 | | |
| 75 | 76 | 14.48 | 19.37 | 34.99 | | |

## STATION H–58

[Lat. 8°08′30″ N., long. 79°00′00″ W.; Mar. 15, 1933; time, 1916–1927; wire angle, 0°; sounding, 45 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 360°, force 2; bottom sample, none; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 18.26 | 19.29 | 34.85 | | |
| 5 | | 18.29 | 19.28 | 34.83 | | |
| 10 | | 17.83 | 19.31 | 34.88 | | |
| 25 | 17 | 16.13 | 19.31 | 34.88 | | |

## STATION H–59

[Lat. 8°10′15″ N., long. 78°55′30″ W.; Mar. 16, 1933; time, 0618–0633; wire angle, 0°; sounding, 30 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 350°, force 3; bottom sample, none; additional observations, O]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 17.08 | 19.24 | 34.76 | | |
| 5 | | 16.86 | 19.31 | 34.88 | | |
| 10 | | 16.67 | 19.32 | 34.90 | | |
| 25 | | 16.27 | 19.31 | 34.88 | | |

## STATION H–60

[Lat. 8°11′50″ N., long. 78°53′30″ W.; Mar. 16, 1933; time, 0710–0729; wire angle, 0°; sounding, 25 m; depth of observation, 20 m; weather, fair; sea, calm; wind, 350°, force 3; bottom sample, none; type, rocky; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 17.92 | 19.29 | 34.85 | | |
| 5 | | 19.42 | 19.28 | 34.83 | | |
| 10 | | 18.63 | 19.31 | 34.88 | | |
| 20 | 29 | 16.86 | 19.31 | 34.88 | | |
| 25 | | *16.10 | *19.31 | *34.88 | | |

## STATION H–61

[Lat. 8°17′20″ N., long. 78°46′30″ W.; Mar. 16, 1933; time, 0935–0945; wire angle, 0°; sounding, 40 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 060°; force, 3; bottom sample, none; type, green sand, shell; additional observations, O, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | *°C.* | °/₀₀ | °/₀₀ | | |
| 0 | ---------- | 21.42 | 19.21 | 34.70 | ---------- | ---------- |
| 5 | ---------- | 19.31 | 19.23 | 34.74 | ---------- | ---------- |
| 10 | ---------- | 18.01 | 19.31 | 34.88 | ---------- | ---------- |
| 25 | 32 | 15.95 | 19.32 | 34.90 | ---------- | ---------- |

## STATION H–62

[Lat. 8°17′30″ N.; long. 78°41′00″ W.; Mar. 16, 1933; time, 1047–1059; wire angle, 0°; sounding, 54 m; depth of observation, 50 m; weather, fair; sea, calm; wind, 060°, force 2; bottom sample, none; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 19.13 | 19.18 | 34.65 | ---------- | ---------- |
| 10 | ---------- | 17.98 | 19.30 | 34.87 | ---------- | ---------- |
| 25 | ---------- | 15.89 | 19.34 | 34.94 | ---------- | ---------- |
| 50 | 50 | 15.63 | 19.36 | 34.97 | ---------- | ---------- |

## STATION H–63

[Lat. 8°19′00″ N., long. 78°36′00″ W.; Mar. 16, 1933; time, 1200–1212; wire angle, 0°; sounding 36 m; depth of observation, 25 m; weather, fair; sea, smooth; wind, 060°, force 2; bottom sample, none; additional observation, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 21.63 | 19.18 | 34.65 | ---------- | ---------- |
| 5 | ---------- | 20.17 | 19.24 | 34.76 | ---------- | ---------- |
| 10 | ---------- | 17.71 | 19.31 | 34.88 | ---------- | ---------- |
| 25 | 26 | 16.10 | 19.32 | 34.90 | ---------- | ---------- |

## STATION H–64

[Lat. 8°20′20″ N.; long. 78°30′30″ W.; Mar. 16, 1933; time, 1304–1312; wire angle, 0°; sounding, 10 m; depth of observation, 10 m; weather, fair; sea, smooth; wind, 260°, force 2; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 19.32 | 18.98 | 34.29 | ---------- | ---------- |
| 5 | ---------- | 18.27 | 19.19 | 34.67 | ---------- | ---------- |
| 10 | 9 | 18.05 | 19.22 | 34.72 | ---------- | ---------- |

## STATION H–65

Lat. 8°29′00″ N., long. 78°36′00″ W.; Mar. 16, 1933; time, 1435–1446; wire angle, 0°; sounding, 23 m; depth of observation, 18 m; weather, fair; sea, smooth; wind, 300°, force 2; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 24.37 | 19.07 | 34.45 | ---------- | ---------- |
| 3 | ---------- | 19.56 | 19.15 | 34.60 | ---------- | ---------- |
| 8 | ---------- | 17.47 | 19.21 | 34.70 | ---------- | ---------- |
| 18 | 23 | 16.47 | 19.26 | 34.79 | ---------- | ---------- |

## STATION H–65

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 24.37 | ---------- | 34.45 | ---------- | ---------- |
| 5 | ---------- | 18.20 | ---------- | 34.65 | ---------- | ---------- |
| 10 | ---------- | 17.20 | ---------- | 34.72 | ---------- | ---------- |
| 25 | ---------- | 16.00 | ---------- | 34.84 | ---------- | ---------- |

## STATION H–66

[Lat. 8°37′00″ N., long. 78°42′00″ W.; Mar. 16, 1933; time, 1601–1613; wire angle, 0°; sounding, 20 m; depth of observation, 10 m; weather, fair; sea, calm; wind, 300°, force 2; bottom sample, none; additional observations, O, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity °/₀₀ | Salinity °/₀₀ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | ---------- | 22.92 | 19.01 | 34.34 | -------- | -------- |
| 5 | ---------- | 18.64 | 19.18 | 34.65 | -------- | -------- |
| 10 | ---------- | 17.01 | 19.28 | 34.83 | -------- | -------- |

## STATION H–67

[Lat. 8°33′45″ N., long. 78°45′15″ W.; Mar. 16, 1933; time, 1701–1714; wire angle, 0°; sounding 35 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 340°, force 2; bottom sample, none; additional observations, O]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 23.14 | 19.07 | 34.45 | -------- | -------- |
| 5 | ---------- | 23.00 | 19.10 | 34.51 | -------- | -------- |
| 10 | ---------- | 17.52 | 19.26 | 34.79 | -------- | -------- |
| 25 | 22 | 16.10 | 19.30 | 34.87 | -------- | -------- |

## STATION H–68

[Lat. 8°31′00″ N., long. 78°48′30″ W.; Mar. 16, 1933; time, 1756–1810; wire angle, 0°; sounding, 31 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 340°, force 3; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 22.76 | 19.16 | 34.61 | -------- | -------- |
| 5 | ---------- | 22.65 | 19.20 | 34.69 | -------- | -------- |
| 10 | ---------- | 16.85 | 19.31 | 34.88 | -------- | -------- |
| 25 | 25 | 15.76 | 19.31 | 34.88 | -------- | -------- |

## STATION H–69

[Lat. 8°28′15″ N., long. 78°51′10″ W.; Mar. 16, 1933; time, 1841–1854; wire angle, 0°; sounding, 35 m; depth of observation 25 m; weather, fair; sea, calm; wind, 340°, force 3; bottom sample, none; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 22.73 | 19.20 | 34.69 | -------- | -------- |
| 5 | ---------- | 21.01 | 19.23 | 34.74 | -------- | -------- |
| 10 | ---------- | 17.11 | 19.30 | 34.87 | -------- | -------- |
| 25 | 27 | 15.68 | 19.32 | 34.90 | -------- | -------- |

## STATION H–70

[Lat. 8°33′45″ N., long. 78°55′50″ W.; Mar. 17, 1933; time, 0615–0625; wire angle, 0°; sounding, 32 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 320°, force 3; bottom sample, none; type, green mud; additional observations, O]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 22.00 | 19.19 | 34.67 | -------- | -------- |
| 5 | ---------- | 20.98 | 19.25 | 34.78 | -------- | -------- |
| 10 | ---------- | 17.37 | 19.32 | 34.90 | -------- | -------- |
| 25 | 21 | 15.80 | 19.34 | 34.94 | -------- | -------- |

## STATION H–71

[Lat. 8°41′20″ N., long. 79°03′00″ W.; Mar. 17, 1933; time, 0807–0818; wire angle, 0°; sounding, 41 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 320°, force 3; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 19.55 | 19.30 | 34.87 | -------- | -------- |
| 5 | ---------- | 19.01 | 19.32 | 34.90 | -------- | -------- |
| 10 | ---------- | 17.27 | 19.34 | 34.94 | -------- | -------- |
| 25 | 28 | 15.82 | 19.37 | 34.99 | -------- | -------- |

## STATION H–72

[Lat. 8°42′40″ N., long. 79°01′30″ W.; Mar. 17, 1933; time, 0843–0848; wire angle, 0°; sounding 37 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 320°, force 3; bottom sample, none; additional observations, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °.C | °/oo | °/oo | | |
| 0 | | 19.50 | 19.31 | 34.88 | | |
| 5 | | 19.19 | *19.32 | *34.90 | | |
| 10 | | 17.13 | *19.34 | *34.94 | | |
| 25 | 28 | 15.46 | 19.37 | 34.99 | | |

## STATION H–73

[Lat. 8°44′30″ N., long. 79°00′15″ W.; Mar. 17, 1933; time, 0923–0934; wire angle, 0°; sounding, 28 m; depth of observation, 25 m; weather, fair; sea, smooth; wind, 350°, force 2; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 19.08 | | | | |
| 5 | | 18.46 | | | | |
| 10 | | 17.17 | 19.17 | 34.63 | | |
| 25 | 25 | 15.80 | 19.30 | 34.87 | | |

## STATION H–74

[Lat. 8°52′30″ N., long. 79°07′15″ W.; Mar. 17, 1933; time, 1102–1110; wire angle, 0°; sounding, 21 m; depth of observation, 10 m; weather, fair; sea, smooth; wind, 350°, force 2; bottom sample none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 18.53 | (1) | (1) | | |
| 5 | | 16.95 | (1) | (1) | | |
| 10 | | 15.93 | (1) | (1) | | |

[1] All water samples lost, bottles broken.

## STATION H–75

[Lat. 8°46′15″ N., long. 79°13′30″ W.; Mar. 17, 1933; time, 1220–1235; wire angle, 0°; sounding, 45 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 350° force 1; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 20.34 | 19.26 | 34.79 | | |
| 5 | | 19.88 | 19.28 | 34.83 | | |
| 10 | | 18.04 | 19.30 | 34.87 | | |
| 25 | 25 | 15.05 | 19.33 | 34.92 | | |

## STATION H–76

[Lat. 8°51′00″ N., long. 79°30′50″ W.; Mar. 21, 1933; time, 0847–0856; wire angle, 0°; sounding, 17 m; depth of observation, 10 m; weather, hazy; sea, calm; wind, 085° force 1; bottom sample, P–60; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 23.51 | 19.30 | 34.87 | | |
| 5 | | 22.53 | 19.30 | 34.87 | | |
| 10 | 6 | 18.58 | 19.30 | 34.87 | | |

## STATION H–77

[Lat. 8°47′30″ N., long. 79°27′30″ W.; Mar. 21, 1933; time, 0956–1006; wire angle, 0°; sounding, 28 m; depth of observation, 25 m; weather, hazy; sea, calm; wind, 090°, force 1; bottom sample, P–61; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 23.35 | 19.31 | 34.88 | | |
| 5 | | 22.06 | 19.26 | 34.79 | | |
| 10 | | 17.68 | 19.31 | 34.88 | | |
| 25 | 27 | 15.82 | 19.34 | 34.94 | | |

## STATION H–78

[Lat. 8°44′00″ N., long. 79°23′45″ W.; Mar. 21, 1933; time, 1059–1109; wire angle, 0°; sounding, 36 m; depth of observation, 25m; weather, hazy; sea, calm; wind, 315°, force 1; bottom sample, none; type, green mud; additional observations, O, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C | °/oo | °/oo | | |
| 0 | | 23.11 | 19.32 | 34.90 | | |
| 5 | | 20.79 | 19.25 | 34.78 | | |
| 10 | | 17.46 | 19.30 | 34.87 | | |
| 25 | 25 | 15.70 | 19.33 | 34.92 | | |

## STATION H–79

[Lat. 8°39′45″ N., long. 79°20′15″ W.; Mar. 21, 1933; time, 1210–1221; wire angle, 0°; sounding, 45 m; depth of observation, 25 m; weather, hazy; sea, calm; wind, 315°, force 1; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 22.45 | 19.28 | 34.83 | | |
| 5 | | 20.93 | 19.34 | 34.94 | | |
| 10 | | 18.78 | 19.28 | 34.83 | | |
| 25 | 24 | 15.97 | 19.30 | 34.87 | | |

## STATION H–80

[Lat. 8°34′00″ N., long. 79°13′00″ W.; Mar. 21, 1933; time, 1340–1355; wire angle, 0°; sounding, 65 m; depth of observation 50 m; weather, hazy; sea, smooth; wind, 150°, force 1; bottom sample, P–64; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 22.06 | *19.29 | *34.85 | | |
| 5 | | 21.61 | 19.30 | 34.87 | | |
| 10 | | 21.06 | 19.29 | 34.85 | | |
| 25 | | 17.15 | 19.31 | 34.88 | | |
| 50 | 54 | 14.90 | 19.35 | 34.96 | | |

## STATION H–81

[Lat. 8°27′30″ N., long. 79°07′30″ W.; Mar. 21, 1933; time 1517–1527; wire angle, 0°; sounding, 38 m; depth of observation, 25 m; weather, hazy; sea, smooth; wind, 150°, force 1; bottom sample, P–65; type, green sand; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 21.04 | 19.23 | 34.74 | | |
| 5 | | 20.96 | 19.25 | 34.78 | | |
| 10 | | 20.02 | 19.27 | 34.81 | | |
| 25 | 23 | 17.00 | 19.29 | 34.85 | | |

## STATION H–82

[Lat. 8°22′00″ N., long. 79°09′15″ W.; Mar. 21, 1933; time, 1705–1722; wire angle, 0°; sounding, 54 m; depth of observation, 50 m; weather, fair; sea, calm; wind 250°, force 1; bottom sample, P–66; type, green mud, sand and shell; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 22.12 | 19.26 | 34.79 | | |
| 5 | | 22.09 | 19.27 | 34.81 | | |
| 10 | | 20.10 | 19.25 | 34.78 | | |
| 25 | 20 | 17.40 | 19.32 | 34.90 | | |
| 50 | | 14.84 | 19.35 | 34.96 | | |

## STATION H–83

[Lat. 8°20′00″ N., long. 79°09′15″ W.; Mar. 21, 1933; time, 1740–1756; wire angle, 0°; sounding, 54 m; depth of observation, 50 m; weather, fair; sea, calm; wind, 250°, force 1; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 22.26 | 19.30 | 34.87 | | |
| 5 | | 20.37 | 19.29 | 34.85 | | |
| 10 | | 18.98 | 19.30 | 34.87 | | |
| 25 | 27 | 17.43 | 19.30 | 34.87 | | |
| 50 | | *15.00 | 19.35 | 34.96 | | |

## STATION H–84

[Lat. 8°10′45″ N., long. 79°14′45″ W.; Mar. 22, 1933; time, 0836–0904; wire angle, 0°; sounding, 98 m; depth of observation, 75 m; weather, hazy; sea, clam; wind, 350°, force 2; bottom sample, P–68; type, green mud, sand and shell; additional observations, O, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity ‰ | Salinity ‰ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °*C.* | | | | |
| 0 | | 21.74 | 19.24 | 34.76 | | |
| 10 | | 17.80 | 19.28 | 34.83 | | |
| 25 | 29 | 16.54 | 19.29 | 34.85 | | |
| 50 | | 15.35 | 19.34 | 34.94 | | |
| 75 | | 14.60 | 19.35 | 34.96 | | |

## STATION H–85

[Lat. 8°17′30″ N., long. 79°21′30″ W.; Mar. 22, 1933; time, 1045–1057; wire angle, 0°; sounding, 82 m; depth of observation, 75 m; weather, hazy; sea, calm; wind, 350°, force 2; bottom sample, P–69; type, green mud, sand and shell; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 23.05 | 19.22 | 34.72 | | |
| 5 | | 19.48 | 19.27 | 34.81 | | |
| 25 | 28 | 16.55 | 19.29 | 34.85 | | |
| 50 | | 16.03 | 19.30 | 24.87 | | |
| 75 | | 14.80 | 19.37 | 34.99 | | |

## STATION H–86

[Lat. 8°23′00″ N., long. 79°29′00″ W.; Mar. 22, 1933; time, 1216–1226; wire angle, 0°; sounding, 68 m; depth of observation, 50 m; weather, hazy; sea, calm; wind, 045°, force 2; bottom sample, P–70; type green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 24.13 | 19.28 | 34.83 | | |
| 10 | | 19.51 | 19.29 | 34.85 | | |
| 25 | | 16.75 | 19.30 | 34.87 | | |
| 50 | 51 | 15.05 | 19.33 | 34.92 | | |

## STATION H–87

[Lat. 8°27′45″ N., long. 79°31′30″ W.; Mar. 22, 1933; time, 1308–1318; wire angle, 0°; sounding, 54 m; depth of observation, 50 m; weather, fair; sea, calm; wind, 045°, force 2; bottom sample, none; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 24.04 | 19.33 | 34.92 | | |
| 10 | | *19.50 | (*) | *34.84 | | |
| 15 | | 19.05 | 19.28 | 34.83 | | |
| 25 | | 17.26 | 19.31 | 34.88 | | |
| 50 | 48 | 15.33 | 19.34 | 34.94 | | |

## STATION H–88

[Lat. 8°31′19″ N., long. 79°35′30″ W.; Mar. 22, 1933; time, 1409–1419; wire angle, 0°; sounding, 36 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 045°, force 2; bottom sample, none; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 23.74 | 19.31 | 34.88 | | |
| 5 | | 20.93 | 19.20 | 34.69 | | |
| 10 | | 18.94 | 19.28 | 34.83 | | |
| 25 | 25 | 16.58 | 19.39 | 35.03 | | |

## STATION H–89

[Lat. 8°22′15″ N., long. 79°50′20″ W.; Mar. 22, 1933; time, 1834–1842; wire angle, 0°; sounding, 18 m; depth of observation, 10 m; weather, fair; sea, calm; wind, 050° force 2; bottom sample, P–73; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 24.86 | 19.34 | 34.94 | | |
| 5 | | 24.98 | 19.27 | 34.81 | | |
| 10 | | 22.68 | 19.25 | 34.78 | | |

## STATION H–90

[Lat. 8°19′30″ N., long. 79°46′45″ W.; Mar. 22, 1933; time, 1929–1938; wire angle, 0°; sounding, 34 m; depth of observation, 20 m; weather, fair; sea, calm; wind, 050°, force 2; bottom sample, P–74; type, green mud; additional observations, O, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity °/₀₀ | Salinity °/₀₀ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | ---------- | 25.38 | 19.22 | 34.72 | -------- | -------- |
| 5 | ---------- | 24.67 | 19.24 | 34.76 | -------- | -------- |
| 10 | ---------- | 22.44 | 19.25 | 34.78 | -------- | -------- |
| 20 | ---------- | 17.10 | 19.29 | 34.85 | -------- | -------- |
| 25 | ---------- | *16.50 | (*) | *34.87 | -------- | -------- |

## STATION H–91

Lat. 7°47′00″ N., long. 79°15′45″ W.; Mar. 23, 1933; time, 0652–0710; wire angle, 0°; sounding, 133 m; depth of observation, 100 m; weather, fair; sea, smooth; wind, 340°, force 4; bottom sample, P–75; type, green mud, sand, and shell; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 21.55 | 19.31 | 34.88 | -------- | -------- |
| 10 | ---------- | 17.22 | 19.34 | 34.94 | -------- | -------- |
| 25 | ---------- | 15.27 | 19.37 | 34.99 | -------- | -------- |
| 50 | 49 | 14.71 | 19.39 | 35.03 | -------- | -------- |
| 75 | ---------- | 14.68 | 19.39 | 35.03 | -------- | -------- |
| 100 | 102 | 14.17 | 19.36 | 34.97 | -------- | -------- |

## STATION H–92

[Lat. 7°31′45″ N., long. 79°22′00″ W.; Mar. 23, 1933; time, 0914–0958; wire angle, 11°; sounding, 585 m; depth of observation, 478 m; weather, fair; sea, smooth; wind, 355°, force 3; bottom sample, P–76; type, green sand; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| ---------- | 0 | 20.26 | 19.31 | 34.88 | -------- | -------- |
| ---------- | 10 | 20.12 | 19.31 | 34.88 | -------- | -------- |
| ---------- | 25 | 15.52 | 19.34 | 34.94 | -------- | -------- |
| ---------- | 50 | 14.53 | 19.37 | 34.99 | -------- | -------- |
| ---------- | 75 | 14.29 | 19.37 | 34.99 | -------- | -------- |
| ---------- | 98 | 14.14 | 19.37 | 34.99 | -------- | -------- |
| ---------- | 146 | 13.81 | 19.35 | 34.96 | -------- | -------- |
| ---------- | 197 | 13.41 | 19.36 | 34.97 | -------- | -------- |
| ---------- | 290 | 12.75 | 19.31 | 34.88 | -------- | -------- |
| ---------- | 384 | ---------- | 19.31 | 34.88 | -------- | -------- |
| ---------- | 478 | 8.51 | 19.29 | 34.85 | -------- | -------- |

## STATION H–92

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 20.26 | ---------- | 34.88 | -------- | -------- |
| 10 | ---------- | 20.12 | ---------- | 34.88 | -------- | -------- |
| 25 | ---------- | 15.52 | ---------- | 34.94 | -------- | -------- |
| 50 | ---------- | 14.53 | ---------- | 34.99 | -------- | -------- |
| 75 | ---------- | 14.29 | ---------- | 34.99 | -------- | -------- |
| 100 | ---------- | 14.10 | ---------- | 34.99 | -------- | -------- |
| 150 | ---------- | 13.78 | ---------- | 34.97 | -------- | -------- |
| 200 | ---------- | 13.40 | ---------- | 34.96 | -------- | -------- |
| 300 | ---------- | 12.65 | ---------- | 34.88 | -------- | -------- |
| 400 | ---------- | 10.60 | ---------- | 34.87 | -------- | -------- |
| 500 | ---------- | 8.30 | ---------- | 34.84 | -------- | -------- |

## STATION H–93

[Lat. 7°36′45″ N., long. 79°29′00″ W.; Mar. 23, 1933; time, 1129–1151; wire angle, 10°; sounding, 275 m; depth of observation, 190 m; weather, fair; sea, calm; wind, 355°, force 3; bottom sample, P–77; type, green sand; additional observations, O, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity °/oo | Salinity °/oo | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| ---------- | 0 | 19.26 | 19.31 | 34.88 | -------- | -------- |
| ---------- | 10 | 18.22 | 19.30 | 34.87 | -------- | -------- |
| ---------- | 25 | 14.92 | 19.36 | 34.97 | -------- | -------- |
| ---------- | 45 | 14.26 | 19.37 | 34.99 | -------- | -------- |
| ---------- | 75 | 13.56 | 19.33 | 34.92 | -------- | -------- |
| ---------- | 98 | 13.12 | 19.32 | 34.90 | -------- | -------- |
| ---------- | 145 | 12.74 | 19.32 | 34.90 | -------- | -------- |
| ---------- | 190 | 12.63 | 19.32 | 34.90 | -------- | -------- |

## STATION H–93

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 19.26 | ---------- | 34.88 | -------- | -------- |
| 10 | ---------- | 18.22 | ---------- | 34.87 | -------- | -------- |
| 25 | ---------- | 14.92 | ---------- | 34.97 | -------- | -------- |
| 50 | ---------- | 14.10 | ---------- | 34.99 | -------- | -------- |
| 75 | ---------- | 13.56 | ---------- | 34.92 | -------- | -------- |
| 100 | ---------- | 13.08 | ---------- | 34.90 | -------- | -------- |
| 150 | ---------- | 12.70 | ---------- | 34.90 | -------- | -------- |
| 200 | ---------- | 12.60 | ---------- | 34.90 | -------- | -------- |

## STATION H–94

[Lat. 7°43′15″ N., long. 79°33′15″ W.; Mar. 23, 1933; time 1347–1403; wire angle, 8°; sounding, 142 m; depth of observation, 100 m; weather, fair; sea, calm; wind, 355°, force 3; bottom sample, P–78; type, green mud and sand; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 22.55 | 19.30 | 34.87 | -------- | -------- |
| 10 | ---------- | 20.83 | 19.26 | 34.79 | -------- | -------- |
| 25 | ---------- | 17.55 | 19.29 | 34.85 | -------- | -------- |
| 50 | ---------- | 16.43 | 19.36 | 34.97 | -------- | -------- |
| 75 | 80 | 14.23 | 19.36 | 34.97 | -------- | -------- |
| 100 | (100) | 14.01 | 19.34 | 34.94 | -------- | -------- |

## STATION H–95

[Lat. 7°52′00″ N., long. 79°44′00″ W.; Mar. 23, 1933; time, 1622–1631; wire angle, 0°; sounding 75 m; depth of observation, 50 m; weather, fair; sea, calm; wind, 360°, force 4; bottom sample, P–79; type, green mud, sand, and shell; additional observations, O]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 23.56 | 19.28 | 34.83 | -------- | -------- |
| 10 | ---------- | 20.42 | 19.23 | 34.74 | -------- | -------- |
| 25 | 19 | 15.38 | 19.34 | 34.94 | -------- | -------- |
| 50 | (73) | 14.46 | 19.36 | 34.97 | -------- | -------- |

## STATION H–96

[Lat. 7°57′00″ N., long. 79°48′30″ W.; Mar. 23, 1933; time, 1731–1740; wire angle, 0°; sounding, 63 m; depth of observation, 50 m; weather, fair; sea, calm; wind, 360°, force 4; bottom sample, P–80; type, green mud, sand, and shell; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 24.04 | 19.24 | 34.76 | -------- | -------- |
| 10 | ---------- | 22.82 | 19.23 | 34.74 | -------- | -------- |
| 25 | 29 | 15.44 | 19.29 | 34.85 | -------- | -------- |
| 50 | (61) | 14.54 | 19.33 | 34.92 | -------- | -------- |

## STATION H–97

[Lat. 8°01′00″ N., long. 79°53′00″ W.; Mar. 23, 1933; Time, 1842–1850; wire angle, 0°; sounding, 54 m; depth of observation, 50 m; weather, fair; sea, light; wind, 360°, force 5; bottom sample, P–81; type, green mud, sand, and shell; additional observations, O]

| Estimated depth | Depth by pressure | Temperature | Chlorinity °/oo | Salinity °/oo | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | ---------- | 24.35 | 19.18 | 34.65 | -------- | -------- |
| 10 | ---------- | 24.12 | 19.16 | 34.61 | -------- | -------- |
| 25 | 26 | 15.08 | 19.32 | 34.90 | -------- | -------- |
| 50 | 52 | 14.60 | 19.35 | 34.96 | -------- | -------- |

## STATION H–98

[Lat. 8°06′00″ N., long. 79°59′00″ W.; Mar. 24, 1933; time 0617–0627; wire angle, 0°; sounding, 44 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 340°, force 2; bottom sample, none; type green mud; additional observations, O]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 22.73 | 19.26 | 34.79 | -------- | -------- |
| 5 | ---------- | 22.83 | 19.26 | 34.79 | -------- | -------- |
| 10 | ---------- | 22.59 | 19.27 | 34.81 | -------- | -------- |
| 25 | 31 | 15.85 | 19.30 | 34.87 | -------- | -------- |

## STATION H–99

[Lat. 8°14′30″ N., long. 79°44′00″ W.; Mar. 24, 1933; time, 1021–1045; wire angle, 0°; sounding, 66 m; depth of observation, 25 m; weather, fair; sea, light; wind, 360°, force 3; bottom sample, P–83; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 22.06 | 19.27 | 34.81 | -------- | -------- |
| 10 | ---------- | 20.74 | 19.26 | 34.79 | -------- | -------- |
| 25 | ---------- | 16.72 | 19.30 | 34.87 | -------- | -------- |

## STATION H–100

[Lat. 8°06′50″ N., long. 79°37′45″ W.; Mar. 24, 1933; time, 1220–1234; wire angle, 3°; sounding, 87 m; depth of observation, 75 m; weather, fair; sea, calm; wind, 360°, force 3; bottom sample, none; type, green sand and shell; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 21.53 | 19.24 | 34.76 | -------- | -------- |
| 10 | ---------- | 21.26 | 19.23 | 34.74 | -------- | -------- |
| 25 | ---------- | 17.22 | 19.32 | 34.90 | -------- | -------- |
| 50 | 52 | 14.93 | 19.36 | 34.97 | -------- | -------- |
| 75 | 76 | 14.43 | 19.36 | 34.97 | -------- | -------- |

## STATION H–101

[Lat. 8°01′30″ N., long. 79°30′00″ W.; Mar. 24, 1933; time, 1415–1433; wire angle, 5°; sounding, 104 m; depth of observation, 75 m; weather, fair; sea, calm; wind, 360°, force 3; bottom sample, P–85; type, green sand and shell; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 23.44 | 18.77 | 33.91 | -------- | -------- |
| 10 | ---------- | 21.74 | 18.94 | 34.22 | -------- | -------- |
| 25 | ---------- | 15.56 | 19.32 | 34.90 | -------- | -------- |
| 50 | ---------- | 15.34 | 19.37 | 34.99 | -------- | -------- |
| 75 | 71 | 14.28 | 19.34 | 34.94 | -------- | -------- |

## STATION H–102

[Lat. 7°54′00″ N., long. 79°22′15″ W.; Mar. 24, 1933; time, 1622–1640; wire angle, 0°; sounding, 128 m; depth of observation, 100 m; weather, fair; sea, calm; wind, 360°, force 3; bottom sample, none; additional observations, O, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity °/₀₀ | Salinity °/₀₀ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | | 23.71 | 18.65 | 33.69 | | |
| 10 | | 19.25 | 19.13 | 34.56 | | |
| 25 | | 15.91 | 19.37 | 34.99 | | |
| 50 | (73) | 14.81 | 19.38 | 35.01 | | |
| 100 | | 14.52 | 19.35 | 34.96 | | |

## STATION H–105

[Lat. 9°28′00″ N.; long. 84°24′00″ W.; May 16, 1933; time, 1135–1146; wire angle, 0°; sounding, 25 m; depth of observation, 25 m; weather, fair; sea, calm; wind, 200° force 1; bottom sample, no. 105; type, mud, shell; additional observations; Pl., $PO_4$]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 29.10 | 18.16 | 32.81 | 20.41 | 98,000 |
| 10 | | 29.04 | 18.15 | 32.79 | 20.41 | 98,000 |
| 25 | | 27.40 | 18.43 | 33.30 | 21.33 | 97,901 |

## STATION H–106

[Lat. 9°24′30″ N., long. 84°28′10″ N.; May 16, 1933; time, 1529–1551; wire angle, 0° sounding, 50 m; depth of observation, 50 m; weather, fair; sea, calm; wind, 245°, force 2; bottom sample, no. 106; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 28.90 | 18.32 | 33.10 | 20.69 | 97,973 |
| 10 | | 28.22 | 18.47 | 33.37 | 21.12 | 97,927 |
| 25 | | 20.70 | 19.29 | 34.85 | 24.48 | 97,601 |
| 45 | | 19.04 | 19.30 | 34.87 | 24.93 | 97,547 |
| 50 | | *18.65 | *19.30 | *34.87 | 25.03 | 97,536 |

## STATION H–107

[Lat. 9°19′45″ N., long. 84°28′40″ W.; May 16, 1933; time, 1702–1714; wire angle, 10°; sounding, 83 m; depth of observation, 75 m; weather, cloudy; sea, calm; wind, 245°, force 3; bottom sample, no. 107; type, green mud; additional observations, Pl., $PO_4$]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 29.00 | 18.35 | 33.15 | 20.70 | 97,972 |
| 10 | | 28.60 | 18.36 | 33.17 | 20.85 | 97,952 |
| 25 | | 24.43 | 18,88 | 34.11 | 22.86 | 97,755 |
| 50 | | 20.29 | 19.33 | 34.92 | 24.65 | 97,573 |
| 70 | | 18.76 | 19.26 | 34.79 | 24.94 | 97,537 |
| *75 | | *18.35 | *19.24 | *34.76 | 25.02 | 97,527 |

## STATION H–108

[Lat. 9°10′40″ N., long. 84°29′15″ W.; May 16, 1933; time, 1902–1950; wire angle, 25°; sounding, 852 m; depth of observation, 800 m; weather, cloudy; sea, light; wind, 245°, force 3; bottom sample, no. 108; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 28.60 | 18.40 | 33.24 | | |
| | 10 | 28.39 | 18.37 | 33.19 | | |
| | 25 | *24.85 | 18.82 | 34.00 | | |
| | 50 | 18.89 | 19.20 | 34.69 | | |
| | 75 | 16.62 | 19.23 | 34.74 | | |
| | 106 | 15.11 | 19.31 | 34.88 | | |
| | 199 | 12.48 | 19.33 | 34.92 | | |
| | 291 | 10.70 | 19.26 | 34.79 | | |
| | 386 | 8.55 | 19.19 | 34.67 | | |
| | 481 | 7.59 | 19.16 | 34.61 | | |
| | 580 | 7.28 | 19.16 | 34.61 | | |
| | 777 | 6.07 | 19.13 | 34.56 | | |

## STATION H–108

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| Estimated depth | Depth by pressure | Temperature | Chlorinity ‰ | Salinity ‰ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | | 28.60 | | 33.24 | 20.90 | 97,952 |
| 10 | | 28.39 | | 33.19 | 20.93 | 97,945 |
| 25 | | 24.85 | | 34.00 | 22.65 | 97,775 |
| 50 | | 18.89 | | 34.69 | 24.83 | 97,555 |
| 75 | | 16.62 | | 34.74 | 25.42 | 97,489 |
| 100 | | 15.40 | | 34.84 | 25.78 | 97,445 |
| 200 | | 12.48 | | 34.92 | 26.46 | 97,337 |
| 300 | | 10.50 | | 34.78 | 26.72 | 97,270 |
| 400 | | 8.37 | | 34.66 | 26.97 | 97,201 |
| 500 | | 7.51 | | 34.61 | 27.06 | 97,149 |
| 600 | | 7.17 | | 34.61 | 27.11 | 97,102 |
| 800 | | 5.92 | | 34.56 | 27.24 | 97,002 |

## STATION H–109

[Lat. 8°59′00″ N., long. 84°32′00″ W.; May 16, 1933; time, 2208–2400; wire angle, 17°; sounding, 1,950 m depth of observation, 1,500 m; weather, fair; sea, light; wind, 275°, force 4; bottom sample, no. 109 type, gray mud; additional observations, O, Pl., $PO_4$ (surface)]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | 0 | 28.60 | 18.28 | 33.03 | | |
| | 10 | 28.36 | 18.55 | 33.51 | | |
| | 25 | 22.20 | 19.15 | 34.60 | | |
| | 50 | 18.68 | 19.22 | 34.72 | | |
| | 75 | 15.63 | 19.29 | 34.85 | | |
| | 101 | 14.72 | 19.31 | 34.88 | | |
| | 200 | 12.84 | 19.28 | 34.83 | | |
| | 300 | 10.98 | 19.23 | 34.74 | | |
| | 397 | 8.30 | 19.22 | 34.72 | | |
| | 493 | 7.66 | 19.17 | 34.63 | | |
| | 592 | 7.13 | 19.15 | 34.60 | | |
| | 792 | 5.80 | 19.15 | 34.60 | | |
| | 990 | 4.92 | 19.15 | 34.60 | | |
| | 1,485 | 3.33 | 19.16 | 34.61 | | |

## STATION H–109

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 28.60 | | 33.03 | 20.74 | 97,968 |
| 10 | | 28.36 | | 33.51 | 21.18 | 97,922 |
| 25 | | 22.20 | | 34.60 | 22.88 | 97,753 |
| 50 | | 18.68 | | 34.72 | 24.91 | 97,547 |
| 75 | | 15.63 | | 34.85 | 25.74 | 97,458 |
| 100 | | 14.72 | | 34.88 | 25.96 | 97,428 |
| 200 | | 12.84 | | 34.83 | 26.31 | 97,351 |
| 300 | | 10.98 | | 34.74 | 26.60 | 97,281 |
| 400 | | 8.28 | | 34.72 | 27.03 | 97,195 |
| 500 | | 7.62 | | 34.63 | 27.06 | 97,150 |
| 600 | | 7.09 | | 34.60 | 27.11 | 97,102 |
| 800 | | 5.76 | | 34.60 | 27.29 | 96,997 |
| 1,000 | | 4.89 | | 34.60 | 27.39 | 96,900 |
| 1,500 | | 3.30 | | 34.61 | 27.57 | 96,665 |

## STATION H–110

[Lat. 9°10′20″ N., long. 84°17′00″ W.; May 17, 1933; time, 0640–0712; wire angle, 0°; sounding, 462 m depth of observation, 300 m; weather, fair; sea, calm; wind, 015°, force 3; bottom sample, none; additional observations, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 28.42 | 18.30 | 33.06 | 20.82 | 97,960 |
| 10 | | 28.33 | 18.28 | 33.03 | 20.83 | 97,954 |
| 25 | | 21.10 | 19.16 | 34.61 | 24.19 | 97,628 |
| 50 | | 17.70 | 19.28 | 34.83 | 25.24 | 97,516 |
| 75 | | 16.27 | 19.32 | 34.90 | 25.63 | 97,469 |
| 100 | 112 | 15.50 | 19.26 | 34.79 | 25.72 | 97,450 |
| 200 | | 12.43 | 19.28 | 34.83 | 26.40 | 97,343 |
| 300 | 304 | 8.95 | 19.22 | 34.72 | 26.93 | 97,248 |

## STATION H–111

[Lat. 9°16′10″ N., long. 84°13′10″ W.; May 17, 1933; time, 0842–0902; wire angle, 0°; sounding, 123 m; depth of observation, 100 m; weather, c.d.; sea, smooth; wind 240°, force 2; bottom sample, no. 111; type, green mud; additional observations, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity ‰ | Salinity ‰ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | ---------- | 28.64 | 17.96 | 32.45 | 20.29 | 98,011 |
| 10 | ---------- | 27.99 | 18.37 | 33.19 | 21.06 | 97,933 |
| 25 | ---------- | 20.86 | 19.12 | 34.54 | 24.20 | 97,627 |
| 50 | 45 | 16.85 | 19.24 | 34.76 | 25.38 | 97,503 |
| 75 | ---------- | 15.81 | 19.29 | 34.85 | 25.70 | 97,462 |
| 100 | 112 | 15.63 | 19.30 | 34.87 | 25.75 | 97,448 |

## STATION H–112

[Lat. 9°21′45″ N., long. 84°12′15″ W.; May 17, 1933; time, 1020–1029; wire angle, 0°, sounding, 59 m; depth of observation, 50 m; weather, c.d.; sea, smooth; wind 030°, force 1; bottom sample, no. 112; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 29.12 | 17.77 | 32.10 | 19.87 | 98,052 |
| 10 | ---------- | 26.26 | 18.61 | 33.62 | 21.94 | 97,848 |
| 25 | ---------- | 23.68 | 19.16 | 34.61 | 23.46 | 97,698 |
| 50 | 57 | 19.83 | 19.22 | 34.72 | 24.61 | 97,576 |

## STATION H–113

[Lat. 9°04′00″ N., long. 84°17′00″ W.; May 17, 1933; time, 1421–1456; wire angle, 0°; sounding, 520 m; depth of observation, 500 m; weather, cloudy; sea, calm; wind 200°, force 3; bottom sample, no. 113; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 29.12 | 18.29 | 33.04 | 20.58 | 97,984 |
| 10 | ---------- | 29.14 | 18.04 | 32.59 | 20.23 | 98,012 |
| 25 | ---------- | 23.58 | 19.11 | 34.52 | 23.42 | 97,702 |
| 50 | ---------- | 19.02 | 19.18 | 34.65 | 24.77 | 97,561 |
| 75 | ---------- | 16.79 | 19.14 | 34.58 | 25.26 | 97,504 |
| 100 | 91 | 15.62 | 19.29 | 34.85 | 25.74 | 97,448 |
| 200 | ---------- | 13.23 | 19.34 | 34.94 | 26.32 | 97,350 |
| 300 | 294 | 9.89 | 19.23 | 34.74 | 26.79 | 97,263 |
| 400 | ---------- | 9.42 | 19.18 | 34.65 | 26.80 | 97,218 |
| 500 | 500 | 8.04 | 19.14 | 34.58 | 26.96 | 97,159 |

## STATION H–114

[Lat. 8°52′15″ N., long. 84°20′00″ W.; May 17, 1933; time, 1704–1857; wire angle, 25°; sounding, 1,440 m depth of observation, 1,000 m; weather, fair; sea, calm; wind 245°, force 3; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| ---------- | 0 | 28.37 | 18.27 | 33.01 | -------- | -------- |
| ---------- | 10 | 28.33 | 18.27 | 33.01 | -------- | -------- |
| ---------- | 25 | 23.41 | 19.02 | 34.36 | -------- | -------- |
| ---------- | 50 | 18.86 | 19.27 | 34.81 | -------- | -------- |
| ---------- | 75 | 16.13 | 19.30 | 34.87 | -------- | -------- |
| ---------- | 100 | 14.81 | 19.34 | 34.94 | -------- | -------- |
| ---------- | 197 | 12.85 | 19.33 | 34.92 | -------- | -------- |
| ---------- | 294 | 10.30 | 19.24 | 34.76 | -------- | -------- |
| ---------- | 400 | 8.41 | 19.18 | 34.65 | -------- | -------- |
| ---------- | 492 | 7.85 | 19.18 | 34.65 | -------- | -------- |
| ---------- | 591 | 7.44 | 19.16 | 34.61 | -------- | -------- |
| ---------- | 789 | ---------- | 19.17 | 34.63 | -------- | -------- |
| ---------- | 987 | 5.04 | 19.12 | 34.54 | -------- | -------- |

## STATION H–114

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | | 28.37 | | 33.01 | 20.80 | 97,962 |
| 10 | | 28.33 | | 33.01 | 20.81 | 97,956 |
| 25 | | 23.41 | | 34.36 | 23.35 | 97,709 |
| 50 | | 18.86 | | 34.81 | 24.93 | 97,545 |
| 75 | | 16.13 | | 34.87 | 25.64 | 97,468 |
| 100 | | 14.81 | | 34.94 | 25.99 | 97,424 |
| 200 | | 12.75 | | 34.92 | 26.40 | 97,343 |
| 300 | | 10.20 | | 34.76 | 26.75 | 97,267 |
| 400 | | 8.41 | | 34.65 | 26.96 | 97,202 |
| 500 | | 7.80 | | 34.65 | 27.05 | 97,151 |
| 600 | | 7.40 | | 34.61 | 27.08 | 97,105 |
| 800 | | 6.18 | | 34.62 | 27.25 | 97,001 |
| 1,000 | | 4.95 | | 34.54 | 27.34 | 96,905 |

## STATION H–115

[Lat. 8°11′00″ N., long. 84°15′00″ W.; May 18, 1933; time, 0555–0717; wire angle, 0°; sounding, 1,700 m; depth of observation, 1,500 m; weather, b.c.; sea, calm; wind 340°, force 2; bottom sample, none; additional observations, Pl., $PO_4$]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 28.78 | 18.14 | 32.77 | 20.49 | 97,993 |
| 10 | | 28.50 | 18.20 | 32.88 | 20.66 | 97,971 |
| 25 | | 18.12 | 19.24 | 34.76 | 25.08 | 97,543 |
| 50 | | 16.06 | 19.32 | 34.90 | 25.68 | 97,474 |
| 75 | | 15.09 | 19.34 | 34.94 | 25.93 | 97,440 |
| 100 | 97 | 14.16 | 19.35 | 34.96 | 26.14 | 97,410 |
| 200 | | * 12.85 | 19.34 | 34.94 | 26.40 | 97,343 |
| 300 | | 11.54 | 19.28 | 34.83 | 26.56 | 97,286 |
| 400 | | 9.64 | 19.22 | 34.72 | 26.81 | 97,218 |
| 500 | | 8.05 | 19.17 | 34.63 | 27.00 | 97,156 |
| 600 | | 7.12 | 19.15 | 34.60 | 27.11 | 97,102 |
| 800 | | 5.80 | 19.16 | 34.61 | 27.29 | 96,997 |
| 1,000 | 988 | 4.69 | 19.14 | 34.58 | 27.40 | 96,899 |
| 1,500 | 1,496 | 3.14 | 19.19 | 34.67 | 27.63 | 96,658 |

## STATION H–116

[Lat. 8°17′00″ N., long. 84°09′00″ W.; May 18, 1933; time, 0925–1105; wire angle, 0°; sounding, 1,875 m; depth of observation, 1,500 m; weather, fair; sea, calm; wind 290°, force 2; bottom sample, no. 116; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 29.05 | 18.09 | 32.68 | 20.33 | 98,007 |
| 10 | | 27.53 | 18.49 | 33.40 | 21.36 | 97,904 |
| 25 | | 19.87 | 19.20 | 34.69 | 24.58 | 97,591 |
| 50 | | 16.45 | 19.33 | 34.92 | 25.60 | 97,432 |
| 75 | | 14.61 | 19.35 | 34.96 | 26.05 | 97,429 |
| 100 | 97 | 14.25 | | * 34.98 | 26.14 | 97,410 |
| 200 | 204 | 13.00 | 19.37 | 34.99 | 26.41 | 97,342 |
| 300 | | 10.57 | | * 34.84 | 26.75 | 97,267 |
| 400 | | 9.15 | 19.20 | 34.69 | 26.87 | 97,211 |
| 500 | | 8.06 | 19.18 | 34.65 | 27.01 | 97,154 |
| 600 | 603 | 7.34 | 19.17 | 34.63 | 27.10 | 97,103 |
| 800 | | * 5.90 | 19.16 | 34.61 | 27.28 | 96,998 |
| 1,000 | | 4.81 | 19.16 | 34.61 | 27.41 | 96,898 |
| 1,500 | 1,516 | 3.00 | 19.15 | 34.60 | 27.59 | 96,662 |

## STATION H–117

[Lat. 8°24′00″ N., long. 84°00′30″ W.; May 18, 1933; time, 1336–1500; wire angle, 0°; sounding, 2,005 m; depth of observation, 2,000 m; weather, fair; sea, calm; wind 200°, force 3; bottom sample, none; additional observations, Pl., O (below 800 m)]

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | °/₀₀ | °/₀₀ | | |
| 0 | ---------- | 28.85 | 17.87 | 32.29 | 20.10 | 98,030 |
| 10 | ---------- | 26.98 | 18.58 | 33.57 | 21.67 | 97,874 |
| 25 | ---------- | 22.58 | 19.06 | 34.43 | 23.64 | 97,680 |
| 50 | ---------- | 17.32 | 19.24 | 34.76 | 25.27 | 97,513 |
| 75 | ---------- | 15.48 | 19.32 | 34.90 | 25.81 | 97,452 |
| 100 | 96 | 14.46 | 19.35 | 34.96 | 26.08 | 97,416 |
| 200 | ---------- | 14.13 | 19.34 | 34.94 | 26.14 | 97,367 |
| 300 | ---------- | * 11.00 | ---------- | * 34.80 | 26.64 | 97,277 |
| 400 | ---------- | 8.98 | 19.18 | 34.65 | 26.87 | 97,211 |
| 500 | ---------- | * 8.20 | 19.16 | 34.61 | 26.96 | 97,159 |
| 600 | ---------- | 7.61 | 19.16 | 34.61 | 27.05 | 97,109 |
| 800 | ---------- | 5.90 | 19.14 | 34.58 | 27.25 | 97,001 |
| 1,000 | 1,003 | 4.89 | 19.14 | 34.58 | 27.38 | 96,901 |
| 1,500 | ---------- | 3.08 | ---------- | * 34.60 | 27.58 | 96,663 |
| 2,000 | ---------- | * 2.80 | 19.17 | 34.63 | 27.63 | 96,448 |

## STATION H–118

[Lat. 8°29′00″ N., long. 83°54′00″ W.; May 18, 1933; time, 1642–1723; wire angle, 0°; sounding, 640 m; depth of observation, 600 m; weather, cloudy; sea, calm; wind 200°, force 3; bottom sample, no. 118; type, green mud; additional observations, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 28.88 | 18.21 | 32.90 | 20.56 | 97,986 |
| 10 | ---------- | 25.70 | 18.98 | 34.29 | 22.61 | 97,784 |
| 25 | ---------- | 20.22 | 19.25 | 34.78 | 24.56 | 97,593 |
| 50 | ---------- | 17.25 | 19.35 | 34.96 | 25.44 | 97,497 |
| 75 | ---------- | 15.34 | 19.31 | 34.88 | 25.82 | 97,451 |
| 100 | 97 | 14.66 | 19.36 | 34.97 | 26.04 | 97,420 |
| 200 | 193 | 13.05 | 19.32 | 34.90 | 26.32 | 97,350 |
| 300 | ---------- | 10.63 | 19.23 | 34.74 | 26.66 | 97,277 |
| 400 | ---------- | * 9.25 | 19.19 | 34.67 | 26.84 | 97,214 |
| 500 | 496 | 8.14 | 19.20 | 34.69 | 27.03 | 97,152 |
| 600 | ---------- | 7.00 | 19.18 | 34.65 | 27.16 | 97,098 |

## STATION H–119

[Lat. 8°32′00″ N., long. 83°49′00″ W.; May 18, 1933; time, 1829–42; wire angle, 0°; sounding, 87 m; depth of observation, 75 m; weather, cloudy; sea, calm; wind 120°, force 3; bottom sample, no. 119; type, green mud; additional observations, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 28.13 | 18.53 | 33.48 | 21.23 | 97,922 |
| 10 | ---------- | 24.56 | ---------- | * 34.00 | 22.74 | 97,771 |
| 25 | ---------- | 20.09 | 19.22 | 34.72 | 24.55 | 97,593 |
| 50 | ---------- | 17.94 | 19.24 | 34.76 | 25.12 | 97,527 |
| 75 | ---------- | 16.05 | 19.33 | 34.92 | 25.70 | 97,462 |

## STATION H–120

[Lat. 8°25′26″ N., long. 83°34′36″ W.; May 19, 1933; time, 0744–0801; wire angle, 0°; sounding, 55 m; depth of observation, 50 m; weather, cloudy; sea, smooth; wind 100°, force 2; bottom sample, no. 120; type, green mud, sand, shell; additional observations, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 27.70 | 18.78 | 33.93 | 21.72 | 97,834 |
| 10 | ---------- | 23.21 | 18.92 | 34.18 | 23.27 | 97,721 |
| 25 | ---------- | 20.13 | 19.14 | 34.58 | 24.43 | 97,605 |
| 50 | ---------- | 18.35 | 19.22 | 34.72 | 24.99 | 97,540 |

## STATION H–121

[Lat. 8°20′30″ N., long. 83°34′30″ W.; May 19, 1933; time, 0912–1025; wire angle, 0°; sounding, 1,400 (sonic); depth of observation, 1,000 m; weather, fair; sea, calm; wind 100°, force 2; bottom sample, none; additional observations, O, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | °/₀₀ | °/₀₀ | | |
| 0 | | 27.94 | 18.46 | 33.35 | 21.20 | 97,925 |
| 10 | | 25.21 | | *33.50 | 22.17 | 97,826 |
| 25 | | 22.35 | 18.99 | 34.31 | 23.62 | 97,682 |
| 50 | 51 | 18.10 | | *34.85 | 25.15 | 97,525 |
| 75 | | 15.65 | | *35.03 | 25.87 | 97,446 |
| 100 | | 14.89 | 19.39 | 35.03 | 26.04 | 97,420 |
| 200 | | 12.89 | 19.31 | 34.88 | 26.34 | 97,348 |
| 300 | 296 | 10.75 | 19.26 | 34.79 | 26.68 | 97,274 |
| 400 | 406 | 9.24 | 19.20 | 34.68 | 26.85 | 97,213 |
| 500 | | 7.74 | 19.16 | 34.61 | 27.03 | 97,152 |
| 600 | | *7.15 | 19.16 | 34.61 | 27.11 | 97,102 |
| 800 | | 6.33 | 19.14 | 34.58 | 27.20 | 97,006 |
| 1,000 | 993 | 5.05 | 19.13 | 34.56 | 27.34 | 96,905 |

## STATION H–122

[(1) Lat. 8°15′15″ N., long. 83°34′30″ W. (2) Lat. 8°18′15″ N., long. 83°36′00″ W.; May 19, 1933; time, 1156–1451; wire angle, 30°; sounding, 2,100 m; depth of observation, 1,900 m; weather, fair; sea, calm; wind 100°–205°, force 2–3; bottom sample no. 122; type, green mud; additional observations, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| | 0 | 28.40 | 18.39 | 33.22 | | |
| | 10 | 27.79 | 18.45 | 33.33 | | |
| | 25 | 23.36 | 18.94 | 34.22 | | |
| | 50 | 18.44 | 19.25 | 34.78 | | |
| | 75 | 15.27 | 19.34 | 34.94 | | |
| | 100 | 14.65 | 19.34 | 34.94 | | |
| | 200 | 13.31 | 19.32 | 34.90 | | |
| | 290 | 10.32 | 19.22 | 34.72 | | |
| | 370 | 8.98 | 19.21 | 34.70 | | |
| | 482 | 7.93 | | | | |
| | 571 | 7.76 | 19.19 | 34.67 | | |
| | 750 | 6.33 | 19.14 | 34.58 | | |
| | 965 | 5.12 | 19.16 | 34.61 | | |
| | 1,422 | *4.10 | 19.16 | 34.61 | | |
| | 1,906 | 2.97 | *19.17 | *34.63 | | |

## STATION H–122

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | |
|---|---|---|---|---|---|
| 0 | 28.40 | | 33.22 | 20.95 | 97,948 |
| 10 | 27.79 | | 33.33 | 21.23 | 97,917 |
| 25 | 23.36 | | 34.22 | 23.26 | 97,717 |
| 50 | 18.44 | | 34.78 | 25.02 | 97,537 |
| 75 | 15.27 | | 34.94 | 25.89 | 97,444 |
| 100 | 14.65 | | 34.94 | 26.02 | 97,422 |
| 200 | 13.31 | | 34.90 | 26.27 | 97,355 |
| 300 | 10.15 | | 34.71 | 26.72 | 97,270 |
| 400 | 8.70 | | 34.70 | 26.95 | 97,204 |
| 500 | 7.89 | | 24.68 | 27.06 | 97,150 |
| 600 | 7.55 | | 34.66 | 27.09 | 97,104 |
| 800 | 6.07 | | 34.59 | 27.34 | 96,992 |
| 1,000 | 5.05 | | 34.61 | 27.38 | 96,901 |
| 1,500 | 3.90 | | 34.61 | 27.51 | 96,673 |
| 2,000 | 2.75 | | 34.63 | 27.64 | 96,447 |

## STATION H–123

[(1) Lat. 8°04′15″ N., long. 83°34′15″ W. (2) Lat. 8°05′00″ N., long. 83°34′15″ W.; May 19, 1933; time, 1816–1955; wire angle, 0°; sounding, 1,000 m (no bottom); depth of observation, 1,000 m; weather, clear; sea, calm; wind 215°, force 1; bottom sample, none; additional observations, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | *°C.* | ‰ | ‰ | | |
| 0 | ---------- | 28.62 | 18.41 | 33.26 | 20.91 | 97,951 |
| 10 | ---------- | 27.55 | 18.49 | 33.40 | 21.36 | 97,904 |
| 25 | ---------- | 22.76 | 18.98 | 34.29 | 23.48 | 97,696 |
| 50 | 49 | 18.37 | 19.22 | 34.72 | 24.99 | 97,540 |
| 75 | ---------- | 15.38 | 19.32 | 34.90 | 25.83 | 97,450 |
| 100 | ---------- | 14.50 | 19.34 | 34.94 | 26.05 | 97,419 |
| 200 | ---------- | 13.19 | 19.34 | 34.94 | 26.33 | 97,349 |
| 300 | 295 | 11.40 | 19.26 | 34.79 | 26.56 | 97,285 |
| 400 | 399 | 8.89 | 19.21 | 34.70 | 26.92 | 97,206 |
| 500 | 506 | 7.80 | 19.19 | 34.67 | 27.07 | 97,149 |
| 600 | ---------- | 7.01 | 19.15 | 34.60 | 27.12 | 97,101 |
| 800 | 801 | 5.73 | 19.13 | 34.56 | 27.26 | 97,000 |
| 1,000 | 997 | 5.04 | 19.14 | 34.58 | 27.36 | 96,903 |

## STATION H–124

[Lat. 7°53′45″ N.; long. 83°34′15″ W.; May 19, 1933; time, 2214–2407; wire angle, 15°; sounding, 1,450 m (sonic); depth of observation, 1,500 m; weather, fair; sea, calm; wind 210°, force 2; bottom sample, none; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| ---------- | 0 | 28.84 | 18.36 | 33.17 | -------- | -------- |
| ---------- | 10 | 27.31 | 18.47 | 33.37 | -------- | -------- |
| ---------- | 25 | 24.21 | 18.82 | 34.00 | -------- | -------- |
| ---------- | 50 | 19.98 | 19.09 | 34.49 | -------- | -------- |
| ---------- | 75 | 17.04 | 19.26 | 34.79 | -------- | -------- |
| ---------- | 98 | 15.13 | 19.33 | 34.92 | -------- | -------- |
| ---------- | 125 | 14.16 | 19.34 | 34.94 | -------- | -------- |
| ---------- | 225 | 12.85 | 19.31 | 34.88 | -------- | -------- |
| ---------- | 325 | 10.88 | 19.25 | 34.78 | -------- | -------- |
| ---------- | 485 | 8.06 | 19.18 | 34.65 | -------- | -------- |
| ---------- | 571 | 7.18 | 19.17 | 34.63 | -------- | -------- |
| ---------- | 774 | 5.84 | 19.16 | 34.61 | -------- | -------- |
| ---------- | 1,326 | 3.75 | 19.15 | 34.60 | -------- | -------- |

## STATION H–124

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 28.84 | ---------- | 33.17 | 20.77 | 97,965 |
| 10 | ---------- | 27.31 | ---------- | 33.37 | 21.41 | 97,899 |
| 25 | ---------- | 24.21 | ---------- | 34.00 | 22.84 | 97,757 |
| 50 | ---------- | 19.98 | ---------- | 34.49 | 24.40 | 97,596 |
| 75 | ---------- | 17.04 | ---------- | 34.79 | 25.36 | 97,495 |
| 100 | ---------- | 15.13 | ---------- | 34.92 | 25.90 | 97,433 |
| 200 | ---------- | 13.18 | ---------- | 34.90 | 26.30 | 97,352 |
| 300 | ---------- | 11.40 | ---------- | 34.80 | 26.57 | 97,284 |
| 400 | ---------- | 9.55 | ---------- | 34.70 | 26.81 | 97,218 |
| 500 | ---------- | 7.90 | ---------- | 34.64 | 27.03 | 97,152 |
| 600 | ---------- | 7.00 | ---------- | 34.62 | 27.14 | 97,099 |
| 800 | ---------- | 5.75 | ---------- | 34.61 | 27.30 | 96,996 |
| 1,000 | ---------- | 5.00 | ---------- | 34.61 | 27.39 | 96,900 |
| 1,500 | ---------- | 3.10 | ---------- | 34.60 | 27.58 | 96,663 |

## STATION H–125

[Lat. 8°00′45″ N., long. 82°54′36″ W.; May 20, 1933; time, 0749–0800; wire angle, 0°; sounding, 58 m; depth of observation, 50 m; weather, clear; sea, calm; wind, 080°, force 1; bottom sample, no. 125; type, green sand; additional observations, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 27.00 | 18.48 | 33.39 | 21.53 | 97,892 |
| 10 | ---------- | 26.17 | 18.66 | 33.71 | 22.03 | 97,840 |
| 25 | ---------- | 23.37 | 18.86 | 34.07 | 23.14 | 97,728 |
| 50 | ---------- | 21.22 | 19.20 | 34.69 | 24.22 | 97,613 |

## STATION H–126

[(1) Lat. 7°56′00″ N., long. 82°54′00″ W. (2) Lat. 7°56′15″ N., long. 82°54′30″ W.; May 20, 1933; time, 0908–1037; wire angle, 13°; sounding, 1,075 m; depth of observation, 1,000 m; weather, clear; sea, calm; wind, 080°, force 1; bottom sample, no. 126; type, green mud; additional observations, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | °/₀₀ | °/₀₀ | | |
| | 0 | 30.00 | 18.41 | 33.26 | | |
| | 0 | 27.55 | | | | |
| | 10 | 28.16 | 18.17 | 32.83 | | |
| | 25 | 24.00 | 18.89 | 34.13 | | |
| | 50 | 19.65 | 19.13 | 34.56 | | |
| | 75 | 16.50 | 19.25 | 34.78 | | |
| | 100 | 13.94 | 19.34 | 34.94 | | |
| | 200 | 13.06 | 19.27 | 34.81 | | |
| | 298 | 10.90 | 19.26 | 34.79 | | |
| | 395 | 8.90 | 19.19 | 34.67 | | |
| | 490 | 7.69 | 19.16 | 34.61 | | |
| | 590 | 7.18 | 19.13 | 34.56 | | |
| | 796 | 6.09 | 19.15 | 34.60 | | |
| | 1,000 | 5.03 | 19.13 | 34.56 | | |

## STATION H–126

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 30.00 | | 33.26 | 20.44 | 97,997 |
| 0 | | 27.55 | | 33.26 | 21.25 | 97,920 |
| 10 | | 28.16 | | 32.83 | 20.73 | 97,964 |
| 25 | | 24.00 | | 34.13 | 23.00 | 97,742 |
| 50 | | 19.65 | | 34.56 | 24.54 | 97,583 |
| 75 | | 16.50 | | 34.78 | 25.48 | 97,483 |
| 100 | | 13.94 | | 34.94 | 26.18 | 97,407 |
| 200 | | 13.06 | | 34.81 | 26.25 | 97,357 |
| 300 | | 10.85 | | 34.79 | 26.66 | 97,276 |
| 400 | | 8.83 | | 34.67 | 26.91 | 97,207 |
| 500 | | 7.62 | | 34.60 | 27.06 | 97,150 |
| 600 | | 7.12 | | 34.56 | 27.08 | 97,105 |
| 800 | | 6.06 | | 34.60 | 27.25 | 97,001 |
| 1,000 | | 5.03 | | 34.56 | 27.35 | 96,904 |

## STATION H–127

[Lat. 7°50′30″ N., long. 82°53′50″ W.; May 20, 1933; time, 1159–1340; wire angle, 0°; sounding 1,743 m; depth of observation, 1,000 m; weather, clear; sea, calm; wind, 220°, force 1; bottom sample, no. 127; type, green mud; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 27.55 | 18.28 | 33.03 | 21.08 | 97,936 |
| 10 | | 26.08 | 18.64 | 33.68 | 22.04 | 97,839 |
| 25 | | 24.34 | 18.82 | 34.00 | 22.80 | 97,761 |
| 50 | 52 | 19.10 | 19.16 | 34.61 | 24.72 | 97,566 |
| 75 | | 16.25 | 19.31 | 34.88 | 25.62 | 97,470 |
| 100 | | 14.61 | 19.37 | 34.99 | 26.07 | 97,417 |
| 200 | 201 | 12.96 | 19.31 | 34.88 | 26.33 | 97,349 |
| 300 | | 10.94 | 19.25 | 34.78 | 26.64 | 97,277 |
| 400 | | 8.75 | 19.20 | 34.69 | 26.93 | 97,205 |
| 500 | 498 | 7.72 | 19.14 | 34.58 | 27.01 | 97,154 |
| 600 | 593 | 7.36 | | *34.56 | 27.04 | 97,108 |
| 800 | | 5.89 | 19.11 | 34.52 | 27.21 | 97,005 |
| 1,000 | 1,005 | 5.00 | 19.14 | 34.58 | 27.37 | 96,902 |

## STATION H–128

[Lat. 7°43′30″ N., long., 82°53′30″ W.; May 20, 1933; time, 1520–1649; wire angle, 0°; sounding, 1,700 m; depth of observation, 1,500 m; weather, clear; sea, calm; wind, 220°, force 1; bottom sample, no. 128; type, green mud; additional observations, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity ‰ | Salinity ‰ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °*C.* | | | | |
| 0 | ---------- | 28.65 | ---------- | *33.05 | 20.74 | 97,968 |
| 10 | ---------- | 27.48 | 18.36 | 33.17 | 21.21 | 97,919 |
| 25 | ---------- | 22.41 | 19.02 | 34.36 | 23.64 | 97,680 |
| 50 | ---------- | 18.12 | 19.26 | 34.79 | 25.10 | 97,529 |
| 75 | ---------- | *16.00 | 19.29 | 34.85 | 25.65 | 97,467 |
| 100 | ---------- | 14.64 | 19.37 | 34.99 | 26.06 | 97,418 |
| 200 | 199 | 12.76 | 19.32 | 34.90 | 26.38 | 97,345 |
| 300 | ---------- | 11.04 | 19.25 | 34.78 | 26.62 | 97,279 |
| 400 | ---------- | 8.97 | 19.20 | 34.69 | 26.90 | 97,208 |
| 500 | 501 | 7.83 | 19.17 | 34.63 | 27.03 | 97,152 |
| 600 | ---------- | 6.91 | 19.12 | 34.54 | 27.09 | 97,104 |
| 800 | ---------- | 5.82 | 19.15 | 34.60 | 27.28 | 96,998 |
| 1,000 | 995 | 4.83 | 19.16 | 34.61 | 27.41 | 96,898 |
| 1,500 | 1,506 | 3.11 | 19.19 | 34.67 | 27.64 | 96,657 |

## STATION H–129

[Lat. 7°36′15″ N., long. 82°53′45″ W.; May 20, 1933; time, 1846–2110; wire angle, 40°; sounding 1,700 m (sonic); depth of observation, 1,500 m; weather, fair; sea, calm; wind, 290°, force 2; bottom sample, none; additional observations, O.]

| | | | | | | |
|---|---|---|---|---|---|---|
| ---------- | 0 | 28.47 | 18.35 | 33.15 | -------- | -------- |
| ---------- | 10 | 27.45 | 18.31 | 33.08 | -------- | -------- |
| ---------- | 25 | 22.65 | 18.96 | 34.25 | -------- | -------- |
| ---------- | 50 | 18.17 | 19.26 | 34.79 | -------- | -------- |
| ---------- | 76 | 15.73 | 19.32 | 34.90 | -------- | -------- |
| ---------- | 100 | 14.59 | 19.34 | 34.94 | -------- | -------- |
| ---------- | 210 | 12.84 | 19.31 | 34.88 | -------- | -------- |
| ---------- | 300 | 11.06 | 19.27 | 34.81 | -------- | -------- |
| ---------- | 395 | 9.24 | 19.20 | 34.69 | -------- | -------- |
| ---------- | 485 | 8.36 | 19.18 | 34.65 | -------- | -------- |
| ---------- | 608 | 7.61 | 19.18 | 34.65 | -------- | -------- |
| ---------- | 808 | 5.83 | 19.18 | 34.65 | -------- | -------- |
| ---------- | 1,020 | 4.83 | 19.13 | 34.56 | -------- | -------- |
| ---------- | 1,510 | 3.15 | 19.15 | 34.60 | -------- | -------- |

## STATION H–129

### INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | |
|---|---|---|---|---|---|
| 0 | 28.47 | ---------- | 33.15 | 20.87 | 97,955 |
| 10 | 27.45 | ---------- | 33.08 | 21.15 | 97,925 |
| 25 | 22.65 | ---------- | 34.25 | 23.49 | 97,695 |
| 50 | 18.17 | ---------- | 34.79 | 25.09 | 97,530 |
| 75 | 15.73 | ---------- | 34.90 | 25.75 | 97,458 |
| 100 | 14.59 | ---------- | 34.94 | 26.03 | 97,421 |
| 200 | 13.00 | ---------- | 34.89 | 26.33 | 97,349 |
| 300 | 11.06 | ---------- | 34.81 | 26.64 | 97,277 |
| 400 | 9.20 | ---------- | 34.69 | 26.86 | 97,212 |
| 500 | 8.28 | ---------- | 34.65 | 26.98 | 97,157 |
| 600 | 7.68 | ---------- | 34.65 | 27.07 | 97,107 |
| 800 | 5.90 | ---------- | 34.65 | 27.31 | 97,095 |
| 1,000 | 4.93 | ---------- | 34.57 | 27.37 | 96,902 |
| 1,500 | 3.20 | ---------- | 34.60 | 27.57 | 96,664 |

## STATION H–130

[Lat. 7°54′45″ N., long. 82°41′00″ W.; May 21, 1933; time, 0530–0641; wire angle, 0°; sounding, 1,246 m; depth of observation, 800 m; weather, clear; sea, calm; wind, 300°, force 1; bottom sample, no. 130; type, green mud; additional observations, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | °/oo | °/oo | | |
| 0 | ---------- | 27.82 | 18.34 | 33.13 | 20.07 | 97,937 |
| 10 | ---------- | 27.16 | ---------- | *33.26 | 21.38 | 97,902 |
| 25 | ---------- | 25.60 | 18.71 | 33.80 | 22.28 | 97,811 |
| 50 | 51 | 20.21 | 19.11 | 34.52 | 24.36 | 97,600 |
| 75 | ---------- | 17.40 | 19.22 | 34.72 | 25.22 | 97,508 |
| 100 | ---------- | 15.51 | 19.31 | 34.88 | 25.79 | 97,444 |
| 200 | ---------- | *13.25 | ---------- | *34.88 | 26.27 | 97,355 |
| 300 | 301 | 11.45 | 19.23 | 34.74 | 26.71 | 97,271 |
| 400 | ---------- | 8.68 | 19.20 | 34.69 | 26.95 | 97,204 |
| 500 | 499 | 7.74 | 19.18 | 34.65 | 27.06 | 97,150 |
| 600 | ---------- | 7.22 | 19.13 | 34.56 | 27.06 | 97,107 |
| 800 | ---------- | 5.88 | ---------- | 34.60 | 27.27 | 96,999 |

## STATION H–131

[Lat. 7°50′00″ N., long. 82°30′15″ W., May 21, 1933; time, 1015–1040; wire angle, 0°; sounding, 304 m; depth of observation, 300 m; weather, fair; sea, calm; wind, 250° force 1; bottom sample no. 131; type, sand, shell; additional observations, Pl., $PO_4$]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 29.30 | 18.44 | 33.31 | 20.72 | 97,970 |
| 10 | ---------- | 27.69 | 18.49 | 33.40 | 21.31 | 97,908 |
| 25 | ---------- | 26.38 | 18.55 | 33.51 | 21.82 | 97,855 |
| 50 | 52 | 21.69 | 19.03 | 34.38 | 23.85 | 97,649 |
| 75 | ---------- | 17.78 | 19.19 | 34.67 | 25.09 | 97,520 |
| 100 | 101 | 15.33 | 19.30 | 34.87 | 25.82 | 97,441 |
| 200 | ---------- | 13.13 | ---------- | *34.85 | 26.27 | 97,360 |
| 300 | ---------- | 11.32 | 19.28 | 34.83 | 26.61 | 97,280 |

## STATION H–132

Lat. 7°43′30″ N., long. 82°18′30″ W.; May 21, 1922; time, 1354–1405; wire angle, 0°; sounding, 70 m; depth of observation, 50 m; weather, clear; sea, calm; wind, 240° force 2; bottom sample, no. 132; type, sand, shell; additional observations, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 28.93 | 18.46 | 33.35 | 20.87 | 97,955 |
| 10 | ---------- | 27.60 | 18.40 | 33.24 | 21.22 | 97,918 |
| 25 | ---------- | 26.12 | 18.59 | 33.58 | 21.95 | 97,843 |
| 50 | ---------- | *22.00 | 19.07 | 34.45 | 23.82 | 97,651 |

## STATION H–133

Lat. 7°40′00″ N., long. 82°12′00″ W.; May 21, 1933; time, 1522–1537; wire angle, 0°; sounding, 91 m; depth of observation, 75 m; weather, cloudy; sea, calm; wind, 240° force 2; bottom sample, no. 133; type, sand, shell; additional observations, O, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 28.45 | 18.41 | 33.26 | 20.96 | 97,947 |
| 10 | ---------- | 27.38 | 18.49 | 33.40 | 21.41 | 97,899 |
| 25 | ---------- | 25.76 | 18.70 | 33.78 | 22.21 | 97,817 |
| 50 | 56 | 21.34 | 19.02 | 34.36 | 23.94 | 97,640 |
| 75 | 80 | 18.28 | 19.18 | 34.65 | 24.96 | 97,533 |

## STATION H–134

[Lat. 7°36′25″ N., long. 81°58′30″ W.; May 21, 1933; time, 1713–1933; wire angle, 20°; sounding, 480 m; depth of observation, 250 m; weather, clear; sea, calm; wind, 140°, force 2; bottom sample, no. 134; type, green mud; additional observations, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | ‰ | ‰ | | |
| 0 | ---------- | 27.40 | 18.29 | 33.04 | 21.14 | 97,930 |
| 10 | ---------- | 27.43 | 18.40 | 33.24 | 21.28 | 97,911 |
| 25 | ---------- | 24.98 | 18.67 | 33.73 | 22.41 | 97,798 |
| 50 | ---------- | 20.28 | 18.99 | 34.31 | 24.18 | 97,617 |
| 75 | 72 | 17.20 | 19.00 | 34.33 | 24.97 | 97,532 |
| 100 | ---------- | * 16.60 | 19.23 | 34.74 | 25.43 | 97,478 |
| 200 | ---------- | 14.28 | 19.36 | 34.97 | 26.13 | 97,368 |
| 242 | 242 | 13.07 | 19.33 | 34.92 | ---------- | ---------- |
| 300 | ---------- | * 11.50 | ---------- | * 34.85 | 26.59 | 97,283 |

## STATION H–135

[Lat. 6°56′20″ N., long. 82°00′30″ W.; May 22, 1933; time, 0713–0916; wire angle, 20°; sounding ,2,700 m (sonic); depth of observation, 2,400 m; weather, cloudy; sea, calm; wind, 330°, force, 2; bottom sample, none; additional observations, O, Pl., Boron.]

| | | | | | | |
|---|---|---|---|---|---|---|
| ---------- | 0 | 27.77 | 18.21 | 32.90 | ---------- | ---------- |
| ---------- | 10 | 27.72 | 18.27 | 33.01 | ---------- | ---------- |
| ---------- | 25 | 26.80 | 18.51 | 33.44 | ---------- | ---------- |
| ---------- | 50 | 20.81 | 19.15 | 34.60 | ---------- | ---------- |
| ---------- | 75 | 16.23 | 19.29 | 34.85 | ---------- | ---------- |
| ---------- | 100 | 14.15 | 19.32 | 34.90 | ---------- | ---------- |
| ---------- | 200 | 12.87 | 19.29 | 34.85 | ---------- | ---------- |
| ---------- | 282 | 9.78 | 19.19 | 34.67 | ---------- | ---------- |
| ---------- | 375 | 8.68 | 19.20 | 34.69 | ---------- | ---------- |
| ---------- | 470 | 8.03 | 19.18 | 34.65 | ---------- | ---------- |
| ---------- | 565 | 7.40 | 19.15 | 34.60 | ---------- | ---------- |
| ---------- | 755 | 5.76 | 19.14 | 34.58 | ---------- | ---------- |
| ---------- | 945 | 4.92 | 19.15 | 34.60 | ---------- | ---------- |
| ---------- | 1,422 | 3.35 | 19.18 | 34.65 | ---------- | ---------- |
| ---------- | 1,912 | 2.45 | 19.20 | 34.69 | ---------- | ---------- |
| ---------- | 2,407 | 2.10 | 19.19 | 34.67 | ---------- | ---------- |

## STATION H–135

### INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 27.77 | ---------- | 32.90 | 20.91 | 97,951 |
| 10 | ---------- | 27.72 | ---------- | 33.01 | 21.01 | 97,938 |
| 25 | ---------- | 26.80 | ---------- | 33.44 | 21.63 | 97,873 |
| 50 | ---------- | 20.81 | ---------- | 34.60 | 24.26 | 97,610 |
| 75 | ---------- | 16.23 | ---------- | 34.85 | 25.60 | 97,472 |
| 100 | ---------- | 14.15 | ---------- | 34.90 | 26.10 | 97,414 |
| 200 | ---------- | 12.87 | ---------- | 34.85 | 26.32 | 97,350 |
| 300 | ---------- | 9.45 | ---------- | 34.67 | 26.81 | 97,260 |
| 400 | ---------- | 8.50 | ---------- | 34.69 | 26.97 | 97,202 |
| 500 | ---------- | 7.83 | ---------- | 34.64 | 27.04 | 97,151 |
| 600 | ---------- | 7.12 | ---------- | 34.60 | 27.11 | 97,102 |
| 800 | ---------- | 5.50 | ---------- | 34.59 | 27.31 | 96,995 |
| 1,000 | ---------- | 4.75 | ---------- | 34.61 | 27.42 | 96,897 |
| 1,500 | ---------- | 3.20 | ---------- | 34.66 | 27.62 | 96,659 |
| 2,000 | ---------- | 2.40 | ---------- | 34.69 | 27.72 | 96,436 |
| 2,500 | ---------- | 2.02 | ---------- | 34.67 | 27.73 | 96,225 |

## STATION H–136

[(1) Lat. 7°04′52″ N., long. 81°52′36″ W. (2) Lat. 7°05′05″ N., long. 81°53′06″ W.; May 22, 1933; time, 1159–1350; wire angle, 30°; sounding, 2,150 m; depth of observation, 1,425 m; weather, cloudy; sea, calm; wind, 280°, force 2; bottom sample, none; additional observations, Pl., $SiO_2$]

| Estimated depth | Depth by pressure | Temperature | Chlorinity | Salinity | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | ‰ | ‰ | | |
| | 0 | 28.40 | 18.14 | 32.77 | | |
| | 10 | 27.51 | 18.35 | 33.15 | | |
| | 25 | 26.38 | 18.55 | 33.51 | | |
| | 50 | 22.46 | 18.98 | 34.29 | | |
| | 98 | 14.52 | | | | |
| | 190 | 12.98 | 19.32 | 34.90 | | |
| | 285 | 11.60 | 19.27 | 34.81 | | |
| | 380 | 9.30 | | | | |
| | 460 | 8.19 | 19.22 | 34.72 | | |
| | 567 | 7.31 | 19.17 | 34.63 | | |
| | 732 | 6.07 | 19.17 | 34.63 | | |
| | 930 | 5.06 | 19.14 | 34.58 | | |
| | 1,423 | 3.35 | | | | |

## STATION H–136

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 28.40 | | 32.77 | 20.61 | 97,981 |
| 10 | | 27.51 | | 33.15 | 21.18 | 97,922 |
| 25 | | 26.38 | | 33.51 | 21.82 | 97,855 |
| 50 | | 22.46 | | 34.29 | 23.57 | 97,675 |
| 75 | | 18.30 | | 34.88 | 25.13 | 97,516 |
| 100 | | 14.50 | | 34.92 | 26.04 | 97,420 |
| 200 | | 12.82 | | 34.89 | 26.36 | 97,347 |
| 300 | | 11.30 | | 34.80 | 26.59 | 97,282 |
| 400 | | 9.02 | | 34.74 | 26.93 | 97,205 |
| 500 | | 7.85 | | 34.69 | 27.07 | 97,149 |
| 600 | | 7.09 | | 34.63 | 27.13 | 97,100 |
| 800 | | 5.72 | | 34.62 | 27.31 | 96,995 |
| 1,000 | | 4.82 | | 34.58 | 27.39 | 96,900 |
| 1,500 | | 3.10 | | 34.60 | 27.58 | 96,663 |

## STATION H–137

[(1) Lat. 7°07′45″ N., long. 81°50′00″ W. (2) Lat. 7°08′00″ N., long. 80°49′00″ W.; May 22, 1933; time, 1515–1634; wire angle, 0°; sounding, 1,310 m; depth of observation, 1,000 m; weather, cloudy; sea, calm; wind 200°, force 4; bottom sample, no. 137; type, green mud; additional observations, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 27.82 | 18.30 | 33.06 | 20.02 | 97,942 |
| 10 | | 26.68 | 18.46 | 33.35 | 21.60 | 97,881 |
| 25 | | 25.41 | 18.65 | 33.69 | 22.25 | 97,814 |
| 50 | | 20.46 | | *34.67 | 24.41 | 97,595 |
| 75 | | 16.35 | 19.33 | 34.92 | 25.63 | 97,469 |
| 100 | | 15.03 | 19.36 | 34.97 | 25.96 | 97,428 |
| 200 | | 13.39 | 19.33 | 34.92 | 26.27 | 97,355 |
| 300 | 303 | 11.54 | 19.31 | 34.88 | 26.60 | 97,282 |
| 400 | | 8.90 | 19.19 | 34.67 | 26.90 | 97,208 |
| 500 | | 8.44 | 19.12 | 34.54 | 26.87 | 97,167 |
| 600 | 608 | 7.18 | 19.13 | *34.56 | 27.07 | 97,106 |
| 800 | | 5.85 | | *34.59 | 27.27 | 96,999 |
| 1,000 | 1,011 | 4.56 | 19.16 | 34.61 | 27.44 | 96,895 |

## STATION H–138

[Lat. 7°11′00″ N., long. 81°48′45″ W.; May 22, 1933; time, 1719–1730; wire angle, 0°; sounding, 94 m; depth of observation, 75 m; weather, cloudy; sea, light; wind 200°, force 5; bottom sample, no. 138; type, sand, shell]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 26.50 | 18.43 | 33.30 | 21.62 | 97,884 |
| 10 | | 25.76 | 18.56 | 33.53 | 22.02 | 97,841 |
| 25 | | 25.11 | | *33.72 | 22.37 | 97,802 |
| 50 | | 21.24 | 19.01 | 34.34 | 23.95 | 97,639 |
| 75 | 77 | 17.26 | 19.26 | 34.79 | 25.31 | 97,499 |

## STATION H–139

[Lat. 7°17′15″ N., long. 81°27′15″ W.; May 22, 1933; time, 2129–2143; wire angle, 0°; sounding, 95 m; depth of observation, 75 m; weather, cloudy; sea, light; wind 360°, force 3; bottom sample, no. 139; type, sand, shell; additional observations, O]

| Estimated depth | Depth by pressure | Temperature | Chlorinity ‰ | Salinity ‰ | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | ---------- | 27.92 | 18.14 | 32.77 | 20.77 | 97,965 |
| 10 | ---------- | 27.90 | 18.14 | 32.77 | 20.77 | 97,960 |
| 25 | ---------- | 25.86 | 18.53 | 33.48 | 21.95 | 97,843 |
| 50 | ---------- | 21.32 | 19.05 | 34.42 | 23.99 | 97,635 |
| 75 | 75 | 17.49 | 19.24 | 34.76 | 25.23 | 97,507 |

## STATION H–140

[Lat. 7°17′00′ N., long. 81°17′45″ W.; May 22, 1933; time, 2341–2352; wire angle, 0°; sounding, 68 m; depth of observation, 50 m; weather, cloudy; sea, light; wind 360°, force, 3; bottom sample, no. 140; type, coral]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 27.47 | 18.24 | 32.95 | 21.05 | 97,939 |
| 10 | ---------- | 27.40 | 18.21 | 32.90 | 21.03 | 97,936 |
| 25 | ---------- | 26.19 | 18.57 | 33.55 | 21.91 | 97,846 |
| 50 | ---------- | 21.55 | 19.04 | 34.40 | 23.91 | 97,643 |

## STATION H–141

[(1) Lat. 6°58′00″ N., long. 81°02′45″ W. (2) Lat. 6°59′15″ N., long. 81°03′00″W.; May 23, 1933; time, 0714–0933; wire angle, 0°; sounding, 1,911 m; depth of observation, 1,000 m; weather, cloudy; sea, light; wind 270°, force, 3; bottom sample, no. 141; type, green mud; additional observations, Pl., O, $NO_2$]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 27.64 | ---------- | 33.00 | 21.03 | 97,961 |
| 10 | ---------- | 27.57 | 18.26 | 32.99 | 21.04 | 97,935 |
| 25 | ---------- | 26.44 | 18.53 | 33.48 | 21.77 | 97,860 |
| 50 | 62 | 20.77 | 19.15 | 34.60 | 24.27 | 97,609 |
| 75 | ---------- | 15.93 | 19.33 | 34.92 | 25.72 | 97,460 |
| 100 | 101 | 14.70 | 19.39 | 35.03 | 26.08 | 97,412 |
| 200 | ---------- | 13.47 | 19.33 | 34.92 | 26.26 | 97,356 |
| 300 | ---------- | 12.04 | 19.28 | 34.83 | 26.47 | 97,294 |
| 400 | ---------- | 9.77 | 19.20 | 34.69 | 26.77 | 97,222 |
| 500 | 502 | 8.22 | 19.19 | 34.67 | 27.00 | 97,155 |
| 600 | ---------- | 7.30 | 19.16 | 34.61 | 27.09 | 97,104 |
| 800 | ---------- | *6.25 | ---------- | *34.65 | 27.27 | 96,999 |
| 1,000 | ---------- | 4.83 | 19.13 | 34.56 | 27.37 | 96,902 |

## STATION H–142

[Lat. 7°04′00″ N.; long. 80°58′30″ W.; May 23, 1933; time, 1117–1225; wire angle, 0°; sounding, 1272 m; depth of observation, 1,000 m; weather, b.c.; sea, light; wind 310°, force 2; bottom sample, no. 142; type, green mud; additional observations, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | ---------- | 27.64 | 18.17 | 32.83 | 20.90 | 97,952 |
| 10 | ---------- | 27.48 | 18.15 | 32.79 | 20.88 | 97,949 |
| 25 | ---------- | 26.50 | 18.49 | 33.40 | 21.69 | 97,867 |
| 50 | ---------- | 20.78 | 19.12 | 34.54 | 24.22 | 97,613 |
| 75 | 75 | 16.50 | 19.35 | 34.96 | 25.62 | 97,470 |
| 100 | ---------- | 13.83 | 19.34 | 34.94 | 26.20 | 97,405 |
| 200 | 203 | 13.61 | ---------- | *34.91 | 26.22 | 97,360 |
| 300 | 301 | 11.95 | 19.31 | 34.88 | 26.53 | 97,288 |
| 400 | ---------- | 9.03 | 19.16 | 34.61 | 26.83 | 97,215 |
| 500 | 505 | 8.22 | 19.16 | 34.61 | 26.96 | 97,159 |
| 600 | ---------- | 7.11 | 19.19 | 34.67 | 27.16 | 97,098 |
| 800 | ---------- | 5.72 | 19.18 | 34.65 | 27.33 | 96,993 |
| 1,000 | ---------- | 4.49 | 19.14 | 34.58 | 27.42 | 96,895 |

## STATION H–143

[(1) Lat. 7°07′45″ N., long., 80°55′45″ W. (2) Lat. 7°08′20″ N., long., 80°56′36″ W.; May 23, 1933; time, 1347–1519; wire angle, 15°; sounding, 1,025 m.; depth of observation, 1,000 m.; weather, b.c.; sea, light; wind 360°, force 2; bottom sample, no. 143; type, green mud; additional observations, Pl.]

| Estimated depth | Depth by pressure | Temperature | Chlorinity °/oo | Salinity °/oo | $\sigma_t$ | $V_{s,t,p}$ |
|---|---|---|---|---|---|---|
| *Meters* | *Meters* | °C. | | | | |
| 0 | 0 | 27.99 | 18.10 | 32.70 | | |
| | 10 | 27.73 | 18.13 | 32.75 | | |
| | 25 | 27.01 | 18.30 | 33.06 | | |
| | 47 | 20.95 | 19.12 | 34.54 | | |
| | 70 | 16.98 | 19.29 | 34.85 | | |
| | 100 | 14.76 | 19.34 | 34.94 | | |
| | 197 | 13.72 | 19.32 | 34.90 | | |
| | 283 | 12.28 | 19.31 | 34.88 | | |
| | 372 | 10.72 | 19.26 | 34.79 | | |
| | 460 | 8.32 | 19.23 | 34.74 | | |
| | 568 | 7.51 | 19.18 | 34.65 | | |
| | 770 | 6.29 | 19.15 | 34.60 | | |
| | 972 | 4.97 | 19.15 | 34.60 | | |

## STATION H–143

INTERPOLATED VALUES REDUCED TO STANDARD DEPTHS

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 27.99 | | 32.70 | 20.69 | 97,973 |
| 10 | | 27.73 | | 32.75 | 20.81 | 97,956 |
| 25 | | 27.01 | | 33.06 | 21.28 | 97,906 |
| 50 | | 20.55 | | 34.57 | 24.31 | 97,605 |
| 75 | | 16.60 | | 34.87 | 25.53 | 97,478 |
| 100 | | 14.76 | | 34.94 | 26.00 | 97,424 |
| 200 | | 13.69 | | 34.90 | 26.19 | 97,363 |
| 300 | | 11.98 | | 34.87 | 26.51 | 97,290 |
| 400 | | 10.00 | | 34.77 | 26.79 | 97,220 |
| 500 | | 8.00 | | 34.74 | 27.09 | 97,147 |
| 600 | | 7.32 | | 34.64 | 27.11 | 97,102 |
| 800 | | 6.08 | | 34.60 | 27.25 | 97,001 |
| 1,000 | | 4.80 | | 34.60 | 27.40 | 96,899 |

## STATION H–144

[Lat. 7°11′15″ N., long. 80°52′40″ W.; May 23, 1933; time, 1648–1658; wire angle, 0°; sounding, 75 m; depth of observation, 50 m; weather, cloudy; sea, moderate; wind 350°, force 4; bottom sample, none; additional observations, Pl.]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 27.43 | 18.08 | 32.66 | 20.84 | 97,958 |
| 10 | | 27.07 | 18.63 | 33.66 | 21.71 | 97,870 |
| 25 | | *26.50 | | *34.00 | 22.14 | 97,824 |
| 50 | 49 | 21.24 | 19.04 | 34.40 | 23.99 | 97,635 |

## STATION H–145

[Lat. 7°18′00″ N., long. 79°52′30″ W.; May 24, 1933; time, 0958–1113; wire angle, 0°; sounding, 408 m; depth of observation, 300 m; weather, b.c.; sea, calm; wind 090°, force 2; bottom sample, no. 145; type, green mud; additional observations, Pl., O, $PO_4$, $NO_2$, $SiO_2$, Boron]

| | | | | | | |
|---|---|---|---|---|---|---|
| 0 | | 27.43 | 17.40 | 31.44 | 19.93 | 98,046 |
| 10 | | 27.12 | 18.05 | 32.61 | 20.91 | 97,946 |
| 25 | | 25.77 | 18.74 | 33.86 | 22.27 | 97,812 |
| 50 | | 21.20 | 19.01 | 34.34 | 23.96 | 97,638 |
| 75 | | *17.95 | 19.36 | 34.97 | 25.28 | 97,502 |
| 100 | | 16.83 | | *35.00 | 25.58 | 97,464 |
| 200 | 200 | 13.48 | 19.32 | 34.90 | 26.24 | 97,358 |
| 300 | | 11.55 | 19.30 | 34.87 | 26.59 | 97,283 |

## YACHT "VELERO III"

### Hancock Expedition, 1934, Temperature and Salinity Data

Dr. Waldo L. Schmitt, Chief of the Division of Marine Invertebrates of the United States National Museum, while on an expedition on Capt. Allan Hancock's yacht, *Velero III*, along and off the west coast of South America in February 1934 made a few vertical sections at which the surface and subsurface temperatures were read and water samples for the determination of salinity were collected. The water samples and temperature records were sent to the Scripps Institution.

The chlorinity of each sample was determined by Miss Katherine Gehring, technical assistant at the Scripps Institution.

The temperature readings were corrected by Mr. Richard H. Fleming, research assistant at the Scripps Institution, by means of data from the Bureau of Standards test sheets for the two thermometers used. For the left-hand thermometer (Richter and Wiese no. 1453), the $V_0$ value was given on the Bureau of Standards test sheet. As this value was known, the readings were corrected by means of tables based on Schumacher's formula. The $V_0$ value for the right-hand thermometer was not recorded (Fried and Lustig no. 762), but this was calculated from the Bureau of Standards data by means of Schumacher's formula. The calculated $V_0$ was found to be 183. The temperature readings were then corrected from Schumacher's tables and the calibration errors as found by the Bureau of Standards.

Except for a few of the 1-fathom observations duplicate temperatures were obtained in all cases. As the majority of the readings were read only to the nearest 0.1° C., in all cases where one or both of the values were only given to the nearest tenth the average of the corrected values are given to the nearest 0.05°.

Except in five cases where the duplicate observations differed by more than 0.2° C., the average difference between the two thermometer readings was 0.06° C. The average corrected values may be considered accurate to $\pm 0.05$° C.

This material has been prepared for publication by Mr. Fleming.

## YACHT "VELERO III"

*Hancock expedition, 1934, temperature and salinity data*

| | Depth | | Average (corrected) temperature, °C. | Chlorinity ‰ | Salinity ‰ |
|---|---|---|---|---|---|
| | Fathoms | Meters | | | |
| Station no. 1: Lat. 1°28′ S., long. 89°15′ W.; Feb. 1; 8:15–10:10 a.m. | | | | | |
| | 0 | 0 | ---------- | 18.76 | 33.91 |
| | 1 | 2 | 25.0 | 18.75 | 33.87 |
| | 25 | 46 | 17.15 | 19.47 | 35.17 |
| | 75 | 137 | 13.9 | 19.41 | 35.07 |
| | 150 | 274 | 12.7 | 19.36 | 34.97 |
| | 270 | 493 | 9.65 | 19.25 | 34.78 |
| Station no. 2: Lat. 1°45′ S., long. 87°40′ W.; Feb. 1; 5:18–6:10 p.m. | | | | | |
| | 0 | 0 | ---------- | 18.74 | 33.86 |
| | 1 | 2 | 24.55 | 18.75 | 33.87 |
| | 25 | 46 | 15.2 | 19.41 | 35.07 |
| | 75 | 137 | 13.7 | 19.37 | 34.99 |
| | 150 | 274 | 12.7 | 19.34 | 34.94 |
| | 270 | 493 | 8.6 | 19.20 | 34.69 |
| Station no. 3: Lat. 2°09′ S., long. 86°07′ W.; Feb. 2; 2:05–2:50 a.m. | | | | | |
| | 0 | 0 | ---------- | 18.68 | 33.75 |
| | 1 | 2 | 24.2 | 18.68 | 33.75 |
| | 25 | 46 | 14.7 | 19.41 | 35.07 |
| | 75 | 137 | 13.9 | 19.39 | 35.03 |
| | 150 | 274 | 12.15 | 19.34 | 34.94 |
| | 270 | 493 | 8.6 | 19.21 | 34.70 |
| Station no. 4: Lat. 2°22′ S., long. 84°36′ W.; Feb. 2; 11–11:48 a.m. | | | | | |
| | 0 | 0 | ---------- | 18.48 | 33.39 |
| | 1 | 2 | 24.55 | 18.49 | 33.40 |
| | 25 | 46 | 14.75 | 19.41 | 35.07 |
| | 75 | 137 | 13.7 | 19.39 | 35.03 |
| | 150 | 274 | 12.1 | 19.32 | 34.90 |
| | 270 | 493 | 8.47 | 19.22 | 34.72 |
| Station no. 5: Lat. 2°44′ S., long. 82°48′ W.; Feb. 2; 8:40–9:24 p.m. | | | | | |
| | 0 | 0 | ---------- | 18.24 | 32.95 |
| | 1 | 2 | 25.6 | 18.23 | 32.94 |
| | 25 | 46 | 14.4 | 19.34 | 34.94 |
| | 75 | 137 | 13.48 | 19.35 | 34.96 |
| | 150 | 274 | 12.1 | 19.29 | 34.85 |
| | 270 | 493 | 8.35 | 19.17 | 34.63 |
| Station no. 6: Lat. 3°12′ S., long. 80°39′ W.; Feb. 7; 6:36–7:15 p.m. | | | | | |
| | 0 | 0 | ---------- | 18.24 | 32.95 |
| | 1 | 2 | 25.6 | 18.21 | 32.90 |
| | 25 | 46 | 14.7 | 19.34 | 34.94 |
| | 35 | 64 | 14.4 | 19.34 | 34.94 |
| Station no. 7: Lat. 3°08′ S., long. 80°49′ W.; Feb. 7; 8:11–8:38 p.m. | | | | | |
| | 0 | 0 | ---------- | 18.25 | 32.97 |
| | 1 | 2 | 25.9 | 18.24 | 32.95 |
| | 25 | 46 | 15.5 | 19.29 | 34.85 |
| | 35 | 64 | 15.3 | 19.29 | 34.85 |
| Station no. 8: Lat. 3°03′ S., long. 81°01′ W.; Feb. 7; 9:40–10:33 p.m. | | | | | |
| | 0 | 0 | ---------- | 18.24 | 32.95 |
| | 1 | 2 | 25.7 | 18.24 | 32.95 |
| | 25 | 46 | 15.4 | 19.30 | 34.87 |
| | 75 | 137 | 13.65 | 19.35 | 34.96 |
| | 150 | 274 | 13.15 | 19.34 | 34.94 |
| | 270 | 493 | 9.05 | 19.22 | 34.72 |
| Station no. 9: Lat. 2°59′ S., long. 81°12′ W.; Feb. 7; 11:33–12 p.m. | | | | | |
| | 0 | 0 | ---------- | 18.25 | 32.97 |
| | 1 | 2 | 25.5 | 18.25 | 32.97 |
| | 25 | 46 | 15.3 | 19.34 | 34.94 |
| | 75 | 137 | 13.5 | 19.37 | 34.99 |
| | 150 | 274 | 13.1 | 19.37 | 34.99 |
| | 270 | 493 | 9.0 | 19.19 | 34.67 |
| Station no. 10: Lat. 1°02′30″ S., long. 81°12′ W.; Feb. 10, 3:38–4:23 p.m. | | | | | |
| | 1 | 2 | 27.8 | 17.76 | 32.09 |
| | 18 | 33 | 15.4 | 19.37 | 34.99 |
| Station no. 11: Lat. 1°02′30″ S., long. 80°58′15″ W.; Feb. 10, 4:13–4:23 p.m. | | | | | |
| | 1 | 2 | 27.5 | 17.78 | 32.12 |
| | 30 | 55 | 15.3 | 19.36 | 34.97 |
| Station no. 12: At anchorage San Francisco; Feb. 11, 4:29–4:39 p.m. | | | | | |
| | 1 | 2 | 27.4 | 17.27 | 31.20 |
| | 4 | 7 | 18.25 | 19.15 | 34.60 |
| Station no. 13: Bay Ecuador, near anchorage, San Francisco; Feb. 11, 5:02–5:21 p.m. | | | | | |
| | 1 | 2 | 26.93 | 17.41 | 31.46 |
| | 30 | 55 | 14.45 | 19.39 | 35.03 |
| Station no. 14: Lat. 0°38′50″ N., long. 80°13′30″ W.; Feb. 11, 5:36–5:57 p.m. | | | | | |
| | 1 | 2 | 27.23 | 17.20 | 31.08 |
| | 48 | 88 | 14.2 | 19.36 | 34.97 |
| Station no. 15: Lat. 0°39′20″ N., long. 80°15′30″ W.; Feb. 11, 6:10–6:33 p.m. | | | | | |
| | 1 | 2 | 26.2 | 17.26 | 31.18 |
| | 25 | 46 | 14.3 | 19.38 | 35.01 |
| | 58 | 106 | 14.13 | 19.38 | 35.01 |

*Hancock expedition, 1934, temperature and salinity data*—Continued

| | Depth | | Average (corrected) temperature, °C. | Chlorinity °/₀₀ | Salinity °/₀₀ |
|---|---|---|---|---|---|
| | Fathoms | Meters | | | |
| Station no. 16: Lat. 5°28′15″ N., long. 77°30′ W.; Feb. 14, 5:35–5:42 a.m. | 1 | 2 | 24.2 | 17.49 | 31.60 |
| | 16 | 29 | 15.38 | 19.26 | 34.79 |
| Station no. 17: Lat. 5°27′30″ N., long. 77°32′30″ W.; Feb. 14, 6:01–6:36 a.m. | 1 | 2 | 24.67 | 17.00 | 30.72 |
| | 36 | 66 | 14.8 | 19.32 | 34.90 |
| Station no. 18: Lat. 5°27′40″ N., long. 77°34′10″ W.; Feb. 14, 6:46–6:57 a.m. | 1 | 2 | 24.35 | 17.11 | 30.91 |
| | 25 | 46 | 15.05 | 19.30 | 34.87 |
| | 55 | 101 | 14.5 | 19.33 | 34.92 |
| Station no. 19: Lat. 5°29′ N., long. 77°36′ W.; Feb. 14, 7:05–7:33 a.m. | 1 | 2 | 24.25 | 17.20 | 31.08 |
| | 25 | 46 | 13.5 | | |
| | 75 | 137 | 15.1 | 19.35 | 34.96 |
| | 116 | 212 | 13.5 | 19.35 | 34.96 |

## U.S.S. "CHAUMONT"

*Temperature and salinity records between San Diego and Balboa, Feb. 28 to Mar. 7, 1933*

[R. H. Fleming, Observer]

| Sample no. | Date | Latitude north | Longitude west | Temperature (corrected) | Salinity °/₀₀ |
|---|---|---|---|---|---|
| | | ° ′ | ° ′ | °C. | |
| Ch-33-1 | Feb. 28, 1933, 9:30 a.m. | 27 12 | 115 32 | 14.95 | 33.69 |
| Ch-33-2 | Feb. 28, 1933, 11:30 a.m. | 26 46 | 115 04 | 15.03 | 33.87 |
| Ch-33-3 | Feb. 28, 1933, 3:45 p.m. | 26 05 | 114 20 | 15.23 | 33.77 |
| Ch-33-4 | Feb. 28, 1933, 9:30 p.m. | 25 08 | 113 10 | 17.91 | |
| Ch-33-5 | Mar. 1, 1933, 9 a.m. | 23 21 | 111 03 | 18.21 | 34.70 |
| Ch-33-6 | Mar. 1, 1933, 12:30 p.m. | 22 48 | 110 18 | 18.21 | 34.83 |
| Ch-33-7 | Mar. 1, 1933, 6:15 p.m. | 21 55 | 109 02 | 21.25 | 34.88 |
| Ch-33-8 | Mar. 2, 1933, 9 a.m. | 19 38 | 105 50 | 22.01 | 34.65 |
| Ch-33-9[1] | Mar. 2, 1933, 10:15 a.m. | 19 27 | 105 34 | 23.56 | 34.56 |
| Ch-33-10 | Mar. 2, 1933, 1:30 p.m. | 18 56 | 104 51 | 25.60 | 34.61 |
| Ch-33-11 | Mar. 2, 1933, 7:30 p.m. | 18 02 | 103 38 | 26.35 | 34.49 |
| Ch-33-12 | Mar. 3, 1933, 9:30 a.m. | 16 26 | 100 19 | 27.95 | 34.34 |
| Ch-33-13 | Mar. 3, 1933, 6 p.m. | 15 22 | 98 10 | 28.45 | 34.16 |
| | Mar. 4, 1933[2] | | | | |
| Ch-33-14 | Mar. 5, 1933, 1:30 p.m. | 10 41 | 89 02 | [3] 25.10 | 34.00 |
| Ch-33-15 | Mar. 6, 1933, 9 a.m. | 8 56 | 85 00 | 28.70 | 32.66 |
| Ch-33-16 | Mar. 6, 1933, 1:30 p.m. | 8 16 | 83 39 | 29.55 | 33.04 |
| Ch-33-17 | Mar. 6, 1933, 6 p.m. | 7 45 | 82 48 | 28.75 | 34.79 |
| Ch-33-18 | Mar. 6, 1933, 10 p.m. | 7 02 | 81 58 | 28.55 | 34.76 |
| Ch-33-19[4] | Mar. 7, 1933, 10 a.m. | 7 55 | 79 47 | 20.03 | 34.70 |
| Ch-33-20 | Mar. 7, 1933, 11:45 a.m. | 8 21 | 79 38 | 20.84 | 34.67 |

[1] Colorado discharge; water yellow brown.
[2] No samples taken.
[3] Drop in temperature 3.35°.
[4] See "*Chaumont*" temperature record. Temperature of water dropped from 83° to 68° F. between 3 a.m. and 8 a. m. Climbed slightly and dropped again.

*Air and injector temperatures, San Diego to Balboa*

[E. B. Rinard, observer]

| Date | Latitude north | Longitude west | Dry bulb | | Wet bulb | | Relative humidity | Injector | Sea temperature |
|---|---|---|---|---|---|---|---|---|---|
| | ° ′ | ° ′ | °F. | °C. | °F. | °C. | | °F. | °C. |
| Feb. 27, 1933, 12 noon | 32 27 | 117 11 | 55 | 12.78 | 52 | 11.11 | 82 | 56 | 13.33 |
| Feb. 27, 1933, 4 p.m. | 31 27 | 117 01 | 58 | 14.44 | 53 | 11.67 | 72 | 58 | 14.44 |
| Feb. 27, 1933, 8 p.m. | 30 28 | 116 44 | 57 | 13.89 | 55 | 12.78 | 88 | 58 | 14.44 |
| Feb. 28, 1933, 8 a.m. | 27 30 | 115 47 | 58 | 14.44 | 56 | 13.33 | 88 | 58 | 14.44 |
| Feb. 28, 1933, 12 noon | 26 40 | 115 04 | 59 | 15.00 | 58 | 14.44 | 94 | 59 | 15.00 |
| Feb. 28, 1933, 4 p.m. | 26 02 | 114 18 | 59 | 15.00 | 58 | 14.00 | 94 | 60 | 15.56 |
| Feb. 28, 1933, 8 p.m. | 25 24 | 113 30 | 63 | 17.22 | 61 | 16.11 | 89 | 62 | 16.67 |
| Mar. 1, 1933, 8 a.m. | 23 30 | 111 16 | 66 | 18.89 | 61 | 16.11 | 75 | 66 | 18.89 |
| Mar. 1, 1933, 12 noon | 22 53 | 110 21 | 67 | 19.44 | 63 | 17.22 | 80 | 66 | 18.89 |
| Mar. 1, 1933, 4 p.m. | 22 17 | 109 32 | 71 | 21.67 | 64 | 17.78 | 68 | 72 | 22.22 |
| Mar. 1, 1933, 8 p.m. | 21 40 | 108 38 | 68 | 20.00 | 63 | 17.22 | 76 | 72 | 22.22 |
| Mar. 2, 1933, 8 a.m. | 19 47 | 106 02 | 75 | 23.89 | 68 | 20.00 | 70 | 73 | 22.78 |
| Mar. 2, 1933, 12 noon | 19 10 | 105 10 | 73 | 22.78 | 69 | 20.56 | 82 | 76 | 24.44 |
| Mar. 2, 1933, 4 p.m. | 18 33 | 104 19 | 75 | 23.89 | 70 | 21.11 | 78 | 80 | 26.67 |
| Mar. 2, 1933, 8 p.m. | 17 59 | 103 28 | 76 | 24.44 | 71 | 21.67 | 78 | 79 | 26.11 |
| Mar. 3, 1933, 8 a.m. | 16 36 | 100 40 | 80 | 26.67 | 73 | 22.78 | 72 | 82 | 27.78 |
| Mar. 3, 1933, 12 noon | 16 08 | 99 42 | 80 | 26.67 | 73 | 22.78 | 72 | 83 | 28.33 |
| Mar. 3, 1933, 4 p.m. | 15 36 | 98 37 | 81 | 27.22 | 73 | 22.78 | 69 | 84 | 28.89 |
| Mar. 3, 1933, 8 p.m. | 15 15 | 97 56 | 81 | 27.22 | 73 | 22.78 | 69 | 84 | 28.89 |
| Mar. 4, 1933, 8 a.m. | 14 05 | 95 39 | 76 | 24.44 | 71 | 21.67 | 78 | 74 | 23.33 |
| Mar. 4, 1933, 12 noon | 13 40 | 94 45 | 77 | 25.00 | 73 | 22.78 | 83 | 79 | 26.11 |
| Mar. 4, 1933, 4 p.m. | 13 08 | 93 53 | 79 | 26.11 | 75 | 23.89 | 83 | 80 | 26.67 |
| Mar. 4, 1933, 8 p.m. | 12 43 | 92 57 | 80 | 26.67 | 73 | 22.78 | 72 | 80 | 26.67 |
| Mar. 5, 1933, 8 a.m. | 11 28 | 90 15 | 81 | 27.22 | 75 | 23.89 | 75 | 82 | 27.78 |
| Mar. 5, 1933, 12 noon | 10 53 | 89 24 | 80 | 26.67 | 73 | 22.78 | 72 | 79 | 26.11 |
| Mar. 5, 1933, 4 p.m. | 10 25 | 88 30 | 77 | 25.00 | 72 | 22.22 | 79 | 78 | 25.56 |
| Mar. 5, 1933, 8 p.m. | 10 02 | 87 48 | 78 | 25.56 | 73 | 22.78 | 79 | 78 | 25.56 |
| Mar. 6, 1933, 8 a.m. | 8 58 | 85 13 | 83 | 28.33 | 77 | 25.00 | 76 | 83 | 28.33 |
| Mar. 6, 1933, 12 noon | 8 26 | 84 26 | 85 | 29.50 | 77 | 25.00 | 70 | 83 | 28.33 |
| Mar. 6, 1933, 4 p.m. | 8 05 | 83 25 | 84 | 28.89 | 77 | 25.00 | 73 | 86 | 30.00 |
| Mar. 6, 1933, 8 p.m. | 7 22 | 82 22 | 83 | 28.33 | 78 | 25.56 | 80 | 86 | 30.00 |
| Mar. 7, 1933, 8 a.m. | 7 27 | 79 57 | 72 | 22.22 | 70 | 21.11 | 91 | 72 | 22.22 |
| Mar. 7, 1933, 12 noon | 8 15 | 79 40 | 73 | 22.78 | 71 | 21.67 | 91 | 69 | 20.56 |

## U.S.S. "PORTLAND"

*Temperature and salinity records between Balboa and San Diego, June 5–9, 1933*

[R. H. Fleming, Observer]

| Sample no. | Date | Latitude, north | Longitude, west | Temperature (corrected) | Salinity °/₀₀ |
|---|---|---|---|---|---|
| | | ° ′ ″ | ° ′ ″ | °C. | |
| Port-33-1 | June 5, 1933, 9:25 a.m. | 15 37 00 | 98 14 00 | 28.80 | 34.76 |
| Port-33-2 | June 5, 1933, 1:45 p.m. | 15 55 00 | 98 45 00 | 29.10 | 34.88 |
| Port-33-3 | June 5, 1933, 10:45 p.m. | 16 58 00 | 100 52 00 | 27.05 | 33.80 |
| Port-33-4 | June 6, 1933, 10:30 a.m. | 18 05 00 | 103 25 00 | 26.15 | 34.85 |
| Port-33-5 | June 6, 1933, 3 p.m. | 18 27 00 | 104 03 00 | 25.85 | 35.07 |
| Port-33-6 | June 7, 1933, 10:30 a.m. | 21 07 30 | 107 46 30 | 25.37 | 35.08 |
| Port-33-7 | June 7, 1933, 5:30 p.m. | 21 53 30 | 108 54 00 | 23.56 | 35.21 |
| Port-33-8 | June 7, 1933, 11 p.m. | 22 50 00 | 110 05 00 | 21.98 | 34.85 |
| Port-33-9 | June 8, 1933, 11 a.m. | 23 54 00 | 111 27 00 | 16.61 | 34.51 |
| Port-33-10 | June 8, 1933, 5:30 p.m. | 24 47 00 | 112 35 00 | 16.11 | 34.31 |
| Port-33-11 | June 8, 1933, 11:30 p.m. | 25 47 00 | 113 33 00 | 14.75 | 33.71 |
| Port-33-12 | June 9, 1933, 11:15 p.m. | 27 55 00 | 115 30 00 | 15.53 | 33.62 |

## U.S.S. "SIRIUS"

*Surface temperature and salinity records from San Diego to Balboa*

| Sample no. | Date | Latitude north | Longitude west | Temperature | | Salinity by specific gravity °/₀₀ |
|---|---|---|---|---|---|---|
| | | ° ′ | ° ′ | °F. | °C. | |
| 1 | Jan. 16, 1926, 5 p.m. | 32 38 | 117 14 | 60 | 15.56 | ---------- |
| 2 | Jan. 16, 1926, 6 p.m. | 32 27 | 117 11 | 62 | 16.67 | 33.60 |
| 3 | Jan. 16, 1926, 7 p.m. | 32 17 | 117 09 | 62 | 16.67 | 33.60 |
| 4 | Jan. 16, 1926, 8 p.m. | 32 06 | 117 06 | 62 | 16.67 | 33.74 |
| 5 | Jan. 16, 1926, 9 p.m. | 31 55 | 117 04 | 62 | 16.67 | 33.42 |
| 6 | Jan. 16, 1926, 10 p.m. | 31 44 | 117 01 | 62 | 16.67 | 33.47 |
| 7 | Jan. 16, 1926, 11 p.m. | 31 32 | 116 58 | 63 | 17.22 | 33.66 |
| 8 | Jan. 16, 1926, 12 midnight | 31 20 | 116 55 | 63 | 17.22 | 33.64 |
| 9 | Jan. 17, 1926, 1 a.m. | 31 09 | 116 53 | 63 | 17.22 | 33.64 |
| 10 | Jan. 17, 1926, 2 a.m. | 30 57 | 116 50 | 63 | 17.22 | 33.58 |
| 11 | Jan. 17, 1926, 3 a.m. | 30 46 | 116 48 | 63 | 17.22 | 33.53 |
| 12 | Jan. 17, 1926, 4 a.m. | 30 34 | 116 45 | 64 | 17.78 | 33.81 |
| 13 | Jan. 17, 1926, 5 a.m. | 30 22 | 116 42 | 64 | 17.78 | 33.77 |
| 14 | Jan. 17, 1926, 6 a.m. | 30 11 | 116 40 | 64 | 17.78 | 33.67 |
| 15 | Jan. 17, 1926, 7 a.m. | 29 59 | 116 37 | 64 | 17.78 | 33.62 |
| 16 | Jan. 17, 1926, 8 a.m. | 29 46 | 116 36 | 64 | 17.78 | 33.67 |
| 17 | Jan. 17, 1926, 9 a.m. | 29 35 | 116 35 | 64 | 17.78 | 33.67 |
| 18 | Jan. 17, 1926, 10 a.m. | 29 25 | 116 33 | 64 | 17.78 | 33.75 |
| 19 | Jan. 17, 1926, 11 a.m. | 29 15 | 116 30 | 64 | 17.78 | 33.68 |
| 20 | Jan. 17, 1926, 12 noon | 29 04 | 116 29 | 64 | 17.78 | 33.62 |
| 21 | Jan. 17, 1926, 1 p.m. | 28 53 | 116 24 | 64 | 17.78 | 33.67 |
| 22 | Jan. 17, 1926, 2 p.m. | 28 42 | 116 19 | 65 | 18.33 | 33.67 |
| 23 | Jan. 17, 1926, 3 p.m. | 28 31 | 116 14 | 65 | 18.33 | 33.67 |
| 24 | Jan. 17, 1926, 4 p.m. | 28 20 | 116 08 | 67 | 19.44 | 34.43 |
| 25 | Jan. 17, 1926, 5 p.m. | 28 09 | 116 04 | 67 | 19.44 | 34.40 |
| 26 | Jan. 17, 1926, 6 p.m. | 27 58 | 115 55 | 67 | 19.44 | 34.51 |
| 27 | Jan. 17, 1926, 7 p.m. | 27 50 | 115 46 | 67 | 19.44 | 34.51 |
| 28 | Jan. 17, 1926, 8 p.m. | 27 42 | 115 38 | 66 | 18.89 | 34.33 |
| 29 | Jan. 17, 1926, 9 p.m. | 27 33 | 115 30 | 68 | 20.00 | 34.66 |
| 30 | Jan. 17, 1926, 10 p.m. | 27 24 | 115 21 | 69 | 20.56 | 34.73 |
| 31 | Jan. 17, 1926, 11 p.m. | 27 15 | 115 13 | 69 | 20.56 | 34.72 |
| 32 | Jan. 17, 1926, 12 midnight | 27 07 | 115 04 | 69 | 20.56 | 34.69 |
| 33 | Jan. 18, 1926, 1 a.m. | 26 58 | ---------- | 68 | 20.00 | 34.42 |
| 34 | Jan. 18, 1926, 2 a.m. | 26 59 | ---------- | 68 | 20.00 | 34.49 |
| 35 | Jan. 18, 1926, 3 a.m. | 26 40 | 114 40 | 68 | 20.00 | 34.61 |
| 36 | Jan. 18, 1926, 4 a.m. | 26 41 | 114 32 | 68 | 20.00 | 34.67 |
| 37 | Jan. 18, 1926, 5 a.m. | 26 23 | 114 24 | 68 | 20.00 | 34.58 |
| 38 | Jan. 18, 1926, 6 a.m. | 26 15 | 114 15 | 70 | 21.11 | 34.60 |
| 39 | Jan. 18, 1926, 7 a.m. | 26 06 | 114 06 | 70 | 21.11 | 34.47 |
| 40 | Jan. 18, 1926, 8 a.m. | 25 57 | 113 57 | 68 | 20.00 | 34.22 |
| 41 | Jan. 18, 1926, 9 a.m. | 25 48 | 113 49 | 69 | 20.56 | 34.42 |
| 42 | Jan. 18, 1926, 10 a.m. | 25 40 | 113 40 | 70 | 21.11 | 34.65 |
| 43 | Jan. 18, 1926, 11 a.m. | 25 30 | 113 31 | 70 | 21.11 | 34.58 |
| 44 | Jan. 18, 1926, 12 noon | 25 21 | 113 20 | 70 | 21.11 | 34.61 |
| 45 | Jan. 18, 1926, 1 p.m. | 25 12 | 113 11 | 70 | 21.11 | 34.69 |
| 46 | Jan. 18, 1926, 2 p.m. | 25 04 | 113 03 | 70 | 21.11 | 34.51 |
| 47 | Jan. 18, 1926, 3 p.m. | 24 55 | 112 55 | 71 | 21.67 | 34.74 |
| 48 | Jan. 18, 1926, 4 p.m. | 24 47 | 112 46 | 71 | 21.67 | 34.70 |
| 49 | Jan. 18, 1926, 5 p.m. | 24 39 | 112 38 | 71 | 21.67 | 34.63 |
| 50 | Jan. 18, 1926, 6 p.m. | 24 30 | 112 29 | 71 | 21.67 | 34.69 |
| 51 | Jan. 18, 1926, 7 p.m. | 24 22 | 112 21 | 71 | 21.67 | [1] |
| 52 | Jan. 18, 1926, 8 p.m.[2] | 24 15 | 112 13 | 71 | 21.67 | 34.67 |
| 53 | Jan. 18, 1926, 10 p.m. | 24 07 | 112 04 | 71 | 21.67 | [1] |
| 54 | Jan. 18, 1926, 11 p.m. | 23 59 | 111 56 | 72 | 22.22 | 34.67 |
| 55 | Jan. 18, 1926, 12 midnight | 23 51 | 111 46 | 71 | 21.67 | [1] |
| 56 | Jan. 19, 1926, 1 a.m. | 23 44 | 111 31 | 72 | 22.22 | 34.50 |
| 58 | Jan. 19, 1926, 2 a.m. | 23 36 | 111 26 | 72 | 22.22 | 34.63 |
| 59 | Jan. 19, 1926, 3 a.m. | 23 28 | 111 16 | 72 | 22.22 | 34.69 |
| 60 | Jan. 19, 1926, 4 a.m. | 23 21 | 111 06 | 73 | 22.78 | 34.63 |
| 61 | Jan. 19, 1926, 5 a.m. | 23 13 | 110 55 | 73 | 22.78 | 34.63 |
| 62 | Jan. 19, 1926, 6 a.m. | 23 05 | 110 45 | 73 | 22.78 | ---------- |
| 63 | Jan. 19, 1926, 7 a.m. | 22 57 | 110 35 | 72 | 22.22 | ---------- |
| 64 | Jan. 19, 1926, 8 a.m. | 22 57 | 110 24 | 72 | 22.22 | 34.73 |
| 65 | Jan. 19, 1926, 9 a.m. | 22 43 | 110 13 | 74 | ------ | ---------- |
| 66 | Jan. 19, 1926, 10 a.m. | 22 36 | 110 04 | 74 | 23.33 | 34.60 |
| 67 | Jan. 19, 1926, 11 a.m. | 22 28 | 109 54 | 74 | 23.33 | 34.56 |
| 68 | Jan. 19, 1926, 12 noon | 22 22 | 109 44 | 74 | 23.33 | 34.60 |
| 69 | Jan. 19, 1926, 1 p.m. | 22 15 | 109 35 | 75 | ------ | ---------- |
| 70 | Jan. 19, 1926, 2 p.m. | 22 07 | 109 25 | 76 | 24.44 | ---------- |
| 71 | Jan. 19, 1926, 3 p.m. | 22 00 | 109 15 | 76 | 24.44 | 34.34 |
| 72 | Jan. 19, 1926, 4 p.m. | 21 52 | 109 05 | 76 | 24.44 | ---------- |
| 73 | Jan. 19, 1926, 5 p.m. | 21 45 | 108 56 | 76 | 24.44 | 34.25 |
| 74 | Jan. 19, 1926, 6 p.m. | 21 37 | 108 46 | 77 | 25.00 | 34.01 |
| 75 | Jan. 19, 1926, 7 p.m. | 21 30 | 108 36 | 77 | 25.00 | 34.05 |
| 76 | Jan. 19, 1926, 8 p.m. | 21 22 | 108 26 | 77 | 25.00 | 34.02 |

[1] No water sample.
[2] Clock set ahead 1 hour.

*Surface temperature and salinity records from San Diego to Balboa*—Continued

| Sample no. | Date | Latitude north | Longitude west | Temperature | | Salinity by specific gravity ‰ |
|---|---|---|---|---|---|---|
| | | ° ′ | ° ′ | °F. | °C. | |
| 77 | Jan. 19, 1926, 9 p.m. | 21 15 | 108 16 | 76 | 24.44 | 34.16 |
| 78 | Jan. 19, 1926, 10 p.m. | 21 07 | 108 07 | 77 | 25.00 | 33.87 |
| 79 | Jan. 19, 1926, 11 p.m. | 21 00 | 107 57 | 77 | 25.00 | 33.90 |
| 80 | Jan. 20, 1926, 3 a.m. | 20 32 | 107 21 | 78 | 25.56 | 33.75 |
| 81 | Jan. 20, 1926, 7 a.m. | 20 04 | 106 33 | 80 | 26.67 | 33.57 |
| 82 | Jan. 20, 1926, 11 a.m. | 19 32 | 106 10 | 80 | 26.67 | 33.60 |
| 83 | Jan. 20, 1926, 3 p.m. | 19 03 | 105 31 | 78 | 25.56 | 33.64 |
| 84 | Jan. 20, 1926, 7 p.m. | 18 30 | 104 46 | 80 | 26.67 | 33.57 |
| 85 | Jan. 20, 1926, 11 p.m. | 18 00 | 104 07 | 80 | 26.67 | 33.57 |
| 86 | Jan. 21, 1926, 3 a.m. | 17 33 | 103 19 | 80 | 26.67 | 33.50 |
| 87 | Jan. 21, 1926, 7 a.m. | 17 11 | 102 33 | 87 | 30.56 | 33.54 |
| 88 | Jna. 21, 1926, 11 a.m. | 16 50 | 101 54 | 82 | 27.78 | 33.53 |
| 89 | Jan. 21, 1926, 3 p.m. | 16 26 | 101 10 | 82 | 27.78 | 33.31 |
| 90 | Jan. 21, 1926, 7 p.m. | 16 04 | 100 27 | 82 | 27.78 | 33.57 |
| 91 | Jan. 21, 1926, 11 p.m. | 15 43 | 99 43 | 82 | 27.78 | 33.57 |
| 92 | Jan. 22, 1926, 3 a.m. | 15 23 | 98 59 | 81 | 27.22 | 33.51 |
| 93 | Jan. 22, 1926, 7 a.m. | 15 02 | 98 15 | 82 | 27.78 | 33.57 |
| 94 | Jan. 22, 1926, 11 a.m. | 14 45 | 97 29 | 82 | 27.78 | 33.60 |
| 95 | Jan. 22, 1926, 3 p.m. | 14 30 | 97 02 | 79 | 26.11 | 33.64 |
| 96 | Jan. 22, 1926, 7 p.m.[2] | 14 20 | 96 33 | 77 | 25.00 | 33.62 |
| 97 | Jan. 22, 1926, 12 midnight | 13 51 | 95 51 | 78 | 25.56 | 33.73 |
| 98 | Jan. 23, 1926, 4 a.m. | 13 18 | 95 43 | 77 | 25.00 | 33.31 |
| 99 | Jan. 23, 1926, 8 a.m. | 12 57 | 95 28 | 80 | 26.67 | 33.38 |
| 100 | Jan. 23, 1926, 12 noon | 12 29 | 95 09 | 83 | 28.33 | 33.30 |
| 101 | Jan. 23, 1926, 4 p.m. | 12 13 | 94 37 | 81 | 27.22 | 33.22 |
| 102 | Jan. 23, 1926, 8 p.m. | 11 49 | 93 47 | 81 | 27.22 | 33.19 |
| 103 | Jan. 23, 1926, 12 midnight | 11 37 | 93 12 | 81 | 27.22 | 33.47 |
| 104 | Jan. 24, 1926, 4 a.m. | 11 22 | 92 31 | 81 | 27.22 | 33.48 |
| 105 | Jan. 24, 1926, 8 a.m. | 11 07 | 91 41 | 81 | 27.22 | 33.30 |
| 106 | Jan. 24, 1926, 12 noon | 10 54 | 91 07 | 80 | 26.67 | 33.15 |
| 107 | Jan. 24, 1926, 4 p.m. | 10 53 | 90 40 | 80 | 26.67 | 32.77 |
| 108 | Jan. 24, 1926, 8 p.m. | 10 42 | 90 14 | 80 | 26.67 | 32.58 |
| 109 | Jan. 24, 1926, 12 midnight | 10 29 | 89 45 | 80 | 26.67 | 32.57 |
| 110 | Jan. 25, 1926, 4 a.m. | 10 13 | 89 20 | 80 | 26.67 | [3] |
| 111 | Jan. 25, 1926, 8 a.m. | 9 58 | 88 44 | 80 | 26.67 | 33.35 |
| 112 | Jan. 25, 1926, 12 noon | 9 38 | 88 20 | 74 | 23.33 | 34.09 |
| 113 | Jan. 25, 1926, 4 p.m. | 9 19 | 87 42 | 78 | 25.56 | 34.10 |
| 114 | Jan. 25, 1926, 8 p.m. | 8 59 | 87 03 | 80 | 26.67 | 33.62 |
| 115 | Jan. 25, 1926, 12 midnight | 8 45 | 86 23 | 82 | 27.78 | 33.50 |
| 116 | Jan. 26, 1926, 4 a.m. | 8 30 | 85 43 | 83 | 28.33 | 33.26 |
| 117 | Jan. 26, 1926, 8 a.m. | 8 16 | 85 03 | 83 | 28.33 | 33.18 |
| 118 | Jan. 26, 1926, 12 noon | 8 03 | 84 04 | 84 | 28.89 | 30.94 |
| 119 | Jan. 26, 1926, 4 p.m. | 7 47 | 83 20 | 85 | 29.33 | ---------- |
| 120 | Jan. 26, 1926, 8 p.m. | 7 30 | 82 34 | 84 | 28.89 | 30.60 |
| 121 | Jan. 26, 1926, 12 midnight | 7 08 | 82 03 | 83 | 28.33 | 30.67 |
| 122 | Jan. 27, 1926, 4 a.m. | 6 49 | 81 23 | 83 | 28.33 | 31.08 |
| 123 | Jan. 27, 1926, 8 a.m. | 6 48 | 80 37 | 82 | 27.78 | 31.18 |
| 124 | Jan. 27, 1926, 12 noon | 7 03 | 80 04 | 77 | 25.00 | 33.04 |
| 125 | Jan. 27, 1926, 4 p.m. | 7 07 | 79 48 | 74 | 23.33 | 34.13 |
| 126 | Jan. 27, 1926, 8 p.m.[4] | 8 12 | 79 37 | 74 | 23.33 | 33.95 |
| 127 | Jan. 27, 1926, 12 midnight. | 8 12 | 79 37 | 70 | 21.11 | 34.17 |
| 128 | Jan. 28, 1926, 4 a.m. | 8 12 | 79 37 | 71 | 21.67 | 34.11 |

[2] Clock set ahead 1 hour.
[3] Broken bottle.
[4] Anchored.

*San Diego North*

| Sample no. | Date | Latitude north | | | Longitude west | | | Temperature | | Salinity by specific gravity ‰ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ′ | ″ | ° | ′ | ″ | °F. | °C. | |
| 1 | June 15, 1926, 2 p.m. | 32 | 51 | 45 | 119 | 28 | 15 | 67 | 19.44 | 33.55 |
| 2 | June 15, 1926, 6 p.m. | 33 | 28 | 30 | 118 | 02 | 00 | 67 | 19.44 | 33.60 |
| 3 | June 16, 1926, 3 p.m. | 33 | 42 | 00 | 118 | 20 | 00 | 66 | 18.89 | 33.57 |
| 4 | June 16, 1926, 7 p.m. | 33 | 54 | 00 | 118 | 56 | 30 | 66 | 18.89 | 33.61 |
| 5 | June 16, 1926, 11 p.m. | 34 | 11 | 00 | 119 | 47 | 00 | 58 | 14.44 | 33.61 |
| 6 | June 17, 1926, 3 a.m. | 34 | 24 | 35 | 120 | 38 | 20 | 54 | 12.22 | 33.71 |
| 7 | June 17, 1926, 7 a.m. | -- | -- | -- | --- | -- | -- | 56 | 13.33 | 33.61 |
| 8 | June 17, 1926, 11 a.m. | 35 | 32 | 40 | 121 | 37 | 00 | 52 | 11.11 | 33.69 |
| 9 | June 17, 1926, 3 p.m. | 36 | 10 | 15 | 121 | 55 | 50 | 50 | 10.00 | 33.70 |
| 10 | June 17, 1926, 7 p.m. | 36 | 41 | 30 | 122 | 13 | 00 | 54 | 12.22 | 33.62 |
| 11 | June 17, 1926, 11 p.m. | 37 | 05 | 10 | 122 | 30 | 00 | 53 | 11.67 | 33.73 |
| 12 | June 18, 1926, 3 a.m. | -- | -- | -- | --- | -- | -- | 53 | 11.67 | 33.38 |
| 13 | June 18, 1926, 7 a.m. | -- | -- | -- | --- | -- | -- | 61 | 16.11 | [1] |
| 14 | June 26, 1926, 6 p.m. | 37 | 47 | 30 | 122 | 41 | 30 | 52 | 11.11 | 33.33 |
| 15 | June 26, 1926, 10 p.m. | 38 | 17 | 30 | 123 | 20 | 00 | 48 | 8.89 | 33.91 |
| 16 | June 27, 1926, 2 a.m. | 38 | 46 | 00 | 123 | 52 | 00 | 50 | 10.00 | 33.54 |
| 17 | June 27, 1926, 7 a.m. | 38 | 46 | 00 | 123 | 52 | 00 | 52 | 11.11 | 33.08 |
| 18 | June 27, 1926, 10 a.m. | 39 | 51 | 00 | 124 | 48 | 00 | 55 | 12.78 | 32.86 |
| 19 | June 27, 1926, 2 p.m. | 40 | 27 | 00 | 124 | 53 | 30 | 54 | 12.22 | 32.97 |
| 20 | June 27, 1926, 6 p.m. | 41 | 06 | 00 | 124 | 53 | 30 | 55 | 12.78 | 32.72 |
| 21 | June 27, 1926, 10 p.m. | 41 | 48 | 00 | 124 | 53 | 00 | 51 | 10.56 | 33.60 |
| 22 | June 28, 1926, 2 a.m. | 42 | 29 | 30 | 124 | 53 | 00 | 56 | 13.33 | 32.56 |
| 23 | June 28, 1926, 6 a.m. | 43 | 12 | 00 | 125 | 07 | 00 | 58 | 14.44 | [2] |
| 24 | June 28, 1926, 10 a.m. | 43 | 55 | 00 | 125 | 07 | 00 | 60 | 15.56 | [2] |
| 25 | June 28, 1926, 2 p.m. | 44 | 41 | 00 | 125 | 14 | 00 | 61 | 16.11 | [2] |
| 26 | June 28, 1926, 6 p.m. | 45 | 18 | 00 | 125 | 08 | 00 | 62 | 16.67 | [2] |
| 27 | June 28, 1926, 10 p.m. | 46 | 02 | 00 | 125 | 04 | 30 | 60 | 15.56 | [2] |
| 28 | June 29, 1926, 2 a.m. | 46 | 43 | 00 | 124 | 57 | 30 | 60 | 15.56 | ---------- |
| 29 | June 29, 1926, 6 a.m. | 47 | 24 | 00 | 124 | 51 | 00 | 58 | 14.44 | ---------- |
| 30 | June 29, 1926, 10 a.m. | -- | -- | -- | --- | -- | -- | 52 | 11.11 | ---------- |
| 31 | June 29, 1926, 2 p.m. | -- | -- | -- | --- | -- | -- | 52 | 11.11 | ---------- |
| 32 | June 29, 1926, 6 p.m. | -- | -- | -- | --- | -- | -- | 51 | 10.56 | ---------- |

*Surface temperature and salinity records from Puget Sound to San Francisco*

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 34 | July 13, 1926, 6 a.m. | -- | -- | -- | --- | -- | -- | 54 | 12.22 | ---------- |
| 35 | July 13, 1926, 10 a.m. | -- | -- | -- | --- | -- | -- | 52 | 11.11 | ---------- |
| 36 | July 13, 1926, 6 p.m. | -- | -- | -- | --- | -- | -- | 52 | 11.11 | ---------- |
| 37 | July 13, 1926, 10 p.m. | 48 | 27 | 00 | 124 | 44 | 00 | 51 | 10.56 | ---------- |
| 38 | July 14, 1926, 2 a.m. | 47 | 51 | 00 | 125 | 00 | 00 | 57 | 13.89 | ---------- |
| 39 | July 14, 1926, 6 a.m. | 47 | 11 | 00 | 125 | 00 | 00 | 59 | 15.00 | ---------- |
| 40 | July 14, 1926, 10 a.m. | 46 | 13 | 00 | 125 | 09 | 00 | 60 | 15.56 | ---------- |
| 41 | July 14, 1926, 2 p.m. | 45 | 22 | 00 | 125 | 10 | 00 | 62 | 16.67 | ---------- |
| 42 | July 14, 1926, 6 p.m. | 44 | 34 | 00 | 125 | 10 | 00 | 62 | 16.67 | ---------- |
| 43 | July 14, 1926, 10 p.m. | 43 | 46 | 30 | 125 | 10 | 00 | 60 | 15.56 | ---------- |
| 44 | July 15, 1926, 2 a.m. | 43 | 03 | 00 | 125 | 10 | 00 | 54 | 12.22 | 32.61 |
| 45 | July 15, 1926, 6 a.m. | 42 | 20 | 00 | 125 | 07 | 00 | 58 | 14.44 | 32.38 |
| 46 | July 15, 1926, 10 a.m. | -- | -- | -- | --- | -- | -- | 53 | 11.67 | 33.01 |
| 47 | July 15, 1926, 2 p.m. | -- | -- | -- | --- | -- | -- | 52 | 11.11 | 33.87 |
| 48 | July 15, 1926, 6 p.m. | -- | -- | -- | --- | -- | -- | 48 | 8.89 | 33.74 |
| 49 | July 15, 1926, 10 p.m. | -- | -- | -- | --- | -- | -- | 50 | 10.00 | 33.44 |
| 50 | July 16, 1926, 2 a.m. | -- | -- | -- | --- | -- | -- | 50 | 10.00 | 33.71 |
| 51 | July 16, 1926, 6 a.m. | -- | -- | -- | --- | -- | -- | 54 | 12.22 | 33.55 |
| 52 | July 16, 1926, 10 a.m. | -- | -- | -- | --- | -- | -- | 67 | 19.44 | [3] |
| 53 | July 24, 1926, 2 a.m. | -- | -- | -- | --- | -- | -- | 56 | 13.33 | 33.44 |
| 54 | July 24, 1926, 6 p.m. | 36 | 45 | 15 | 122 | 16 | 30 | 53 | 11.67 | 33.71 |
| 55 | July 24, 1926, 10 p.m. | 36 | 00 | 00 | 121 | 51 | 20 | 52 | 11.11 | 33.80 |
| 56 | July 25, 1926, 2 a.m. | 35 | 17 | 00 | 121 | 26 | 30 | 56 | 13.33 | 33.51 |
| 57 | July 25, 1926, 6 a.m. | 34 | 33 | 30 | 121 | 02 | 00 | 58 | 14.44 | [4] |
| 58 | July 25, 1926, 10 a.m. | 34 | 19 | 00 | 120 | 13 | 00 | 59 | 15.00 | 33.61 |
| 59 | July 25, 1926, 2 p.m. | 34 | 03 | 00 | 119 | 20 | 00 | 66 | 18.89 | 33.60 |
| 60 | July 25, 1926, 6 p.m. | -- | -- | -- | --- | -- | -- | 70 | 21.11 | 33.62 |
| 61 | July 26, 1926, 10 a.m. | 33 | 29 | 00 | 118 | 02 | 00 | 70 | 21.11 | 33.67 |
| 62 | July 26, 1926, 2 p.m. | 33 | 51 | 00 | 117 | 30 | 30 | 70 | 21.11 | 33.67 |

[1] Too low for tables.
[2] Not on tables.
[3] Very low.
[4] Bottle broken.

## U.S.S. "VEGA"

[Lt. B. W. Lambert, Observer]

*Temperature and salinity records from San Diego to San Francisco*

| Sample no. | Date | Latitude north | Longitude west | Temperature | | Salinity by specific gravity ‰ |
|---|---|---|---|---|---|---|
| | | ° ′ ″ | ° ′ ″ | °F. | °C. | |
| 1 | Feb. 5, 1926, 5 p.m. | 32 37 00 | 117 14 30 | 67 | 19.44 | 33.53 |
| 2 | Feb. 5, 1926, 7 p.m. | 32 53 00 | 117 32 00 | 66 | 18.89 | 33.57 |
| 3 | Feb. 5, 1926, 9 p.m. | 33 09 00 | 117 50 00 | 66 | 18.89 | 33.57 |
| 4 | Feb. 5, 1926, 11 p.m. | 33 21 00 | 118 11 00 | 65 | 18.33 | 33.57 |
| 5 | Feb. 6, 1926, 1 a.m. | 33 43 00 | 118 38 00 | 65 | 18.33 | 33.57 |
| 6 | Feb. 6, 1926, 3 a.m. | 33 55 00 | 119 00 00 | 65 | 18.33 | 33.53 |
| 7 | Feb. 6, 1926, 5 a.m. | 34 09 00 | 119 22 00 | 64 | 17.78 | 33.49 |
| 8 | Feb. 6, 1926, 7 a.m. | 34 13 00 | 119 49 00 | 64 | 17.78 | 33.49 |
| 9 | Feb. 6, 1926, 9 a.m. | 34 21 00 | 120 18 30 | 64 | 17.78 | 33.46 |
| 10 | Feb. 6, 1926, 11 a.m. | 34 32 00 | 120 41 00 | 63 | 17.22 | 33.39 |
| 11 | Feb. 6, 1926, 1 p.m. | 34 52 00 | 120 54 00 | 63 | 17.22 | 33.39 |
| 12 | Feb. 6, 1926, 3 p.m. | 35 09 30 | 121 08 00 | 61 | 16.11 | 33.46 |
| 13 | Feb. 6, 1926, 5 p.m. | 35 29 30 | 121 22 30 | 61 | 16.11 | 33.44 |
| 14 | Feb. 6, 1926, 7 p.m. | 35 48 30 | 121 28 00 | 61 | 16.11 | 33.39 |
| 15 | Feb. 6, 1926, 9 p.m. | 36 08 00 | 121 52 15 | 61 | 16.11 | 33.41 |
| 16 | Feb. 6, 1926, 11 p.m. | 36 26 00 | 122 03 15 | 63 | 17.22 | 33.37 |
| [1] 17 | | | | | | |
| 18 | Feb. 7, 1926, 1 a.m. | 36 47 00 | 122 16 15 | 62 | 16.67 | 33.41 |
| 19 | Feb. 7, 1926, 3 a.m. | 37 10 00 | 122 28 30 | 63 | 17.22 | 33.17 |
| 20 | Feb. 7, 1926, 5 a.m. | 37 33 00 | 122 36 45 | 61 | 16.11 | 33.31 |

[1] Broken.

*Temperature and salinity records from San Francisco to Seattle*

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | Feb. 17, 1926, 2 p.m. | 37 51.5 | 122 41 | 60 | 15.56 | (1) |
| 2 | Feb. 17, 1926, 6 p.m. | 38 22 | 123 23 | 61 | 16.11 | 33.21 |
| 3 | Feb. 17, 1926, 10 p.m. | 39 01 | 123 52.8 | 60 | 15.56 | 33.11 |
| 4 | Feb. 18, 1926, 2 a.m. | 39 47.4 | 124 13.2 | 60 | 15.56 | 33.26 |
| 5 | Feb. 18, 1926, 6 a.m. | 40 32.7 | 124 36.4 | 59 | 15.00 | 33.12 |
| 6 | Feb. 18, 1926, 10 a.m. | 41 27.6 | 124 36.6 | 59 | 15.00 | 33.01 |
| 7 | Feb. 18, 1926, 2 p.m. | 42 13.7 | 124 36.6 | 59 | 15.00 | 33.01 |
| 8 | Feb. 18, 1926, 6 p.m. | 43 05.5 | 124 45.6 | 59 | 15.00 | 32.55 |
| 9 | Feb. 18, 1926, 10 p.m. | 43 54.4 | 124 43.4 | 57 | 13.89 | 32.75 |
| 10 | Feb. 19, 1926, 2 a.m. | 44 43.6 | 124 44.5 | 59 | 15.00 | 32.92 |
| 11 | Feb. 19, 1926, 6 a.m. | 45 31.8 | 124 43.4 | 57 | 13.89 | 32.67 |
| 12 | Feb. 19, 1926, 10 a.m. | 46 19.9 | 124 44.1 | 57 | 13.89 | 32.72 |
| 13 | Feb. 19, 1926, 2 p.m. | 47 19.5 | 124 48.7 | 58 | 14.44 | 32.70 |
| 14 | Feb. 19, 1926, 6 p.m. | 48 19.4 | 124 51 | 55 | 12.78 | (2) |
| 15 | Feb. 19, 1926, 10 p.m. | | | 54 | 12.22 | 31.26 |

*Temperature and salinity records from Seattle to San Francisco*

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | Mar. 1, 1926, 7 p.m. | 48 21.5 | 124 48.5 | 55 | 12.78 | 28.31 |
| 2 | Mar. 1, 1926, 11 p.m. | 47 33.5 | 124 49 | 57 | 13.89 | 32.75 |
| 3 | Mar. 2, 1926, 3 a.m. | 46 45.3 | 124 46 | 56 | 13.33 | 32.12 |
| 4 | Mar. 2, 1926, 7 a.m. | 45 56.3 | 124 43 | 56 | 13.33 | 32.59 |
| 5 | Mar. 2, 1926, 11 a.m. | 45 07.4 | 124 42.8 | 56 | 13.33 | 32.63 |
| 6 | Mar. 2, 1926, 3 p.m. | 44 18.8 | 124 43.1 | 57 | 13.89 | 31.87 |
| 7 | Mar. 2, 1926, 7 p.m. | 43 26.1 | 124 41.6 | 57 | 13.89 | 31.69 |
| 8 | Mar. 2, 1926, 11 p.m. | 42 35.8 | 124 43.2 | 57 | 13.89 | 31.75 |
| 9 | Mar. 3, 1926, 3 a.m. | 41 44.7 | 124 38.7 | 59 | 15.00 | 32.18 |
| 10 | Mar. 3, 1926, 7 a.m. | 40 50 | 124 33 | 58 | 14.44 | 32.27 |
| 11 | Mar. 3, 1926, 11 a.m. | 40 05.5 | 124 26 | 60 | 15.56 | 33.01 |
| 12 | Mar. 3, 1926, 3 p.m. | 39 21 | 124 02 | 61 | 16.11 | 30.32 |
| 13 | Mar. 3, 1926, 7 p.m. | 38 34.7 | 123 33.3 | 61 | 16.11 | 33.15 |
| 14 | Mar. 3, 1926, 11 p.m. | 37 53.7 | 122 54.7 | 63 | 17.22 | (3) |

[1] Not on tables.
[2] Too low for tables.
[3] Missing.

*Temperature and salinity records from San Francisco to San Diego*

| Sample no. | Date | Latitude north | Longitude west | Temperature | | Salinity by specific gravity ‰ |
|---|---|---|---|---|---|---|
| | | ° ′ | ° ′ | °F. | °C. | |
| 1 | Mar. 9, 1926, 8 p.m. | | | 61 | 16.11 | |
| 2 | Mar. 9, 1926, 11 p.m. | 37 24.3 | 122 20.9 | 61 | 16.11 | 32.83 |
| 3 | Mar. 9, 1926, 12 midnight | 37 00.6 | 122 20.7 | 61 | 16.11 | 33.30 |
| 4 | Mar. 10, 1926, 2 a.m. | 36 37.7 | 122 07.7 | 61 | 16.11 | 33.28 |
| 5 | Mar. 10, 1926, 4 a.m. | 36 13.8 | 121 54.2 | 61 | 16.11 | 33.31 |
| 6 | Mar. 10, 1926, 6 a.m. | 35 54.0 | 121 28.9 | 61 | 16.11 | 33.39 |
| 7 | Mar. 10, 1926, 8 a.m. | 35 30.3 | 121 21.2 | 62 | 16.67 | 33.46 |
| 8 | Mar. 10, 1926, 10 a.m. | 35 12.1 | 121 06.8 | 63 | 17.22 | 33.30 |
| 9 | Mar. 10, 1926, 12 noon | 34 51 | 120 51 | 65 | 18.33 | 33.46 |
| 10 | Mar. 10, 1926, 2 p.m. | 34 29 | 120 35.2 | 65 | 18.33 | 33.46 |
| 11 | Mar. 10, 1926, 4 p.m. | 34 18.6 | 120 06.7 | 65 | 18.33 | 33.57 |
| 12 | Mar. 10, 1926, 6 p.m. | 34 09.3 | 119 38 | 66 | 18.89 | 33.57 |
| 13 | Mar. 10, 1926, 8 p.m. | 33 58.3 | 119 12.6 | 67 | 19.44 | 33.55 |
| 14 | Mar. 10, 1926, 10 p.m. | 33 42.8 | 118 49.3 | 68 | 20.00 | 33.53 |
| 15 | Mar. 10, 1926, 12 midnight | 33 28.8 | 118 24.1 | 68 | 20.00 | 33.53 |
| 16 | Mar. 11, 1926, 2 a.m. | 33 13.2 | 118 02.7 | 68 | 20.00 | 33.55 |
| 17 | Mar. 11, 1926, 4 a.m. | 32 57.3 | 117 40.9 | 67 | 19.44 | 33.54 |
| 18 | Mar. 11, 1926, 6 a.m. | 32 40.8 | 117 19 | 67 | 19.44 | 33.54 |

*Temperature and salinity records from San Diego to Balboa*

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | Mar. 12, 1926, 2 p.m. | 32 35 | 117 13.5 | 68 | 20.00 | 33.54 |
| 2 | Mar. 12, 1926, 3 p.m. | 32 20.9 | 117 09.7 | 66 | 18.89 | 33.49 |
| 3 | Mar. 12, 1926, 4 p.m. | 32 09 | 117 04.5 | 66 | 18.89 | 33.54 |
| 4 | Mar. 12, 1926, 5 p.m. | 31 56.6 | 117 01.7 | 60 | 15.56 | 33.54 |
| 5 | Mar. 12, 1926, 6 p.m. | 31 44.2 | 116 59 | 67 | 19.44 | (1) |
| 6 | Mar. 12, 1926, 7 p.m. | 31 32.1 | 116 56 | 67 | 19.44 | 33.51 |
| 7 | Mar. 12, 1926, 8 p.m. | 31 19.8 | 116 52.4 | 66 | 18.89 | 33.55 |
| 8 | Mar. 12, 1926, 9 p.m. | 31 07.1 | 116 49 | 66 | 18.89 | 33.60 |
| 9 | Mar. 12, 1926, 10 p.m. | 30 55 | 116 45.7 | 66 | 18.89 | 33.61 |
| 10 | Mar. 12, 1926, 11 p.m. | 30 42.2 | 116 42.5 | 66 | 18.89 | 33.53 |
| 11 | Mar. 12, 1926, 12 midnight | 30 30 | 116 38.6 | 66 | 18.89 | 33.57 |
| 12 | Mar. 13, 1926, 1 a.m. | 30 17.6 | 116 36 | 68 | 20.00 | 33.62 |
| 13 | Mar. 13, 1926, 2 a.m. | 30 05 | 116 32.4 | 68 | 20.00 | 33.58 |
| 14 | Mar. 13, 1926, 3 a.m. | 29 52.2 | 116 29.8 | 68 | 20.00 | 33.60 |
| 15 | Mar. 13, 1926, 4 a.m. | 29 41 | 116 26.6 | 67 | 19.44 | 33.62 |
| 16 | Mar. 13, 1926, 5 a.m. | 29 27 | 116 23 | 68 | 20.00 | 33.60 |
| 17 | Mar. 13, 1926, 6 a.m. | 29 15 | 116 19.7 | 68 | 20.00 | 33.70 |
| 18 | Mar. 13, 1926, 7 a.m. | 29 02.5 | 116 16.5 | 68 | 20.00 | 33.69 |
| 19 | Mar. 13, 1926, 8 a.m. | 28 54.2 | 116 13.8 | 68 | 20.00 | 33.77 |
| 20 | Mar. 13, 1926, 9 a.m. | 28 42 | 116 11 | 68 | 20.00 | 33.68 |
| 21 | Mar. 13, 1926, 10 a.m. | 28 33.2 | 116 08.7 | 70 | 21.11 | 33.74 |
| 22 | Mar. 13, 1926, 11 a.m. | 28 22.5 | 116 05.7 | 68 | 20.00 | 33.78 |
| 23 | Mar. 13, 1926, 12 noon | 28 11.3 | 115 59.1 | 68 | 20.00 | 33.74 |
| 24 | Mar. 13, 1926, 1 p.m. | 28 01 | 115 51.2 | 66 | 18.89 | 33.74 |
| 25 | Mar. 13, 1926, 2 p.m. | 27 51.1 | 115 41.5 | 67 | 19.44 | 33.74 |
| 26 | Mar. 13, 1926, 3 p.m. | 27 41.5 | 115 32.6 | 67 | 19.44 | 33.73 |
| 27 | Mar. 13, 1926, 4 p.m. | 27 32.1 | 115 23 | 68 | 20.00 | 33.87 |
| 28 | Mar. 13, 1926, 5 p.m. | 27 24 | 115 18 | 68 | 20.00 | 33.84 |
| 29 | Mar. 13, 1926, 6 p.m. | 27 13.7 | 115 03 | 68 | 20.00 | 34.36 |
| 30 | Mar. 13, 1926, 7 p.m. | 27 03.2 | 114 52 | 69 | 20.56 | 34.42 |
| 31 | Mar. 13, 1926, 8 p.m. | 26 54.2 | 114 42 | 70 | 21.11 | 34.31 |
| 32 | Mar. 13, 1926, 9 p.m. | 26 45 | 114 32 | 68 | 20.00 | 34.40 |
| 33 | Mar. 13, 1926, 10 p.m. | 26 36.5 | 114 23 | 68 | 20.00 | 34.30 |
| 34 | Mar. 13, 1926, 11 p.m. | 26 27.4 | 114 13.2 | 70 | 21.11 | 34.47 |
| 35 | Mar. 13, 1926, 12 midnight | 26 27.4 | 114 13.2 | 70 | 21.11 | 34.47 |
| 36 | Mar. 14, 1926, 1 a.m. | 26 09.3 | 113 54.1 | 70 | 21.11 | 34.54 |
| 37 | Mar. 14, 1926, 2 a.m. | 26 00.5 | 113 44.9 | 69 | 20.56 | 34.56 |
| 38 | Mar. 14, 1926, 3 a.m. | 25 52.8 | 113 35 | 69 | 20.56 | 34.53 |
| 39 | Mar. 14, 1926, 4 a.m. | 25 42.7 | 113 25.6 | 69 | 20.56 | 34.56 |
| 40 | Mar. 14, 1926, 5 a.m. | 25 33.2 | 113 16.1 | 70 | 21.11 | 34.60 |
| 41 | Mar. 14, 1926, 6 a.m. | 25 24.2 | 113 06.9 | 70 | 21.11 | 34.58 |
| 42 | Mar. 14, 1926, 7 a.m. | 25 14.2 | 112 58.2 | 70 | 21.11 | 34.53 |
| 43 | Mar. 14, 1926, 8 a.m. | 25 04.5 | 112 49.2 | 70 | 21.11 | 34.54 |
| 44 | Mar. 14, 1926, 9 a.m. | 24 55.3 | 112 40 | 70 | 21.11 | 34.49 |
| 45 | Mar. 14, 1926, 10 a.m. | 24 45.5 | 112 29.7 | 70 | 21.11 | 34.49 |
| 46 | Mar. 14, 1926, 11 a.m. | 24 36.4 | 112 19.4 | 70 | 21.11 | 34.49 |
| 47 | Mar. 14, 1926, 12 noon | 24 28.1 | 112 11.8 | 70 | 21.11 | 34.50 |
| 48 | Mar. 14, 1926, 1 p.m. | 24 19 | 112 03 | 72 | 22.22 | 34.63 |
| 49 | Mar. 14, 1926, 2 p.m. | 24 08.5 | 111 47.8 | 73 | 22.78 | 34.69 |
| 50 | Mar. 14, 1926, 3 p.m. | 23 58.8 | 111 37 | 74 | 23.33 | 34.72 |
| 51 | Mar. 14, 1926, 4 p.m. | 23 50.6 | 111 25.7 | 74 | 23.33 | 34.72 |

[1] Bottle open.

*Temperature and salinity records from San Diego to Balboa*—Continued

| Sample no. | Date | Latitude north | Longitude west | Temperature | | Salinity by specific gravity °/oo |
|---|---|---|---|---|---|---|
| | | ° ′ | ° ′ | °F. | °C. | |
| 52 | Mar. 14, 1926, 5 p.m. | 23 40 | 111 15 | 74 | 23.33 | 34.61 |
| 53 | Mar. 14, 1926, 6 p.m. | 23 32.7 | 111 04 | 74 | 23.33 | 34.66 |
| 54 | Mar. 14, 1926, 7 p.m. | 23 25.3 | 110 51.9 | 74 | 23.33 | 34.69 |
| 55 | Mar. 14, 1926, 8 p.m. | 23 17.9 | 110 43 | 74 | 23.33 | 34.69 |
| 56 | Mar. 14, 1926, 9 p.m. | 23 10.8 | 110 34 | 74 | 23.33 | 34.70 |
| 57 | Mar. 14, 1926, 10 p.m. | 23 04.2 | 110 23.8 | 74 | 23.33 | 34.69 |
| 58 | Mar. 14, 1926, 11 p.m. | 22 55.5 | 110 13.8 | 74 | 23.33 | 34.74 |
| 59 | Mar. 14, 1926, 12 midnight [2] | 22 49 | 110 04 | 74 | 23.33 | 34.80 |
| 60 | Mar. 15, 1926, 2 a.m. | 22 40 | 109 51.1 | 74 | 23.33 | 34.69 |
| 61 | Mar. 15, 1926, 3 a.m. | 22 33 | 109 41 | 76 | 24.44 | 34.60 |
| 62 | Mar. 15, 1926, 4 a.m. | 22 25.8 | 109 30.9 | 77 | 25.00 | 34.31 |
| 63 | Mar. 15, 1926, 5 a.m. | 22 18.1 | 109 20.8 | 77 | 25.00 | 34.40 |
| 64 | Mar. 15, 1926, 6 a.m. | 22 11 | 109 09.9 | 77 | 25.00 | 34.57 |
| 65 | Mar. 15, 1926, 7 a.m. | 22 04 | 108 59 | 77 | 25.00 | 34.56 |
| 66 | Mar. 15, 1926, 8 a.m. | 21 56.8 | 108 48.7 | 77 | 25.00 | 34.57 |
| 67 | Mar. 15, 1926, 9 a.m. | 21 48.4 | 108 39.4 | 77 | 25.00 | 34.58 |
| 68 | Mar. 15, 1926, 10 a.m. | 21 40.2 | 108 31 | 77 | 25.00 | 34.61 |
| 69 | Mar. 15, 1926, 11 a.m. | 21 32.3 | 108 21.9 | 77 | 25.00 | 34.54 |
| 70 | Mar. 15, 1926, 12 noon | 21 24.2 | 108 13 | 78 | 25.56 | 34.45 |
| 71 | Mar. 15, 1926, 1 p.m. | 21 16.7 | 108 02.1 | 78 | 25.56 | 34.43 |
| 72 | Mar. 15, 1926, 2 p.m. | 21 08.1 | 107 40.5 | 78 | 25.56 | 34.37 |
| 73 | Mar. 15, 1926, 3 p.m. | 21 00.8 | 107 40.8 | 79 | 26.11 | 34.07 |
| 74 | Mar. 15, 1926, 4 p.m. | 20 53 | 107 30 | 80 | 26.67 | 33.97 |
| 75 | Mar. 15, 1926, 6 p.m. | 20 36.8 | 107 10 | 80 | 26.67 | 34.10 |
| 76 | Mar. 15, 1926, 10 p.m. | 20 05.8 | 106 29 | 80 | 26.67 | 34.01 |
| 77 | Mar. 16, 1926, 2 a.m. | 19 33.6 | 105 48 | 80 | 26.67 | 34.22 |
| 78 | Mar. 16, 1926, 6 a.m. | 19 01 | 105 04.8 | 82 | 27.78 | 34.26 |
| 79 | Mar. 16, 1926, 10 a.m. | 18 38 | 104 24.8 | 82 | 27.78 | 34.00 |
| 80 | Mar. 16, 1926, 2 p.m. | 18 16 | 103 43.8 | 84 | 28.89 | 34.13 |
| 81 | Mar. 16, 1926, 6 p.m. | 17 51.5 | 102 57.2 | 84 | 28.89 | 34.11 |
| 82 | Mar. 16, 1926, 10 p.m. | 17 30 | 102 08.1 | 83 | 28.33 | 33.87 |
| 83 | Mar. 17, 1926, 2 a.m. | 17 08 | 101 19.4 | 84 | 28.89 | 34.06 |
| 84 | Mar. 17, 1926, 6 a.m. | 16 45.9 | 100 31.8 | 83 | 28.33 | 34.04 |
| 85 | Mar. 17, 1926, 10 a.m. | 16 23.4 | 99 43.1 | 84 | 28.89 | 33.91 |
| 86 | Mar. 17, 1926, 2 p.m. | 16 01.3 | 98 54 | 85 | 29.44 | 33.95 |
| 87 | Mar. 17, 1926, 6 p.m. | 15 39.3 | 98 05 | 87 | 30.56 | 33.86 |
| 88 | Mar. 17, 1926, 10 p.m. | 15 18.6 | 97 15.8 | 86 | 30.00 | 33.84 |
| 89 | Mar. 18, 1926, 2 a.m. | 15 01 | 96 39.1 | 86 | 30.00 | 33.89 |
| 90 | Mar. 18, 1926, 6 a.m. | 14 39.2 | 95 49.1 | 86 | 30.00 | 33.84 |
| 91 | Mar. 18, 1926, 10 a.m. | 14 15.8 | 95 01 | 86 | 30.00 | 33.80 |
| 92 | Mar. 18, 1926, 2 p.m. | 13 53.9 | 94 15.6 | 82 | 27.78 | 34.20 |
| 93 | Mar. 18, 1926, 6 p.m. | 13 32 | 93 30.1 | 88 | 31.11 | 33.89 |
| 94 | Mar. 18, 1926, 10 p.m. | 13 13.1 | 92 47.4 | 88 | 31.11 | 33.94 |
| 95 | Mar. 19, 1926, 2 a.m. | 12 54.2 | 92 05.9 | 86 | 30.00 | 33.77 |
| 96 | Mar. 19, 1926, 6 a.m. | 12 35.8 | 91 24 | 84 | 28.89 | 33.86 |
| 97 | Mar. 19, 1926, 10 a.m. | 12 22.8 | 90 34.2 | 84 | 28.89 | 33.67 |
| 98 | Mar. 19, 1926, 2 p.m. | 12 02.7 | 89 49.2 | 84 | 28.89 | 33.66 |
| 99 | Mar. 19, 1926, 6 p.m. | 11 35.8 | 89 09.2 | 85 | 29.44 | 33.71 |
| 100 | Mar. 19, 1926, 10 p.m. | 11 10.2 | 88 34.1 | 84 | 28.89 | 33.73 |
| 101 | Mar. 20, 1926, 2 a.m. | 10 46.3 | 87 58.9 | 80 | 26.67 | 34.16 |
| 102 | Mar. 20, 1926, 6 a.m. | 10 21.9 | 87 24.1 | 76 | 24.44 | 34.56 |
| 103 | Mar. 20, 1926, 10 a.m. | 10 01.5 | 86 47.3 | 76 | 24.44 | 34.46 |
| 104 | Mar. 20, 1926, 2 p.m. | 9 40.5 | 86 07.2 | 86 | 30.00 | 34.45 |
| 105 | Mar. 20, 1926, 6 p.m. | 9 18 | 85 25 | 88 | 31.11 | 34.17 |
| 106 | Mar. 20, 1926, 10 p.m. | 8 54.9 | 84 42.4 | 88 | 31.11 | 33.04 |
| 107 | Mar. 21, 1926, 2 a.m. | 8 38 | 84 11 | 88 | 31.11 | 32.94 |
| 108 | Mar. 21, 1926, 6 a.m. | 8 15.4 | 83 28.5 | 89 | 31.67 | 33.28 |
| 109 | Mar. 21, 1926, 10 a.m. | 7 48.3 | 82 48 | 90 | 32.22 | 33.21 |
| 110 | Mar. 21, 1926, 2 p.m. | 7 21.4 | 82 07 | 88 | 31.11 | 33.74 |
| 111 | Mar. 21, 1926, 6 p.m. | 7 08.2 | 81 23.5 | 84 | 28.89 | 34.43 |
| 112 | Mar. 21, 1926, 10 p.m. | 7 05.5 | 80 32 | 80 | 26.67 | 34.60 |
| 113 | Mar. 22, 1926, 2 a.m. | 7 19.6 | 79 59.2 | 74 | 23.33 | 34.88 |
| 114 | Mar. 22, 1926, 6 a.m. | 7 58.8 | 79 45.3 | 74 | 23.33 | 34.90 |
| 115 | Mar. 22, 1926, 10 a.m. | 8 42.9 | 79 32 | 74 | 23.33 | 34.86 |

[2] Clocks set ahead 1 hour.

## U.S.S. "OMAHA"

[G. Velten, Observer]

*Surface temperature and salinity records southwest of San Diego*

| Sample no. | Date | Latitude north | Longitude west | Temperature (corrected) | | Salinity by specific gravity ‰ |
|---|---|---|---|---|---|---|
| | | ° ′ | ° ′ | °F. | °C. | |
| 1 | Mar. 2, 1925, 11 a.m. | 32 46 | 117 36 | 58.7 | 14.83 | 33.46 |
| 2 | Mar. 2, 1925, 1 p.m. | 32 51 | 117 53 | 59.7 | 15.39 | 33.53 |
| 3 | Mar. 2, 1925, 3 p.m. | 32 49 | 117 47 | 59.7 | 15.39 | 33.49 |
| 4 | Mar. 2, 1925, 5 p.m. | 32 33 | 117 38 | 58.7 | 14.83 | 33.58 |
| 5 | Mar. 3, 1925, 7 a.m. | 31 20 | 119 40 | 58.7 | 14.83 | 33.22 |
| 6 | Mar. 3, 1925, 9 a.m. | 31 14 | 119 45 | 59.7 | 15.39 | 33.24 |
| 7 | Mar. 3, 1925, 11 a.m. | 31 09 | 120 02 | 59.2 | 15.11 | 33.26 |
| 8 | Mar. 3, 1925, 3 p.m. | 30 56 | 120 15 | 59.7 | 15.39 | 33.26 |
| 9 | Mar. 3, 1925, 5 p.m. | 30 50 | 120 21 | 59.7 | 15.39 | 33.30 |
| 10 | Mar. 4, 1925, 7 a.m. | 29 49 | 122 04 | 62.2 | 16.78 | 33.48 |
| 11 | Mar. 4, 1925, 9 a.m. | 29 42 | 122 09 | 62.2 | 16.78 | 33.55 |
| 12 | Mar. 4, 1925, 11 a.m. | 29 35 | 122 20 | 64.2 | 17.89 | 33.70 |
| 13 | Mar. 4, 1925, 1 p.m. | 29 28 | 122 30 | 62.2 | 16.78 | 33.28 |
| 14 | Mar. 4, 1925, 3 p.m. | 29 24 | 122 38 | 62.2 | 16.78 | 33.30 |
| 15 | Mar. 4, 1925, 5 p.m. | 29 14 | 122 56 | 61.2 | 16.22 | 33.38 |
| 16 | Mar. 5, 1925, 7 a.m. | 29 01 | 125 11 | 62.7 | 17.05 | 33.84 |
| 17 | Mar. 5, 1925, 9 a.m. | 29 01 | 125 20 | 63.2 | 17.33 | 33.40 |
| 18 | Mar. 5, 1925, 11 a.m. | 28 55 | 125 48 | 63.2 | 17.33 | 33.62 |
| 19 | Mar. 5, 1925, 1 p.m. | 28 55 | 126 07 | 63.2 | 17.33 | 33.74 |
| 20 | Mar. 5, 1925, 3 p.m. | 28 55 | 126 24 | 63.2 | 17.33 | 33.47 |
| 21 | Mar. 5, 1925, 5 p.m. | 28 55 | 126 47 | 63.2 | 17.33 | 33.37 |
| 22 | Mar. 6, 1925, 9 a.m. | 27 37 | 128 52 | [1] 64.5 | 18.05 | 33.96 |
| 23 | Mar. 6, 1925, 11 a.m. | 27 12 | 129 23 | [1] 64.5 | 18.05 | 33.95 |
| 24 | Mar. 6, 1925, 1 p.m. | 27 08 | 129 32 | [1] 65 | 18.33 | 34.04 |
| 25 | Mar. 6, 1925, 3 p.m. | 27 07 | 129 38 | [1] 65 | 18.33 | 34.26 |
| 26 | Mar. 6, 1925, 5 p.m. | 27 04 | 129 48 | [1] 65 | 18.33 | 34.13 |
| 27 | Mar. 7, 1925, 7 a.m. | 26 14 | 131 37 | [1] 66 | 18.89 | 34.60 |
| 28 | Mar. 7, 1925, 9 a.m. | 26 02 | 131 39 | [1] 66 | 18.89 | 34.70 |
| 29 | Mar. 7, 1925, 11 a.m. | 25 55 | 131 32 | [1] 66 | 18.89 | 34.73 |
| 30 | Mar. 7, 1925, 1 p.m. | 25 25 | ---------- | [1] 66 | 18.89 | 34.78 |
| 31 | Mar. 7, 1925, 3 p.m. | 25 12 | 131 10 | [1] 66 | 18.89 | 34.61 |
| 32 | Mar. 7, 1925, 5 p.m. | 24 52 | 130 59 | [1] 65 | 18.33 | 34.69 |
| 33 | Mar. 8, 1925, 7 a.m. | 25 11 | 129 00 | [1] 65 | 18.33 | 34.47 |
| 34 | Mar. 8, 1925, 9 a.m. | 25 19 | 128 43 | [1] 65 | 18.33 | 34.57 |
| 35 | Mar. 8, 1925, 11 a.m. | 25 27 | 128 25 | [1] 65 | 18.33 | 34.57 |
| 36 | Mar. 8, 1925, 1 p.m. | 25 29 | 128 08 | [1] 66 | 18.89 | 34.31 |
| 37 | Mar. 8, 1925, 3 p.m. | 25 34 | 127 40 | [1] 66 | 18.89 | 34.33 |
| 38 | Mar. 8, 1925, 5 p.m. | 25 41 | 127 30 | [1] 66 | 18.89 | 34.57 |
| 39 | Mar. 9, 1925, 7 a.m. | 26 31 | 125 29 | [1] 64 | 17.78 | 34.20 |
| 40 | Mar. 9, 1925, 9 a.m. | 26 39 | 125 10 | [1] 63 | 17.22 | 34.07 |
| 41 | Mar. 9, 1925, 11 a.m. | 26 45 | 124 50 | [1] 63 | 17.22 | 33.90 |
| 42 | Mar. 9, 1925, 1 p.m. | 26 54 | 124 30 | [1] 64.5 | 18.05 | 33.97 |
| 43 | Mar. 9, 1925, 3 p.m. | 27 00 | 124 10 | [1] 65 | 18.33 | 34.04 |
| 44 | Mar. 9, 1925, 5 p.m. | 27 08 | 123 50 | [1] 65 | 18.33 | 34.02 |
| 45 | Mar. 10, 1925, 7 a.m. | 27 25 | 121 29 | [1] 62 | 16.67 | 34.01 |
| 46 | Mar. 10, 1925, 9 a.m. | 27 31 | 121 12 | [1] 63 | 17.22 | 33.67 |
| 47 | Mar. 10, 1925, 11 a.m. | 27 36 | 121 07 | [1] 62 | 16.67 | 33.49 |
| 48 | Mar. 10, 1925, 1 p.m. | 27 42 | 120 47 | [1] 61.5 | 16.39 | 33.54 |
| 49 | Mar. 10, 1925, 3 p.m. | 27 49 | 120 26 | [1] 63 | 17.22 | 33.57 |
| 50 | Mar. 10, 1925, 5 p.m. | 28 02 | 119 58 | [1] 62 | 16.69 | 33.46 |
| 51 | Mar. 11, 1925, 7:30 a.m. | 28 49 | 118 08 | [1] 60 | 15.56 | 33.62 |
| 52 | Mar. 11, 1925, 11 a.m. | 29 25 | 118 08 | [1] 62 | 16.67 | 33.68 |
| 53 | Mar. 11, 1925, 1 p.m. | 29 24 | 118 05 | [1] 62 | 16.67 | 33.77 |
| 54 | Mar. 11, 1925, 3 p.m. | 29 38 | 118 03 | [1] 61 | 16.11 | 33.78 |
| 55 | Mar. 11, 1925, 5 p.m. | 30 -- | 118 00 | [1] 61 | 16.11 | 33.53 |
| 56 | Mar. 12, 1925, 7 a.m. | 32 12 | 117 25 | [1] 60 | 15.56 | 33.69 |
| 57 | Mar. 12, 1925, 9 a.m. | 32 32 | 117 20 | [1] 60.5 | 15.83 | 33.66 |

[1] No correction.

Mar. 6, 1925, thermometer P–43 was lost at sea and thermometer P–55 was found broken in case. No other thermometer available except water thermometers of Navy type. From Mar. 6 to 12, 1925, water thermometer 666624 was used.

## U.S.S. "HENDERSON"

[Lt. A. S. Wotherspoon, United States Navy, Observer]

*Surface temperature and salinity records between San Diego and Balbòa*

| Sample no. | Date | Latitude north | Longitude west | Temperature | | Salinity by specific gravity °/oo |
|---|---|---|---|---|---|---|
| | | ° ′ | ° ′ | °F. | °C. | |
| 1 | Nov. 24, 1925, 8 a.m. | 32 27 | 117 13 | 60 | 15.56 | 33.17 |
| 2 | Nov. 24, 1925, 9 a.m. | 32 14 | 117 09 | 64 | 17.78 | 33.41 |
| 3 | Nov. 24, 1925, 10 a.m. | 32 02 | 117 06 | 64 | 17.78 | 33.47 |
| 4 | Nov. 24, 1925, 11 a.m. | 31 49 | 117 02 | 64 | 17.78 | 33.47 |
| 5 | Nov. 24, 1925, 12 noon | 31 37½ | 116 59 | 65 | 18.33 | 33.46 |
| 6 | Nov. 24, 1925, 1 p.m. | 31 25 | 116 55 | 64 | 17.78 | 33.47 |
| 7 | Nov. 24, 1925, 2 p.m. | 31 12 | 116 52 | 66 | 18.89 | 33.49 |
| 8 | Nov. 24, 1925, 3 p.m. | 31 00 | 116 49 | 66 | 18.89 | 33.49 |
| 9 | Nov. 24, 1925, 4 p.m. | 30 48½ | 116 45 | 66 | 18.89 | 33.39 |
| 10 | Nov. 24, 1925, 5 p.m. | 30 36 | 116 42 | 62 | 16.67 | 33.38 |
| 11 | Nov. 24, 1925, 6 p.m. | 30 24 | 116 38½ | 64 | 17.78 | 33.30 |
| 12 | Nov. 24, 1925, 7 p.m. | 30 11 | 116 35 | 65 | 18.33 | 33.37 |
| 13 | Nov. 24, 1925, 8 p.m. | 29 58½ | 116 34½ | 66 | 18.89 | 33.47 |
| 14 | Nov. 24, 1925, 9 p.m. | 29 46 | 116 30 | 66 | 18.89 | 33.48 |
| 15 | Nov. 24, 1925, 10 p.m. | 29 33 | 116 25 | 66 | 18.89 | 33.38 |
| 16 | Nov. 24, 1925, 11 p.m. | 29 20 | 116 20 | 66 | 18.89 | 33.27 |
| 17 | Nov. 24, 1925, 12 midnight | 29 07 | 116 16 | 66 | 18.89 | 33.38 |
| 18 | Nov. 25, 1925, 1 a.m. | 28 55 | 116 11 | 65 | 18.33 | 33.39 |
| 19 | Nov. 25, 1925, 2 a.m. | 28 42 | 116 06½ | 65 | 18.33 | 33.35 |
| 20 | Nov. 25, 1925, 3 a.m. | 28 30½ | 116 02 | 65 | 18.33 | 33.31 |
| 21 | Nov. 25, 1925, 4 a.m. | 28 18 | 115 57½ | 65 | 18.33 | 33.40 |
| 22 | Nov. 25, 1925, 5 a.m. | 28 05½ | 115 53½ | 66 | 18.89 | 33.60 |
| 23 | Nov. 25, 1925, 6 a.m. | 27 53½ | 115 49 | 68 | 20.00 | 33.80 |
| 24 | Nov. 25, 1925, 7 a.m. | 27 41 | 115 44 | 65 | 18.33 | 33.54 |
| 25 | Nov. 25, 1925, 8 a.m. | 27 28 | 115 40 | 66 | 18.89 | 33.74 |
| 26 | Nov. 25, 1925, 9 a.m. | 27 18 | 115 30 | 68 | 20.00 | 33.75 |
| 27 | Nov. 25, 1925, 10 a.m. | 27 08 | 115 20 | 68 | 20.00 | 33.71 |
| 28 | Nov. 25, 1925, 11 a.m. | 26 58 | 115 10 | 68 | 20.00 | 33.75 |
| 29 | Nov. 25, 1925, 12 noon | 26 48 | 115 00 | 68 | 20.00 | 33.74 |
| 30 | Nov. 25, 1925, 1 p.m. | 26 38 | 114 50½ | 68 | 20.00 | 33.80 |
| 31 | Nov. 25, 1925, 2 p.m. | 26 28½ | 114 41 | 69 | 20.56 | 33.77 |
| 32 | Nov. 25, 1925, 3 p.m. | 26 19 | 114 31 | 73 | 22.78 | 34.29 |
| 33 | Nov. 25, 1925, 4 p.m. | 26 08 | 114 21½ | 72 | 22.22 | 34.25 |
| 34 | Nov. 25, 1925, 5 p.m. | 25 59 | 114 13 | 70 | 21.11 | 33.89 |
| 35 | Nov. 25, 1925, 6 p.m. | 25 49 | 114 03 | 70 | 21.11 | 34.05 |
| 36 | Nov. 25, 1925, 8 p.m.[1] | 25 39 | 113 54 | 70 | 21.11 | 34.06 |
| 37 | Nov. 25, 1925, 9 p.m. | 25 29½ | 113 44½ | 72 | 22.22 | 34.27 |
| 38 | Nov. 25, 1925, 10 p.m. | 25 20 | 113 34½ | 72 | 22.22 | 34.30 |
| 39 | Nov. 25, 1925, 11 p.m. | 25 10½ | 113 35 | 75 | 23.89 | 34.78 |
| 40 | Nov. 25, 1925, 12 midnight | 25 01½ | 113 16 | 77 | 25.00 | 34.60 |
| 41 | Nov. 26, 1925, 1 a.m. | 24 51½ | 113 06½ | 78 | 25.56 | 34.88 |
| 42 | Nov. 26, 1925, 2 a.m. | 24 42 | 112 57 | 78 | 25.56 | 34.90 |
| 43 | Nov. 26, 1925, 3 a.m. | 24 32½ | 112 47 | 76 | 24.44 | 34.56 |
| 44 | Nov. 26, 1925, 4 a.m. | 24 23 | 112 37½ | 79 | 26.11 | 34.90 |
| 45 | Nov. 26, 1925, 5 a.m. | 24 13½ | 112 28 | 78 | 25.56 | 34.85 |
| 46 | Nov. 26, 1925, 6 a.m. | 24 04 | 112 18 | 78 | 25.56 | 34.85 |
| 47 | Nov. 26, 1925, 7 a.m. | 23 54½ | 112 09 | 78 | 25.56 | 34.86 |
| 48 | Nov. 26, 1925, 8 a.m. | 23 45 | 111 59 | 77 | 25.00 | 34.85 |
| 49 | Nov. 26, 1925, 9 a.m. | 23 37 | 111 48½ | 79 | 26.11 | 34.77 |
| 50 | Nov. 26, 1925, 10 a.m. | 23 29½ | 111 37 | 79 | 26.11 | 34.79 |
| 51 | Nov. 26, 1925, 11 a.m. | 23 21½ | 111 27 | 78 | 25.56 | 34.76 |
| 52 | Nov. 26, 1925, 12 noon | 23 14 | 111 16 | 78 | 25.56 | 34.76 |
| 53 | Nov. 26, 1925, 1 p.m. | 23 06½ | 111 05½ | 78 | 25.56 | 34.80 |
| 54 | Nov. 26, 1925, 2 p.m. | 22 59 | 110 55 | 78 | 25.56 | 34.67 |
| 55 | Nov. 26, 1925, 3 p.m. | 22 51½ | 110 39 | 78 | 25.56 | 34.67 |
| 56 | Nov. 26, 1925, 4 p.m. | 22 43½ | 110 33 | 78 | 25.56 | 34.54 |
| 57 | Nov. 26, 1925, 5 p.m. | 22 36 | 110 23 | 78 | 25.56 | 34.66 |
| 58 | Nov. 26, 1925, 6 p.m. | 22 28 | 110 12½ | 80 | 26.67 | 34.61 |
| 59 | Nov. 26, 1925, 7 p.m. | 22 20½ | 110 01½ | 80 | 26.67 | 34.78 |
| 60 | Nov. 26, 1925, 8 p.m. | 22 12½ | 109 51 | 79 | 26.11 | 34.89 |
| 61 | Nov. 26, 1925, 9 p.m. | 22 05 | 109 38 | 79 | 26.11 | 34.86 |
| 62 | Nov. 26, 1925, 10 p.m. | 21 57½ | 109 26 | 79 | 26.11 | 34.72 |
| 63 | Nov. 26, 1925, 11 p.m. | 21 50 | 109 14½ | 80 | 26.67 | 34.65 |
| 64 | Nov. 26, 1925, 12 midnight | 21 42 | 109 02 | 80 | 26.67 | 34.67 |
| 65 | Nov. 27, 1925, 1 a.m. | 21 34½ | 108 49 | 81 | 27.22 | 34.61 |
| 66 | Nov. 27, 1925, 2 a.m. | 21 27 | 108 37 | 81 | 27.22 | 34.63 |
| 67 | Nov. 27, 1925, 3 a.m. | 21 19 | 108 25 | 81 | 27.22 | 34.69 |
| 68 | Nov. 27, 1925, 4 a.m. | 21 11 | 108 12½ | 81 | 27.22 | 34.23 |
| 69 | Nov. 27, 1925, 5 a.m. | 21 03½ | 108 00 | 83 | 28.33 | 34.25 |
| 70 | Nov. 27, 1925, 6 a.m. | 20 56 | 107 47½ | 83 | 28.33 | 34.23 |
| 71 | Nov. 27, 1925, 7 a.m. | 20 48 | 107 35 | 83 | 28.33 | 34.25 |
| 72 | Nov. 27, 1925, 8 a.m. | 20 40 | 107 22½ | 82 | 27.78 | 34.20 |
| 73 | Nov. 27, 1925, 12 noon | 20 09 | 106 38 | 84 | 28.89 | 34.02 |
| 74 | Nov. 27, 1925, 4 p.m. | 19 39 | 105 53 | 83 | 28.33 | 34.00 |
| 75 | Nov. 27, 1925, 8 p.m. | 19 07½ | 105 08 | 84 | 28.89 | 34.31 |
| 76 | Nov. 27, 1925, 12 midnight | 18 36 | 104 26 | 83 | 28.33 | 33.97 |

[1] Clocks set ahead 1 hour.

*Surface temperature and salinity records between San Diego and Balboa*—Continued

| Sample no. | Date | Latitude north | Longitude west | Temperature | | Salinity by specific gravity ‰ |
|---|---|---|---|---|---|---|
| | | ° ′ | ° ′ | °F. | °C. | |
| 77 | Nov. 28, 1925, 4 a.m. | 18 07 | 103 38 | 83 | 28.33 | 33.96 |
| 78 | Nov. 28, 1925, 8 a.m. | 17 42½ | 102 50 | 84 | 28.99 | 33.61 |
| 79 | Nov. 28, 1925, 12 noon | 17 20½ | 101 59½ | 86 | 30.00 | 33.54 |
| 80 | Nov. 28, 1925, 4 p.m. | 16 59 | 101 08 | 85 | 29.33 | 32.99 |
| 81 | Nov. 28, 1925, 8 p.m. | 16 35 | 100 20 | 85 | 29.33 | 33.17 |
| 82 | Nov. 28, 1925, 12 midnight | 16 15 | 99 31 | 84 | 28.89 | 33.04 |
| 83 | Nov. 29, 1925, 4 a.m. | 15 51½ | 98 37 | 84 | 28.89 | 33.21 |
| 84 | Nov. 29, 1925, 8 a.m. | 15 30 | 97 38 | 83 | 28.33 | 33.34 |
| 85 | Nov. 29, 1925, 12 noon | 15 08 | 96 47½ | 85 | 29.33 | 33.28 |
| 86 | Nov. 29, 1925, 4 p.m. | 14 42 | 95 48 | 85 | 29.33 | 33.26 |
| 87 | Nov. 29, 1925, 8 p.m.[1] | 14 19½ | 94 59 | 83 | 28.33 | 33.42 |
| 88 | Nov. 29, 1925, 12 midnight | 13 58 | 94 13 | 83 | 28.33 | 33.61 |
| 89 | Nov. 30, 1925, 4 a.m. | 13 37 | 93 27 | 83 | 28.33 | 33.62 |
| 90 | Nov. 30, 1926, 8 a.m. | 13 16 | 92 41 | 83 | 28.33 | 33.35 |
| 91 | Nov. 30, 1925, 12 noon | 13 00 | 91 53 | 84 | 28.89 | 32.94 |
| 92 | Nov. 30, 1925, 4 p.m. | 12 39 | 91 02½ | 85 | 29.33 | 32.86 |
| 93 | Nov. 30, 1925, 8 p.m. | 12 21 | 90 17 | 86 | 30.00 | 32.74 |
| 94 | Nov. 30, 1925, 12 midnight | 11 58 | 89 29½ | 85 | 29.33 | 32.84 |
| 95 | Dec. 1, 1925, 4 a.m. | 11 35 | 88 41 | 84 | 28.89 | 32.70 |
| 96 | Dec. 1, 1925, 8 a.m. | 11 11 | 87 53 | 83 | 28.33 | 33.12 |
| 97 | Dec. 1, 1925, 12 noon | 10 48½ | 87 05 | 82 | 27.78 | 33.17 |
| 98 | Dec. 1, 1925, 4 p.m. | 10 17 | 86 22½ | 83 | 28.33 | 32.99 |
| 99 | Dec. 1, 1925, 8 p.m. | 9 54 | 85 52½ | 83 | 28.33 | 30.41 |
| 100 | Dec. 1, 1925, 12 midnight | 9 31 | 85 20 | 83 | 28.33 | 29.98 |
| 101 | Dec. 2, 1925, 4 a.m. | 9 07 | 84 47 | 81 | 27.22 | 29.96 |
| 102 | Dec. 2, 1925, 8 a.m. | 8 44½ | 84 15 | 82 | 27.78 | 29.60 |
| 103 | Dec. 2, 1925, 12 noon | 8 21 | 83 39 | 82 | 27.78 | 29.46 |
| 104 | Dec. 2, 1925, 4 p.m. | 8 00 | 83 00 | 84 | 28.89 | 29.59 |
| 105 | Dec. 2, 1925, 8 p.m.[1] | 7 35½ | 82 29½ | 83 | 28.33 | 29.87 |
| 106 | Dec. 2, 1925, 12 midnight | 7 06½ | 81 34½ | 83 | 28.33 | 29.88 |
| 107 | Dec. 3, 1925, 4 a.m. | 7 06½ | 80 51½ | 83 | 28.33 | 29.87 |
| 108 | Dec. 3, 1925, 8 a.m. | 7 18 | 80 03 | 83 | 28.33 | 29.23 |
| 109 | Dec. 3, 1925, 12 noon | 8 00 | 79 45 | 83 | 28.33 | 29.29 |
| 110 | Dec. 3, 1925, 4 p.m. | 8 47½ | 79 29½ | 84 | 28.89 | 28.51 |

[1] Clocks set ahead 1 hour.

*Surface temperature and salinity records between San Diego and San Pedro*

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | Apr. 22, 1926, 8 a.m. | 32 44 30 | 117 21 00 | 66 | 18.89 | 33.46 |
| 2 | Apr. 22, 1926, 10 a.m. | 33 04 30 | 117 39 30 | 66 | 18.89 | 33.48 |
| 3 | Apr. 22, 1926, 12 noon | 33 24 00 | 117 58 00 | 66 | 18.89 | 33.42 |
| 4 | Apr. 22, 1926, 1:30 p.m. | 33 38 30 | 118 11 30 | 66 | 18.89 | 33.40 |

*Surface temperature and salinity records between San Pedro and San Francisco*

| | | | | | | |
|---|---|---|---|---|---|---|
| 5 | Apr. 23, 1926, 6 a.m. | 33 42 30 | 118 25 30 | 64 | 17.78 | 33.48 |
| 6 | Apr. 23, 1926, 8 a.m. | 33 53 30 | 118 51 30 | 63 | 17.22 | 33.44 |
| 7 | Apr. 23, 1926, 10 a.m. | 34 04 30 | 119 19 30 | 63 | 17.22 | 33.46 |
| 8 | Apr. 23, 1926, 12 noon | 34 14 45 | 119 49 00 | 62 | 16.67 | 33.48 |
| 9 | Apr. 23, 1926, 2 p.m. | 34 24 45 | 120 22 15 | 64 | 17.78 | 33.50 |
| 10 | Apr. 23, 1926, 4 p.m. | 34 38 00 | 120 45 00 | 58 | 14.44 | 33.40 |
| 11 | Apr. 23, 1926, 6 p.m. | 34 58 30 | 121 02 00 | 58 | 14.44 | 33.40 |
| 12 | Apr. 23, 1926, 8 p.m. | 35 19 00 | 121 19 00 | 58 | 14.44 | 33.35 |
| 13 | Apr. 23, 1926, 10 p.m. | 35 38 00 | 121 31 00 | 55 | 12.78 | 33.50 |
| 14 | Apr. 23, 1926, 12 midnight | 36 00 30 | 121 52 30 | 53 | 11.67 | 33.35 |
| 15 | Apr. 24, 1926, 2 a.m. | 36 14 00 | 122 05 00 | 53 | 11.67 | 33.28 |
| 16 | Apr. 24, 1926, 4 a.m. | 36 36 30 | 122 15 00 | 57 | 13.89 | 33.03 |
| 17 | Apr. 24, 1926, 6 a.m. | 36 59 00 | 122 25 30 | 58 | 14.44 | 32.84 |
| 18 | Apr. 24, 1926, 8 a.m. | 37 22 00 | 122 33 00 | 57 | 13.89 | 32.55 |
| 19 | Apr. 24, 1926, 10 a.m. | 37 46 40 | 122 36 00 | 57 | 13.89 | ---------- |

*Surface temperature and salinity records between San Francisco and San Diego*

| Sample no. | Date | Latitude north | | | Longitude west | | | Temperature | | Salinity by specific gravity °/oo |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ′ | | ° | ′ | ″ | °F. | °C. | |
| 20 | May 5, 1926, 1 a.m. | 37 | 44 | 00 | 122 | 41 | 00 | 54 | 12.22 | 32.42 |
| 21 | May 5, 1926, 2 a.m. | 37 | 31 | 00 | 122 | 37 | 00 | 54 | 12.22 | |
| 22 | May 5, 1926, 4 a.m. | 37 | 05 | 00 | 122 | 31 | 00 | 58 | 14.44 | 32.47 |
| 23 | May 5, 1926, 6 a.m. | 36 | 42 | 00 | 122 | 16 | 30 | 60 | 15.56 | 32.74 |
| 24 | May 5, 1926, 8 a.m. | 36 | 16 | 45 | 122 | 03 | 30 | 58 | 14.44 | 33.35 |
| 25 | May 5, 1926, 10 a.m. | 35 | 55 | 30 | 121 | 46 | 30 | 56 | 13.33 | 33.39 |
| 26 | May 5, 1926, 12 noon | 35 | 32 | 00 | 121 | 29 | 30 | 58 | 14.44 | 33.18 |
| 27 | May 5, 1926, 2 p.m. | 35 | 10 | 30 | 121 | 12 | 30 | 62 | 16.67 | 33.27 |
| 28 | May 5, 1926, 4 p.m. | 34 | 44 | 15 | 120 | 52 | 00 | 60 | 15.56 | 33.30 |
| 29 | May 5, 1926, 6 p.m. | 34 | 26 | 45 | 120 | 34 | 00 | 60 | 15.56 | 33.34 |
| 30 | May 5, 1926, 8 p.m. | 34 | 17 | 45 | 120 | 05 | 30 | 60 | 15.56 | 33.47 |
| 31 | May 5, 1926, 10 p.m. | 34 | 07 | 00 | 119 | 34 | 30 | 60 | 15.56 | 33.47 |
| 32 | May 5, 1926, 12 midnight | 33 | 56 | 45 | 119 | 06 | 00 | 60 | 15.56 | 33.53 |
| 33 | May 6, 1926, 2 a.m. | 33 | 45 | 30 | 118 | 39 | 15 | 63 | 17.22 | 33.46 |
| 34 | May 6, 1926, 4 a.m. | 33 | 28 | 30 | 118 | 15 | 00 | 63 | 17.22 | 33.47 |
| 35 | May 6, 1926, 6 a.m. | 33 | 09 | 00 | 117 | 52 | 00 | 63 | 17.22 | 33.47 |
| 36 | May 6, 1926, 8 a.m. | 32 | 51 | 30 | 117 | 31 | 00 | 64 | 17.78 | 33.40 |

*Surface temperature and salinity records between San Diego and Balboa*

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 37 | May 6, 1926, 4 p.m. | 32 | 20 | 15 | 117 | 09 | 45 | 63 | 17.22 | 33.51 |
| 38 | May 6, 1926, 8 p.m. | 31 | 30 | 30 | 116 | 50 | 45 | 64 | 17.78 | 33.50 |
| 39 | May 6, 1926, 12 midnight | 30 | 40 | 30 | 116 | 33 | 15 | 62 | 16.67 | 33.58 |
| 40 | May 7, 1926, 4 a.m. | 29 | 46 | 00 | 116 | 14 | 00 | 64 | 17.78 | 33.51 |
| 41 | May 7, 1926, 8 a.m. | 28 | 56 | 00 | 116 | 00 | 30 | 64 | 17.78 | 33.48 |
| 42 | May 7, 1926, 12 noon | 28 | 08 | 00 | 115 | 32 | 00 | 64 | 17.78 | 33.67 |
| 43 | May 7, 1926, 4 p.m. | 27 | 26 | 00 | 114 | 56 | 00 | 64 | 17.78 | 33.58 |
| 44 | May 7, 1926, 8 p.m. | 26 | 41 | 00 | 114 | 17 | 30 | 64 | 17.78 | 33.62 |
| 45 | May 7, 1926, 12 midnight | 26 | 00 | 00 | 113 | 41 | 15 | 64 | 17.78 | 33.57 |
| 46 | May 8, 1926, 4 a.m. | 25 | 10 | 00 | 112 | 46 | 30 | 66 | 18.89 | 33.58 |
| 47 | May 8, 1926, 8 a.m. | 24 | 27 | 00 | 112 | 26 | 00 | 64 | 17.78 | 33.71 |
| 48 | May 8, 1926, 12 noon | 23 | 52 | 00 | 111 | 41 | 00 | 69 | 20.56 | 34.13 |
| 49 | May 8, 1926, 4 p.m. | 23 | 17 | 30 | 110 | 56 | 30 | 68 | 20.22 | 34.16 |
| 50 | May 8, 1926, 8 p.m.[1] | 22 | 43 | 00 | 110 | 12 | 00 | 70 | 21.11 | 34.45 |
| 51 | May 8, 1926, 12 midnight | 22 | 21 | 00 | 109 | 33 | 00 | 72 | 22.22 | 34.73 |
| 52 | May 9, 1926, 4 a.m. | 21 | 50 | 00 | 108 | 46 | 00 | 74 | 23.33 | 34.77 |
| 53 | May 9, 1926, 8 a.m. | 21 | 16 | 00 | 108 | 01 | 00 | 76 | 24.44 | 34.65 |
| 54 | May 9, 1926, 12 noon | 20 | 48 | 00 | 107 | 16 | 00 | 77 | 25.00 | 34.69 |
| 55 | May 9, 1926, 4 p.m. | 20 | 15 | 00 | 106 | 33 | 00 | 78 | 25.56 | 34.66 |
| 56 | May 9, 1926, 8 p.m. | 19 | 38 | 30 | 105 | 49 | 00 | 78 | 25.56 | 34.72 |
| 57 | May 9, 1926, 12 midnight | 19 | 05 | 00 | 105 | 07 | 00 | 77 | 25.00 | 34.53 |
| 58 | May 10, 1926, 4 a.m. | 18 | 32 | 00 | 104 | 24 | 00 | 80 | 26.67 | 34.43 |
| 59 | May 10, 1926, 8 a.m. | 18 | 06 | 30 | 103 | 37 | 00 | 80 | 26.67 | 34.33 |
| 60 | May 10, 1926, 12 noon | 17 | 45 | 00 | 102 | 48 | 00 | 82 | 27.78 | 34.33 |
| 61 | May 10, 1926, 4 p.m. | 17 | 24 | 30 | 101 | 58 | 30 | 83 | 28.33 | 34.29 |
| 62 | May 10, 1926, 8 p.m. | 17 | 05 | 00 | 101 | 09 | 00 | 81 | 27.22 | 34.30 |
| 63 | May 10, 1926, 12 midnight | 16 | 45 | 00 | 100 | 00 | 19 | 81 | 27.22 | 34.22 |
| 64 | May 11, 1926, 4 a.m. | 16 | 26 | 00 | 99 | 29 | 00 | 82 | 27.78 | 34.16 |
| 65 | May 11, 1926, 8 a.m. | 16 | 05 | 30 | 98 | 38 | 00 | 82 | 27.78 | 34.43 |
| 66 | May 11, 1926, 12 noon | 15 | 44 | 00 | 97 | 40 | 00 | 82 | 27.78 | 34.29 |
| 67 | May 11, 1926, 4 p.m. | 15 | 22 | 00 | 96 | 49 | 00 | 79 | 26.11 | 34.38 |
| 68 | May 11, 1926, 8 p.m.[1] | 14 | 57 | 30 | 95 | 54 | 00 | 82 | 27.78 | 34.29 |
| 69 | May 11, 1926, 12 midnight | 14 | 35 | 00 | 95 | 05 | 00 | 82 | 27.78 | 34.16 |
| 70 | May 12, 1926, 4 a.m. | 14 | 16 | 30 | 94 | 17 | 00 | 83 | 28.33 | 34.11 |
| 71 | May 12, 1926, 8 a.m. | 14 | 00 | 00 | 93 | 40 | 30 | 88 | 31.11 | 34.09 |
| 72 | May 12, 1926, 12 noon | 13 | 43 | 00 | 92 | 52 | 00 | 88 | 31.11 | 34.23 |
| 73 | May 12, 1926, 4 p.m. | 13 | 19 | 00 | 92 | 06 | 00 | 88 | 31.11 | 34.09 |
| 74 | May 12, 1926, 8 p.m. | 12 | 51 | 00 | 91 | 21 | 00 | 88 | 31.11 | 34.20 |
| 75 | May 12, 1926, 12 midnight | 12 | 30 | 30 | 90 | 32 | 15 | 86 | 30.00 | 34.22 |
| 76 | May 13, 1926, 4 a.m. | 12 | 10 | 30 | 89 | 43 | 00 | 85 | 29.33 | 34.33 |
| 77 | May 13, 1926, 8 a.m. | 11 | 50 | 00 | 88 | 56 | 00 | 85 | 29.33 | 34.23 |
| 78 | May 13, 1926, 12 noon | 11 | 28 | 00 | 88 | 13 | 00 | 84 | 28.89 | 34.20 |
| 79 | May 13, 1926, 4 p.m. | 11 | 05 | 00 | 87 | 44 | 00 | 86 | 30.00 | 34.10 |
| 80 | May 13, 1926, 8 p.m. | 10 | 42 | 30 | 87 | 14 | 30 | 86 | 30.00 | 34.26 |
| 81 | May 13, 1926, 12 midnight | 10 | 20 | 00 | 86 | 41 | 00 | 85 | 29.33 | 33.94 |
| 82 | May 14, 1926, 4 a.m. | 9 | 52 | 00 | 86 | 00 | 00 | 86 | 30.00 | 33.50 |
| 83 | May 14, 1926, 8 a.m. | 9 | 16 | 00 | 85 | 12 | 00 | 85 | 29.33 | 33.80 |
| 84 | May 14, 1926, 12 noon | 8 | 50 | 00 | 84 | 25 | 00 | 85 | 29.33 | 33.38 |
| 85 | May 14, 1926, 4 p.m. | 8 | 22 | 00 | 83 | 41 | 30 | 85 | 29.33 | 33.46 |
| 86 | May 14, 1926, 8 p.m.[1] | 7 | 48 | 30 | 82 | 59 | 00 | 85 | 29.33 | 33.37 |
| 87 | May 14, 1926, 12 midnight | 7 | 31 | 00 | 82 | 28 | 00 | 84 | 28.89 | 33.39 |
| 88 | May 15, 1926, 4 a.m. | 7 | 09 | 00 | 81 | 37 | 00 | 81 | 27.22 | 33.39 |
| 89 | May 15, 1926, 8 a.m. | 7 | 08 | 00 | 80 | 45 | 30 | 82 | 27.78 | 34.56 |
| 90 | May 15, 1926, 12 noon | 7 | 25 | 30 | 80 | 00 | 00 | 78 | 25.56 | 34.90 |
| 91 | May 15, 1926, 4 p.m. | 9 | 10 | 00 | 79 | 42 | 00 | 81 | 27.22 | 33.97 |

[1] Clocks set ahead 1 hour.

## U.S.S. "NITRO"

[Lt. Edward G. Affleck (engineer), observer]

*Temperature and salinity records from San Diego to Bremerton and return*

| Sample no. | Date | Latitude north | | | Longitude west | | | Temperature | | Salinity by specific gravity ‰ |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ′ | ″ | ° | ′ | ″ | °F. | °C. | |
| 1 | Dec. 10, 1925, 7 a.m. | 32 | 39 | 00 | 117 | 17 | 00 | 60 | 15.56 | 33.48 |
| 2 | Dec. 10, 1925, 9 a.m. | 32 | 58 | 00 | 117 | 34 | 00 | 62 | 16.67 | 33.46 |
| 3 | Dec. 10, 1925, 11 a.m. | 33 | 17 | 00 | 117 | 51 | 30 | 62 | 16.67 | 33.46 |
| 4 | Dec. 10, 1925, 1 p.m. | 33 | 36 | 15 | 118 | 09 | 00 | 63 | 17.22 | 33.44 |
| 5 | Dec. 10, 1925, 9 p.m. | 33 | 41 | 30 | 118 | 39 | 15 | 62 | 16.67 | 33.35 |
| 6 | Dec. 10, 1925, 11 p.m. | 33 | 41 | 30 | 119 | 09 | 30 | 61 | 16.11 | 33.38 |
| 7 | Dec. 11, 1925, 1 a.m. | 33 | 41 | 30 | 119 | 37 | 20 | 60 | 15.56 | 33.40 |
| 8 | Dec. 11, 1925, 3 a.m. | 33 | 41 | 20 | 120 | 06 | 10 | 60 | 15.56 | 33.39 |
| 9 | Dec. 11, 1925, 5 a.m. | 33 | 41 | 20 | 120 | 35 | 00 | 60 | 15.56 | 33.38 |
| 10 | Dec. 11, 1925, 7 a.m. | 33 | 53 | 00 | 120 | 40 | 00 | 60 | 15.56 | 33.28 |
| 11 | Dec. 11, 1925, 9 a.m. | 34 | 04 | 00 | 120 | 56 | 00 | 60 | 15.56 | 33.24 |
| 12 | Dec. 11, 1925, 11 a.m. | 34 | 23 | 00 | 121 | 12 | 00 | 60 | 15.56 | 33.44 |
| 13 | Dec. 11, 1925, 1 p.m. | 34 | 43 | 00 | 121 | 25 | 00 | 60 | 15.56 | 33.14 |
| 14 | Dec. 11, 1925, 3 p.m. | 35 | 05 | 00 | 121 | 32 | 00 | 60 | 15.56 | 33.21 |
| 15 | Dec. 11, 1925, 5 p.m. | 35 | 26 | 00 | 121 | 54 | 00 | 59 | 15.00 | 33.13 |
| 16 | Dec. 11, 1925, 7 p.m. | 35 | 46 | 30 | 122 | 00 | 00 | 58 | 14.44 | 33.44 |
| 17 | Dec. 11, 1925, 9 p.m. | 36 | 08 | 00 | 122 | 08 | 00 | 58 | 14.44 | 33.22 |
| 18 | Dec. 11, 1925, 11 p.m. | 36 | 29 | 00 | 122 | 17 | 00 | 56 | 13.33 | 33.41 |
| 19 | Dec. 12, 1925, 1 a.m. | 36 | 53 | 00 | 122 | 25 | 00 | 58 | 14.44 | 33.28 |
| 20 | Dec. 12, 1925, 3 a.m. | 37 | 15 | 00 | --- | -- | -- | 58 | 14.44 | 33.21 |
| 21 | Dec. 12, 1925, 5 a.m. | 37 | 36 | 15 | 122 | 39 | 00 | 56 | 13.33 | 33.38 |
| 22 | Dec. 12, 1925, 7 a.m. | 37 | 45 | 00 | 122 | 37 | 00 | 55 | 12.78 | 33.47 |
| 23 | Dec. 12, 1925, 9 a.m. | 37 | 50 | 00 | 122 | 22 | 30 | 54 | 12.22 | 31.35 |
| 24 | Dec. 26, 1925, 11 a.m. | 37 | 48 | 00 | 122 | 57 | 00 | 54 | 12.22 | 32.94 |
| 25 | Dec. 26, 1925, 3 p.m. | 38 | 26 | 00 | 123 | 27 | 00 | 54 | 12.22 | 33.24 |
| 26 | Dec. 26, 1925, 7 p.m. | 39 | 07 | 00 | 124 | 07 | 00 | 56 | 13.33 | 32.70 |
| 27 | Dec. 26, 1925, 11 p.m. | 40 | 09 | 00 | 124 | 46 | 00 | 54 | 12.22 | 32.99 |
| 28 | Dec. 27, 1925, 3 a.m. | 41 | 00 | 00 | 124 | 57 | 00 | 55 | 12.78 | 33.04 |
| 29 | Dec. 27, 1925, 7 a.m. | 41 | 52 | 00 | 124 | 56 | 00 | 53 | 11.67 | 32.70 |
| 30 | Dec. 27, 1925, 11 a.m. | 42 | 58 | 00 | 124 | 51 | 00 | 53 | 11.67 | 32.62 |
| 31 | Dec. 27, 1925, 3 p.m. | 43 | 55 | 00 | 124 | 55 | 00 | 53 | 11.67 | 32.70 |
| 32 | Dec. 27, 1925, 7 p.m. | 44 | 50 | 00 | 124 | 51 | 00 | 53 | 11.67 | 32.46 |
| 33 | Dec. 27, 1925, 11 p.m. | 45 | 49 | 00 | 124 | 51 | 00 | 53 | 11.67 | 32.41 |
| 34 | Dec. 28, 1925, 3 a.m. | 46 | 46 | 00 | 124 | 48 | 00 | 52 | 11.11 | 32.31 |
| 35 | Dec. 28, 1925, 7 a.m. | 47 | 38 | 00 | 124 | 43 | 00 | 51 | 10.56 | 32.38 |
| 36 | Dec. 28, 1925, 11 a.m. | 48 | 29 | 00 | 124 | 46 | 00 | 50 | 10.00 | 30.62 |
| 37 | Dec. 28, 1925, 3 p.m. | 48 | 14 | 00 | 122 | 37 | 00 | 48 | 8.89 | 31.40 |
| 38 | Dec. 28, 1925, 7 p.m. | 48 | 09 | 00 | 122 | 49 | 00 | 48 | 8.89 | 30.74 |
| 39 | Dec. 29, 1925, 3 p.m. | 47 | 49 | 30 | 122 | 28 | 00 | 48 | 8.89 | 29.07 |
| 40 | Jan. 6, 1926, 4 p.m. | 48 | 12 | 00 | 123 | 15 | 00 | 45 | 7.22 | 30.60 |
| 41 | Jan. 6, 1926- 8 p.m. | 48 | 25 | 00 | 124 | 21 | 30 | 47 | 8.33 | 30.07 |
| 42 | Jan. 6, 1926, 12 midnight | 47 | 53 | 00 | 125 | 00 | 00 | 50 | 10.00 | 32.27 |
| 43 | Jan. 7, 1926, 4 a.m. | 47 | 05 | 00 | 125 | 00 | 00 | 50 | 10.00 | 32.32 |
| 44 | Jan. 7, 1926, 8 a.m. | 46 | 16 | 00 | 125 | 00 | 00 | 46 | 7.78 | 32.46 |
| 45 | Jan. 7, 1926, 12 noon | 45 | 22 | 00 | 125 | 00 | 00 | 53 | 11.67 | 32.36 |
| 46 | Jan. 7, 1926, 4 p.m. | 44 | 27 | 00 | 125 | 00 | 00 | 53 | 11.67 | 32.83 |
| 47 | Jan. 7, 1926, 8 p.m. | 43 | 36 | 00 | 125 | 00 | 00 | 53 | 11.67 | 32.97 |
| 48 | Jan. 7, 1926, 12 midnight | 42 | 46 | 00 | 125 | 00 | 00 | 52 | 11.11 | 32.84 |
| 49 | Jan. 8, 1926, 4 a.m. | 42 | 00 | 00 | 125 | 00 | 00 | 53 | 11.67 | 32.95 |
| 50 | Jan. 8, 1926, 8 a.m. | 41 | 13 | 30 | 125 | 00 | 00 | 54 | 12.22 | 32.70 |
| 51 | Jan. 8, 1926, 12 noon | 40 | 22 | 00 | 125 | 00 | 00 | 56 | 13.33 | 33.06 |
| 52 | Jan. 8, 1926, 4 p.m. | 39 | 40 | 00 | 124 | 32 | 00 | 55 | 12.78 | 33.01 |
| 53 | Jan. 8, 1926, 8 p.m. | 39 | 05 | 00 | 124 | 02 | 00 | 57 | 13.89 | 33.21 |
| 54 | Jan. 8, 1926, 12 midnight | 38 | 30 | 00 | 123 | 31 | 00 | 56 | 13.33 | 33.21 |
| 55 | Jan. 9, 1926, 4 a.m. | 37 | 57 | 00 | 123 | 07 | 00 | 56 | 13.33 | 33.21 |
| 56 | Jan. 9, 1926, 8 a.m. | 38 | 07 | 00 | 122 | 23 | 00 | 48 | 8.89 | [1] |
| 57 | Jan. 19, 1926, 2 p.m. | 37 | 40 | 00 | 122 | 37 | 00 | 50 | 10.00 | 32.01 |
| 58 | Jan. 19, 1926, 4 p.m. | 37 | 11 | 00 | 122 | 36 | 00 | 55 | 12.78 | 33.14 |
| 59 | Jan. 19, 1926, 6 p.m. | 36 | 45 | 30 | 122 | 20 | 00 | 56 | 13.33 | 33.45 |
| 60 | Jan. 19, 1926, 8 p.m. | 36 | 20 | 00 | 122 | 05 | 00 | 56 | 13.33 | 33.40 |
| 61 | Jan. 19, 1926, 10 p.m. | 35 | 55 | 00 | 121 | 50 | 00 | 56 | 13.33 | 33.41 |
| 62 | Jan. 19, 1926, 12 midnight | 35 | 29 | 00 | 121 | 34 | 00 | 56 | 13.33 | 33.40 |
| 63 | Jan. 20, 1926, 2 a.m. | 35 | 03 | 00 | 121 | 20 | 00 | ---------- | | 33.27 |
| 64 | Jan. 20, 1926, 4 a.m. | 34 | 37 | 00 | 121 | 07 | 00 | 58 | 14.44 | 33.44 |
| 65 | Jan. 20, 1926, 6 a.m. | 34 | 27 | 00 | 120 | 49 | 00 | 58 | 14.44 | 33.39 |
| 66 | Jan. 20, 1926, 8 a.m. | 34 | 22 | 30 | 120 | 35 | 15 | 59 | 15.00 | 33.51 |
| 67 | Jan. 20, 1926, 10 a.m. | 34 | 10 | 00 | 120 | 04 | 00 | 60 | 15.56 | 33.53 |
| 68 | Jan. 20, 1926, 12 noon | 34 | 08 | 45 | 119 | 35 | 45 | 60 | 15.56 | 33.53 |
| 69 | Jan. 20, 1926, 2 p.m. | 33 | 58 | 00 | 119 | 02 | 00 | 60 | 15.56 | 33.53 |
| 70 | Jan. 30, 1926, 4 p.m. | 33 | 42 | 00 | 118 | 35 | 00 | 60 | 15.56 | 33.54 |
| 71 | Jan. 20, 1926, 9 a.m. | 33 | 25 | 00 | 118 | 00 | 00 | 60 | 15.56 | [2] |
| 72 | Jan. 20, 1926, 11 a.m. | 33 | 02 | 00 | 117 | 33 | 30 | 60 | 15.56 | 33.57 |
| 73 | Jan. 20, 1926, 1 p.m. | 32 | 38 | 00 | 117 | 17 | 30 | 62 | 16.67 | 33.60 |

[1] Too low for tables.

[2] Missing.