

UNIVERSITY OF CALIFORNIA  
SCRIPPS INSTITUTION OF OCEANOGRAPHY

Physical and Chemical Data  
**Cruise 22**  
Marine Life Research Program  
6-25 February 1951

Prepared by  
Marine Life Research Program Division of Oceanography

Sponsored by  
Marine Research Committee

Reference 52-6  
1 February 1952

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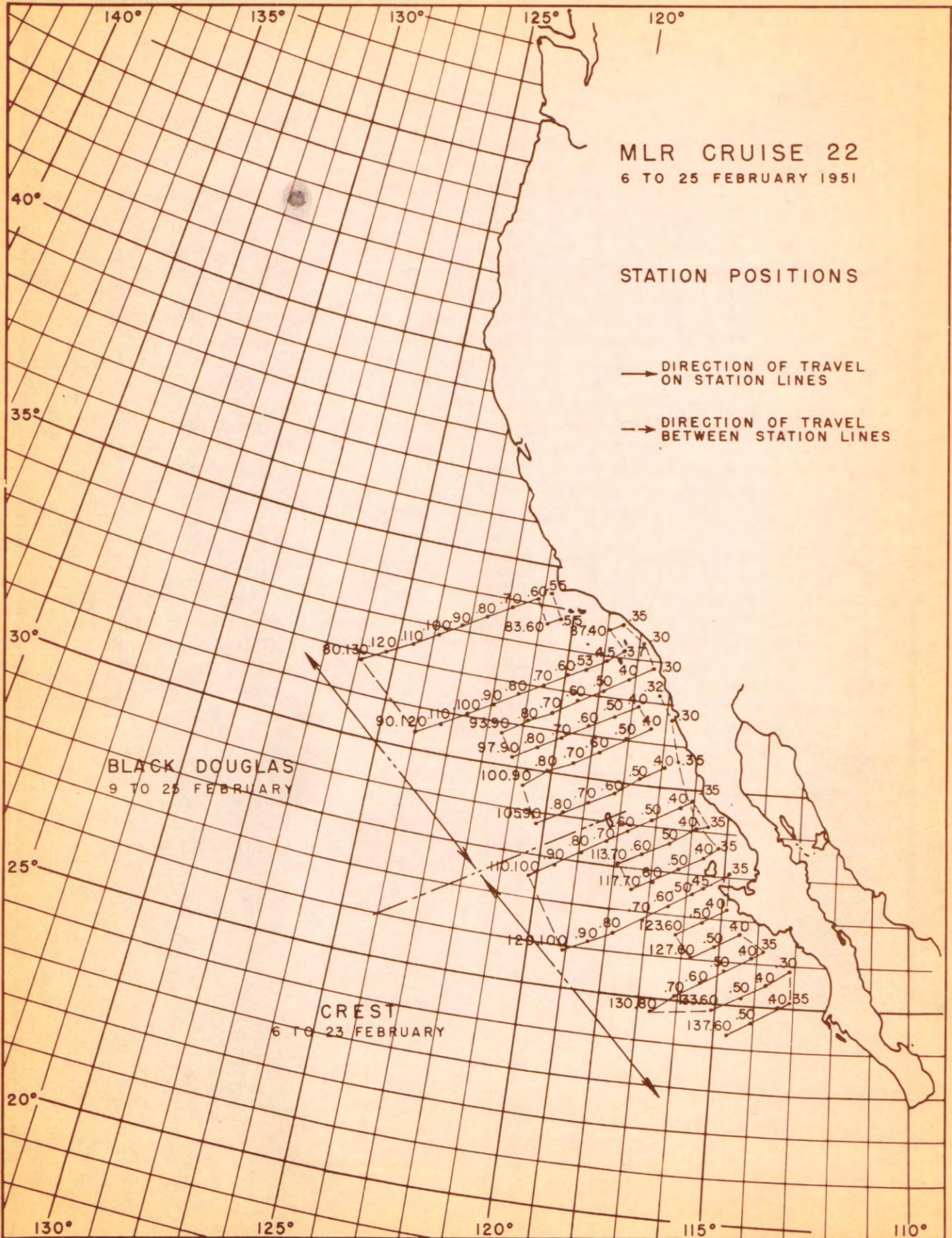
1 February 1952

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## INTRODUCTION

The data presented in this report were collected on the twenty-second full-scale cruise conducted in the Marine Life Research Program. The two ships participating were the MV CREST, of the Scripps Institution of Oceanography, and the MV BLACK DOUGLAS, of the U. S. Fish and Wildlife Service.

Data are presented in the form of tabulated values at standard depths and of charts of horizontal distributions. On the charts of horizontal distributions a circle is drawn around the station dot if the quantity is missing for that station. An "X" is drawn through the station dot if the value observed does not conform to the field and was not used in drawing the contours.

In the tabulated data extrapolated values are indicated by parentheses. The time given is the time that the messenger was released. When more than one cast was made on a station, both messenger times and both wire angles are given; the time and the wire angle given first are for the shallow cast. Horizontal lines signify the depth to which each cast reached.

Because of Nansen bottle pretripping on stations 80.55, 80.130, 90.45, 90.100, 90.120D, 93.40, 93.60, 97.80, 105.35, 105.50, 105.60, 110.90, 117.40, 117.60, 120.60, 123.50, 127.40, 127.50, and 127.60, it was difficult to ascertain depths of observations on those stations. In processing data given in this report and in all previous reports of this series an effort has been made to correct for pretripping wherever it has occurred.

The original data and the data as modified during various steps in processing are on file with the Division of Oceanography. Copies may be made available. The data are processed on the six standard forms of this division.

The presentation of data in these Physical and Chemical Data Reports does not constitute publication, and this information may be subject to modification as the program continues. Results of various phases of the investigations will be published in scientific journals for general distribution.

## PERSONNEL

Roger R. Revelle, Director of the Scripps Institution  
of Oceanography

Oceanographers

Horrer, Paul L., Assistant Oceanographer  
Lewis, George J., Jr., Associate in Oceanography  
Reid, Joseph L., Jr., Associate in Oceanography

Marine Superintendent

Stose, Clemens W.

Ships' Captains

Brandal, G., MV CREST  
Joelson, S. M., MV BLACK DOUGLAS

## PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

MV BLACK DOUGLAS

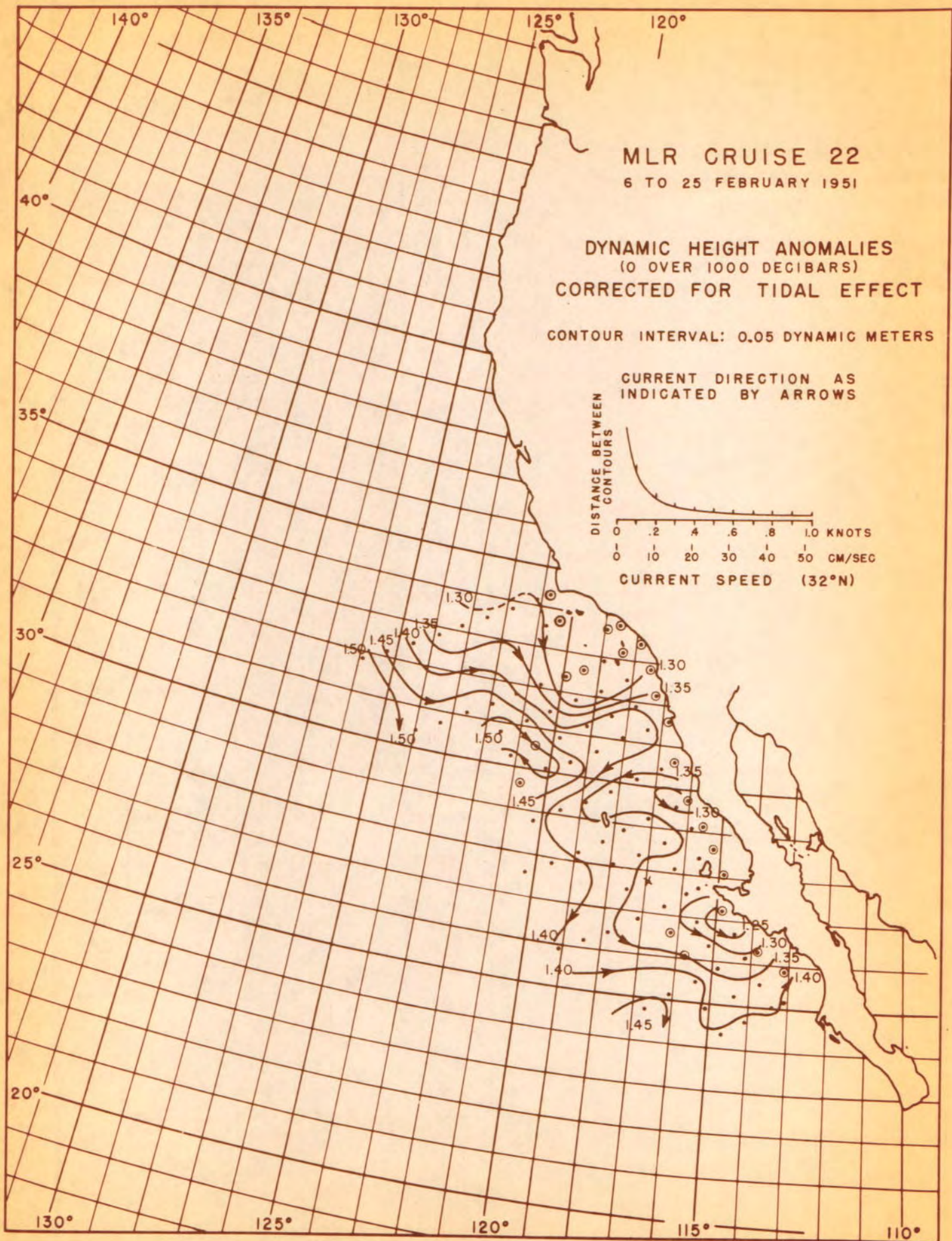
Clark, Peter S., Senior Marine Technician  
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Haddow, Robert W., Marine Technician  
Colter, John C., Chemistry Aid, U.S. Fish & Wildlife Service  
Lander, Robert, Marine Biologist, U.S. Fish & Wildlife Service

MV CREST

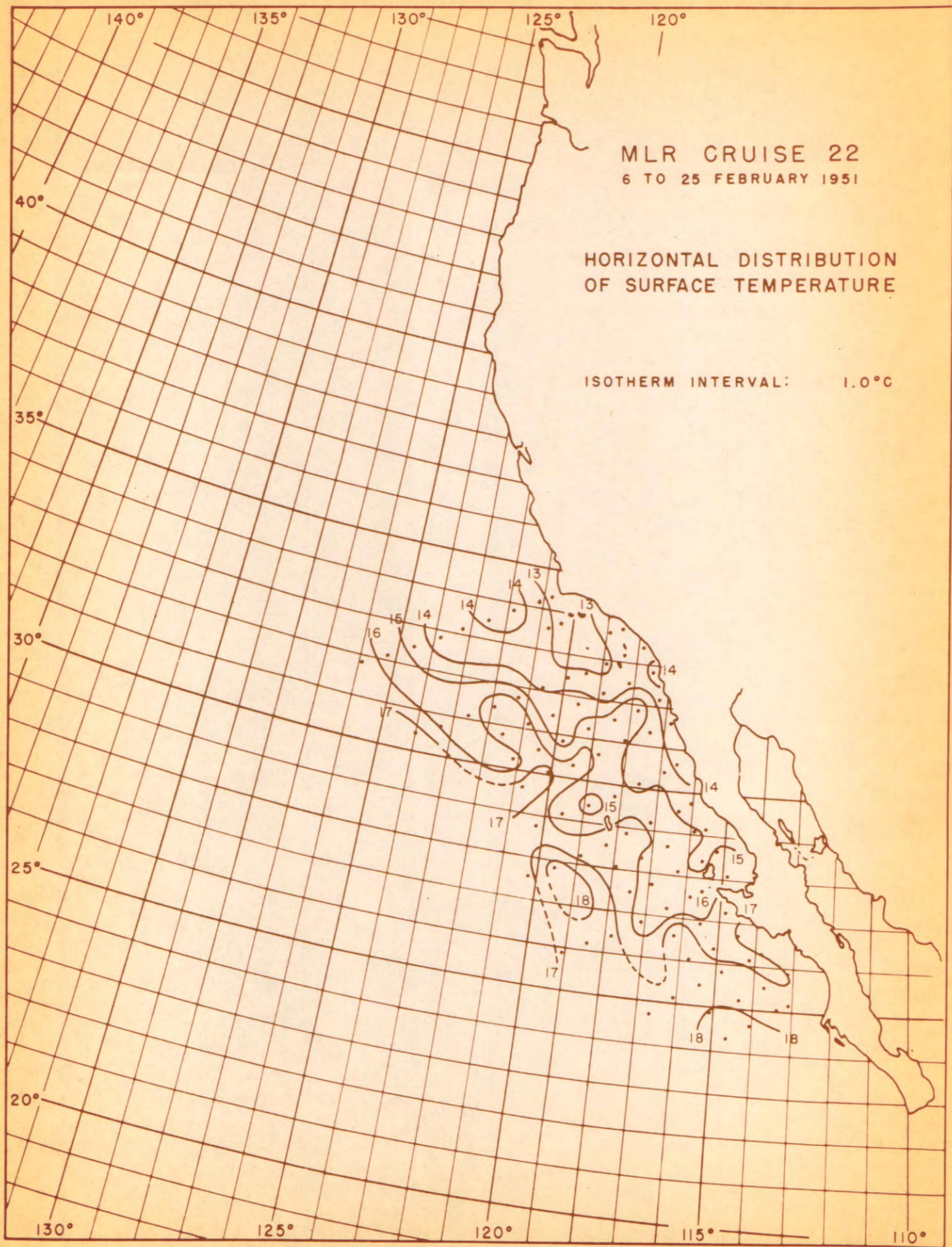
Sampson, Robert K., Jr., Senior Marine Technician  
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Carpenter, Frederick, Marine Technician, Chemical  
Gossett, David A., Marine Technician  
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Jellison, Donald L., Marine Technician  
Kartrude, Robert C., Laboratory Technician  
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Wallengren, Delbert E., Marine Technician  
Kramer, David, Marine Biologist, U.S. Fish & Wildlife Service  
Walker, Earl T., Marine Biologist, U.S. Fish & Wildlife Service

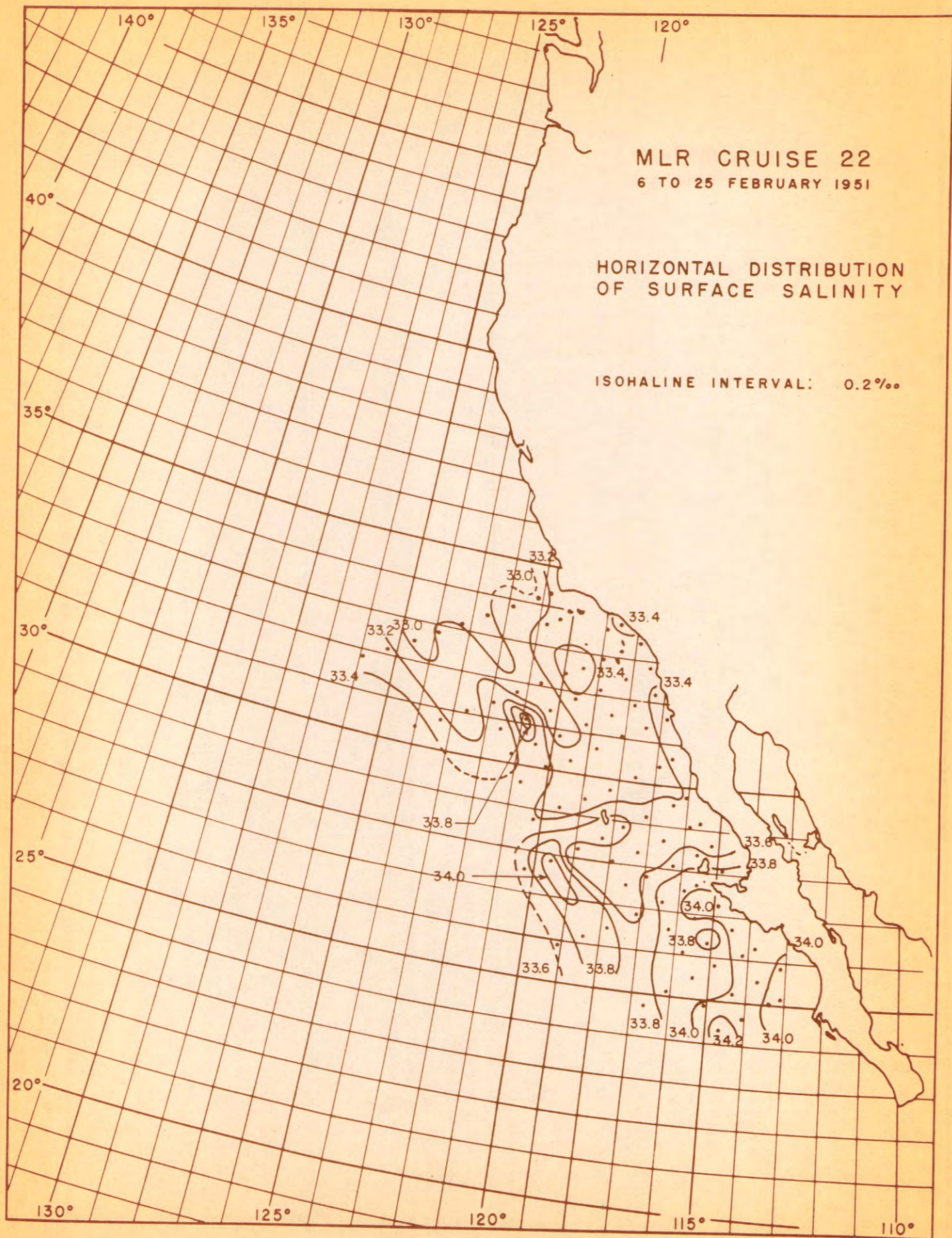
## PERSONNEL PARTICIPATING IN PREPARATION OF DATA

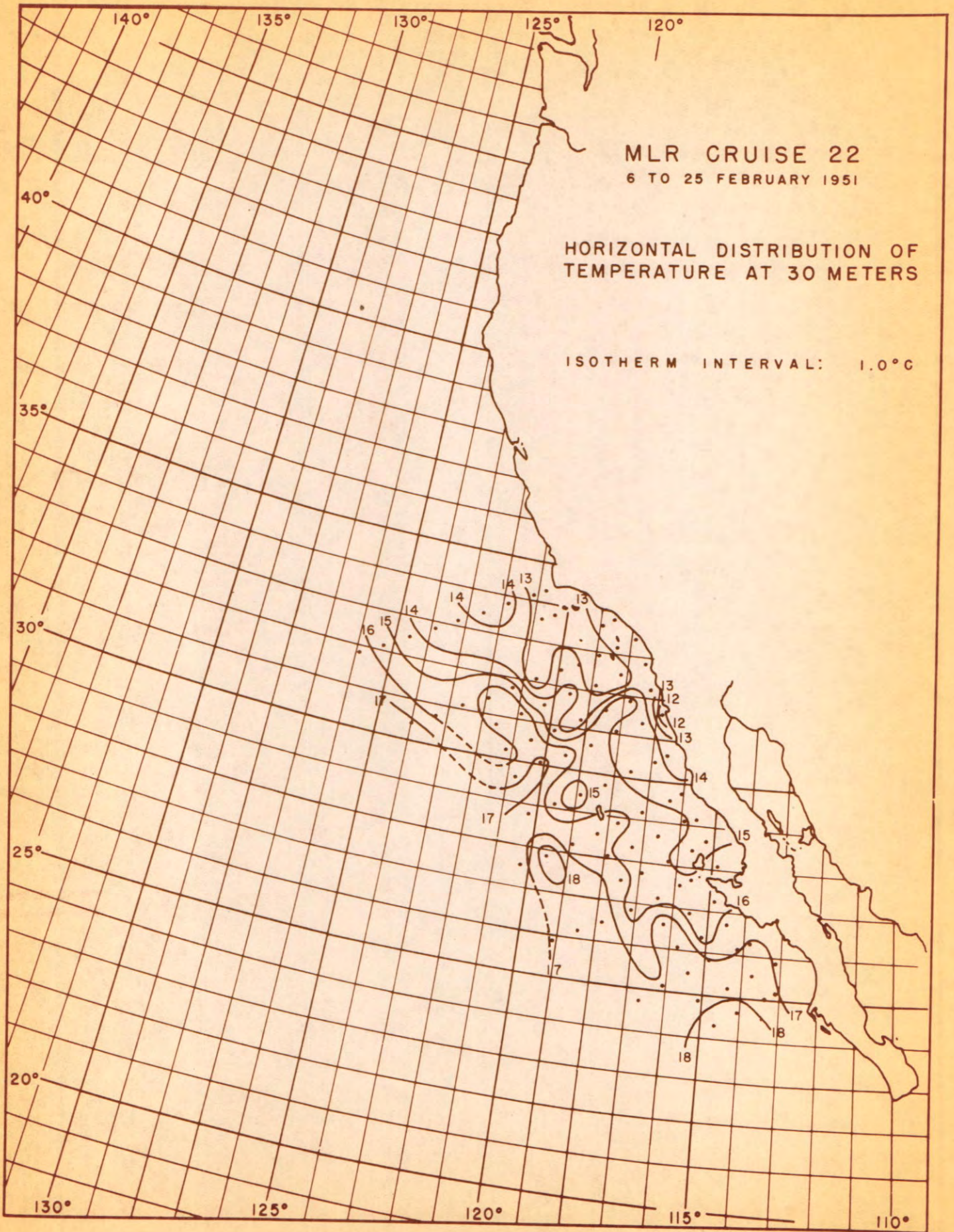
Barney, Ruth M., Stenographer  
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Berkey, Max L., Jr., Marine Technician  
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Cunningham, Leonard M., Jr., Senior Marine Technician  
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Gossett, David A., Senior Marine Technician  
Haddow, Robert W., Marine Technician  
Herreshoff, Karl F., Marine Technician, Chemical  
Hutchins, Dorsey M., Typist-Clerk  
James, Lois L., Laboratory Technician  
Kaatz, E. James, Marine Technician, Chemical  
Kirk, Robert W., Laboratory Technician  
Klein, Hans T., Principal Laboratory Technician  
Larimore, Wayne H., Marine Technician  
Love, Cuthbert M., Research Assistant  
Madden, Dorothy A., Laboratory Technician  
Mao, Han-Lee, Research Assistant  
McClendon, Robert I., Marine Technician  
Mead, Richard V., Principal Marine Technician  
Messner, Grodon P., Marine Technician  
Metzger, June C., Typist-Clerk  
Miller, Bernadette L., Engineering Aid  
Payne, Miles M., Marine Technician  
Propsner, Ruth O., Engineering Aid  
Ratty, Donald K., Marine Technician  
Ridgely, Johanna W., Laboratory Technician  
Sease, Jean R., Marine Technician  
Smith, Alan C., Senior Marine Technician  
Whitney, Alice D., Senior Engineering Aid  
Wilburn, Virginia A., Statistician  
Wilkes, Frances C., Engineering Aid  
Worrall, Charles G., Senior Marine Technician











## STATION 80.55 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 34°19'N 120°48'W February 25, 1951 1017 GCT Wire  
 angle: 23° Sounding: 450 fms. Depth of observation: 350 m. Weather:  
 clear Sea: rough Wind: 330°, force 4

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	12.45	33.24	25.16	281.6	.0000	5.89	.54
10	12.45	33.31	25.21	276.7	.0280	6.02	.51
20	12.45	33.30	25.20	277.7	.0558	6.01	.52
30	12.42	33.31	25.22	276.6	.0836	5.93	.64
50	11.10	33.38	25.52	248.5	.1364	5.19	.95
75	9.78	33.49	25.83	219.1	.1952	4.25	1.43
100	9.53	33.71	26.04	199.4	.2478	3.80	1.57
150	8.67	34.03	26.43	163.4	.339	2.59	2.00
200	7.81	34.10 *	26.62	146.4	.417	2.11	2.13
250	7.52	34.11 *	26.67	142.4	.490	1.75	2.24
300	7.27	34.15 *	26.73	136.7	.560	1.36	2.53

\*Sequence of salinities uncertain

## STATION 80.60 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 34°09'N 121°09'W February 24, 1951 1620 GCT Wire  
 angle: 12° Sounding: 1,280 fms. Depth of observation: 986 m. Weather:  
 partly cloudy Sea: rough Wind: 90°, force 3

0	13.11	33.08	24.91	305.6	.0000	5.44	.47
10	13.12	33.08	24.90	306.1	.0307	5.44	.49
20	13.09	33.07	24.90	306.5	.0615	5.40	.50
30	12.77	33.06	24.96	301.5	.0920	5.41	.52
50	12.34	33.48	25.37	263.1	.1487	5.44	.65
75	10.50	33.39	25.63	238.2	.2117	4.09	1.22
100	9.36	33.57	25.96	207.0	.2677	3.44	1.51
150	8.58	33.91	26.35	170.9	.363	2.50	1.83
200	7.99	34.06	26.56	152.0	.444	2.33	2.02
250	7.64	34.13	26.66	142.6	.518	1.68	2.22
300	7.12	34.19	26.79	131.7	.587	1.38	2.45
400	6.65	34.30	26.94	118.6	.714	.80	2.70
500	6.08	34.34	27.04	109.4	.828	.40	2.80
600	5.70	34.37	27.11	103.5	.936	.40	2.87
700	5.15	34.42	27.22	94.0	1.036	.40	2.88
800	4.54	34.48	27.34	83.0	1.125	.40	2.88
1000	(3.95)	(34.54)	(27.45)	(73.3)	(1.283)	(.61)	(2.81)

## STATION 80.70 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 33°49'N 121°51'W February 24, 1951 0504, 0532, 0725  
 GCT Wire angle: 8°, 10°, 9° Sounding: 2,040 fms. Depth of observation:  
 586 m., 1,194 m., 2,900 m. Weather: cloudy Sea: very rough Wind: 230°,  
 force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	14.62	33.12	24.63	332.3	.0000	4.95	.40
10	14.64	33.11	24.61	333.7	.0334	5.16	.36
20	14.63	33.10	24.61	334.5	.0669	5.19	.36
30	14.61	33.08	24.60	335.8	.1005	5.20	.37
50	14.60	33.10	24.61	334.7	.1679	5.21	.35
75	13.30	33.08	24.87	311.1	.2491	5.22	.48
100	10.57	33.13	25.42	259.1	.3208	4.10	.66
150	9.07	33.78	26.17	188.0	.433	2.87	1.00
200	8.28	33.93	26.41	165.9	.522	2.50	1.32
250	7.57	34.02	26.59	149.8	.602	2.27	1.59
300	6.90	34.08	26.73	136.8	.674	2.00	1.81
400	5.92	34.18	26.94	117.9	.802	.94	2.15
500	5.50	34.27	27.06	107.1	.916	.49	2.68
600	5.24	34.37	27.17	97.7	1.019	.36	2.84
700	4.83	34.43	27.26	89.2	1.114	.36	2.88
800	4.34	34.42	27.31	85.0	1.202	.36	2.89
1000	3.75	34.47	27.41	76.1	1.364	.56	2.96
1200	3.32	34.52	27.49	68.9	1.511	.82	2.92
1500	2.75	34.61	27.62	57.5	1.703	1.05	2.87
2000	2.09	34.65	27.71	49.1	1.974	1.56	2.70
2500	1.82	34.65	27.73	47.7	2.220	2.33	2.59

## STATION 80.80 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 33°29'N 122°32'W February 23, 1951 2317 GCT Wire  
 angle: 15° Sounding: 2,240 fms. Depth of observation: 943 m. Weather:  
 cloudy Sea: very rough Wind: 280°, force 3

0	14.42	32.99	24.57	337.8	.0000	5.30	.42
10	14.41	32.99	24.57	337.8	.0339	5.44	.42
20	14.40	33.02	24.60	335.7	.0677	5.43	.44
30	14.40	33.02	24.60	336.0	.1014	5.39	.47
50	12.87	32.86	24.78	318.5	.1672	5.34	.55
75	11.05	33.10	25.31	268.8	.2410	5.00	.90
100	10.12	33.35	25.67	235.4	.3044	4.28	1.24
150	8.57	33.71	26.20	185.6	.410	3.68	1.60
200	8.39	34.05	26.49	158.6	.497	2.18	1.98
250	7.68	34.04	26.59	149.9	.575	1.80	2.24
300	6.83	34.04	26.71	138.9	.648	1.53	2.38
400	5.75	34.12	26.91	120.2	.778	1.15	2.59
500	5.19	34.32	27.14	99.6	.889	.59	2.80
600	4.81	34.39	27.24	90.9	.985	.45	2.86
700	4.43	34.43	27.31	84.4	1.074	.44	2.92
800	4.09	34.45	27.36	79.8	1.157	.44	2.95
1000	(3.71)	(34.50)	(27.44)	(73.4)	(1.312)	+	-

## STATION 80.90 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 33°09'N 123°13'W February 23, 1951 1704, 1755 GCT  
 Wire angle: 14°, 16° Sounding: 2,340 fms. Depth of observation: 1,167 m.  
 Weather: cloudy Sea: very rough Wind: 300°, force 4

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	13.85	32.99	24.69	326.5	.0000	4.79	.46
10	13.85	32.99	24.69	326.7	.0328	5.35	.40
20	13.85	32.97	24.67	328.4	.0657	5.29	.38
30	13.85	32.98	24.68	328.0	.0987	5.16	.38
50	11.45	33.07	25.21	277.4	.1595	4.88	.78
75	10.05	33.23	25.58	242.6	.2249	4.46	1.23
100	9.06	33.46	25.92	210.6	.2819	3.59	1.46
150	8.44	33.84	26.32	174.0	.379	2.70	1.86
200	7.81	34.01	26.55	153.1	.461	2.16	2.04
250	7.33	34.05	26.65	144.2	.536	1.80	2.25
300	6.88	34.09	26.74	135.8	.606	1.51	2.44
400	6.01	34.19	26.93	118.3	.735	.71	2.70
500	5.29	34.24	27.06	106.8	.848	.45	2.80
600	4.93	34.29	27.14	99.8	.952	.35	2.88
700	4.57	34.34	27.22	92.7	1.050	.38	2.89
800	4.19	34.40	27.31	84.7	1.139	.45	2.88
1000	3.68	34.48	27.43	74.5	1.300	.58	(2.77)

## STATION 80.100 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 32°49'N 123°54'W February 23, 1951 0909 GCT Wire  
 angle: 15° Sounding: 2,480 fms. Depth of observation: 1,163 m.  
 Weather: cloudy Sea: high Wind: 300°, force 4

0	13.59	33.05	24.79	317.0	.0000	5.48	.43
10	13.60	33.03	24.77	318.9	.0319	5.53	.42
20	13.60	33.04	24.78	318.4	.0639	5.72	.40
30	13.60	33.06	24.79	317.2	.0958	5.74	.39
50	11.32	33.20	25.34	265.6	.1544	5.38	.85
75	9.88	33.29	25.66	235.5	.2174	4.84	1.20
100	9.12	33.57	26.00	203.4	.2726	3.89	1.52
150	8.44	33.85	26.33	173.3	.367	2.91	1.82
200	7.92	34.02	26.54	154.0	.450	2.46	1.90
250	7.42	34.11	26.68	141.0	.524	1.98	2.21
300	6.94	34.15	26.78	132.2	.593	1.46	2.41
400	6.11	34.20	26.93	118.9	.719	.86	2.47
500	5.45	34.29	27.08	105.0	.832	.59	2.83
600	4.81	34.28	27.15	99.1	.935	.44	2.92
700	4.50	34.38	27.26	89.0	1.030	.49	2.95
800	4.21	34.47	27.36	79.8	1.115	.54	2.94
1000	3.63	34.53	27.47	70.2	1.267	.68	2.85

## STATION 80.110 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 32°29'N 124°34.5'W February 23, 1951 0204, 0244 GCT  
 Wire angle: 3°, 20° Sounding: 2,200 fms. Depth of observation: 580 m.,  
 1,176 m. Weather: partly cloudy Sea: high Wind: 320°, force 6

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	14.40	32.99	24.57	337.4	.0000	5.60	.65
10	14.44	32.99	24.56	338.4	.0339	5.79	.61
20	14.42	32.96	24.55	340.5	.0680	5.79	.61
30	14.30	32.88	24.51	344.2	.1024	5.77	.61
50	13.62	32.81	24.60	336.5	.1708	5.70	.62
75	12.12	32.86	24.93	305.3	.2515	5.55	.79
100	10.77	33.09	25.35	265.4	.3233	5.26	1.14
150	8.58	33.58	26.09	195.4	.439	3.58	1.86
200	8.20	33.92	26.42	165.4	.530	3.15	2.10
250	7.77	34.09	26.61	147.4	.609	2.10	2.30
300	7.23	34.13	26.72	137.6	.681	1.69	2.46
400	5.69	34.02	26.84	126.9	.814	1.50	2.65
500	4.96	34.14	27.02	110.2	.934	.77	2.72
600	4.88	34.30	27.16	98.4	1.039	.42	2.84
700	4.59	34.33	27.21	93.7	1.136	.41	2.90
800	4.22	34.35	27.27	88.8	1.228	.42	2.94
1000	3.64	34.51	27.45	71.8	1.390	.73	-

## STATION 80.120 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 32°09'N 125°15.5'W February 22, 1951 1718 GCT  
 Wire angle: 14° Sounding: 2,440 fms. Depth of observation: 1,216 m.  
 Weather: cloudy Sea: high Wind: 320°, force 5

0	15.75	33.21	24.45	349.2	.0000	5.62	.35
10	15.75	33.21	24.45	349.4	.0351	5.63	.35
20	15.75	33.27	24.49	345.4	.0700	5.80	.33
30	15.76	33.29	24.51	344.4	.1046	5.82	.32
50	15.84	33.28	24.48	347.4	.1741	5.74	.31
75	15.08	33.31	24.67	329.9	.2592	5.81	.34
100	12.75	33.18	25.05	294.0	.3377	5.74	.50
150	9.66	33.27	25.68	234.9	.471	4.98	1.19
200	8.67	33.82	26.27	179.8	.575	4.09	1.46
250	8.04	33.95	26.46	161.7	.661	3.50	1.64
300	7.33	33.99	26.60	149.4	.740	2.98	1.80
400	6.17	34.06	26.81	130.0	.880	1.57	2.41
500	5.50	34.19	27.00	113.1	1.003	.82	2.64
600	5.27	34.35	27.15	99.5	1.110	.41	2.82
700	4.93	34.37	27.21	94.9	1.208	.41	2.87
800	4.44	34.38	27.27	89.2	1.301	.41	2.89
1000	3.77	34.49	27.43	74.9	1.467	.85	2.86

## STATION 80.130 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 31°49'N 125°56'W February 22, 1951 0718, 0931 GCT  
 Wire angle: 20°. 18° Sounding: 2,310 fms. Depth of observation: 1,013 m.,  
 2,688 m. Weather: cloudy Sea: very rough Wind: 330°, force 5

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	16.42	33.35	24.40	353.4	.0000	4.95	.42
10	16.42	33.39	24.43	350.8	.0353	5.04	.37
20	16.43	33.38	24.42	352.0	.0706	5.34	.38
30	16.43	33.37	24.42	353.0	.1060	5.37	.39
50	16.44	33.37	24.42	353.9	.1770	5.32	.41
75	16.45	33.37	24.41	354.8	.2661	5.14	.36
100	16.40	33.35	24.41	355.9	.3555	4.96	.38
150	12.43	33.44	25.32	270.1	.513	4.47	.68
200	9.57	33.72	26.05	201.2	.632	3.73	1.40
250	8.26	33.93	26.42	166.4	.724	3.06	1.79
300	7.69	34.01	26.56	153.0	.805	2.60	1.95
400	6.24	34.06	26.80	130.9	.948	2.09	2.36
500	6.06	34.18	26.92	121.0	1.075	.91	2.56
600	5.45	34.25	27.05	109.2	1.191	.74	2.69
700	4.82	34.29	27.15	99.5	1.296	.57	2.77
800	4.32	34.33	27.24	91.5	1.393	.43	2.83
1000	3.80	34.46	27.40	77.4	1.564	.51	2.85
1200	3.38	34.47	27.45	73.3	1.716	.84	2.79
1500	2.79	34.55	27.57	62.4	1.922	1.04	2.70
2000	2.08	34.64	27.70	49.7	2.207	1.84	2.52
2500	1.83	34.67	27.74	46.4	2.451	2.10	-

## STATION 83.55 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 33°44'N 120°24.5'W February 25, 1951 0257 GCT  
 Wire angle: 22° Sounding: 650 fms. Depth of observation: 740 m.  
 Weather: partly cloudy Sea: rough Wind: 320°, force 2

0	12.54	33.25	25.15	282.5	.0000	5.26	.54
10	12.55	33.26 *	25.15	282.2	.0283	5.23	.54
20	12.42	33.23 *	25.16	282.3	.0566	5.53	.55
30	12.05	33.21 *	25.21	277.3	.0847	5.51	.58
50	11.25	33.19 *	25.34	265.1	.1392	4.66	.86
75	10.99	33.39	25.55	246.4	.2035	4.37	.99
100	9.04	33.50	25.96	207.3	.2606	2.95	1.44
150	8.36	33.87	26.35	170.6	.356	2.61	1.87
200	8.02	34.04	26.54	153.9	.437	2.36	1.99
250	7.60	34.10	26.65	144.3	.512	1.94	2.16
300	7.21	34.13	26.73	137.4	.584	1.44	2.36
400	6.58	34.18	26.85	126.6	.716	.91	2.65
500	6.00	34.25	26.98	115.0	.838	.57	2.72
600	5.61	34.33	27.09	105.3	.950	.38	2.76
700	5.23	34.36	27.16	99.4	1.053	.40	2.81

\*Sequence of salinity samples uncertain



## STATION 83.60 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 33°34'N 120°45'W February 24, 1951 2254 GCT Wire  
 angle: 15° Sounding: 880 fms. Depth of observation: 1,163 m.  
 Weather: cloudy Sea: rough Wind: 90°, force 2

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	13.17	33.22	25.00	296.5	.0000	5.92	.40
10	13.05	33.26	25.06	291.5	.0295	6.01	.48
20	12.71	33.31	25.16	281.7	.0583	6.07	.56
30	12.38	33.36	25.26	272.2	.0861	6.10	.63
50	11.64	33.43	25.46	254.2	.1390	5.61	.86
75	11.17	33.42	25.54	247.3	.2020	5.34	.99
100	9.40	33.35	25.78	224.0	.2613	4.07	1.48
150	8.38	33.87	26.35	170.9	.361	2.95	1.92
200	7.89	34.03	26.55	152.8	.442	2.42	2.11
250	7.44	34.10	26.67	142.0	.516	2.05	2.83
300	6.93	34.14	26.77	132.8	.586	1.67	2.33
400	6.25	34.19	26.90	121.4	.714	.81	2.67
500	5.73	34.32	27.07	106.4	.829	.48	2.83
600	5.22	34.35	27.16	98.9	.932	.37	2.89
700	4.84	34.37	27.22	93.8	1.029	.40	2.90
800	4.50	34.39	27.27	89.2	1.122	.45	2.90
1000	3.94	34.48	27.40	77.6	1.290	.65	2.84

## STATION 87.35 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 33°50'N 118°37.5'W February 18, 1951 2030 GCT  
 Wire angle: 5° Sounding: 300 fms. Depth of observation: 599 m.  
 Weather: cloudy Sea: rough Wind: 270°, force 1

0	13.76	33.41	25.03	293.9	.0000	4.90	.47
10	13.51	33.35	25.03	293.7	.0295	5.79	.48
20	13.40	33.33	25.04	293.3	.0590	5.88	.49
30	13.15	33.32	25.08	289.5	.0883	5.92	.50
50	10.63	33.39	25.61	239.8	.1415	5.90	1.20
75	9.99	33.66	25.93	209.9	.1980	4.50	1.59
100	9.66	33.77	26.07	197.0	.2492	3.11	1.76
150	9.26	34.04	26.35	171.7	.342	2.32	2.20
200	8.67	34.11	26.49	158.4	.425	2.24	2.36
250	8.45	34.22	26.61	147.8	.502	1.55	2.40
300	8.03	34.22	26.68	142.4	.575	1.28	2.61
400	6.89	34.26	26.87	124.8	.710	.69	2.75
500	6.34	34.33	27.00	113.6	.830	.41	3.09
600	(5.82)	(34.37)	(27.10)	(105.1)	(.941)	(.31)	(3.06)

## STATION 87.40 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 33°40'N 118°58.5'W February 19, 1951 0020 GCT  
 Wire angle: 10° Sounding: 500 fms. Depth of observation: 696 m.  
 Weather: clear Sea: high Wind: 270°, force 5

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu\text{g at/L}$ )
0	13.43	33.31	25.02	294.8	.0000	5.81	.58
10	13.40	33.31	25.03	294.5	.0296	5.91	.53
20	13.36	33.32	25.04	293.3	.0591	5.82	.53
30	13.27	33.33	25.07	291.1	.0884	5.45	.58
50	10.65	33.40	25.61	239.4	.1417	4.43	1.24
75	9.83	33.61	25.92	211.0	.1983	3.65	1.56
100	9.49	33.79	26.11	192.8	.2491	3.16	1.65
150	8.82	33.95	26.35	171.6	.341	2.85	1.86
200	8.69	34.18	26.55	153.5	.423	1.75	2.12
250	8.35	34.23	26.64	145.6	.498	1.20	2.46
300	7.63	34.23	26.74	135.9	.569	1.09	2.58
400	6.73	34.26	26.89	122.6	.699	.66	2.80
500	6.13	34.35	27.04	109.3	.816	.40	2.90
600	5.69	34.35	27.10	104.9	.924	.30	2.94
700	(5.30)	(34.37)	(27.16)	(99.6)	(1.028)	(.33)	(2.94)

## STATION 90.30 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 33°24.5'N 117°55'W February 18, 1951 1353 GCT  
 Wire angle: 2° Sounding: 300 fms. Depth of observation: 448 m.  
 Weather: overcast Sea: moderate Wind: 300°, force 2

0	13.48	33.28	24.99	298.0	.0000	5.76	.46
10	13.50	33.24	24.95	301.6	.0301	4.80	.43
20	13.00	33.31	25.11	287.2	.0597	4.08	.74
30	11.33	33.42	25.51	249.1	.0866	3.56	1.10
50	10.81	33.57	25.72	229.6	.1347	3.32	1.40
75	10.50	33.74	25.90	212.4	.1902	3.11	1.67
100	9.93	34.01	26.21	183.6	.2400	2.26	1.69
150	9.42	34.09	26.36	170.5	.329	1.93	2.04
200	8.89	34.17	26.51	157.3	.412	1.43	2.12
250	8.60	34.24	26.61	148.6	.489	1.14	2.39
300	8.30	34.25	26.66	144.2	.562	1.00	2.45
400	7.19	34.26	26.83	129.0	.700	.78	2.67

## STATION 90.37 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 33°11'N 118°23.5'W February 19, 1951 0625 GCT  
 Wire angle: 12° Sounding: 645 fms. Depth of observation: 973 m.  
 Weather: clear Sea: very rough Wind: 280°, force 5

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu\text{g at/L}$ )
0	13.61	33.27	24.95	301.2	.0000	5.85	.46
10	13.60	33.29	24.97	299.9	.0302	6.00	.47
20	13.60	33.27	24.95	301.6	.0604	5.80	.49
30	13.54	33.27	24.97	300.7	.0906	5.54	.52
50	10.90	33.39	25.56	244.4	.1454	4.52	1.18
75	9.99	33.57	25.86	216.6	.2033	3.90	1.64
100	9.38	33.74	26.09	194.8	.2550	3.19	1.77
150	8.47	33.97	26.42	164.8	.346	2.74	1.91
200	8.19	34.33	26.74	134.9	.421	2.02	2.23
250	7.82	34.20	26.69	140.0	.490	1.42	2.40
300	7.36	34.15	26.72	138.0	.560	1.09	2.51
400	6.64	34.45	27.06	107.4	.684	.59	2.81
500	5.98	34.30	27.02	111.1	.794	.37	2.87
600	5.67	34.38	27.13	102.4	.902	.28	2.92
700	5.15	-	-	-	-	.21	2.98
800	4.79	-	-	-	-	.32	3.04
1000	(4.20)	-	-	-	-	(.55)	(3.07)

## STATION 90.45 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 30°54.5'N 118°56'W February 19, 1951 1139 GCT  
 Wire angle: 30° Sounding: 950 fms. Depth of observation: 1,103 m.  
 Weather: clear Sea: high Wind: 350°, force 3-4

0	12.95	33.32	25.12	285.0	.0000	5.55	.54
10	12.95	33.33	25.13	284.5	.0286	5.59	.59
20	12.96	33.34	25.14	284.2	.0571	5.54	.58
30	12.87	33.38	25.18	279.8	.0854	5.16	.60
50	10.65	33.43	25.64	237.2	.1374	4.26	1.26
75	9.64	33.79	26.09	194.7	.1917	3.66	1.55
100	9.19	33.86	26.22	183.0	.2392	3.26	1.70
150	8.86	34.01	26.39	167.7	.328	2.75	1.91
200	8.40	34.25	26.65	144.0	.406	2.17	2.12
250	7.94	34.28	26.74	135.8	.476	1.67	2.31
300	7.54	34.25	26.77	133.1	.544	1.36	2.44
400	6.84	34.29	26.90	121.9	.673	.70	2.66
500	6.10	34.33	27.03	110.4	.790	.48	2.81
600	5.55	34.34	27.11	103.8	.898	.40	2.89
700	5.15	34.35	27.16	99.2	1.001	.40	2.96
800	4.78	34.38	27.23	93.4	1.098	.42	2.96
1000	4.07	34.44	27.36	82.2	1.275	.49	2.90

## STATION 90.53 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 32°38.5'N 119°29'W February 19, 1951 1705 GCT  
 Wire angle: 9° Sounding: 450 fms. Depth of observation: 391 m.  
 Weather: partly cloudy Sea: very rough Wind: 320°, force 4

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (μg at/L)
0	13.07	33.53	25.26	271.8	.0000	5.75	.59
10	13.07	33.35	25.12	285.3	.0280	5.90	.58
20	13.08	33.32	25.10	288.0	.0568	5.94	.60
30	13.09	33.31	25.09	289.1	.0858	5.90	.66
50	11.20	33.34	25.47	253.2	.1403	5.10	.97
75	9.94	33.57	25.87	215.7	.1992	3.98	1.49
100	9.22	33.89	26.23	181.2	.2491	3.37	1.80
150	8.46	33.97	26.42	164.7	.336	2.50	-
200	8.07	34.27	26.71	137.6	.412	2.00	-
250	7.78	34.23	26.72	137.2	.482	1.45	-
300	7.50	34.21	26.75	135.5	.550	1.04	-
400	(6.70)	(34.25)	(26.89)	(123.0)	(.680)	-	-

## STATION 90.60 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 32°25'N 119°57.5'W February 19, 1951 2142 GCT  
 Wire angle: 12° Sounding: 450 fms. Depth of observation: 683 m.  
 Weather: clear Sea: high Wind: 320°, force 5

0	13.69	33.43	25.06	291.1	.0000	5.80	.77
10	13.70	33.30	24.96	301.1	.0297	5.66	.67
20	13.64	33.26	24.94	303.1	.0600	5.65	.61
30	13.60	33.25	24.94	303.3	.0904	5.64	.58
50	12.50	33.36	25.24	274.9	.1435	5.28	.95
75	9.82	33.59	25.90	212.3	.2097	3.64	1.62
100	9.23	33.76	26.13	191.0	.2604	3.34	1.85
150	8.45	33.96	26.41	165.3	.350	3.07	2.10
200	8.04	34.06	26.55	152.7	.430	2.27	2.25
250	7.45	34.13	26.69	140.0	.504	1.67	2.26
300	6.99	34.10	26.73	136.6	.574	1.31	2.48
400	6.16	34.15	26.88	123.2	.704	.99	2.72
500	5.83	34.35	27.08	105.4	.820	.44	2.88
600	5.36	34.36	27.15	99.9	.923	.30	3.18

## STATION 90.70 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 32°04.5'N 120°39'W February 20, 1951 0304, 0503 GCT  
 Wire angles: missing, 5° Sounding: 2,100 fms. Depths of observation: 1,002,  
 2,922 m. Weather: clear Sea: very rough Wind: 320°, force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (μg at/L)
0	13.63	33.12	24.83	312.6	.0000	5.92	.56
10	13.62	33.10	24.82	314.2	.0315	5.56	.59
20	13.12	33.23	25.02	295.3	.0621	5.54	.65
30	12.13	33.29	25.26	272.8	.0906	5.54	.74
50	11.36	33.31	25.42	258.2	.1440	5.10	.94
75	9.99	33.42	25.74	227.6	.2051	4.30	1.36
100	9.20	33.86	26.21	183.1	.2568	3.60	1.64
150	8.42	34.04	26.48	158.9	.343	2.96	1.96
200	7.81	33.96	26.51	156.8	.422	2.48	2.01
250	7.39	34.04	26.63	145.8	.499	1.90	2.16
300	7.04	34.13	26.75	135.0	.569	1.24	2.53
400	6.52	34.16	26.84	127.2	.702	.71	2.71
500	5.82	34.27	27.02	111.2	.822	.45	2.84
600	5.32	34.33	27.13	101.6	.929	.48	2.91
700	4.90	34.33	27.18	97.5	1.030	.38	2.92
800	4.54	34.36	27.24	91.9	1.125	.25	2.97
1000	3.91	34.45	27.38	79.5	1.299	.67	2.92
1200	3.35	34.46	27.44	73.6	1.454	.85	2.85
1500	2.75	34.52	27.55	64.1	1.663	1.20	2.73
2000	2.10	34.58	27.65	54.3	1.964	1.91	2.58
2500	1.78	34.66	27.74	46.4	2.220	2.44	2.46

## STATION 90.80 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 31°45'N 121°19'W February 20, 1951 1151 GCT Wire  
 angle: 25° Sounding: 1,980 fms. Depth of observation: 1,078 m.  
 Weather: partly cloudy Sea: very rough Wind: 340°, force 3

0	15.10	33.08	24.49	345.0	.0000	5.30	.47
10	15.10	33.08	24.49	345.3	.0347	5.00	.47
20	15.10	33.09	24.50	344.8	.0693	5.53	.48
30	15.10	33.11	24.52	343.7	.1039	5.53	.50
50	15.05	33.13	24.54	341.7	.1728	5.42	.53
75	14.68	33.12	24.61	335.5	.2579	5.48	.47
100	12.12	33.14	25.14	285.3	.3360	5.31	.80
150	9.70	33.31	25.70	232.6	.466	4.40	1.28
200	8.75	33.80	26.24	182.5	.571	3.14	1.71
250	7.88	34.01	26.54	155.0	.656	2.41	1.93
300	7.15	34.28	26.85	125.4	.726	1.88	2.15
400	6.08	34.22	26.95	117.0	.849	1.13	2.53
500	5.57	34.27	27.05	108.0	.962	.64	2.80
600	5.28	34.35	27.15	99.6	1.067	.44	2.83
700	4.90	34.39	27.23	93.1	1.164	.42	2.84
800	4.57	34.43	27.29	87.1	1.255	.45	2.81
1000	(4.00)	(34.49)	(27.40)	(77.6)	(1.422)	-	-

## STATION 90.90 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 31°25'N 121°59'W February 20, 1951 1804 GCT Wire  
 angle: 9° Sounding: 2,210 fms. Depth of observation: 1,191 m.  
 Weather: cloudy Sea: very rough Wind: 340°, force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	16.39	33.33	24.40	354.2	.0000	5.45	.44
10	16.37	33.37	24.43	351.1	.0354	6.05	.42
20	16.37	33.36	24.42	352.2	.0707	5.81	.43
30	16.38	33.35	24.41	353.4	.1061	5.63	.45
50	16.46	33.37	24.41	354.3	.1772	5.59	.42
75	16.54	33.39	24.41	355.3	.2664	5.66	.44
100	14.00	33.34	24.93	306.4	.3496	5.75	.51
150	10.47	33.56	25.77	226.7	.484	5.25	1.02
200	9.63	33.79	26.09	197.0	.590	4.30	1.39
250	8.67	33.91	26.34	174.1	.684	3.38	1.68
300	7.53	33.97	26.55	153.7	.766	2.42	1.98
400	6.23	34.00	26.76	135.3	.912	2.07	2.39
500	5.69	34.14	26.93	119.2	1.040	.87	2.69
600	5.15	34.28	27.11	103.2	1.153	.45	2.92
700	4.73	34.40	27.25	90.2	1.250	.45	2.93
800	4.39	34.45	27.33	83.4	1.338	.45	2.94
1000	3.78	34.47	27.41	76.5	1.500	.62	2.93

## STATION 90.100 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 31°04.5'N 122°40'W February 20, 1951 2353 GCT Wire  
 angle: 15° Sounding: 2,280 fms. Depth of observation: 1,161 m.  
 Weather: overcast Sea: rough Wind: 330°, force 4

0	15.50	33.12	24.44	350.4	.0000	5.36	.37
10	15.50	33.32	24.59	336.1	.0345	5.41	.35
20	15.47	33.35	24.62	333.6	.0681	5.41	.39
30	15.43	33.35	24.63	333.0	.1016	5.40	.39
50	15.33	33.15	24.50	346.1	.1698	5.30	.39
75	14.05	32.99	24.65	332.4	.2551	5.35	.46
100	11.50	33.10	25.23	277.2	.3318	5.47	.68
150	9.77	33.48	25.83	221.2	.457	4.25	1.26
200	8.77	33.75	26.20	186.5	.560	3.29	1.59
250	7.95	33.95	26.48	160.4	.647	2.76	1.78
300	7.32	34.09	26.68	141.9	.723	2.24	1.97
400	6.28	34.15	26.87	124.8	.858	1.07	2.52
500	5.47	34.15	26.97	115.7	.979	.77	2.73
600	4.97	34.24	27.10	104.0	1.090	.50	2.82
700	4.63	34.32	27.20	95.0	1.190	.50	2.87
800	4.37	34.41	27.30	86.1	1.282	.50	2.88
1000	3.70	34.51	27.45	72.6	1.442	.70	2.88

## STATION 90.110 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 30°44.5'N 123°20'W February 21, 1951 0546 GCT Wire  
 angle: 9° Sounding: 2,160 fms. Depth of observation: 1,182 m.  
 Weather: partly cloudy Sea: rough Wind: 350°, force 2

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	15.96	33.22	24.41	352.9	.0000	5.87	.44
10	15.98	33.22	24.40	353.6	.0355	5.16	.38
20	15.98	33.23	24.41	353.2	.0710	5.02	.40
30	15.99	33.24	24.42	353.0	.1065	4.89	.42
50	16.00	33.26	24.43	352.3	.1774	4.71	.44
75	15.31	33.10	24.46	350.0	.2650	5.47	.41
100	13.39	33.23	24.97	302.5	.3478	5.45	.62
150	9.70	33.42	25.79	224.5	.480	4.36	1.20
200	8.58	33.87	26.32	174.8	.581	3.18	1.62
250	7.90	34.02	26.54	154.5	.664	2.65	1.89
300	7.36	34.07	26.66	143.9	.739	2.24	2.07
400	6.03	34.11	26.87	124.5	.874	1.44	2.44
500	5.51	34.24	27.03	109.5	.992	.73	2.71
600	5.22	34.32	27.13	101.1	1.099	.44	2.77
700	4.68	34.38	27.24	91.1	1.196	.39	2.81
800	4.17	34.42	27.33	83.0	1.284	.35	2.86
1000	3.62	(34.45)	(27.41)	(76.0)	(1.444)	.56	2.90

## STATION 90.120 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 30°24.5'N 124°00.5'W February 21, 1951 1053, 1222 GCT  
 Wire angles: 5°, 2° Sounding: 2,200 fms. Depths of observation: 1,199,  
 2,304 m. Weather: partly cloudy Sea: rough Wind: 320°, force 2

0	17.18	33.56	24.39	355.0	.0000	5.41	.39
10	17.18	33.58	24.40	353.8	.0356	5.52	.34
20	17.19	33.57	24.39	355.1	.0712	5.26	.35
30	17.22	33.57	24.39	356.1	.1069	5.22	.37
50	17.30	33.62	24.41	354.9	.1783	5.61	.38
75	17.38	33.66	24.42	354.6	.2675	5.50	.35
100	15.70	33.46	24.65	332.7	.3540	5.66	.39
150	11.07	33.52	25.63	239.9	.498	4.90	1.00
200	9.21	33.83	26.19	187.4	.606	3.94	1.48
250	8.29	34.01	26.47	161.0	.693	3.23	1.75
300	7.53	34.07	26.63	146.3	.771	2.67	1.96
400	5.89	34.04	26.83	127.9	.909	1.97	2.28
500	5.24	34.15	27.00	112.8	1.030	.92	2.63
600	4.84	34.29	27.15	98.7	1.137	.52	2.83
700	4.33	34.35	27.26	89.2	1.232	.45	2.88
800	4.40	34.48	27.35	81.3	1.318	.53	2.89
1000	3.76	34.51	27.44	73.2	1.474	.70	2.90
1200	3.26	34.58	27.55	63.7	1.613	.89	2.86
1500	2.73	34.58	27.60	59.4	1.800	1.25	2.77
2000	2.08	34.63	27.69	50.5	2.079	1.90	2.66

## STATION 93.30 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 32°50'N 117°31.5'W February 18, 1951 0650 GCT Wire  
 angle: 17° Sounding: 480 fms. Depth of observation: 582 m.  
 Weather: cloudy Sea: moderate Wind: 300°, force 2

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (μg at/L)
0	14.10	33.24	24.83	313.0	.0000	5.66	.51
10	13.99	33.28	24.88	308.2	.0312	5.80	.49
20	13.73	33.30	24.95	301.9	.0618	5.85	.48
30	13.55	33.31	24.99	297.9	.0919	5.88	.50
50	11.33	33.31	25.42	257.6	.1477	5.90	1.08
75	9.78	33.68	25.98	205.0	.2059	3.90	1.50
100	9.35	33.74	26.10	194.3	.2561	5.35	1.80
150	9.22	34.09	26.39	167.4	.347	2.39	2.01
200	8.99	34.26	26.56	152.2	.428	2.15	2.29
250	8.54	34.27	26.64	145.5	.503	1.56	2.49
300	8.00	34.29	26.74	136.8	.574	1.28	2.66
400	7.10	34.23	26.82	130.0	.708	.94	2.77
500	6.32	(34.34)	(27.01)	(112.6)	(.830)	.83	2.90

(93.27)  
(.828)

## STATION 93.40 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 32°30'N 118°12.5'W February 17, 1951 1025 GCT Wire  
 angle: 13° Sounding: 920 fms. Depth of observation: 969 m.  
 Weather: partly cloudy Sea: moderate Wind: 100°, force 2

0	13.88	33.30	24.92	304.3	.0000	5.84	.53
10	13.88	33.30	24.92	304.6	.0306	5.13	.51
20	13.60	33.33	25.00	297.2	.0608	5.50	.55
30	12.80	33.33	25.16	282.2	.0899	5.46	.75
50	11.08	33.21	25.39	260.7	.1445	4.74	1.05
75	10.07	33.55	25.83	219.3	.2048	4.39	1.37
100	9.48	33.62	25.98	205.2	.2582	3.86	1.62
150	8.77	33.89	26.31	175.3	.354	3.05	1.78
200	8.23	34.01	26.48	159.2	.433	2.52	2.01
250	7.78	34.10	26.62	146.8	.515	1.96	2.28
300	7.49	34.17	26.72	138.3	.587	1.23	2.57
400	6.86	34.28	26.89	123.0	.719	.72	2.90
500	6.12	34.33	27.03	110.7	.837	.43	3.03
600	5.64	34.36	27.11	103.5	.945	.42	3.05
700	5.16	34.39	27.19	96.3	1.046	.46	3.07
800	4.69	34.44	27.29	87.8	1.138	.51	3.10
1000	(4.04)	(34.49)	(27.40)	(78.1)	(1.306)	(.61)	(3.18)



## STATION 93.50 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 32°10'N 118°53.5'W February 17, 1951 0403 GCT  
 Wire angle: 21° Sounding: 690 fms. Depth of observation: 1,089 m.  
 Weather: cloudy Sea: moderate Wind: 90°, force 2

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 s$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	13.80	33.22	24.87	308.6	.0000	4.39	.60
10	13.80	33.12	24.80	316.2	.0314	4.39	.56
20	13.78	33.22	24.88	308.8	.0628	5.66	.60
30	12.05	33.21	25.21	277.3	.0922	5.64	.72
50	10.93	33.13	25.35	264.1	.1466	5.20	1.04
75	10.20	33.36	25.66	235.5	.2094	4.16	1.27
100	9.50	33.62	25.98	205.5	.2649	3.51	1.54
150	8.78	33.92	26.33	173.2	.360	2.83	1.87
200	8.18	34.32	26.73	135.5	.438	2.29	2.04
250	7.94	34.33	26.78	132.1	.505	1.64	2.34
300	7.58	34.33	26.83	127.8	.571	1.20	2.51
400	6.60	34.35	26.98	114.2	.693	.75	2.79
500	6.14	34.38	27.07	107.2	.804	.40	3.01
600	5.51	34.40	27.16	98.8	.908	.37	3.08
700	5.08	34.40	27.21	94.6	1.006	.35	3.14
800	4.75	34.43	27.27	89.3	1.099	.36	3.18
1000	4.11	34.53	27.42	76.0	1.266	.43	3.21

## STATION 93.60 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 31°50'N 119°34'W February 16, 1951 2136 GCT  
 Wire angle: 15° Sounding: 1,780 fms. Depth of observation: 1,184 m.  
 Weather: overcast Sea: rough Wind: 300°, force 5

0	14.36	33.39	24.88	307.2	.0000	5.08	.48
10	14.35	33.46	24.94	302.2	.0306	4.99	.51
20	14.27	33.45	24.95	301.6	.0609	5.01	.51
30	14.22	33.41	24.93	303.8	.0913	5.07	.52
50	12.09	33.29	25.27	272.6	.1492	5.43	.79
75	11.42	33.32	25.41	259.0	.2160	4.52	.91
100	9.73	33.66	25.97	206.2	.2745	3.23	1.59
150	8.63	33.94	26.37	169.4	.369	2.58	1.89
200	7.99	34.02	26.53	155.0	.451	2.17	2.14
250	7.47	34.07	26.64	144.7	.526	1.87	2.33
300	6.88	34.18	26.81	129.1	.595	1.58	2.50
400	6.04	34.51	27.18	95.0	.708	.78	2.80
500	5.77	34.31	27.06	107.6	.810	.41	2.98
600	5.40	34.36	27.14	100.4	.915	.36	3.04
700	5.00	34.45	27.26	89.9	1.011	.36	3.02
800	4.56	34.49	27.34	82.5	1.098	.38	2.99
1000	3.90	34.55	27.46	72.0	1.255	.61	2.96

## STATION 93.70 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 31°29'N 120°14'W February 16, 1951 1514 GCT  
 Wire angle: 9° Sounding: 2,280 fms. Depth of observation: 1,193 m.  
 Weather: partly cloudy Sea: very rough Wind: 300°, force 6

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	10 <sup>5</sup> $\delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	14.45	33.09	24.64	331.0	.0000	5.58	.51
10	14.45	33.09	24.64	331.3	.0332	5.59	.49
20	14.43	33.09	24.64	331.2	.0665	5.71	.47
30	14.38	33.09	24.65	330.4	.0997	5.75	.48
50	13.65	33.07	24.79	318.0	.1649	5.70	.57
75	12.20	33.12	25.11	287.6	.2410	5.40	.75
100	10.16	33.08	25.45	256.0	.3094	4.95	1.10
150	9.02	33.96	26.32	173.9	.418	4.39	1.36
200	8.50	33.93	26.38	169.1	.504	3.92	1.60
250	7.85	33.96	26.50	158.2	.586	3.16	1.94
300	6.95	34.00	26.66	143.4	.662	2.29	2.23
400	5.78	34.11	26.90	121.3	.796	1.55	2.61
500	5.50	34.22	27.02	110.9	.913	.70	2.93
600	5.14	34.27	27.10	103.8	1.021	.41	3.01
700	4.84	34.38	27.22	93.1	1.121	.42	3.07
800	4.55	34.47	27.33	83.9	1.210	.42	3.12
1000	3.93	34.51	27.43	75.3	1.371	.40	3.12

## STATION 93.80 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 31°10'N 120°54.5'W February 16, 1951 0814 GCT  
 Wire angle: 20° Sounding: 2,180 fms. Depth of observation: 1,115 m.  
 Weather: cloudy Sea: rough Wind: 270°, force 4

0	16.46	33.86	24.79	317.1	.0000	5.07	.42
10	16.49	33.32	24.37	357.4	.0339	5.16	.41
20	16.52	33.35	24.38	356.2	.0697	5.23	.44
30	16.54	33.35	24.38	356.9	.1055	5.30	.45
50	15.63	33.16	24.44	351.7	.1767	5.42	.44
75	15.25	33.18	24.54	342.9	.2640	5.42	.46
100	14.09	33.43	24.98	301.6	.3451	4.93	.50
150	9.94	33.11	25.51	251.2	.484	4.42	1.15
200	9.26	33.81	26.17	189.6	.595	3.56	1.44
250	8.42	34.03	26.47	161.4	.684	3.39	1.63
300	7.49	34.04	26.62	148.0	.762	3.25	1.81
400	6.21	33.98	26.74	136.5	.905	1.97	2.38
500	5.48	34.13	26.95	117.3	1.033	.78	2.70
600	5.27	34.23	27.06	108.4	1.147	.44	2.88
700	4.83	34.29	27.15	99.6	1.252	.32	3.02
800	4.40	34.34	27.24	91.7	1.348	.35	3.03
1000	3.82	34.43	27.37	79.9	1.522	.60	3.03

## STATION 93.90 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 30°50'N 121°35'W February 16, 1951 0215 GCT  
 Wire angle: 18° Sounding: 2,300 fms. Depth of observation: 1,159 m.  
 Weather: light rain Sea: moderate Wind: 320°, force 4

Depth (m)	T (°C)	S (‰)	$\sigma_t$ ( $\text{mg}/\text{cm}^3$ )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu\text{g at/L}$ )
0	16.66	33.31	24.32	361.6	.0000	5.13	.42
10	16.65	33.68	24.60	334.7	.0350	5.30	.41
20	16.67	33.55	24.50	344.9	.0691	5.24	.39
30	16.70	33.47	24.43	351.7	.1041	5.18	.38
50	16.70	33.38	24.36	358.9	.1755	5.14	.40
75	16.63	33.37	24.37	358.8	.2657	5.45	.45
100	16.05	33.44	24.56	341.7	.3538	5.08	.42
150	10.72	33.21	25.45	256.7	.504	4.98	.97
200	8.92	33.76	26.18	188.1	.616	3.35	1.50
250	8.58	34.08	26.48	160.1	.704	2.18	1.95
300	8.32	34.17	26.60	150.4	.782	1.40	2.34
400	7.12	34.23	26.82	130.3	.924	.70	2.66
500	6.30	34.29	26.97	116.0	1.048	.40	2.85
600	5.79	34.39	27.12	103.2	1.159	.34	2.93
700	5.30	34.48	27.25	91.4	1.257	.32	2.94
800	4.83	34.49	27.31	85.9	1.346	.30	2.94
1000	4.16	34.45	27.35	82.5	1.517	.43	2.96

## STATION 97.32 (Interpolated Values at Standard Depths)

CREST: 32°11.5'N 117°17'W February 6, 1951 2112 GCT Wire angle: 12°  
 Sounding: 720 fms. Depth of observation: 622 m. Weather: overcast  
 Sea: moderate Wind: 310°, force 1

0	13.96	33.42	25.00	297.1	.0000	5.80	.55
10	13.80	33.38	25.00	297.1	.0298	6.27	.56
20	13.58	33.40	25.06	291.6	.0594	5.68	.57
30	13.32	33.39	25.10	287.6	.0885	5.40	.60
50	11.74	33.28	25.32	267.0	.1442	5.09	.90
75	10.07	33.51	25.80	222.3	.2057	4.40	1.57
100	10.00	33.82	26.05	198.8	.2587	2.85	1.92
150	9.76	34.14	26.34	172.3	.352	2.02	2.29
200	9.25	34.40	26.63	145.9	.432	1.24	2.55
250	8.60	34.35	26.69	140.5	.504	.96	2.64
300	8.22	34.44	26.82	129.0	.572	.83	2.68
400	7.04	34.42	26.98	115.1	.695	.64	2.83
500	6.19	34.40	27.08	106.4	.807	.44	2.91
600	5.63	34.37	27.12	102.6	.912	.38	3.04

## STATION 97.40 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 31°55.5'N 117°50'W February 14, 1951 1258 GCT  
 Wire angle: missing Sounding: 800 fms. Depth of observation: 1,192 m.  
 Weather: clear Sea: moderate Wind: 360°, force 2

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (µg at/L)
0	15.33	33.35	24.65	330.1	.0000	5.31	.43
10	15.34	33.31	24.62	333.5	.0333	4.65	.43
20	15.35	33.35	24.64	331.0	.0667	5.00	.38
30	15.32	33.34	24.64	331.4	.1000	5.38	.38
50	14.04	33.28	24.87	310.2	.1645	5.68	.52
75	12.36	33.22	25.16	283.2	.2391	5.52	.81
100	11.42	33.41	25.48	253.0	.3066	4.72	1.11
150	9.89	33.86	26.10	195.0	.419	3.20	1.68
200	8.74	33.96	26.37	170.5	.511	2.82	2.05
250	8.18	34.08	26.55	154.2	.593	2.29	2.32
300	7.74	34.16	26.67	142.7	.668	1.49	2.50
400	6.89	34.23	26.85	127.1	.804	.83	2.72
500	6.11	34.31	27.02	112.0	.924	.44	2.95
600	5.63	34.36	27.11	103.4	1.033	.41	2.97
700	5.16	34.40	27.20	95.6	1.134	.40	2.99
800	4.69	34.43	27.28	88.6	1.227	.40	3.02
1000	4.04	34.51	27.41	76.6	1.394	.76	(3.09)

## STATION 97.50 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 31°35.5'N 118°30'W February 14, 1951 1849 GCT  
 Wire angle: 0° Sounding: 1,340 fms. Depth of observation: 1,185 m.  
 Weather: partly cloudy Sea: moderate Wind: 060°, force 3

0	15.68	33.35	24.57	337.4	.0000	5.75	.47
10	15.67	33.35	24.57	337.5	.0339	5.72	.44
20	15.65	33.32	24.56	339.6	.0679	5.72	.36
30	15.62	33.30	24.55	340.7	.1020	5.73	.34
50	15.56	33.33	24.58	337.8	.1702	5.64	.41
75	13.28	33.33	25.06	292.4	.2494	5.82	.60
100	11.35	33.23	25.36	265.0	.3195	5.22	.85
150	9.25	33.56	25.97	207.0	.438	4.44	1.08
200	8.67	33.89	26.32	174.6	.534	3.75	1.46
250	8.03	34.03	26.53	155.7	.618	2.99	1.84
300	7.34	34.12	26.70	139.9	.692	2.22	2.19
400	6.84	34.20	26.83	128.6	.827	1.16	2.73
500	5.80	34.23	26.99	113.9	.950	.63	2.91
600	5.49	34.29	27.08	106.7	1.061	.56	2.90
700	5.10	34.33	27.15	100.0	1.165	.54	2.92
800	4.66	34.36	27.23	93.4	1.263	.51	2.97
1000	4.03	34.33	27.27	89.8	1.448	.73	2.96

## STATION 97.60 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 31°15.5'N 119°10.5'W February 15, 1951 0109 GCT  
 Wire angle: 5° Sounding: 2,020 fms. Depth of observation: 1,184 m.  
 Weather: cloudy Sea: moderate Wind: 360°, force 2

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \sigma$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	15.88	33.22	24.43	251.2	.0000	5.66	.40
10	15.70	33.19	24.44	349.8	.0352	5.52	.37
20	15.05	33.12	24.53	341.6	.0699	5.62	.39
30	13.90	33.08	24.75	321.6	.1032	5.64	.42
50	13.27	33.10	24.89	308.5	.1665	5.47	.49
75	11.70	33.08	25.18	281.6	.2407	5.51	.77
100	10.12	33.26	25.60	242.1	.3066	4.42	1.20
150	9.19	33.70	26.09	195.8	.417	3.59	1.58
200	8.44	33.94	26.40	167.5	.508	2.76	1.78
250	7.69	34.00	26.56	153.0	.589	2.42	1.98
300	6.97	34.03	26.68	141.5	.663	2.07	2.18
400	5.95	34.07	26.85	126.4	.798	1.16	2.62
500	5.62	34.20	26.99	113.8	.919	.59	2.78
600	5.66	34.35	27.10	104.5	1.030	.25	2.84
700	5.24	34.40	27.19	96.6	1.131	.31	2.87
800	4.63	34.43	27.29	87.8	1.224	.36	2.88
1000	3.97	34.48	27.40	78.0	1.392	.52	2.86

## STATION 97.70 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 30°55'N 119°50.5'W February 15, 1951 0644 GCT  
 Wire angle: 8° Sounding: 2,020 fms. Depth of observation: 1,182 m.  
 Weather: partly cloudy Sea: moderate Wind: 220°, force 2

0	14.50	33.08	24.62	332.8	.0000	5.30	-
10	14.48	33.12	24.66	329.7	.0333	5.21	-
20	14.32	33.11	24.68	327.5	.0663	5.61	-
30	14.04	33.10	24.73	322.9	.0990	5.62	-
50	13.70	33.08	24.79	318.2	.1634	5.41	-
75	12.86	33.07	24.95	303.5	.2416	5.25	-
100	11.13	33.05	25.26	274.4	.3143	5.03	-
150	9.68	33.49	25.85	219.0	.438	3.97	-
200	8.82	33.86	26.28	179.1	.539	2.92	-
250	8.09	34.00	26.50	158.8	.624	2.20	-
300	7.49	34.08	26.65	145.0	.700	1.66	-
400	6.51	34.14	26.83	128.6	.838	1.03	-
500	5.52	34.14	26.95	117.0	.962	.84	-
600	5.25	34.25	27.07	106.7	1.075	.46	-
700	5.03	34.34	27.17	98.4	1.178	.41	-
800	4.78	34.39	27.24	92.6	1.275	.37	-
1000	4.08	34.45	27.36	81.5	1.451	.59	-

## STATION 97.80 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 30°35.5'N 120°31'W February 15, 1951 1320 GCT  
 Wire angle: 24° Sounding: 2,120 fms. Depth of observation: 781 m.  
 Weather: clear Sea: moderate Wind: 170°, force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu\text{g at/L}$ )
0	16.16	33.48	24.56	338.2	.0000	6.21	.46
10	16.17	33.25	24.38	355.6	.0348	5.54	.42
20	16.16	33.25	24.39	355.6	.0705	5.42	.40
30	16.15	33.28	24.41	353.5	.1061	5.44	.40
50	16.07	33.37	24.50	345.8	.1764	5.58	.40
75	14.87	33.31	24.72	325.5	.2608	5.63	.41
100	13.02	33.31	25.10	289.5	.3382	5.68	.62
150	10.26	33.48	25.74	229.1	.469	4.93	1.00
200	9.03	33.83	26.22	184.6	.573	4.31	1.30
250	8.19	33.94	26.43	164.7	.661	3.86	1.55
300	7.16	33.97	26.61	148.6	.740	3.30	1.80
400	6.33	34.06	26.79	132.1	.881	1.52	2.41
500	5.78	34.20	26.97	115.9	1.006	.57	2.80
600	5.32	34.26	27.07	106.8	1.119	.39	2.88
700	4.81	34.34	27.20	95.7	1.221	.36	2.91

## STATION 97.90 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 30°15'N 121°11'W February 15, 1951 1925 GCT  
 Wire angle: 20° Sounding: 2,140 fms. Depth of observation: 1,141 m.  
 Weather: light drizzle Sea: moderate Wind: 180°, force 3

0	15.82	33.26	24.47	347.0	.0000	5.33	.47
10	15.84	33.26	24.47	347.7	.0349	5.31	.43
20	15.84	33.39	24.57	338.5	.0693	5.41	.43
30	15.79	33.40	24.59	337.0	.1032	5.40	.44
50	15.49	33.35	24.61	334.8	.1707	5.27	.47
75	12.71	33.24	25.11	288.2	.2490	4.77	.80
100	11.67	33.51	25.51	250.0	.3167	4.53	1.15
150	10.25	33.66	25.88	215.7	.434	3.53	1.52
200	8.80	33.83	26.25	181.1	.534	2.64	1.87
250	8.07	33.97	26.48	160.7	.620	2.19	2.08
300	7.41	34.05	26.63	146.1	.697	1.82	2.25
400	6.29	34.11	26.83	127.9	.835	1.18	2.60
500	5.70	34.19	26.97	115.6	.958	.59	2.82
600	5.15	34.25	27.09	105.4	1.070	.46	2.95
700	4.78	34.31	27.18	97.5	1.172	.45	3.00
800	4.47	34.36	27.25	91.0	1.267	.45	3.02
1000	3.87	34.45	27.38	79.0	1.439	.54	-

## STATION 100.30 (Interpolated Values at Standard Depths)

CREST: 31°40.5'N 116°46.5'W February 7, 1951 0306 GCT Wire angle: 15°  
 Sounding: 210 fms. Depth of observation: 288 m. Weather: clear  
 Sea: moderate Wind: 310°, force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (µg at/L)
0	13.12	33.50	25.23	275.0	.0000	5.55	.55
10	13.00	33.32	25.11	286.2	.0282	6.09	.54
20	12.72	33.36	25.20	278.2	.0565	5.72	.91
30	11.30	33.51	25.58	241.9	.0826	4.14	1.23
50	10.59	33.72	25.87	214.8	.1285	3.72	1.58
75	10.43	34.00	26.12	192.0	.1796	2.25	2.01
100	10.25	34.04	26.18	186.6	.2272	2.03	2.06
150	9.36	34.26	26.50	157.0	.314	1.53	2.21
200	8.99	34.35	26.63	145.5	.390	1.34	2.42
250	8.57	34.25	26.62	147.4	.464	1.08	2.55

## STATION 100.40 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 31°21'N 117°27'W February 12, 1951 0712, 0739 GCT  
 Wire angles: 10°, 03° Sounding: 1,090 fms. Depth of observation: 1,188 m.  
 Weather: intermittent light drizzle Sea: rough Wind: 320°, force 4

0	14.67	33.31	24.76	319.4	.0000	5.72	-
10	14.69	33.31	24.76	320.0	.0321	5.81	-
20	14.70	33.31	24.76	320.5	.0643	5.79	-
30	14.69	33.31	24.76	320.6	.0965	5.77	-
50	14.57	33.33	24.80	317.2	.1606	5.79	-
75	12.56	33.19	25.10	289.1	.2368	5.76	-
100	10.65	33.35	25.57	244.2	.3039	5.12	-
150	9.21	33.63	26.03	201.2	.416	3.93	-
200	9.48	34.13	26.38	169.5	.509	2.14	-
250	9.09	34.21	26.51	158.4	.592	1.48	-
300	8.36	34.25	26.65	145.2	.668	1.09	-
400	6.96	34.29	26.89	123.6	.804	.58	-
500	6.26	34.31	27.00	114.0	.924	.46	-
600	5.73	34.33	27.08	106.9	1.035	.35	-
700	5.19	34.39	27.19	96.7	1.138	.42	-
800	4.66	34.43	27.28	88.2	1.231	.45	-
1000	4.02	34.47	27.38	79.3	1.401	.63	-

## STATION 100.50 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 31°01'N 118°07'W February 12, 1951 0058, 0114 GCT  
 Wire angles: 11°, 11° Sounding: 980 fms. Depths of observation: 49,  
 1,123 m. Weather: intermittent light drizzle Sea: rough Wind: 290°,  
 force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \sigma$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	15.08	33.33	24.69	326.3	.0000	5.72	-
10	15.06	33.37	24.72	323.3	.0326	5.84	-
20	14.97	33.36	24.74	322.4	.0650	5.85	-
30	14.88	33.34	24.74	322.3	.0974	5.84	-
50	14.56	33.30	24.78	319.2	.1619	5.86	-
75	11.82	33.09	25.16	283.0	.2376	5.45	-
100	11.08	33.36	25.51	250.7	.3047	4.29	-
150	10.54	33.79	25.94	210.9	.421	3.03	-
200	9.41	33.95	26.25	181.7	.520	3.00	-
250	8.32	34.07	26.52	157.0	.605	2.76	-
300	7.78	34.16	26.67	143.2	.681	1.55	-
400	6.96	34.26	26.86	125.8	.816	.77	-
500	6.33	34.28	26.96	117.2	.939	.44	-
600	5.74	34.30	27.05	109.2	1.053	.36	-
700	5.16	34.33	27.15	100.8	1.159	.35	-
800	4.69	34.37	27.23	93.0	1.257	.38	-
1000	4.07	34.48	27.39	79.2	1.431	.56	-

## STATION 100.60 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 30°41'N 118°47.5'W February 11, 1951 1843, 1855 GCT  
 Wire angles: 15°, 20° Sounding: 1,480 fms. Depths of observation: 48,  
 1,038 m. Weather: intermittent light drizzle Sea: rough Wind: 340°,  
 force 3

0	15.32	33.37	24.67	328.4	.0000	5.74	-
10	15.30	33.33	24.64	331.2	.0331	5.74	-
20	15.26	33.33	24.65	330.6	.0663	5.73	-
30	15.16	33.32	24.66	329.6	.0994	5.71	-
50	14.43	33.24	24.76	321.0	.1648	5.71	-
75	11.85	33.17	25.22	277.7	.2401	5.73	-
100	10.90	33.35	25.53	248.4	.3063	5.08	-
150	9.83	33.82	26.08	197.0	.418	3.25	-
200	9.27	34.20	26.47	161.0	.508	1.86	-
250	8.72	34.47	26.77	133.5	.583	1.46	-
300	8.13	34.53	26.91	121.0	.647	1.16	-
400	6.89	34.24	26.86	126.3	.771	.82	-
500	6.23	34.26	26.96	117.3	.894	.57	-
600	5.60	34.29	27.06	108.2	1.008	.48	-
700	5.05	34.34	27.17	98.6	1.112	.43	-
800	4.66	34.40	27.26	90.4	1.208	.42	-
1000	4.11	34.47	27.38	80.4	1.381	.55	-



## STATION 100.70 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 30°20.5'N 119°27'W February 11, 1951 1302 GCT  
 Wire angle: 17° Sounding: 2,100 fms. Depth of observation: 912 m.  
 Weather: cloudy Sea: rough Wind: 300°, force 4

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	16.63	33.38	24.38	355.8	.0000	5.55	-
10	16.64	33.44	24.42	352.0	.0355	5.56	-
20	16.63	33.46	24.44	350.6	.0708	5.52	-
30	16.63	33.44	24.42	352.4	.1061	5.44	-
50	16.56	33.31	24.34	360.9	.1778	5.41	-
75	15.86	33.26	24.46	350.0	.2672	5.65	-
100	13.62	33.31	24.98	301.1	.3491	5.59	-
150	10.73	33.41	25.61	242.2	.486	4.98	-
200	9.67	34.05	26.29	174.6	.592	2.59	-
250	9.02	34.11	26.44	160.2	.676	2.03	-
300	8.46	34.16	26.57	148.0	.754	1.72	-
400	7.48	34.23	26.77	129.0	.893	.74	-
500	6.46	34.30	26.96	110.4	1.014	.44	-
600	5.64	34.34	27.10	105.0	1.123	.37	-
700	5.09	34.36	27.18	97.6	1.225	.36	-
800	4.66	34.38	27.24	91.9	1.321	.41	-
1000	(3.97)	(34.42)	(27.35)	(82.7)	(1.497)	.45	-

## STATION 100.80 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 30°01'N 120°07'W February 11, 1951 0633 GCT Wire  
 angle: 17° Sounding: 2,100 fms. Depth of observation: 1,127 m.  
 Weather: overcast Sea: moderate Wind: 330°, force 3.

0	17.06	33.42	24.31	362.5	.0000	5.45	-
10	17.07	33.59	24.44	350.6	.0358	5.00	-
20	17.07	33.66	24.49	345.8	.0708	5.47	-
30	17.07	33.67	24.50	345.4	.1055	5.48	-
50	17.10	33.65	24.48	348.2	.1752	5.44	-
75	16.31	33.35	24.43	353.2	.2634	5.45	-
100	15.48	33.55	24.77	321.4	.3483	5.69	-
150	11.22	33.73*	25.77	227.0	.486	5.12	-
200	9.72	33.84*	26.11	194.8	.593	4.18	-
250	8.47	33.92*	26.38	170.3	.684	3.46	-
300	7.52	33.98*	25.56	152.8	.766	2.81	-
400	6.39	34.08*	26.80	131.4	.909	1.29	-
500	5.83	34.19	26.96	117.3	1.035	.75	-
600	5.39	34.29	27.09	105.5	1.147	.54	-
700	5.05	34.36	27.18	97.2	1.249	.44	-
800	4.73	34.43	27.28	89.1	1.343	.42	-
1000	4.07	34.54	27.43	74.8	1.509	.67	-

\* Sequence of salinities uncertain

## STATION 100.90 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 29°40.5'N 120°47'W February 10, 1951 2357 GCT Wire angle: 4° Sounding: 2,220 fms. Depth of observation: 1,193 m. Weather: cloudy Sea: moderate Wind: 340°, force 1

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (µg at/L)
0	17.06	33.46	24.34	359.6	.0000	5.56	-
10	16.58	33.33	24.35	358.7	.0361	5.61	-
20	16.41	33.31	24.38	356.7	.0720	5.66	-
30	16.31	33.30	24.39	355.5	.1078	5.69	-
50	16.13	33.28	24.42	353.7	.1791	5.63	-
75	15.98	33.26	24.44	352.6	.2679	5.68	-
100	14.77	33.21	24.66	331.4	.3540	5.80	-
150	11.13	33.24	25.40	261.5	.503	5.30	-
200	9.69	33.90	26.17	189.8	.617	4.69	-
250	8.79	34.04	26.42	166.3	.707	3.53	-
300	8.12	34.11	26.58	151.9	.787	2.20	-
400	6.93	34.18	26.80	131.3	.930	1.16	-
500	6.24	34.26*	26.96	117.5	1.055	.61	-
600	5.42	34.29*	27.08	105.8	1.168	.35	-
700	5.01	34.33*	27.16	98.9	1.271	.35	-
800	4.71	34.37*	27.23	93.2	1.368	.35	-
1000	3.98	(34.48)	(27.40)	(78.4)	(1.542)	.59	-

\*Sequence of salinities uncertain

## STATION 105.35 (Interpolated Values at Standard Depths)

CREST: 30°39'N 116°33'W February 7, 1951 1036 GCT Wire angle: 8°  
Sounding: 800 fms. Depth of observation: 1,204 m. Weather: fog  
Sea: missing Wind: 310°, force 2

0	13.75	33.48	25.09	288.6	.0000	5.79	.59
10	13.73	33.53	25.13	284.8	.0288	5.85	.58
20	13.69	33.53	25.14	284.3	.0574	5.67	.56
30	13.67	33.52	25.13	284.9	.0860	5.33	.57
50	11.34	33.44	25.52	248.2	.1396	4.86	1.17
75	10.67	33.66	25.81	221.1	.1986	3.30	1.66
100	10.10	33.84	26.05	198.9	.2514	2.90	1.72
150	9.10	34.05	26.38	168.5	.344	2.42	1.98
200	8.68	34.15	26.52	155.6	.426	1.91	2.24
250	8.35	34.22	26.63	146.3	.502	1.45	2.46
300	7.95	34.27	26.73	137.6	.573	1.11	2.62
400	7.08	34.32	26.89	123.0	.704	.63	2.86
500	6.35	34.38	27.04	110.0	.822	.35	2.98
600	5.85	34.39	27.11	104.0	.930	.30	3.02
700	5.40	34.40	27.17	98.6	1.032	.31	3.03
800	4.90	34.43	27.26	91.1	1.128	.31	3.04
1000	4.05	34.47	27.38	79.7	1.301	.58	2.97

## STATION 105.40 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 30°28.5'N 116°54'W February 9, 1951 0906 GCT Wire  
 angle: 10° Sounding: 1,120 fms. Depth of observation: 1,179 m. Weather:  
 overcast Sea: very rough Wind: 320°, force 2.

Depth (m)	T (°C)	S (%)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu\text{g at/L}$ )
0	14.86	33.31	24.72	323.2	.0000	5.59	-
10	14.87	33.30	24.71	324.5	.0325	5.74	-
20	14.86	33.30	24.71	324.5	.0651	5.75	-
30	14.80	33.29	24.72	324.3	.0977	5.67	-
50	13.73	33.25	24.91	306.3	.1611	5.43	-
75	11.62	33.31	25.37	263.3	.2327	4.79	-
100	10.77	33.49	25.66	235.9	.2955	4.06	-
150	9.27	33.81	26.16	188.9	.402	3.02	-
200	8.78	34.08	26.45	162.3	.491	2.50	-
250	8.27	34.17	26.60	148.8	.569	1.37	-
300	7.78	34.20	26.70	140.3	.642	1.07	-
400	7.09	34.25	26.84	128.4	.777	.35	-
500	6.34	34.32	26.99	114.4	.900	.35	-
600	5.68	34.34	27.09	105.5	1.011	.29	-
700	5.16	34.36	27.17	98.5	1.114	.32	-
800	4.69	34.42	27.27	89.3	1.208	.36	-
1000	4.01	34.61	27.50	68.9	1.368	.54	-

## STATION 105.50 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 30°08.5'N 117°34.5'W February 9, 1951 1507 GCT Wire  
 angle: 10° Sounding: 800 fms. Depth of observation: 1,149 m. Weather:  
 overcast Sea: rough Wind: 320°, force 2.

0	14.63	33.33	24.79	317.1	.0000	5.87	-
10	14.64	33.33	24.78	317.6	.0319	6.20	-
20	14.64	33.31	24.77	319.3	.0639	6.17	-
30	14.63	33.29	24.75	320.8	.0960	6.09	-
50	13.55	33.27	24.96	301.4	.1585	5.99	-
75	11.48	33.18	25.29	270.4	.2304	5.47	-
100	10.77	33.53	25.69	232.9	.2937	4.17	-
150	9.51	33.73	26.06	198.5	.402	3.75	-
200	9.07	33.87	26.24	182.2	.498	3.30	-
250	8.42	34.15	26.56	152.6	.582	2.60	-
300	7.40	34.67	27.12	100.0	.646	1.60	-
400	6.69	34.26	26.90	122.1	.758	.84	-
500	6.06	34.30	27.01	112.1	.876	.45	-
600	5.43	34.36	27.14	100.8	.984	.38	-
700	4.91	34.41	27.24	91.7	1.081	.33	-
800	4.58	34.44	27.30	86.5	1.171	.36	-
1000	4.11	34.48	27.38	79.7	1.339	.65	-

## STATION 105.60 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 29°48.5'N 118°14.5'W February 9, 1951 2049 GCT Wire  
 angle: 10° Sounding: 1,920 fms. Depth of observation: 1,158 m. Weather:  
 overcast Sea: very rough Wind: 320°, force 2.

Depth (m)	T (°C)	S (%)	$\sigma_t$ (mg/cm <sup>3</sup> )	10 <sup>5</sup> $\delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	15.50	33.35	24.61	333.6	.0000	5.68	-
10	15.32	33.53	24.79	317.0	.0327	5.16	-
20	15.26	33.36	24.67	328.4	.0651	5.56	-
30	15.21	33.34	24.67	329.1	.0981	5.52	-
50	14.79	33.35	24.77	320.3	.1634	5.38	-
75	12.35	33.64	25.49	252.2	.2354	5.56	-
100	11.00	33.75	25.82	220.6	.2949	4.63	-
150	9.83	33.83	26.09	196.3	.400	3.43	-
200	9.09	33.87	26.24	182.6	.495	2.64	-
250	8.21	34.04	26.51	157.6	.581	2.14	-
300	7.33	34.38	26.91	120.5	.651	1.77	-
400	6.53	34.24	26.91	121.4	.773	.82	-
500	5.54	34.21	27.01	112.1	.890	.70	-
600	5.01	34.30	27.14	100.0	.998	.60	-
700	4.76	34.36	27.22	93.6	1.095	.42	-
800	4.55	34.41	27.28	88.3	1.187	.43	-
1000	4.02	34.50	27.41	77.1	1.354	.52	-

## STATION 105.70 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 29°29'N 118°54'W February 10, 1951 0249 GCT Wire  
 angle: 10° Sounding: 1,900 fms. Depth of observation: 1,178 m. Weather:  
 overcast Sea: rough Wind: 290°, force 1.

0	14.82	33.30	24.72	323.2	.0000	5.91	-
10	14.70	33.28	24.73	322.4	.0324	5.67	-
20	14.61	33.26	24.74	322.4	.0648	5.83	-
30	14.25	33.26	24.81	315.4	.0968	5.85	-
50	12.90	33.28	25.10	288.2	.1575	5.57	-
75	10.97	33.39	25.55	246.1	.2247	4.85	-
100	10.31	33.71	25.91	212.0	.2823	3.95	-
150	9.02	33.99	26.35	171.7	.379	3.40	-
200	8.53	34.02	26.45	162.9	.463	2.52	-
250	8.01	34.07	26.56	152.4	.542	2.14	-
300	7.43	34.15	26.71	139.0	.616	1.91	-
400	6.52	34.27	26.93	119.1	.746	1.27	-
500	5.96	34.22	26.96	116.7	.865	.56	-
600	4.96	34.30	27.15	99.4	.974	.60	-
700	4.62	34.33	27.21	94.1	1.072	.55	-
800	4.37	34.37	27.27	89.1	1.164	.55	-
1000	3.82	34.49	27.42	75.4	1.330	.92	-

## STATION 105.80 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 29°09'N 119°34'W February 10, 1951 0934 GCT Wire  
 angle: 10° Sounding: 2,000 fms. Depth of observation: 1,141 m.  
 Weather: cloudy Sea: rough Wind: 280°, force 1.

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^{-6}$	$\Delta$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	15.81	33.28	24.49	345.3	.0000	5.87	-
10	15.62	33.28	24.53	341.6	.0345	5.68	-
20	15.41	33.28	24.58	337.4	.0686	5.69	-
30	15.22	33.28	24.62	333.7	.1023	5.78	-
50	14.36	33.28	24.80	316.6	.1677	6.03	-
75	13.01	33.26	25.06	292.4	.2443	5.87	-
100	11.13	33.47	25.58	243.5	.3117	5.27	-
150	10.51	33.84	25.98	206.8	.425	2.58	-
200	8.89	33.95	26.33	173.6	.521	1.79	-
250	8.49	34.26	26.64	145.5	.601	1.50	-
300	8.10	34.38	26.79	131.6	.671	1.37	-
400	6.93	34.41	26.98	114.3	.795	.93	-
500	6.27	34.32	27.00	113.4	.910	.51	-
600	5.32	34.32	27.10	103.8	1.019	.47	-
700	4.82	34.34	27.19	95.8	1.120	.38	-
800	4.51	34.42	27.29	87.1	1.212	.40	-
1000	3.98	(34.52)	(27.43)	(75.1)	(1.376)	.70	-

## STATION 105.90 (Interpolated Values at Standard Depths)

BLACK DOUGLAS: 28°49.5'N 120°14'W February 10, 1951 1524 GCT Wire  
 angle: 0° Sounding: 1,940 fms. Depth of observation: 1,197 m. Weather:  
 overcast Sea: moderate Wind: calm.

0	16.56	33.42	24.43	351.4	.0000	5.52	-
10	16.56	33.39	24.40	353.8	.0354	5.53	-
20	16.55	33.41	24.42	352.5	.0709	5.25	-
30	16.51	33.42	24.44	351.2	.1062	5.28	-
50	16.38	33.39	24.44	351.1	.1768	5.47	-
75	16.10	33.48	24.58	339.2	.2636	4.95	-
100	14.17	33.57	25.07	292.9	.3431	5.55	-
150	11.35	33.59	25.64	239.6	.477	5.00	-
200	9.22	33.80	26.16	189.8	.585	4.06	-
250	8.37	33.98	26.44	164.4	.674	3.22	-
300	7.85	34.15	26.65	145.0	.752	2.30	-
400	7.30	34.47	26.98	115.0	.883	1.12	-
500	5.97	34.22	26.96	116.9	1.000	1.05	-
600	5.41	34.47	27.23	92.4	1.106	.43	-
700	5.01	34.47	27.28	88.5	1.197	.44	-
800	4.73	34.47	27.31	86.1	1.286	.45	-
1000	4.07	34.49	27.40	78.4	1.452	.57	-

## STATION 110.35 (Interpolated Values at Standard Depths)

CREST: 29°47'N 116°02'W February 10, 1951 0509 GCT Wire angle: 20°  
 Sounding: 280 fms. Depth of observation: 338 m. Weather: cloudy  
 Sea: very rough Wind: 320°, force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (µg at/L)
0	14.56	33.42	24.87	309.1	.0000	4.96	-
10	14.56	33.48	24.92	305.0	.0308	4.98	-
20	14.53	33.46	24.91	306.1	.0615	4.96	-
30	14.43	33.47	24.94	303.6	.0921	4.77	-
50	11.86	33.59	25.54	246.4	.1474	4.13	-
75	10.50	33.68	25.86	216.8	.2056	3.65	-
100	9.94	33.87	26.10	194.1	.2573	3.20	-
150	9.27	34.12	26.41	165.9	.348	2.38	-
200	9.05	34.31	26.59	149.4	.427	1.95	-
250	9.10	34.42	26.67	143.1	.501	1.08	-
300	8.63	34.46	26.77	133.8	.571	.73	-

## STATION 110.40 (Interpolated Values at Standard Depths)

CREST: 29°36'N 116°23'W February 10, 1951 0846 GCT Wire angle: 27°  
 Sounding: 1,410 fms. Depth of observation: 1,131 m. Weather: cloudy  
 Sea: very rough Wind: 320°, force 3

0	14.47	33.49	24.94	302.1	.0000	5.07	-
10	14.47	33.49	24.94	302.4	.0303	5.29	-
20	14.46	33.62	25.04	293.0	.0602	5.10	-
30	14.41	33.59	25.03	294.4	.0897	4.93	-
50	12.07	33.42	25.37	262.6	.1457	4.69	-
85	10.77	33.57	25.72	229.4	.2076	4.35	-
100	10.20	33.69	25.92	211.6	.2631	3.60	-
150	9.44	34.18	26.43	164.2	.358	2.47	-
200	9.10	34.26	26.54	153.9	.438	1.96	-
250	8.59	34.44	26.76	133.7	.510	1.44	-
300	8.12	34.43	26.87	124.6	.575	.97	-
400	7.49	34.38	26.96	117.0	.697	.35	-
500	6.53	34.43	27.05	108.8	.811	.32	-
600	5.88	34.41	27.12	102.9	.918	.30	-
700	5.48	34.46	27.21	95.2	1.018	.27	-
800	5.07	34.49	27.28	88.9	1.111	.31	-
1000	4.17	34.52	27.41	77.5	1.279	.57	-

## STATION 110.50 (Interpolated Values at Standard Depths)

CREST: 29°15'N 117°04'W February 10, 1951 1440 GCT Wire angle: 12°  
 Sounding: 1,800 fms. Depth of observation: 1,180 m. Weather: cloudy  
 Sea: very rough Wind: 320°, force 4

Depth (m)	T (°C)	S (‰)	$\sigma_t$ ( $\text{mg}/\text{cm}^3$ )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu\text{g at/L}$ )
0	15.75	33.44	24.63	332.4	.0000	5.20	-
10	15.75	33.42	24.61	334.1	.0335	5.46	-
20	15.73	33.48	24.66	329.6	.0668	5.53	-
30	15.70	33.47	24.66	330.0	.0999	5.53	-
50	15.59	33.42	24.65	331.8	.1664	5.18	-
75	15.32	33.32	24.63	334.2	.2501	5.42	-
100	12.40	33.28	25.20	280.1	.3274	5.50	-
150	10.77	33.66	25.79	224.4	.454	3.70	-
200	9.12	34.13	26.44	163.8	.552	2.74	-
250	8.52	34.16	26.56	153.3	.632	2.08	-
300	8.05	34.18	26.64	145.7	.707	1.50	-
400	7.14	34.32	26.89	123.9	.843	.77	-
500	6.44	34.36	27.01	112.8	.963	.40	-
600	5.77	34.53	27.23	92.6	1.066	.39	-
700	5.24	34.62	27.37	80.3	1.154	.38	-
800	4.77	34.67	27.46	71.8	1.230	.37	-
1000	4.10	34.67	27.53	65.5	1.369	.60	-

## STATION 110.60 (Interpolated Values at Standard Depths)

CREST: 28°54'N 117°46'W February 10, 1951 2006, 2113 GCT Wire angle:  
 7°, 9° Sounding: 2,022 Depth of observation: 1,188 m., 3,036 m.  
 Weather: cloudy Sea: rough Wind: 340°, force 4

0	16.25	33.64	24.67	328.5	.0000	4.86	-
10	16.25	33.59	24.63	332.5	.0332	5.04	-
20	16.25	33.64	24.67	329.1	.0664	5.05	-
30	16.25	33.63	24.66	330.1	.0995	5.00	-
50	16.24	33.55	24.60	336.4	.1665	4.87	-
75	16.12	33.57	24.64	333.0	.2506	5.61	-
100	12.80	33.42	25.23	277.3	.3274	4.38	-
150	11.14	34.32	26.24	182.2	.443	1.49	-
200	10.37	34.31	26.37	170.8	.532	1.58	-
250	9.81	34.37	26.51	158.2	.615	1.23	-
300	9.31	34.48	26.68	143.0	.691	.74	-
400	8.42	34.57	26.89	124.3	.825	.45	-
500	7.23	34.51	27.02	112.7	.945	.40	-
600	6.34	34.54	27.17	99.5	1.052	.37	-
700	5.67	34.57	27.28	89.6	1.147	.33	-
800	5.07	34.58	27.36	82.3	1.234	.30	-
1000	4.19	34.64	27.50	68.9	1.387	.51	-
1200	3.71	34.68	27.58	61.8	1.519	.67	-
1500	2.99	34.61	27.60	60.4	1.705	.98	-
2000	2.18	34.81	27.83	38.6	1.956	1.63	-
2500	1.80	34.80	27.85	36.6	2.147	2.06	-
3000	1.66	34.78	27.84	37.9	2.337	2.28	-

## STATION 110.70 (Interpolated Values at Standard Depths)

CREST: 28°37'N 118°18'W February 11, 1951 0249 GCT Wire angle: 17°  
 Sounding: 1,800 fms. Depth of observation: 1,240 m. Weather: cloudy  
 Sea: rough Wind: 280°, force 4

Depth (m)	T (°C)	S (‰)	$\sigma$ (mg/cm <sup>3</sup> )	10 <sup>5</sup> $\delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	16.38	33.66	24.65	329.9	.0000	5.53	-
10	16.39	33.60	24.60	334.8	.0334	5.46	-
20	16.40	33.56	24.57	338.2	.0672	5.37	-
30	16.43	33.55	24.56	339.9	.1012	5.30	-
50	16.45	33.72	24.68	328.6	.1684	5.20	-
75	16.37	33.76	24.73	324.6	.2505	5.24	-
100	13.65	33.60	25.20	280.4	.3266	5.03	-
150	11.15	33.80	25.83	220.6	.455	3.51	-
200	10.55	34.28	26.31	176.1	.553	1.83	-
250	9.82	34.36	26.50	159.1	.637	1.26	-
300	8.98	34.41	26.68	142.9	.713	1.09	-
400	8.07	34.48	26.88	125.6	.848	.55	-
500	7.06	34.59	27.11	104.4	.964	.28	-
600	6.10	34.50	27.17	99.2	1.067	.26	-
700	5.41	34.51	27.26	90.6	1.163	.31	-
800	4.79	34.58	27.39	78.7	1.248	.42	-
1000	3.99	34.63	27.51	67.2	1.396	.62	-

## STATION 110.80 (Interpolated Values at Standard Depths)

CREST: 28°15'N 118°57'W February 11, 1951 0823 GCT Wire angle: 18°  
 Sounding: 2,200 fms. Depth of observation: 1,125 m. Weather: cloudy  
 Sea: rough Wind: 330°, force 4

0	16.68	33.54*	24.49	345.3	.0000	4.57	-
10	16.68	33.62*	24.55	339.7	.0344	5.11	-
20	16.62	33.65*	24.59	336.5	.0683	5.12	-
30	16.61	33.65*	24.59	336.6	.1021	5.14	-
50	16.55	33.46*	24.46	349.7	.1711	5.22	-
75	13.95	33.40*	24.98	300.3	.2528	5.08	-
100	12.08	33.46*	25.40	261.0	.3234	5.02	-
150	10.00	33.60*	25.88	216.0	.444	3.55	-
200	9.23	33.80*	26.16	189.9	.546	2.48	-
250	8.86	33.97*	26.35	172.6	.637	1.69	-
300	8.53	34.03*	26.45	164.0	.722	1.07	-
400	7.69	34.11*	26.64	147.3	.879	.46	-
500	6.61	34.41*	27.03	111.4	1.009	.39	-
600	5.64	34.41*	27.15	99.8	1.116	.36	-
700	5.16	34.52*	27.30	86.7	1.210	.36	-
800	4.73	34.57*	27.39	78.7	1.293	.40	-
1000	4.02	34.62*	27.50	68.2	1.442	.62	-

\* Sequence of salinity samples uncertain



## STATION 110.90 (Interpolated Values at Standard Depths)

CREST: 27°53'N 119°35'W February 11, 1951 1424 GCT Wire angle: 17°  
 Sounding: 2,150 fms. Depth of observation: 1,150 m. Weather: cloudy  
 Sea: rough Wind: 320°, force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (µg at/L)
0	18.24	34.02	24.48	345.9	.0000	4.93	-
10	18.27	34.02	24.48	347.0	.0348	5.00	-
20	18.27	34.02	24.48	347.3	.0697	4.82	-
30	18.28	34.01	24.47	348.6	.1046	4.85	-
50	18.26	33.98	24.45	350.9	.1749	4.98	-
75	18.28	34.14	24.56	340.6	.2618	4.80	-
100	13.00	33.86	25.53	248.8	.3359	4.22	-
150	10.90	33.91	25.97	208.2	.451	3.36	-
200	9.46	33.99	26.27	179.5	.548	2.72	-
250	8.53	34.07	26.48	160.1	.634	2.22	-
300	7.88	34.18	26.67	143.2	.710	1.77	-
400	6.79	34.41	27.00	112.4	.839	.98	-
500	6.13	34.51	27.17	97.5	.945	.47	-
600	5.69	34.52	27.23	92.3	1.041	.44	-
700	5.11	34.52	27.30	86.1	1.131	.40	-
800	4.60	34.52	27.36	80.8	1.215	.43	-
1000	3.98	34.55	27.45	72.9	1.370	.66	-

## STATION 110.100 (Interpolated Values at Standard Depths)

CREST: 27°31'N 120°14'W February 11, 1951 1918, 2045 GCT Wire angles:  
 0°, 0° Sounding: 2,170 fms. Depths of observation: 1,194 m., 3,059 m.  
 Weather: partly cloudy Sea: rough Wind: 340°, force 3

0	16.90	33.62	24.50	344.3	.0000	5.33	-
10	16.74	33.62	24.54	341.1	.0344	4.95	-
20	16.57	33.58	24.55	340.5	.0686	5.20	-
30	16.50	33.57	24.55	340.0	.1028	5.44	-
50	16.79	33.77	24.64	332.5	.1704	5.55	-
75	13.05	33.33	25.11	288.0	.2484	5.38	-
100	11.90	33.42	25.40	260.7	.3174	4.74	-
150	9.73	33.82	26.10	195.4	.432	4.13	-
200	8.90	34.14	26.48	159.7	.522	2.92	-
250	8.34	34.18	26.60	149.1	.599	2.13	-
300	7.83	34.21	26.70	140.3	.672	1.48	-
400	6.68	34.36	26.98	114.6	.801	.81	-
500	5.95	34.42	27.12	101.8	.910	.49	-
600	5.35	34.38	27.16	98.3	1.011	.44	-
700	4.88	34.44	27.27	89.1	1.105	.45	-
800	4.55	34.52	27.37	80.2	1.191	.46	-
1000	3.91	34.52	27.44	74.3	1.347	.68	-
1200	3.44	34.63	27.57	62.2	1.485	.91	-
1500	2.74	34.62	27.63	56.6	1.666	1.27	-
2000	2.09	34.77	27.80	40.4	1.912	1.94	-
2500	1.76	34.85	27.89	32.4	2.097	2.48	-
3000	1.65	34.82	27.88	34.9	2.269	2.66	-

## STATION 113.35 (Interpolated Values at Standard Depths)

CREST: 29°11'N 115°38'W February 9, 1951 2313 GCT Wire angle: 15°  
 Sounding: 559 fms. . Depth of observation 783 m. Weather: cloudy  
 Sea: very rough Wind: 320°, force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (µg at/L)
0	14.65	33.48	24.90	306.5	.0000	4.80	.57
10	14.60	33.55	24.96	300.7	.0305	4.95	.58
20	14.40	33.55	25.00	296.9	.0605	5.16	.60
30	14.34	33.54	25.01	296.7	.0903	5.23	.62
50	13.15	33.48	25.21	278.3	.1481	5.23	.80
75	11.25	33.47	25.56	245.0	.2139	4.20	1.27
100	10.51	33.72	25.89	214.5	.2717	3.44	1.61
150	9.53	33.97	26.25	181.1	.371	2.94	1.96
200	9.64	34.32	26.50	158.1	.457	1.68	2.28
250	9.45	34.44	26.63	147.2	.534	1.09	2.62
300	9.00	34.46	26.72	139.5	.606	.85	2.84
400	7.78	34.59	27.01	113.1	.733	.48	3.04
500	6.93	34.54	27.09	106.2	.844	.32	3.15
600	6.04	34.53	27.20	96.2	.946	.26	3.20
700	5.64	34.49	27.22	95.1	1.042	.25	3.27

## STATION 113.40 (Interpolated Values at Standard Depths)

CREST: 29°01'N 115°58'W February 9, 1951 1937 GCT Wire angle: 15°  
 Sounding: 1,040 fms. Depth of observation: 1,145 m. Weather: cloudy  
 Sea: very rough Wind: 320°, force 3

0	15.57	33.42	24.65	329.0	.0000	5.18	.51
10	15.36	33.40	24.68	327.3	.0330	4.95	.56
20	15.15	33.44	24.76	320.3	.0655	5.56	.50
30	15.07	33.43	24.77	319.6	.0976	5.55	.51
50	13.40	33.34	25.05	293.3	.1592	5.25	.57
75	12.27	33.26	25.21	278.3	.2311	4.72	.84
100	12.18	33.65	25.53	248.9	.2975	3.95	.93
150	9.63	33.87	26.15	190.1	.408	3.15	1.56
200	8.92	34.18	26.51	157.0	.495	2.38	1.89
250	8.48	34.29	26.66	143.1	.571	1.65	2.15
300	8.11	34.36	26.78	133.3	.641	1.13	2.33
400	7.38	34.43	26.94	119.2	.768	.62	2.53
500	6.64	34.46	27.06	108.1	.882	.32	2.72
600	6.13	34.51	27.17	98.8	.987	.30	2.74
700	5.55	34.49	27.23	93.9	1.084	.30	2.82
800	4.99	34.47	27.28	89.4	1.177	.32	2.89
1000	4.14	34.53	27.42	76.4	1.344	.50	2.98

## STATION 113.50 (Interpolated Values at Standard Depths)

CREST: 28°41'N 116°37'W February 9, 1951 1346 GCT Wire angle: 8°  
 Sounding: 1,850 fms. Depth of observation: 1,190 m. Weather: cloudy  
 Sea: rough Wind: 350°, force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu\text{g at/L}$ )
0	15.90	33.51	24.65	330.4	.0000	4.80	.60
10	15.90	33.58	24.70	325.6	.0329	5.02	.62
20	15.89	33.59	24.71	325.0	.0656	5.07	.62
30	15.76	33.59	24.74	322.5	.0981	5.12	.61
50	15.47	33.55	24.77	319.8	.1627	5.15	.62
75	14.25	33.58	25.06	293.2	.2397	4.58	.80
100	11.52	33.70	25.69	233.4	.3059	3.60	1.45
150	10.27	34.04	26.18	188.0	.412	2.36	1.97
200	10.68	34.49	26.46	162.9	.500	1.07	2.40
250	9.92	34.45	26.56	154.1	.580	.86	2.52
300	9.06	34.42	26.67	143.4	.655	.78	2.60
400	7.69	34.51	26.96	117.7	.787	.47	2.79
500	6.77	34.39	26.99	115.1	.904	.39	2.93
600	6.12	34.52	27.18	98.0	1.012	.34	2.95
700	5.50	34.51	27.25	91.8	1.107	.31	2.96
800	4.87	34.51	27.32	84.9	1.196	.30	2.98
1000	4.10	34.60	27.48	70.7	1.354	.58	3.07

## STATION 113.60 (Interpolated Values at Standard Depths)

CREST: 28°22'N 117°16.5'W February 9, 1951 0753 GCT Wire angle: 10°  
 Sounding: 2,00 fms. Depth of observation: 1,169 m. Weather: cloudy  
 Sea: rough Wind: 320°, force 2

0	15.99	33.49	24.61	333.8	.0000	4.76	.48
10	15.99	33.51	24.62	332.7	.0335	5.28	.45
20	15.87	33.50	24.64	331.1	.0668	5.05	.47
30	15.69	33.47	24.66	329.8	.1000	5.09	.50
50	15.31	33.44	24.72	324.5	.1658	5.37	.52
75	13.25	33.28	25.03	295.5	.2437	5.45	.66
100	12.03	33.87	25.73	230.0	.3098	4.63	.98
150	10.29	33.74	25.94	210.4	.421	3.50	1.57
200	9.42	34.13	26.43	164.9	.515	2.35	2.12
250	9.04	34.35	26.62	147.3	.594	1.60	2.47
300	8.78	34.46	26.75	136.1	.665	1.04	2.62
400	7.92	34.53	26.94	119.6	.794	.45	2.80
500	7.17	34.53	27.05	110.4	.910	.27	3.06
600	6.32	34.54	27.17	99.2	1.016	.24	3.14
700	5.56	34.55	27.27	89.6	1.111	.28	3.18
800	4.91	34.55	27.35	82.4	1.198	.37	3.19
1000	4.16	34.59	27.47	72.2	1.354	.55	3.19

## STATION 113.70 (Interpolated Values at Standard Depths)

CREST: 28°02'N 117°55.5'W February 9, 1951 0224 GCT Wire angle: 3°  
 Sounding: 2,000 fms. Depth of observation: 1,196 m. Weather: cloudy  
 Sea: rough Wind: 320°, force 1

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu\text{g}$ at/L)
0	16.38	33.53	24.55	339.4	.0000	5.55	.61
10	16.16	33.64	24.69	326.9	.0334	4.97	.64
20	16.09	33.54	24.63	332.9	.0665	4.83	.61
30	16.05	33.53	24.63	333.1	.0999	4.81	.58
50	15.97	33.64	24.73	323.9	.1659	5.00	.59
75	15.36	33.65	24.87	310.9	.2457	5.13	.57
100	12.62	33.49	25.32	268.8	.3186	5.10	.83
150	11.24	34.06	26.02	203.1	.437	2.56	1.88
200	9.25	34.09	26.39	168.8	.531	2.94	1.90
250	8.74	34.17	26.53	155.9	.613	2.20	2.16
300	8.44	34.30	26.68	142.7	.688	1.33	2.52
400	7.65	34.49	26.95	118.6	.820	.54	2.85
500	6.89	34.44	27.01	113.0	.936	.29	2.95
600	5.96	34.53	27.21	95.1	1.042	.30	3.01
700	5.35	34.54	27.29	87.6	1.134	.34	3.02
800	4.82	34.54	27.35	82.0	1.219	.37	3.04
1000	4.10	34.61	27.49	70.0	1.373	.55	3.02

## STATION 117.35 (Interpolated Values at Standard Depths)

CREST: 28°41'N 115°14'W February 8, 1951 0045 GCT Wire angle: 14°  
 Sounding: 104 fms. Depth of observation: 146 m. Weather: fog  
 Sea: moderate Wind: 320°, force 3

0	15.05	33.58	24.89	307.4	.0000	5.55	.62
10	15.02	33.57	24.89	307.8	.0309	5.25	.63
20	14.79	33.55	24.92	304.8	.0617	5.48	.63
30	14.76	33.56	24.93	303.7	.0922	5.38	.64
50	12.49	33.61	25.44	256.3	.1485	4.04	1.34
75	11.89	33.86	25.74	227.6	.2093	2.96	1.73
100	11.16	33.93	25.93	210.1	.2644	2.69	1.80
150	(10.08)	(34.21)	(26.34)	(172.3)	(.361)	(1.76)	(2.22)

## STATION 117.40 (Interpolated Values at Standard Depths)

CREST: 28°28'N 115°38'W February 8, 1951 0451 GCT Wire angle: 11°  
 Sounding: 550 fms. Depth of observation: 878 m. Weather: fog  
 Sea: moderate Wind: 320°, force 2

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (mL/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	14.45	33.61	25.04	292.9	.0000	5.45	.53
10	14.30	33.63	25.12	285.1	.0290	5.49	.51
20	14.22	33.71	25.16	281.5	.0574	5.31	.57
30	14.17	33.72	25.18	280.1	.0856	5.03	.70
50	12.42	33.59	25.43	256.5	.1395	4.46	1.01
75	10.68	33.58	25.75	227.2	.2003	3.68	1.52
100	10.20	33.87	26.06	198.3	.2538	3.08	1.73
150	9.84	34.25	26.41	165.4	.345	1.88	2.18
200	9.54	34.35	26.54	154.2	.426	1.03	2.66
250	9.10	34.33	26.64	146.0	.502	.81	2.73
300	8.65	34.40	26.72	138.5	.573	.68	2.79
400	7.88	34.40	26.84	128.6	.708	.44	2.94
500	7.15	34.40	26.95	119.6	.833	.35	3.09
600	6.31	34.41	27.07	108.7	.948	.31	3.16
700	5.49	34.44	27.20	96.8	1.052	.29	3.18
800	4.92	34.48	27.29	87.7	1.145	.35	3.24
1000	(4.21)	(34.51)	(27.40)	(78.7)	(1.313)	-	-

## STATION 117.50 (Interpolated Values at Standard Depths)

CREST: 28°08'N 116°17'W February 8, 1951 1032 GCT Wire angle: 3°  
 Sounding: 2,200 fms. Depth of observation: 1,240 m. Weather: fog  
 Sea: moderate Wind: 320°, force 2

0	15.24	33.62	24.88	308.4	.0000	4.96	.60
10	15.22	33.78	25.00	296.6	.0304	5.43	.63
20	15.13	33.75	25.00	297.2	.0602	5.30	.65
30	15.00	33.68	24.97	299.9	.0902	5.05	.70
50	12.87	33.56	25.32	267.1	.1472	4.40	1.11
75	11.26	33.65	25.70	231.9	.2099	3.65	1.43
100	10.72	33.83	25.93	210.0	.2655	2.93	1.79
150	9.85	34.09	26.29	177.4	.363	2.06	2.14
200	9.53	34.30	26.50	157.8	.447	1.41	2.42
250	9.21	34.37	26.61	148.5	.524	.95	2.63
300	8.82	34.41	26.71	140.4	.597	.65	2.80
400	7.75	34.42	26.88	125.2	.731	.40	2.99
500	6.63	34.43	27.04	110.2	.850	.29	3.11
600	6.04	34.44	27.13	102.8	.957	.25	3.16
700	5.41	34.45	27.21	95.1	1.057	.30	3.18
800	4.68	34.45	27.30	87.0	1.149	.39	3.22
1000	4.07	34.54	27.43	74.8	1.313	.54	3.17

## STATION 117.60 (Interpolated Values at Standard Depths)

CREST: 27°47'N 116°58'W February 8, 1951 1616 GCT Wire angle: 6°  
 Sounding: 2,100 fms. Depth of observation: 1,188 m. Weather: overcast  
 Sea: very rough Wind: 020°, force 2

Depth (m)	T (°C)	S (%)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	15.35	33.61	24.84	311.5	.0000	5.18	.56
10	15.32	33.66	24.89	307.5	.0311	5.29	.59
20	15.30	33.66	24.89	307.3	.0620	5.35	.59
30	15.27	33.64	24.89	308.4	.0929	5.37	.59
50	15.24	33.57	24.84	313.5	.1554	5.17	.63
75	12.27	33.49	25.39	261.7	.2277	4.45	1.03
100	11.14	33.79	25.83	220.1	.2883	3.17	1.59
150	10.15	34.03	26.19	186.7	.391	2.55	1.94
200	9.76	34.37	26.52	156.3	.477	1.58	2.34
250	9.40	34.49	26.67	142.7	.552	.92	2.58
300	8.90	34.49	26.75	135.7	.622	.69	2.71
400	7.66	34.47	26.93	120.2	.752	.45	2.90
500	6.46	34.50	27.12	102.7	.864	.30	3.01
600	5.88	34.51	27.20	95.5	.964	.27	3.06
700	5.29	34.53	27.29	87.6	1.056	.30	3.11
800	4.72	34.56	27.38	79.3	1.141	.37	3.12
1000	4.05	34.60	27.48	70.1	1.292	.55	3.06

## STATION 117.70 (Interpolated Values at Standard Depths)

CREST: 27°31'N 117°29'W February 8, 1951 2048 GCT Wire angle: 0°  
 Sounding: 2,050 fms. Depth of observation: 1,193 m. Weather: cloudy  
 Sea: slight Wind: 320°, force 2

0	16.41	33.49	24.51	343.0	.0000	4.85	.51
10	16.18	33.53	24.60	335.3	.0341	4.70	.47
20	16.17	33.50	24.58	337.6	.0679	4.85	.46
30	16.17	33.47	24.55	340.1	.1019	4.99	.46
50	16.11	33.46	24.56	340.1	.1703	4.90	.47
75	15.74	33.62	24.77	321.2	.2534	5.01	.52
100	12.50	33.46	25.32	268.8	.3276	4.62	.89
150	10.37	33.90	26.05	200.0	.446	2.77	1.77
200	10.58	34.43	26.43	165.6	.538	1.32	2.22
250	9.81	34.48	26.60	150.1	.617	.99	2.43
300	8.99	34.50	26.75	136.4	.689	.85	2.60
400	7.91	34.51	26.92	121.0	.819	.46	2.74
500	7.21	34.51	27.02	112.4	.937	.26	2.88
600	5.98	34.53	27.21	95.4	1.042	.25	2.97
700	5.44	34.57	27.30	86.6	1.133	.26	3.01
800	5.00	34.61	27.39	79.1	1.217	.29	3.03
1000	4.18	34.65	27.51	68.0	1.366	.45	2.99

## STATION 120.35 (Interpolated Values at Standard Depths)

CREST: 28°03'N 114°54'W February 14, 1951 0417 GCT Wire angle: 0°  
 Sounding: 47 fms. Depth of observation: 75 m. Weather: partly cloudy  
 Sea: missing Wind: direction missing, force 4

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (µg at/L)
0	15.78	33.80	24.89	306.7	.0000	5.45	.55
10	15.77	33.71	24.83	313.4	.0311	5.50	.48
20	15.76	33.71	24.83	313.4	.0626	5.53	.49
30	15.69	33.71	24.85	312.2	.0940	5.55	.53
50	15.40	33.69	24.89	308.1	.1563	5.57	.57
75	11.84	33.73	25.65	236.3	.2247	2.08	1.97

## STATION 120.45 (Interpolated Values at Standard Depths)

CREST: 27°43'N 115°33'W February 13, 1951 2243 GCT Wire angle: 15°  
 Sounding: 1,700 fms. Depth of observation: 1,154 m. Weather: partly cloudy  
 Sea: very rough Wind: 320°, force 4

0	15.42	33.98	25.11	285.9	.0000	5.24	.75
10	15.32	33.83	25.02	295.0	.0292	5.33	.75
20	15.20	33.86	25.07	290.6	.0586	5.25	.76
30	15.10	33.87	25.10	288.1	.0877	4.75	.77
50	13.15	33.77	25.43	257.0	.1425	3.38	1.49
75	11.86	33.96	25.83	219.7	.2024	2.49	1.95
100	10.67	33.95	26.04	200.2	.2552	2.05	2.16
150	10.40	34.31	26.36	170.3	.348	1.34	2.22
200	10.70	34.50	26.46	162.5	.432	.67	2.27
250	9.92	34.49	26.59	151.1	.511	.57	2.30
300	9.06	34.46	26.71	140.4	.585	.55	2.32
400	7.88	34.43	26.86	126.4	.719	.37	2.40
500	6.79	34.43	27.02	112.4	.840	.34	2.44
600	5.80	34.48	27.19	96.7	.945	.30	2.53
700	5.29	34.49	27.26	90.6	1.040	.31	2.56
800	4.88	34.50	27.31	85.8	1.129	.39	2.56
1000	4.10	(34.58)	(27.46)	(72.2)	(1.288)	.50	2.57

## STATION 120.50 (Interpolated Values at Standard Depths)

CREST: 27°32'N 115°51'W February 13, 1951 1831 GCT Wire angle: 20°  
 Sounding: 2,200 fms. Depth of observation: 1,183 m. Weather: partly cloudy  
 Sea: very rough Wind: 320°, force 4

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (µg at/L)
0	15.62	33.89	25.00	296.7	.0000	4.77	.57
10	15.59	33.84	24.97	300.0	.0300	5.07	.57
20	15.60	33.75	24.90	307.1	.0605	5.10	.56
30	15.59	33.72	24.88	309.4	.0914	5.08	.53
50	15.57	33.71	24.87	310.2	.1537	5.02	.52
75	12.55	33.91	25.66	236.0	.2224	2.75	1.50
100	12.39	34.28	25.97	206.5	.2781	1.16	2.01
150	11.57	34.39	26.22	184.7	.377	.80	2.30
200	10.75	34.49	26.44	164.3	.464	.72	2.44
250	10.05	34.50	26.57	152.6	.544	.60	2.44
300	9.40	34.49	26.67	143.7	.619	.45	2.43
400	8.10	34.45	26.85	128.2	.756	.32	2.52
500	7.30	34.45	26.96	118.1	.880	.28	2.54
600	6.52	34.45	27.07	108.6	.994	.20	2.63
700	5.73	34.46	27.18	98.5	1.099	.25	2.72
800	4.94	34.47	27.28	88.7	1.194	.35	2.76
1000	4.05	34.53	27.43	75.2	1.359	.50	2.78

## STATION 120.60 (Interpolated Values at Standard Depths)

CREST: 27°13'N 116°28'W February 13, 1951 1256 GCT Wire angle: 30°  
 Sounding: 2,050 fms. Depth of observation: 1,179 m. Weather: partly cloudy  
 Sea: rough Wind: 320°, force 4

0	15.67	33.82	24.93	302.9	.0000	4.77	.46
10	15.67	33.91	25.00	296.6	.0301	5.31	.48
20	15.66	33.78	24.91	306.2	.0604	5.31	.46
30	15.65	33.80	24.92	304.8	.0911	5.36	.46
50	15.64	33.89	25.00	298.6	.1517	5.47	.53
75	11.60	33.52	25.54	247.5	.2203	4.82	.88
100	10.97	33.88	25.93	210.5	.2779	3.15	1.26
150	10.43	34.02	26.13	192.1	.379	2.25	1.62
200	9.35	34.33	26.56	152.7	.466	1.92	1.86
250	8.68	34.42	26.73	136.5	.539	1.51	1.96
300	8.37	34.46	26.81	129.8	.606	.86	2.02
400	7.66	34.47	26.93	120.2	.732	.45	2.17
500	6.74	34.47	27.06	108.7	.848	.30	2.36
600	5.88	34.48	27.18	97.7	.952	.30	2.44
700	5.29	34.53	27.29	87.6	1.045	.34	2.49
800	4.77	34.56	27.37	79.9	1.130	.40	2.52
1000	4.02	34.56	27.46	72.7	1.284	.60	2.53



## STATION 120.70 (Interpolated Values at Standard Depths)

CREST: 26°51'N 117°07'W February 13, 1951 0630 GCT Wire angle: 20°  
 Sounding: 2,100 fms. Depth of observation: 1,123 m. Weather: partly cloudy  
 Sea: very rough Wind: 340°, force 5

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (mL/L)	PO <sub>4</sub> -P (µg at/L)
0	15.30	33.57	24.82	313.4	.0000	5.31	.65
10	15.28	33.42	24.71	324.2	.0320	5.21	.56
20	15.24	33.48	24.77	319.2	.0643	5.57	.58
30	15.23	33.48	24.77	319.3	.0964	5.54	.58
50	14.50	33.30	24.79	318.0	.1605	5.35	.58
75	13.06	33.47	25.22	277.9	.2354	4.83	.76
100	11.57	33.64	25.63	238.7	.3004	3.76	1.01
150	10.02	34.15	26.31	175.7	.405	2.45	1.59
200	9.23	34.25	26.51	156.7	.488	2.09	1.92
250	9.05	34.53	26.76	134.2	.562	1.28	2.16
300	8.86	34.57	26.82	129.2	.628	.63	2.34
400	7.87	34.55	26.96	117.4	.752	.30	2.50
500	6.73	34.53	27.11	104.2	.864	.34	2.54
600	5.85	34.55	27.24	92.2	.963	.37	2.60
700	5.36	34.56	27.31	86.3	1.053	.34	2.64
800	4.92	34.57	27.37	81.1	1.138	.34	2.61
1000	4.08	34.59	27.47	71.2	1.292	.51	2.56

## STATION 120.80 (Interpolated Values at Standard Depths)

CREST: 26°28'N 117°50'W February 13, 1951 0026 GCT Wire angle: 14°  
 Sounding: 2,100 fms. Depth of observation: 1,209 m. Weather: cloudy  
 Sea: very rough Wind: 340°, force 5

0	17.74	33.95	24.55	339.4	.0000	5.04	.18
10	17.76	33.81	24.44	350.3	.0346	5.15	.14
20	17.77	33.91	24.51	343.6	.0694	5.19	.13
30	17.80	33.91	24.51	344.6	.1039	5.19	.15
50	17.83	33.92	24.51	345.2	.1732	5.17	.19
75	15.50	33.58	24.79	319.0	.2567	5.09	.30
100	12.38	33.49	25.37	264.3	.3301	4.94	.52
150	10.98	33.94	25.97	207.4	.449	3.23	1.35
200	9.65	34.08	26.31	175.9	.545	2.37	1.90
250	8.42	34.15	26.56	152.6	.628	1.92	1.96
300	7.36	34.19	26.75	135.0	.700	1.46	2.01
400	6.78	34.29	26.91	121.1	.830	.65	2.34
500	6.49	34.38	27.02	111.9	.947	.37	2.62
600	5.72	34.47	27.19	96.4	1.052	.35	2.83
700	5.15	34.52	27.30	86.6	1.144	.36	2.92
800	4.74	34.56	27.38	79.6	1.228	.42	2.96
1000	4.00	34.55	27.45	73.2	1.383	.68	2.99

## STATION 120.90 (Interpolated Values at Standard Depths)

CREST: 26°13'N 118°28'W February 12, 1951 1845 GCT Wire angle: 28°  
 Sounding: 2,200 fms. Depth of observation: 1,124 m. Weather: cloudy  
 Sea: rough Wind: 340°, force 5

Depth (m)	T (°C)	S (‰)	$\sigma_t$ ( $\text{mg}/\text{cm}^3$ )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu\text{g}$ at/L)
0	17.57	33.87*	24.53	341.3	.0000	5.50	.41
10	17.57	33.78*	24.46	348.1	.0346	5.26	.36
20	17.58	33.77*	24.45	349.4	.0696	5.18	.31
30	17.60	33.79*	24.46	348.7	.1046	5.22	.32
50	17.56	33.86*	24.53	343.3	.1742	5.51	.44
75	16.65	33.66*	24.59	338.1	.2599	5.40	.47
100	12.50	33.61*	25.43	257.7	.3349	5.24	.61
150	10.19	33.76*	25.97	207.3	.452	3.95	1.40
200	9.60	34.21*	26.42	165.3	.546	2.27	2.08
250	8.87	34.29*	26.60	149.1	.625	1.62	2.35
300	8.14	34.36*	26.77	133.7	.696	1.15	2.52
400	7.04	34.45*	27.00	112.9	.821	.59	2.72
500	5.92	34.39*	27.10	103.6	.930	.44	2.98
600	5.42	34.37	27.15	99.9	1.032	.35	3.07
700	4.94	34.49	27.30	86.2	1.126	.39	3.09
800	4.54	34.53	27.38	79.3	1.210	.45	3.10
1000	4.00	34.55	27.45	73.2	1.364	.67	3.08

\*Sequence of salinity samples uncertain

## STATION 120.100 (Interpolated Values at Standard Depths)

CREST: 25°53'N 119°06'W February 12, 1951 1039, 1224 GCT Wire  
 angles: 15°, 21° Sounding: 2,200 fms. Depths of observation: 1,147, 3,204 m.  
 Weather: intermittent moderate drizzle Sea: missing Wind: 320°, force 3

0	17.09	33.62	24.45	348.6	.0000	4.80	-
10	17.10	33.68	24.50	344.7	.0348	4.46	-
20	17.09	33.55	24.40	354.3	.0699	4.27	-
30	17.07	33.52	24.38	356.3	.1056	4.29	-
50	16.87	33.50	24.41	353.9	.1770	5.00	-
75	15.83	33.50	24.65	331.9	.2632	5.04	-
100	13.45	33.77	25.37	264.1	.3382	5.07	-
150	10.48	33.98	26.09	195.9	.454	3.83	-
200	9.07	34.60	26.81	128.3	.536	3.17	-
250	9.05	34.69	26.89	122.4	.599	2.10	-
300	8.95	34.72	26.93	119.5	.660	.90	-
400	7.64	34.54	26.99	114.8	.778	.83	-
500	6.79	34.48	27.06	108.7	.890	.25	-
600	6.16	34.47	27.13	102.2	.997	.27	-
700	5.53	34.48	27.22	94.4	1.096	.34	-
800	4.94	34.50	27.31	86.5	1.188	.51	-
1000	4.12	34.56	27.45	73.9	1.350	.53	-
1200	3.59	34.55	27.49	69.9	1.495	.74	-
1500	2.89	34.60	27.60	59.9	1.692	1.12	-
2000	2.16	34.69	27.73	47.1	1.964	1.80	-
2500	1.79	34.76	27.82	39.3	2.184	2.20	-
3000	1.66	34.78	27.84	37.9	2.380	2.43	-

## STATION 123.40 (Interplated Values at Standard Depths)

CREST: 27°18'N 114°51.5'W February 18, 1951 0708 GCT Wire angle: 11°  
 Sounding: 300 fms. Depth of observation: 482 m. Weather: partly cloudy  
 Sea: rough Wind: 300°, force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (µg at/L)
0	16.85	34.14	24.91	305.3	.0000	5.47	.56
10	16.84	34.02	24.82	314.1	.0311	5.42	.55
20	15.60	33.92	25.03	294.7	.0617	5.31	.58
30	15.41	33.84	25.01	296.8	.0914	5.15	.72
50	13.60	33.78	25.35	265.0	.1479	4.25	1.17
75	11.25	33.86	25.86	216.3	.2084	3.02	1.79
100	10.90	33.97	26.01	202.7	.2611	2.82	1.95
150	10.57	34.09	26.16	189.3	.360	2.08	2.22
200	9.47	34.31	26.52	156.1	.447	1.27	2.53
250	10.19	34.55	26.59	151.2	.524	.69	2.78
300	9.58	34.61	26.74	137.8	.597	.48	2.90
400	8.25	34.57	26.92	121.7	.728	.27	3.09
500	(7.23)	(34.52)	(27.03)	(112.0)	(.846)	-	-

## STATION 123.50 (Interpolated Values at Standard Depths)

CREST: 26°58'N 115°31'W February 18, 1951 1249 GCT Wire angle: 21°  
 Sounding: 2,100 fms. Depth of observation: 1,216 m. Weather: partly cloudy  
 Sea: rough Wind: 310°, force 4

0	16.05	34.02	25.00	296.4	.0000	5.75	.47
10	16.02	33.93	24.94	320.7	.0301	5.72	.49
20	15.76	33.86	24.95	302.5	.0605	5.55	.58
30	15.56	33.86	24.99	298.5	.0907	5.15	.73
50	13.07	33.86	25.52	248.9	.1457	3.95	1.40
75	11.56	34.00	25.92	211.4	.2036	2.76	1.86
100	11.10	34.15	26.12	192.9	.2545	1.95	2.19
150	10.54	34.36	26.38	168.9	.346	1.40	2.48
200	10.19	34.54	26.58	150.9	.426	.83	2.68
250	9.78	34.57	26.67	142.9	.500	.54	2.84
300	9.19	34.51	26.72	138.8	.571	.48	2.95
400	8.00	34.52	26.92	121.6	.702	.34	3.13
500	7.04	34.58	27.10	104.8	.816	.25	3.23
600	6.23	34.58	27.21	95.0	.917	.24	3.27
700	5.51	34.57	27.30	87.5	1.009	.27	3.30
800	4.87	34.55	27.36	81.9	1.095	.34	3.32
1000	4.09	34.52	27.42	76.5	1.255	.67	3.29

## STATION 123.60 (Interpolated Values at Standard Depths)

CREST: 26°37'N 116°12'W February 18, 1951 1916 GCT Wire angle: 25°  
 Sounding: 2,150 fms. Depth of observation: 898m. Weather: partly cloudy  
 Sea: rough Wind: 310°, force 2

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu\text{g at/L}$ )
0	17.84	33.98	24.55	339.5	.0000	4.77	.44
10	17.80	33.86	24.47	347.6	.0345	5.09	.43
20	17.76	33.95	24.55	340.5	.0690	5.07	.43
30	17.78	33.93	24.53	342.7	.1033	4.95	.44
50	17.76	33.82	24.45	350.9	.1730	4.85	.45
75	17.77	33.82	24.45	351.9	.2613	5.02	.43
100	14.55	33.77	25.14	286.0	.3415	5.05	.43
150	11.17	33.72	25.77	226.9	.471	4.31	1.46
200	9.80	34.24	26.41	166.6	.570	1.65	2.37
250	9.09	34.32	26.59	150.3	.650	1.10	2.64
300	8.55	34.38	26.72	138.4	.722	.74	2.78
400	7.32	34.36	26.89	123.5	.854	.47	2.99
500	6.62	34.38	27.00	113.7	.974	.39	3.13
600	5.89	34.41	27.12	103.0	1.083	.34	3.20
700	5.19	34.43	27.22	93.7	1.182	.31	3.21
800	4.70	34.44	27.29	88.0	1.274	.35	3.17

## STATION 127.40 (Interpolated Values at Standard Depths)

CREST: 26°43.5'N 114°29.5'W February 19, 1951 1254 GCT Wire angle: 30°  
 Sounding: 1,600 fms. Depth of observation: 1,212 m. Weather: partly cloudy  
 Sea: rough Wind: 280°, force 5

0	17.03	34.09	24.83	313.0	.0000	5.25	.58
10	17.02	34.00	24.76	319.6	.0318	5.17	.56
20	17.00	34.05	24.81	315.8	.0637	5.20	.58
30	16.48	33.95	24.85	311.8	.0952	5.20	.65
50	12.67	33.71	25.48	252.3	.1519	3.65	1.36
75	11.65	34.03	25.92	210.8	.2101	2.95	1.67
100	10.39	34.35	26.40	166.0	.2575	2.76	1.92
150	10.14	34.36	26.45	162.2	.340	2.07	2.25
200	10.00	34.38	26.49	159.5	.421	1.06	2.51
250	9.57	34.42	26.59	150.6	.499	.78	2.65
300	8.98	34.47	26.73	138.4	.572	.61	2.75
400	7.90	34.68	27.06	108.3	.696	.38	2.86
500	7.09	34.74	27.22	93.7	.798	.25	2.93
600	6.31	34.54	27.17	99.1	.896	.21	3.05
700	5.64	34.54	27.26	91.4	.992	.25	3.06
800	5.03	34.56	27.34	83.2	1.080	.34	3.06
1000	4.21	34.52	27.40	77.9	1.243	.45	3.10

## STATION 127.50 (Interpolated Values at Standard Depths)

CREST: 26°23.5'N 115°08'W February 19, 1951 0640 GCT Wire angle: 38°  
 Sounding: 1,950 fms. Depth of observation: 1,118 m. Weather: partly cloudy  
 Sea: rough Wind: 280°, force 5

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (µg at/L)
0	16.74	33.78	24.66	329.1	.0000	4.95	.37
10	16.72	33.77	24.66	329.7	.0331	5.43	.39
20	15.97	33.60	24.70	326.0	.0660	5.30	.37
30	15.80	33.62	24.75	321.2	.0985	5.14	.38
50	15.60	33.68	24.84	313.1	.1622	4.93	.42
75	11.51	33.50	25.54	247.3	.2326	4.66	.86
100	10.94	33.50	25.64	238.0	.2937	4.04	1.21
150	9.73	33.92	26.17	188.0	.401	3.36	1.64
200	8.88	34.17	26.51	157.1	.488	2.76	2.06
250	8.53	34.26	26.63	146.1	.564	1.98	2.45
300	8.22	34.34	26.74	136.4	.635	.87	2.79
400	7.75	34.56	26.99	114.9	.762	.26	3.24
500	6.63	34.49	27.09	105.7	.873	.23	3.36
600	6.03	34.51	27.18	97.5	.976	.29	3.32
700	5.52	34.55	27.28	89.1	1.070	.36	3.24
800	5.07	34.58	27.36	82.3	1.157	.37	3.25
1000	4.21	34.63	27.49	69.8	1.310	.49	3.27

## STATION 127.60 (Interpolated Values at Standard Depths)

CREST: 26°03.5'N 115°46.5'W February 19, 1951 0042 GCT Wire angle: 18°  
 Sounding: 2,050 fms. Depth of observation: 1,132 m. Weather: cloudy  
 Sea: rough Wind: 310°, force 3

0	17.90	33.91	24.48	346.0	.0000	5.09	.44
10	17.87	33.78	24.39	355.0	.0352	5.15	.42
20	17.85	33.80	24.41	353.4	.0708	5.20	.45
30	17.85	33.80	24.41	353.8	.1063	5.21	.46
50	17.85	33.78	24.40	355.9	.1776	5.19	.46
75	17.83	33.73*	24.36	359.8	.2676	5.16	.46
100	15.88	33.84*	24.90	308.9	.3517	5.05	.44
150	12.30	33.82*	25.64	239.8	.490	4.68	1.05
200	9.45	33.80*	26.13	193.4	.599	4.05	1.63
250	8.79	33.98*	26.37	170.7	.691	2.91	2.00
300	8.35	34.32*	26.71	139.8	.769	1.68	2.29
400	7.38	34.32*	26.85	127.3	.903	.72	2.78
500	6.61	34.34*	26.97	116.5	1.026	.44	3.05
600	6.03	34.39*	27.09	106.4	1.139	.35	3.16
700	5.53	34.45*	27.20	96.6	1.241	.28	3.22
800	5.08	34.48*	27.28	89.8	1.336	.30	3.24
1000	4.24	34.53	27.41	77.6	1.505	.48	3.24

\*Sequence of salinities uncertain

## STATION 130.35 (Interpolated Values at Standard Depths)

CREST: 26°20'N 113°50'W February 20, 1951 0837 GGT Wire angle: 15°  
 Sounding: 360 fms. Depth of observation: 578 m. Weather: partly cloudy  
 Sea: rough Wind: 030°, force 5

Depth (m)	T (°C)	S (%)	$\sigma_t$ (mg.cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu\text{g at/L}$ )
0	17.00	34.03	24.80	315.9	.0000	5.56	.55
10	17.01	34.02	24.78	317.9	.0318	5.41	.56
20	17.01	33.99	24.76	320.4	.0638	5.42	.58
30	17.01	33.96	24.73	322.9	.0961	5.43	.66
50	16.28	33.81	24.79	318.3	.1605	4.83	1.06
75	11.98	33.64	25.56	245.4	.2314	4.13	1.41
100	11.16	33.87	25.89	214.5	.2893	3.37	1.71
150	10.20	34.22	26.33	173.6	.387	1.82	2.32
200	9.67	34.34	26.51	157.1	.470	1.31	2.58
250	9.61	34.53	26.67	143.1	.546	.46	2.86
300	9.46	34.58	26.73	138.0	.617	.25	2.99
400	8.55	34.57	26.87	126.3	.750	.19	3.09
500	7.19	34.50	27.02	112.9	.870	.20	3.17

## STATION 130.40 (Interpolated Values at Standard Depths)

CREST: 26°10'N 114°10'W February 20, 1951 1222 GGT Wire angle: 15°  
 Sounding: 2,000 fms. Depth of observation: 1,229 m. Weather: partly cloudy  
 Sea: rough Wind: 030°, force 3

0	16.95	34.18	24.92	304.6	.0000	5.12	.60
10	16.95	33.95	24.74	321.7	.0314	5.00	.58
20	16.95	33.95	24.74	322.0	.0637	4.90	.60
30	16.95	33.94	24.73	323.0	.0961	4.79	.79
50	14.25	33.80	25.23	276.4	.1563	3.98	1.22
75	12.04	33.79	25.66	235.5	.2206	3.14	1.59
100	11.05	33.90	25.93	210.4	.2767	2.79	1.91
150	9.98	34.19	26.34	172.1	.373	2.04	2.36
200	10.26	34.47	26.51	157.2	.456	.95	2.74
250	10.08	34.52	26.58	151.6	.534	.50	2.90
300	9.33	34.53	26.72	139.6	.607	.32	2.99
400	7.03	34.47	26.87	125.7	.741	.30	3.10
500	6.87	34.44	27.02	112.8	.861	.28	3.20
600	5.98	34.45	27.14	101.3	.969	.27	3.28
700	5.38	34.46	27.22	94.0	1.068	.30	3.30
800	4.88	34.48	27.30	87.2	1.159	.38	3.31
1000	4.17	34.54	27.42	76.0	1.324	.50	3.30

## STATION 130.50 (Interpolated Values at Standard Depths)

CREST: 25°50'N 114°51'W February 20, 1951 1750 GCT Wire angle: 40°  
 Sounding: 2,000 fms. Depth of observation: 964 m. Weather: cloudy  
 Sea: very rough Wind: 350°, force 4

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (μg at/L)
0	17.41	33.96	24.64	331.0	.0000	5.15	.37
10	17.44	33.82	24.52	342.2	.0338	5.18	.42
20	17.43	33.88	24.57	338.0	.0679	5.19	.45
30	17.40	33.86	24.56	339.0	.1019	5.21	.44
50	16.95	33.56	24.44	351.3	.1713	5.31	.42
75	13.52	33.77	25.36	264.8	.2487	5.25	.65
100	12.29	33.80	25.62	239.9	.3122	4.15	.88
150	9.55	33.95	26.23	182.9	.419	2.82	1.56
200	8.98	34.15	26.48	160.2	.505	2.08	1.82
250	8.98	34.48	26.73	136.8	.580	1.32	2.18
300	9.45	34.65	26.79	132.7	.648	.47	2.47
400	8.24	34.58	26.93	120.8	.775	.31	2.54
500	7.14	34.47	27.00	114.4	.890	.25	2.81
600	6.21	34.45	27.11	104.4	1.004	.20	3.05
700	5.58	34.53	27.26	91.4	1.103	.25	2.99
800	5.09	34.60	27.37	81.0	1.190	.34	2.87
1000	(4.30)	(34.59)	(27.45)	(73.9)	(1.347)	(.41)	(2.85)

## STATION 130.60 (Interpolated Values at Standard Depths)

CREST: 25°31'N 115°25'W February 20, 1951 2342 GCT Wire angle: 13°  
 Sounding: 2,000 fms. Depth of observation: 1,139 m. Weather: cloudy  
 Sea: very rough Wind: 010°, force 3

0	17.85	33.89	24.48	346.3	.0000	5.49	.42
10	17.70	33.88	24.51	343.8	.0346	5.50	.42
20	17.63	33.86	24.51	344.0	.0691	5.44	.42
30	17.58	33.86	24.52	343.2	.1036	5.40	.43
50	17.52	33.86	24.54	342.4	.1725	5.49	.44
75	17.31	33.81	24.55	342.0	.2585	5.54	.44
100	12.65	33.73	25.50	251.7	.3332	5.49	.49
150	10.62	33.96	26.05	199.8	.447	3.41	1.72
200	12.15	34.77	26.40	168.6	.540	.39	2.72
250	11.50	34.81	26.55	155.0	.621	.30	2.74
300	10.75	34.76	26.65	146.5	.697	.30	2.74
400	9.00	34.65	26.86	127.4	.835	.30	2.91
500	7.47	34.57	27.03	111.7	.956	.30	2.95
600	6.40	34.52	27.14	101.8	1.063	.29	2.99
700	5.62	34.53	27.25	91.9	1.161	.27	3.07
800	5.02	34.57	27.35	82.4	1.249	.28	3.20
1000	4.29	34.65	27.50	69.3	1.403	.41	3.51

## STATION 130.70 (Interpolated Values at Standard Depths)

CREST: 25°10'N 116°03'W February 21, 1951 0532 GCT Wire angle: 5°  
 Sounding: 2,100 fms. Depth of observation: 1,242 m. Weather: partly cloudy  
 Sea: rough Wind: 320°, force 3

Depth (m)	T (°C)	C (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	17.10	33.96	24.71	324.0	.0000	5.22	-
10	17.11	33.77	24.56	338.4	.0333	4.76	-
20	17.11	33.73	24.53	341.6	.0674	4.83	-
30	17.07	33.69	24.51	344.0	.1018	5.01	-
50	16.97	33.66	24.51	344.5	.1710	5.15	-
75	15.75	33.77	24.88	310.4	.2533	5.23	-
100	14.10	33.56	25.07	292.3	.3291	4.95	-
150	10.03	33.88	26.09	195.8	.452	3.20	-
200	10.24	34.28	26.37	170.9	.544	1.50	-
250	10.09	34.46	26.53	156.2	.627	.86	-
300	9.70	34.53	26.66	145.6	.703	.64	-
400	8.25	34.46	26.83	129.8	.842	.40	-
500	7.09	34.46	27.00	114.4	.965	.28	-
600	6.34	34.47	27.11	104.6	1.075	.26	-
700	5.68	34.47	27.20	97.1	1.177	.29	-
800	5.14	34.47	27.26	91.3	1.272	.30	-
1000	4.26	34.59	27.45	73.4	1.439	.47	-

## STATION 130.80 (Interpolated Values at Standard Depths)

CREST: 24°48.5'N 116°40'W February 21, 1951 1232, 1252 GCT Wire  
 angles: 7°, 15° Sounding: 2,100 fms. Depths of observation: 201, 1,158 m.  
 Weather: partly cloudy Sea: very rough Wind: 360°, force 3

0	17.48	33.78	24.48	345.8	.0000	5.01	.48
10	17.48	33.75	24.46	348.3	.0348	4.45	.45
20	17.49	33.76	24.47	348.1	.0698	4.57	.48
30	17.48	33.76	24.47	348.2	.1048	4.56	.48
50	17.24	33.70	24.48	347.7	.1747	4.45	.44
75	16.40	33.58	24.59	338.4	.2609	4.45	.48
100	15.67	33.53	24.71	327.0	.3446	4.62	.56
150	12.01	33.70	25.60	243.3	.488	4.29	1.50
200	11.14	34.33	26.25	182.6	.595	1.30	2.70
250	10.25	34.45	26.50	159.6	.682	.84	2.86
300	9.34	34.46	26.66	144.9	.758	.57	2.93
400	8.10	34.42	26.82	130.4	.897	.30	3.21
500	7.00	34.42	26.98	116.1	1.021	.24	3.24
600	6.15	34.43	27.10	105.6	1.133	.22	3.23
700	5.58	34.50	27.23	93.6	1.233	.20	3.22
800	5.08	34.52	27.31	86.8	1.324	.20	3.22
1000	4.14	34.50	27.40	78.6	1.492	.35	3.26



## STATION 133.30 (Interpolated Values at Standard Depths)

CREST: 25°54.5'N 113°07.5'W February 22, 1951 1753 GCT Wire angle: 0°  
 Sounding: 106 fms. Depth of observation: 152 m. Weather: cloudy  
 Sea: moderate Wind: 350°, force 1

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg.cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu\text{g at/L}$ )
0	17.00	33.95	24.73	322.5	.0000	5.47	.56
10	16.96	33.96	24.75	321.2	.0323	5.45	.56
20	16.95	33.96	24.75	321.3	.0646	5.48	.55
30	16.92	33.95	24.75	321.6	.0969	5.48	.52
50	16.48	33.95	24.85	312.5	.1606	5.49	.51
75	13.28	33.89	25.50	251.3	.2315	2.89	1.66
100	12.05	33.93	25.77	226.0	.2915	2.77	1.84
150	11.57	34.52	26.32	175.1	.392	.53	2.56

## STATION 133.40 (Interpolated Values at Standard Depths)

CREST: 25°33'N 113°44'W February 22, 1951 1234 GCT Wire angle: 30°  
 Sounding: 1,500 fms. Depth of observation: 1,026 m. Weather: cloudy  
 Sea: moderate Wind: 340°, force 4

0	17.61	34.14	24.73	322.5	.0000	5.17	.51
10	17.62	34.00	24.62	333.3	.0329	5.01	.54
20	17.63	34.00	24.62	333.8	.0664	4.87	.51
30	17.63	34.00	24.62	334.1	.0999	4.70	.50
50	17.61	33.99	24.61	335.0	.1672	4.60	.50
75	15.65	33.81	24.93	305.4	.2477	4.70	.69
100	12.90	33.82	25.52	249.8	.3175	3.05	1.34
150	11.96	34.69	26.37	169.7	.423	.90	2.64
200	11.46	34.71	26.48	160.4	.506	.62	2.75
250	10.78	34.58	26.51	159.1	.587	.58	2.80
300	9.61	34.47	26.62	148.6	.664	.55	2.83
400	8.24	34.49	26.86	127.4	.803	.26	3.08
500	7.34	34.56	27.05	110.6	.923	.20	3.14
600	6.53	34.52	27.13	103.6	1.031	.20	3.21
700	5.82	34.49	27.19	97.5	1.133	.20	3.27
800	5.20	34.51	27.29	89.1	1.227	.28	3.31
1000	4.29	34.56	27.43	76.0	1.394	.45	3.35

## STATION 133.50 (Interpolated Values at Standard Depths)

CREST: 25°13'N 114°21'W February 22, 1951 0527 GCT Wire angle: 10°  
 Sounding: 2,100 fms. Depth of observation: 1,178 m. Weather: partly cloudy  
 Sea: rough Wind: 340°, force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	17.53	34.02	24.66	329.4	.0000	5.42	.55
10	17.55	33.91	24.57	338.2	.0335	5.45	.51
20	17.54	33.86	24.53	341.9	.0676	5.45	.50
30	17.50	33.86	24.54	341.3	.1019	5.45	.50
50	17.49	33.89	24.57	339.6	.1703	5.45	.48
75	14.45	33.58	25.02	297.2	.2503	5.55	.63
100	11.47	33.83	25.80	222.9	.3157	3.20	1.62
150	12.05	34.52	26.23	183.8	.418	.92	2.46
200	11.38	34.70	26.49	159.7	.505	.34	2.72
250	10.63	34.67	26.60	149.9	.583	.25	2.78
300	9.98	34.62	26.68	143.6	.656	.24	2.81
400	8.42	34.58	26.90	123.5	.791	.17	2.98
500	7.29	34.50	27.01	114.3	.911	.22	3.17
600	6.36	34.49	27.12	103.4	1.021	.25	3.22
700	5.71	34.50	27.22	95.3	1.121	.25	3.25
800	5.17	34.53	27.30	87.2	1.213	.27	3.26
1000	4.32	34.56	27.42	76.4	1.379	.42	3.27

## STATION 133.60 (Interpolated Values at Standard Depths)

CREST: 24°54.5'N 115°01.5'W February 21, 1951 2353 GCT Wire angle: 7°  
 Sounding: 2,100 fms. Depth of observation: 1,180 m. Weather: partly  
 cloudy Sea: rough Wind: 340°, force 4

0	18.00	34.02	24.54	340.3	.0000	5.14	.50
10	17.82	34.04	24.60	335.0	.0339	4.80	.48
20	17.63	34.02	24.63	332.4	.0674	5.30	.48
30	17.57	33.96	24.60	335.7	.1009	5.29	.47
50	17.65	33.92	24.55	341.0	.1689	5.19	.48
75	14.44	33.58	25.02	297.0	.2491	4.76	.98
100	12.59	33.89	25.63	238.9	.3165	3.32	1.79
150	11.95	34.51	26.24	182.8	.423	.97	2.75
200	11.20	34.61	26.45	163.1	.510	.42	2.98
250	10.39	34.61	26.60	150.2	.589	.30	3.00
300	9.59	34.59	26.72	139.4	.662	.26	3.05
400	8.39	34.52	26.86	127.5	.796	.20	3.25
500	7.00	34.49	27.04	110.9	.916	.20	3.25
600	6.32	34.47	27.11	104.4	1.025	.25	3.25
700	5.68	34.50	27.22	94.9	1.125	.25	3.26
800	5.07	34.52	27.31	86.7	1.217	.29	3.27
1000	4.20	34.52	27.41	77.8	1.383	.54	3.34

## STATION 137.35 (Interpolated Values at Standard Depths)

CREST: 25°10'N 113°04.5'W February 22, 1951 2335 GCT Wire angle: 16°  
 Sounding: 900 fms. Depth of observation: 1,143 m. Weather: cloudy  
 Sea: moderate Wind: 340°, force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	10 <sup>5</sup> $\delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P (µg at/L)
0	17.35	33.93	24.63	331.9	.0000	5.29	.44
10	17.16	33.93	24.68	327.9	.0331	5.19	.50
20	17.11	33.93	24.69	327.1	.0660	5.10	.52
30	17.09	33.93	24.69	326.9	.0988	5.05	.52
50	17.04	33.93	24.70	326.4	.1645	5.01	.50
75	13.02	33.52	25.26	273.5	.2399	4.88	.80
100	12.38	33.97	25.74	229.1	.3031	4.57	1.18
150	11.40	34.21	26.11	194.9	.410	1.77	1.81
200	11.32	34.57	26.40	168.2	.501	1.28	2.24
250	10.77	34.61	26.53	156.7	.583	1.01	2.55
300	9.86	34.60	26.68	143.1	.658	.79	2.76
400	8.36	34.50	26.85	128.5	.795	.22	2.95
500	7.37	34.46	26.96	118.4	.920	.18	3.00
600	6.41	34.45	27.09	107.1	1.034	.20	3.08
700	5.78	34.46	27.18	99.2	1.138	.25	3.14
800	5.24	34.47	27.25	92.6	1.235	.29	3.16
1000	4.27	34.48	27.37	81.6	1.411	.36	3.14

## STATION 137.40 (Interpolated Values at Standard Depths)

CREST: 25°00'N 113°23.5'W February 23, 1951 0315 GCT Wire angle: 5°  
 Sounding: 1,400 fms. Depth of observation: 1,188 m. Weather: cloudy  
 Sea: moderate Wind: calm

0	17.42	33.93	24.61	333.5	.0000	5.45	.52
10	17.42	33.95	24.63	332.3	.0334	5.45	.54
20	17.38	33.92	24.62	333.9	.0668	5.46	.52
30	17.27	33.91	24.63	332.4	.1003	5.47	.51
50	16.93	33.93	24.73	323.9	.1663	5.51	.52
75	13.60	33.48	25.12	287.6	.2432	5.57	.58
100	11.54	33.66	25.65	236.7	.3092	4.38	1.22
150	11.39	34.28	26.16	189.6	.416	1.77	2.28
200	10.91	34.58	26.48	160.2	.505	.77	2.54
250	10.25	34.58	26.60	150.0	.583	.52	2.65
300	9.67	34.57	26.69	142.2	.656	.39	2.74
400	8.59	34.54	26.84	129.1	.793	.27	2.91
500	7.34	34.49	26.99	115.8	.916	.24	3.05
600	6.53	34.49	27.10	105.8	1.028	.20	3.12
700	5.83	34.52	27.22	95.4	1.130	.24	3.18
800	5.15	34.54	27.31	86.2	1.222	.27	3.22
1000	4.26	34.54	27.41	77.1	1.387	.45	3.29

## STATION 137.50 (Interpolated Values at Standard Depths)

CREST: 24°40'N 114°01.5'W February 23, 1951 0848 GCT Wire angle: 8°  
 Sounding: 2,100 fms. Depth of observation: 1,206 m. Weather: cloudy  
 Sea: moderate Wind: 300°, force 3

Depth (m)	T (°C)	S (‰)	$\sigma_t$ (mg/cm <sup>3</sup> )	$10^5 \delta$	$\Delta D$ (dyn.m.)	O <sub>2</sub> (ml/L)	PO <sub>4</sub> -P ( $\mu$ g at/L)
0	18.85	34.14	24.42	351.7	.0000	5.25	.55
10	18.84	34.16	24.44	350.3	.0352	5.29	.53
20	18.78	34.14	24.44	350.7	.0704	5.31	.52
30	18.72	34.12	24.44	351.0	.1056	5.32	.54
50	18.67	33.74	24.16	378.1	.1789	5.35	.59
75	13.36	33.63	25.28	271.9	.2606	5.31	.87
100	12.13	33.72	25.59	242.8	.3254	3.90	2.34
150	11.23	34.21	26.14	191.9	.435	1.70	2.50
200	10.67	34.50	26.46	162.0	.524	.87	2.57
250	10.09	34.51	26.57	152.5	.603	.53	2.65
300	9.43	34.47	26.65	145.6	.678	.40	2.79
400	8.23	34.49	26.86	127.2	.816	.25	2.96
500	7.13	34.43	26.97	117.2	.939	.25	3.06
600	6.47	34.47	27.09	106.4	1.052	.27	3.12
700	5.74	34.47	27.19	97.9	1.155	.27	3.20
800	5.02	34.45	27.26	91.2	1.250	.30	3.26
1000	4.20	34.51	27.40	78.6	1.422	.40	3.34

## STATION 137.60 (Interpolated Values at Standard Depths)

CREST: 24°20'N 114°39.5'W February 23 1951 1418 GCT Wire angle: 5°  
 Sounding: 2,050 fms. Depth of observation: 1,187 m. Weather: cloudy  
 Sea: very rough Wind: 350°, force 1

0	18.70	34.28	24.57	337.9	.0000	5.33	.48
10	18.74	34.18	24.48	346.5	.0344	5.35	.49
20	18.75	34.17	24.47	347.8	.0693	5.35	.48
30	18.70	34.15	24.47	348.4	.1042	5.33	.47
50	17.30	33.92	24.63	333.0	.1727	5.29	.49
75	12.95	33.60	25.34	266.3	.2480	4.70	.71
100	11.66	33.80	25.74	228.5	.3102	3.50	1.79
150	12.00	34.47	26.20	186.6	.415	.88	2.43
200	11.77	34.69	26.41	167.5	.504	.43	2.82
250	10.88	34.64	26.54	156.4	.586	.35	2.96
300	10.04	34.52	26.59	152.0	.663	.34	3.02
400	8.32	34.49	26.85	128.6	.805	.24	2.99
500	7.09	34.45	26.99	115.1	.928	.25	3.08
600	6.22	34.45	27.11	104.5	1.038	.20	2.96
700	5.57	34.46	27.20	96.4	1.140	.23	3.02
800	5.00	34.47	27.28	89.5	1.234	.28	3.08
1000	4.23	34.53	27.41	77.5	1.402	.40	3.23

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