UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA

CCOFI Cruise 6008
10-22 August 1960

CCOFI Cruise 6009
9-21 September 1960

CCOFI Cruise 6009-10
22 September - 22 October 1960

SIO Reference 62-10
17 May 1962

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CCOFI CRUISE 6008
10-22 August 1960

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Sponsored by
Marine Research Committee

SIO Reference 62-10
17 May 1962

Approved for distribution:

Roger Revelle

Roger Revelle, Director

CONTENTS

INTRODUCTION

The data presented in this report were collected by the RV Black Douglas of the Bureau of Commercial Fisheries on Cruise 6008, the RV Black Douglas and the RV Hugh M. Smith on Cruise 6009, and the RV Black Douglas, the RV Hugh M. Smith and the RV Spencer F. Baird of the Scripps Institution of Oceanography on Cruise 6009-10 of the California Cooperative Oceanic Fisheries Investigations program. The first two figures in this cruise numbering system represent the year of the cruise; the last two figures, the month. In the case of quarterly cruises the last figures are hyphenated. The cruises preceding this one in the series are 6005 (Scripps Institution report, SIO Ref. 62-7), 6006 (SIO Ref. 62-8) and 6007-8 (SIO Ref. 62-9).

The data are tabulated at observed depths; the interpolated and computed values are tabulated at standard depths and are accompanied by charts of horizontal distribution. The presentation of data in this report does not constitute publication; however, the data contained in this report have been carefully edited and no modifications should be necessary before final publication.

STANDARD PROCEDURES

Processing of the data was carried out using the method described by Klein.[1/] Certain approximations have been introduced for the determination of the integrated pressure terms which may result in errors whose maximum values are less than 0.5 dynamic centimeter at 0 over 200 decibars, 1.0 dynamic centimeter at 0 over 500 decibars, and 2.0 dynamic centimeters at 0 over 1000 decibars. The 125-meter level was introduced into the integration to obtain greater accuracy in the determination of ΔD.

To indicate degree of accuracy, temperatures are recorded in tenths of a degree when obtained by bucket thermometer, thermograph, or bathythermograph, while temperatures from reversing thermometers are recorded in hundredths of a degree. The salinity values obtained by salinometer are recorded to three decimal places, provided they meet accepted standards. The third decimal place has been offset to emphasize that the accuracy of the observations is not to one unit in that

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[1/] Klein, Hans T. A new technique for processing physical oceanographic data. MS.

place, but that the values recorded "have a reproducibility of ± 0.004‰ salinity at the 95 percent probability level, and a probable accuracy of ± 0.01‰ salinity or better at the same level of probability." [1/] The values are recorded to two decimal places when obtained by chlorinity titration, or by salinometer where only one determination per sample was obtained, or where there is doubt concerning the accuracy of a particular sample, or of all samples on a station. The accuracy of all samples obtained by salinometer and recorded to two decimal places is believed to be equal to or better than those obtained by manual titration.

Extrapolated values and values interpolated between remote observations are entered within parentheses. A hyphen is used to indicate a missing observed value. The time is the time of messenger release. When more than one cast was made on a station, messenger times and wire angles are given in the order of increasing depth. A line is left blank between the observed data of each cast.

On stations where more than one cast is lowered, the various property curves may not agree perfectly. This discrepancy may be caused by changes in geographical position, real property changes with time, slight error in measurement, or a combination of these factors. Stations with overlapping casts have the following footnote: Overlapping casts; reconciliation of property curves when necessary.

FOOTNOTES

Laboratory personnel, before titrating the salinity samples, note any possible imperfections in the sealing of the bottles as follows:

Loose bottle cap:	The cap is definitely loose so that it could be moved with very little applied pressure. The salinity values obtained from these samples may be usable depending on time and/or conditions of storage.
Possible evaporation:	Either the cap was sealed with less than usual pressure, the bottle edge chipped, the rubber washer cracked, or the bale broke on opening, etc.

[1/] Quotation from Department of Oceanography, University of Washington, Tech. Rep. No. 66, UW Ref. 60-18, October 1960.

Use of the values in interpolation depends upon consistency with other values of salinity and other properties, and these footnotes are supplemented with "falls on property curve" or "does not fall on property curve," depending upon whether the property curve was drawn through the value or not.

In addition to footnotes, three special notations are used without footnotes because their meaning is always the same.

To indicate a premature or a delayed reversal of the water-sampling device which results in certain depth and property errors, the following notation is used.

p: pretrip or posttrip.

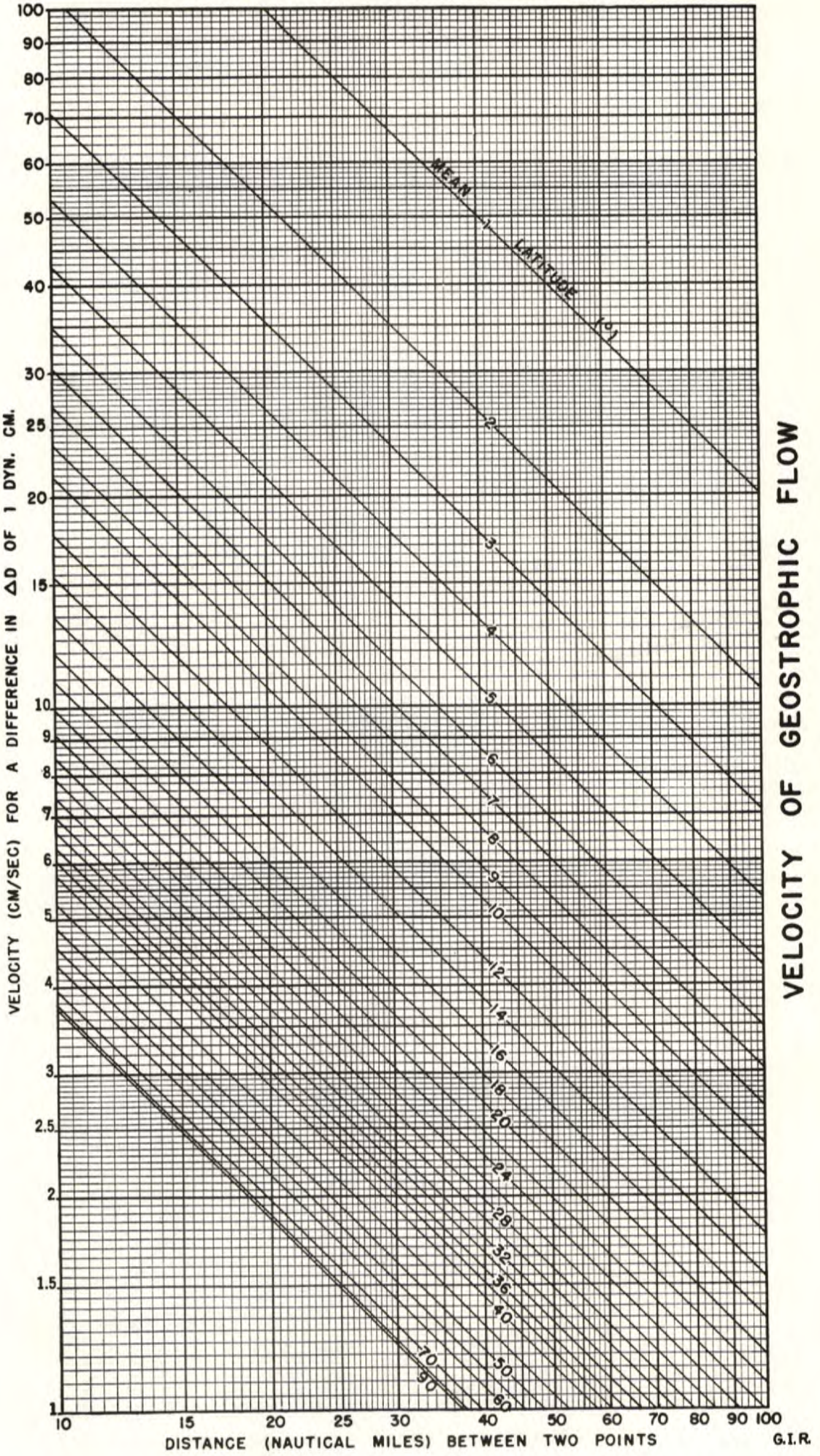
Values which are not drawn through because they seem to be in error without apparent reason are indicated by one of the following notations.

r: rejected value (value seems to be definitely wrong),

u: uncertain value (value may be correct; occasionally it can influence the drawing of the property curve).

FORMAT

These data are typed in the format of the University of California Press publication, Oceanic Observations of the Pacific. So that these pages can be used as copy for the 1960 volume, the first page of Cruise 6008 is numbered 314; Cruise 6009, 324; Cruise 6009-10, 332.


VELOCITY OF GEOSTROPHIC FLOW
VELOCITY (CM/SEC) FOR A DIFFERENCE IN ΔD OF 1 DYN. CM.
DISTANCE (NAUTICAL MILES) BETWEEN TWO POINTS
MEAN LATITUDE
1°
2
3
4
5
6
7
8
9
10
12
14
16
18
20
24
28
32
36
40
50
60
70
90
100
90
80
70
60
50
40
30
25
20
15
10
9
8
7
6
5
4
3
2.5
2
1.5
1
10
15
20
25
30
40
50
60
70
80
90
100
G.I.R.

FIGURES

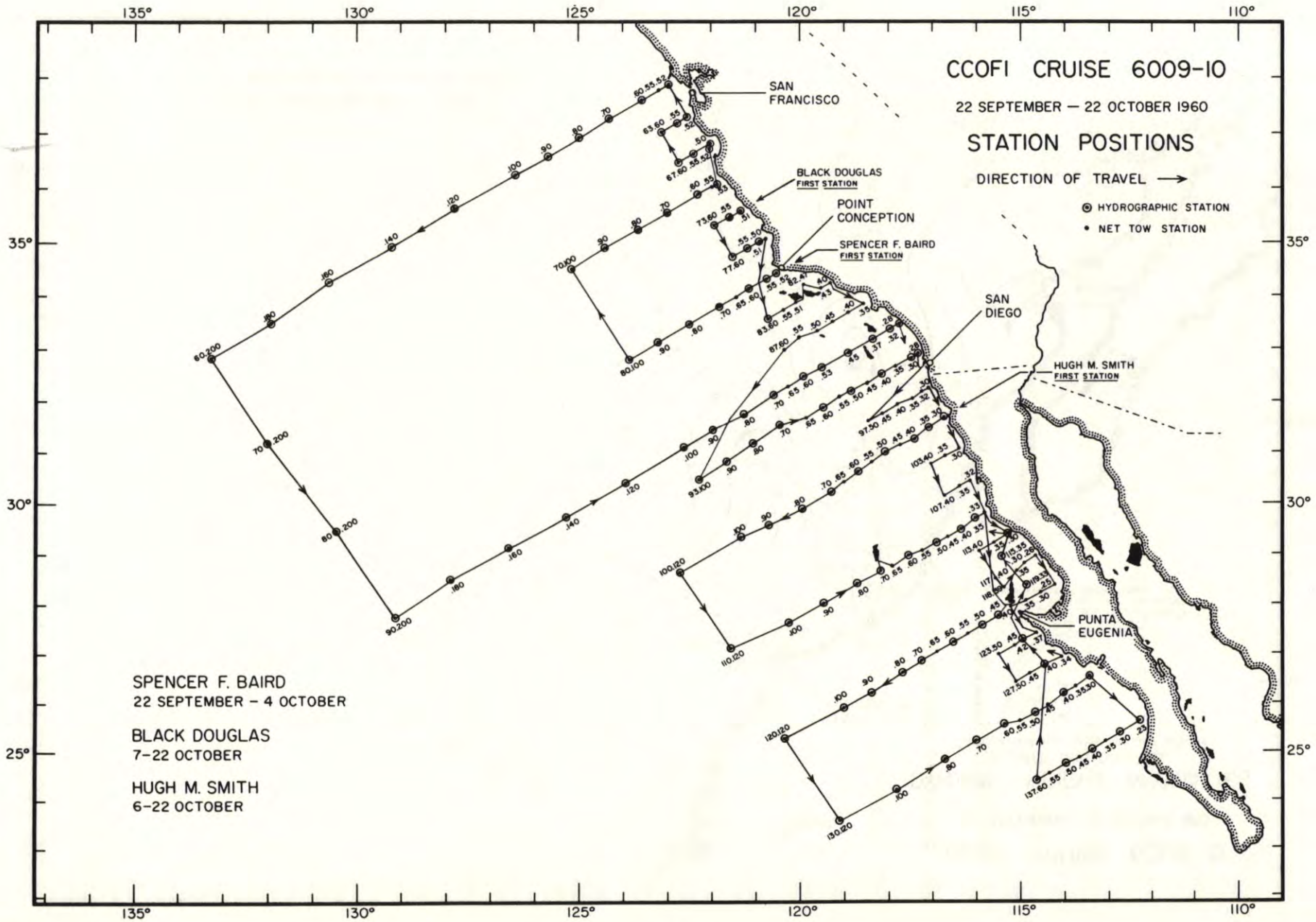

CCOFI CRUISE 6009-10
22 SEPTEMBER — 22 OCTOBER 1960
STATION POSITIONS
DIRECTION OF TRAVEL →
HYDROGRAPHIC STATION
NET TOW STATION
SAN FRANCISCO
BLACK DOUGLAS
FIRST STATION
POINT CONCEPTION
SPENCER F. BAIRD
FIRST STATION
SAN DIEGO
HUGH M. SMITH
FIRST STATION
PUNTA EUGENIA
SPENCER F. BAIRD
22 SEPTEMBER – 4 OCTOBER
BLACK DOUGLAS
7–22 OCTOBER
HUGH M. SMITH
6–22 OCTOBER
135°
130°
125°
120°
115°
110°
35°
30°
25°

FIGURE 1

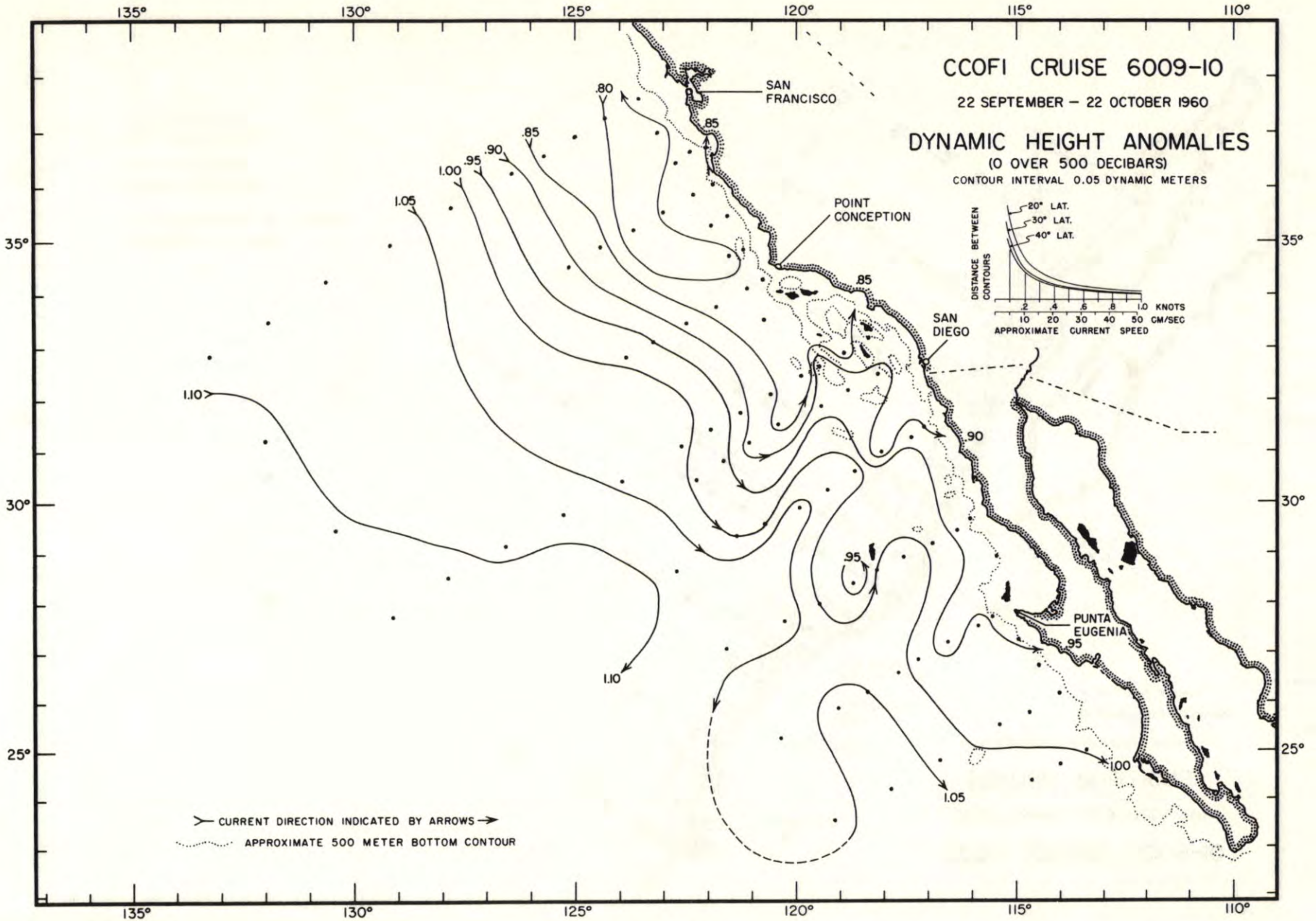

CCOFI CRUISE 6009-10
22 SEPTEMBER – 22 OCTOBER 1960
DYNAMIC HEIGHT ANOMALIES
(0 OVER 500 DECIBARS)
CONTOUR INTERVAL 0.05 DYNAMIC METERS
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
20° LAT.
30° LAT.
40° LAT.
DISTANCE BETWEEN CONTOURS
.2 .4 .6 .8 1.0 KNOTS
10 20 30 40 50 CM/SEC
APPROXIMATE CURRENT SPEED
CURRENT DIRECTION INDICATED BY ARROWS
APPROXIMATE 500 METER BOTTOM CONTOUR
135° 130° 125° 120° 115° 110°
35° 30° 25°

FIGURE 2

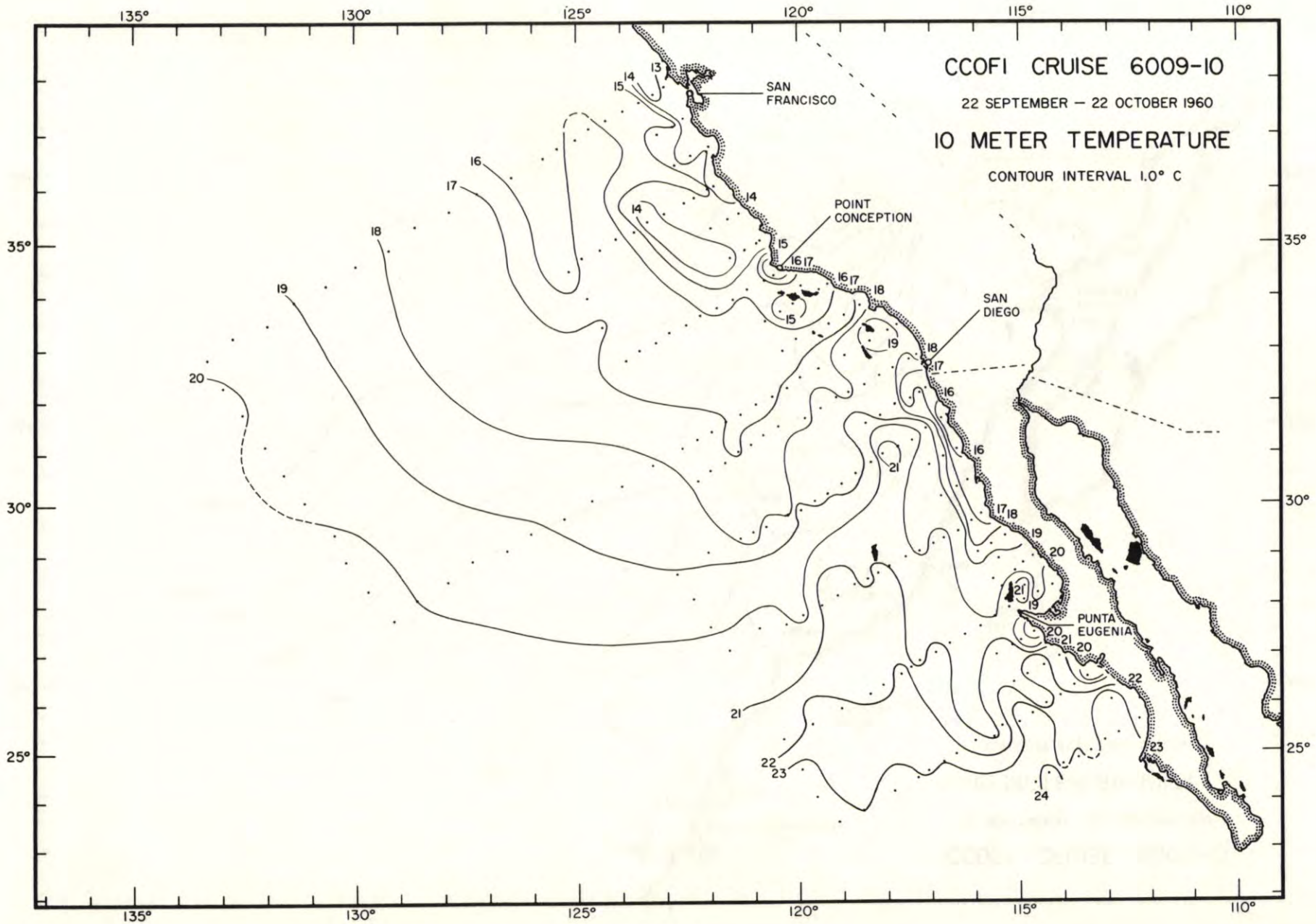

CCOFI CRUISE 6009-10
22 SEPTEMBER – 22 OCTOBER 1960
10 METER TEMPERATURE
CONTOUR INTERVAL 1.0° C
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
135°
130°
125°
120°
115°
110°
35°
30°
25°

FIGURE 3

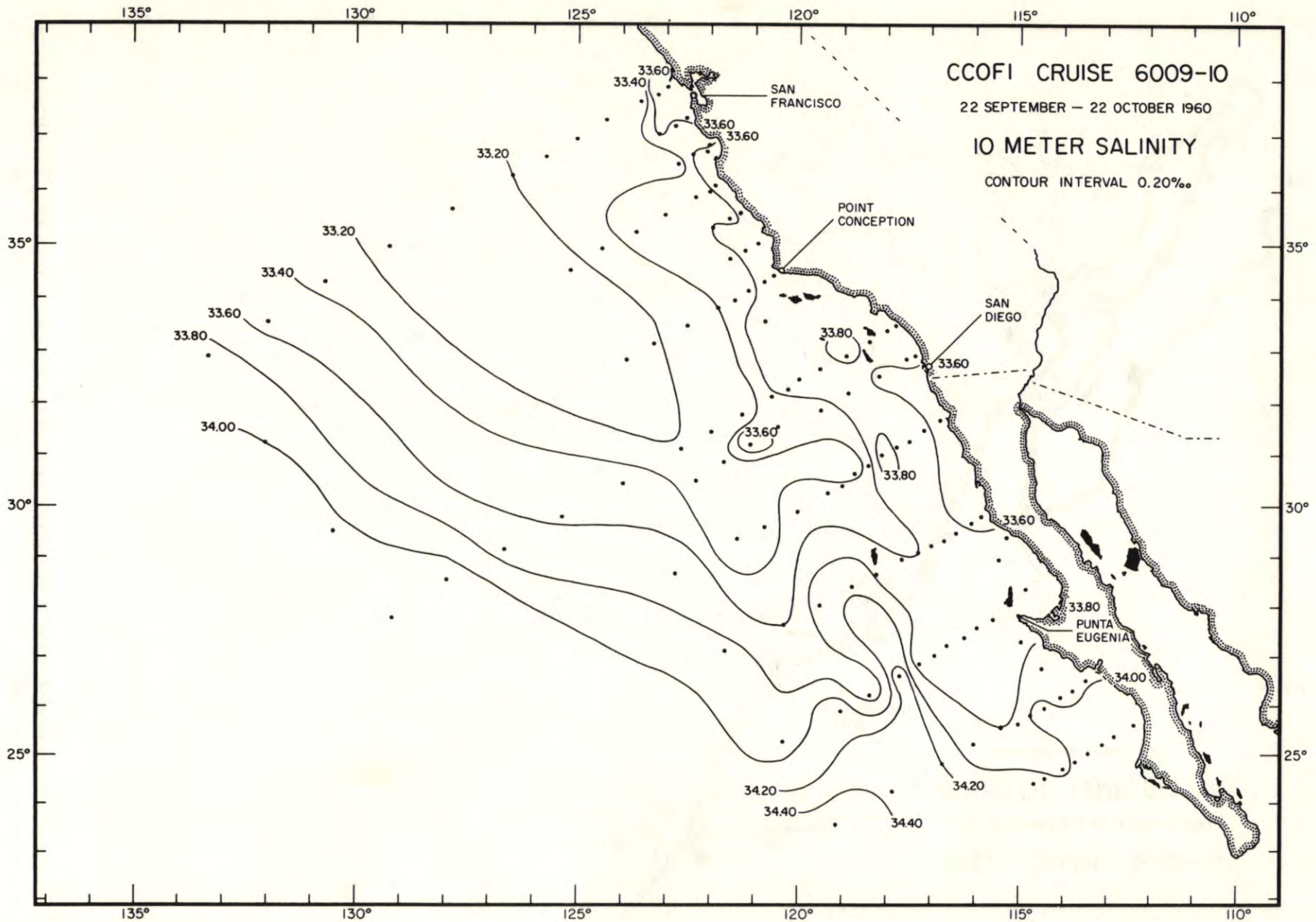

CCOFI CRUISE 6009-10
22 SEPTEMBER – 22 OCTOBER 1960
10 METER SALINITY
CONTOUR INTERVAL 0.20‰
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
135°
130°
125°
120°
115°
110°
35°
30°
25°
33.20
33.40
33.60
33.80
34.00
34.20
34.40

FIGURE 4

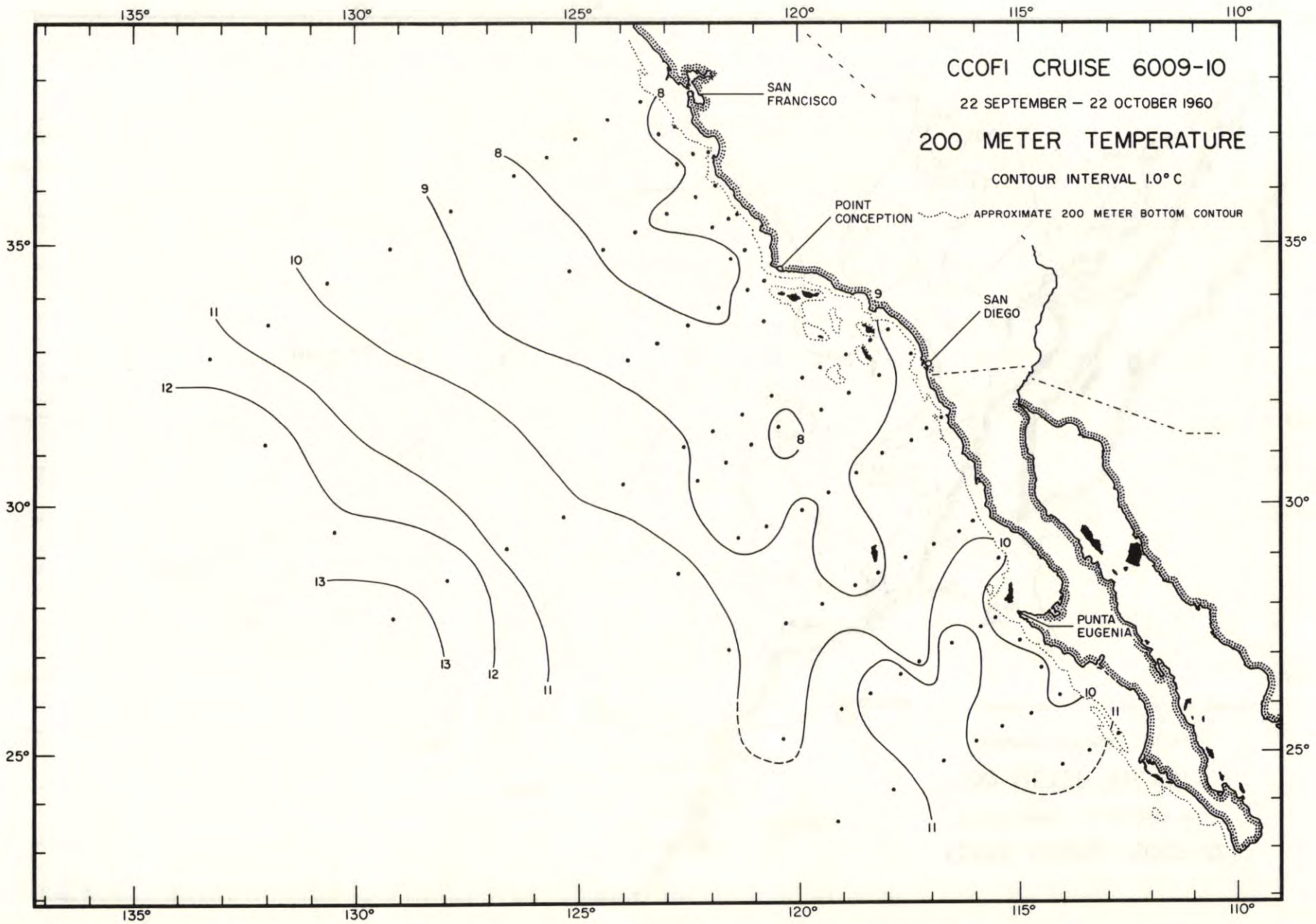

CCOFI CRUISE 6009-10
22 SEPTEMBER – 22 OCTOBER 1960
200 METER TEMPERATURE
CONTOUR INTERVAL 1.0° C
APPROXIMATE 200 METER BOTTOM CONTOUR
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
135°
130°
125°
120°
115°
110°
35°
30°
25°

FIGURE 5

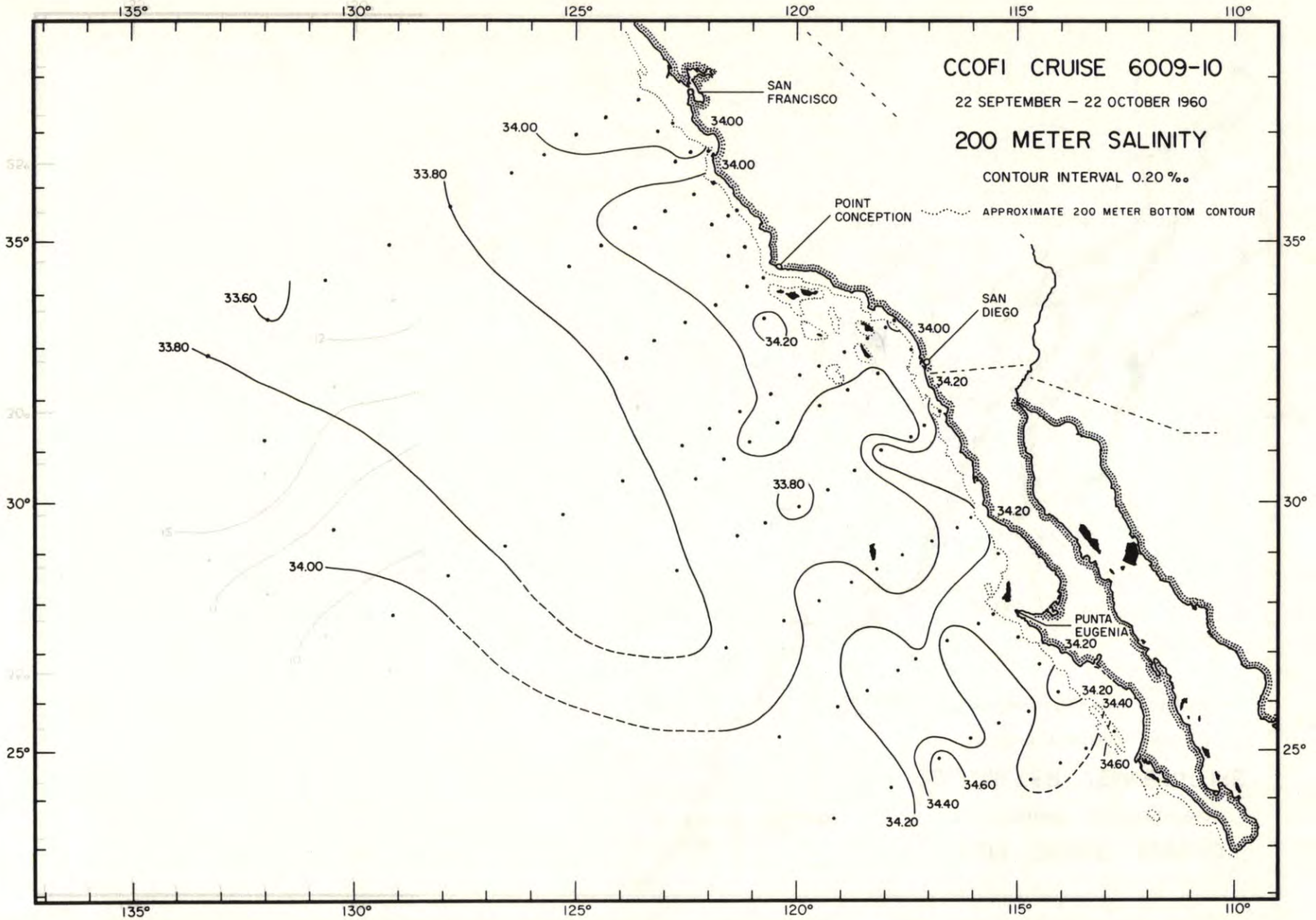

CCOFI CRUISE 6009-10
22 SEPTEMBER – 22 OCTOBER 1960
200 METER SALINITY
CONTOUR INTERVAL 0.20 ‰
APPROXIMATE 200 METER BOTTOM CONTOUR
SAN FRANCISCO
POINT CONCEPTION
SAN DIEGO
PUNTA EUGENIA
135°
130°
125°
120°
115°
110°
35°
30°
25°
34.00
33.80
33.60
34.20
34.40
34.60

FIGURE 6

PERSONNEL
Cruise 6009-10

SHIPS' CAPTAINS

Forster, Charles W., RV Black Douglas
Hopkins, Marvin H., RV Hugh M. Smith
Phinney, Alan W., RV Spencer F. Baird

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

RV Black Douglas

Leong, Roderick J. H., Fishery Research Biologist, Bureau of Commercial Fisheries
*Bryan, Walter R., Marine Technician
*Costello, James P., Laboratory Technician II
Metoyer, Jack D., Fishery Aid, Bureau of Commercial Fisheries
Wagner, Vaughn, Fishery Aid, Bureau of Commercial Fisheries

RV Hugh M. Smith

Lawson, Jan B., Senior Marine Technician
Brennen, Robert E., Marine Technician
Engebretson, David W., Marine Technician
Farrell, David E., Marine Technician
Frey, James M., Marine Technician
Hodnett, Haley L., Marine Technician
Pine, James S., Marine Technician

RV Spencer F. Baird

Brennen, Robert E., Marine Technician
Farrell, David E., Marine Technician
Frey, James M., Marine Technician
Joyal, Norman F., Marine Technician
Mantyla, Arnold W., Marine Technician
Pine, James S., Marine Technician

*Lines 73 to 93 only.

S10

CCOFI
6009-10

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

60.52 SPENCER F. BAIRD; September 26, 1960; 1652 GCT; 37°53.5'N, 123°01.5'W; sounding, 40 fm; wind, 140°, force 1; weather, fog; sea, moderate; wire angle, 00°.

1	13.34	33.70 4	6.73	264	0	(13.34)	(33.70)	(6.73)	(25.34)	(264)	(0.00)
11	13.12	33.69 9	6.43	260	10	13.13	33.70	6.45	25.38	260	0.03
31	10.98	33.71 1	3.86	222	20	12.61	33.70	5.81	25.48	251	0.05
51	10.16	33.78 3	2.94	202	30	11.04	33.70	3.96	25.77	223	0.08
					50	10.17	33.78	2.96	25.99	202	0.12

60.60 SPENCER F. BAIRD; September 26, 1960; 2100 GCT; 37°37'N, 123°37'W; sounding, 1750 fm; wind, 200°, force 1; weather, overcast; sea, rough; wire angle, 03°.

3	15.56	33.31 2	5.61	338	0	(15.56)	(33.31)	(5.61)	(24.57)	(338)	(0.00)
13	15.46	33.31 9	5.64	335	10	15.48	33.31	5.63	24.59	336	0.03
33	14.43	33.52 5	5.66	299	20	15.42	33.33	5.64	24.62	333	0.07
43	11.36	33.22 6	5.17	263	30	14.80	33.50	5.66	24.88	308	0.10
58	10.04	33.38 2	4.60	230	50	10.29	33.32	4.74	25.61	238	0.15
73	9.60	33.53 0	4.30	212	75	9.48	33.55	4.21	25.92	209	0.21
98	8.81	33.71 2	3.37	186	100	8.82	33.74	3.25	26.18	184	0.26
118	8.87	33.89 7	2.50	174	125	8.82	33.91	2.47	26.32	171	0.30
139	8.65	33.93 0	2.42	168	150	8.49	33.96	2.30	26.40	163	0.35
159	8.36	33.98 2	2.22	159	200	7.84	34.05	1.83	26.58	147	0.43
189	7.94	34.03 6	1.93	149	250	7.18	34.06	1.76	26.67	138	0.50
224	7.66	34.06 3	1.77	144	300	6.77	34.10	1.36	26.77	129	0.57
253	7.14	34.05 7	1.76	137	400	6.04	34.16	0.80	26.90	116	0.70
303	6.74	34.10 2	1.30	129	500	5.61	34.23	0.50	27.02	105	0.81
358	6.23	34.13 5	0.95	120	600	5.17	34.29	0.39	27.12	95	0.92
443	5.87	34.18 6	0.66	112							
528	5.48	34.25 4	0.45	102							
613	5.12	34.30 4	0.39	94							

60.70 SPENCER F. BAIRD; September 27, 1960; 0142 GCT; 37°18'N, 124°23'W; sounding, 2270 fm; wind, 320°, force 1; weather, overcast; sea, rough; wire angle, 26°.

2	15.92	33.29 1	5.40	346	0	(15.92)	(33.29)	(5.40)	(24.48)	(346)	(0.00)
10	15.89	33.28 7	5.39	346	10	15.89	33.29	5.39	24.49	346	0.03
29	13.10	33.32 3	5.45	287	20	14.00	33.30	5.42	24.89	307	0.07
37	12.02	33.33 4	5.17	267	30	13.10	33.33	5.45	25.10	287	0.10
51	11.42	33.45 7	4.89	247	50	11.56	33.45	4.93	25.49	250	0.15
64	10.48	33.47 3	4.44	229	75	9.40	33.54	3.98	25.94	208	0.21
85	9.16	33.60 5	3.79	200	100	9.12	33.74	3.10	26.14	189	0.26
102	9.09	33.77 1	3.02	187	125	8.65	33.90	2.49	26.33	170	0.30
118	8.70	33.86 9	2.60	173	150	8.15	33.94	2.79	26.44	160	0.35
134	8.58	33.93 3	2.32	166	200	7.87	34.07	1.64	26.58	146	0.42
158	8.02	33.94 5	3.00	158	250	7.34	34.11	1.44	26.69	136	0.50
187	8.02	34.05 8	1.70	149	300	6.73	34.12	1.17	26.79	127	0.56
211	7.74	34.07 4	1.62	144	400	6.16	34.20	0.68	26.93	114	0.69
252	7.32	34.11 2	1.42	136	500	5.67	34.27	0.43	27.04	103	0.80
299	6.74	34.11 8	1.18	127							
372	6.30	34.17 8	0.80	117							
448	5.92	34.24 6	0.52	108							
528	5.54	34.28 1	0.41	101							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

SPENCER F. BAIRD; September 27, 1960; 0614 GCT; 36°57'N, 125°04'W; sounding, 2340 fm; wind, 320°, force 1; weather, overcast; sea, moderate; wire angle, 05°. 60.80

2	16.05	33.30 6	5.38	348	0	(16.05)	(33.31)	(5.38)	(24.46)	(348)	(0.00)
12	16.06	33.30 1	5.35	349	10	16.05	33.30	5.35	24.45	349	0.03
32	16.02	33.30 0	5.38	348	20	16.05	33.30	5.35	24.45	349	0.07
42	15.69	33.30 7	5.36	341	30	16.02	33.30	5.38	24.46	348	0.10
57	11.00	33.32 2	4.93	250	50	13.25	33.31	5.14	25.06	291	0.17
72	9.59	33.53 5	4.03	211	75	9.40	33.55	3.92	25.94	208	0.23
97	8.68	33.69 1	3.54	186	100	8.65	33.71	3.47	26.19	184	0.28
117	8.43	33.84 5	2.81	171	125	8.30	33.88	2.61	26.38	166	0.33
136	8.17	33.92 7	2.47	161	150	8.06	33.96	2.34	26.47	157	0.37
156	7.99	33.96 9	2.29	155	200	7.63	34.02	1.93	26.58	147	0.44
186	7.74	34.00 4	2.08	149	250	7.21	34.07	1.58	26.68	137	0.52
223	7.49	34.05 0	1.71	143	300	6.50	34.09	1.26	26.79	127	0.58
251	7.18	34.07 5	1.56	137	400	5.98	34.18	0.70	26.93	113	0.71
300	6.50	34.09 1	1.26	127	500	5.21	34.23	0.46	27.06	101	0.82
355	6.14	34.13 0	0.93	119	600	4.87	34.31	0.31	27.17	91	0.92
441	5.78	34.22 0	0.54	108							
526	5.04	34.25 2	0.41	98							
611	4.84	34.31 7	0.30	90							

SPENCER F. BAIRD; September 27, 1960; 1030 GCT; 36°37'N, 125°45.5'W; sounding, 2440 fm; wind, 320°, force 1; weather, missing; sea, rough; wire angle, 11°. 60.90

3	15.88	33.32 3	5.45	344	0	(15.88)	(33.32)	(5.45)	(24.51)	(344)	(0.00)
13	15.88	33.32 2	5.41	344	10	15.88	33.32	5.42	24.50	344	0.03
33	15.86	33.32 4	5.44	343	20	15.87	33.32	5.43	24.51	343	0.07
42	13.44	33.31 8	5.55	295	30	15.86	33.32	5.44	24.52	343	0.10
57	11.76	33.27 5	5.23	266	50	12.20	33.28	5.35	25.24	274	0.17
72	10.44	33.37 6	4.76	237	75	10.25	33.41	4.65	25.69	231	0.23
96	9.40	33.57 0	3.99	206	100	9.31	33.60	3.89	26.00	202	0.28
115	8.99	33.68 8	3.65	191	125	8.81	33.74	3.41	26.18	185	0.33
135	8.65	33.78 9	3.12	178	150	8.38	33.88	2.74	26.36	167	0.38
154	8.28	33.90 3	2.63	164	200	7.51	33.99	2.57	26.57	147	0.46
183	7.68	33.96 5	2.74	151	250	6.80	34.01	2.20	26.69	136	0.53
217	7.30	34.00 4	2.38	143	300	6.39	34.07	1.42	26.79	127	0.60
245	6.84	34.00 7	2.28	137	400	5.64	34.14	0.75	26.94	112	0.72
294	6.45	34.06 5	1.48	128	500	5.24	34.22	0.54	27.06	102	0.83
347	5.99	34.08 6	1.08	120	600	4.74	34.28	0.32	27.16	92	0.94
430	5.48	34.17 3	0.62	108							
514	5.18	34.23 7	0.52	100							
600	4.74	34.28 1	0.32	92							

SPENCER F. BAIRD; September 27, 1960; 1545 GCT; 36°17'N, 126°30'W; sounding, 2500 fm; wind, 360°, force 2; weather, overcast; sea, rough; wire angle, 17°. 60.100

2	15.44	33.20 5	5.58	343	0	(15.44)	(33.20)	(5.58)	(24.51)	(343)	(0.00)
11	15.44	33.20 1	5.57	343	10	15.44	33.20	5.57	24.51	343	0.03
30	15.22	33.21 8	5.60	337	20	15.43	33.20	5.57	24.51	343	0.07
40a)	14.80	33.18 1	5.58	331	30	15.22	33.22	5.60	24.58	337	0.10
54a)	14.22	33.20 5	5.66	318	50	14.38	33.20	5.63	24.74	321	0.17
68a)	12.04	33.00 4	5.75	292	75	11.50	33.04	5.68	25.18	279	0.24
91a)	11.46	33.36 0	5.35	255	100	11.20	33.45	5.05	25.56	243	0.31
110a)	10.64	33.53 6	4.65	229	125	9.77	33.62	3.90	25.93	208	0.37
127a)	9.67	33.63 5	3.78	205	150	8.70	33.78	3.07	26.23	179	0.42
146a)	8.78	33.76 0	3.10	182	200	8.10	33.95	2.41	26.45	159	0.50
174a)	8.38	33.84 1	2.95	171	250	7.61	34.02	1.97	26.59	146	0.58
204	8.04	33.96 3	2.30	157	300	6.92	34.02	1.87	26.68	137	0.65
232	7.80	34.01 2	2.04	149	400	6.04	34.10	1.14	26.86	120	0.79
277	7.28	34.02 2	1.89	142	500	5.53	34.18	0.64	26.99	108	0.91
327	6.56	34.03 2	1.84	131							
405	6.02	34.11 0	1.06	119							
485	5.62	34.17 3	0.73	110							
566	5.14	34.22 4	0.43	100							

a) Possible pretrip from 40 to 174 meters.

SIO

CCOFI
6009-10

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
60.120	SPENCER F. BAIRD; September 27, 1960; 2346 GCT; 35°39'N, 127°54.5'W; sounding, 2600 fm; wind, 360°, force 3; weather, overcast; sea, rough; wire angle, 32°.										
1	17.05	33.10	5.32	385	0	(17.05)	(33.10)	(5.32)	(24.07)	(385)	(0.00)
9	17.04	33.10	5.27	385	10	17.04	33.10	5.27	24.07	385	0.04
30	17.06	33.09	5.25	386	20	17.05	33.10	5.26	24.07	385	0.08
56	17.04	33.10	5.22	385	30	17.06	33.09	5.25	24.06	386	0.12
64	16.76	33.10	5.30	380	50	17.04	33.10	5.23	24.07	385	0.19
80	13.55	33.01	5.79	319	75	14.60	33.04	5.64	24.57	338	0.28
92	12.72	33.09	5.70	297	100	12.46	33.16	5.53	25.08	289	0.36
104	12.36	33.19	5.44	284	125	11.53	33.31	5.00	25.39	259	0.43
126	11.51	33.32	5.00	259	150	10.04	33.39	4.29	25.70	230	0.49
141	10.52	33.33	4.55	241	200	8.84	33.80	3.42	26.22	181	0.60
163	9.66	33.54	3.88	212	250	8.27	33.97	3.93	26.45	159	0.68
189	9.08	33.76	3.59	187	300	7.53	33.99	3.48	26.57	148	0.76
211	8.64	33.84 0	3.26	174	400	6.26	34.03	1.79	26.78	128	0.91
247	8.31	33.97	3.93	160	500	5.46	34.11	0.91	26.94	112	1.03
296	7.58	33.98 5	3.55	149							
372	6.56	34.02 1	2.08	132							
448	5.82	34.06 5	1.28	120							
516	5.36	34.12 1	0.82	111							
60.140	SPENCER F. BAIRD; September 28, 1960; 0715, 0739 GCT; 34°56'N, 129°18'W; sounding, 2550 fm; wind, 360°, force 2; weather, overcast; sea, rough; wire angle, 12°, 19°.										
2	17.96	33.13	5.20	402	0	(17.96)	(33.13)	(5.20)	(23.87)	(404)	(0.00)
12	17.96	33.13	5.22	402	10	17.96	33.13	5.22	23.87	404	0.04
36	17.98	33.13	5.17	402	20	17.98	33.13	5.20	23.87	404	0.08
65	15.80	33.22	5.59	349	30	17.98	33.13	5.18	23.87	404	0.12
75	14.64	33.22	5.76	326	50	17.98	33.13	5.19	23.87	404	0.20
94	12.99	33.18	5.66	296	75	14.64	33.22	5.76	24.70	326	0.29
108	12.55	33.23	5.63	284	100	12.60	33.19	5.64	25.09	288	0.37
122	12.42	33.36	5.40	272	125	12.38	33.40	5.35	25.30	269	0.44
150	11.86	33.54	5.14	249	150	11.86	33.54	5.14	25.50	249	0.51
170	10.50	33.55	4.65	225	200	9.62	(33.69)	4.38	(26.01)	(200)	(0.62)
					250	8.67	(33.89)	4.01	(26.32)	(171)	(0.72)
198	9.64	-	4.40	-	300	7.78	(33.98)	3.38	(26.53)	(151)	(0.80)
230	9.04	-	4.19	-	400	6.31	34.02	2.01	26.77	129	(0.94)
258	8.53	-	3.93	-	500	5.42	34.08	1.06	26.92	114	(1.07)
305	7.70	33.98 1	3.34	151	600	4.77	34.15	0.69	27.05	102	(1.19)
367	6.64	33.99 7	2.47	135							
463	5.77	34.06 5	1.33	119							
550	5.02	34.11 0	0.89	108							
624	4.71	34.18 1	0.57	99							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

SPENCER F. BAIRD: September 28, 1960; 1525, 2121 GCT; 34°15'N, 130°41'W; sounding, 2760 fm; wind, 040°, force 2; weather, overcast; sea, rough; wire angle, 10°, 13°. 60.160

2	18.48	33.37	5.04	399	0	(18.48)	(33.37)	(5.04)	(23.93)	(399)	(0.00)
12	18.48	33.37	5.10	399	10	18.48	33.37	5.09	23.93	399	0.04
31	18.50	33.37	5.06	399	20	18.49	33.37	5.07	23.93	399	0.08
56	17.76	33.30	5.36	387	30	18.50	33.37	5.06	23.93	399	0.12
66	16.60	33.84	5.49	322	50	18.75	33.47	5.07	23.94	398	0.20
76	16.41	34.01	5.45	305	75	16.42	34.00	5.46	24.90	306	0.29
90	15.86	34.07	5.45	289	100	15.54	34.07	5.38	25.16	282	0.36
105	15.37	34.06	5.34	279	125	14.37	33.87	5.32	25.27	271	0.43
130	14.12	33.85	5.32	269	150	12.62	33.75	5.13	25.52	247	0.50
149	12.68	33.75 7	5.14	248	200	9.97	33.74	4.67	25.99	203	0.61
174	11.08	33.68 8	4.86	225	250	9.17	33.96	4.42	26.30	173	0.71
204	9.87	33.76 4	4.64	199	300	8.27	33.99	4.16	26.46	158	0.79
234	9.46	33.92 0	4.49	181	400	6.61	33.99	2.58	26.70	135	0.95
273	8.76	33.99 2	4.34	165	500	5.66	34.07	1.37	26.89	117	1.08
332	7.72	33.99 1	3.84	150	600	5.17	34.16	0.62	27.02	105	1.20
407	6.52	33.99 6	2.47	133	700	4.76	34.24	0.39	27.12	95	1.30
481	5.60	34.00 5	1.82	-	800	4.37	34.33	0.29	27.23	85	1.40
561	5.32	34.14 8	0.70	108	1000	3.69	34.42	0.39	27.38	71	1.57
					1200	3.22	34.50	0.69	27.49	61	1.72
437a)	6.14	34.00 5	2.11	128	1500	2.74	34.56	1.09	27.58	52	1.92
535	5.54	34.10 7	0.95	113	2000	2.12	34.61	1.54	27.67	43	2.20
633	5.03	34.19 1	0.51	102	2500	1.73	34.65	2.05	27.73	37	2.44
779	4.45	34.31 3	0.28	86	3000	1.62	34.67	2.45	27.76	35	2.67
974	3.75	34.40 5	0.34	72	4000	1.51	34.69	3.09	27.78	33	3.12
1169	3.27	34.48 9	0.62	62							
1364	2.94	34.53 8	0.92	55							
1560	2.66	34.56 4	1.16	51							
1855	2.26	34.60 0	1.41	45							
2149	1.98	34.62 7	1.72	40							
2441	1.77	34.64 3	1.95	38							
2735	1.67	34.65 7	2.23	36							
3128	1.58	34.67 5	2.55	34							
3523	1.50	34.68 1	2.85	33							
3919	1.50	34.68 5	3.00	32							
4316	1.53	34.69 6	3.14	32							
4517	1.54	34.69 0	-	33							
4718	1.52	34.69 7	3.22	32							

SPENCER F. BAIRD; September 29, 1960; 0557 GCT; 33°32.5'N, 132°03'W; sounding, 2720 fm; wind, 340°, force 2; weather, cloudy; sea, rough; wire angle, 00°. 60.180

2	19.16	33.53	5.03	404	0	(19.16)	(33.53)	(5.03)	(23.88)	(404)	(0.00)
12	19.16	33.53	5.00	404	10	19.16	33.53	5.00	23.88	404	0.04
32	19.34	33.64	4.97	400	20	19.23	33.57	4.99	23.89	402	0.08
62	18.42	34.04	5.27	348	30	19.34	33.63	4.98	23.91	401	0.12
72	17.32	34.02	5.36	325	50	19.26	33.86	5.08	24.10	382	0.20
87	16.08	33.90	5.43	307	75	17.00	33.97	5.38	24.75	321	0.29
102	14.15	33.58	5.46	289	100	14.35	33.62	5.45	25.06	291	0.36
117	13.42	33.49	5.32	281	125	13.04	33.55	5.19	25.28	270	0.44
142	13.04	33.65	5.12	263	150	12.78	33.64	5.08	25.39	259	0.50
162	11.68	33.56	4.77	244	200	10.17	33.60	4.22	25.85	216	0.62
192	10.45	33.57	4.35	222	250	9.02	33.92	3.94	26.29	174	0.72
222	9.48	33.76	3.77	193	300	8.23	33.99	3.77	26.46	157	0.81
250	9.02	33.92 4	3.94	174	400	6.54	34.00	2.35	26.72	134	0.96
300	8.23	33.99 0	3.77	157	500	5.90	34.11	1.12	26.89	117	1.09
354	7.26	33.98 7	3.06	144	600	5.32	34.21	0.46	27.04	103	1.21
441	6.11	34.02 7	1.80	126							
525	5.81	34.15 1	0.80	113							
610	5.24	34.22 2	0.42	102							

a) Overlapping casts; reconciliation of property curves when necessary.

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OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

60.200 SPENCER F. BAIRD; September 29, 1960; 1350 GCT; 32°52.5'N, 133°28'W; sounding, 2400 fm; wind, direction missing, force 1; weather, overcast; sea, moderate; wire angle, 00°.

1*	19.70	33.88	5.00	392	0	(19.70)	(33.88)	(5.00)	(24.00)	(392)	(0.00)
11	19.69	33.87	5.03	392	10	19.69	33.87	5.03	24.00	392	0.04
31	19.78	33.98	5.04	386	20	19.75	33.91	5.03	24.02	390	0.08
41	19.78	34.00	5.05	385	30	19.78	33.97	5.04	24.05	387	0.12
51	17.44	33.88	5.51	337	50	18.00	33.91	5.40	24.46	348	0.19
66	16.48	33.98	5.44	309	75	16.37	34.07	5.36	24.97	300	0.27
81	16.28	34.12	5.31	294	100	15.94	34.19	5.13	25.17	281	0.35
101	15.93	34.20	5.13	281	125	16.17	34.39	5.36	25.26	272	0.42
125	16.17	34.39	5.36	272	150	15.08	34.24	5.12	25.39	260	0.48
145	15.42	34.30	5.15	262	200	11.78	33.80	4.89	25.72	228	0.61
175	13.40	33.94	5.06	248	250	9.73	33.97	4.66	26.21	181	0.71
206	11.43	33.79	4.85	222	300	8.70	34.01	4.39	26.42	162	0.80
236	10.20	33.91 2	4.76	193	400	6.80	33.99	3.00	26.67	138	0.96
274	9.16	34.01 4	4.50	169	500	5.64	34.01	1.95	26.84	122	1.09
334	8.07	34.00 6	4.20	154							
409	6.66	33.98 7	2.89	136							
483	5.78	33.99 7	2.10	125							
563	5.14	34.07 6	1.18	112							

63.52 SPENCER F. BAIRD; September 26, 1960; 1145 GCT; 37°18.5'N, 122°36.5'W; sounding, 42 fm; wind, 140°, force 1; weather, fog; sea, slight; wire angle, 00°.

1	13.68	33.67 3	6.47	273	0	(13.68)	(33.67)	(6.47)	(25.25)	(273)	(0.00)
11	13.24	33.67 5	6.46	265	10	13.27	33.67	6.47	25.33	265	0.03
31	12.68	33.65 9	5.45	255	20	13.15	33.67	6.31	25.36	263	0.05
51	10.82	33.72 2	3.68	218	30	12.80	33.66	5.60	25.42	257	0.08
					50	10.88	33.72	3.75	25.81	219	0.13

63.55 SPENCER F. BAIRD; September 26, 1960; 0905 GCT; 37°12.5'N, 122°50'W; sounding, 160 fm; wind, 190°, force 1; weather, fog; sea, slight; wire angle, 00°.

2	15.30	33.52 7	5.57	317	0	(15.30)	(33.53)	(5.57)	(24.79)	(317)	(0.00)
12	14.86	33.53 3	5.61	307	10	15.00	33.54	5.60	24.86	310	0.03
32	11.42	33.36 3	5.08	254	20	13.90	33.48	5.55	25.06	291	0.06
52	10.96	33.46 3	4.49	239	30	11.60	33.37	5.15	25.41	257	0.09
77	10.16	33.71 9	3.45	207	50	10.96	33.45	4.54	25.60	240	0.14
102	9.38	33.85 7	2.69	184	75	10.21	33.70	3.53	25.92	209	0.20
128	9.00	33.93 0	2.36	173	100	9.46	33.84	2.76	26.16	186	0.25
168	8.84	34.04 3	1.73	162	125	9.02	33.92	2.38	26.29	174	0.29
208	8.72	34.05 8	1.75	159	150	8.91	33.99	2.04	26.36	167	0.33
					200	8.73	34.06	1.75	26.45	159	0.42

63.60 SPENCER F. BAIRD; September 26, 1960; 0448 GCT; 37°02.5'N, 123°11.5'W; sounding, 1360 fm; wind, 300°, force 1; weather, fog; sea, moderate; wire angle, 08°.

2	14.99	33.58	5.64	306	0	(14.99)	(33.59)	(5.64)	(24.90)	(306)	(0.00)
12	14.66	33.60	5.60	298	10	14.76	33.60	5.62	24.97	300	0.03
32	11.42	33.60	4.39	237	20	13.80	33.60	5.34	25.17	281	0.06
42	10.68	33.62	3.85	223	30	11.75	33.60	4.54	25.57	243	0.09
57	10.14	33.74	3.20	205	50	10.38	33.68	3.47	25.88	213	0.13
71	9.75	33.77	3.00	197	75	9.60	33.78	2.95	26.08	194	0.18
96	9.14	33.87	2.61	180	100	9.08	33.89	2.56	26.25	178	0.23
116	8.90	33.91	2.48	173	125	8.80	33.92	2.44	26.33	171	0.27
135	8.73	33.95	2.36	167	150	8.67	34.01	2.05	26.42	162	0.32
156	8.64	34.03	1.95	160	200	8.10	34.11	1.55	26.58	147	0.39
186	8.27	34.08	1.71	151	250	7.30	34.09	1.52	26.68	137	0.47
221	7.88	34.13	1.38	142	300	6.94	34.12	1.28	26.75	130	0.54
249	7.32	34.08 5	1.53	137	400	6.32	34.18	0.71	26.89	117	0.66
299	6.94	34.11 6	1.28	130	500	5.47	34.21	0.55	27.02	105	0.78
354	6.72	34.16 1	0.92	124	600	5.10	34.28	0.34	27.11	96	0.89
439	5.96	34.19 7	0.62	112							
523	5.34	34.22 1	0.52	103							
607	5.09	34.28 7	0.32	95							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

67.50

SPENCER F. BAIRD; September 25, 1960; 1815 GCT; 36°49'N, 122°03'W; sounding, 55 fm; wind, 320°, force 1; weather, partly cloudy; sea, moderate; wire angle, 03°.

2	14.14	33.53 1	5.54	293	0	(14.14)	(33.53)	(5.54)	(25.04)	(293)	(0.00)
12	13.61	33.57 5	5.62	279	10	13.69	33.57	5.62	25.17	280	0.03
32	12.76	33.62 8	4.94	259	20	13.24	33.60	5.44	25.28	270	0.06
52	11.18	33.67 9	3.86	227	30	12.83	33.62	5.04	25.38	261	0.08
77	10.73	33.71 0	3.48	217	50	11.30	33.68	3.92	25.71	229	0.13
					75	10.74	33.71	3.49	25.84	217	0.19

67.55

SPENCER F. BAIRD; September 25, 1960; 2056 GCT; 36°39.5'N, 122°26.5'W; sounding, 1100 fm; wind, 320°, force 1; weather, clear; sea, moderate; wire angle, 07°.

2	14.20	33.59	5.55	289	0	(14.20)	(33.59)	(5.55)	(25.08)	(289)	(0.00)
12	13.64	33.60	5.54	278	10	13.72	33.60	5.54	25.19	279	0.03
32	12.02	33.62	4.59	245	20	13.16	33.60	5.35	25.30	268	0.06
42	11.36	33.65	4.04	232	30	12.45	33.61	4.96	25.44	255	0.08
52	11.14	33.66	3.88	228	50	11.20	33.66	3.91	25.71	229	0.13
67	10.45	33.72	3.37	212	75	10.13	33.74	3.28	25.97	205	0.18
82	9.97	33.76	3.18	200	100	9.73	33.81	2.89	26.09	193	0.24
103	9.65	33.82	2.83	191	125	9.24	33.89	2.48	26.23	180	0.28
127	9.20	33.89	2.46	179	150	9.00	33.93	2.27	26.30	173	0.33
147	9.03	33.93	2.28	174	200	8.43	34.02	1.96	26.46	158	0.41
177	8.68	33.97	2.10	165	250	8.06	34.13	1.37	26.60	145	0.49
207	8.36	34.03	1.89	156	300	7.69	34.16	1.12	26.68	137	0.56
236	8.15	34.10 9	1.48	147	400	6.97	34.21	0.82	26.82	124	0.70
275	7.88	34.14 8	1.22	141	500	6.18	34.26	0.58	26.97	110	0.82
334	7.41	34.16 7	1.04	133							
410	6.90	34.21 3	0.79	123							
485	6.33	34.25 4	0.63	112							
565	5.60	34.29 5	0.36	100							

67.60

SPENCER F. BAIRD; September 26, 1960; 0006 GCT; 36°29'N, 122°47.5'W; sounding, 1650 fm; wind, 310°, force 1; weather, fog; sea, moderate; wire angle, 22°.

2	15.78	33.28	5.58	345	0	(15.78)	(33.28)	(5.58)	(24.50)	(345)	(0.00)
11	14.67	33.34	5.68	318	10	14.73	33.33	5.67	24.77	318	0.03
30	13.74	33.56	5.54	283	20	14.25	33.51	5.64	25.00	297	0.06
39	11.56	33.30	5.20	261	30	13.74	33.56	5.54	25.15	283	0.09
48	10.61	33.27	4.81	247	50	10.52	33.28	4.76	25.55	245	0.15
62	9.92	33.39	4.58	227	75	9.44	33.51	4.20	25.91	211	0.20
75	9.44	33.51	4.20	211	100	8.90	33.69	3.49	26.14	189	0.25
93	8.96	33.64	3.67	194	125	8.90	33.85	2.75	26.26	177	0.30
116	8.89	33.81	2.99	181	150	8.77	33.95	2.20	26.35	168	0.34
133	8.91	33.90	2.54	174	200	7.82	33.99	2.49	26.53	151	0.43
160	8.62	33.97	2.10	164	250	7.06	34.00	2.34	26.65	140	0.50
187	8.04	33.97	2.53	156	300	6.56	34.03	1.92	26.74	132	0.57
214	7.58	34.00 6	2.44	147	400	5.89	34.12	0.97	26.90	117	0.70
249	7.07	34.00 4	2.34	140	500	5.48	34.22	0.54	27.02	105	0.82
303	6.54	34.02 7	1.89	132							
373	6.06	34.10 8	1.10	120							
445	5.66	34.14 9	0.79	112							
522	5.46	34.24 6	0.46	102							

SIO

CCOFI
6009-10

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

67.51 SPENCER F. BAIRD; September 25, 1960; 1632 GCT; 36°43'N, 122°05'W; sounding, 670 fm; wind, 020°, force 1; weather, partly cloudy; sea, moderate; wire angle, 02°.

2	14.20	33.61	5.65	288	0	(14.20)	(33.61)	(5.65)	(25.09)	(288)	(0.00)
12	14.02	33.63	5.61	283	10	14.07	33.62	5.62	25.13	285	0.03
32	12.65	33.63	4.92	257	20	13.00	33.62	5.15	25.34	264	0.06
42	12.12	33.63	4.64	247	30	12.72	33.63	4.98	25.40	258	0.08
57	11.33	33.63	4.10	233	50	11.70	33.63	4.37	25.61	239	0.13
72	10.77	33.70	3.54	218	75	10.70	33.71	3.48	25.84	217	0.19
98	10.24	33.76	3.04	205	100	10.21	33.77	2.99	25.98	204	0.24
118	9.98	33.81	2.75	197	125	9.93	33.82	2.68	26.07	195	0.29
138	9.82	33.85	2.63	191	150	9.54	33.85	2.63	26.15	187	0.34
158	9.38	33.85	2.63	185	200	8.94	33.96	2.15	26.33	170	0.43
187	9.06	33.92	2.31	175	250	8.35	34.10	1.47	26.54	151	0.51
222	8.73	34.03	1.83	161	300	7.90	34.16	1.27	26.65	140	0.59
250	8.35	34.10 2	1.47	151	400	7.17	34.22	0.78	26.81	125	0.73
300	7.90	34.16 0	1.27	140	500	6.24	34.23	0.60	26.94	113	0.85
354	7.46	34.19 3	0.97	132	600	5.70	34.29	0.42	27.05	102	0.97
439	6.85	34.24 1	0.68	120							
524	6.06	34.23 8	0.55	110							
610	5.64	34.28 9	0.40	101							

70.53 SPENCER F. BAIRD; September 25, 1960; 1143 GCT; 36°06'N, 121°56'W; sounding, 650 fm; wind, 150°, force 1; weather, fog; sea, moderate; wire angle, 05°.

1	13.56	33.62	5.51	275	0	(13.56)	(33.62)	(5.51)	(25.23)	(275)	(0.00)
11	13.44	33.61	5.50	274	10	13.45	33.61	5.50	25.24	274	0.03
31	13.29	33.63	5.34	269	20	13.37	33.62	5.42	25.27	271	0.05
41	12.14	33.55	4.61	253	30	13.31	33.63	5.34	25.29	269	0.08
51	11.39	33.62	4.14	235	50	11.43	33.61	4.17	25.64	236	0.13
66	10.44	33.69	3.56	214	75	10.40	33.74	3.39	25.92	209	0.19
81	9.84	33.76	3.07	198	100	9.50	33.83	2.75	26.14	188	0.24
101	9.48	33.83	2.74	188	125	9.06	33.91	2.42	26.27	176	0.28
126	9.04	33.91	2.41	175	150	8.79	33.95	2.32	26.35	169	0.33
145	8.82	33.93	2.38	170	200	8.55	34.04	1.86	26.46	158	0.41
175	8.72	34.02	1.93	161	250	8.20	34.10	1.61	26.56	149	0.49
205	8.50	34.05	1.83	157	300	7.94	34.14	1.36	26.63	142	0.56
236	8.30	34.07 9	1.71	152	400	7.37	34.20	0.96	26.76	130	0.71
274	8.06	34.12 1	1.50	145	500	6.38	34.23	0.65	26.92	114	0.84
334	7.78	34.15 4	1.19	138							
409	7.29	34.20 0	0.92	129							
485	6.52	34.21 7	0.71	117							
565	5.86	34.29 6	0.39	103							

70.60 SPENCER F. BAIRD; September 25, 1960; 0727 GCT; 35°53'N, 122°22.5'W; sounding, 1740 fm; wind, 300°, force 1; weather, fog; sea, moderate; wire angle, 11°.

2	14.84	33.58	5.58	303	0	(14.84)	(33.58)	(5.58)	(24.94)	(303)	(0.00)
12	14.53	33.58	5.75	297	10	14.58	33.58	5.74	24.99	298	0.03
31	13.44	33.60	5.10	274	20	14.31	33.59	5.60	25.06	291	0.06
41	12.16	33.60	4.27	250	30	13.60	33.60	5.18	25.21	277	0.09
56	10.88	33.69	3.47	221	50	11.25	33.65	3.72	25.70	230	0.14
70	10.34	33.76	2.91	207	75	10.16	33.78	2.80	26.00	202	0.19
95	9.68	33.86	2.60	189	100	9.63	33.89	2.45	26.16	186	0.24
114	9.52	33.93	2.14	181	125	9.32	33.95	2.25	26.27	176	0.29
134	9.19a)	33.96	2.31	173	150	9.03	34.01	1.90	26.36	167	0.33
153	9.00	34.02	1.82	166	200	8.74	34.08	1.61	26.46	158	0.41
183	8.82	34.06	1.71	161	250	8.48	34.15	1.43	26.55	149	0.49
217	8.67	34.11 b)	1.48	155	300	8.07	34.18	1.22	26.64	141	0.57
245	8.52	34.14 2	1.45	150	400	7.08	34.20	0.91	26.80	126	0.71
294	8.14	34.17 4	1.24	142	500	6.00	34.23	0.55	26.97	110	0.83
348	7.54	34.19 0	1.04	133	600	5.61	34.27	0.40	27.05	102	0.94
432	6.76	34.20 0	0.81	121							
516	5.91	34.24 1	0.52	108							
601	5.60	34.27 5	0.40	102							

a) Alternate value, 9.32°C, not used in interpolation.

b) Loose bottle cap; value falls on property curve.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

SPENCER F. BAIRD; September 25, 1960; 0248 GCT; 35°33.5'N, 123°03.5'W; sounding, 2060 fm; wind, 300°, force 3; weather, clear; sea, rough; wire angle, 10°. 7070

2	14.83	33.55	5.70	305	0	(14.83)	(33.55)	(5.70)	(24.91)	(305)	(0.00)
12	14.52	33.54	5.70	299	10	14.52	33.54	5.70	24.97	299	0.03
31	12.50	33.60	4.70	256	20	14.30	33.54	5.66	25.02	294	0.06
41	11.82	33.62	3.90	242	30	12.50	33.59	4.73	25.42	257	0.09
56	10.74	33.67	3.59	220	50	11.10	33.66	3.66	25.73	227	0.14
71	9.97	33.70	3.34	205	75	9.70	33.74	3.09	26.04	198	0.19
95	9.67	33.86	2.72	189	100	9.60	33.87	2.62	26.16	187	0.24
115	9.35	33.94	2.33	178	125	**9.24**	34.01	2.00	26.32	171	0.28
134	9.18	34.04	1.84	167	150	9.10	34.07	1.71	26.40	164	0.33
153	9.08	34.08	1.69	163	200	8.45	34.11	1.42	26.53	151	0.41
182	8.64	34.10	1.49	155	250	8.12	34.18	1.16	26.64	141	0.48
216	8.35	34.14	1.37	148	300	7.63	34.20	0.95	26.72	133	0.55
244	8.18	34.17 4	1.18	143	400	6.78	34.21	0.94	26.85	121	0.69
294	7.66	34.19 9	0.98	134	500	6.03	34.27	0.48	26.99	108	0.81
348	7.36	34.22 8	0.88	127	600	5.36	34.31	0.35	27.11	96	0.91
431	6.50	34.20 7	0.96	118							
515	5.96	34.27 4	0.42	106							
601	5.35	34.31 0	0.35	96							

SPENCER F. BAIRD; September 24, 1960; 2049 GCT; 35°14'N, 123°43'W; sounding, 2200 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 22°. 7080

3	15.81	33.59	5.59	322	0	(15.81)	(33.59)	(5.59)	(24.73)	(322)	(0.00)
12	15.62	33.59	5.59	319	10	15.64	33.59	5.59	24.77	319	0.03
35	12.66	33.52	4.76	265	20	15.61	33.59	5.58	24.78	318	0.06
44	11.21	33.59	4.22	234	30	14.90	33.57	5.43	24.92	305	0.10
58	10.07	33.70	3.54	207	50	10.62	33.65	3.90	25.81	220	0.15
72	9.62	33.77	3.20	194	75	9.54	33.80	3.06	26.11	191	0.20
94	9.08	33.89	2.59	177	100	8.98	33.90	2.54	26.28	175	0.25
112	8.82	33.92	2.46	171	125	8.67	33.95	2.32	26.38	166	0.29
129	8.62	33.96	2.29	165	150	8.37	34.01	2.00	26.47	157	0.33
157	8.28	34.04	1.94	155	200	7.91	34.09	1.60	26.60	145	0.41
184	8.01	34.07	1.77	148	250	7.43	34.15	1.29	26.70	135	0.48
220	7.78	34.12	1.44	141	300	6.81	34.12	1.21	26.78	128	0.55
246	7.52	34.14 5	1.29	135	400	6.43	34.23	0.68	26.91	115	0.67
291	6.84	34.10 9	1.28	129	500	5.77	34.29	0.38	27.05	102	0.79
352	6.70	34.19 1	0.85	121	600	5.19	34.34	0.37	27.15	92	0.89
446	6.13	34.26 5	0.53	109							
533	5.54	34.31 5	0.35	98							
607	5.15	34.34 5	0.37	91							

SPENCER F. BAIRD; September 24, 1960; 2220 GCT;[a] 35°14'N, 123°43'W; sounding, 2200 fm; wind, 320°, force 3; weather, clear; sea, rough; wire angle, 28°. 7080

399	6.33	34.22 2	0.61
402	6.31	34.21 9	0.60
406	6.28	34.22 2	0.59
430	6.07	34.22 4	0.54
433	6.06	34.23 0	0.50
435	6.09	34.24 2	0.52
459	6.02	34.27 0	0.46
462	6.00	34.27 4	0.42
465	5.98	34.27 5	0.46
489	5.78	34.28 3	0.42
493	5.73	34.28 6	0.40
496	5.71	34.28 9	0.40
520	5.56	34.30 8	0.34
523	5.58	34.30 6	0.36
526	5.54	34.31 1	0.35
550	5.45	34.32 6	0.33
553	5.44	34.32 4	0.36
556	5.42	34.32 8	0.31

a) Test cast.

SIO

CCOFI 6009-10

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

7090 SPENCER F. BAIRD; September 24, 1960; 1339 GCT; 34°55'N, 124°29'W; sounding, 2350 fm; wind, 340°, force 5; weather, drizzle; sea, very rough; wire angle, 27°.

2	16.26	33.29	5.40	354	0	(16.26)	(33.29)	(5.40)	(24.39)	(354)	(0.00)
11	16.25	33.28	5.42	354	10	16.25	33.28	5.42	24.39	354	0.04
33	16.08	33.32	5.46	348	20	16.22	33.29	5.43	24.41	353	0.07
42	13.66	33.31	5.42	299	30	16.15	33.31	5.44	24.44	350	0.11
55	11.58	33.15	5.19	273	50	11.75	33.15	5.21	25.23	275	0.17
69	10.82	33.25	5.25	252	75	10.48	33.30	5.16	25.57	243	0.23
91	9.86	33.46	4.58	221	100	9.58	33.53	4.15	25.90	211	0.29
108	9.35	33.58	3.83	204	125	8.99	33.71	3.31	26.13	189	0.34
125	8.99	33.71	3.31	189	150	8.51	33.84	3.11	26.31	172	0.39
151	8.50	33.84	3.10	172	200	7.93	33.97	2.73	26.50	154	0.47
177	8.24	33.95	2.49	161	250	7.12	34.01	2.36	26.65	140	0.55
212	7.74	33.99	2.82	150	300	6.53	34.03	1.88	26.74	131	0.62
236	7.28	34.00 8	2.50	143	400	5.64	34.11	1.05	26.92	114	0.74
279	6.82	34.03 2	2.04	135	500	5.26	34.23	0.46	27.06	101	0.86
336	6.11	34.04 6	1.62	125	600	(4.90)	(34.31)		(27.16)	(92)	(0.96)
426	5.48	34.14 5	0.79	110							
509	5.23	34.23 4	0.44	101							
582	4.96	34.28 7	0.31	94							

70.100 SPENCER F. BAIRD; September 24, 1960; 0807 GCT; 34°32.5'N, 125°13'W; sounding, 2490 fm; wind, 320°, force 4; weather, missing; sea, very rough; wire angle, 03°.

2	15.14	33.14	5.51	342	0	(15.14)	(33.14)	(5.51)	(24.52)	(342)	(0.00)
12	15.06	33.15	5.58	339	10	15.09	33.15	5.58	24.55	340	0.03
32	14.86	33.27	5.56	326	20	15.05	33.17	5.58	24.58	337	0.07
62	11.89	33.02	5.45	288	30	15.00	33.23	5.57	24.63	332	0.10
72	11.78	33.08	5.32	281	50	14.50	33.26	5.53	24.77	319	0.17
88	10.75	33.14	5.03	259	75	11.75	33.10	5.27	25.18	279	0.24
103	10.04	33.23	4.77	241	100	10.22	33.20	4.88	25.53	246	0.31
118	9.48	33.36	4.36	223	125	9.48	33.45	4.03	25.85	215	0.37
142	9.88	33.79	3.04	197	150	9.73	33.84	2.86	26.11	191	0.42
162	9.22	33.88	2.60	180	200	8.62	33.99	2.20	26.41	163	0.51
192	8.76	33.97	2.24	166	250	7.87	34.06	1.90	26.58	147	0.59
223	8.19	34.01	2.16	155	300	7.28	34.09	1.54	26.68	137	0.66
251	7.84	34.06	1.89	146	400	6.30	34.14	0.89	26.86	120	0.79
300	7.28	34.09	1.54	137	500	5.74	34.25	0.50	27.02	105	0.91
355	6.89	34.14	1.13	128	600	5.26	34.31	0.33	27.11	96	1.02
441	5.92	34.16	0.80	114							
525	5.65	34.27	0.41	103							
611	5.22	34.31	0.33	95							

70.200 SPENCER F. BAIRD; September 30, 1960; 0115 GCT; 31°12'N, 132°05'W; sounding, 2600 fm; wind, 360°, force 2; weather, cloudy; sea, moderate; wire angle, 16°.

2	19.90	34.01	4.95	387	0	(19.90)	(34.00)	(4.95)	(24.04)	(387)	(0.00)
11	19.90	34.00	4.93	387	10	19.90	34.00	4.93	24.04	387	0.04
31	19.85	33.99	4.97	387	20	19.87	33.99	4.95	24.05	387	0.08
60	19.74	34.22	5.10	368	30	19.86	33.99	4.97	24.05	387	0.12
69	17.58	33.83	5.28	344	50	20.00	34.14	5.01	24.12	380	0.19
82	17.42	34.23	5.31	311	75	17.80	33.96	5.30	24.54	340	0.28
97	17.14	34.32	5.19	299	100	17.13	34.35	5.18	25.01	296	0.36
111	17.12	34.42	5.13	291	125	17.07	34.49	5.01	25.13	285	0.44
134	16.96	34.52	4.95	280	150	16.10	34.38	4.88	25.27	271	0.51
153	15.90	34.35	4.88	269	200	12.96	33.94	4.88	25.60	239	0.64
181	14.32	34.12	5.00	253	250	10.13	33.88	4.51	26.07	195	0.75
209	12.28	33.88	4.81	232	300	9.17	33.98	4.26	26.32	171	0.84
236	10.39	33.81 3	4.57	203	400	7.11	34.00	2.81	26.64	141	1.01
284	9.52	33.96 5	4.39	178	500	5.88	34.07	1.63	26.86	121	1.14
335	8.43	34.00 4	3.81	159	600	(5.17)	(34.16)		(27.02)	(105)	(1.26)
416	6.84	34.00 7	2.60	137							
498	5.91	34.06 8	1.64	121							
583	5.28	34.14 6	0.86	108							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
BLACK DOUGLAS; October 10, 1960; 1258 GCT; 35°35.5'N, 121°21'W; sounding, 200 fm; wind, 150°, force 2; weather, clear; sea, slight; wire angle, 16°.											73.51
0	14.40	33.62	5.65	291	0	14.40	33.62	5.65	25.05	291	0.00
10	14.42	33.62	5.64	292	10	14.42	33.62	5.64	25.05	292	0.03
29	14.17	33.62	5.44	287	20	14.40	33.62	5.60	25.06	291	0.06
48	11.80	33.63	4.15	241	30	13.92	33.62	5.29	25.16	281	0.09
74	10.78a)	33.71	3.46	217	50	11.77	33.63	4.11	25.59	240	0.14
97	10.28	33.75	3.34	206	75	10.77	33.71	3.46	25.83	217	0.20
119	9.82	33.87	2.76	190	100	10.20	33.77	3.28	25.97	204	0.25
156	9.34	34.00	2.21	173	125	9.73	33.89	2.63	26.16	187	0.30
193	9.02	34.09	1.73	160	150	9.39	33.98	2.29	26.28	175	0.35
240	8.56	34.12	1.61	152	200	8.97	34.09	1.70	26.44	161	0.43
288	7.92	34.17	1.15	139	250	8.39	34.13	1.52	26.55	149	0.51
					300	(7.82)	(34.18)		(26.68)	(137)	(0.58)
BLACK DOUGLAS; October 10, 1960; 1552 GCT; 35°28'N, 121°36.5'W; sounding, 500 fm; wind, direction missing, force 1; weather, clear; sea, rough; wire angle, 25°.											73.55
1	14.84	33.53	5.69	307	0	(14.84)	(33.53)	(5.69)	(24.89)	(307)	(0.00)
10	14.82	33.54	5.73	305	10	14.82	33.54	5.73	24.91	305	0.03
28	14.12	33.52	5.61	293	20	14.60	33.54	5.68	24.96	301	0.06
37	13.36	33.50	5.57	280	30	13.95	33.51	5.60	25.07	290	0.09
46	12.47	33.44	5.17	267	50	11.88	33.45	4.92	25.43	256	0.15
59	11.59	33.45	4.80	251	75	10.78	33.68	3.72	25.81	220	0.21
71	10.96	33.66	3.86	224	100	9.80	33.77	3.18	26.05	197	0.26
89	10.26	33.70	3.47	210	125	9.52	33.93	2.48	26.22	180	0.31
109	9.55	33.81	3.03	190	150	9.11	33.91	2.48	26.26	176	0.35
124	9.52	33.93	2.48	181	200	8.32	33.98	2.68	26.45	159	0.44
146	9.20	33.90	2.48	178	250	8.14	34.11	1.90	26.57	147	0.51
167	8.79	33.94	2.46	169	300	7.33	34.10	1.61	26.68	137	0.59
186	8.48	33.96	2.61	163	400	6.57	34.18	0.84	26.86	120	0.72
217	8.20	34.02	2.72	154	500	(6.08)	(34.31)		(27.02)	(105)	(0.84)
268	8.04	34.16	1.31	142							
336	6.60	34.04	2.06	131							
407	6.55	34.20	0.76	119							
485	6.16	34.30	0.42	106							
BLACK DOUGLAS; October 10, 1960; 1913 GCT; 35°18'N, 121°57.5'W; sounding, 700 fm; wind, 330°, force 2; weather, partly cloudy; sea, very rough; wire angle, 10°.											73.60
1	14.94	33.58	5.85	305	0	(14.94)	(33.58)	(5.85)	(24.91)	(305)	(0.00)
11	14.81	33.60	5.90	301	10	14.82	33.60	5.90	24.96	301	0.03
30	14.63	33.58	5.79	298	20	14.72	33.59	5.85	24.97	299	0.06
40	14.21	33.48	5.70	297	30	14.63	33.58	5.79	24.98	298	0.09
55	12.36	33.25	5.45	279	50	12.92	33.29	5.52	25.11	286	0.15
71	10.98	33.30	5.01	251	75	10.55	33.36	4.78	25.59	240	0.22
95	9.54	33.58	4.05	207	100	9.50	33.59	4.00	25.96	206	0.27
115	9.42	33.61	3.88	203	125	9.34	33.64	3.84	26.02	199	0.32
134	9.22	33.70	3.81	193	150	8.83	33.85	3.39	26.27	176	0.37
154	8.74	33.89	3.25	172	200	8.05	34.04	2.63	26.54	151	0.45
184	8.26	33.99	-	158	250	7.42	34.10	2.01	26.68	137	0.53
219	7.72	34.07	2.41	144	300	6.97	34.11	1.28	26.75	130	0.60
249	7.42	34.10	2.06	138	400	6.50	34.30	0.59	26.96	110	0.72
297	6.98	34.11	1.32	131	500	5.90	34.36	0.36	27.08	99	0.83
351	6.72	34.22	0.85	119							
521	5.79	34.36	0.32	97							

a) Mean value of 10.70° and 10.86°C.

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6009-10

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
7751	BLACK DOUGLAS; October 11, 1960; 0655 GCT; 35°02'N, 120°57'W; sounding, 115 fm; wind, 090°, force 2; weather, partly cloudy; sea, moderate; wire angle, missing.										
0	14.54	33.63	5.64	293	0	14.54	33.63	5.64	25.04	293	0.00
10	14.44	33.64	5.56	290	10	14.44	33.64	5.56	25.07	290	0.03
30	11.90	33.68	4.23	239	20	13.00	33.66	4.80	25.38	261	0.06
50	10.54	33.75	3.39	210	30	11.90	33.68	4.23	25.61	239	0.08
75	10.10	33.84	2.93	197	50	10.54	33.75	3.39	25.91	210	0.13
101	9.75	33.93	2.52	184	75	10.10	33.84	2.93	26.05	197	0.18
124	9.46	33.98	2.35	176	100	9.76	33.93	2.53	26.17	185	0.23
154	9.22	34.08	1.79	165	125	9.45	33.98	2.34	26.27	176	0.27
					150	9.24	34.06	1.90	26.36	167	0.32
7755	BLACK DOUGLAS; October 11, 1960; 0405 GCT; 34°54.5'N, 121°13'W; sounding, 320 fm; wind, 310°, force 2; weather, clear; sea, slight; wire angle, 10°.										
0	14.40	33.62	5.68	291	0	14.40	33.62	5.68	25.06	291	0.00
30a)	14.37	33.64	5.46	289	10	14.39	33.63	5.59	25.06	291	0.03
55	14.14	33.64	5.29	284	20	14.38	33.63	5.51	25.07	290	0.06
65	12.50	33.69	4.29	249	30	14.37	33.64	5.46	25.08	289	0.09
75	11.80	33.68	3.99	237	50	14.20	33.64	5.33	25.12	286	0.14
89	10.68	33.74	3.62	214	75	11.80	33.68	3.99	25.62	237	0.21
104	10.08	33.83	3.04	197	100	10.21	33.81	3.19	26.01	201	0.27
128	9.74	33.94b)	2.44	184	125	9.80	33.92	2.52	26.17	186	0.31
149	9.36	34.03	2.06	171	150	9.34	34.03	2.05	26.33	171	0.36
174	9.14	34.10	1.77	162	200	8.80	34.12	1.75	26.48	156	0.44
203	8.76	34.12	1.75	155	250	8.26	34.17	1.53	26.61	144	0.52
234	8.40	34.17	1.57	146	300	7.77	34.20	1.29	26.70	135	0.59
272	8.06	34.17	1.49	141	400	6.72	34.27	0.65	26.90	116	0.72
333	7.42	34.25	0.89	127	500	6.00	34.32	0.41	27.04	103	0.84
407	6.66	34.27	0.62	115							
481	6.12	34.30	0.46	106							
560	5.68	34.38	0.29	95							
7760	BLACK DOUGLAS; October 11, 1960; 0030 GCT; 34°44'N, 121°34'W; sounding, 490 fm; wind, 260°, force 1; weather, partly cloudy; sea, rough; wire angle, 03°.										
0	14.16	33.55	5.85	291	0	14.16	33.55	5.85	25.06	291	0.00
10	13.73	33.59	5.95	280	10	13.73	33.59	5.95	25.18	280	0.03
30	13.37	33.61	5.60	271	20	13.56	33.60	5.84	25.22	276	0.06
40	12.73	33.53	5.14	265	30	13.37	33.61	5.60	25.27	271	0.08
56	12.02	33.59	4.54	248	50	12.22	33.56	4.72	25.45	254	0.14
71	10.88	33.73	3.64	218	75	10.60	33.76	3.49	25.90	211	0.20
96	9.28	33.91	2.88	179	100	9.13	33.93	2.79	26.27	175	0.24
116	8.81	33.98	2.51	166	125	8.68	34.01	2.34	26.41	163	0.29
135	8.60	34.03	2.24	159	150	8.48	34.07	2.16	26.49	155	0.33
155	8.44	34.09	2.14	153	200	7.94	34.09	2.39	26.59	145	0.40
185	8.13	34.11	2.39	147	250	7.60	34.13	1.79	26.67	138	0.48
220	7.73	34.08	2.32	143	300	7.08	34.12	1.69	26.74	132	0.55
250	7.60	34.13	1.79	138	400	6.30	34.21	0.76	26.92	115	0.67
300	7.08	34.12	1.69	132	500	5.79	34.26	0.68	27.02	105	0.79
355	6.53	34.18	0.88	120	600	5.39	34.36	0.38	27.15	93	0.90
440	6.10	34.23	0.69	111							
524	5.68	34.28	0.66	102							
610	5.36	34.37	0.32	92							

a) Possible pretrip beginning at this level.
b) Alternate value, 34.03‰, not used in interpolation.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

SPENCER F. BAIRD; September 22, 1960; 1735 GCT; 34°25'N, 120°35'W; sounding, 140 fm; wind, 300°, force 3; weather, clear; sea, moderate; wire angle, 04°. 80.52

2	17.27	33.67 5	5.54	349	0	(17.27)	(33.68)	(5.54)	(24.45)	(349)	(0.00)
12	17.22	33.67 1	5.60	347	10	17.23	33.67	5.59	24.46	348	0.03
32	11.80	33.58 8	4.28	244	20	16.00	33.65	5.33	24.73	322	0.07
52	11.43	33.61 9	3.92	236	30	12.50	33.59	4.48	25.42	256	0.10
77	11.24	33.64 2	3.78	231	50	11.45	33.61	3.97	25.63	237	0.15
103	10.64	33.72 2	3.38	214	75	11.27	33.64	3.80	25.69	231	0.21
128	9.98	33.84 8	2.76	194	100	10.73	33.71	3.44	25.84	216	0.26
158	9.65	33.96 4	2.36	180	125	10.03	33.83	2.87	26.05	197	0.31
					150	**9.72**	33.93	2.47	26.19	184	0.36

SPENCER F. BAIRD; September 22, 1960; 2034 GCT; 34°19'N, 120°48'W; sounding, 440 fm; wind, 320°, force 2; weather, partly cloudy; sea, rough; wire angle, 25°. 80.55

3	16.16	33.76	5.78	318	0	(16.16)	(33.76)	(5.78)	(24.78)	(318)	(0.00)
12	15.64	33.70	5.52	311	10	15.81	33.72	5.59	24.82	314	0.03
31	12.66	33.82u	4.44u	-	20	14.33	33.61	5.25	25.06	291	0.06
39	11.16	33.41	4.62	246	30	12.72	33.50	4.98	25.31	267	0.09
53	10.56	33.46	4.28	232	50	10.66	33.43	4.38	25.64	236	0.14
68	10.69	33.63	3.75	222	75	10.58	33.71	3.42	25.87	214	0.20
90	10.21	33.80	3.02	202	100	10.05	33.82	2.94	26.04	198	0.25
107	9.96	33.84	2.86	195	125	9.58	33.92	2.48	26.20	183	0.30
125	9.58	33.92	2.48	183	150	9.28	34.03	1.99	26.33	170	0.34
143	9.36	34.01	2.05	172	200	8.86	34.09	1.77	26.45	159	0.43
169	9.11	34.06	1.86	165	250	8.51	34.19	1.26	26.59	145	0.50
200	8.86	34.09	1.77	159	300	8.00	34.19	1.14	26.66	139	0.58
224	8.67	34.20 8u	1.49	-	400	6.76	34.21	0.79	26.85	121	0.71
268	8.38	34.19 6	1.21	144	500	6.21	34.27	0.49	26.97	109	0.83
318	7.77	34.19 2	1.10	136							
394	6.78	34.19 8	0.81	122							
473	6.41	34.26 2	0.55	112							
553	5.80	34.28 5	0.35	103							

SPENCER F. BAIRD; September 23, 1960; 0008 GCT; 34°09'N, 121°09.5'W; sounding, 1100 fm; wind, 320°, force 3; weather, partly cloudy; sea, rough; wire angle, 14°. 80.60

2	15.96	33.54	5.44	329	0	(15.96)	(33.54)	(5.44)	(24.66)	(329)	(0.00)
12	15.89	33.53	5.39	329	10	15.92	33.53	5.40	24.66	329	0.03
31	15.36	33.53	5.32	318	20	15.85	33.53	5.38	24.67	328	0.07
41	14.66	33.54	5.15	302	30	15.42	33.53	5.32	24.77	319	0.10
55	13.18	33.60	4.50	269	50	13.83	33.58	4.77	25.15	283	0.16
70	10.78	33.59	3.80	226	75	10.85	33.63	3.77	25.75	225	0.22
95	9.94	33.78	2.98	198	100	9.86	33.80	2.94	26.06	196	0.28
114	9.62	33.83	2.85	190	125	9.20	33.89	2.66	26.24	179	0.32
134	8.99	33.94	2.51	172	150	8.88	33.98	2.30	26.36	167	0.37
153	8.84	33.99	2.26	166	200	8.56	34.12	1.58	26.52	152	0.45
182	8.58	34.07	1.80	156	250	8.31	34.22	1.04	26.64	141	0.52
216	8.53	34.16	1.41	149	300	7.80	34.24	0.90	26.73	132	0.59
244	8.34	34.22 1	1.06	142	400	6.78	34.27	0.77	26.89	117	0.72
293	7.84	34.23 7	0.93	133	500	5.98	34.29	0.42	27.02	105	0.84
345	7.44	34.26 9	0.79	125	600	(5.30)	(34.34)	(0.41)	(27.14)	(94)	(0.95)
430	6.44	34.26 5	0.72	113							
513	5.89	34.30 3	0.38	103							
599	5.30	34.33 6	0.41	94							

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6009-10

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

80.70 SPENCER F. BAIRD; September 23, 1960; 0522 GCT; 33°48.5'N, 121°51.5'W; sounding, 2000 fm; wind, 320°, force 4; weather, overcast; sea, rough; wire angle, 23°.

2	15.90	33.41	5.54	338	0	(15.90)	(33.41)	(5.54)	(24.57)	(338)	(0.00)
11	15.90	33.40	5.57	338	10	15.90	33.40	5.56	24.57	338	0.03
29	13.64	33.22	5.64	306	20	15.50	33.37	5.58	24.63	332	0.07
38	12.48	33.11	5.74	292	30	13.50	33.20	5.66	24.93	304	0.10
51	11.60	33.15	5.30	273	50	11.66	33.14	5.35	25.23	275	0.16
64	11.02	33.23	4.97	257	75	10.57	33.35	4.57	25.59	241	0.22
87	9.93	33.43	4.20	224	100	9.87	33.64	3.76	25.93	208	0.28
104	9.64	33.70	3.55	200	125	8.98	33.83	2.98	26.23	180	0.33
121	9.06	33.81	3.08	183	150	8.54	33.94	2.50	26.39	165	0.37
138	8.74	33.90	2.70	172	200	7.82	34.04	2.05	26.57	148	0.45
162	8.37	33.97	2.34	160	250	7.38	34.09	1.54	26.67	138	0.52
192	7.94	34.03	2.11	150	300	6.98	34.15	1.14	26.77	129	0.59
218	7.62	34.06 1	1.85	144	400	6.24	34.20	0.67	26.91	115	0.72
263	7.27	34.11 0	1.44	136	500	5.75	34.28	0.40	27.04	103	0.83
313	6.88	34.15 4	1.06	127							
391	6.29	34.19 1	0.70	117							
473	5.87	34.26 0	0.45	106							
555	5.50	34.32 1	0.32	97							

80.80 SPENCER F. BAIRD; September 23, 1960; 1008 GCT; 33°28.5'N, 122°33.5'W; sounding, 2200 fm; wind, 340°, force 3; weather, overcast; sea, rough; wire angle, 18°.

3	16.26	33.38	5.72	347	0	(16.26)	(33.38)	(5.72)	(24.47)	(347)	(0.00)
12	16.26	33.37	5.40	348	10	16.26	33.37	5.50	24.46	348	0.03
31	16.36	33.46	5.55	345	20	16.30	33.41	5.43	24.47	347	0.07
40	15.90	33.53	5.52	329	30	16.35	33.44	5.53	24.49	345	0.10
54	13.42	33.44	5.22	285	50	14.00	33.47	5.30	25.03	294	0.17
68	12.56	33.46	5.02	268	75	12.42	33.46	4.97	25.33	265	0.24
92	11.57	33.46	4.62	250	100	10.49	33.51	4.21	25.73	227	0.30
110	10.10	33.61	3.99	214	125	9.58	33.69	3.56	26.03	199	0.35
128	9.48	33.72	3.48	196	150	9.08	33.84	2.96	26.22	181	0.40
146	9.16	33.82	3.07	184	200	8.21	33.99	2.37	26.47	157	0.49
173	8.64	33.94	2.56	167	250	7.52	34.04	2.08	26.61	143	0.57
205	8.15	34.00	2.34	155	300	6.89	34.09	1.65	26.74	131	0.64
230	7.82	34.01 4	2.23	149	400	6.09	34.19	0.75	26.92	114	0.76
278	7.12	34.06 5	1.82	136	500	5.50	34.24	0.49	27.04	103	0.88
328	6.63	34.12 3	1.43	125							
407	6.03	34.19 3	0.68	113							
490	5.54	34.23 1	0.51	104							
574	5.17	34.28 5	0.35	96							

80.90 SPENCER F. BAIRD; September 23, 1960; 1510 GCT; 33°09'N, 123°16'W; sounding, 2330 fm; wind, 340°, force 4; weather, cloudy; sea, very rough; wire angle, 17°.

2	16.14	33.17	5.51	361	0	(16.14)	(33.17)	(5.51)	(24.32)	(361)	(0.00)
11	16.14	33.17	5.51	361	10	16.14	33.17	5.51	24.32	361	0.04
30	16.12	33.17	5.46	360	20	16.13	33.17	5.48	24.33	360	0.07
40	14.91	33.14	5.78	337	30	16.12	33.17	5.46	24.34	360	0.11
54	13.91	33.08	5.64	321	50	14.27	33.10	5.67	24.69	326	0.18
68	13.18	33.15	5.65	302	75	12.50	33.10	5.51	25.05	292	0.25
91	11.68a)	33.06	5.28	281	100	11.38	33.13	5.16	25.28	270	0.33
110	11.01	33.28	5.02	253	125	10.10	33.39	4.59	25.70	230	0.39
129	10.00	33.42	4.52	226	150	9.64	33.58	3.81	25.92	209	0.44
146	9.74	33.55	3.95	213	200	8.52	33.90	3.10	26.35	168	0.54
174	8.88	33.77	3.28	183	250	7.70	34.01	2.74	26.56	148	0.62
204	8.46	33.92	3.09	166	300	7.04	34.05	1.95	26.68	137	0.69
232	7.91	33.99 8	2.92	152	400	6.22	34.14	1.00	26.87	119	0.83
278	7.39	34.03 4	2.30	142	500	5.59	34.21	0.51	27.01	106	0.95
330	6.68	34.06 3	1.58	131							
410	6.16	34.14 5	0.93	118							
492	5.64	34.20 7	0.56	107							
576	5.20	34.27 2	0.36	98							

a) Mean value of 11.63° and 11.74°C.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

SPENCER F. BAIRD: September 23, 1960; 1916 GCT; 32°49'N, 123°53.5'W; sounding, 2300 fm; wind, 360°, force 4; weather, cloudy; sea, high; wire angle, 26°. 80.100

2	16.68	33.12	5.43	376	0	(16.68)	(33.12)	(5.43)	(24.16)	(376)	(0.00)
11	16.66	33.11	5.44	376	10	16.66	33.11	5.44	24.16	376	0.04
29	16.50	33.11	5.52	372	20	16.61	33.11	5.47	24.17	375	0.08
37	15.92	33.12	5.55	358	30	16.45	33.12	5.52	24.21	372	0.11
51	15.50	33.15	5.55	348	50	15.53	33.15	5.55	24.45	349	0.18
64	14.47	33.25	5.65	320	75	13.62	33.25	5.62	24.94	303	0.27
87	13.34	33.27	5.58	296	100	12.98	33.39	5.35	25.18	280	0.34
104	12.58	33.40	5.21	272	125	11.28	33.37	4.85	25.48	251	0.41
122	11.45	33.37	4.93	254	150	10.07	33.49	4.32	25.79	222	0.47
139	10.50	33.44	4.59	233	200	8.81	33.87	3.27	26.28	175	0.57
166	9.48	33.60	3.82	205	250	8.24	33.99	2.81	26.46	158	0.65
196	8.88	33.84	3.32	178	300	7.57	34.05	2.09	26.62	143	0.73
222	8.50	33.94 1	3.03	165	400	6.46	34.15	1.07	26.84	122	0.87
266	8.08	34.00 5	2.67	154	500	5.83	34.23	0.53	26.99	108	0.99
313	7.39	34.06 1	1.88	140							
390	6.55	34.14 1	1.12	123							
469	5.94	34.18 8	0.68	112							
552	5.63	34.28 9	0.34	101							

SPENCER F. BAIRD: September 30, 1960; 1300 GCT; 29°26.5'N, 130°41'W; sounding, 2500 fm; wind, 340°, force 2; weather, missing; sea, rough; wire angle, 08°. 80.200

2	20.10	34.04	4.94	390	0	(20.10)	(34.04)	(4.94)	(24.02)	(390)	(0.00)
12	20.11	34.03	4.99	391	10	20.10	34.03	4.98	24.01	391	0.04
32	19.99	34.05	4.97	386	20	20.04	34.04	4.98	24.03	389	0.08
61	18.67	34.37	5.30	331	30	19.99	34.05	4.97	24.05	387	0.12
71	17.92	34.37	5.30	312	50	19.80	34.23	5.08	24.25	368	0.19
86	17.56	34.43	5.24	300	75	17.77	34.39	5.30	24.88	308	0.28
101	17.36	34.49	5.20	291	100	17.37	34.49	5.20	25.06	291	0.35
115	17.18	34.50	5.04	286	125	17.04	34.50	4.97	25.14	283	0.43
140	16.64	34.45	4.84	278	150	16.22	34.39	4.90	25.25	273	0.50
160	15.60	34.29	5.03	267	200	12.36	33.94	4.64	25.72	228	0.62
190	12.88	33.98	4.71	236	250	9.98	33.91	4.39	26.13	190	0.73
220	11.30	33.90	4.59	213	300	8.77	33.98	4.06	26.38	165	0.82
249	10.00	33.91 1	4.40	190	400	6.77	34.04	2.01	26.73	133	0.98
298	8.80	33.98 0	4.07	166	500	5.77	34.11	1.12	26.90	116	1.11
352	7.54	34.00 4	2.93	147	600	5.28	34.23	0.47	27.06	101	1.22
437	6.26	34.07 5	1.53	124							
521	5.64	34.13 2	0.97	113							
605	5.24	34.23 7	0.46	101							

BLACK DOUGLAS; October 11, 1960; 1844 GCT; 33°34'N, 120°45'W; sounding, 800 fm; wind, 150°, force 1; weather, partly cloudy; sea, rough; wire angle, 00°. 83.60

1	16.20	33.75	5.56	319	0	(16.20)	(33.75)	(5.56)	(24.77)	(319)	(0.00)
11	16.00	33.74	5.66	315	10	16.01	33.74	5.65	24.79	316	0.03
31	13.28	33.68	4.75	265	20	16.00	33.74	5.66	24.80	315	0.06
61	10.18	33.82	3.14	199	30	14.30	33.69	5.16	25.14	283	0.09
71	9.70	33.91	2.79	185	50	11.00	33.78	3.54	25.85	216	0.14
87	9.54	33.97	2.42	178	75	9.66	33.92	2.70	26.19	183	0.19
102	9.38	34.03	2.24	171	100	9.40	34.02	2.27	26.31	172	0.24
117	9.31	34.05	2.06	169	125	9.27	34.07	1.89	26.37	166	0.28
141	9.17	34.11	1.74	162	150	9.11	34.16	1.61	26.46	157	0.32
161	9.04	34.20	1.48	154	200	8.92	34.23	1.13	26.55	149	0.40
192	8.94	34.22a)	1.15	150	250	8.68	34.27	1.02	26.62	143	0.48
222	8.82	34.26	1.10	146	300	8.44	34.29	0.92	26.67	138	0.55
252	8.67	34.27	1.01	143	400	7.64	34.30	0.80	26.80	126	0.69
302	8.42	34.29	0.91	138	500	6.92	34.32	0.59	26.92	115	0.81
357	8.01	34.30	0.87	131	600	6.25	34.33	0.42	27.02	105	0.93
441	7.32	34.30	0.72	121							
527	6.73	34.33	0.53	111							
612	6.18	34.33	0.40	104							

a) Alternate value, 34.28‰, not used in interpolation.

SIO

CCOFI 6009-10

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

90.28 SPENCER F. BAIRD; October 4, 1960; 0834 GCT; 33°28'N, 117°46.5'W; sounding, 295 fm; wind, direction missing, force 1; weather, cloudy; sea, slight; wire angle, 13°.

2	18.95	33.65 4	5.51	389	0	(18.95)	(33.65)	(5.51)	(24.03)	(389)	(0.00)
11	18.34	33.59 8	6.30	379	10	18.90	33.65	5.65	24.03	388	0.04
31	13.34	33.51 2	5.14	279	20	17.20	33.54	6.20	24.37	357	0.08
50	11.69	33.54 0	4.34	246	30	13.50	33.51	5.20	25.17	281	0.11
75	11.15	33.69 2	3.36	225	50	11.69	33.54	4.34	25.53	246	0.16
99	10.84	33.78 0	3.02	214	75	11.15	33.69	3.36	25.76	225	0.22
123	10.57	33.86 0	2.64	203	100	10.83	33.78	3.00	25.88	213	0.28
163	10.18	33.97 6	2.25	188	125	10.56	33.88	2.55	26.01	201	0.33
201	9.38	33.98 7	2.39	174	150	10.35	33.95	2.32	26.09	193	0.38
248	9.00	34.17 7	1.53	155	200	9.41	33.99	2.39	26.28	175	0.47
296	8.51	34.26 1	1.03	141	250	8.98	34.19	1.50	26.50	154	0.56
400	7.36	34.29 3	0.66	123	300	8.46	34.26	1.00	26.64	140	0.63
					400	7.36	34.29	0.66	26.83	123	0.77

90.32 SPENCER F. BAIRD; October 4, 1960; 0636 GCT; 33°23'N, 118°00'W; sounding, 310 fm; wind, 300°, force 2; weather, cloudy; sea, moderate; wire angle, 10°.

2	19.94	33.66 5	4.94	412	0	(19.94)	(33.67)	(4.94)	(23.78)	(412)	(0.00)
12	19.95	33.66 0	5.09	413	10	19.95	33.66	5.08	23.78	413	0.04
31	15.72	33.35 7	5.76	338	20	19.40	33.62	5.20	23.88	403	0.08
51	13.02	33.39 8	5.32	281	30	15.74	33.36	5.76	24.56	338	0.12
76	11.35	33.49 1	4.46	244	50	13.10	33.40	5.33	25.16	282	0.18
102	10.68	33.65 0	3.80	220	75	11.38	33.49	4.48	25.55	245	0.25
124	10.11	33.71 4	3.47	207	100	10.74	33.64	3.86	25.78	223	0.31
163	9.19	33.87 8	2.98	180	125	10.09	33.72	3.47	25.96	206	0.36
203	9.18	34.07 9	2.04	165	150	9.36	33.83	3.13	26.16	186	0.41
251	8.66	34.18 3	1.43	149	200	9.19	34.07	2.10	26.38	166	0.50
300	8.33	34.23 3	0.99	140	250	8.67	34.18	1.45	26.55	149	0.58
405	7.26	34.29 5	0.58	121	300	8.33	34.23	0.99	26.65	140	0.66
					400	7.31	34.29	0.61	26.84	122	0.79

90.37 SPENCER F. BAIRD; October 4, 1960; 0307 GCT; 33°10.5'N, 118°23.5'W; sounding, 640 fm; wind, 290°, force 4; weather, partly cloudy; sea, moderate; wire angle, 12°.

2	19.68	33.75 6	5.10	400	0	(19.68)	(33.76)	(5.10)	(23.92)	(400)	(0.00)
12	19.67	33.75 3	5.06	400	10	19.67	33.75	5.07	23.92	400	0.04
31	17.39	33.65 8	5.75	352	20	19.34	33.74	5.19	23.99	393	0.08
41	14.15	33.58 0	5.56	289	30	17.90	33.67	5.72	24.37	357	0.12
55	12.12	33.59 0	4.56	250	50	12.85	33.59	4.95	25.35	264	0.18
70	11.18	33.59 0	4.20	233	75	10.98	33.60	4.09	25.71	229	0.24
94	10.18	33.74 3	3.25	205	100	10.00	33.76	3.14	26.01	201	0.30
114	9.66	33.81 3	3.03	191	125	9.50	33.84	2.95	26.15	187	0.35
134	9.40	33.87 6	2.78	183	150	9.19	33.95	2.45	26.29	174	0.39
153	9.16	33.96 6	2.40	173	200	8.79	34.09	1.80	26.46	158	0.48
182	8.88	34.04 0	2.07	163	250	8.34	34.27	0.92	26.67	138	0.55
216	8.70	34.14 8	1.55	152	300	7.85	34.29	0.81	26.77	129	0.62
244	8.42	34.25 9	0.96	140	400	6.98	34.30	0.57	26.89	117	0.75
292	7.90	34.29 1	0.84	130	500	6.40	34.32	0.45	26.98	108	0.87
346	7.50	34.29 9	0.67	124	600	(5.89)	(34.35)	(0.34)	(27.07)	(100)	(0.98)
428	6.76	34.29 7	0.52	114							
511	6.35	34.31 9	0.45	107							
596	5.92	34.34 3	0.34	101							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

SPENCER F. BAIRD; October 3, 1960; 2152 GCT; 32°55'N, 118°56'W; sounding, 930 fm; wind, 280°, force 3; weather, partly cloudy; sea, moderate; wire angle, 03°. 90.45

2	19.02	33.85	5.20	377	0	(19.02)	(33.85)	(5.20)	(24.16)	(377)	(0.00)
12	18.62	33.84	5.23	368	10	18.63	33.84	5.23	24.24	369	0.04
32	12.18	33.72	4.40	241	20	17.20	33.80	5.10	24.57	338	0.07
42	11.55	33.73	3.97	229	30	12.40	33.72	4.45	25.54	246	0.10
57	10.78	33.75	3.42	215	50	11.17	33.74	3.64	25.79	221	0.15
72	9.95	33.79	3.00	198	75	9.88	33.80	2.95	26.06	196	0.20
97	9.49	33.85	2.76	187	100	9.42	33.86	2.73	26.18	185	0.25
117	9.13	33.92	2.57	176	125	9.07	33.94	2.53	26.30	174	0.29
136	9.00	33.95	2.50	172	150	8.91	34.00	2.31	26.37	167	0.34
157	8.88	34.02	2.14	164	200	8.55	34.13	1.50	26.54	151	0.42
187	8.75	34.12	1.65	155	250	8.20	34.24	0.98	26.67	138	0.49
222	8.20	34.16	1.26	144	300	7.67	34.23	0.85	26.74	131	0.56
251	8.18	34.24 1	0.97	138	400	7.11	34.30	0.57	26.87	119	0.69
301	7.66	34.23 5	0.84	131	500	6.50	34.33	0.37	26.98	108	0.81
357	7.44	34.29 0	0.69	124	600	5.88	34.36	0.33	27.08	99	0.93
442	6.81	34.31 6	0.44	114							
526	6.36	34.33 7	0.36	106							
612	5.82	34.36 3	0.33	98							

SPENCER F. BAIRD; October 3, 1960; 1800 GCT; 32°41.5'N, 119°31.5'W; sounding, 710 fm; wind, 360°, force 1; weather, partly cloudy; sea, moderate; wire angle, 05°. 90.53

2	17.32	33.70		347	0	(17.32)	(33.71)	(24.47)	(347)	(0.00)
12	17.25	33.70		346	10	17.26	33.71	24.48	346	0.03
32	17.22	33.70		346	20	17.22	33.70	24.48	346	0.07
42	16.56	33.66		334	30	17.22	33.70	24.48	346	0.10
52	15.84	33.64		320	50	16.01	33.65	24.73	323	0.17
67	13.26	33.51		277	75	12.45	33.53	25.38	261	0.24
82	11.96	33.56		249	100	10.89	33.66	25.78	223	0.31
102	10.82	33.67		221	125	9.67	33.85	26.13	189	0.36
127	9.62	33.86		188	150	9.23	33.94	26.28	175	0.40
147	9.26	33.93		177	200	8.95	34.05	26.40	163	0.49
178	9.06	34.00		169	250	8.54	34.16	26.56	149	0.57
208	8.90	34.06		161	300	8.21	34.23	26.66	139	0.64
237	8.62	34.12 2		153	400	7.41	34.29	26.82	123	0.78
276	8.42	34.21 1		143	500	6.58	34.32	26.96	110	0.91
335	7.91	34.25 4		133						
410	7.34	34.29 7		122						
485	6.71	34.31 8		112						
565	6.09	34.33 3		103						

SPENCER F. BAIRD; October 3, 1960; 1437 GCT; 32°27'N, 119°57'W; sounding, 650 fm; wind, 320°, force 3; weather, overcast; sea, moderate; wire angle, 04°. 90.60

2	-	-	-	-	0	17.6	(33.82)		(24.49)	(345)	(0.00)
12	16.99	33.75	5.34	337	10	(17.05)	(33.76)		(24.57)	(338)	(0.03)
32	16.31	33.66	5.37	328	20	16.93	33.74	5.35	24.59	336	0.07
42	13.85	33.41	5.27	295	30	16.55	33.69	5.36	24.64	331	0.10
52	12.00	33.33	4.92	267	50	12.20	33.33	4.96	25.28	270	0.16
67	10.34	33.51	4.18	225	75	10.08	33.56	3.96	25.83	217	0.22
82	10.06	33.62	3.83	213	100	9.80	33.82	3.00	26.09	193	0.27
102	9.74	33.83	2.94	192	125	9.07	33.93	2.53	26.29	174	0.32
126	9.06	33.93	2.53	174	150	8.70	33.99	2.15	26.39	164	0.36
146	8.76	33.98	2.20	165	200	8.37	34.09	1.66	26.53	152	0.44
176	8.56	34.04	1.93	158	250	7.86	34.12	1.52	26.63	142	0.52
206	8.32	34.10	1.59	150	300	7.60	34.19	1.07	26.73	133	0.59
237	7.86	34.09 7	1.69	144	400	7.01	34.30	0.56	26.88	118	0.72
276	7.90	34.18 4	1.17	138	500	6.18	34.33	0.36	27.02	105	0.84
335	7.10	34.19 7	0.93	126							
410	6.99	34.30 8	0.48	116							
485	6.30	34.32 4	0.38	106							
564	5.79	34.34 3	0.32	99							

S10

CCOFI 6009-10

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

90.70 SPENCER F. BAIRD; October 3, 1960; 0909 GCT; 32°06'N, 120°36'W; sounding, 2060 fm; wind, 360°, force 1; weather, overcast; sea, slight; wire angle, 02°.

2	16.44	33.55	5.43	339	0	(16.44)	(33.55)	(5.43)	(24.55)	(339)	(0.00)
12	16.44	33.54	5.45	340	10	16.44	33.54	5.45	24.54	340	0.03
32	14.64	33.32	5.59	318	20	16.44	33.54	5.46	24.54	340	0.07
42	13.14	33.24	5.49	295	30	15.00	33.36	5.56	24.74	322	0.10
52	12.28	33.32	4.95	273	50	12.65	33.31	5.17	25.16	281	0.16
67	11.33	33.32	4.80	255	75	11.09	33.37	4.69	25.51	248	0.23
82	10.97	33.43	4.48	241	100	10.28	33.65	3.63	25.87	214	0.29
102	10.22	33.68	3.56	211	125	9.77	33.78	3.11	26.06	196	0.34
128	9.74	33.79	3.07	194	150	9.37	33.88	2.72	26.21	182	0.39
148	9.42	33.87	2.75	184	200	8.15	34.02	2.26	26.51	153	0.47
178	8.49	33.96	2.61	163	250	8.10	34.20	1.30	26.66	140	0.55
208	8.10	34.05	2.09	151	300	7.72	34.25	1.04	26.74	131	0.62
237	8.14	34.17 4	1.41	142	400	6.93	34.29	0.53	26.89	117	0.75
277	7.92	34.22 6	1.16	135	500	6.22	34.31	0.41	27.01	106	0.86
337	7.42	34.27 0	0.76	125							
413	6.83	34.29 0	0.51	116							
487	6.30	34.31 1	0.42	107							
568	5.76	34.32 5	0.30	100							

90.80 SPENCER F. BAIRD; October 3, 1960; 0444 GCT; 31°45'N, 121°18'W; sounding, 2100 fm; wind, 010°, force 2; weather, cloudy; sea, moderate; wire angle, 10°.

2	16.87	33.31	5.38	366	0	(16.87)	(33.31)	(5.38)	(24.27)	(366)	(0.00)
12	16.86	33.30	5.31	367	10	16.86	33.30	5.32	24.26	367	0.04
31	16.08	33.26	5.62	352	20	16.80	33.29	5.32	24.27	366	0.07
41	14.73	33.15	5.73	332	30	16.10	33.26	5.62	24.41	353	0.11
50	14.38	33.22	5.72	320	50	14.38	33.22	5.72	24.76	320	0.18
65	13.08	33.12	5.61	302	75	12.37	33.12	5.46	25.08	289	0.25
80	11.91	33.13	5.35	280	100	10.75	33.31	4.78	25.53	247	0.32
99	10.77	33.31	4.80	247	125	10.00	33.57	4.16	25.86	215	0.38
122	10.15	33.54	4.25	220	150	9.11	33.76	3.66	26.15	187	0.43
141	9.34	33.70	3.77	196	200	8.29	33.97	2.97	26.44	160	0.52
170	8.66	33.88	3.47	172	250	7.37	34.03	2.24	26.63	142	0.60
199	8.30	33.96	2.98	160	300	6.88	34.07	1.61	26.73	133	0.67
228	7.80	34.01 1	2.64	149	400	6.08	34.17	0.77	26.91	115	0.80
266	7.16	34.04 3	2.00	138	500	5.73	34.28	0.38	27.04	102	0.91
324	6.68	34.09 4	1.35	129							
396	6.09	34.17 2	0.78	115							
469	5.88	34.26 1	0.47	106							
549	5.38	34.31 5	0.31	96							

90.90 SPENCER F. BAIRD; October 3, 1960; 0012 GCT; 31°25'N, 121°59'W; sounding, 2090 fm; wind, 360°, force 1; weather, overcast; sea, moderate; wire angle, 03°.

2	17.72	33.27	5.21	388	0	(17.72)	(33.27)	(5.21)	(24.04)	(388)	(0.00)
12	17.63	33.26	5.21	387	10	17.64	33.26	5.21	24.05	387	0.04
32	17.62	33.26	5.21	387	20	17.62	33.26	5.21	24.05	387	0.08
57	15.15	33.34	5.65	327	30	17.62	33.26	5.21	24.05	387	0.12
67	14.48	33.38	5.56	310	50	16.10	33.31	5.48	24.45	349	0.19
77	14.02	33.39	5.40	300	75	14.13	33.39	5.43	24.95	302	0.27
92	13.42	33.38	5.43	289	100	13.10	33.42	5.32	25.18	280	0.35
107	12.40	33.44	5.04	266	125	11.10	33.46	4.60	25.58	241	0.41
132	10.59	33.48	4.42	231	150	9.79	33.65	4.13	25.96	206	0.47
152	9.73	33.67	4.11	204	200	8.73	33.88	3.48	26.31	172	0.56
177	9.28	33.77	3.90	189	250	7.87	33.98	3.08	26.51	153	0.65
206	8.59	33.90	3.37	169	300	7.28	34.02	2.41	26.63	142	0.72
236	8.08	33.97 3	3.21	157	400	6.27	34.12	1.09	26.85	121	0.86
276	7.54	33.99 8	2.78	147	500	5.73	34.22	0.55	26.99	107	0.98
336	6.90	34.04 7	1.91	135							
410	6.19	34.13 3	1.00	119							
486	5.78	34.19 8	0.60	109							
565	5.50	34.31 1	0.34	98							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

SPENCER F. BAIRD; October 2, 1960; 1945 GCT; 31°05'N, 122°39'W; sounding, 2200 fm; wind, 020°, force 1; weather, overcast; sea, moderate; wire angle, 03°. 90.100

2	17.48	33.23	5.21	386	0	(17.48)	(33.23)	(5.21)	(24.06)	(386)	(0.00)
12	17.44	33.22	5.28	386	10	17.45	33.22	5.28	24.06	386	0.04
32	17.46	33.22	5.26	386	20	17.45	33.22	5.27	24.06	386	0.08
57	15.57	33.15	5.68	349	30	17.46	33.22	5.26	24.06	386	0.12
66	14.34	33.18	5.68	323	50	17.00	33.20	5.35	24.14	378	0.19
76	14.08	33.28	5.61	310	75	14.11	33.27	5.61	24.85	311	0.28
92	13.80	33.41	5.54	295	100	14.00	33.56	5.45	25.10	287	0.35
107	13.68	33.57	5.32	281	125	12.80	33.62	5.07	25.38	260	0.42
131	12.46	33.62	5.01	254	150	10.77	33.56	4.55	25.71	229	0.49
151	10.68	33.56	4.53	228	200	9.03	33.85	3.86	26.23	179	0.59
176	9.58	33.71	4.15	198	250	7.98	33.99	2.89	26.51	153	0.67
206	8.88	33.88	3.79	175	300	7.18	34.03	2.08	26.66	139	0.75
235	8.28	33.96 1	3.24	160	400	6.51	34.17	0.90	26.85	121	0.89
275	7.52	34.01 5	2.48	145	500	5.83	34.24	0.51	26.99	107	1.01
334	6.86	34.07 6	1.61	132							
410	6.44	34.18 1	0.80	119							
485	5.90	34.22 2	0.56	109							
565	5.56	34.30 0	0.39	99							

SPENCER F. BAIRD; October 2, 1960; 1146 GCT; 30°25'N, 123°59.5'W; sounding, 2290 fm; wind, 040°, force 1; weather, missing; sea, moderate; wire angle, 04°. 90.120

2	18.57	33.50	5.20	392	0	(18.57)	(33.50)	(5.20)	(24.00)	(392)	(0.00)
12	18.56	33.49	5.24	392	10	18.56	33.49	5.23	24.00	392	0.04
32	18.57	33.49	5.15	392	20	18.57	33.49	5.20	24.00	392	0.08
57	18.24	33.45	5.20	388	30	18.57	33.49	5.15	24.00	392	0.12
67	16.05	33.42	5.65	340	50	18.38	33.46	5.18	24.02	390	0.20
77	15.54	33.47	5.60	326	75	15.61	33.47	5.62	24.68	328	0.29
92	14.56	33.48	5.46	304	100	14.12	33.49	5.33	25.01	295	0.36
107	13.80	33.50	5.23	288	125	13.01	33.53	5.00	25.27	271	0.44
132	12.70	33.54	4.91	264	150	10.98	33.52	4.55	25.65	235	0.50
152	10.82	33.52	4.51	232	200	9.11	33.76	3.70	26.15	188	0.61
176	9.58	33.66	3.85	201	250	8.23	33.97	3.04	26.45	159	0.70
206	9.01	33.78	3.66	184	300	7.52	34.03	2.31	26.60	144	0.77
236	8.46	33.93 2	3.31	165	400	6.53	34.12	1.17	26.81	125	0.91
275	7.85	34.00 4	2.65	151	500	5.78	34.21	0.60	26.98	109	1.04
336	7.08	34.06 4	1.78	136							
411	6.44	34.13 5	1.04	122							
485	5.85	34.19 4	0.66	110							
565	5.55	34.26 7	0.42	102							

SPENCER F. BAIRD; October 2, 1960; 0253 GCT; 29°45'N, 125°20.5'W; sounding, 2340 fm; wind, 040°, force 2; weather, overcast; sea, moderate; wire angle, 07°. 90.140

2	18.80	33.60	5.12	390	0	(18.80)	(33.60)	(5.12)	(24.02)	(390)	(0.00)
12	18.74	33.59	5.12	389	10	18.76	33.59	5.12	24.02	389	0.04
32	18.75	33.60	5.04	389	20	18.75	33.59	5.10	24.03	389	0.08
56	17.80	33.66	5.31	362	30	18.75	33.59	5.06	24.03	389	0.12
66	17.44	33.77	5.30	345	50	19.40	33.84	5.04	24.05	387	0.19
76	16.82	33.79	5.27	330	75	16.87	33.79	5.27	24.64	331	0.29
91	16.50	33.89	5.30	316	100	16.35	33.95	5.24	24.87	309	0.37
106	16.27	33.97	5.18	305	125	15.60	33.95	5.06	25.05	292	0.44
131	15.22	33.92	4.99	286	150	14.14	33.85	4.90	25.29	269	0.51
152	14.02	33.84	4.89	267	200	10.53	33.78	4.38	25.93	208	0.63
175	12.40	33.79	4.93	241	250	8.84	33.89	3.65	26.29	174	0.73
205	10.20	33.78	4.26	203	300	8.00	34.00	2.91	26.51	153	0.82
234	9.10	33.83 6	3.71	182	400	6.54	34.06	1.76	26.76	129	0.96
274	8.44	33.95 6	3.52	162	500	5.76	34.16	0.89	26.94	112	1.09
332	7.46	34.02 9	2.31	143							
406	6.49	34.06 5	1.70	128							
480	5.90	34.13 3	1.06	116							
560	5.33	34.22 1	0.58	103							

SIO

CCOFI 6009-10

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
90.160	SPENCER F. BAIRD; October 1, 1960; 1655, 1851 GCT; 29°06.5'N, 126°39'W; sounding, 2400 fm; wind, 360°, force 2; weather, cloudy; sea, moderate; wire angle, 05°, 04°.										
2	19.06	33.70 7	5.16	388	0	(19.06)	(33.71)	(5.16)	(24.04)	(388)	(0.00)
12	19.08	33.70 2	5.08	389	10	19.07	33.70	5.09	24.03	389	0.04
32	19.43	33.93 8	5.05	380	20	19.10	33.78	5.06	24.08	384	0.08
62	17.67	33.70 0	5.31	356	30	19.42	33.92	5.05	24.11	381	0.12
72	17.50	33.82 2	5.34	343	50	18.60	33.80	5.16	24.22	370	0.19
87	16.92	33.90 9	5.24	323	75	17.45	33.85	5.32	24.55	340	0.28
102	16.41	33.92 8	5.22	311	100	16.47	33.92	5.22	24.83	313	0.36
118	16.46	34.10 9	5.06	299	125	16.17	34.11	5.00	25.04	293	0.44
141	15.12	34.03 9	4.98	277	150	14.65	33.98	4.93	25.28	270	0.51
162	13.96	33.90 7	4.79	261	200	10.83	33.77	4.49	25.87	214	0.63
192	10.50	33.77 1	4.58	226	250	9.08	33.91	3.93	26.27	176	0.73
221	9.78	33.82 5	4.25	193	300	7.98	33.99	3.20	26.51	153	0.82
250	9.08	33.91 0	3.93	176	400	6.57	34.07	1.75	26.77	129	0.96
300	7.98	33.98 7	3.20	153	500	5.78	34.15	0.95	26.93	113	1.09
354	7.15	34.02 4	2.33	140	600	5.21	34.25	0.50	27.08	99	1.20
440	6.20	34.09 8	1.37	122	700	4.73	34.34	0.38	27.21	87	1.31
525	5.66	34.16 9	0.82	110	800	4.37	34.41	0.40	27.30	78	1.40
609	5.18	34.26 7	0.50	97	1000	3.85	34.49	0.63	27.42	68	1.56
					1200	3.40	34.52	0.87	27.49	60	1.70
401a)	6.56	34.06 6	1.74	129	1500	2.87	34.57	1.15	27.58	52	1.90
501	5.70	34.15 2	0.90	112	2000	2.17	34.63	1.71	27.69	42	2.18
602	5.12	34.25 6	0.47	97	2500	1.82	34.65	2.20	27.73	37	2.43
702	4.72	34.34 0	0.38	87	3000	1.61	34.67	2.60	27.76	34	2.66
801	4.36	34.40 9	0.41	78	4000	1.50	34.69		27.79	32	3.11
1003	3.84	34.49 1	0.66	67							
1252	3.30	34.54 1	0.94	58							
1551	2.78	34.57 9	1.21	51							
1750	2.48	34.60 3	1.41	47							
1950	2.22	34.62 6	1.65	43							
2252	1.95	34.64 3	1.97	39							
2554	1.78	34.65 6	2.25	37							
2857	1.65	34.67 0	2.39	35							
3209	1.56	34.67 6	2.75	34							
3510	1.52	34.68 5	2.84	33							
3713	1.52	34.68 9	2.98	33							
3856	1.53	34.68 8	3.06	33							
4002	1.50	34.69 0	3.06	32							
90.180	SPENCER F. BAIRD; October 1, 1960; 0840 GCT; 28°29.5'N, 127°58.5'W; sounding, 2450 fm; wind, 350°, force 2; weather, missing; sea, rough; wire angle, 10°.										
2	19.88	34.16	5.24	376	0	(19.88)	(34.16)	(5.24)	(24.16)	(376)	(0.00)
12	19.89	34.15	5.00	376	10	19.89	34.15	5.03	24.16	376	0.04
32	19.90	34.16	4.96	376	20	19.89	34.15	4.98	24.16	376	0.08
62	18.50	34.04	5.33	351	30	19.90	34.16	4.97	24.16	376	0.11
72	18.35	34.20	5.32	336	50	19.70	34.14	5.00	24.20	373	0.19
87	18.10	34.31	5.16	322	75	18.33	34.21	5.32	24.60	335	0.28
102	17.82	34.45	5.10	305	100	17.84	34.44	5.10	24.90	306	0.36
117	17.83	34.54	5.07	299	125	17.78	34.55	5.06	25.00	297	0.43
143	17.02	34.48	4.91	285	150	16.64	34.43	4.83	25.18	280	0.51
162	15.86	34.33	4.78	270	200	12.60	33.95	4.67	25.67	233	0.64
191	13.30	34.02	4.70	241	250	9.62	33.84	4.16	26.13	189	0.75
221	11.00	33.81	4.58	214	300	8.73	33.94	3.69	26.35	169	0.84
250	9.62	33.84 1	4.16	189	400	6.97	34.04	2.06	26.69	136	0.99
299	8.74	33.93 8	3.71	169	500	6.07	34.13	1.07	26.88	118	1.13
354	7.60	34.01 1	2.74	147	600	5.34	34.22	0.57	27.04	103	1.25
440	6.51	34.07 9	1.54	127							
524	5.88	34.15 7	0.88	114							
609	5.24	34.23 0	0.54	101							

a) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

SPENCER F. BAIRD; October 1, 1960; 0052 GCT; 27°43'N, 129°12'W; sounding, 2250 fm; wind, 040°, force 3; weather, overcast; sea, moderate; wire angle, 15°. 90.200

2	20.04	34.10	4.94	384	0	(20.04)	(34.10)	(4.94)	(24.08)	(384)	(0.00)
12	20.03	34.10	4.96	384	10	20.03	34.10	4.96	24.08	384	0.04
31	20.01	34.15	5.22	380	20	20.02	34.11	5.06	24.10	383	0.08
60	19.54	34.44	5.14	347	30	20.01	34.15	5.22	24.12	380	0.11
70	19.45	34.55	5.10	337	50	19.82	34.35	5.17	24.33	360	0.19
85	18.92	34.63	5.08	317	75	19.37	34.58	5.10	24.63	332	0.28
98	18.02	34.47	5.16	307	100	17.92	34.47	5.12	24.91	305	0.36
113	18.06	34.58	5.03	301	125	17.90	34.59	4.99	25.00	296	0.43
136	17.66	34.58	4.90	292	150	17.47	34.56	4.81	25.08	289	0.51
155	17.38	34.55	4.78	287	200	13.66	34.08	4.68	25.56	243	0.64
183	15.49	34.31	4.70	264	250	10.47	33.92	4.40	26.05	197	0.76
211	12.67	33.97	4.67	232	300	8.80	33.98	3.90	26.37	166	0.85
238	11.04	33.92 5	4.52	207	400	6.98	34.02	2.34	26.68	137	1.01
286	9.19	33.96 8	4.08	173	500	5.84	34.11	1.15	26.90	117	1.14
339	7.96	33.99 9	3.21	152	600	(5.30)	(34.21)		(27.04)	(103)	(1.26)
420	6.68	34.03 5	2.08	133							
504	5.82	34.11 5	1.14	116							
589	5.36	34.20 3	0.68	104							

BLACK DOUGLAS; October 7, 1960; 2039 GCT;[a] 32°43'N, 118°21'W; sounding, 100+ fm; wind, 350°, force 4; weather, partly cloudy; sea, moderate; wire angle, 05°. 92.40

1	18.70	33.62	6.36
6	17.93	33.60	6.60
11	15.34	33.56	5.83
16	14.50	33.54	5.66
21	13.42	33.56	4.42
26	12.33	33.54	4.09
31	12.00	33.56	3.98
36	11.79	33.55	3.94
41	11.78	33.60	3.47
46	11.78	33.63	3.23
51	11.75	33.64	3.40
56	11.68	33.66	3.39
62	11.67	33.67	3.32
66	11.63	33.69	3.38
71	11.54	33.68	3.35
76	11.50	33.70	3.46
81	11.48	33.70	3.40
86	11.38	33.71	3.36

BLACK DOUGLAS; October 15, 1960; 1914 GCT; 32°54.5'N, 117°22'W; sounding, 265 fm; wind, 140°, force 2; weather, partly cloudy; sea, moderate; wire angle, 04°. 93.28

5	18.54	33.65	5.29	379	0	(18.6)	(33.65)	(5.27)	(24.11)	(381)	(0.00)
25	15.57	33.43	5.94	329	10	18.45	33.66	5.32	24.15	377	0.04
45	13.06	33.52	5.23	273	20	18.00	33.63	5.44	24.24	369	0.08
70	11.43	33.61	4.35	236	30	14.35	33.45	5.75	24.94	303	0.11
95	10.95	33.73b)	3.48	219	50	12.49	33.52	4.98	25.37	261	0.17
120	10.66	33.86	2.92	205	75	11.29	33.64	4.09	25.69	231	0.23
159	9.97	34.04	2.37	180	100	10.89	33.76	3.34	25.85	216	0.28
199	9.43	34.14	2.38	164	125	10.57	33.89	2.77	26.01	201	0.34
					150	10.12	34.01	2.39	26.18	184	0.39
					200	(9.42)	(34.14)	(2.38)	(26.40)	(164)	(0.47)

BLACK DOUGLAS; October 15, 1960; 1720 GCT; 32°50.5'N, 117°31.5'W; sounding, 425 fm; wind, 270°, force 1; weather, clear; sea, slight; wire angle, 06°. 93.30

1	18.14	33.72	5.41	365	0	(18.14)	(33.72)	(5.41)	(24.28)	(365)	(0.00)
11	17.88	33.68c)	5.41	362	10	17.93	33.69	5.41	24.30	363	0.04
32	15.84	33.52	5.73	328	20	17.78	33.68	5.43	24.34	360	0.07
					30	16.30	33.57	5.67	24.60	336	0.11

a) Test cast.
b) Alternate value, 33.79‰, not used in interpolation.
c) Alternate value, 33.78‰, not used in interpolation.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m
9340	BLACK DOUGLAS; October 15, 1960; 1156 GCT; 32°30'N, 118°12.5'W; sounding, 950 fm; wind, 300°, force 3; weather, clear; sea, moderate; wire angle, 00°.										
0	18.18	33.54	5.44	379	0	18.18	33.54	5.44	24.13	379	0.00
10	18.08	33.53	5.50	377	10	18.08	33.53	5.50	24.15	377	0.04
30	17.60	33.49	5.62	369	20	18.08	33.53	5.51	24.15	377	0.08
40	15.21	33.32	6.05	329	30	17.60	33.49	5.62	24.23	369	0.11
55	14.20	33.29	6.07	311	50	14.30	33.28	6.07	24.82	314	0.18
71	13.36	33.41	5.58	286	75	13.30	33.44	5.52	25.15	283	0.26
96	11.35	33.51	4.89	242	100	11.30	33.53	4.85	25.60	240	0.32
116	10.23	33.63	4.26	214	125	9.84	33.69	4.01	25.98	203	0.38
135	9.54	33.75	3.84	194	150	9.18	33.82	3.72	26.19	184	0.43
155	9.10	33.83	3.70	182	200	8.54	33.96	3.12	26.40	163	0.52
184a)	8.86	33.91	3.42	172	250	7.78	34.08	1.98	26.61	144	0.60
218	8.18	34.01	2.75	155	300	7.08	34.14	1.49	26.75	130	0.67
248	7.81	34.08	2.01	144	400	6.63	34.26	0.82	26.91	115	0.79
297	7.11	34.14	1.50	130	500	6.26	34.34	0.41	27.02	105	0.91
351	6.78	34.19	1.16	122							
434	6.53	34.30	0.62	111							
519	6.19	34.34	0.38	104							
9350	BLACK DOUGLAS; October 15, 1960; 0543, 0600 GCT; 32°10'N, 118°52.5'W; sounding, 790 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 18°, 22°.										
2	17.78	33.75	5.56	355	0	(17.78)	(33.75)	(5.56)	(24.39)	(355)	(0.00)
11	17.77	33.76	5.55	354	10	17.77	33.76	5.55	24.40	354	0.04
30	17.78	33.74	5.52	356	20	17.77	33.75	5.53	24.39	355	0.07
40	17.69	33.73b)	5.58	354	30	17.78	33.74	5.52	24.38	356	0.11
54	14.80	33.34	6.17	320	50	15.80	33.47	6.04	24.64	331	0.18
69	14.06	33.55	5.55	290	75	13.65	33.51	5.47	25.13	284	0.25
					100	11.33	33.53	4.90	25.59	240	0.32
92	11.80	33.50c)	5.12	251	125	10.12	33.66	4.22	25.91	210	0.38
111	10.80	33.58	4.57	228	150	9.28	33.81	3.73	26.16	186	0.43
128	9.98	33.68	4.14	207	200	8.41	33.99	3.05	26.44	159	0.51
148	9.32	33.80	3.76	188	250	7.89	34.08	2.30	26.59	145	0.59
208	8.31	34.01	2.95	157	300	7.13	34.14	1.50	26.75	131	0.66
241	8.02	34.06	2.51	149	400	6.56	34.22	1.07	26.89	117	0.79
282	7.36	34.13	1.74	135	500	6.13	34.34	0.40	27.04	103	0.91
333	6.87	34.16	1.28	126							
412	6.52	34.23	1.01	116							
492	6.20	34.33	0.44	105							
575	5.60	34.38	0.33	94							
9360	BLACK DOUGLAS; October 15, 1960; 0020 GCT; 31°52'N, 119°30.5'W; sounding, 1200 fm; wind, 330°, force 5; weather, clear; sea, very rough; wire angle, 04°.										
0	18.13	33.44	5.47	386	0	18.13	33.44	5.47	24.06	386	0.00
10	18.13	33.44	5.49	386	10	18.13	33.44	5.49	24.06	386	0.04
30	18.15	33.44	5.48	386	20	18.14	33.44	5.48	24.06	386	0.08
41	17.58	33.47	5.65	371	30	18.15	33.44	5.48	24.06	386	0.12
56	15.30	33.28	6.00	334	50	16.00	33.31	5.92	24.47	347	0.19
69	13.50	33.32	6.00	295	75	12.99	33.32	5.88	25.12	286	0.27
94	11.78	33.31	5.28	264	100	11.30	33.38	5.06	25.48	251	0.34
114	10.54	33.49	4.70	230	125	10.07	33.51	4.21	25.80	221	0.40
132	9.78	33.53	3.88	214	150	9.08	33.68	3.44	26.09	193	0.45
153	9.00	33.72d)	3.39	189	200	8.24	33.97	3.04	26.45	159	0.54
215	8.07	34.02e)	2.88	152	250	7.77	34.09	2.18	26.61	143	0.62
244	7.80	34.08	2.26	144	300	7.33	34.14	1.53	26.72	134	0.69
292	7.45	34.13	1.67	136	400	6.43	34.22	0.80	26.91	115	0.82
345	6.77	34.17	1.10	124	500	5.90	34.33	0.42	27.06	101	0.93
428	6.26	34.25	0.67	111	600	(5.59)	(34.43)	(0.29)	(27.17)	(91)	(1.03)
512	5.86	34.34	0.39	100							
597	5.60	34.42	0.29	91							

a) Possible pretrip at this level.
b) Alternate value, 33.87‰, not used in interpolation.
c) Alternate value, 33.45‰, not used in interpolation.
d) Alternate value, 33.79‰, not used in interpolation.
e) Alternate value, 34.13‰, not used in interpolation.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

BLACK DOUGLAS; October 14, 1960; 1625 GCT; 31°31.5'N, 120°29'W; sounding, 2000+ fm; wind, 320°, force 6; weather, partly cloudy; sea, very rough; wire angle, 18°. 93.70

0	17.92	33.60	5.63	369	0	17.92	33.60	5.63	24.24	369	0.00
10	17.89	33.59	5.49	369	10	17.89	33.59	5.49	24.24	369	0.04
28	17.90	33.62	5.43	367	20	17.90	33.60	5.44	24.25	368	0.07
38	17.79	33.64	5.44	363	30	17.88	33.62	5.43	24.27	367	0.11
52	13.58	33.31	5.88	297	50	14.50	33.36	5.83	24.84	313	0.18
66	12.15	33.50	4.92	257	75	11.42	33.60	4.33	25.63	237	0.25
90	10.63	33.69	3.78	217	100	10.11	33.73	3.73	25.95	205	0.30
107	9.80	33.76	3.70	198	125	9.20	33.83	3.53	26.18	183	0.35
124	9.24	33.82	3.56	185	150	8.57	33.95	3.06	26.39	165	0.40
142	8.72	33.93	3.17	169	200	7.90	34.08	2.28	26.59	146	0.48
169	8.32	34.01	2.79	157	250	7.28	34.17	1.70	26.75	131	0.55
200	7.90	34.08	2.28	146	300	7.24	34.25	1.05	26.81	125	0.61
226	7.57	34.17	1.99	134	400	6.93	34.42	0.49	26.99	107	0.73
271	7.13	34.17	1.41	129	500	6.07	34.41	0.47	27.10	97	0.84
321	7.36	34.31a)	0.87	121							
399	6.94	34.42	0.48	107							
480	6.24	34.42	0.50	99							
564	5.52	34.38	0.25	92							

BLACK DOUGLAS; October 14, 1960; 1037 GCT; 31°11'N, 121°05'W; sounding, 2000 fm; wind, 330°, force 6; weather, partly cloudy; sea, very rough; wire angle, 22°. 93.80

3	17.96	33.65b)	5.48	365	0	(17.96)	(33.65)	(5.48)	(24.28)	(365)	(0.00)
12	17.97	33.67	5.48	365	10	17.97	33.67	5.48	24.28	365	0.04
35	17.96	33.65	5.42	366	20	17.97	33.66	5.46	24.28	366	0.07
59	13.36	33.47	5.57	281	30	17.97	33.65	5.43	24.27	366	0.11
67	12.40	33.45	5.29	265	50	15.35	33.54	5.51	24.79	316	0.18
98	10.66	33.58	4.30	225	75	11.60	33.49	4.91	25.51	248	0.25
110	10.32	33.76	3.62	206	100	10.63	33.59	4.27	25.76	224	0.31
130	9.70	33.81c)	3.35	193	125	9.97	33.80	3.44	26.05	197	0.36
149	9.01	33.89d)	2.96	176	150	9.00	33.90	2.92	26.28	176	0.41
201	8.64	34.16	1.93	151	200	8.65	34.16	1.93	26.54	151	0.49
228	8.29	34.21	1.51	141	250	7.90	34.22	1.34	26.70	135	0.57
324	6.76e)	34.20	1.10	122	300	6.96	34.20	1.12	26.82	124	0.63
401	6.91	34.23	1.06	121	400	6.92	34.23	1.06	26.85	121	0.76
480	6.23	34.38	0.30	101	500	6.08	34.40	0.27	27.16	98	0.88
562	5.62	34.42f)	0.27	91							

BLACK DOUGLAS; October 14, 1960; 0337 GCT; 30°50'N, 121°41'W; sounding, 2100 fm; wind, 320°, force 5; weather, cloudy; sea, rough; wire angle, 22°. 93.90

2	17.60	33.29	5.42	384	0	(17.60)	(33.29)	(5.42)	(24.08)	(384)	(0.00)
11	17.58	33.29	5.48	384	10	17.58	33.29	5.47	24.08	384	0.04
30	17.58	33.29	5.44	384	20	17.58	33.29	5.46	24.08	384	0.08
56	16.60	33.20	5.76	368	30	17.58	33.29	5.44	24.08	384	0.12
66	14.95	33.38	5.94	320	50	17.58	33.29	5.44	24.08	384	0.19
79	14.49	33.50	5.75	301	75	14.64	33.48	5.80	24.90	306	0.28
92	13.30	33.48	5.60	279	100	12.90	33.51	5.44	24.28	270	0.35
105	12.70	33.53	5.34	265	125	11.07	33.55	4.86	24.65	235	0.42
126	11.06	33.55	4.88	235	150	9.82	33.72	4.43	26.00	202	0.47
143	10.10	33.67	4.56	209	200	8.60	33.93	3.52	26.37	167	0.56
170	9.16	33.84	4.01	182	250	7.78	34.04	2.88	26.58	147	0.64
197	8.66	33.92	3.57	169	300	7.17	34.10	1.78	26.72	134	0.72
222	8.28	34.01	3.35	157	400	6.46	34.24	0.73	26.91	115	0.85
265	7.53	34.05	2.58	143	500	5.88	34.33	0.37	27.06	101	0.96
315	7.05	34.12	1.50	131							
390	6.52	34.23	0.80	116							
467	6.08	34.30	0.38	106							
548	5.60	34.36	0.36	95							

a) Alternate value, 34.40‰, not used in interpolation.
b) Alternate value, 33.70‰, not used in interpolation.
c) Alternate value, 33.90‰, not used in interpolation.
d) Alternate value, 33.95‰, not used in interpolation.
e) The use of this value, based on the reading of one thermometer, results in an unusual density structure.
f) Alternate value, 34.51‰, not used in interpolation.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
93.100	BLACK DOUGLAS; October 13, 1960; 2152, 2215 GCT; 30°28.5'N, 122°19'W; sounding, 2100 fm; wind, 320°, force 5; weather, partly cloudy; sea, rough; wire angle, 15°, 15°.										
0	17.76	33.32	5.43	386	0	17.76	33.32	5.43	24.06	386	0.00
10	17.81	33.31a)	5.59	387	10	17.81	33.31	5.59	24.05	387	0.04
30	17.76	33.31	5.45	386	20	17.79	33.31	5.52	24.06	387	0.08
59	15.02	33.40	5.96	320	30	17.76	33.31	5.45	24.06	386	0.12
69	14.68	33.50	5.76	306	50	17.74	33.32	5.44	24.07	385	0.19
84	14.47	33.73	5.47	284	75	14.40	33.63	5.56	25.07	290	0.28
98	14.00	33.73	5.28	277	100	13.97	33.73	5.26	25.24	276	0.35
113	13.02	33.70	5.09	258	125	12.50	33.68	5.02	25.49	251	0.42
136	11.08	33.58b)	4.80	232	150	10.38	33.62	4.55	25.84	217	0.48
156	10.13	33.65	4.40	211	200	8.80	33.92	3.46	26.32	171	0.57
186	9.02	33.86	3.76	179	250	8.03	34.04	2.68	26.54	151	0.66
216	8.55	33.97	3.12	163	300	7.43	34.09	1.88	26.66	139	0.73
246	8.10	34.03	2.76	152	400	6.68	34.22	0.88	26.87	119	0.87
					500	6.00	34.34	0.43	27.05	102	0.98
295	7.47	34.09	1.93	139	600	(5.45)	(34.36)	(0.33)	(27.14)	(93)	(1.09)
348	7.04	34.16c)	1.34	128							
430	6.47	34.25	0.66	114							
515	5.90	34.35	0.40	100							
599	5.46	34.36	0.34	94							
94.30	SPENCER F. BAIRD; October 22, 1960; 0020 GCT;[d] 32°37.5'N, 117°22.5'W; sounding, 120 fm; wind, 280°, force 1; weather, cloudy; sea, moderate; wire angle, 07°.										
2	20.64	33.70 6	5.48								
7	16.26	33.54 3	6.64								
12	14.82	33.52 2	6.11								
17	14.12	33.49 9	5.89								
22	12.86	33.47 4	4.92								
28	12.28	33.49 6	4.67								
32	12.21	33.55 9	4.27								
37	12.11	33.56 4	4.24								
42	12.03	33.60 3	3.84								
47	11.92	33.60 9	3.79								
53	11.83	33.63 3	3.64								
58	11.76	33.63 2	3.65								
63	11.76	33.64 3	3.63								
68	11.69	33.65 3	3.59								
72	11.58	33.65 6	3.52								
77	11.41	33.68 5	3.46								
82	10.98	33.77 5	3.03								
86	10.82	33.81 0	2.80								

a) Alternate value, 33.38‰, not used in interpolation.
b) Mean value of 33.56 and 33.61‰.
c) Mean value of 34.13 and 34.20‰.
d) Test cast.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED			
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m	

HUGH M. SMITH; October 6, 1960; 2320 GCT;[a] 32°24'N, 117°20'W; sounding, 345 fm; wind, 320°, force 4; weather, clear; sea, rough; wire angle, 10°. 95.31

1	19.63	33.63 5	5.53									
11	18.30	33.60 1	5.83									
21	13.68	33.49 3	5.36									
29	12.89	33.53 7	4.51									
40	12.32	33.62 6	3.79									
50	11.98	33.63 3	3.66									
60	11.71	33.66 7	3.58									
70	11.58	33.68 2	3.39									
79	11.44	33.71 1	3.20b)									
90	11.33	33.72 8	3.03c)									
99	11.26	33.73 9	3.05									
109	11.18	33.75 2	2.93									
119	11.04	33.77 9	2.84									
129	10.86	33.82 3	2.72									
139	10.74	33.83 9	2.62									
149	10.38	33.86 6	2.66									
159	10.18	33.93 6	2.29									
169	10.16	33.95 9	2.28									

HUGH M. SMITH; October 7, 1960; 1201 GCT; 31°40.5'N, 116°47'W; sounding, 230 fm; wind, 340°, force 3; weather, clear; sea, moderate; wire angle, 12°. 100.30

1	16.00	33.44 2	5.61	337	0	(16.00)	(33.44)	(5.61)	(24.57)	(337)	(0.00)
10d)	15.57	33.42 6	5.68	329	10	15.57	33.43	5.68	24.66	329	0.03
29	13.04	33.54 4	4.36	270	20	13.04	33.50	4.47	25.24	274	0.06
47	12.71	33.57 7	3.89	261	30	13.04	33.55	4.35	25.28	270	0.09
69	12.25	33.64 4	3.23	249	50	12.66	33.59	3.78	25.39	260	0.14
91	11.72	33.71 0	3.02	234	75	12.12	33.67	3.13	25.55	244	0.21
113	11.30	33.75 1	3.03	224	100	11.55	33.73	3.02	25.71	229	0.27
147	10.34	34.01 2	1.96	188	125	10.87	33.83	2.64	25.91	210	0.32
182	9.88	34.22 1	1.62	165	150	10.30	34.06	1.92	26.17	184	0.37
225	9.32	34.25 1	1.22	154	200	9.62	34.23	1.43	26.44	160	0.46
270	8.96	34.31 8	0.95	143	250	9.10	34.29	1.04	26.57	148	0.54

HUGH M. SMITH; October 7, 1960; 1540 GCT; 31°28'N, 117°08'W; sounding, 580 fm; wind, 320°, force 4; weather, partly cloudy; sea, moderate; wire angle, 27°. 100.35

1	19.22	33.64 1	5.13e)	397	0	(19.22)	(33.64)	(5.13)	(23.95)	(397)	(0.00)
10	19.16	33.63	5.13f)	397	10	19.16	33.63	5.13	23.95	397	0.04
28	13.82	33.38	5.60g)	297	20	16.90	33.51	5.33	24.41	353	0.08
36	13.00	33.43	5.20	277	30	13.45	33.40	5.49	25.08	289	0.11
50	12.68	33.48	4.89	268	50	12.68	33.48	4.89	25.30	268	0.17
63	11.76	33.57	4.08	245	75	11.59	33.59	4.01	25.59	240	0.23
84	11.40	33.61	3.96	236	100	10.65	33.65	3.70	25.80	220	0.29
100	10.65	33.65	3.70	220	125	9.97	33.79	3.08	26.03	199	0.34
116	10.24	33.75	3.24	206	150	9.86	33.91	2.59	26.15	188	0.39
133	9.84	33.82	2.96	195	200	9.47	34.09	1.98	26.35	169	0.48
158	9.86	33.96	2.39	184	250	8.97	34.16	1.72	26.48	156	0.56
186	9.68	34.09	1.90	172	300	8.32	34.26	0.94	26.67	138	0.64
211	9.33	34.08 4	2.01	166	400	7.40	34.30	0.60	26.84	122	0.78
250	8.97	34.15 7	1.72	156	500	6.25	34.34	0.36	27.03	104	0.90
297	8.34	34.25 9	0.97	139							
370	7.78	34.28 9	0.72	128							
446	6.86	34.32 5	0.46	113							
526	6.00	34.35 0	0.34	101							

a) Test cast.
b) Alternate value, 3.32 ml/L, not used in interpolation.
c) Alternate value, 3.26 ml/L, not used in interpolation.
d) Possible pretrip beginning at 10 meters.
e) Alternate value, 5.25 ml/L, not used in interpolation.
f) Alternate value, 5.30 ml/L, not used in interpolation.
g) Alternate value, 5.77 ml/L, not used in interpolation.

S10

CCOFI 6009-10

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

100.40 HUGH M. SMITH; October 7, 1960; 1921 GCT; 31°15'N, 117°25.5'W; sounding, 1080 fm; wind, 020°, force 5; weather, cloudy; sea, rough; wire angle, 32°.

2	20.93	33.76	4.88	431	0	(20.93)	(33.76)		(23.59)	(431)	(0.00)
10	20.94	33.74	4.81	433	10	20.94	33.74	4.81	23.57	433	0.04
31	16.94	33.48	5.72	355	20	20.00	33.67	5.05	23.77	414	0.09
40	15.90	33.48	5.66	333	30	17.05	33.49	5.70	24.36	357	0.12
52	13.66	33.39	5.47	294	50	13.74	33.39	5.48	25.02	295	0.19
65	12.96	33.40	5.23	279	75	12.60	33.49	4.69	25.32	266	0.26
84	11.94	33.58	3.84	247	100	11.37	33.66	3.72	25.69	231	0.32
100	11.37	33.66	3.72	231	125	10.66	33.79	3.09	25.92	210	0.38
117	10.83	33.76	3.19	215	150	10.28	33.87	2.77	26.05	197	0.43
140	10.30	33.84	2.94	200	200	9.24	33.94	2.58	26.27	176	0.53
164	10.20	33.92	2.55	192	250	8.93	34.18	1.46	26.51	153	0.61
196	9.30	33.93 a)	2.60b)	177	300	8.38	34.25	1.01	26.65	140	0.69
221	9.07	34.06 5	2.05	165	400	7.31	34.31	0.52	26.85	121	0.82
261	8.87	34.22 0	1.28	149	500	6.55	34.34	0.31	26.98	108	0.94
315	8.20	34.25 8	0.95	137							
402	7.28	34.31 2	0.51	120							
481	6.68	34.33 1	0.34	111							
557	6.20	34.35 0	0.28	103							

100.50 HUGH M. SMITH; October 8, 1960; 0221 GCT; 31°00'N, 118°07'W; sounding, 935 fm; wind, 320°, force 6; weather, partly cloudy; sea, very rough; wire angle, 20°.

1	21.18	33.89	4.90	428	0	(21.18)	(33.89)	(4.90)	(23.62)	(428)	(0.00)
10	21.20	33.88	4.82	429	10	21.20	33.88	4.82	23.61	429	0.04
34	15.75	33.58	5.66	322	20	21.20	33.88	4.82	23.61	429	0.09
43	13.88	33.58	5.02	284	30	16.90	33.62	5.50	24.50	344	0.12
57	13.03	33.58	4.51	268	50	13.44	33.58	4.76	25.22	276	0.19
71	11.36	33.56	4.13	239	75	11.23	33.56	4.11	25.63	236	0.25
95	10.28	33.63	3.72	215	100	10.08	33.66	3.63	25.91	210	0.31
115	9.57	33.75	3.37	195	125	9.30	33.77	3.28	26.13	189	0.36
134	9.15	33.82	3.16	184	150	9.39	34.07	2.00	26.36	169	0.40
162	9.55	34.19	1.54	163	200	9.17	34.25	1.18	26.52	152	0.48
191	9.18	34.22	1.36	155	250	9.05	34.37	0.66	26.63	142	0.56
228	9.16	34.33	0.78	146	300	8.72	34.38	0.60	26.70	135	0.63
257	9.02	34.37 6	0.61	140	400	7.72	34.37	0.40	26.84	122	0.77
305	8.68	34.38 1	0.59	135	500	6.84	34.37	0.37	26.96	110	0.89
371	8.00	34.36 7	0.47	126	600	5.98	34.35	0.35	27.07	100	1.00
467	7.14	34.38 2	0.36	112							
554	6.36	34.34 6	0.37	106							
629	5.78	34.36 6	0.27	97							

a) Alternate value, 33.92‰, not used in interpolation.
b) Alternate value, 2.84 ml/L, not used in interpolation.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

HUGH M. SMITH; October 8, 1960; 0916 GCT; 30°37'N, 118°43.5'W; sounding, 1400 fm; wind, 320°, force 5; weather, cloudy; sea, very rough; wire angle, 25°. 100.60

2	18.79	33.38	5.04	406	0	(18.79)	(33.38)	(5.04)	(23.85)	(406)	(0.00)
11	18.80	33.38	4.94	406	10	18.80	33.38	4.95	23.85	406	0.04
34	18.45	33.34	5.00a)	400	20	18.80	33.38	4.94	23.85	406	0.08
43	18.32	33.35	5.15b)	396	30	18.62	33.36	4.97	23.88	404	0.12
56	17.32	33.31	5.28c)	376	50	17.77	33.32	5.26	24.07	385	0.20
70	16.19	33.41	5.32d)	344	75	15.93	33.42	5.36	24.57	337	0.29
93	14.96	33.42	5.55	317	100	14.54	33.43	5.51	24.88	308	0.37
111	13.88	33.45	5.30	293	125	12.91	33.50	5.01	25.27	271	0.45
130	12.57	33.52	4.92	263	150	11.59	33.62	4.62	25.61	238	0.51
158	11.12	33.66	4.50	227	200	9.12	33.82	3.38	26.19	183	0.62
185	9.50	33.74	3.62	195	250	8.27	33.98	2.75	26.46	158	0.71
222	8.71	33.92	3.13	169	300	7.50	34.04	2.08	26.62	143	0.78
251	8.26	33.98 1	2.74	158	400	6.47	34.17	0.93	26.86	120	0.92
297	7.53	34.03 6	2.11	144	500	5.95	34.27	0.37	27.01	106	1.04
358	6.72	34.11 5	1.26	127	600	5.52	34.34	0.29	27.11	96	1.15
451	6.22	34.23 8	0.59	112							
536	5.78	34.30 3	0.27	102							
608	5.48	34.34 5	0.30	96							

HUGH M. SMITH; October 8, 1960; 1600 GCT; 30°13'N, 119°20'W; sounding, 2100 fm; wind, 320°, force 5; weather, partly cloudy; sea, very rough; wire angle, 20°. 100.70

3	18.98	33.58	-	396	0	(18.98)	(33.58)		(23.96)	(396)	(0.00)
12	19.00	33.54	4.76	399	10	18.99	33.55	4.79	23.93	398	0.04
36	18.82	33.53	4.97	395	20	18.94	33.53	4.82	23.94	398	0.08
45	18.80	33.54	4.99	394	30	18.86	33.53	4.90	23.95	397	0.12
59	16.88	33.45	5.36	357	50	18.48	33.52	5.05	24.04	387	0.20
73	16.21	33.52	5.40	337	75	16.02	33.51	5.40	24.64	332	0.29
97	14.09	33.34	5.45	306	100	13.80	33.35	5.40	24.98	299	0.37
115	13.56	33.42	5.22	289	125	13.04	33.45	5.03	25.20	277	0.44
133	12.52	33.49	4.85	264	150	11.52	33.58	4.52	25.60	239	0.51
161	10.88	33.66	4.32	223	200	8.92	33.88	3.59	26.28	175	0.61
184	9.22	33.84	3.70	183	250	8.07	33.99	3.05	26.50	154	0.70
225	8.42	33.97	3.38	161	300	7.43	34.02	2.54	26.61	144	0.77
254	8.00	33.99 4	3.00	154	400	6.57	34.15	1.17	26.83	123	0.91
300	7.43	34.02 1	2.54	144	500	5.86	34.25	0.60	27.00	107	1.03
361	6.84	34.10 9	1.52	130	600	5.34	34.34	0.51	27.13	94	1.14
456	6.18	34.21 1	0.73	113							
542	5.58	34.28 1	0.51	101							
615	5.30	34.34 8	0.52	93							

a) Alternate value, 5.16 ml/L, not used in interpolation.
b) Alternate value, 5.36 ml/L, not used in interpolation.
c) Alternate value, 5.43 ml/L, not used in interpolation.
d) Alternate value, 5.51 ml/L, not used in interpolation.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

100.80 HUGH M. SMITH; October 8, 1960; 2215 GCT; 29°53'N, 119°59'W; sounding, 2000 fm; wind, 320°, force 6; weather, cloudy; sea, high; wire angle, 27°.

3	19.10	33.57	5.05	400	0	(19.10)	(33.57)	(5.05)	(23.92)	(400)	(0.00)
12	19.10	33.54	5.05	401	10	19.10	33.54	5.05	23.90	401	0.04
34	19.12	33.54	4.91	401	20	19.11	33.54	4.98	23.90	401	0.08
44	19.08	33.57	5.01	399	30	19.12	33.54	4.91	23.90	401	0.12
56	18.06	33.58	5.23	373	50	19.05	33.58	5.02	23.94	397	0.20
70	16.42	33.46	5.40	345	75	16.10	33.48	5.40	24.58	337	0.29
92	15.82	33.67	5.40	317	100	15.10	33.66	5.25	24.94	302	0.37
109	15.13	33.68	5.24	302	125	13.64	33.53	5.18	25.15	282	0.45
127	13.42	33.52	5.17	279	150	11.88	33.64	4.63	25.58	241	0.51
154	11.62	33.65	4.53	236	200	9.48	33.75	3.88	26.09	193	0.62
180	10.38	33.62	4.19	217	250	8.35	33.94	3.34	26.41	163	0.72
214	9.04	33.84	3.72	180	300	7.57	34.00	2.30	26.57	147	0.80
239	8.54	33.92 2	3.50	166	400	6.53	34.11	1.10	26.80	125	0.94
283	7.83	33.98 6	2.66	152	500	5.82	34.21	0.57	26.97	109	1.06
339	7.07	34.04 2	1.59	137	600	(5.22)	(34.30)	(0.39)	(27.12)	(96)	(1.17)
428	6.30	34.14 0	0.91	120							
509	5.76	34.21 9	0.53	108							
581	5.33	34.27 9	0.39	98							

100.90 HUGH M. SMITH; October 9, 1960; 0610 GCT; 29°33.5'N, 120°44'W; sounding, 2200 fm; wind, 320°, force 5; weather, missing; sea, high; wire angle, 25°.

2	18.38	33.34	4.89	398	0	(18.38)	(33.34)	(4.89)	(23.93)	(398)	(0.00)
11	18.38	33.34	4.80	399	10	18.38	33.33	4.81	23.93	399	0.04
34	18.35	33.33	4.64	398	20	18.37	33.33	4.75	23.93	398	0.08
43	17.82	33.31	4.65	388	30	18.36	33.33	4.70	23.93	398	0.12
57	16.56	33.24	5.00	364	50	17.19	33.27	4.85	24.17	376	0.20
70	15.28	33.28	4.78	334	75	15.05	33.32	4.84	24.69	327	0.29
94	14.24	33.48	5.28	298	100	13.91	33.51	5.25	25.08	289	0.36
113	12.82	33.52	5.00	268	125	11.86	33.52	4.70	25.49	250	0.43
132	11.26	33.52	4.54	240	150	10.08	33.57	4.07	25.84	217	0.49
164	9.43	33.68	3.72	199	200	8.73	33.89	3.27	26.32	172	0.59
192	8.94	33.85	3.33	178	250	7.82	34.00	2.91	26.54	151	0.67
231	8.05	33.99	3.08	155	300	7.02	34.03	2.11	26.68	138	0.75
259	7.64	34.00 7	2.73	148	400	6.22	34.15	0.99	26.88	118	0.88
307	6.94	34.04 4	1.98	136	500	5.62	34.25	0.46	27.03	104	1.00
369	6.40	34.12 1	1.14	123	600	5.13	34.33	0.33	27.15	92	1.10
467	5.79	34.22 1	0.61	108							
554	5.35	34.29 6	0.30	97							
628	5.00	34.35 6	0.39	89							

100.100 HUGH M. SMITH; October 9, 1960; 1231 GCT; 29°20'N, 121°22'W; sounding, 2000+ fm; wind, 320°, force 5; weather, cloudy; sea, high; wire angle, 24°.

1	17.94	33.25	5.24	395	0	(17.94)	(33.25)	(5.24)	(23.97)	(395)	(0.00)
10	17.96	33.25	5.20	396	10	17.96	33.25	5.20	23.96	396	0.04
33	17.96	33.25	5.21	396	20	17.96	33.25	5.20	23.96	396	0.08
42	17.66	33.27	5.25	387	30	17.96	33.25	5.21	23.96	396	0.12
56	16.62	33.26	5.41	364	50	17.08	33.27	5.34	24.19	374	0.20
70	15.30	33.25	5.58	337	75	14.84	33.25	5.57	24.68	327	0.28
92	14.35	33.51	5.32	298	100	14.14	33.56	5.22	25.07	290	0.36
111	13.43	33.58	5.07	275	125	12.07	33.51	4.83	25.44	255	0.43
127	11.94	33.50	4.79	253	150	10.44	33.56	4.27	25.78	223	0.49
153	10.24	33.58	4.20	219	200	8.72	33.85	3.24	26.28	175	0.59
181	9.16	33.73	3.70	190	250	8.09	34.04	2.17	26.53	152	0.68
217	8.46	33.94	2.83	164	300	7.37	34.08	1.62	26.67	139	0.75
244	8.16	34.01 6	2.25	153	400	6.34	34.13	1.00	26.85	121	0.89
288	7.52	34.07 5	1.68	141	500	5.61	34.23	0.46	27.02	105	1.00
346	6.83	34.09 7	1.38	130	600	(5.17)	(34.31)	(0.33)	(27.13)	(94)	(1.11)
437	6.05	34.17 3	0.76	115							
518	5.52	34.25 2	0.84	102							
590	5.21	34.31 0	0.33	95							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

HUGH M. SMITH; October 10, 1960; 0039 GCT; 28°36'N, 122°47'W; sounding, 2000+ fm; wind, 310°, force 5; weather, cloudy; sea, high; wire angle, 18°. 100.120

2	19.08	33.72	4.99	388	0	(19.08)	(33.72)	(4.99)	(24.04)	(388)	(0.00)
11	19.10	33.72	5.06	388	10	19.10	33.72	5.05	24.04	388	0.04
35	19.12	33.75	5.08	387	20	19.11	33.73	5.06	24.04	388	0.08
64	17.95	33.76	5.29	358	30	19.11	33.74	5.07	24.05	387	0.12
73	17.46	33.93	5.29	334	50	19.20	33.79	5.10	24.07	385	0.19
92	16.91	34.00	5.20	317	75	17.47	33.95	5.29	24.61	333	0.28
106	16.94	34.17	5.20	305	100	17.00	34.12	5.20	24.86	310	0.37
120	16.54	34.17	4.95	296	125	16.35	34.16	4.90	25.04	293	0.44
148	14.93	34.02	4.83	272	150	14.80	34.01	4.83	25.27	271	0.51
168	12.94	33.85	4.71	246	200	10.45	33.75	4.27	25.92	209	0.64
195	10.60	33.74	4.29	212	250	9.03	33.89	3.77	26.26	177	0.73
228	9.78	33.80	4.12	195	300	8.09	33.98	3.29	26.48	156	0.82
256	8.90	33.90 1	3.70	173	400	6.60	34.06	1.67	26.75	130	0.97
303	8.01	33.98 2	3.26	155	500	5.82	34.19	0.68	26.96	111	1.09
364	7.05	34.02 8	2.17	138	600	5.27	34.29	0.40	27.10	97	1.20
461	6.04	34.13 5	0.96	117							
547	5.54	34.24 3	0.48	103							
622	5.16	34.30 2	0.39	95							

HUGH M. SMITH; October 12, 1960; 2145 GCT; 29°40'N, 116°04.5'W; sounding, 1100 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 21°. 110.35

1	17.62	33.52	5.31	368	0	(17.62)	(33.52)	(5.31)	(24.25)	(368)	(0.00)
10	17.58	33.52	5.42	367	10	17.58	33.52	5.42	24.26	367	0.04
29	15.85	33.47	5.64	332	20	17.32	33.52	5.51	24.33	361	0.07
39	14.62	33.44	5.47	309	30	15.80	33.47	5.64	24.64	331	0.11
53	13.76	33.53	4.80	284	50	13.94	33.51	4.98	25.06	291	0.17
66	12.90	33.57	4.25	266	75	12.40	33.59	4.07	25.43	255	0.24
91	11.78	33.64	3.74	240	100	11.54	33.67	3.52	25.66	234	0.30
108	11.36	33.70	3.33	228	125	10.81	33.77	3.07	25.87	214	0.36
127	10.78	33.79	3.02	212	150	10.74	34.01	1.79	26.07	195	0.41
145	10.83	33.98	1.88	198	200	9.05	34.10	2.04	26.43	161	0.50
172	10.02	34.13	1.74	174	250	8.57	34.19	1.49	26.58	147	0.58
203	8.94	34.10	2.06	160	300	8.48	34.32	0.95	26.69	137	0.65
232	8.62	34.13 6	1.78	152	400	7.54	34.33	0.50	26.84	122	0.79
277	8.54	34.28 0	1.09	140	500	6.44	34.36	0.30	27.01	106	0.91
327	8.34	34.34 1	0.80	132							
406	7.45	34.33 3	0.47	121							
485	6.53	34.35 2	0.32	107							
568	6.00	34.37 1	0.28	99							

HUGH M. SMITH; October 12, 1960; 1834 GCT; 29°27'N, 116°22'W; sounding, 825 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 18°. 110.40

1	19.82	33.63	5.06	412	0	(19.82)	(33.63)	(5.06)	(23.78)	(412)	(0.00)
10	19.84	33.63	5.02	412	10	19.84	33.63	5.02	23.78	412	0.04
30	17.26	33.35	5.51	372	20	19.83	33.63	5.02	23.78	412	0.08
39	15.60	33.32	5.70	338	30	17.26	33.35	5.51	24.21	372	0.12
53	14.20	33.39	5.48	304	50	14.73	33.36	5.60	24.79	317	0.19
68	12.86	33.49	4.89	271	75	12.50	33.50	4.80	25.35	263	0.26
91	12.12	33.54	4.67	253	100	11.73	33.57	4.54	25.55	244	0.33
110	11.24	33.60	4.34	233	125	10.44	33.70	3.83	25.88	213	0.39
128	10.25	33.72	3.72	208	150	9.72	33.88	3.09	26.14	188	0.44
148	9.75	33.87	3.11	189	200	9.32	34.14	1.94	26.41	163	0.53
175	9.52	33.99	2.62	176	250	9.20	34.31	1.19	26.56	148	0.61
208	9.28	34.18	1.78	159	300	8.88	34.37	0.87	26.66	139	0.68
235	9.21	34.26 7	1.40	151	400	7.84	34.37	0.58	26.82	124	0.82
280	9.11	34.36 9	0.89	142	500	6.72	34.37	0.39	26.98	108	0.94
330	8.56	34.35 7	0.84	134							
409	7.74	34.36 9	0.54	122							
488	6.81	34.37 1	0.40	109							
569	6.19	34.38 5	0.37	100							

S10

CCOFI 6009-10

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

110.50 HUGH M. SMITH; October 12, 1960; 1301 GCT; 29°12'N, 116°56.5'W; sounding, 1950 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 10°.

1	20.09	33.64	4.95	419	0	(20.09)	(33.64)	(4.95)	(23.72)	(419)	(0.00)
11	20.12	33.64	4.92	419	10	20.12	33.64	4.92	23.72	419	0.04
31	20.00	33.62	4.99	418	20	20.06	33.63	4.96	23.72	418	0.08
40	17.38	33.37	5.52	373	30	20.01	33.62	4.98	23.73	418	0.13
55	14.94	33.34	5.57	323	50	16.10	33.34	5.57	24.47	347	0.20
70	14.04	33.38	5.31	301	75	13.81	33.40	5.20	25.01	296	0.28
95	13.58	33.56	4.88	279	100	13.32	33.58	4.69	25.26	272	0.35
114	12.45	33.64	4.19	253	125	11.62	33.67	3.89	25.64	236	0.42
134	11.16	33.72	3.60	224	150	10.67	33.81	3.19	25.93	209	0.48
154	10.54	33.82	3.13	205	200	9.12	33.92	2.89	26.28	175	0.57
184	9.28	33.86	3.08	183	250	8.62	34.11	2.01	26.50	154	0.66
218	8.94	34.00	2.54	166	300	8.00	34.16	1.48	26.63	141	0.73
247	8.66	34.09 9	2.06	155	400	7.16	34.27	0.67	26.85	121	0.87
296	8.05	34.15 6	1.51	142	500	6.36	34.34	0.32	27.01	106	0.99
349	7.50	34.22 0	1.04	130	600	5.70	34.38	0.24	27.12	95	1.10
431	6.96	34.31 0	0.48	116							
515	6.23	34.34 4	0.29	104							
600	5.70	34.37 9	0.24	95							

110.60 HUGH M. SMITH; October 12, 1960; 0651 GCT; 28°54.5'N, 117°36.5'W; sounding, 1920 fm; wind, 330°, force 4; weather, partly cloudy; sea, rough; wire angle, 13°.

1	20.20	33.61	4.88	423	0	(20.20)	(33.61)	(4.88)	(23.67)	(423)	(0.00)
10	20.24	33.61	4.86	424	10	20.24	33.61	4.86	23.66	424	0.04
30	20.24	33.61	4.85	424	20	20.24	33.61	4.86	23.66	424	0.08
40	18.94	33.52	5.18	398	30	20.24	33.61	4.85	23.66	424	0.13
55	16.82	33.44	5.49	355	50	17.14	33.44	5.46	24.31	362	0.21
69	15.66	33.41	5.50	333	75	15.50	33.43	5.48	24.68	327	0.29
94	14.24	33.51	5.26	296	100	13.85	33.53	5.13	25.10	287	0.37
114	12.85	33.58	4.63	264	125	12.06	33.62	4.20	25.53	246	0.44
133	11.46	33.65	3.91	234	150	10.86	33.70	3.62	25.81	219	0.50
153	10.76	33.72	3.56	216	200	9.43	33.97	2.44	26.26	177	0.60
182	9.94	33.92	2.67	188	250	9.30	34.23	1.51	26.49	155	0.68
216	9.16	34.03	2.27	168	300	8.61	34.28	1.14	26.64	141	0.76
245	9.34	34.21 8	1.56	157	400	7.63	34.34	0.56	26.83	123	0.90
293	8.64	34.27 0	1.19	142	500	6.47	34.32	0.37	26.98	109	1.02
348	8.30	34.34 1	0.71	132	600	(5.71)	(34.37)	(0.27)	(27.12)	(96)	(1.13)
430	7.26	34.33 5	0.48	118							
513	6.34	34.32 4	0.35	107							
599	5.72	34.37 1	0.27	96							

110.65 HUGH M. SMITH; October 12. 1960; 0328 GCT;[a] 28°45.5'N, 117°58'W; sounding, 1950 fm; wind, 330°, force 2; weather, cloudy; sea, rough; wire angle, 08°.

432	7.02	34.30 5	0.76
435	6.94	34.29 9	0.59
438	6.89	34.29 4	0.54
463	6.66	34.31 0	0.46
466	6.66	34.31 5	0.36
469	6.58	34.30 8	0.42
493	6.47	34.33 6	0.33
496	6.43	34.33 8	0.37
498	6.36	34.33 5	0.32
523	6.27	34.35 3	0.26
526	6.24	34.35 1	0.31
529	6.19	34.35 7	0.28
554	5.98	34.35 8	0.26
557	5.96	34.37 1	0.28
560	5.91	34.36 7	0.28
584	5.74	34.38 5	0.30
587	5.75	34.38 1	0.29
590	5.73	34.37 9	0.28

a) Test cast.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

HUGH M. SMITH: October 11, 1960; 1705 GCT; 28°38.5'N, 118°13'W; sounding, 1800 fm; wind, 330°, force 3; weather, partly cloudy; sea, very rough; wire angle, 03°. 110.70

1	21.14	33.79	5.00	434	0	(21.14)	(33.79)	(5.00)	(23.56)	(434)	(0.00)
11	21.15	33.79	5.01	435	10	21.15	33.79	5.01	23.55	435	0.04
31	21.07	33.78	5.01	433	20	21.10	33.78	5.01	23.56	434	0.09
41	17.90	33.44	5.74	380	30	21.07	33.78	5.01	23.57	433	0.13
56	16.38	33.41	5.82	348	50	16.83	33.41	5.80	24.35	358	0.21
71	15.54	33.42	5.76	329	75	15.22	33.43	5.68	24.74	322	0.30
96	13.64	33.55	5.12	281	100	13.27	33.57	5.01	25.25	273	0.37
116	11.92	33.60	4.77	245	125	11.44	33.65	4.35	25.67	233	0.43
136	10.97	33.69	3.96	223	150	10.42	33.71	4.07	25.89	212	0.49
156	10.20	33.72	4.07	207	200	8.95	33.93	3.27	26.31	172	0.59
186	9.25	33.86	3.60	182	250	8.29	34.07	2.30	26.52	152	0.67
222	8.60	34.00	2.85	162	300	8.07	34.20	1.45	26.66	139	0.75
252	8.28	34.07 4	2.28	152	400	7.48	34.33	0.60	26.84	122	0.88
302	8.06	34.20 9	1.39	139	500	6.52	34.35	0.39	26.99	107	1.00
357	7.79	34.27 9	0.92	129	600	5.92	34.40	0.26	27.12	95	1.11
442	7.09	34.34 6	0.42	115							
527	6.29	34.35 5	0.35	104							
611	5.86	34.40 7	0.25	95							

HUGH M. SMITH; October 11, 1960; 1234 GCT; 28°21.5'N, 118°45'W; sounding, 2000+ fm; wind, 320°, force 3; weather, cloudy; sea, very rough; wire angle, 02°. 110.80

2	21.17	33.96	4.86	423	0	(21.17)	(33.96)	(4.86)	(23.68)	(423)	(0.00)
12	21.22	33.96	4.89	425	10	21.21	33.96	4.88	23.66	424	0.04
32	21.21	33.96	4.86	424	20	21.21	33.96	4.87	23.66	424	0.08
42	17.58	33.56	5.65	364	30	21.21	33.96	4.86	23.66	424	0.13
57	14.80	33.60	5.15	301	50	16.10	33.59	5.43	24.66	329	0.20
72	12.64	33.56	4.49	261	75	12.50	33.57	4.41	25.40	258	0.28
100	11.18	33.68	3.70	226	100	11.18	33.68	3.70	25.74	226	0.34
120	10.16	33.73	3.73	206	125	10.09	33.78	3.57	26.00	201	0.39
140	9.90	33.92	2.74	188	150	9.78	33.95	2.70	26.19	184	0.44
160	9.60	33.98	2.64	178	200	8.94	34.14	1.85	26.47	146	0.53
190	8.94	34.10	2.02	160	250	8.48	34.24	1.13	26.63	142	0.60
225	9.00	34.26	1.19	148	300	7.97	34.27	0.90	26.73	132	0.68
255	8.38	34.24 4	1.12	141	400	6.96	34.31	0.48	26.90	116	0.81
305	7.92	34.27 2	0.88	132	500	6.16	34.35	0.28	27.04	103	0.92
361	7.40	34.30 2	0.59	123	600	5.60	34.38	0.23	27.13	94	1.03
448	6.45	34.33 2	0.34	108							
532	6.02	34.36 2	0.26	100							
618	5.48	34.38 7	0.23	92							

HUGH M. SMITH; October 11, 1960; 0647 GCT; 27°58.5'N, 119°30'W; sounding, 2125 fm; wind, 340°, force 2; weather, partly cloudy; sea, rough; wire angle, 10°. 110.90

1	21.04	33.84	4.88	428	0	(21.04)	(33.84)	(4.88)	(23.62)	(428)	(0.00)
11	21.08	33.85	4.88	429	10	21.08	33.85	4.88	23.61	429	0.04
30	20.81	33.81	4.98	425	20	21.05	33.84	4.91	23.63	427	0.09
40	17.20	33.47	5.68	362	30	20.81	33.81	4.98	23.66	425	0.13
55	15.67	33.48	5.40	328	50	16.03	33.47	5.50	24.59	336	0.20
70	14.80	33.50	5.38	308	75	14.70	33.51	5.37	24.91	305	0.29
95	13.50	33.54	5.00	279	100	13.18	33.54	4.90	25.25	273	0.36
114	12.27	33.55	4.64	256	125	11.52	33.56	4.33	25.58	241	0.42
134	11.02	33.60	4.10	230	150	10.48	33.72	3.61	25.89	212	0.48
154	10.34	33.76	3.45	206	200	9.73	34.05	2.19	26.28	175	0.58
184	9.86	33.98	2.52	183	250	8.74	34.12	1.93	26.49	155	0.66
219	9.50	34.11	1.97	167	300	8.64	34.26	1.23	26.63	142	0.74
248	8.76	34.11 6	1.94	155	400	6.44	34.16	1.00	26.86	120	0.88
297	8.69	34.26 5	1.21a)	143	500	6.27	34.32	0.44	27.01	106	1.00
350	6.91	34.12 5	1.37b)	129	600	(5.64)	(34.39)	(0.29)	(27.14)	(93)	(1.11)
432	6.26	34.19 7	0.74	116							
514	6.23	34.34 4	0.39	104							
598	5.65	34.39 1	0.29	94							

a) Alternate value, 1.16 ml/L, not used in interpolation.
b) Alternate value, 1.40 ml/L, not used in interpolation.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
110.100	HUGH M. SMITH; October 11, 1960; 0016 GCT; 27°36'N, 120°18'W; sounding, 2000+ fm; wind, 310°, force 3; weather, partly cloudy; sea, rough; wire angle, 10°.										
2	20.21	33.61	4.93	424	0	(20.21)	(33.61)	(4.93)	(23.66)	(424)	(0.00)
12	20.12	33.61	5.01	422	10	20.13	33.60	5.00	23.68	422	0.04
32	20.04	33.62	4.94	419	20	20.07	33.61	4.98	23.70	420	0.08
61	16.91	33.49	5.43	354	30	20.05	33.61	4.95	23.71	419	0.13
71	16.80	33.61	5.35	343	50	19.90	33.60	4.98	23.74	416	0.21
85	16.16	33.68	5.30	321	75	16.90	33.66	5.34	24.53	341	0.31
100	15.40	33.74	5.14	303	100	15.40	33.74	5.14	24.94	303	0.39
115	14.07	33.75	4.78	275	125	13.63	33.75	4.63	25.32	266	0.46
138	13.01	33.74	4.44	256	150	12.27	33.72	4.24	25.57	243	0.52
158	11.72	33.73	4.09	233	200	9.49	33.86	3.44	26.17	185	0.63
188	10.00	33.81	3.61	197	250	8.48	34.02	2.70	26.45	158	0.72
216	8.99	33.91	3.27	174	300	7.86	34.11	1.90	26.62	143	0.80
245	8.54	34.00 4	2.82	160	400	7.01	34.22	0.95	26.83	123	0.94
293	7.92	34.10 0	1.97	144	500	6.50	34.34	0.40	26.98	108	1.06
348	7.44	34.15 9	1.44	134	600	5.83	34.39	0.22	27.12	96	1.17
435	6.78	34.26 9	0.65	117							
519	6.40	34.35 6	0.34	105							
605	5.78	34.39 3	0.22	95							
110.120	HUGH M. SMITH; October 10, 1960; 1359 GCT; 27°04'N, 121°37'W; sounding, 2200 fm; wind, 310°, force 4; weather, partly cloudy; sea, very rough; wire angle, 07°.										
1	20.36	33.84	5.00	411	0	(20.36)	(33.84)	(5.00)	(23.80)	(411)	(0.00)
11	20.36	33.84	4.98	410	10	20.36	33.85	4.98	23.81	410	0.04
31	20.38	33.84	4.93	412	20	20.37	33.84	4.95	23.80	411	0.08
41	20.38	33.84	4.95	412	30	20.38	33.84	4.93	23.79	412	0.12
56	18.17	33.65	5.39	371	50	19.75	33.77	5.08	23.91	400	0.20
70	17.35	33.74	5.45	346	75	17.17	33.76	5.44	24.54	340	0.30
95	16.48	33.81	5.40	321	100	16.30	33.83	5.34	24.81	315	0.38
115	15.50	33.89	5.04	294	125	14.44	33.84	4.86	25.22	276	0.46
135	13.40	33.79	4.69	259	150	12.30	33.77	4.47	25.60	240	0.52
156	11.94	33.77	4.39	233	200	10.11	33.88	3.51	26.08	194	0.63
185	10.52	33.84	3.77	204	250	9.06	34.08	2.55	26.41	163	0.72
220	9.64	33.96	3.17	181	300	8.21	34.15	1.87	26.59	145	0.80
250	9.06	34.08 1	2.55	163	400	7.14	34.24	0.86	26.83	123	0.94
299	8.22	34.14 3	1.88	145	500	6.26	34.31	0.39	27.00	107	1.06
355	7.70	34.21 7	1.29	133	600	5.55	34.35	0.25	27.12	95	1.17
441	6.73	34.28 0	0.56	115							
524	6.07	34.33 0	0.33	103							
610	5.52	34.35 6	0.25	95							
113.30	HUGH M. SMITH; October 22, 1960; 1950 GCT; 29°22'N, 115°18'W; sounding, 29 fm; wind, 230°, force 3; weather, overcast; sea, moderate; wire angle, 00°.										
1	19.16	33.65 8	5.22	394	0	(19.16)	(33.66)	(5.22)	(23.98)	(394)	(0.00)
11	18.66	33.62 7	5.28	385	10	18.74	33.63	5.27	24.06	386	0.04
21	15.86	33.52 2	5.49	329	20	15.95	33.52	5.49	24.65	330	0.07
26	15.50	33.55 6	5.15	319	30	15.24	33.56	5.03	24.83	313	0.11
32	15.09	33.55 5	5.00	310							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

HUGH M. SMITH: October 22, 1960; 1552 GCT; 28°54.5'N, 115°27'W; sounding, 600 fm; wind, 330°, force 3; weather, overcast; sea, moderate; wire angle, 02°. 115.35

2	19.84	33.69 1	4.76	408	0	(19.84)	(33.69)	(4.76)	(23.83)	(408)	(0.00)
12	19.86	33.69	4.95	409	10	19.85	33.69	4.94	23.82	408	0.04
32	16.69	33.36	5.46	358	20	19.83	33.69	4.97	23.82	408	0.08
42	15.04	33.33	5.55	326	30	17.10	33.39	5.42	24.27	366	0.12
57	13.64	33.38	5.24	293	50	14.45	33.33	5.49	24.83	313	0.19
72	13.00	33.60	4.17	266	75	12.98	33.60	4.16	25.34	265	0.26
98	11.74	33.67	3.76	237	100	11.68	33.67	3.72	25.64	236	0.32
117	11.49	33.90 4	2.55	216	125	11.50	33.94	2.62	25.88	213	0.38
137	10.51	33.82 4	2.99	204	150	10.13	33.90	2.75	26.10	192	0.43
157	10.02	33.95	2.59	188	200	10.28	34.25	1.35	26.34	170	0.53
187	10.42	34.19	1.55	176	250	9.59	34.35	0.88	26.54	151	0.61
222	9.92	34.31	1.03	159	300	8.85	34.36	0.77	26.66	139	0.68
252	9.54	34.35 6	0.88	149	400	7.98	34.37	0.48	26.81	125	0.82
302	8.82	34.36 1	0.77	138	500	6.78	34.39	0.24	26.99	107	0.94
357	8.57	34.36 1	0.68	134	600	5.80	34.40	0.24	27.12	95	1.05
442	7.38	34.38 9	0.30	116							
527	6.52	34.39 3	0.23	104							
612	5.68	34.39 6	0.25	94							

HUGH M. SMITH; October 22, 1960; 0929 GCT; 28°19.5'N, 114°52'W; sounding, 64 fm; wind, 330°, force 3; weather, sky obscured; sea, moderate; wire angle, 10°. 119.33

1	21.05	33.75 0	4.76	435	0	(21.05)	(33.75)	(4.76)	(23.54)	(435)	(0.00)
11	21.05	33.74 6	4.80	435	10	21.05	33.75	4.79	23.54	435	0.04
21	21.04	33.74 4	4.68	435	20	21.04	33.74	4.69	23.54	435	0.09
31	20.52	33.73 0	4.77	422	30	20.63	33.73	4.75	23.65	425	0.13
40	19.58	33.67 0	4.68	403	50	17.55	33.57	4.85	24.31	362	0.21
50	17.55	33.57 4	4.85	362	75	12.87	33.66	3.80	25.40	258	0.29
60	14.72	33.57 0	4.66	301	100	12.00	33.83	2.15	25.70	230	0.35
75	12.87	33.66 1	3.80	258							
100	12.00	33.82 8	2.15	230							

HUGH M. SMITH: October 15, 1960; 0119 GCT; 27°43'N, 115°33'W; sounding, 1650 fm; wind, 340°, force 5; weather, cloudy; sea, rough; wire angle, 08°. 120.45

1	19.98	33.73 8	4.98	408	0	(19.98)	(33.74)	(4.98)	(23.83)	(408)	(0.00)
11	20.00	33.73 6	4.88	409	10	20.00	33.74	4.89	23.82	409	0.04
31	16.92	33.61 0	5.08	345	20	18.80	33.66	4.96	23.86	405	0.08
41	15.97	33.61	5.00	324	30	17.00	33.61	5.08	24.47	347	0.12
56	14.77	33.66	4.52	296	50	15.28	33.64	4.76	24.89	307	0.18
70	13.66	33.69	3.85	272	75	13.50	33.69	3.75	25.30	268	0.26
95	12.62	33.80	3.18	244	100	12.62	33.83	3.12	25.58	241	0.32
116	11.75	33.94	2.32	217	125	11.53	33.95	2.32	25.88	213	0.38
135	11.20	33.97	2.36	206	150	10.37	33.98	2.37	26.11	191	0.43
155	10.25	33.98	2.37	189	200	9.89	34.22	1.46	26.38	165	0.52
184	9.92	34.12	1.80	174	250	9.72	34.38	0.83	26.54	151	0.60
219	9.84	34.30	1.15	158	300	8.68	34.31	0.90	26.65	140	0.68
250	9.72	34.37 9	0.83	151	400	7.76	34.39	0.34	26.85	121	0.81
298	8.69	34.31 0	0.90	140	500	6.73	34.38	0.26	26.98	108	0.93
353	8.22	34.36 1	0.56	129	600	5.96	34.40	0.24	27.10	97	1.04
438	7.35	34.39 1	0.26	115							
521	6.56	34.38 0	0.26	105							
605	5.91	34.39 7	0.24	96							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
120.50	HUGH M. SMITH; October 15, 1960; 0500 GCT; 27°32'N, 115°54'W; sounding, 2200 fm; wind, 340°, force 4; weather, cloudy; sea, rough; wire angle, 20°.										
3	20.04	33.65	5.18	417	0	(20.04)	(33.65)	(5.18)	(23.73)	(417)	(0.00)
12	20.08	33.66	5.27	417	10	20.07	33.66	5.26	23.73	417	0.04
31	19.32	33.58	5.40	403	20	20.07	33.66	5.27	23.73	417	0.08
41	16.99	33.50	5.88	355	30	19.50	33.60	5.37	23.84	407	0.12
55	14.70	33.50	5.38a)	306	50	15.90	33.50	5.63	23.64	331	0.20
69	13.84	33.51	5.56b)	288	75	13.62	33.52	5.41	25.15	283	0.28
93	12.12	33.88	2.90	228	100	11.97	33.95	2.50	25.80	220	0.34
112	11.80	34.06	1.97	209	125	11.77	34.18	1.69	26.02	200	0.39
131	11.61	34.19	1.57	197	150	11.52	34.28	1.32	26.14	188	0.44
150	11.52	34.28	1.32	188	200	10.89	34.38	1.10	26.33	170	0.53
178	11.06	34.33	1.23	177	250	10.34	34.44	0.88	26.48	156	0.62
210	10.80	34.39	1.04	168	300	9.68	34.41	0.83	26.56	148	0.70
238	10.56	34.44 5	0.90	159	400	7.83	34.35	0.66	26.81	125	0.84
285	9.84	34.42 2	0.84	150	500	6.97	34.38	0.39	26.96	111	0.96
337	9.26	34.39 4	0.82	143							
418	7.56	34.34 1	0.58	121							
498	6.98	34.37 9	0.39	111							
579	6.03	34.37 2	0.36	100							
120.60	HUGH M. SMITH; October 15, 1960; 1109 GCT; 27°11'N, 116°34'W; sounding, 1960 fm; wind, 320°, force 4; weather, cloudy; sea, rough; wire angle, 05°.										
2	20.32	33.77	4.98	415	0	(20.32)	(33.77)	(4.98)	(23.76)	(415)	(0.00)
12	20.33	33.76	4.95	415	10	20.33	33.76	4.95	23.75	415	0.04
32	16.30	33.60	5.17	333	20	20.33	33.76	4.95	23.75	415	0.08
42	14.62	33.65	4.31	293	30	16.80	33.60	5.15	24.51	343	0.12
57	13.14	33.67	3.85	262	50	13.70	33.65	4.01	25.23	275	0.18
72	12.90	33.84	3.15	246	75	12.84	33.85	3.06	25.56	243	0.25
97	12.26	34.04	1.94	220	100	12.28	34.04	1.94	25.81	220	0.31
118	11.76	34.06	1.92	209	125	11.73	34.13	1.66	25.99	203	0.36
137	11.98	34.30	1.25	195	150	11.78	34.33	1.15	26.13	189	0.41
157	11.70	34.35	1.11	186	200	11.14	34.49	0.68	26.38	166	0.50
187	11.64	34.52	0.60	173	250	10.24	34.50	0.49	26.54	150	0.58
221	10.34	34.44	0.76	156	300	9.43	34.45	0.54	26.64	141	0.66
251	10.24	34.50 4	0.49	150	400	7.83	34.39	0.41	26.84	122	0.80
302	9.36	34.44 3	0.54	140	500	6.61	34.38	0.31	27.00	106	0.92
357	8.64	34.42 8	0.48	131	600	5.90	34.41	0.25		95	1.03
441	7.20	34.36 6	0.36	115							
526	6.40	34.38 7	0.30	103							
611	5.83	34.41 4	0.24	94							
120.70	HUGH M. SMITH; October 15, 1960; 1740 GCT; 26°49.5'N, 117°16'W; sounding, 2100 fm; wind, 250°, force 3; weather, cloudy; sea, rough; wire angle, 27°.										
3	20.82	33.79	4.90	426	0	(20.82)	(33.79)	(4.90)	(23.64)	(426)	(0.00)
12	20.84	33.79	4.93	426	10	20.84	33.79	4.92	23.64	426	0.04
30	20.80	33.79	4.90	426	20	20.82	33.79	4.91	23.64	426	0.09
38	17.66	33.51	5.44	369	30	20.80	33.79	4.90	23.64	426	0.13
53	16.88	33.72	5.39	337	50	17.04	33.72	5.40	24.54	340	0.20
65	15.58	33.66	5.16	312	75	14.79	33.64	5.06	24.99	298	0.28
86	14.09	33.64	4.82	284	100	13.14	33.72	3.72	25.40	259	0.36
104	12.88	33.73	3.61	253	125	11.20	33.78	3.51	25.81	220	0.42
120	11.38	33.73	3.60	226	150	10.13	33.90	2.98	26.09	193	0.47
136	10.80	33.87	2.99	206	200	9.68	34.21	1.60	26.41	163	0.56
160	9.84	33.95	2.89	184	250	8.69	34.23	1.45	26.59	146	0.64
188	9.77	34.17	1.76	167	300	8.11	34.24	1.25	26.68	137	0.71
213	9.46	34.22 6	1.51	158	400	7.43	34.34	0.56	26.86	120	0.85
254	8.62	34.22 8	1.44	145	500	6.47	34.35	0.34	27.00	107	0.97
300	8.11	34.23 6	1.25	137							
373	7.76	34.33 1	0.69	125							
449	6.86	34.34 2	0.40	112							
530	6.22	34.35 6	0.33	103							

a) Alternate value, 5.70 ml/L, not used in interpolation.
b) Alternate value, 5.36 ml/L, not used in interpolation.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

HUGH M. SMITH: October 15, 1960; 2159 GCT; 26°35'N, 117°43.5'W; sounding, 2100 fm; wind, 320°, force 4; weather, partly cloudy; sea, very rough; wire angle, 12°. 120.80

1	22.04	34.25	4.57a)	425	0	(22.04)	(34.25)	(4.57)	(23.65)	(425)	(0.00)
10	22.02	34.25	4.74	425	10	22.02	34.25	4.74	23.66	425	0.04
30	21.98	34.24	4.68	424	20	22.00	34.24	4.70	23.66	424	0.08
40	21.92	34.24	4.66	422	30	21.98	34.24	4.68	23.66	424	0.13
55	19.10	33.99	5.24	369	50	20.00	34.06	5.07	24.06	386	0.21
70	15.70	33.50	5.58	327	75	15.23	33.50	5.57	24.79	317	0.30
94	13.32	33.57	4.82	273	100	12.78	33.62	4.41	25.39	260	0.37
113	11.87	33.74	3.45	234	125	11.54	33.87	2.64	25.82	219	0.43
133	11.43	33.96	2.26	211	150	11.31	34.09	1.79	26.03	199	0.48
154	11.30	34.12	1.68	196	200	11.12	34.37	0.90	26.28	175	0.58
183	11.19	34.29	1.17	182	250	10.76	34.49	0.51	26.44	160	0.66
216	11.04	34.44	0.69	168	300	10.17	34.48	0.50	26.54	150	0.75
246	10.80	34.48 8	0.51	161	400	8.80	34.43	0.42	26.73	132	0.89
295	10.23	34.48 5	0.51	151	500	7.08	34.34	0.40	26.90	116	1.03
349	9.56	34.46 8	0.47	141	600	6.45	34.40	0.20	27.04	103	1.14
432	8.22	34.39 9	0.41	127							
515	6.91	34.33 1	0.39	114							
601	6.44	34.39 9	0.20	103							

HUGH M. SMITH; October 16, 1960; 0409 GCT; 26°10'N, 118°24.5'W; sounding, 2075 fm; wind, 320°, force 3; weather, partly cloudy; sea, very rough; wire angle, 06°. 120.90

1	21.46	33.79	4.88	444	0	(21.46)	(33.79)	(4.88)	(23.46)	(444)	(0.00)
11	21.50	33.78	4.89	444	10	21.49	33.78	4.89	23.46	444	0.04
31	21.48	33.79	5.05	444	20	21.49	33.78	4.96	23.46	444	0.09
41	21.42	33.77	4.98	443	30	21.47	33.79	5.05	23.46	444	0.13
56	17.02	33.44	5.66	360	50	19.55	33.60	5.22	23.84	408	0.22
71	15.94	33.47	5.83	334	75	15.50	33.47	5.76	24.70	325	0.31
96	13.48	33.52	5.09	280	100	13.21	33.54	4.98	25.24	274	0.39
116	12.40	33.64	4.50	252	125	11.94	33.66	4.10	25.58	241	0.45
136	11.57	33.75	3.61	229	150	11.22	33.91	2.77	25.91	210	0.51
156	11.14	33.97	2.41	204	200	11.13	34.27	1.24	26.21	182	0.61
186	11.22	34.22	1.36	187	250	10.17	34.32	1.22	26.42	162	0.70
221	10.85	34.31	1.16	174	300	9.74	34.46	0.54	26.59	145	0.78
250	10.17	34.32 4	1.22	162	400	8.57	34.43	0.40	26.76	129	0.92
300	9.74	34.46 1	0.54	145	500	7.02	34.39	0.30	26.95	112	1.05
355	8.97	34.42 6	0.54	136	600	6.28	34.42	0.24	27.08	99	1.16
441	8.17	34.45 0	0.28	122							
524	6.71	34.37 5	0.31	108							
610	6.21	34.42 7	0.23	98							

HUGH M. SMITH; October 16, 1960; 0940 GCT; 25°51.5'N, 119°03'W; sounding, 2250 fm; wind, 330°, force 3; weather, clear; sea, very rough; wire angle, 04°. 120.100

2	22.08	34.15	4.95	434	0	(22.08)	(34.15)	(4.95)	(23.59)	(433)	(0.00)
12	22.12	34.15	4.99	434	10	22.11	34.15	4.99	23.58	434	0.04
32	22.12	34.15	4.88	434	20	22.12	34.15	4.94	23.58	434	0.09
57	19.37	34.04	5.48	372	30	22.12	34.15	4.88	23.58	434	0.13
67	18.64	34.02	5.44	356	50	20.32	34.08	5.29	24.00	392	0.21
77	17.85	33.95	5.41	342	75	18.03	33.97	5.42	24.49	345	0.31
92	17.07	33.97	5.34	323	100	16.69	33.95	5.29	24.80	315	0.39
107	16.28	33.93	5.19	308	125	15.20	33.94	4.40	25.14	284	0.46
133	14.66	33.96	3.89	272	150	13.28	33.95	3.21	25.54	245	0.53
152	13.12	33.95	3.16	242	200	10.56	34.13	2.00	26.20	183	0.64
178	10.92	33.90	2.98	206	250	9.92	34.33	1.20	26.46	158	0.73
207	10.45	34.17	1.80	178	300	9.14	34.36	0.98	26.61	144	0.81
237	10.08	34.28 6	1.36	164	400	7.93	34.37	0.52	26.82	124	0.95
277	9.58	34.37 9	1.03	149	500	6.88	34.39	0.27	26.98	109	1.07
338	8.54	34.32 8	0.90	136							
414	7.78	34.38 2	0.43	122							
488	6.98	34.39 1	0.27	110							
568	6.28	34.40 8	0.25	100							

a) Alternate value, 4.83 ml/L, not used in interpolation.

SIO

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6009-10

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

120.120 HUGH M. SMITH; October 16, 1960; 1944 GCT; 25°14.5'N, 120°22.5'W; sounding, 2100 fm; wind, 320°, force 3; weather, clear; sea, very rough; wire angle, 05°.

3	21.37	33.86	5.07	435	0	(21.37)	(33.86)	(5.07)	(23.54)	(435)	(0.00)
13	21.28	33.86	5.07	433	10	21.31	33.86	5.07	23.56	434	0.04
33	21.22	33.85	5.04	432	20	21.27	33.85	5.04	23.57	433	0.09
43	18.68	33.63	5.63	385	30	21.23	33.85	5.03	23.58	432	0.13
58	17.40	33.65	5.70	353	50	18.04	33.63	5.68	24.23	370	0.21
73	16.50	33.72	5.55	328	75	16.40	33.72	5.54	24.70	325	0.30
98	14.57	33.63	5.30	294	100	14.26	33.62	5.25	25.09	288	0.38
117	13.13	33.62	5.06	266	125	12.57	33.62	4.83	25.43	255	0.44
137	11.68	33.64	4.44	238	150	11.01	33.73	4.05	25.80	221	0.50
158	10.64	33.77	3.81	210	200	9.50	34.03	2.57	26.30	173	0.60
188	9.63	33.94	3.03	182	250	8.35	34.09	2.30	26.53	151	0.69
223	9.20	34.14	2.00	161	300	8.22	34.25	1.20	26.68	138	0.76
252	8.31	34.09 0	2.31	151	400	7.19	34.29	0.62	26.86	120	0.90
302	8.22	34.26 1	1.15	137	500	5.99	34.30	0.36	27.02	105	1.02
356	8.05	34.34 6	0.65	128	600	5.57	34.39	0.45	27.15	93	1.12
440	6.48	34.26 7	0.57	113							
523	5.87	34.32 7	0.32	101							
609	5.53	34.40 0	0.46	91							

123.42 HUGH M. SMITH; October 22, 1960; 0144 GCT; 27°14'N, 114°59'W; sounding, 675 fm; wind, 330°, force 3; weather, cloudy; sea, rough; wire angle, 19°.

1	20.89	33.79	5.08	428	0	(20.89)	(33.79)	(5.08)	(23.62)	(428)	(0.00)
10	19.72	33.72	5.07	403	10	19.72	33.72	5.07	23.88	403	0.04
29	18.46	33.64	5.12	378	20	19.32	33.72	5.08	23.98	393	0.08
39	15.73	33.54	5.51	324	30	18.45	33.65	5.12	24.14	378	0.12
53	14.52	33.59	5.04	296	50	15.20	33.58	5.33	24.86	310	0.19
67	13.62	33.60	4.70	277	75	13.08	33.64	4.36	25.35	264	0.26
90	12.08	33.73	3.63	239	100	11.56	33.74	3.31	25.71	229	0.32
110	11.48	33.78	3.18	224	125	10.66	33.85	3.10	25.97	205	0.38
129	10.62	33.86	3.09	204	150	10.53	34.07	2.18	26.16	186	0.43
147	10.55	34.05	2.25	188	200	9.91	34.25	1.49	26.41	163	0.52
176	10.25	34.18	1.79	173	250	9.78	34.43	0.71	26.57	148	0.60
208	9.86	34.27	1.41	161	300	9.72	34.52	0.33	26.65	140	0.67
237	9.76	34.38 4	0.95	151	400	8.07	34.41	0.42	26.82	124	0.81
284	9.88	34.53 0	0.33	143	500	7.06	34.43	0.27	26.99	108	0.93
336	9.12	34.47 1	0.37	134	600	(5.94)	(34.42)		(27.13)	(95)	(1.04)
417	7.83	34.40 0	0.42	121							
498	7.11	34.43 6	0.26	108							
580	6.18	34.42 5	0.24	97							

127.40 HUGH M. SMITH; October 21, 1960; 2003 GCT; 26°43.5'N, 114°29'W; sounding, 1700 fm; wind, 330°, force 2; weather, partly cloudy; sea, moderate; wire angle, 03°.

1	22.45	33.92	5.06	460	0	(22.45)	(33.92)	(5.06)	(23.29)	(460)	(0.00)
11	22.16	33.91	5.09	453	10	22.17	33.91	5.08	23.36	453	0.05
31	22.00	33.89	5.02	449	20	22.11	33.90	5.07	23.38	451	0.09
41	17.99	33.55	5.83	374	30	22.01	33.89	5.03	23.39	449	0.14
51	16.54	33.56	5.61	341	50	16.70	33.56	5.62	24.49	345	0.22
66	15.02	33.60	5.36	305	75	14.56	33.71	4.88	25.10	287	0.30
81	14.21	33.74	4.56	278	100	12.82	33.64	4.42	25.39	259	0.36
101	12.60	33.62	4.42	256	125	10.92	33.81	3.27	25.89	212	0.42
126	10.86	33.82	3.22	211	150	10.55	34.05	2.20	26.14	189	0.47
146	10.56	34.01	2.35	191	200	10.09	34.27	1.39	26.38	165	0.56
176	10.50	34.23	1.45	174	250	9.74	34.40	0.83	26.55	149	0.65
206	10.02	34.28	1.36	163	300	9.12	34.41	0.66	26.66	139	0.72
236	9.84	34.38 8	0.92	152	400	7.64	34.37	0.42	26.85	121	0.86
275	9.49	34.42 3	0.71	144	500	7.11	34.43	0.20	26.98	109	0.98
335	8.59	34.39 1	0.61	132							
409	7.54	34.37 3	0.38	119							
484	7.25	34.43 4	0.20	110							
563	6.33	34.41 2	0.19	100							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

HUGH M. SMITH; October 19, 1960; 1824 GCT; 26°29'N, 113°28.5'W; sounding, 22 fm; wind, 040°, force 2; weather, clear; sea, moderate; wire angle, 01°. 130.30

1	20.13	33.98 7	5.34	394	0	(20.13)	(33.99)	(5.49)	(23.98)	(394)	(0.00)
11	19.98	33.97 7	5.26	391	10	19.99	33.98	5.26	24.01	391	0.04
31	17.02	33.65 6	5.29	345	20	19.95	33.97	5.26	24.02	391	0.08
41	16.68	33.84 7	4.09	322	30	17.80	33.73	5.30	24.37	357	0.12

HUGH M. SMITH; October 19, 1960; 1252 GCT; 26°08.5'N, 114°05.5'W; sounding, 1200 fm; wind, 010°, force 2; weather, clear; sea, rough; wire angle, 05°. 130.40

1	22.05	33.86	4.80	454	0	(22.05)	(33.86)	(4.80)	(23.35)	(454)	(0.00)
11	22.08	33.86	4.74	454	10	22.07	33.86	4.75	23.35	454	0.05
31	22.06	33.86	4.85a)	454	20	22.07	33.86	4.80	23.35	454	0.09
41	18.78	33.66	5.48	385	30	22.06	33.86	4.85	23.35	454	0.14
56	15.70	33.53	5.30	325	50	16.75	33.56	5.38	24.48	346	0.22
71	14.52	33.55	4.98	298	75	14.10	33.57	4.84	25.08	289	0.30
96	12.52	33.66	4.09	252	100	12.32	33.68	4.00	25.52	247	0.36
116	11.60	33.78	3.74	227	125	11.14	33.82	3.54	25.85	216	0.42
135	10.76	33.85	3.30	206	150	11.11	34.10	2.09	26.08	194	0.47
155	11.18	34.17	1.77	190	200	9.49	34.14	1.90	26.39	165	0.57
185	9.78	34.13	1.97	170	250	9.08	34.26	1.40	26.55	150	0.65
221	9.24	34.18	1.75	158	300	8.65	34.31	0.98	26.66	140	0.72
251	9.06	34.26 4	1.39	149	400	7.79	34.38	0.40	26.84	122	0.86
302	8.63	34.31 7	0.95	139	500	6.87	34.40	0.20	26.99	108	0.98
355	8.20	34.37 1	0.57	128	600	6.09	34.45	0.16	27.12	95	1.09
438	7.46	34.39 5	0.30	116							
522	6.67	34.40 9	0.19	105							
606	6.04	34.45 2	0.16	94							

HUGH M. SMITH; October 19, 1960; 0637 GCT; 25°46'N, 114°43'W; sounding, 1950 fm; wind, 350°, force 5; weather, clear; sea, rough; wire angle, 12°. 130.50

2	23.38	34.00 0	4.68	479	0	(23.38)	(34.00)	(4.68)	(23.08)	(479)	(0.00)
12	23.43	34.00	4.63	480	10	23.42	34.00	4.64	23.08	480	0.05
31	23.42	34.00	4.61	480	20	23.42	34.00	4.62	23.08	480	0.10
41	19.96	33.68	5.63	412	30	23.42	34.00	4.61	23.08	480	0.14
56	16.21	33.62	5.42	329	50	17.24	33.63	5.54	24.42	351	0.23
70	15.34	33.71	5.01	304	75	14.79	33.74	4.75	25.07	290	0.31
95	12.84	33.79	3.92	249	100	12.51	33.79	3.79	25.58	242	0.38
115	11.39	33.86	3.17	218	125	11.08	33.92	2.77	25.94	207	0.43
135	10.98	33.99	2.50	200	150	10.94	34.12	2.00	26.12	190	0.48
155	10.94	34.18	1.76	186	200	10.51	34.41	0.94	26.43	161	0.57
184	10.54	34.36	1.15	165	250	10.05	34.49	0.52	26.56	149	0.65
218	10.50	34.47	0.74	157	300	9.46	34.51	0.47	26.68	137	0.73
247	10.12	34.48 6	0.52	149	400	8.00	34.43	0.44	26.85	121	0.86
297	9.50	34.50 7	0.48	138	500	7.02	34.43	0.29	26.99	108	0.98
350	8.72	34.48 0	0.39	128	600	6.08	34.40	0.32	27.10	98	1.09
433	7.54	34.40 8	0.46	116							
515	6.91	34.43 2	0.26	106							
600	6.08	34.40 2	0.32	98							

a) Alternate value, 4.25 ml/L, not used in interpolation.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

130.60 HUGH M. SMITH; October 18, 1960; 2137, 2358 GCT; 25°30.5'N, 115°23.5'W; sounding, 2050 fm; wind, 360°, force 5; weather, clear; sea, moderate; wire angle, 16°, 13°.

1	21.74	33.80	4.86	449	0	(21.74)	(33.80)	(4.86)	(23.40)	(449)	(0.00)
10	21.70	33.80	4.82	448	10	21.70	33.80	4.82	23.41	448	0.04
29	19.32	33.76	5.36	391	20	21.63	33.80	4.83	23.43	446	0.09
39	18.96	34.00	4.74a)	364	30	18.92	33.76	5.19	24.12	381	0.13
54	17.56	33.90	5.28	338	50	18.00	33.93	5.13	24.47	347	0.20
68	15.15	33.91	5.26	285	75	14.58	33.82	5.07	25.17	280	0.28
93	13.30	33.60	4.46	271	100	12.79	33.58	4.00	25.36	263	0.35
111	11.92	33.58	3.40	247	125	11.22	33.67	3.10	25.72	228	0.41
131	11.01	33.72	2.97	221	150	10.99	33.87	1.94	25.91	210	0.47
149	11.00	33.86	1.95	210	200	10.59	34.41	0.91	26.41	163	0.56
177	10.66	34.29	1.38	173	250	9.53	34.35	0.94	26.55	150	0.64
210	10.57	34.45	0.75	159	300	8.98	34.40	0.64	26.67	138	0.72
238	9.73	34.35 4	0.98	153	400	7.90	34.41	0.31	26.85	121	0.85
286	9.10	34.38 4	0.72	141	500	6.92	34.41	0.20	26.99	108	0.98
338	8.63	34.42 1	0.47	131	600	6.22	34.44	0.16	27.11	96	1.09
420	7.66	34.41 0	0.27	118	700	5.53	34.45	0.20	27.20	88	1.19
501	6.90	34.41 0	0.20	108	800	5.00	34.47	0.24	27.27	81	1.28
585	6.28	34.43 9	0.16	98	1000	4.17	34.51	0.41	27.40	69	1.45
					1200	3.58	34.55	0.57	27.49	60	1.60
387b)	8.22	34.40 3	0.45	126	1500	2.98	34.59	1.05	27.59	51	1.79
485	7.10	34.41 9	0.21	110	2000	2.16	34.64	1.79	27.70	41	2.07
582	6.32	34.44 2	0.14	98	2500	1.81	34.66	2.24	27.74	37	2.32
680	5.66	34.44	0.19	89	3000	1.67	34.67	2.51	27.76	35	2.55
778	5.09	34.46 0	0.22	82							
876	4.66	34.48 0	0.26	76							
974	4.27	34.50 1	0.38	70							
1168	3.66	34.54 9	0.50	61							
1364	3.20	34.57 6	0.85	55							
1558	2.84	34.60 1	1.12	50							
1752	2.50	34.62 1	1.46	45							
1948	2.20	34.63 9	1.74	41							
2144	2.02	34.65 1	1.97	39							
2339	1.88	34.66 2	2.15	37							
2534	1.80	34.66 6	2.26	37							
2730	1.72	34.67 2	2.40	36							
2930	1.65	34.67 5	2.48	35							
3129	1.64	34.68 0	2.56	34							
3229	~~1.44~~ –	34.67 9	2.62	~~32~~							
3330	1.62	34.68 0	2.67	34							

130.70 HUGH M. SMITH; October 18, 1960; 1557 GCT; 25°11.5'N, 116°02'W; sounding, 2000 fm; wind, 340°, force 4; weather, clear; sea, rough; wire angle, 11°.

2	21.42	33.87	5.04	436	0	(21.42)	(33.87)	(5.04)	(23.54)	(436)	(0.00)
12	21.45	33.87	4.94	436	10	21.44	33.87	4.95	23.54	436	0.04
31	21.44	33.87	5.01	436	20	21.44	33.87	4.98	23.54	436	0.09
41	18.24	33.56	5.54	379	30	21.44	33.87	5.01	23.54	436	0.13
56	16.34	33.51	5.73	340	50	16.85	33.51	5.73	24.43	351	0.21
71	15.88	33.66	5.41	319	75	15.67	33.67	5.27	24.82	314	0.29
96	14.89	33.89	4.25	281	100	14.87	33.90	4.21	25.17	280	0.37
116	13.14	33.84	3.49	250	125	12.65	33.89	3.18	25.62	237	0.43
135	12.18	33.95	2.86	224	150	11.45	33.98	2.50	25.92	209	0.49
155	11.26	34.00	2.39	205	200	10.95	34.34	0.56	26.29	174	0.59
185	10.70	34.18	1.73	182	250	9.92					
219	11.46	34.57	0.36	166	300	9.36					
248	9.96	-	0.98	-	400	8.40					
298	9.38	-	0.67	-	500	7.30					
350	8.99	-	0.42	-	600	6.47		0.16			
434	7.97	-	0.27	-							
515	7.16	-	0.23	-							
600	6.47	-	0.16	-							

a) Alternate value, 5.32 ml/L, not used in interpolation.
b) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m

HUGH M. SMITH: October 18, 1960; 0958 GCT; 24°47.5'N, 116°45'W; sounding, 2200 fm; wind, 350°, force 3; weather, clear; sea, rough; wire angle, 14°. 130.80

1	22.97	34.20	4.62	453	0	(22.97)	(34.20)	(4.62)	(23.36)	(453)	(0.00)
11	23.00	34.20	4.63	454	10	22.99	34.20	4.63	23.35	454	0.05
30	23.00	34.20	4.67	454	20	23.00	34.20	4.65	23.35	454	0.09
39	22.98	34.20	4.59	453	30	23.00	34.20	4.33	23.35	454	0.14
54	19.67	33.87	5.33	391	50	20.07	33.90	5.27	23.92	399	0.22
68	17.74	-	-	-	75	17.13	33.78	5.07	24.57	337	0.31
93	14.66	33.76	4.66	286	100	13.98	33.77	4.49	25.26	272	0.39
111	12.73	33.79	4.04	246	125	11.72	33.89	2.69	25.81	220	0.45
130	11.63	34.00	2.18	212	150	11.72	34.32	0.97	26.14	189	0.51
148	11.68	34.30	1.01	190	200	11.77	34.63	0.17	26.37	166	0.60
176	11.96	34.59	0.18	173	250	11.33	34.66	0.14	26.47	157	0.68
208	11.70	34.64	0.16	165	300	10.83	34.65	0.06	26.56	149	0.76
236	11.47	34.65 8	0.20	160	400	9.29	34.52	0.25	26.72	134	0.91
283	11.01	34.66 1	0.03	151	500	7.88	34.45	0.20	26.89	118	1.04
335	10.43	34.63 7	0.13	144	600	(6.67)	(34.42)		(27.03)	(104)	(1.16)
415	9.02	34.49 5	0.26	132							
497	7.92	34.45 4	0.20	118							
580	6.86	34.42 6	0.22	106							

HUGH M. SMITH; October 18, 1960; 0021 GCT; 24°10'N, 117°53'W; sounding, 2100 fm; wind, 050°, force 4; weather, clear; sea, rough; wire angle, 03°. 130.100

1	23.07	34.34	4.74	446	0	(23.07)	(34.34)	(4.74)	(23.43)	(446)	(0.00)
11	23.07	34.33	4.74	447	10	23.07	34.33	4.74	23.42	447	0.04
31	23.01	34.34	4.70	444	20	23.05	34.34	4.72	23.44	446	0.09
41	22.96	34.33	4.65	444	30	23.01	34.34	4.70	23.45	444	0.13
56	19.04	33.88	5.31	375	50	22.80	34.31	4.66	23.49	441	0.22
71	18.24	33.94	5.25	352	75	18.00	33.94	5.24	24.48	346	0.32
96	16.54	33.93	5.15	313	100	16.15	33.92	5.09	24.90	306	0.40
116	14.79	33.92	4.52	277	125	13.90	33.91	4.06	25.38	260	0.48
136	12.90	33.90	3.65	242	150	11.58	33.87	3.35	25.81	220	0.54
157	11.02	33.86	3.22	210	200	10.12	34.13	1.33	26.28	175	0.64
187	10.25	34.02	2.38	186	250	9.45	34.30	1.23	26.52	152	0.72
221	9.99	34.30	1.34	161	300	9.24	34.35	0.87	26.59	146	0.80
251	9.40	34.30 7	1.21	152	400	7.92	34.42	0.30	26.86	120	0.94
301	9.23	34.35 6	0.87	146	500	7.10	34.45	0.16	27.00	107	1.06
355	8.24	34.38 5	0.51	128	600	6.15	34.44	0.18	27.11	96	1.17
439	7.64	34.45 1	0.19	115							
524	6.86	34.45 4	0.16	104							
609	6.07	34.43 9	0.19	95							

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z m	T °C	S ‰	O_2 ml/L	δ_T cl/ton	Z m	T °C	S ‰	O_2 ml/L	σ_t g/L	δ_T cl/ton	ΔD dyn m
130.120	HUGH M. SMITH; October 17, 1960; 1006, 1350 GCT; 23°30.5'N, 119°09'W; sounding, 2200 fm; wind, 340°, force 4; weather, partly cloudy; sea, rough; wire angle, 03°, 05°.										
1	23.50	34.58	4.36	440	0	(23.50)	(34.58)	(4.36)	(23.49)	(440)	(0.00)
11	23.52	34.58	4.38	440	10	23.52	34.58	4.38	23.49	440	0.04
32	23.52	34.58	4.33	441	20	23.52	34.58	4.36	23.49	440	0.09
42	23.51	34.58	4.21	440	30	23.52	34.58	4.33	23.49	440	0.13
52	20.35	34.32	4.86	376	50	20.65	34.33	4.84	24.10	382	0.22
66	19.54	34.33	4.75a)	355	75	18.98	34.28	4.84	24.50	344	0.31
81	18.47	34.24	4.88	336	100	17.20	34.13	4.57	24.82	314	0.39
101	17.11	34.12	4.55	313	125	14.23	33.97	3.60	25.36	262	0.46
126	14.12	33.96	3.58	260	150	12.31	33.90	3.27	25.69	230	0.52
146	12.54	33.89	3.38	235	200	10.17	34.16	1.80	26.29	174	0.63
175	11.16	34.10	1.98	195	250	9.46	34.29	1.36	26.51	153	0.71
205	10.02	34.18	1.75	171	300	8.85	34.35	0.88	26.66	139	0.79
235	9.64	34.26 3	1.48	158	400	7.89	34.42	0.32	26.86	120	0.92
276	9.13	34.32 5	1.11	146	500	6.94	34.45	0.19	27.01	106	1.04
336	8.50	34.39 1	0.61	131	600	6.18	34.46	0.14	27.12	95	1.15
410	7.82	34.42 3	0.28	120	700	5.59	34.46	0.23	27.20	87	1.25
484	6.99	34.43 1	0.18	107	800	5.03	34.48	0.24	27.28	80	1.35
563	6.36	34.45 0	0.20	98	1000	4.21	34.53	0.37	27.41	68	1.51
					1200	3.68	34.56	0.50	27.49	60	1.66
396b)	7.92	34.43 0	0.35	119	1500	3.09	34.59	0.90	27.58	52	1.86
495	7.06	34.45 4	0.20	107	2000	2.24	34.65	1.85	27.69	41	2.14
595	6.22	34.45 9	0.12	96	2500	1.83	34.67	2.33	27.75	36	2.39
694	5.63	34.46 2	0.22	88	3000	1.65	34.68	2.65	27.77	34	2.61
844	4.80	34.49 9	0.26	76							
994	4.23	34.52 6	0.36	68							
1193	3.74	34.56 4	0.48	60							
1391	3.34	34.58 0	0.66	55							
1589	2.88	34.60 2	1.09	50							
1788	2.53	34.62 5	1.41	45							
1986	2.25	34.64 2	1.77	42							
2186	2.01	34.64 9	2.03	40							
2383	1.92	34.66 2	2.27	37							
2582	1.78	34.67 1	2.34	36							
2782	1.72	34.67 6	2.48	35							
2980	1.66	34.67 7	2.64	34							
3180	1.60	34.68 1	2.73	34							
3380	1.58	34.68 2	2.79	33							
3481	1.54	34.68 8	2.85	33							
3579	1.58	34.69 0	2.93	33							
137.23	HUGH M. SMITH; October 20, 1960; 0338 GCT; 25°34'N, 112°19'W; sounding, 42 fm; wind, 330°, force 3; weather, clear; sea, moderate; wire angle, 02°.										
1	22.30	34.08 5	4.93	443	0	(22.30)	(34.08)	(4.93)	(23.46)	(443)	(0.00)
11	22.24	34.06 5	4.97	443	10	22.25	34.06	4.96	23.46	443	0.04
31	18.06	33.75 0	5.25	361	20	21.55	33.99	5.02	23.60	431	0.09
51	15.70	33.82 9	4.08	303	30	18.70	33.77	5.24	24.18	375	0.13
					50	15.77	33.82	4.15	24.92	305	0.20
137.30	HUGH M. SMITH; October 20, 1960; 0713 GCT; 25°20'N, 112°45.5'W; sounding, 150 fm; wind, 330°, force 3; weather, clear; sea, moderate; wire angle, 10°.										
1	23.31	34.17	4.85	465	0	(23.31)	(34.17)	(4.85)	(23.23)	(465)	(0.00)
11	23.32	34.16	4.61	466	10	23.32	34.16	4.63	23.22	466	0.05
31	17.32	33.77 2	5.34	342	20	23.00	34.13	4.61	23.30	459	0.09
50	15.27	33.78 8	4.69	297	30	17.60	33.78	5.34	24.46	348	0.13
75	13.20	33.94 0	3.21	244	50	15.27	33.79	4.69	24.99	297	0.20
99	13.24	34.28 0	1.15	220	75	13.20	33.94	3.21	25.56	244	0.27
124	13.30	34.49 8	0.30	206	100	13.24	34.29	1.12	25.81	220	0.32
162	12.80	34.66 6	0.13	183	125	13.32	34.50	0.28	25.96	205	0.38
202	11.84	34.68 1	0.15	164	150	13.04	34.64	0.14	26.12	190	0.43
					200	11.89	34.68	0.15	26.39	165	0.52

a) Alternate value, 4.88 ml/L, not used in interpolation.

b) Overlapping casts; reconciliation of property curves when necessary.

OBSERVED				COMPUTED	INTERPOLATED				COMPUTED		
Z	T	S	O_2	δ_T	Z	T	S	O_2	σ_t	δ_T	ΔD
m	°C	‰	ml/L	cl/ton	m	°C	‰	ml/L	g/L	cl/ton	dyn m

HUGH M. SMITH: October 20, 1960; 1327 GCT; 24°[illegible]'N, 113°25'W; sounding, 1825 fm; wind, 360°, force 2; weather, clear; sea, moderate; wire angle, 10°. 137.40

1	22.64	34.09	4.73	453	0	(22.64)	(34.09)	(4.73)	(23.36)	(453)	(0.00)
11	22.66	34.10	4.69	453	10	22.66	34.10	4.70	23.36	453	0.05
31	21.20	33.84	5.04	432	20	22.64	34.09	4.70	23.37	452	0.09
40	18.41	33.78	5.37	367	30	22.30	34.03	4.79	23.42	447	0.14
55	17.08	33.82	5.00	333	50	17.53	33.80	5.14	24.49	345	0.22
70	15.83	33.79	4.81	309	75	15.32	33.78	4.67	24.99	298	0.30
94	13.76	33.78	4.22	266	100	13.70	33.80	4.18	25.35	264	0.37
113	12.39	33.82	3.68	237	125	11.56	33.86	3.06	25.80	220	0.43
133	11.24	33.91	2.72	211	150	10.92	34.08	2.01	26.09	193	0.48
152	10.89	34.10	1.95	191	200	10.44	34.30	1.33	26.36	168	0.57
180	10.81	34.26	1.40	178	250	9.70	34.40	0.87	26.55	149	0.65
215	10.03	34.32	1.24	160	300	9.40	34.47	0.38	26.66	139	0.73
243	9.73	34.37 9	0.93	151	400	8.13	34.44	0.23	26.84	122	0.87
291	9.53	34.47 8	0.38	140	500	7.10	34.42	0.32	26.97	110	0.99
344	8.78	34.45 6	0.36	130	600	(6.20)	(34.43)	(0.17)	(27.10)	(97)	(1.10)
428	7.80	34.43 6	0.21	118							
510	7.00	34.41 8	0.32	109							
595	6.24	34.43 3	0.17	98							

HUGH M. SMITH; October 20, 1960; 1959 GCT; 24°40.5'N, 114°01.5'W; sounding, 2000 fm; wind, 350°, force 2; weather, clear; sea, moderate; wire angle, 07°. 137.50

2	23.02	33.99 6	4.72	469	0	(23.02)	(34.00)	(4.72)	(23.19)	(469)	(0.00)
12	22.90	33.99	4.67	474	10	22.92	33.91	4.68	23.14	473	0.05
32	20.23	33.89	5.36	403	20	22.90	33.89	4.67	23.14	474	0.09
42	18.56	33.73	5.14	374	30	22.70	33.89	4.73	23.19	469	0.14
52	17.88	33.82	5.29	352	50	17.90	33.80	5.28	24.40	353	0.22
67	17.10	33.84	5.12	332	75	16.42	33.81	4.96	24.76	320	0.31
82	15.77	33.78	4.81	308	100	13.98	33.69	4.47	25.20	277	0.38
102	13.80	33.69	4.41	274	125	12.72	33.87	3.36	25.59	240	0.45
127	12.56	33.87	3.24	237	150	11.44	34.00	2.20	25.93	208	0.51
146	11.49	33.95	2.38	212	200	10.83	34.34	1.10	26.32	171	0.60
175	11.14	34.24	1.41	185	250	10.24	34.47	0.48	26.52	153	0.69
205	10.76	34.36	1.04	169	300	9.65	34.50	0.27	26.64	141	0.76
234	10.46	34.43 9	0.74	159	400	8.55	34.50	0.12	26.83	123	0.90
273	9.98	34.49 5	0.27	146	500	7.17	34.45	0.17	26.98	109	1.03
332	9.24	34.49 6	0.31	135							
406	8.46	34.50 3	0.12	122							
481	7.40	34.45 5	0.18	111							
560	6.60	34.44 8	0.15	101							

HUGH M. SMITH; October 21, 1960; 0231 GCT; 24°21.5'N, 114°40'W; sounding, 2075 fm; wind, 350°, force 2; weather, partly cloudy; sea, moderate; wire angle, 01°. 137.60

1	24.09	34.07	4.73	493	0	(24.09)	(34.07)	(4.73)	(22.93)	(493)	(0.00)
11	23.80	34.06	4.67	487	10	23.82	34.06	4.68	23.00	487	0.05
31	21.66	33.90	5.19	440	20	23.77	34.05	4.70	23.01	486	0.10
41	19.70	33.92	5.25	388	30	21.80	33.91	5.18	23.46	443	0.14
56	18.07	33.76	5.35	361	50	18.72	33.82	5.31	24.21	371	0.23
71	16.80	33.76	5.19	331	75	16.51	33.77	5.10	24.71	325	0.31
96	14.94	33.78	4.64	291	100	14.69	33.78	4.44	25.13	285	0.39
116	13.60	33.94	3.15	252	125	13.90	34.04	3.10	25.49	250	0.46
136	12.75	34.02	2.41	230	150	12.47	34.18	1.78	25.88	213	0.52
156	12.30	34.22	1.58	207	200	10.93	34.37	0.98	26.32	171	0.62
186	11.22	34.33	1.18	179	250	10.58	34.56	0.33	26.53	151	0.70
220	10.67	34.45	0.69	161	300	9.88	34.54	0.32	26.64	141	0.77
250	10.58	34.55 9	0.33	151	400	8.57	34.50	0.16	26.82	124	0.91
300	9.88	34.54 5	0.32	141	500	7.34	34.46	0.22	26.96	110	1.04
356	9.20	34.51 8	0.23	133	600	6.52	34.45	0.17	27.07	100	1.15
441	8.00	34.47 9	0.15	118							
526	7.08	34.45 2	0.23	107							
611	6.43	34.45 4	0.14	99							

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
60.55-F	IX-26	1830	37°47.5'	123°15.0'	58	170°	2	fog	slight	12.66	33.69
70.55-F	25	1006	36°03.0'	122°02.5'	800	330°	1	missing	smooth	15.06	33.55
77.50-B	X-11	0750	35°04.0'	120°52.0'	70	090°	2	cloudy	moderate	14.52	-
80.65-F	IX-23	0300	33°59.0'	121°30.0'	1860	340°	3	overcast	rough	15.78	33.54
82.47-B	X-12	0250	34°12.0'	119°58.0'	350	270°	5	clear	very rough	15.18	-
83.40-B	12	0715	34°14.0'	119°22.0'	12	220°	5	clear	rough	15.76	-
83.43-B	12	0540	34°08.0'	119°34.0'	130	250°	5	clear	rough	15.76	-
83.51-B	11	2340	33°52.0'	120°07.5'	50	290°	5	clear	rough	14.94	-
83.55-B	11	2140	33°44.0'	120°24.5'	550	300°	2	partly cloudy	rough	14.77	-
87.35-B	12	1230	33°50.0'	118°37.5'	250	040°	5	clear	rough	17.26	-
87.40-B	12	1500	33°40.0'	118°58.5'	460	270°	3	partly cloudy	moderate	16.14	-
87.45-B	12	1750	33°30.0'	119°19.0'	900	270°	3	clear	moderate	16.06	-
87.50-B	12	2020	33°20.0'	119°39.5'	40	290°	4	clear	moderate	16.26	-
87.55-B	12	2310	33°14.5'	120°03.5'	500	320°	4	partly cloudy	moderate	16.62	-
87.60-B	13	0130	33°00.0'	120°21.5'	410	320°	5	clear	rough	16.35	-
90.65-F	3	1131	32°17.0'	120°17.0'	2040	320°	2	missing	smooth	17.02	33.76
93.35-B	15	1430	32°39.5'	117°52.0'	350	280°	2	clear	moderate	18.04	-
93.45-B	15	0900	32°20.0'	118°32.0'	900	310°	3	clear	moderate	18.07	-
93.55-B	15	0315	32°04.0'	119°09.0'	600	320°	5	clear	very rough	18.04	-

TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
93.65-B	X-14	2100	31°40.0'	119°53.5'	1800	320°	5	partly cloudy	very rough	17.93	-
97.30-B	18	1940	32°15.5'	117°08.5'	32	270°	2	partly cloudy	moderate	16.22	-
97.32-B	18	1835	32°11.5'	117°16.5'	750	270°	2	partly cloudy	moderate	17.06	-
97.35-B	18	1630	32°03.5'	117°29.0'	525	270°	3	partly cloudy	moderate	16.46	-
97.40-B	18	1400	31°56.0'	117°50.0'	650	300°	4	partly cloudy	moderate	18.32	-
97.45-B	18	1115	31°45.0'	118°10.0'	850	310°	4	clear	moderate	18.28	-
97.50-B	18	0835	31°36.0'	118°30.0'	1300	280°	4	clear	rough	19.52	-
100.45-M	7	2247	31°07.5'	117°44.9'	860	320°	6	partly cloudy	very rough	21.0	33.77
100.55-M	8	0545	30°47.0'	118°25.5'	1300	320°	6	partly cloudy	very rough	19.34	33.57
100.65-M	8	1239	30°24.0'	119°02.0'	1950	320°	5	overcast	very rough	18.90	33.44
103.30-B	19	0345	31°05.0'	116°25.0'	42	320°	4	missing	moderate	15.77	-
103.35-B	19	0625	30°55.0'	116°45.0'	950	300°	5	clear	rough	18.92	-
103.40-B	19	0905	30°45.0'	117°05.5'	750	290°	5	partly cloudy	moderate	19.36	-
107.32-B	19	1820	30°26.0'	116°11.0'	200	320°	4	clear	moderate	16.81	-
107.35-B	19	1635	30°20.0'	116°23.0'	950	330°	5	cloudy	moderate	17.38	-
107.40-B	19	1315	30°09.0'	116°45.5'	1500	320°	4	partly cloudy	rough	19.14	-
110.33-M	13	0018	29°49.0'	115°51.0'	34	340°	5	clear	rough	16.66	33.46
110.45-M	12	1540	29°19.5'	116°41.5'	1500	340°	4	partly cloudy	rough	20.06	33.64
110.55-M	12	1002	29°03.5'	117°16.5'	1900	340°	4	cloudy	rough	19.93	33.60

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TEMPERATURE AND SALINITY AT 10 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
113.30-B	X-20	0245	29°22.0'	115°18.0'	40	270°	4	clear	rough	18.24	-
113.35-B	20	0510	29°11.5'	115°38.0'	630	320°	5	clear	rough	18.06	-
113.40-B	20	1742	29°02.0'	115°57.0'	930	320°	5	clear	rough	18.08	-
117.26-B	20	2145	28°56.0'	114°41.5'	38	300°	3	clear	moderate	19.53	-
117.30-B	20	1955	28°48.0'	114°56.5'	55	320°	4	clear	moderate	19.54	-
117.35-B	20	1700	28°38.0'	115°16.0'	110	320°	6	clear	rough	19.52	-
117.40-B	20	1200	28°28.0'	115°35.5'	450	320°	5	clear	rough	19.66	-
118.39-B	20	1400	28°18.5'	115°23.5'	120	330°	4	clear	rough	19.88	-
120.25-B	21	0215	28°22.5'	114°15.0'	31	360°	3	clear	moderate	20.43	-
120.30-B	21	0445	28°13.0'	114°34.0'	52	360°	2	clear	moderate	19.63	-
120.35-B	21	0715	28°03.0'	114°54.0'	45	360°	3	clear	moderate	21.18	-
120.40-B	21	0915	27°56.5'	115°14.0'	23	260°	2	clear	moderate	20.20	-
120.55-M	15	0803	27°22.0'	116°13.0'	2000	340°	4	cloudy	rough	20.61	33.79
120.65-M	15	1432	27°00.5'	116°55.0'	2100	320°	3	cloudy	very rough	21.32	33.87
123.37-B	21	1445	27°24.0'	114°40.0'	40	300°	2	partly cloudy	moderate	18.16	-
123.42-B	21	2143	27°14.0'	114°59.0'	850	300°	4	partly cloudy	moderate	19.30	-
123.45-B	21	2325	27°08.0'	115°11.0'	2100	300°	4	partly cloudy	rough	21.22	-
123.50-B	22	0145	26°58.0'	115°30.5'	2000+	320°	4	partly cloudy	moderate	21.59	-
127.34-B	22	1405	26°55.0'	114°06.5'	45	-	-	cloudy	slight	21.58	-

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 Meters T	10 Meters S
127.40-B	X-22	1125	26°43.5'	114°29.0'	1600	-	1	cloudy	slight	22.36	-
127.45-B	22	0855	26°33.0'	114°48.5'	1800	320°	2	cloudy	moderate	22.44	-
127.50-B	22	0620	26°23.0'	115°08.0'	2100	320°	3	overcast	moderate	21.70	-
130.35-M	19	1549	26°18.0'	113°48.0'	190	040°	3	clear	rough	21.62	33.86
130.45-M	19	0939	25°57.0'	114°24.0'	1900	010°	4	clear	rough	21.98	34.05
130.55-M	19	0325	25°36.5'	115°02.0'	2025	350°	5	clear	rough	23.12	34.04
137.35-M	20	1019	25°10.0'	113°04.5'	700	320°	3	clear	rough	23.13	34.17
137.45-M	20	1655	24°50.0'	113°42.0'	1850	350°	2	partly cloudy	moderate	23.18	34.04
137.55-M	21	0002	24°30.0'	114°23.0'	1950	350°	2	partly cloudy	moderate	24.02	34.08

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