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NOAA Data Report ERL MESA-33



MESA NEW YORK BIGHT PROJECT
EXPANDED WATER COLUMN CHARACTERIZATION CRUISE (XWCC 12)
NOAA SHIP GEORGE B. KELEZ, APRIL-MAY 1977

John B. Hazelworth
Alan Herman
Terren M. Niedrauer
Philip G. Hanson

Marine Ecosystems Analysis Program
Boulder, Colorado
February 1978

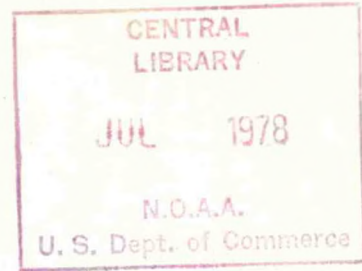
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UNITED STATES
DEPARTMENT OF COMMERCE

Juanita M. Kreps, Secretary

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ATMOSPHERIC ADMINISTRATION

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CRUISE (XWCC 12) NOAA SHIP GEORGE B. KELEZ
APRIL-MAY 1977

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During the period 28 April-6 May 1977, an oceanographic cruise was made on the NOAA Ship George B. Kelez in the New York Bight. The objective of the cruise was to supply data to provide a base for analysis of the water characteristics and movements in the highly impacted ecosystem. This report presents the corrected physical and chemical (nutrient) data from this cruise.

Key Words: MESA, New York Bight, Physical Oceanography Data, Nutrient Data

1. INTRODUCTION

This report is a continuation in the Marine Ecosystem Analysis (MESA) Program's series of publication presenting oceanographic data from the New York Bight. In April-May 1977, a cruise of 79 stations was conducted by the Atlantic Oceanographic and Meteorological Laboratories (AOML), Miami, Florida, aboard the NOAA Ship George B. Kelez. The instrumentation employed was the same as that described in previous reports (Hazelworth et al., 1974, 1975, a,b) namely, an Inter Ocean Model 513-10 CSTD with associated sensors and equipment. The area of investigation was the expanded New York Bight region (Fig. 1 and Tab. 1). Cruise date and participating AOML staff members are listed in Table 2. The physical and nutrient data obtained from the water column measurements are presented herein; the operational characteristics of the nutrient analyses system are found in Starr et al., (1977).

This report is the eleventh of a series of reports describing the physical oceanographic measurements in the expanded area. Earlier cruises were reported by Charnell et al., (1976), Starr et al., (1976 a,b, 1977), Hazelworth and Darnell (1976), Kolitz et al., (1976 a,b) Hazelworth et al., (1977 a,b,c).

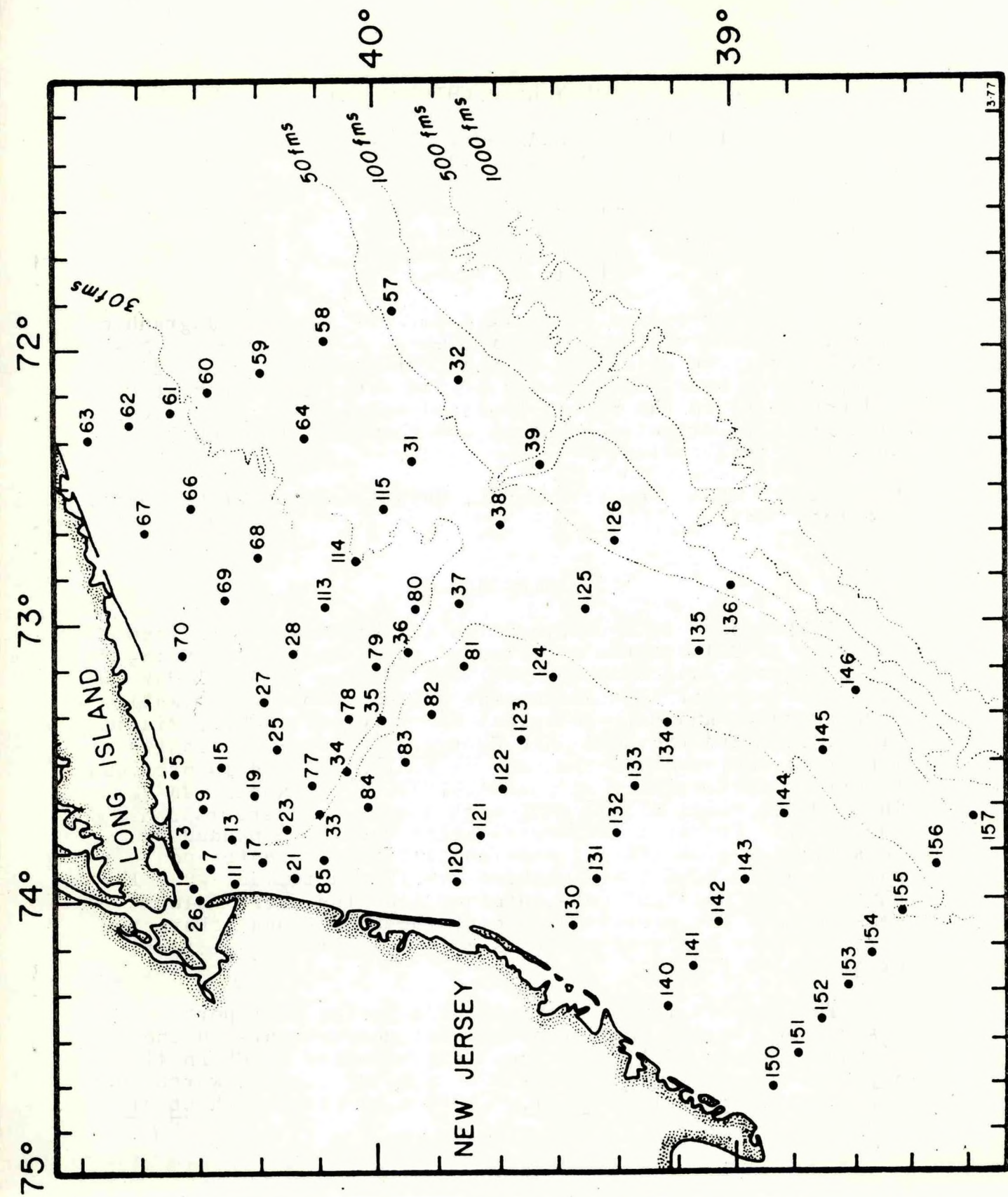


Figure 1. Locations of stations occupied during XWCC-12

TABLE 1.

NEW YORK BIGHT STATION POSITIONS

STATION	LATITUDE	LONGITUDE	STATION	LATITUDE	LONGITUDE
1	40° 30.2'	73° 57.3'	79	40° .0'	73° 9.5'
3	40° 31.5'	73° 48.4'	80	39° 54.5'	72° 57.0'
5	40° 33.3'	73° 32.5'	81	39° 44.5'	73° 10.0'
7	40° 26.9'	73° 53.0'	82	39° 50.5'	73° 20.5'
9	40° 28.3'	73° 39.6'	83	39° 56.5'	73° 30.5'
11	40° 22.2'	73° 56.7'	84	40° 2.0'	73° 41.0'
13	40° 23.3'	73° 47.0'	85	40° 8.0'	73° 51.5'
15	40° 25.2'	73° 30.4'	113	40° 08.8'	72° 55.5'
17	40° 18.5'	73° 51.8'	114	40° 04.0'	72° 45.2'
19	40° 20.2'	73° 37.9'	115	39° 58.7'	72° 34.1'
21	40° 13.5'	73° 56.1'	120	39° 46.5'	73° 55.5'
23	40° 14.8'	73° 45.6'	121	39° 42.9'	73° 46.5'
25	40° 16.9'	73° 28.3'	122	39° 39.5'	73° 36.0'
26	40° 29.0'	73° 59.5'	123	39° 35.0'	73° 26.0'
27	40° 18.0'	73° 17.5'	124	39° 30.0'	73° 12.2'
28	40° 13.5'	73° 7.0'	125	39° 23.8'	72° 57.2'
31	39° 54.0'	72° 25.0'	126	39° 18.9'	72° 42.5'
32	39° 46.0'	72° 7.0'	130	39° 27.7'	74° 06.1'
33	40° 10.0'	73° 41.5'	131	39° 23.2'	73° 55.5'
34	40° 5.5'	73° 31.5'	132	39° 20.0'	73° 46.5'
35	39° 59.0'	73° 21.5'	133	39° 16.9'	73° 35.8'
36	39° 55.0'	73° 6.5'	134	39° 11.1'	73° 21.9'
37	39° 46.0'	72° 57.0'	135	39° 05.2'	73° 06.5'
38	39° 39.0'	72° 39.5'	136	39° 00.0'	72° 52.0'
39	39° 32.0'	72° 26.0'	140	39° 11.1'	74° 24.5'
57	39° 57.0'	71° 52.0'	141	39° 06.8'	74° 15.2'
58	40° 8.0'	71° 58.0'	142	39° 02.9'	74° 05.9'
59	40° 18.0'	72° 4.0'	143	38° 58.1'	73° 56.0'
60	40° 27.0'	72° 9.0'	144	38° 51.6'	73° 42.0'
61	40° 33.0'	72° 13.0'	145	38° 45.0'	73° 27.9'
62	40° 40.0'	72° 16.0'	146	38° 39.4'	73° 16.1'
63	40° 47.0'	72° 20.0'	150	38° 53.8'	74° 41.9'
64	40° 12.0'	72° 20.0'	151	38° 49.7'	74° 34.0'
66	40° 30.0'	72° 34.0'	152	38° 45.4'	74° 27.2'
67	40° 38.0'	72° 40.0'	153	38° 41.5'	74° 20.0'
68	40° 19.0'	72° 46.0'	154	38° 37.1'	74° 12.8'
69	40° 25.0'	72° 55.0'	155	38° 31.4'	74° 04.5'
70	40° 32.0'	73° 7.0'	156	38° 25.3'	73° 53.0'
77	40° 10.5'	73° 34.0'	157	38° 19.5'	73° 43.2'
78	40° 5.0'	73° 21.5'			

TABLE 2. Expanded Water Column Characterization Cruise
by the NOAA Ship George B. Kelez

Cruise	Date	AOML personnel
XWCC-12	April 28-May 6 1977	Robert B. Starr Chief Scientist George A. Berberian Donald Atwood Dale Finch

Prior reports, cited above, give detailed information on instrumentation specification, data collection methods, and data processing techniques. The correction factors required to bring the sensor values into agreement with the water samples as well as the data accuracy, are given in Table 3. No correction factor was applied to the transmissivity or ph data. All sensors were calibrated before the cruise. The statistical parameters in Table 3 were computed using the following formulas:

$$\text{Calibration offset} = \frac{1}{N} \sum_{i=1}^N (\bar{E}_i - W_i)$$

Calibration recheck

$$\bar{X} = \text{Mean Difference} = \frac{1}{N} \sum_{i=1}^N (I_i - W_i)$$

$$S_x = \text{Standard Deviation} = \sqrt{\frac{1}{(N-1)} \sum_{i=1}^N (I_i - \bar{X})^2}$$

where N = total number of water samples for entire cruise;
W = water sample value;
 $\bar{E}$ = mean electronic sensor value at the depth corresponding to water sample at the same depth;
I = corrected interpolated one meter electronic sensor value at the nearest depth corresponding to the water sample value.
T = time (Julian Days, Table 3)

TABLE 3. Correction Factors and Data Accuracy for
Cruise XWCC 12

	Temp. °C	Salinity o/oo	O ₂	Depth (Meters)
Calib. Offset	+.004T-.536	+.002T-.196	+.034T-3.839	0.0
Calib. Recheck				
X	+.00	+.00	+.00	
S _X	.05	.08	.14	
Precision (Repeatability)				+0.5

2. Data Presentation

Tables of the interpolated data and the corresponding depth profiles of temperature, salinity, sigma-t, and transmissivity are given in Section 6, Station Data. The codes used in the headings are from the National Oceanographic Data Center Manual Series (1964). The tabulated data are given at 1-m intervals from the surface to 50 m and at 10-m intervals thereafter; in addition, data are presented at the depths at which water samples were obtained and at the bottom of the cast. Profiles were produced from the processed 1-m data. The symbols, explained to the left of each horizontal axis and located on the curves at 5-m intervals, identify the parameters.

The distributions of temperature, salinity, and sigma-t are presented in Section 5: 1) horizontally at 1-m depth (Figures 2-4), and 2) vertically along the axis of the Hudson Shelf Valley (Figures 5-7).

3. ACKNOWLEDGEMENTS

The authors express their thanks to the officers and crew of the NOAA Ship George B. Kelez under the command of Capt. Decoste for the long and diligent hours they devoted to collecting these data. The effort was sponsored by NOAA and funded jointly by the NOAA Environmental Research Laboratories and the MESA Program's New York Bight Office.

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5. AREAL AND CROSS-SECTION DISTRIBUTIONS
OF TEMPERATURE, SALINITY, AND SIGMA-T

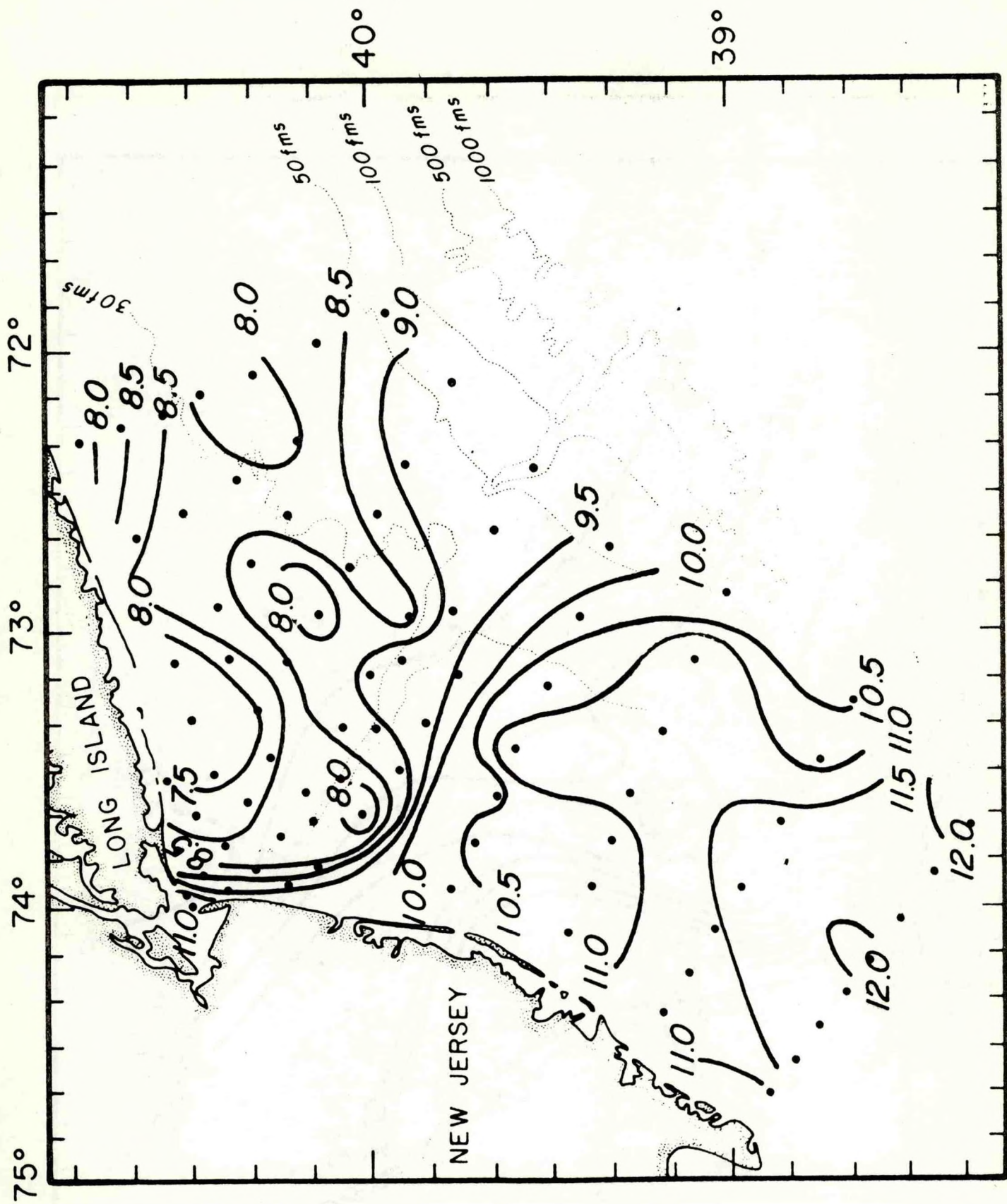


Figure 2. Surface Water Temperature 4/23/77 - 5/6/77.

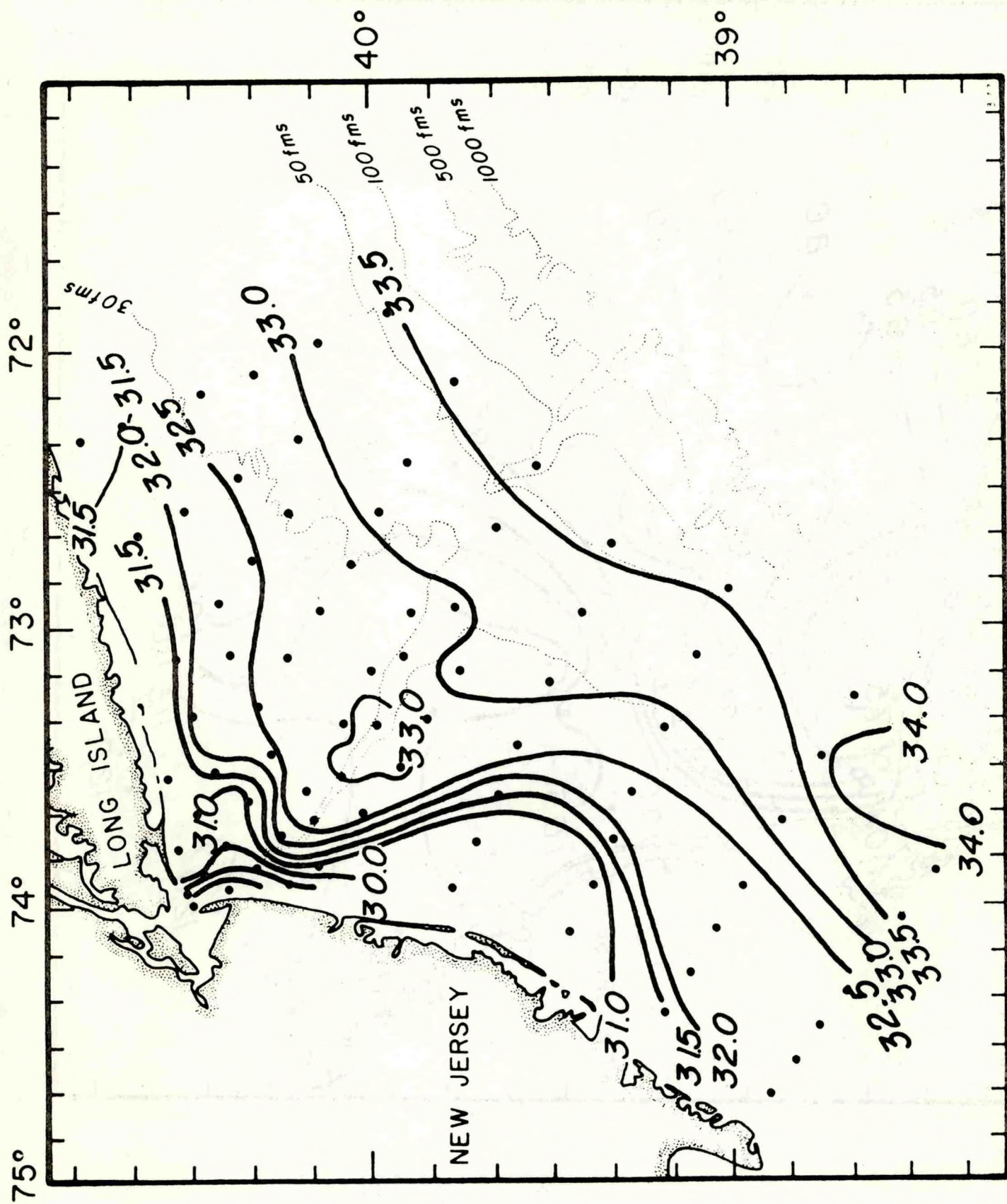


Figure 3. Surface Salinities 4/28/77 - 5/6/77.

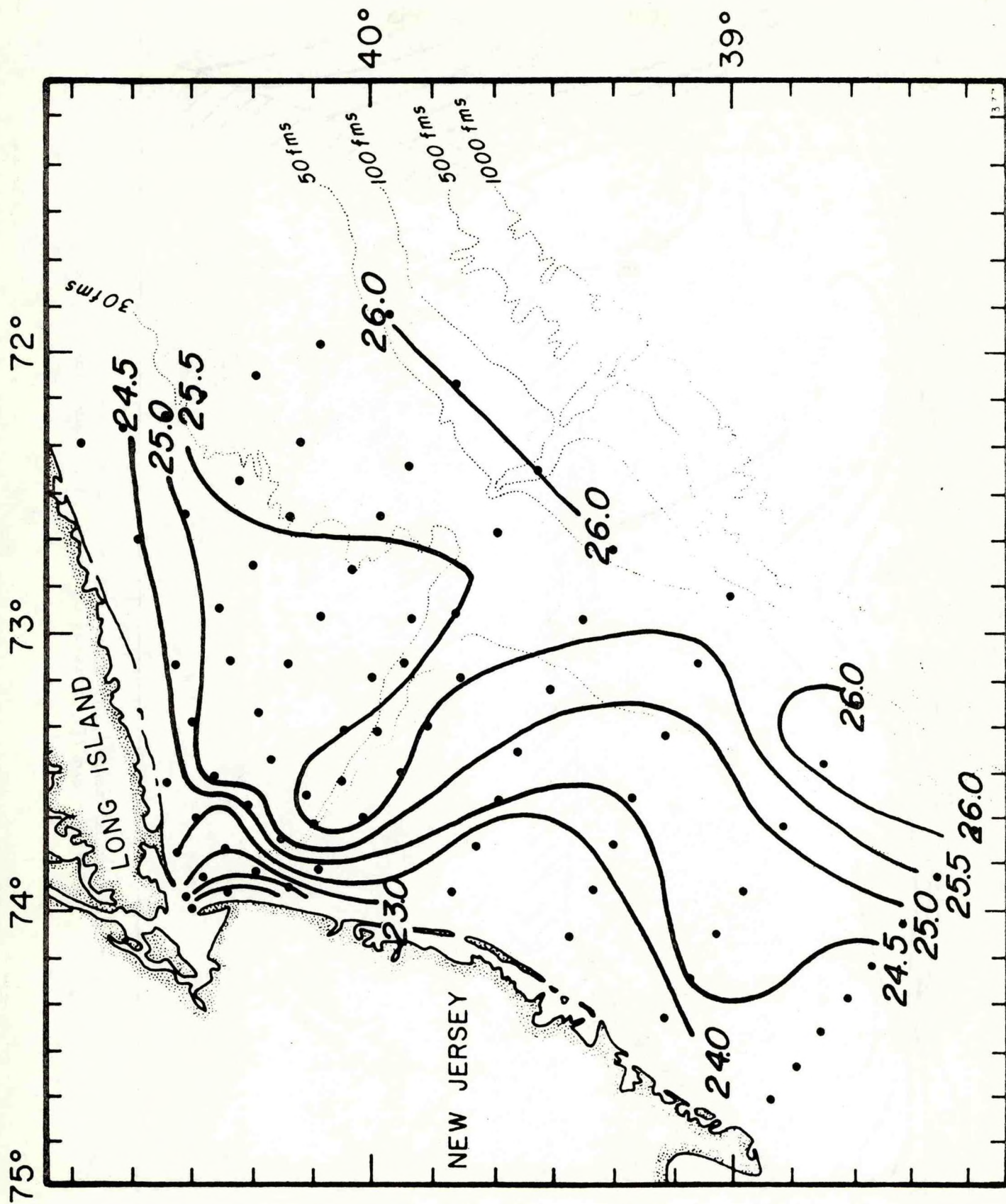


Figure 4. Surface Sigma-t 4/28/77 - 5/6/77.

STATIONS

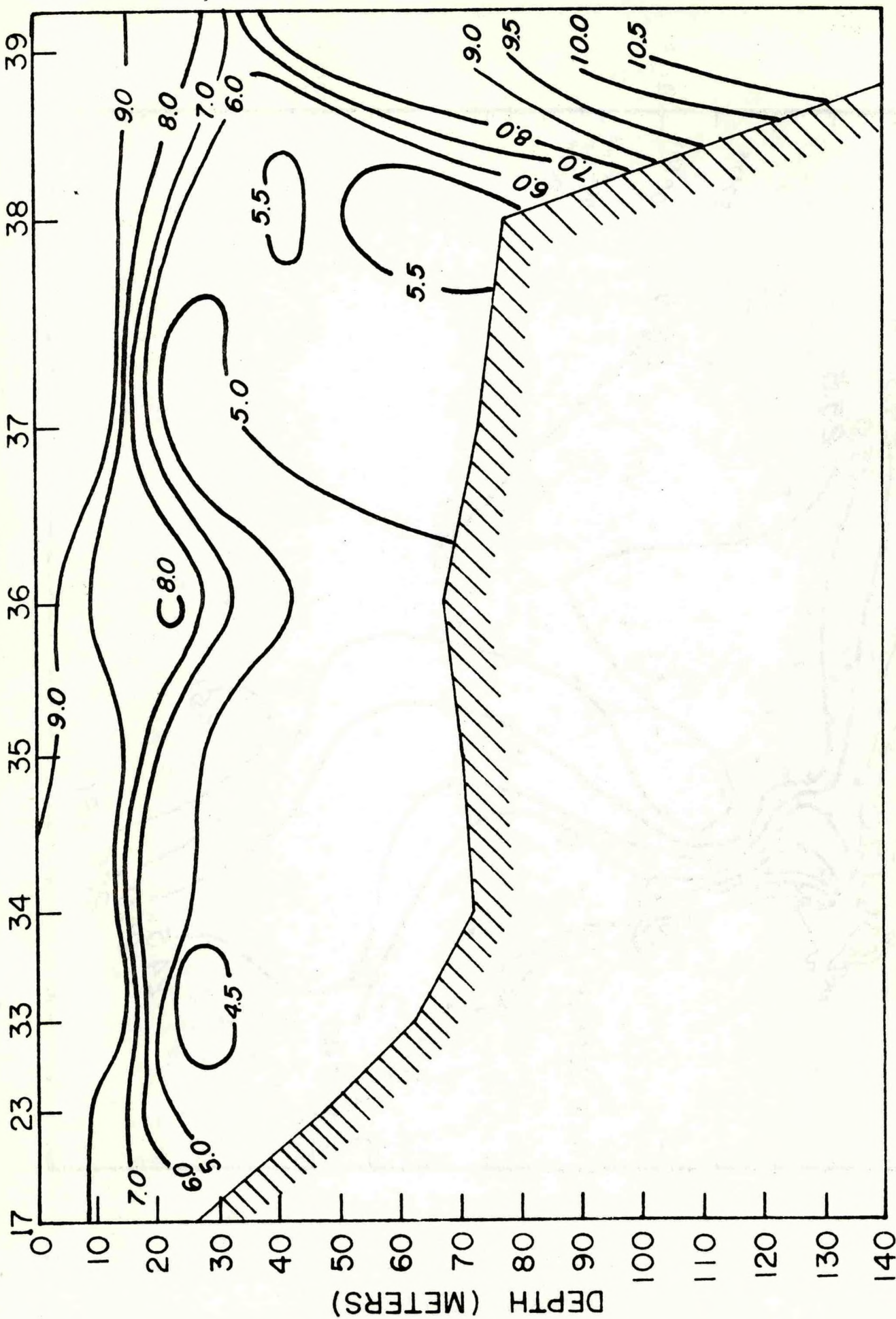


Figure 5. Vertical temperature contours along the Hudson Shelf Valley 4/28/77 - 5/6/77. Reference Figure 1 for track line.

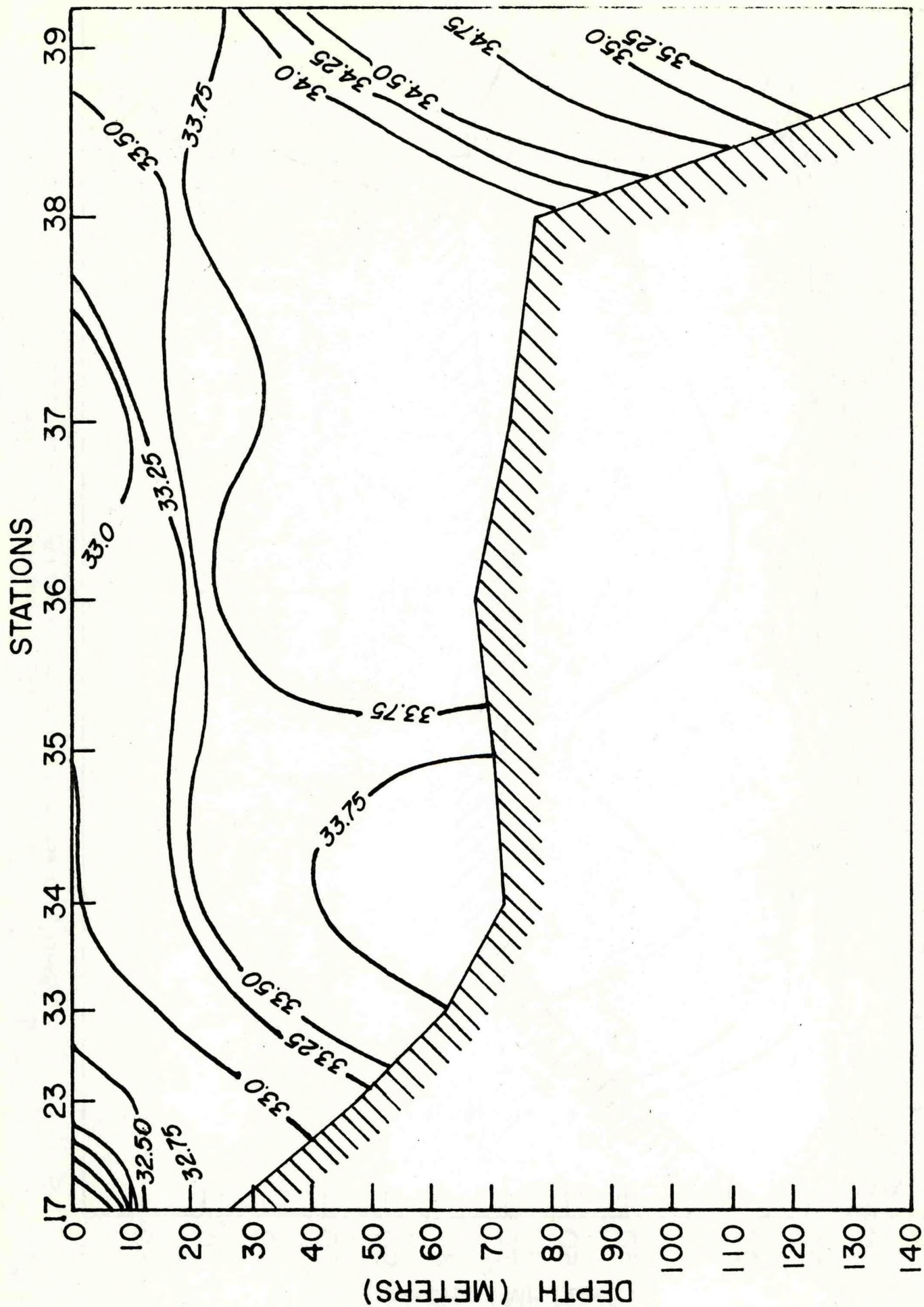


Figure 6. Vertical Salinity contours along the Hudson Shelf Valley 4/28/77 - 5/6/77. Reference Figure 1 for track line.

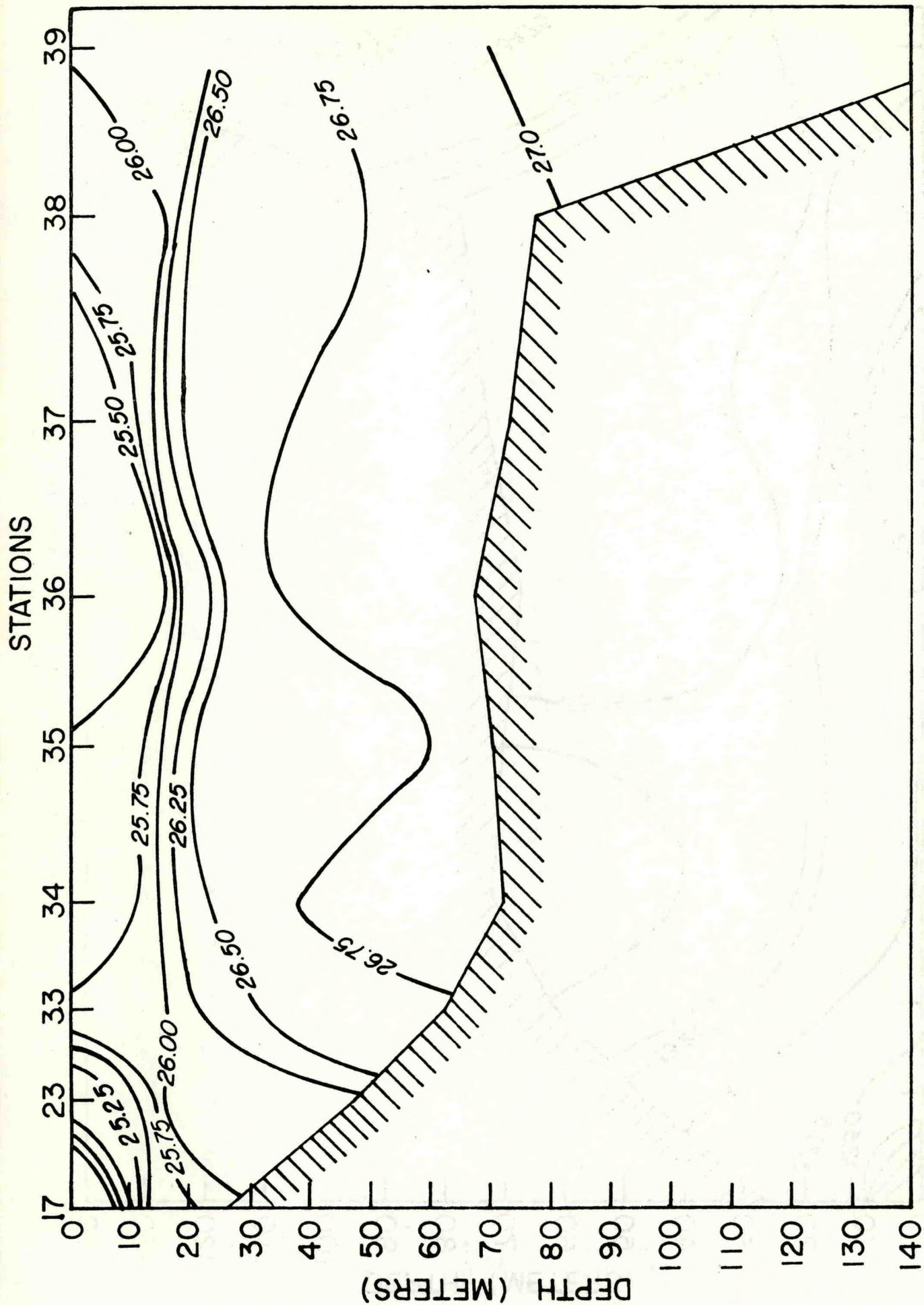


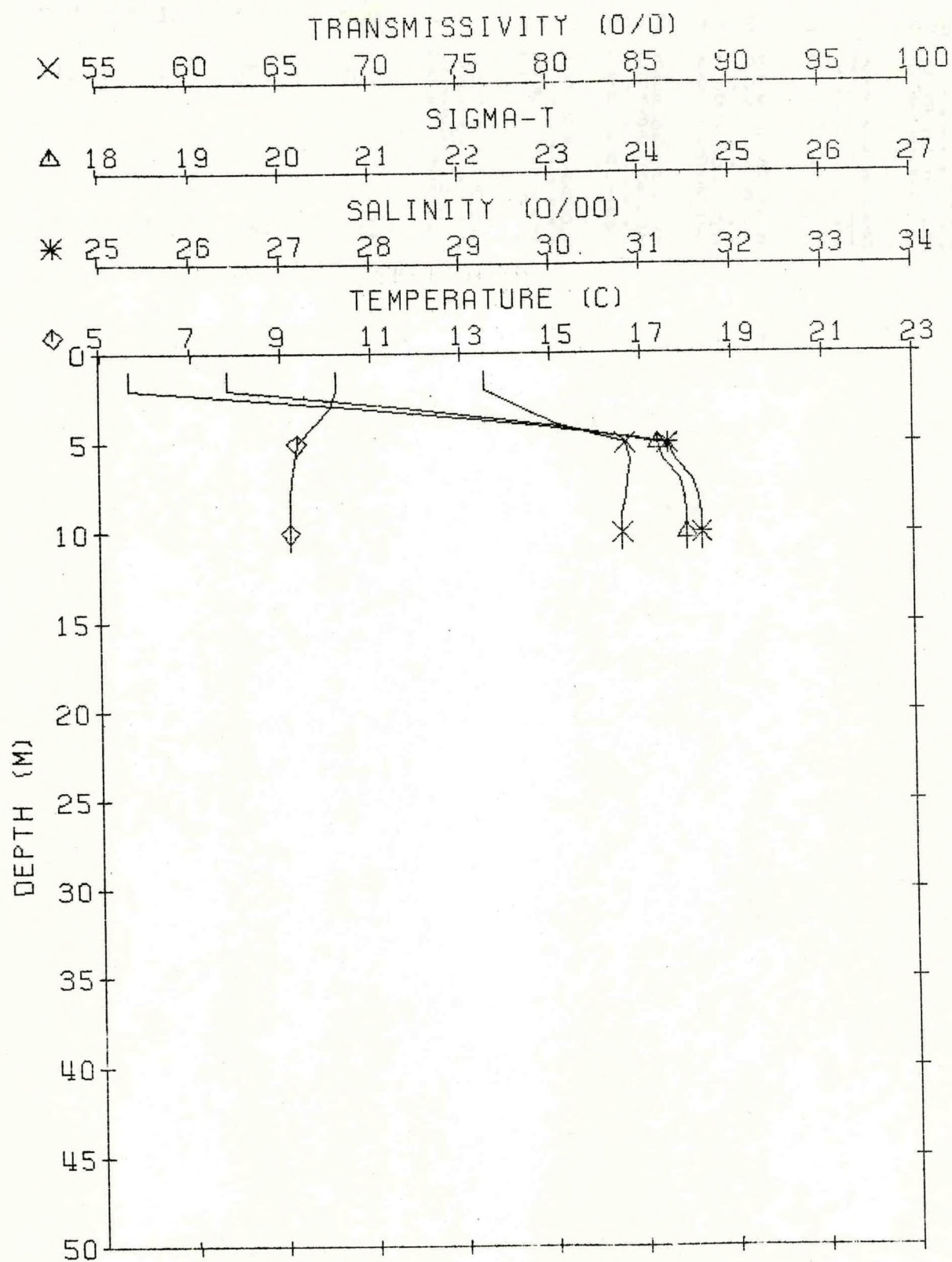
Figure 7. Vertical Sigma-t contours along the Hudson Shelf Valley 4/28/77 - 5/6/77. Reference Figure 1 for track line.

6. STATION DATA

XWCC-12 STA.001 LAT 40 30.2N; LONG 73 56.7W GMT 16.1 04/28/77
 DEPTH 011 ATR D/W 16.1/13.3 BARO 05.0 VIS 6 CLD TYP/CVR /7
 WETHR 2 WIND DIR/SPD 26/16 SEA DIR/HT 26/0 SWELL DIR/HT 25/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	10.21	25.32	19.41	76.3	8.36	5.60				
2	10.21	25.32	19.41	76.3	8.36	5.60				
3	10.09	27.80	21.36	78.3	8.36	5.63	.53	12.04	12.46	.93
4	9.71	29.81	22.97	80.5	8.36	5.67				
5	9.34	31.28	24.18	84.1	8.37	5.77				
6	9.30	31.37	24.26	84.4	8.37	5.83				
7	9.21	31.56	24.42	84.2	8.37	5.89				
8	9.20	31.63	24.48	84.1	8.37	5.93				
9	9.19	31.66	24.50	83.9	8.37	5.95				
10	9.19	31.66	24.50	83.9	8.37	5.97				
11	9.19	31.66	24.50	83.9	8.37	5.98	.11	.21	3.05	.39

KELEZ CRUISE XWCC-12 STATION 1 04/28/77

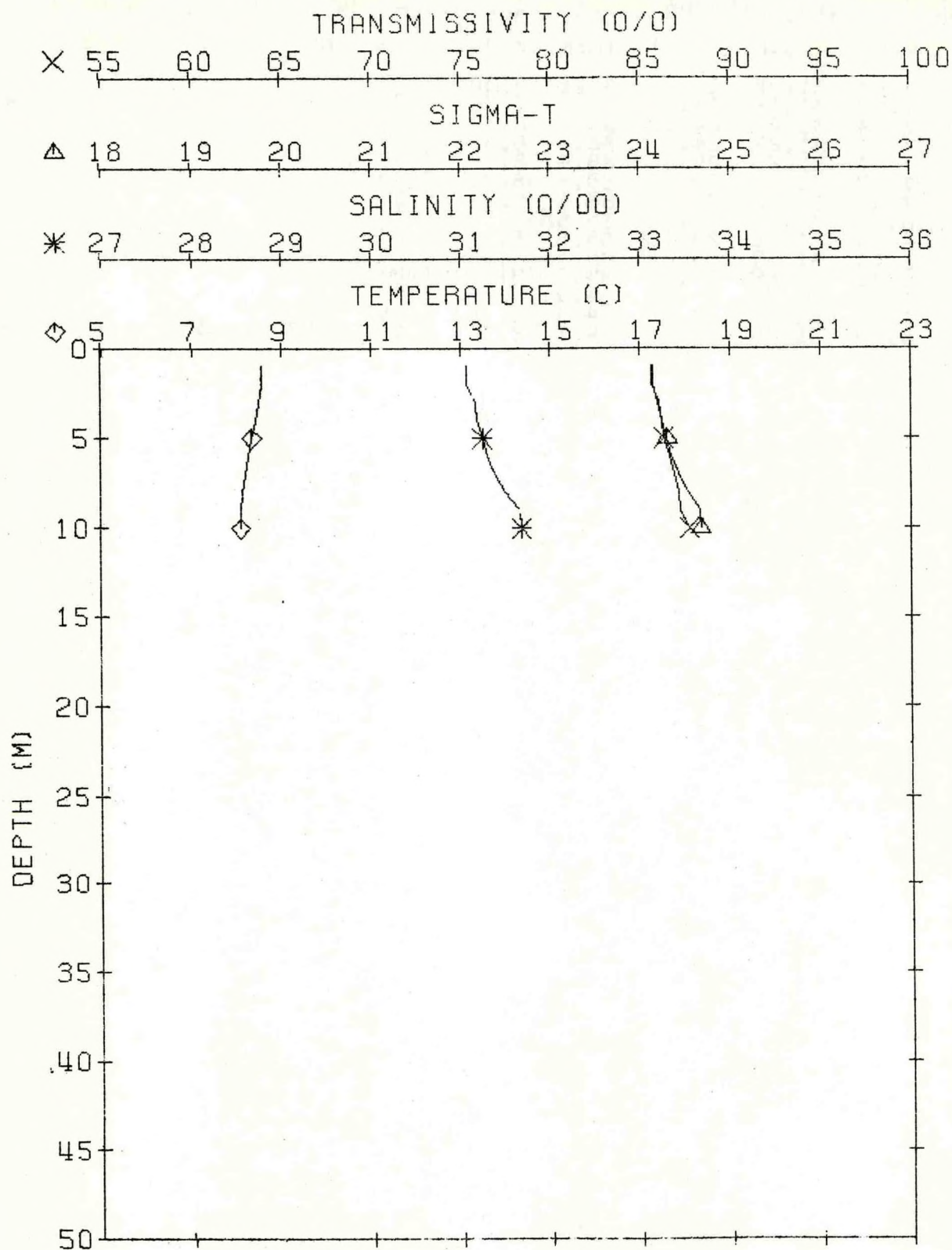


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 WETHR 8 WIND DIR/SPD 29/04 SEA DIR/HT 29/0 SWELL DIR/HT 30/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.56	31.07	24.13	85.7	8.33	6.92				
2	8.56	31.07	24.13	85.7	8.33	6.92	.07	.70	3.27	.42
3	8.47	31.16	24.22	86.0	8.34	6.89				
4	8.41	31.18	24.24	86.2	8.35	6.89				
5	8.33	31.24	24.30	86.3	8.36	6.92				
6	8.25	31.30	24.36	86.6	8.36	6.92				
7	8.17	31.38	24.43	86.9	8.36	6.93				
8	8.12	31.50	24.53	87.1	8.36	6.95				
9	8.07	31.66	24.66	87.2	8.36	6.95				
10	8.09	31.68	24.68	87.7	8.36	6.93	.03	.28	3.06	.36

KELEZ CRUISE XWCC-12 STATION 3

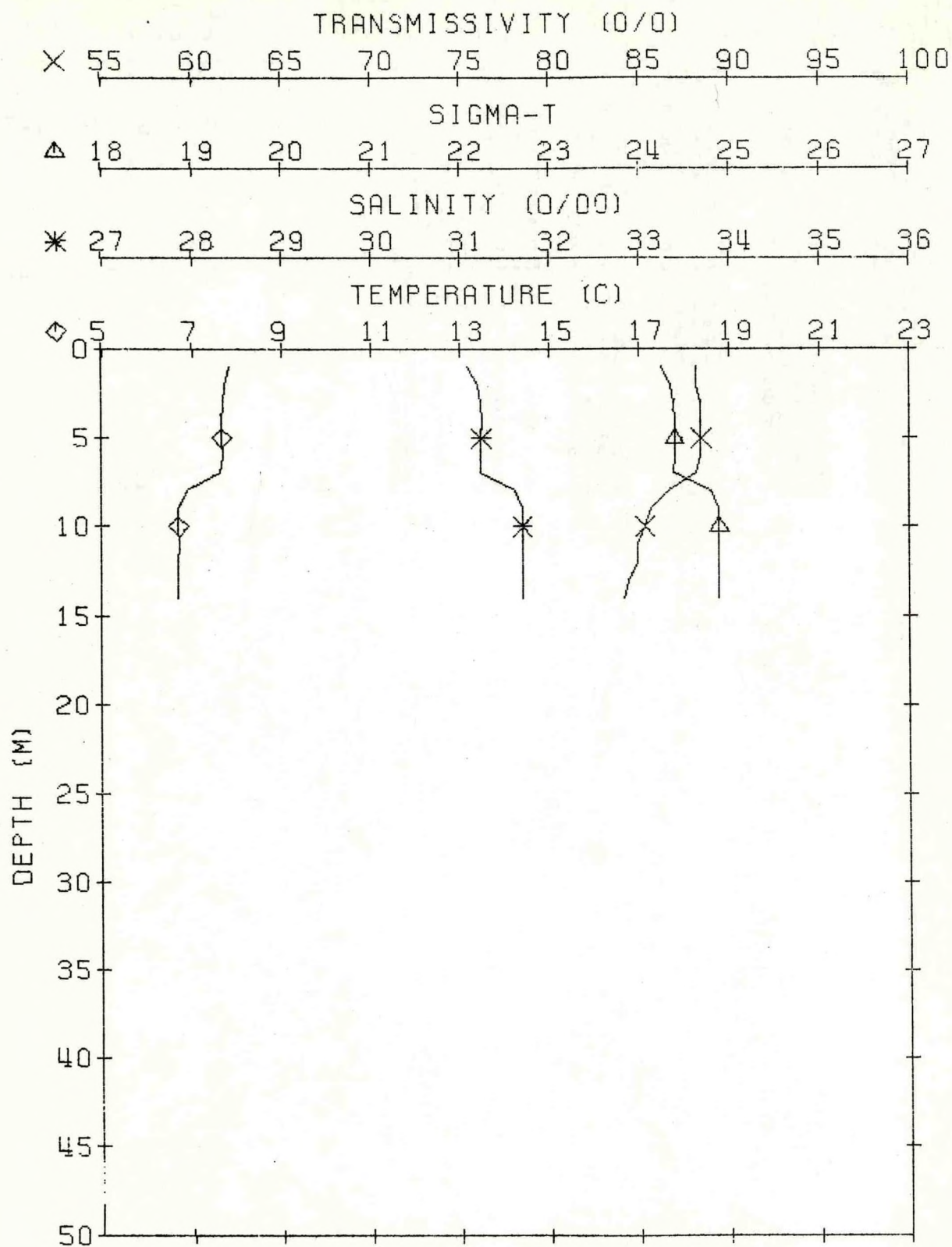
04/29/77



XWCC-12 STA.005 LAT 40 33.3N; LONG 73 32.5W GMT 07.4 04/29/77
 DEPTH 015 AIR D/W / BARO 13.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 34/21 SEA DIR/HT 34/1 SWELL DIR/HT 34/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	7.83	31.08	24.24	88.1	8.36	6.79				
2	7.72	31.19	24.35	88.1	8.36	6.79	.05	.34	3.62	.45
3	7.68	31.23	24.38	88.4	8.36	7.07				
4	7.66	31.24	24.39	88.4	8.36	7.10				
5	7.67	31.23	24.39	88.4	8.36	7.09				
6	7.67	31.23	24.39	88.4	8.36	7.09				
7	7.61	31.22	24.39	88.1	8.36	7.09				
8	6.87	31.61	24.79	86.6	8.36	7.12				
9	6.70	31.70	24.88	85.6	8.36	7.23				
10	6.70	31.69	24.88	85.3	8.35	7.12				
11	6.70	31.69	24.88	84.9	8.34	7.06				
12	6.69	31.70	24.88	84.9	8.35	7.09				
13	6.69	31.69	24.88	84.4	8.36	7.09				
14	6.69	31.70	24.89	84.1	8.36	7.08	.07	.37	4.50	.51

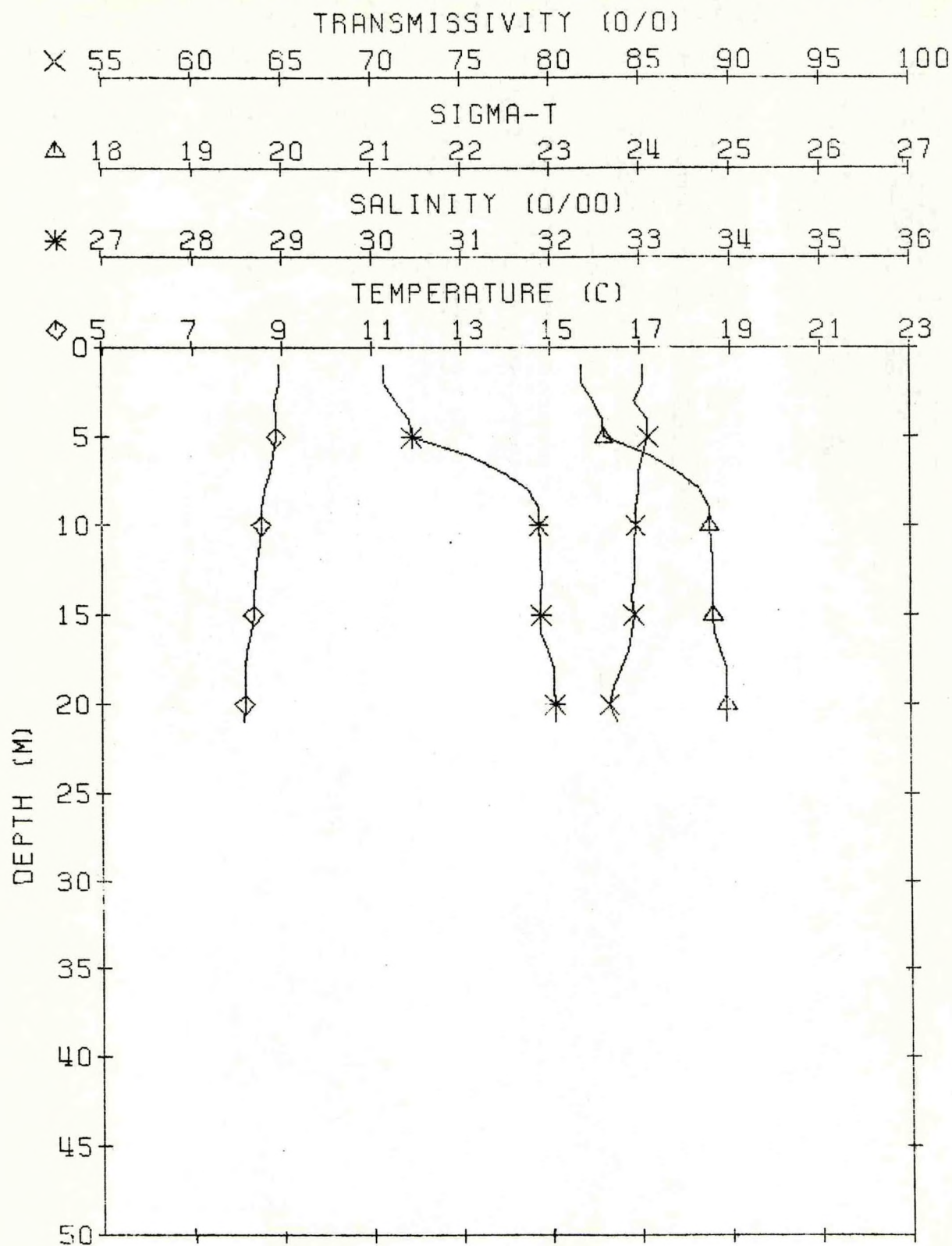
KEFLEZ CRUISE XWCC-12 STATION 5 04/29/77



XWCC-12 STA.007 LAT 40 27.0N; LONG 73 53.0W GMT 00.6 04/29/77
 DEPTH 021 AIR D/W 16.7/13.3 BARO 05.0 VIS 7 CLD TYP/CVR /7
 WETHR 2 WIND DIR/SPD 31/22 SEA DIR/HT 31/1 SWELL DIR/HT 31/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.91	30.13	23.35	85.1	8.36	6.61				
2	8.91	30.13	23.35	85.1	8.36	6.61	.12	1.60	3.97	.47
3	8.80	30.26	23.47	84.6	8.35	6.69				
4	8.83	30.40	23.57	85.4	8.36	6.63				
5	8.85	30.44	23.60	85.4	8.36	6.63				
6	8.78	31.04	24.08	85.1	8.36	6.63				
7	8.70	31.46	24.41	84.9	8.36	6.64				
8	8.58	31.75	24.66	84.9	8.36	6.64				
9	8.51	31.86	24.76	84.7	8.36	6.59				
10	8.51	31.86	24.76	84.7	8.36	6.60	.04	.30	3.23	.40
11	8.48	31.87	24.77	84.6	8.36	6.58				
12	8.42	31.88	24.79	84.6	8.36	6.49				
13	8.39	31.89	24.80	84.6	8.36	6.58				
14	8.36	31.88	24.80	84.5	8.36	6.55				
15	8.33	31.88	24.80	84.6	8.36	6.51				
16	8.27	31.88	24.81	84.5	8.36	6.49				
17	8.20	31.96	24.88	84.3	8.36	6.49				
18	8.14	32.02	24.94	83.9	8.36	6.47				
19	8.14	32.03	24.95	83.5	8.36	6.45				
20	8.14	32.04	24.95	83.2	8.36	6.42				
21	8.13	32.04	24.95	83.6	8.36	6.31	.10	.42	4.63	.53

KELEZ CRUISE XWCC-12 STATION 7 04/29/77



XWCC-12 STA.009 LAT 40 28.3N; LONG 73 39.5W GMT 12.4 04/29/77
 DEPTH 021 AIR D/W 06.7/03.6 BARO 16.0 VIS 7 CLD TYP/CVR 9/0
 WETHR 0 WIND DIR/SPD 32/16 SEA DIR/HT 28/0 SWELL DIR/HT 27/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	7.92	31.01	24.18	86.9	8.34	7.25				
2	7.92	31.01	24.18	86.9	8.34	7.25	.04	.54	2.42	.38
3	7.92	31.01	24.18	87.0	8.34	7.23				
4	7.92	31.01	24.18	86.9	8.34	7.21				
5	7.92	31.01	24.18	86.9	8.34	7.20				
6	7.91	31.02	24.19	86.9	8.34	7.19				
7	7.92	31.02	24.19	86.8	8.34	7.17				
8	7.93	31.01	24.18	86.8	8.34	7.16				
9	7.57	31.20	24.38	87.1	8.34	7.17				
10	6.87	31.72	24.88	87.7	8.35	7.33	.04	.19	3.40	.46
11	6.90	31.98	25.08	86.6	8.34	7.24				
12	6.90	31.99	25.08	86.0	8.34	7.08				
13	6.90	31.99	25.08	86.8	8.34	7.01				
14	6.90	32.00	25.09	86.7	8.34	7.01				
15	6.80	32.14	25.22	87.6	8.34	7.07				
16	6.91	32.28	25.31	88.3	8.34	7.06				
17	6.88	32.30	25.33	88.2	8.34	7.14				
18	6.91	32.37	25.38	88.1	8.34	7.11				
19	6.98	32.53	25.50	87.3	8.34	7.09				
20	6.99	32.57	25.53	87.3	8.34	7.08	.08	.57	2.50	.40

KELEZ CRUISE XWCC-12 STATION 9 04/29/77

TRANSMISSIVITY (0/0)

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SIGMA-T

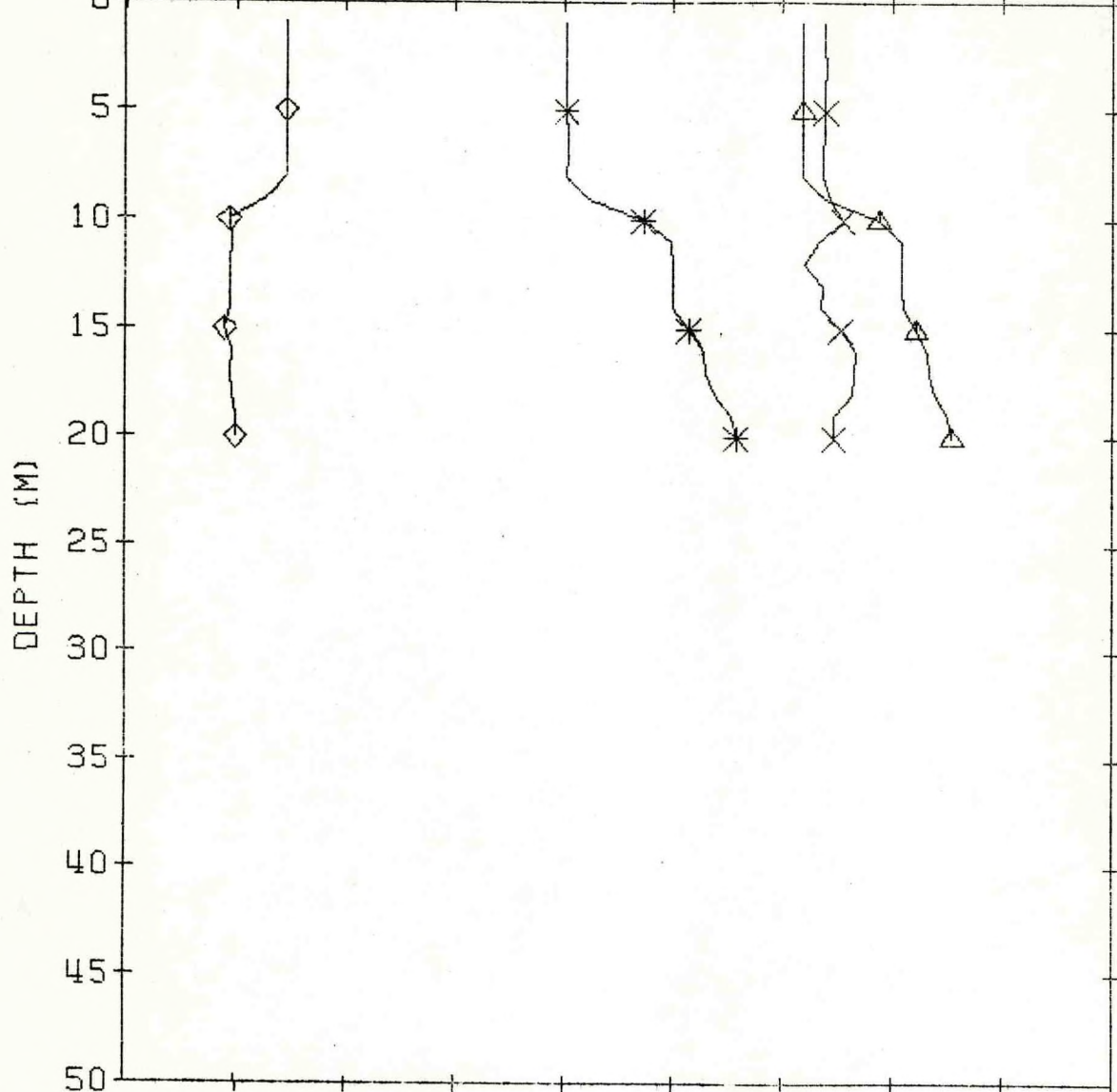
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SALINITY (0/00)

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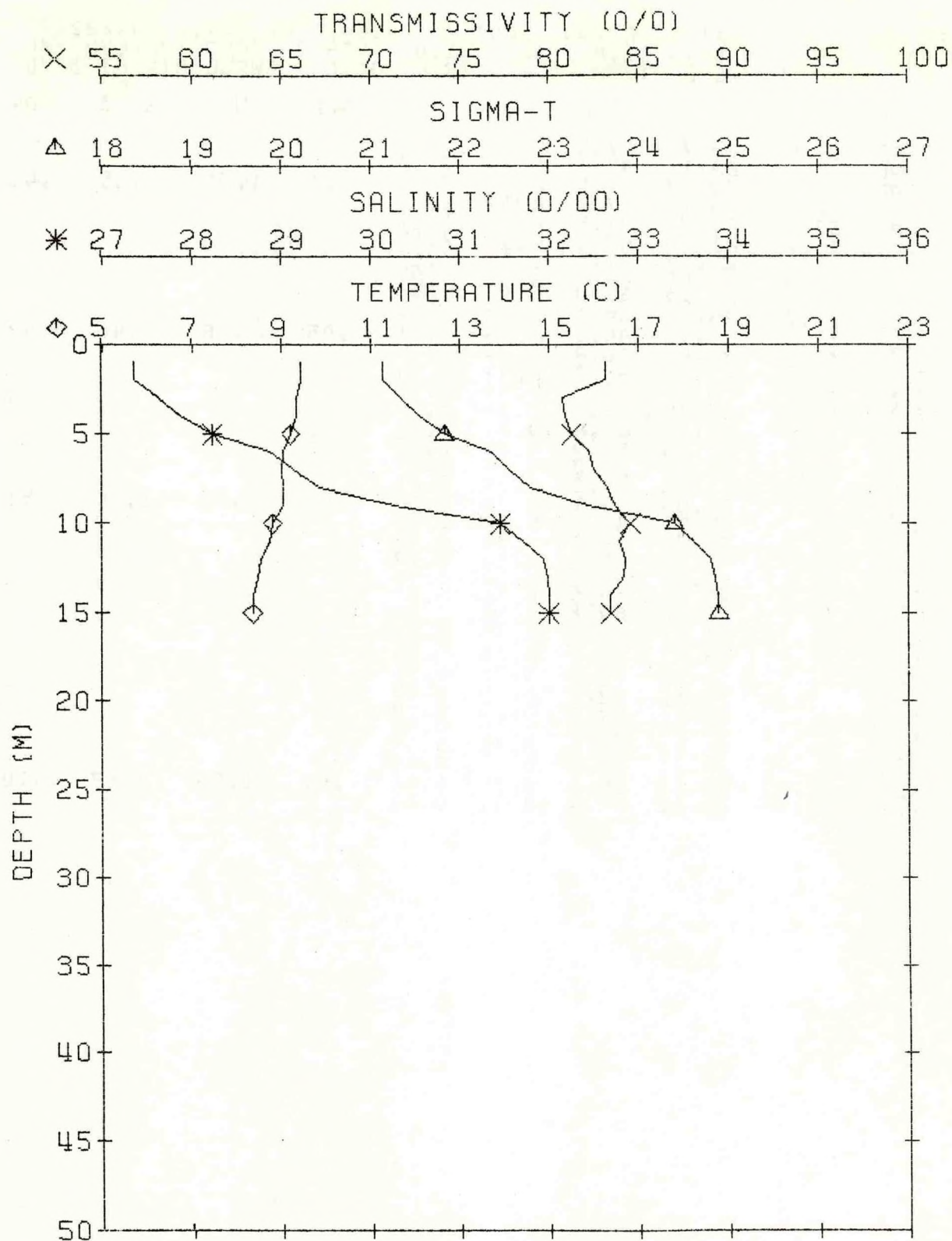
TEMPERATURE (C)

◇ 5 7 9 11 13 15 17 19 21 23



XWCC-12 STA.011 LAT 40 22.2N; LONG 73 56.6W GMT 16.1 04/29/77
 DEPTH 016 AIR D/W 08.6/04.2 BARO 20.5 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 32/14 SEA DIR/HT 32/0 SWELL DIR/HT 32/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	9.42	27.37	21.12	83.1	8.34	6.57				
2	9.42	27.37	21.12	83.1	8.34	6.57	.47	10.24	6.44	.70
3	9.31	27.62	21.33	80.7	8.34	6.54				
4	9.30	27.88	21.54	80.9	8.34	6.54				
5	9.19	28.23	21.83	81.2	8.34	6.54				
6	9.02	28.86	22.34	82.2	8.34	6.57				
7	8.97	29.12	22.55	82.5	8.34	6.58				
8	9.01	29.41	22.77	83.2	8.34	6.58				
9	9.01	30.25	23.43	83.6	8.35	6.56				
10	8.78	31.44	24.39	84.5	8.35	6.57	.16	2.26	3.32	.55
11	8.70	31.69	24.60	83.9	8.35	6.48				
12	8.53	31.92	24.80	84.2	8.35	6.35				
13	8.45	31.97	24.86	84.1	8.35	6.31				
14	8.37	31.99	24.88	83.4	8.35	6.29				
15	8.34	31.99	24.88	83.4	8.34	6.27	.15	1.76	3.32	.61



XWCC-12 STA.013 LAT 40 23.3N; LONG 73 47.0W GMT 14.0 04/29/77
 DEPTH 036 AIR D/W 06.1/02.8 BARO 21.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 31/16 SEA DIR/HT 31/0 SWELL DIR/HT 32/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	7.90	30.46	23.75	87.5	8.35	7.17				
2	7.90	30.46	23.75	87.5	8.35	7.17				
3	7.90	30.49	23.78	87.4	8.35	7.17	.11	1.38	5.05	.42
4	7.90	30.50	23.78	87.4	8.35	7.18				
5	7.89	30.51	23.79	87.5	8.35	7.17				
6	7.84	30.52	23.80	87.6	8.35	7.17				
7	7.87	30.54	23.82	87.4	8.35	7.17				
8	7.19	31.98	25.05	88.1	8.35	7.21				
9	7.04	32.25	25.27	88.3	8.35	7.26				
10	6.92	32.33	25.35	89.3	8.35	7.22				
11	7.05	32.45	25.43	88.9	8.35	7.11	.05	.18	1.46	.42
12	7.07	32.48	25.45	88.8	8.34	6.94				
13	7.09	32.55	25.50	88.7	8.34	6.94				
14	7.11	32.56	25.50	89.0	8.34	6.91				
15	7.11	32.57	25.52	88.9	8.34	6.89				
16	7.09	32.60	25.54	88.8	8.34	6.87				
17	7.10	32.61	25.55	88.9	8.34	6.85				
18	7.03	32.62	25.56	89.0	8.34	6.84				
19	6.93	32.62	25.58	88.8	8.34	6.83				
20	6.79	32.69	25.65	89.1	8.34	6.80	.03	.33	1.50	.51
21	6.62	32.76	25.73	89.5	8.34	6.72				
22	6.70	32.81	25.76	89.9	8.34	6.72				
23	6.74	32.83	25.77	90.2	8.34	6.72				
24	6.32	32.77	25.77	89.8	8.34	6.74				
25	5.95	32.81	25.85	89.6	8.34	6.83				
26	5.74	32.81	25.88	89.3	8.34	6.84				
27	5.33	32.78	25.91	89.2	8.35	6.81				
28	4.71	32.91	26.07	89.3	8.35	6.85				
29	4.65	32.95	26.11	89.3	8.35	6.81				
30	4.65	32.96	26.12	89.3	8.35	6.70				
31	4.65	32.95	26.11	89.3	8.35	6.60				
32	4.65	32.95	26.12	89.3	8.35	6.53				
33	4.66	32.96	26.12	89.4	8.35	6.48				
34	4.66	32.95	26.11	89.3	8.35	6.45				
35	4.66	32.95	26.11	89.4	8.35	6.41	.07	1.06	3.67	.70
36	4.67	32.95	26.11	89.4	8.34	6.31				

KELEZ CRUISE XWCC-12 STATION 13 04/29/77

TRANSMISSIVITY (0/0)

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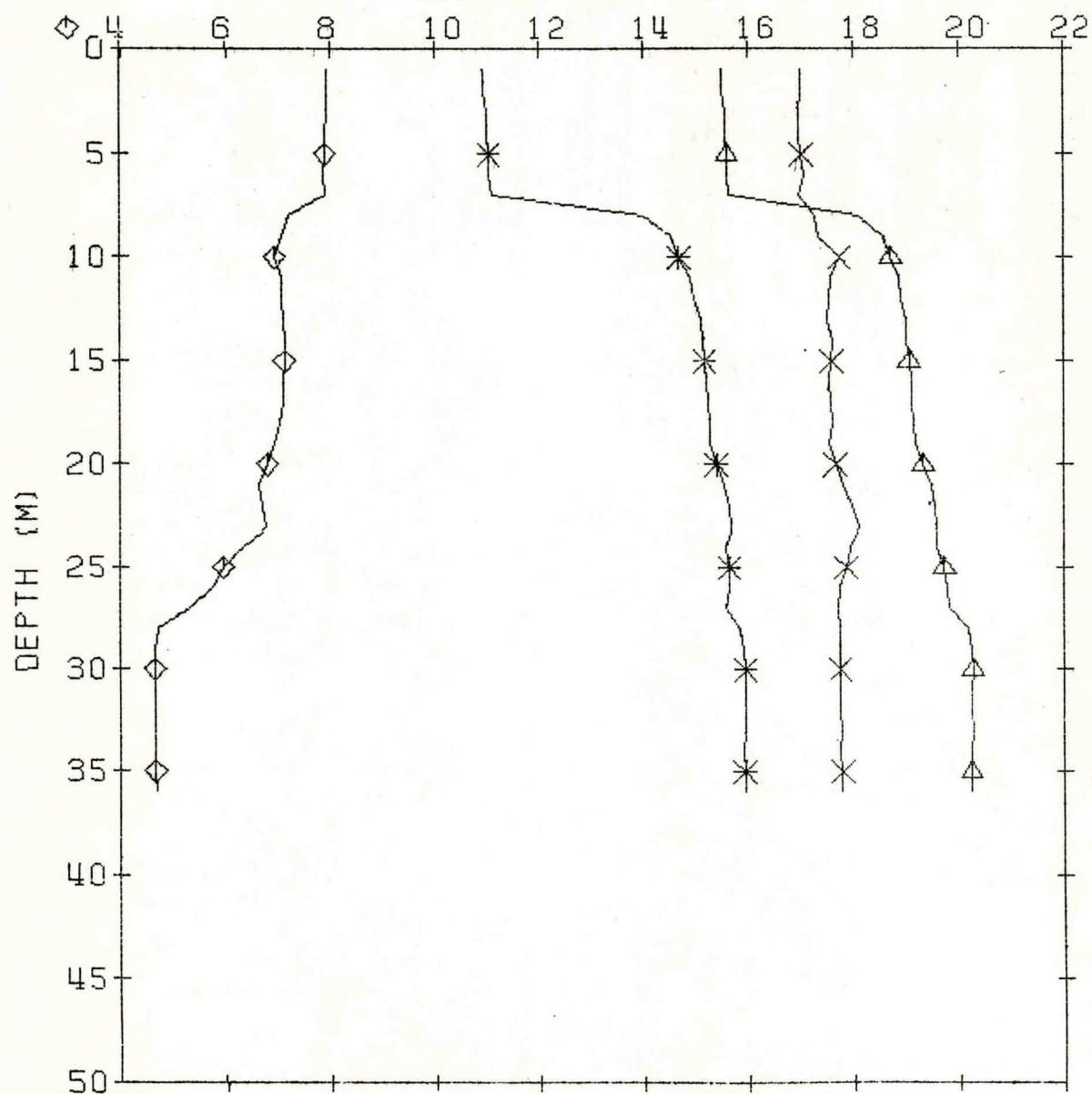
SIGMA-T

△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

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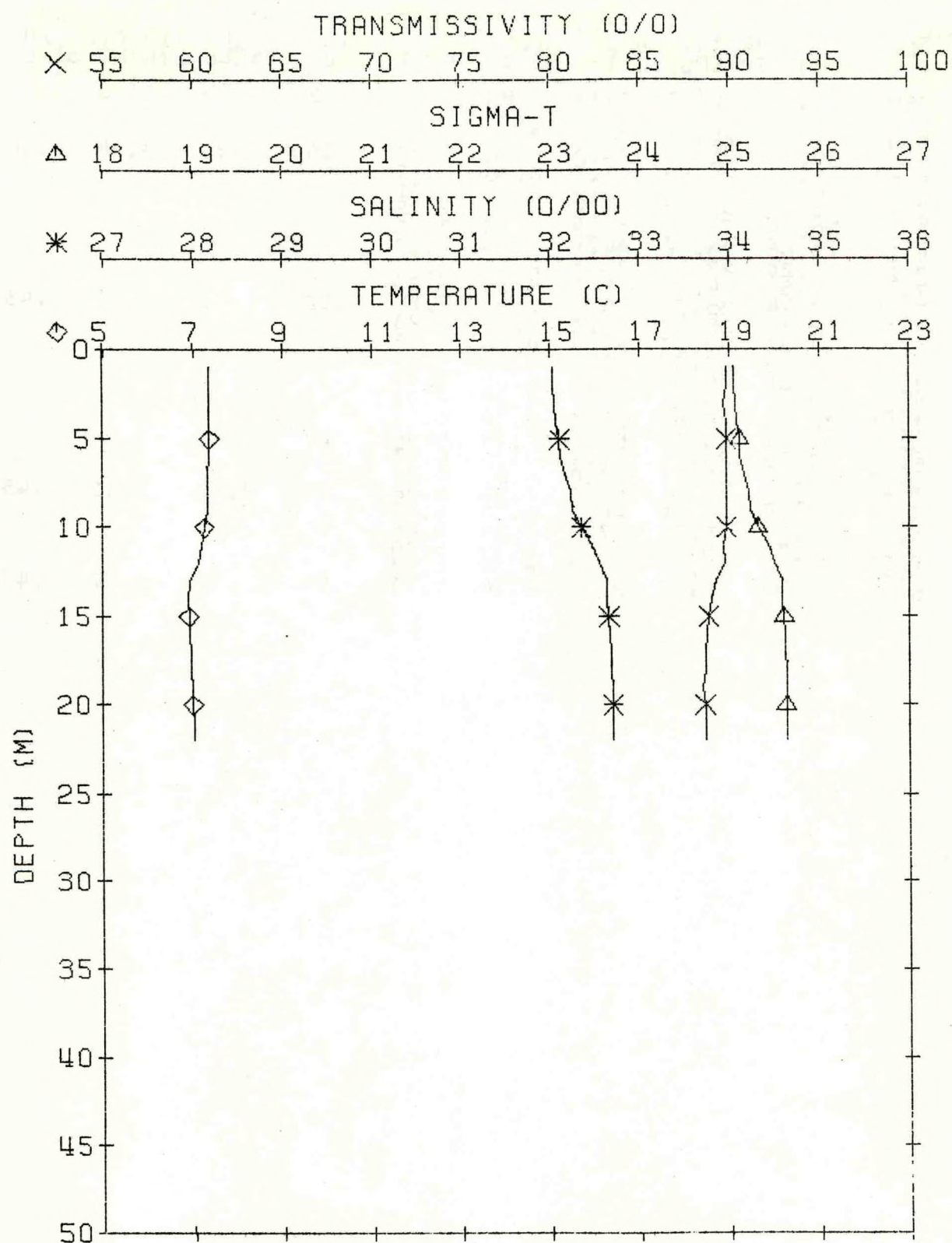
TEMPERATURE (C)



XWCC_12 STA.015 LAT 40 25.2N; LONG 73 30.5W GMT 03.5 04/30/77
 DEPTH 023 AIR D/W 10.0/08.3 BARO 21.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 25/12 SEA DIR/HT 25/0 SWELL DIR/HT 18/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	7.34	32.03	25.06	89.8	8.36	7.10	.02	.00	2.82	.38
2	7.34	32.03	25.06	89.8	8.36	7.10				
3	7.36	32.04	25.06	89.6	8.36	7.11				
4	7.36	32.06	25.08	89.8	8.36	7.12				
5	7.36	32.10	25.11	89.8	8.36	7.13				
6	7.36	32.10	25.11	89.8	8.35	7.13				
7	7.33	32.16	25.17	89.8	8.35	7.14				
8	7.31	32.22	25.21	89.8	8.35	7.14				
9	7.32	32.24	25.22	89.8	8.35	7.14				
10	7.25	32.34	25.32	89.8	8.35	7.14	.02	.00	1.18	.40
11	7.17	32.46	25.42	89.6	8.35	7.15				
12	7.12	32.54	25.49	89.7	8.35	7.13				
13	6.92	32.62	25.58	89.2	8.35	7.13				
14	6.90	32.62	25.58	89.0	8.35	7.12				
15	6.90	32.65	25.60	88.8	8.35	7.08				
16	6.93	32.66	25.61	88.7	8.35	7.03				
17	6.95	32.67	25.61	88.6	8.35	6.99				
18	6.96	32.68	25.62	88.6	8.35	6.97				
19	6.97	32.68	25.62	88.5	8.35	6.94				
20	7.00	32.69	25.62	88.6	8.35	6.92				
21	7.00	32.70	25.63	88.6	8.35	6.91				
22	7.00	32.69	25.63	88.6	8.35	6.90	.02	.42	2.08	.40

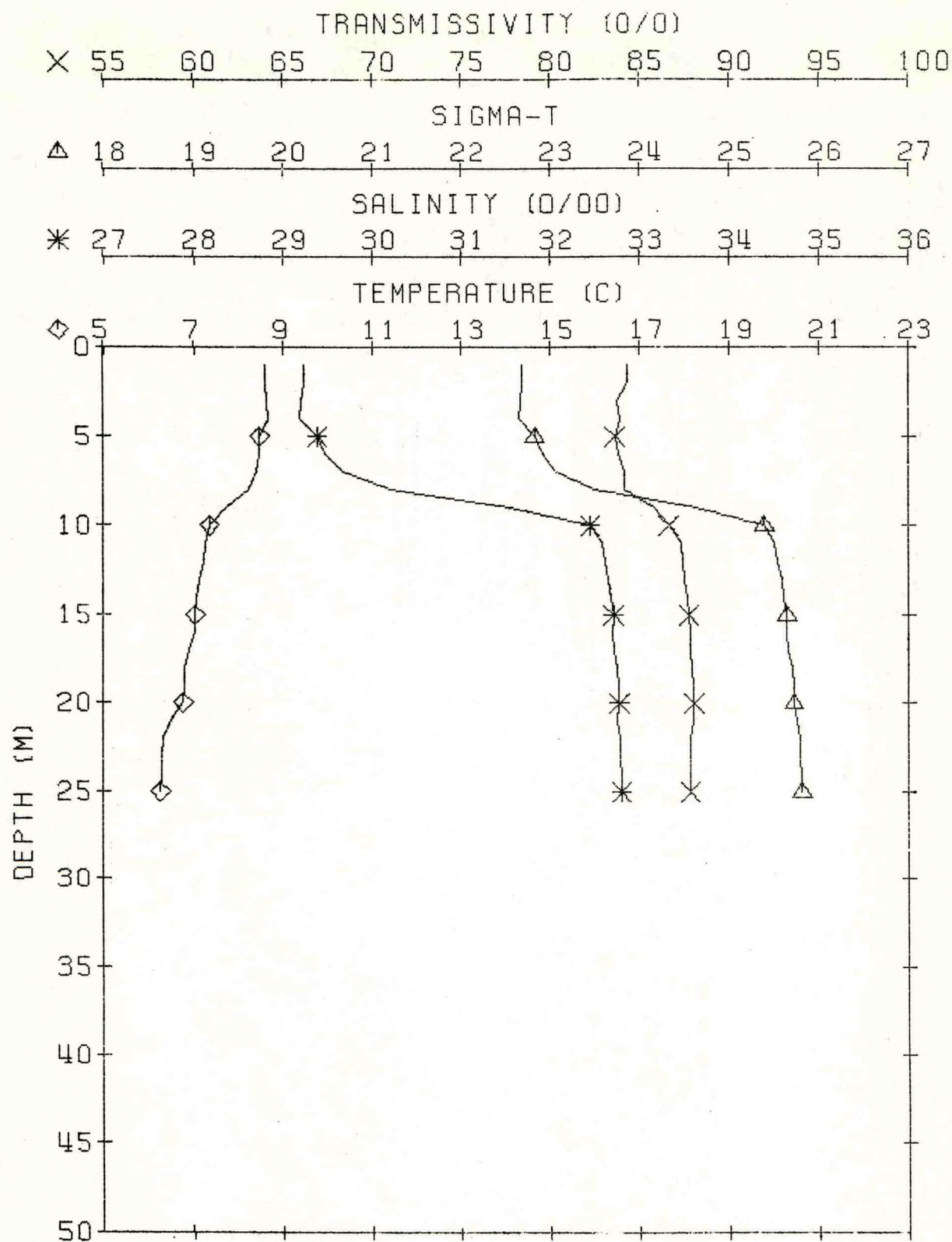
KELEZ CRUISE XWCC-12 STATION 15 04/30/77



XWCC-12 STA.017 LAT 40 18.5N; LONG 73 50.8W GMT 17.6 04/29/77
 DEPTH 026 AIR D/W 11.4/06.9 BARO 20.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 31/13 SEA DIR/HT 31/0 SWELL DIR/HT 31/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.59	29.22	22.68	84.3	8.36	7.31				
2	8.59	29.22	22.68	84.3	8.36	7.30	.16	3.20	3.24	.30
3	8.63	29.20	22.66	83.7	8.36	7.32				
4	8.65	29.18	22.65	83.9	8.36	7.31				
5	8.46	29.38	22.83	83.6	8.36	7.32				
6	8.44	29.46	22.90	83.8	8.35	7.32				
7	8.39	29.66	23.06	84.1	8.35	7.27				
8	8.23	30.20	23.50	84.1	8.35	7.23				
9	7.73	31.54	24.62	85.8	8.35	7.23				
10	7.35	32.44	25.38	86.6	8.35	7.28	.12	1.13	1.67	.43
11	7.26	32.57	25.49	87.3	8.35	7.23				
12	7.20	32.61	25.53	87.4	8.35	7.16				
13	7.13	32.65	25.57	87.5	8.35	7.09				
14	7.06	32.68	25.61	87.6	8.35	7.05				
15	7.03	32.70	25.63	87.7	8.35	7.03				
16	7.01	32.70	25.63	87.8	8.34	6.98				
17	6.90	32.71	25.65	87.8	8.34	6.96				
18	6.79	32.75	25.70	87.9	8.34	6.93				
19	6.78	32.76	25.71	88.0	8.34	6.88				
20	6.76	32.76	25.71	88.0	8.34	6.86	.14	2.18	2.51	.45
21	6.47	32.75	25.74	88.0	8.34	6.83				
22	6.31	32.77	25.78	87.8	8.34	6.86				
23	6.28	32.78	25.79	87.8	8.34	6.80				
24	6.27	32.79	25.80	87.8	8.34	6.73				
25	6.26	32.79	25.80	87.8	8.34	6.73	.04	.57	2.47	.45

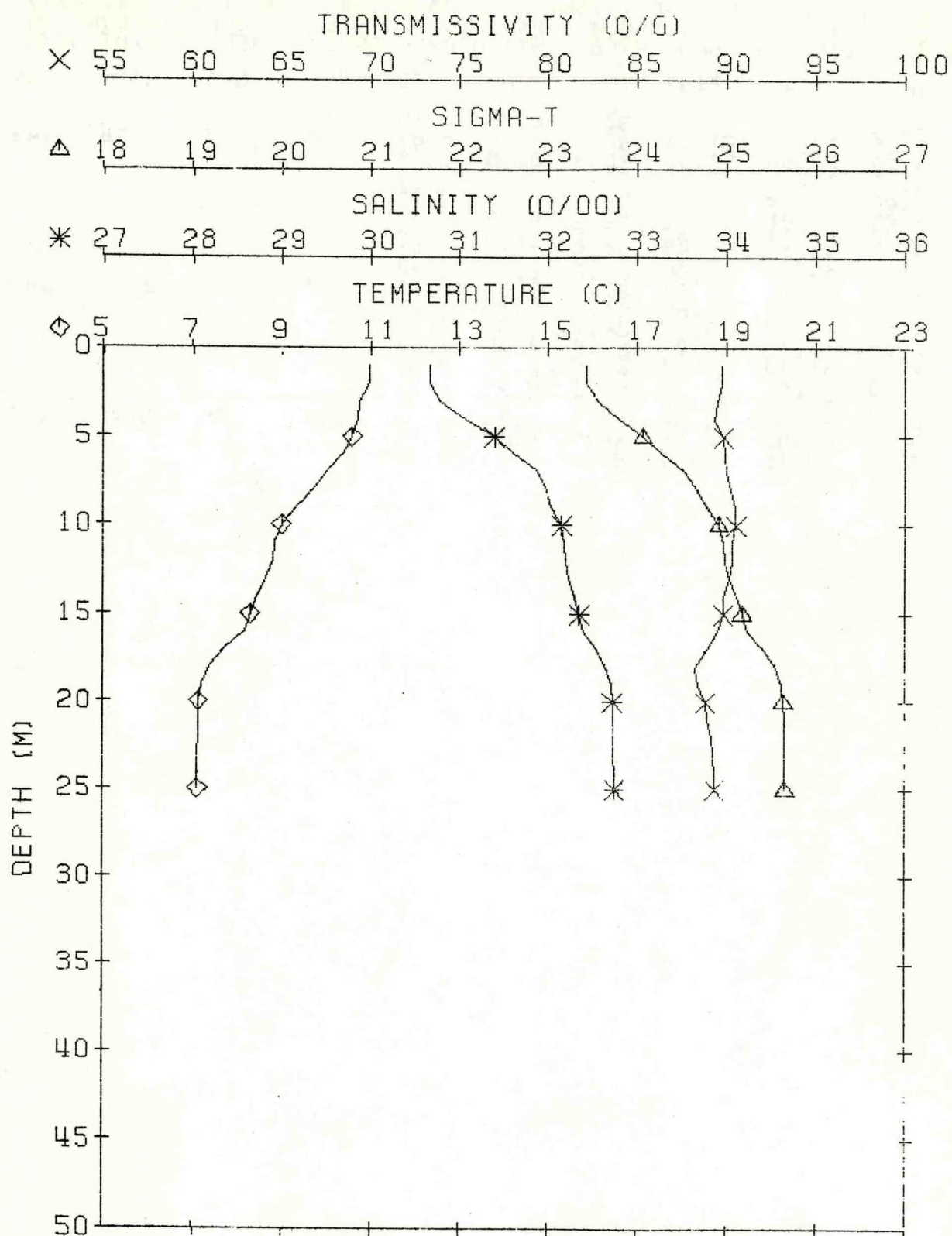
KELEZ CRUISE XWCC-12 STATION 17 04/29/77



XWCC-12 STA.019 LAT 40 20.2N; LONG 73 37.5W GMT 11.4 05/06/77
 DEPTH 026 AIR D/W 12.8/12.8 BARO 10.0 VIS 0 CLD TYP/CVR /9
 WETHR 4 WIND DIR/SPD 23/05 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	10.95	30.65	23.43	89.7	8.34	7.21				
2	10.95	30.65	23.43	89.7	8.34	7.21	.00	.00	.00	.07
3	10.71	30.77	23.56	89.5	8.34	7.29				
4	10.68	31.06	23.79	89.3	8.34	7.31				
5	10.56	31.39	24.06	89.8	8.35	7.33				
6	10.34	31.61	24.28	89.9	8.35	7.36				
7	9.98	31.87	24.53	90.0	8.36	7.39				
8	9.70	31.97	24.66	90.2	8.37	7.39				
9	9.31	32.03	24.77	90.5	8.38	7.35				
10	8.98	32.15	24.91	90.5	8.38	7.34	.00	.00	3.00	.20
11	8.83	32.18	24.96	90.3	8.39	7.30				
12	8.78	32.19	24.98	90.3	8.39	7.24				
13	8.63	32.23	25.03	90.1	8.39	7.18				
14	8.42	32.29	25.11	89.8	8.39	7.15				
15	8.27	32.35	25.18	89.8	8.40	7.14				
16	8.14	32.39	25.23	89.5	8.40	7.13				
17	7.67	32.54	25.41	88.9	8.40	7.12				
18	7.33	32.65	25.55	88.2	8.40	7.16				
19	7.17	32.71	25.61	88.4	8.40	7.16				
20	7.12	32.72	25.63	88.8	8.41	7.12	.43	2.13	4.68	.35
21	7.10	32.73	25.64	88.9	8.41	7.06				
22	7.10	32.73	25.64	89.1	8.40	7.01				
23	7.10	32.73	25.64	89.2	8.40	6.96				
24	7.10	32.74	25.65	89.3	8.40	6.92				
25	7.10	32.74	25.65	89.3	8.40	6.89				

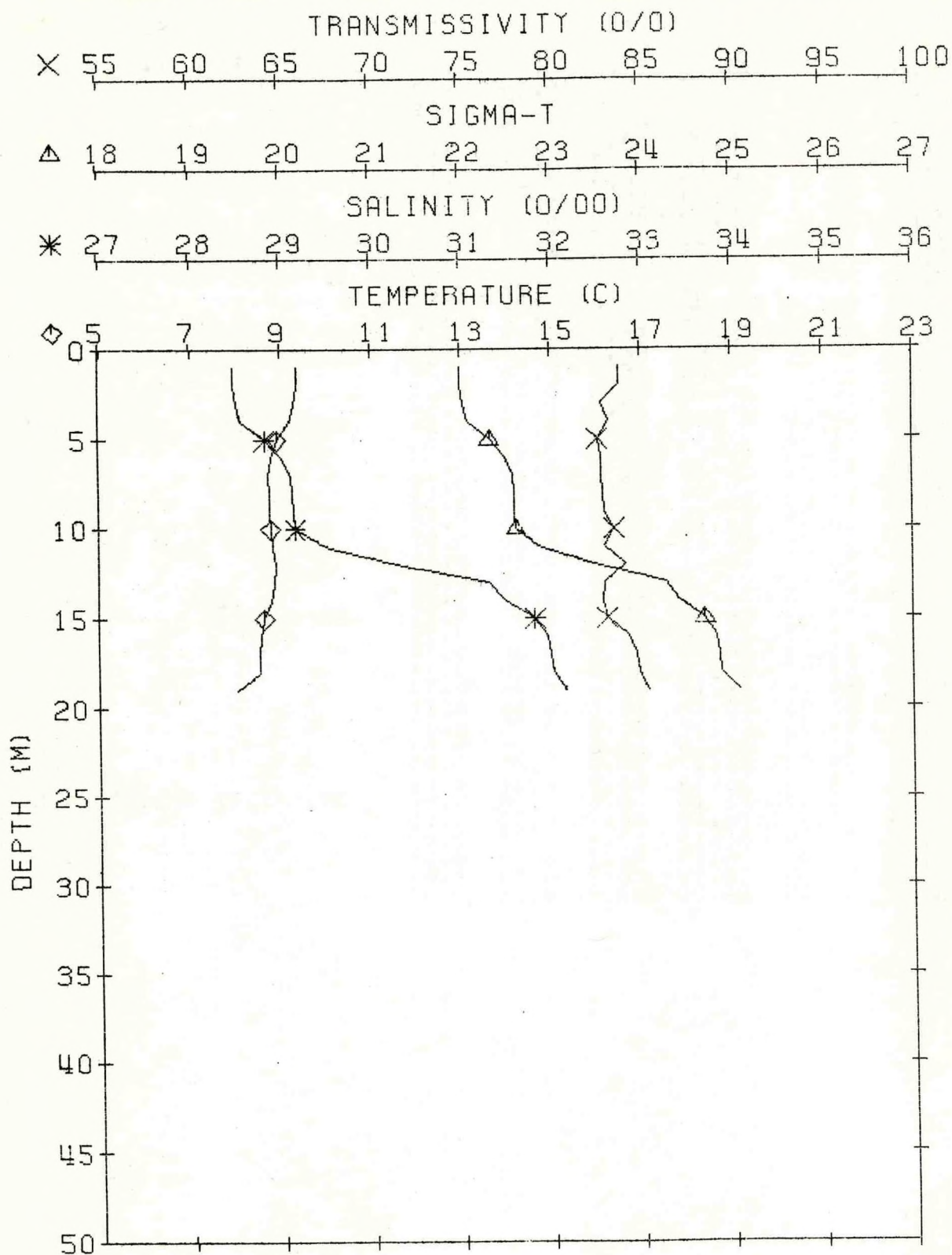
KELEZ CRUISE XWCC-12 STATION 19 05/06/77



XWCC-12 STA.021 LAT 40 13.5N; LONG 73 57.0W GMT 19.5 04/29/77
 DEPTH 021 AIR D/W 11.1/05.8 BARO 20.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 29/08 SEA DIR/HT 29/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	9.36	28.47	21.99	83.8	8.36	6.85				
2	9.36	28.47	21.99	83.8	8.36	6.84	.28	4.87	3.28	.42
3	9.29	28.50	22.02	82.8	8.35	6.98				
4	9.19	28.56	22.08	83.2	8.35	7.30				
5	8.92	28.82	22.33	82.6	8.35	7.35				
6	8.78	29.01	22.50	82.8	8.35	7.38				
7	8.73	29.11	22.58	82.8	8.35	7.38				
8	8.75	29.13	22.59	82.9	8.35	7.41				
9	8.75	29.14	22.60	83.0	8.35	7.28				
10	8.77	29.16	22.61	83.5	8.35	7.21	.17	2.85	3.33	.46
11	8.82	29.49	22.86	83.0	8.35	7.23				
12	8.89	30.28	23.47	84.1	8.35	7.15				
13	8.86	31.30	24.27	83.0	8.35	7.05				
14	8.78	31.49	24.43	82.9	8.35	6.87				
15	8.63	31.81	24.70	83.1	8.34	6.70				
16	8.55	31.95	24.82	84.3	8.34	6.52				
17	8.51	31.99	24.86	84.7	8.34	6.48	.06	.35	3.20	.50
18	8.53	32.02	24.88	84.9	8.34	6.44				
19	8.01	32.16	25.07	85.4	8.34	6.37				

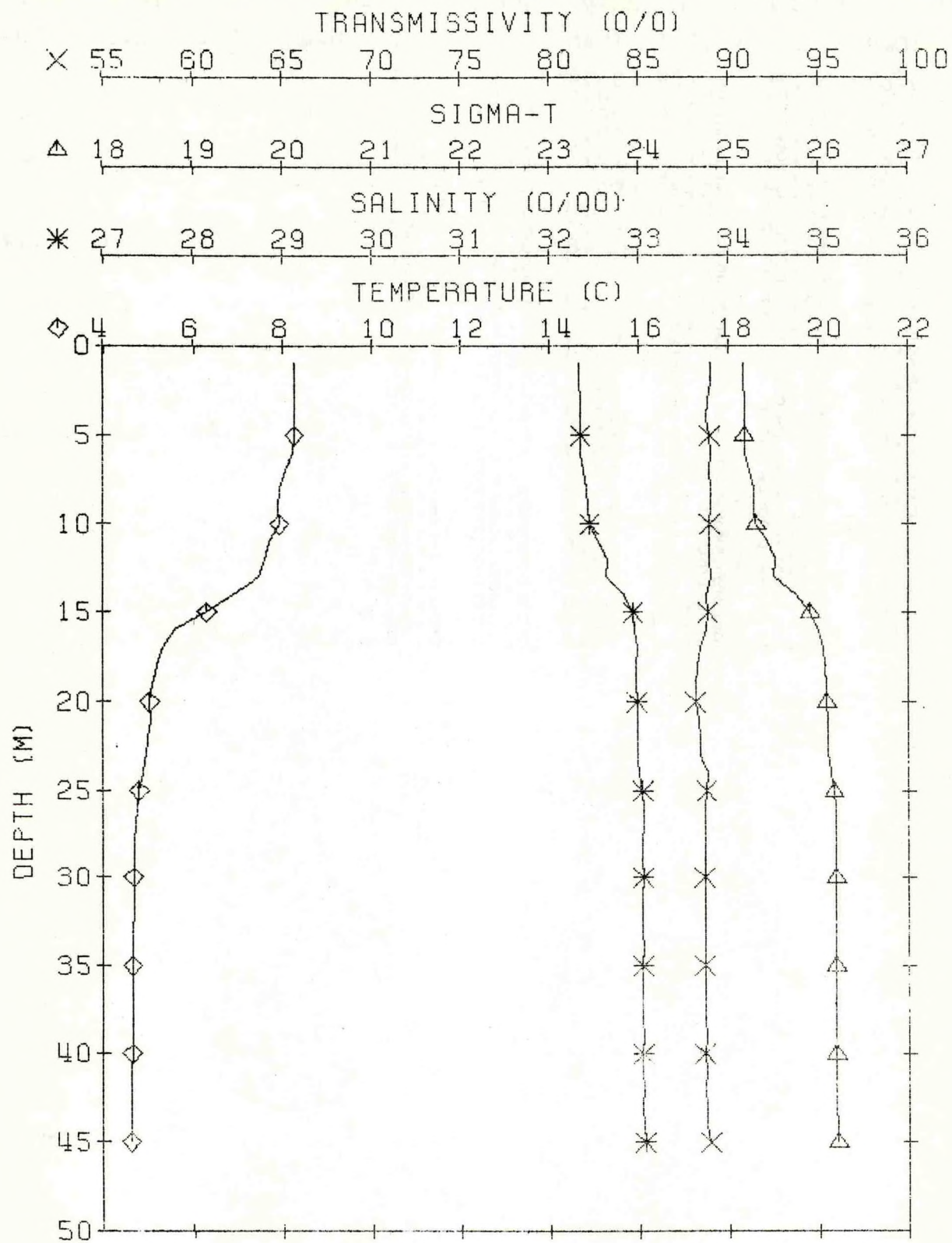
KELEZ CRUISE XWCC-12 STATION 21 04/29/77



XWCC_12 STA.023 LAT 40 14.8N; LONG 73 45.7W GMT 01.8 04/30/77
 DEPTH 047 AIR D/W 11.7/09.4 BARO 20.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 24/10 SEA DIR/HT 24/0 SWELL DIR/HT 20/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.26	32.33	25.17	89.0	8.36	7.13	.06	.18	1.18	.22
2	8.26	32.33	25.17	89.0	8.36	7.13				
3	8.26	32.34	25.17	88.8	8.36	7.12				
4	8.25	32.34	25.17	88.7	8.36	7.12				
5	8.26	32.34	25.17	88.9	8.36	7.11				
6	8.23	32.34	25.18	89.0	8.36	7.10				
7	8.05	32.37	25.23	88.9	8.36	7.10				
8	7.91	32.41	25.28	89.0	8.36	7.14				
9	7.89	32.42	25.29	89.0	8.36	7.15				
10	7.92	32.44	25.30	88.9	8.36	7.15	.05	.16	1.30	.26
11	7.69	32.55	25.42	88.9	8.36	7.14				
12	7.57	32.64	25.51	88.9	8.36	7.19				
13	7.45	32.62	25.51	89.0	8.36	7.17				
14	6.88	32.83	25.75	88.7	8.36	7.20				
15	6.30	32.92	25.90	88.8	8.36	7.25				
16	5.57	32.94	26.00	88.7	8.36	7.30				
17	5.32	32.97	26.05	88.4	8.36	7.36				
18	5.19	32.96	26.06	88.2	8.37	7.32				
19	5.09	32.96	26.07	88.1	8.37	7.24				
20	5.03	32.97	26.09	88.1	8.37	7.14	.02	.64	3.08	.42
21	5.04	32.98	26.09	88.3	8.37	7.03				
22	5.00	32.98	26.10	88.4	8.36	6.94				
23	4.93	32.98	26.11	88.4	8.36	6.89				
24	4.88	33.00	26.13	88.8	8.36	6.88				
25	4.80	33.03	26.16	88.7	8.36	6.88				
26	4.74	33.04	26.17	88.6	8.36	6.87				
27	4.70	33.03	26.17	88.6	8.36	6.86				
28	4.69	33.03	26.17	88.6	8.36	6.84				
29	4.69	33.03	26.17	88.6	8.36	6.82				
30	4.68	33.04	26.18	88.6	8.36	6.80	.06	1.07	3.56	.54
31	4.67	33.03	26.18	88.6	8.36	6.79				
32	4.67	33.03	26.18	88.6	8.36	6.76				
33	4.66	33.03	26.18	88.6	8.36	6.74				
34	4.66	33.04	26.18	88.6	8.36	6.73				
35	4.65	33.03	26.18	88.6	8.35	6.71				
36	4.65	33.03	26.18	88.6	8.35	6.70				
37	4.65	33.03	26.18	88.6	8.35	6.69				
38	4.65	33.03	26.17	88.6	8.35	6.68				
39	4.65	33.04	26.18	88.7	8.35	6.67				
40	4.64	33.03	26.18	88.6	8.35	6.66	.07	1.27	3.87	.54
41	4.63	33.03	26.18	88.7	8.35	6.65				
42	4.62	33.04	26.18	88.6	8.35	6.65				
43	4.62	33.03	26.18	88.7	8.35	6.64				
44	4.62	33.05	26.19	88.7	8.35	6.64				
45	4.62	33.05	26.20	88.9	8.35	6.63				

KELEZ CRUISE XWCC-12 STATION 23 04/30/77



XWCC-12 STA.025 LAT 40 16.9N; LONG 73 28.3W GMT 09.9 05/06/77
 DEPTH 033 AIR D/W 11.7/11.7 BARO 09.0 VIS 0 CLD TYP/CVR /9
 WETHR 4 WIND DIR/SPD 22/10 SEA DIR/HT 00/0 SWELL DIR/HT 20/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	9.67	32.46	25.04	90.4	8.32	6.91				
2	9.67	32.46	25.04	90.4	8.32	6.91				
3	9.42	32.54	25.15	90.7	8.32	6.87	.00	.00	2.47	.20
4	9.25	32.49	25.14	90.7	8.32	6.91				
5	9.20	32.53	25.18	90.7	8.32	6.91				
6	9.11	32.54	25.20	90.7	8.32	6.92				
7	9.11	32.55	25.21	90.7	8.33	6.93				
8	9.10	32.55	25.21	90.8	8.33	6.93				
9	9.10	32.55	25.20	90.8	8.33	6.92				
10	9.08	32.55	25.21	90.8	8.33	6.91	.00	.00	1.94	.17
11	9.07	32.55	25.21	90.9	8.33	6.91				
12	9.06	32.55	25.21	90.9	8.34	6.90				
13	9.04	32.55	25.22	90.9	8.34	6.91				
14	8.78	32.59	25.29	90.9	8.34	6.90				
15	8.12	32.67	25.45	90.9	8.34	6.94				
16	7.27	32.89	25.74	90.9	8.35	7.04				
17	6.57	32.89	25.84	90.7	8.36	7.18				
18	5.76	32.82	25.88	90.5	8.36	7.29				
19	5.05	32.95	26.07	90.2	8.37	7.45				
20	4.49	32.99	26.16	89.8	8.37	7.53	.00	1.30	5.63	.43
21	4.31	33.14	26.30	89.7	8.38	7.57				
22	4.30	33.16	26.32	89.7	8.38	7.51				
23	4.29	33.18	26.33	89.8	8.38	7.41				
24	4.30	33.18	26.33	89.8	8.38	7.28				
25	4.29	33.19	26.34	89.9	8.38	7.16				
26	4.27	33.19	26.35	89.8	8.38	7.08				
27	4.27	33.21	26.35	89.8	8.39	7.01				
28	4.27	33.21	26.36	90.0	8.39	6.96				
29	4.26	33.22	26.37	90.0	8.39	6.89				
30	4.25	33.25	26.39	90.0	8.40	6.83				
31	4.25	33.25	26.40	90.0	8.40	6.78	.00	1.62	7.44	.47

KELEZ CRUISE XWCC-12 STATION 25 05/06/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

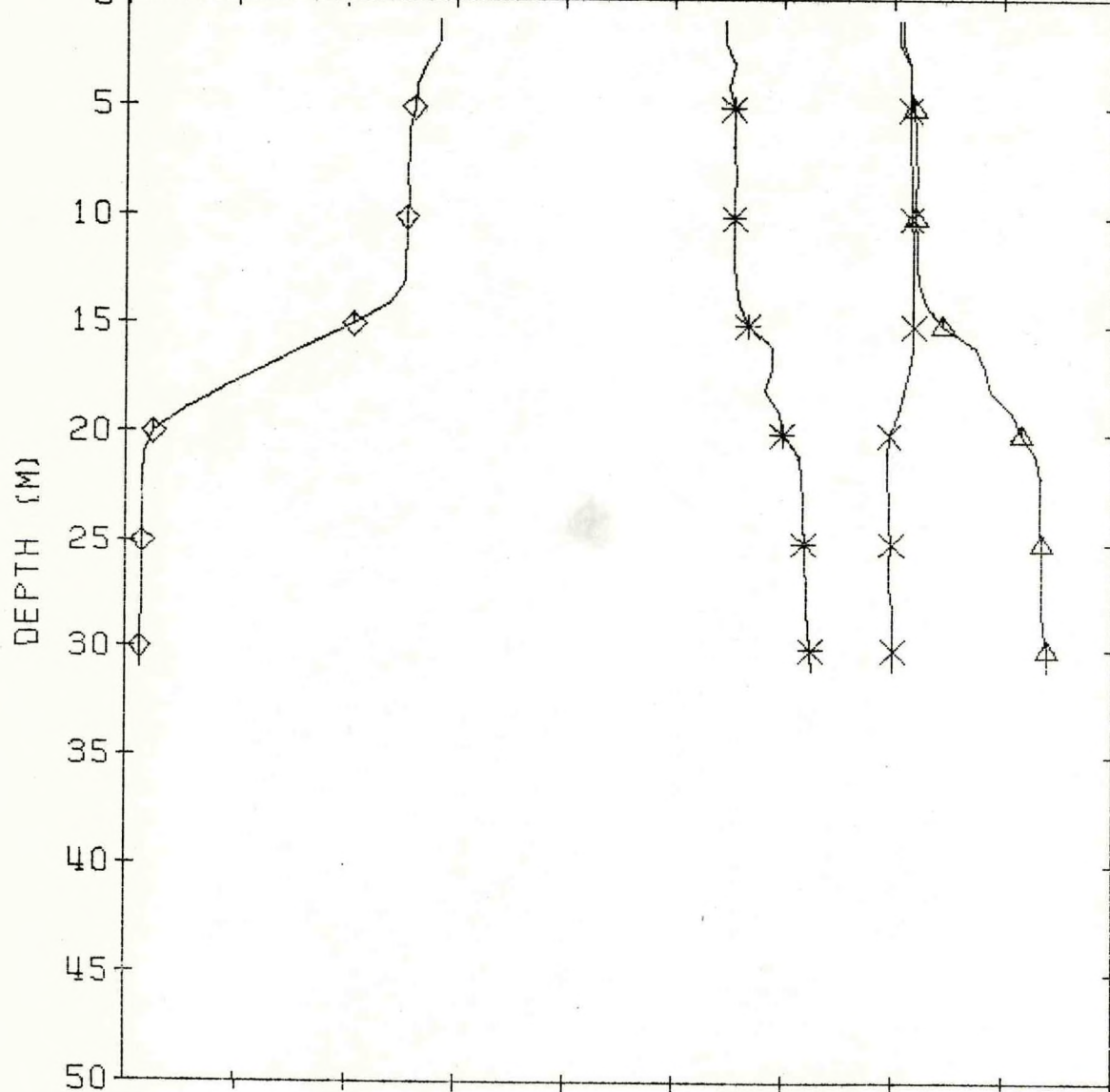
△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

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TEMPERATURE (C)

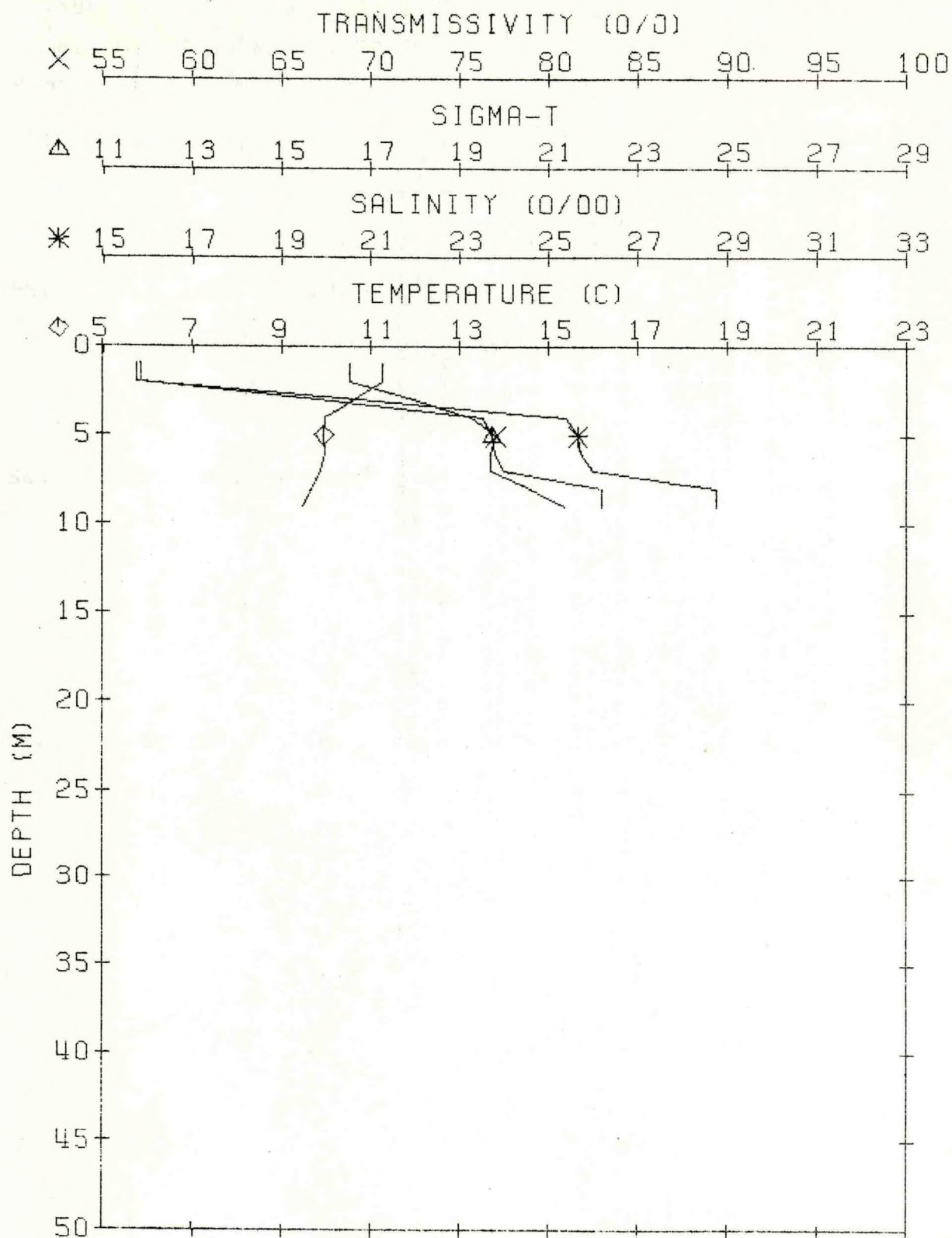
◇ 4 6 8 10 12 14 16 18 20 22



XWCC-12 STA.026 LAT 40 29.2N; LONG 73 59.5W GMT 18.2 04/28/77
 DEPTH 012 AIR D/W 16.7/12.8 BARO 04.5 VIS 7 CLD TYP/CVR /7
 WETHR 2 WIND DIR/SPD 28/19 SEA DIR/HT 28/1 SWELL DIR/HT 28/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	N02	N03	SI03	P04
1	11.26	15.76	11.87	68.8	8.37	6.49				
2	11.26	15.76	11.87	68.8	8.37	6.49	.62	13.83	12.46	.68
3	10.63	20.72	15.79	72.4	8.37	6.12	.22	3.33	3.57	.54
4	9.95	25.39	19.51	75.6	8.36	5.69				
5	9.93	25.65	19.71	77.0	8.36	5.67				
6	9.94	25.73	19.78	76.7	8.36	5.68				
7	9.86	25.99	19.98	76.7	8.36	5.69				
8	9.64	28.75	22.17	79.0	8.36	5.72				
9	9.44	28.75	22.20	80.9	8.36	5.75				

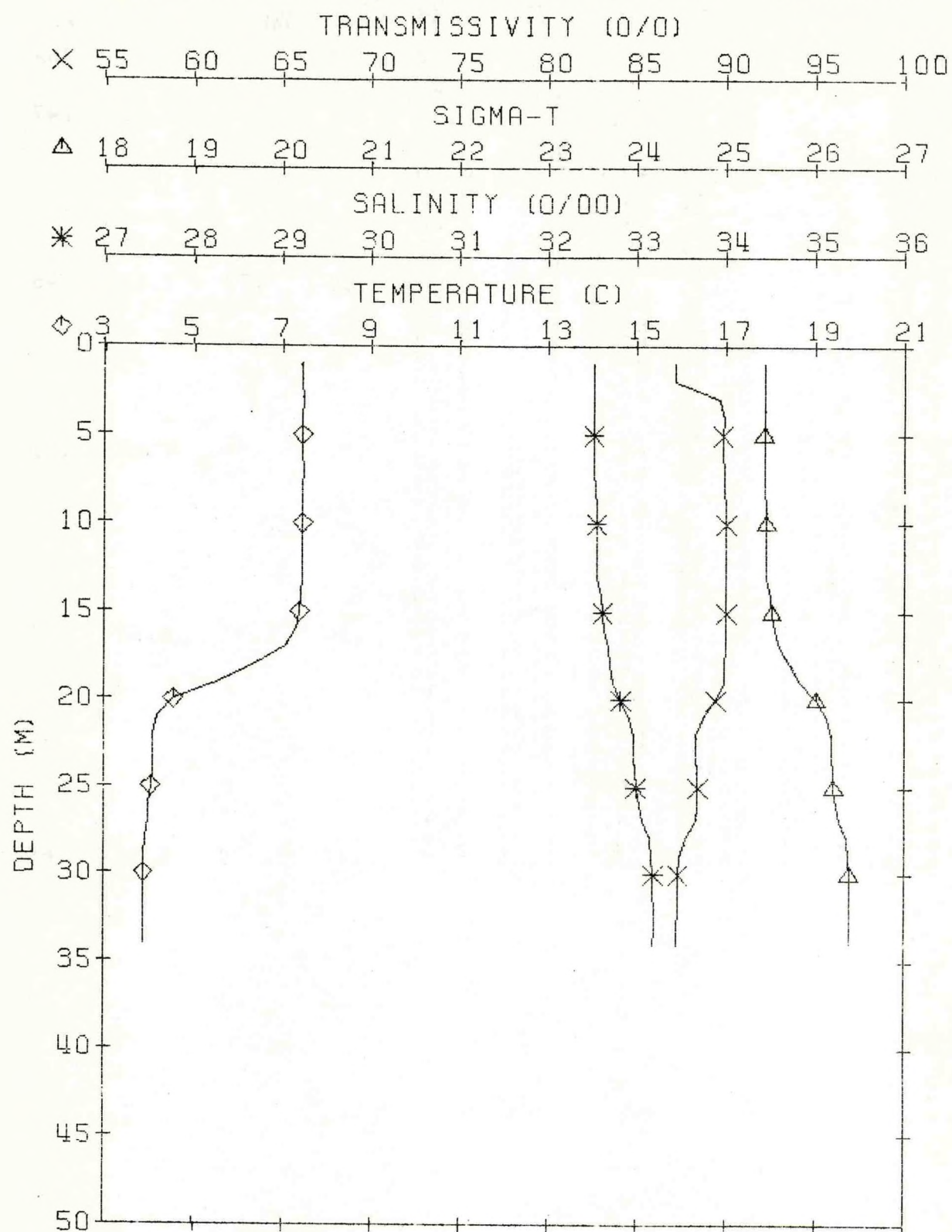
KELEZ CRUISE XWCC-12 STATION 26 04/28/77



XWCC-12 STA.027 LAT 40 18.0N; LONG 73 17.5W GMT 06.0 04/30/77
 DEPTH 035 AIR D/W 08.9/06.9 BARO 22.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 27/13 SEA DIR/HT 27/0 SWELL DIR/HT 18/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	7.43	32.50	25.42	87.1	8.35	6.89				
2	7.43	32.50	25.42	87.1	8.35	6.89	.01	.00	1.23	.31
3	7.44	32.51	25.42	89.6	8.35	6.99				
4	7.42	32.51	25.42	89.9	8.35	7.15				
5	7.43	32.51	25.42	89.8	8.35	7.13				
6	7.43	32.51	25.43	89.8	8.35	7.14				
7	7.43	32.51	25.42	89.9	8.35	7.14				
8	7.43	32.52	25.43	89.9	8.35	7.13				
9	7.42	32.54	25.45	90.0	8.35	7.14				
10	7.42	32.55	25.45	90.0	8.35	7.13	.01	.00	1.09	.24
11	7.42	32.55	25.45	90.0	8.35	7.14				
12	7.43	32.54	25.45	90.0	8.35	7.13				
13	7.42	32.55	25.45	90.0	8.35	7.14				
14	7.38	32.59	25.49	90.0	8.35	7.13				
15	7.36	32.61	25.51	90.0	8.35	7.14				
16	7.27	32.63	25.54	90.0	8.35	7.15				
17	7.05	32.67	25.60	90.0	8.35	7.16				
18	6.38	32.70	25.71	89.9	8.35	7.20				
19	5.59	32.73	25.83	89.9	8.35	7.30				
20	4.54	32.81	26.02	89.4	8.35	7.46	.00	.00	1.50	.32
21	4.17	32.90	26.12	88.7	8.36	7.65				
22	4.07	32.96	26.18	88.3	8.36	7.72				
23	4.09	32.96	26.18	88.3	8.36	7.68				
24	4.07	32.97	26.19	88.4	8.35	7.60				
25	4.03	32.99	26.21	88.4	8.35	7.49				
26	4.00	33.00	26.24	88.4	8.35	7.40				
27	3.98	33.05	26.26	88.3	8.35	7.32				
28	3.91	33.14	26.34	87.7	8.35	7.25				
29	3.90	33.16	26.36	87.4	8.35	7.17				
30	3.89	33.18	26.37	87.3	8.35	7.09				
31	3.89	33.18	26.37	87.3	8.34	7.00				
32	3.89	33.19	26.38	87.3	8.34	6.93				
33	3.89	33.18	26.38	87.2	8.34	6.83				
34	3.89	33.18	26.37	87.2	8.36	6.61	.09	1.92	5.44	.48

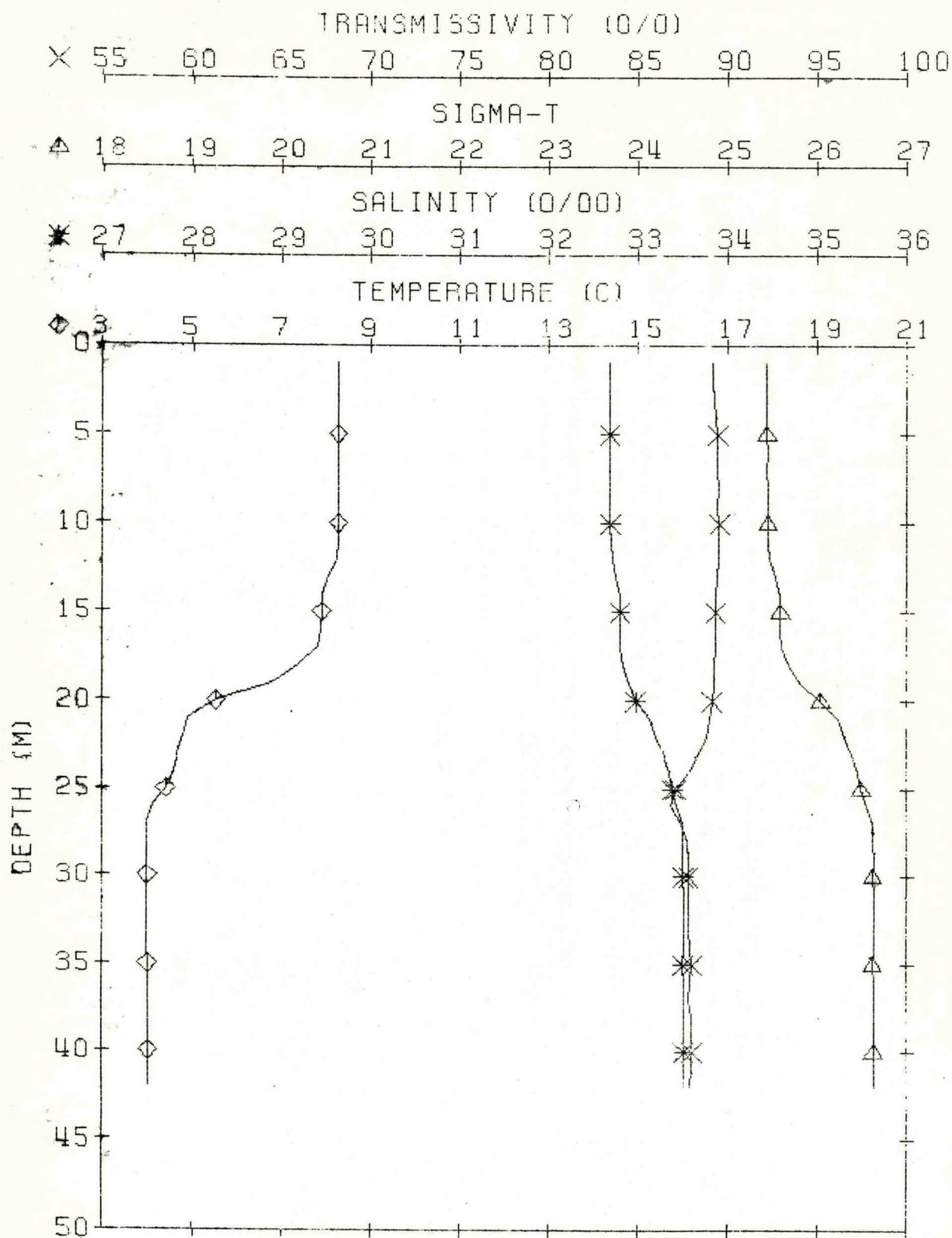
KELEZ CRUISE XWCC-12 STATION 27 04/30/77



XWCC-12 STA.028 LAT 40 13.4N; LONG 73 7.4W GMT 09.8 05/01/77
 DEPTH 043 AIR D/W 09.4/08.3 BARO 26.5 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 24/08 SEA DIR/HT 24/0 SWELL DIR/HT 20/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.25	32.67	25.43	89.1	8.33	6.89				
2	8.25	32.67	25.43	89.1	8.33	6.89	.00	.07	1.23	.47
3	8.25	32.67	25.43	89.2	8.33	6.96				
4	8.25	32.67	25.43	89.3	8.33	6.96				
5	8.25	32.68	25.44	89.4	8.33	6.96				
6	8.25	32.68	25.44	89.4	8.33	6.97				
7	8.25	32.67	25.43	89.4	8.33	6.96				
8	8.25	32.68	25.44	89.5	8.33	6.96				
9	8.25	32.68	25.44	89.4	8.33	6.96				
10	8.25	32.68	25.44	89.5	8.33	6.97				
11	8.24	32.69	25.45	89.5	8.33	6.97	.00	.02	1.10	.46
12	8.22	32.70	25.46	89.5	8.33	6.97				
13	8.01	32.74	25.52	89.4	8.33	6.98				
14	7.87	32.79	25.58	89.3	8.33	7.02				
15	7.87	32.79	25.58	89.3	8.33	7.03				
16	7.85	32.79	25.58	89.3	8.33	7.03				
17	7.77	32.79	25.60	89.3	8.33	7.03				
18	7.34	32.82	25.68	89.2	8.34	7.06				
19	6.75	32.89	25.81	89.2	8.34	7.16				
20	5.51	32.97	26.00	89.1	8.34	7.28	.00	.04	1.23	.51
21	4.78	33.13	26.23	89.0	8.34	7.55				
22	4.78	33.19	26.29	88.8	8.35	7.57				
23	4.66	33.29	26.38	88.3	8.35	7.57				
24	4.57	33.35	26.44	87.8	8.35	7.57				
25	4.41	33.38	26.48	87.1	8.35	7.54				
26	4.11	33.43	26.55	86.8	8.35	7.50				
27	3.98	33.44	26.61	87.4	8.35	7.45				
28	3.99	33.46	26.62	87.7	8.34	7.20				
29	3.99	33.46	26.62	87.8	8.34	6.98	.14	1.91	5.47	.81
30	3.99	33.46	26.62	87.8	8.34	6.75				
31	4.00	33.46	26.62	87.8	8.34	6.58				
32	3.99	33.46	26.62	87.8	8.34	6.46				
33	3.99	33.46	26.62	87.8	8.34	6.35				
34	4.00	33.46	26.63	87.9	8.34	6.27				
35	4.01	33.46	26.61	88.0	8.34	6.16				
36	4.01	33.46	26.62	87.9	8.34	6.00				
37	4.01	33.46	26.62	87.8	8.33	6.00				
38	4.02	33.46	26.62	88.0	8.33	5.98				
39	4.02	33.46	26.62	88.0	8.33	5.95				
40	4.02	33.46	26.62	88.0	8.33	5.92				
41	4.02	33.46	26.63	88.0	8.33	5.94				
42	4.03	33.51	26.62	87.9	8.33	5.90	.10	1.90	5.52	.69

KELEZ CRUISE XWCC-12 STATION 28 05/01/77



XWCC-12 STA.031 LAT 39 54.0N; LONG 72 24.5W GMT 22.0 05/02/77
 DEPTH 074 AIR D/W 12.8/11.7 BARO 18.0 VIS 6 CLD TYP/CVR /8
 WETHR 6 WIND DIR/SPD 23/24 SEA DIR/HT 22/1 SWELL DIR/HT 22/2

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	9.32	33.44	25.87	87.7	8.33	7.19	.00	.05	.74	.20
2	9.32	33.44	25.87	87.7	8.33	7.19				
3	9.32	33.44	25.86	87.7	8.34	7.19				
4	9.32	33.44	25.86	87.7	8.34	7.18				
5	9.32	33.44	25.86	87.7	8.34	7.18				
6	9.32	33.44	25.86	87.7	8.34	7.18				
7	9.32	33.44	25.87	87.6	8.34	7.18				
8	9.32	33.44	25.86	87.6	8.35	7.17				
9	9.32	33.44	25.86	87.6	8.35	7.18				
10	9.32	33.44	25.86	87.5	8.35	7.17	.00	.07	.41	.17
11	9.32	33.44	25.87	87.5	8.35	7.17				
12	9.32	33.44	25.87	87.5	8.35	7.17				
13	9.27	33.44	25.88	87.5	8.35	7.17				
14	9.17	33.45	25.90	87.4	8.35	7.18				
15	8.84	33.50	25.99	87.2	8.35	7.21				
16	8.87	33.62	26.16	86.3	8.35	7.29				
17	8.28	33.63	26.18	86.4	8.35	7.37				
18	8.17	33.65	26.21	86.6	8.35	7.41				
19	8.05	33.65	26.23	86.7	8.35	7.46				
20	7.75	33.64	26.27	87.3	8.35	7.48	.00	.00	2.30	.23
21	7.34	33.68	26.35	88.4	8.35	7.53				
22	7.03	33.73	26.44	88.8	8.35	7.59				
23	6.89	33.74	26.46	88.8	8.35	7.59				
24	6.77	33.76	26.49	88.9	8.35	7.58				
25	6.60	33.76	26.52	89.0	8.35	7.57				
26	6.38	33.78	26.56	89.4	8.35	7.58				
27	6.15	33.81	26.61	89.8	8.35	7.57				
28	6.03	33.81	26.63	89.9	8.35	7.53				
29	5.86	33.75	26.66	90.0	8.35	7.49	.00	.00	3.50	.32
30	5.88	33.77	26.66	90.0	8.35	7.46				
31	5.84	33.75	26.66	90.0	8.35	7.45				
32	5.82	33.76	26.66	90.0	8.34	7.42				
33	5.81	33.75	26.66	90.0	8.34	7.40				
34	5.80	33.75	26.66	90.0	8.34	7.38				
35	5.77	33.77	26.66	90.0	8.34	7.37				
36	5.47	33.77	26.67	90.1	8.34	7.35				
37	5.46	33.77	26.67	90.2	8.34	7.32				
38	5.43	33.77	26.67	90.2	8.34	7.23				
39	5.41	33.78	26.68	90.4	8.34	7.17				
40	5.44	33.79	26.69	90.4	8.34	7.07				
41	5.44	33.80	26.69	90.4	8.34	6.97				
42	5.45	33.80	26.68	90.4	8.34	6.95				
43	5.45	33.81	26.70	90.5	8.34	6.95				
44	5.45	33.82	26.70	90.5	8.34	6.94				
45	5.45	33.82	26.70	90.5	8.33	6.92				
46	5.45	33.82	26.71	90.5	8.34	6.90				
47	5.45	33.83	26.71	90.5	8.34	6.89				
48	5.45	33.83	26.72	90.4	8.34	6.87				
49	5.45	33.89	26.77	90.2	8.34	6.80	.13	5.08	6.03	.58
50	5.46	33.91	26.77	90.2	8.34	6.30	.15	1.76	8.73	.48
60	5.46	33.91	26.78	90.3	8.34	6.20				
70	5.46	33.90	26.77	90.3	8.34	6.18				

KELEZ CRUISE XWCC-12 STATION 31 05/02/77

TRANSMISSIVITY (0/0)

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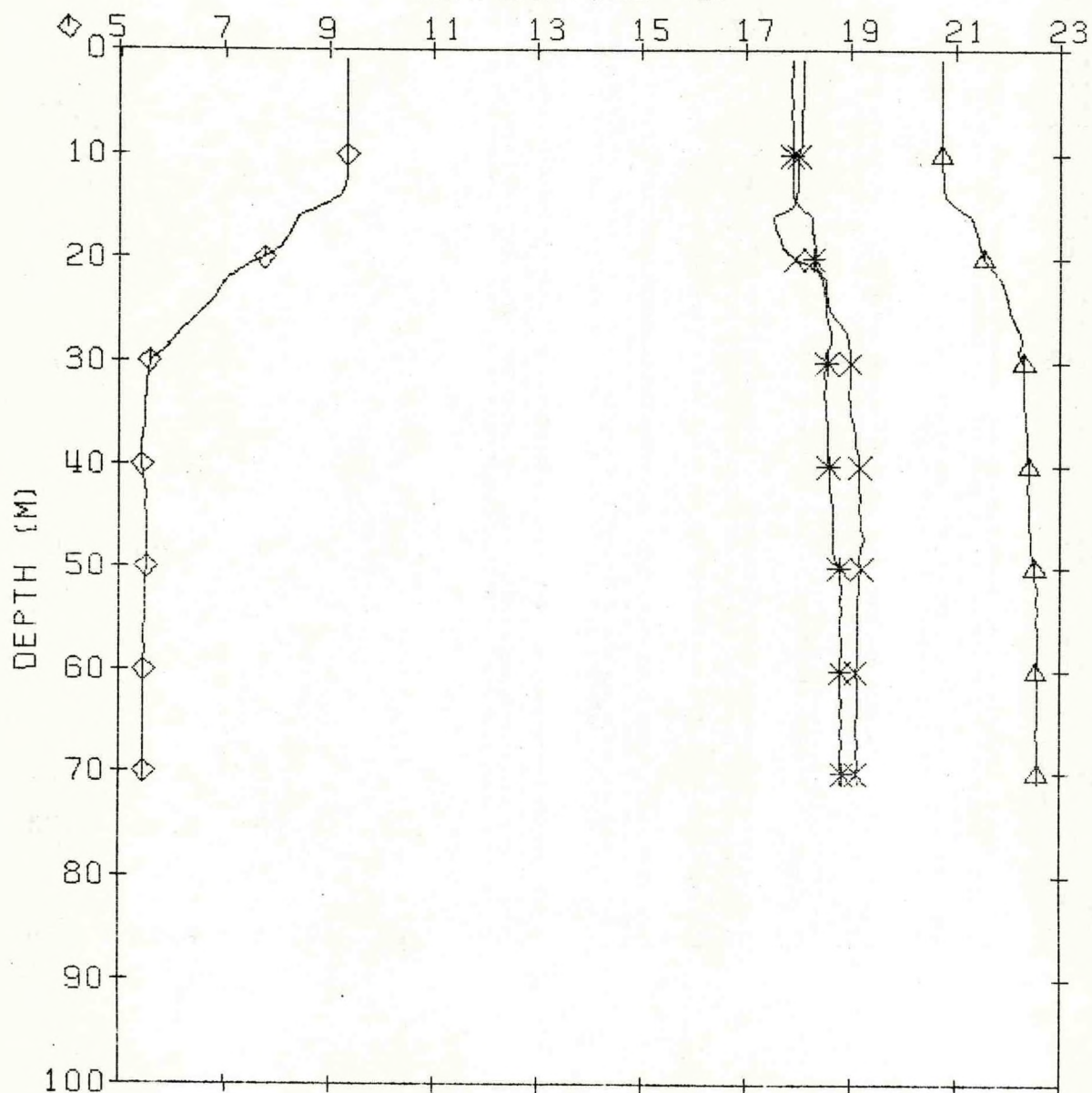
SIGMA-T

△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)



XWCC-12 STA.032 LAT 39 42.7N; LONG 72 6.8W GMT 18.0 05/02/77
 DEPTH 125 AIR D/W 13.3/11.7 BARO 21.5 VIS 7 CLD TYP/CVR /4
 WETHR 1 WIND DIR/SPD 22/25 SEA DIR/HT 22/0 SWELL DIR/HT 22/2

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	9.49	33.64	26.00	88.1	8.36	7.37				
2	9.49	33.64	26.00	88.1	8.36	7.37				
3	9.50	33.64	26.00	87.0	8.33	7.23	.03	.02	5.69	.19
4	9.48	33.67	26.02	86.9	8.34	7.18				
5	9.49	33.66	26.01	86.9	8.34	7.27				
6	9.49	33.67	26.02	86.9	8.34	7.29				
7	9.48	33.67	26.02	86.9	8.34	7.30				
8	9.48	33.66	26.02	86.8	8.34	7.32				
9	9.48	33.66	26.02	86.9	8.34	7.31				
10	9.42	33.65	26.02	87.1	8.34	7.32				
11	9.33	33.64	26.03	87.1	8.34	7.35				
12	9.06	33.65	26.07	87.2	8.34	7.38				
13	8.70	33.70	26.17	87.5	8.34	7.45				
14	8.61	33.69	26.18	87.7	8.34	7.48				
15	8.57	33.69	26.18	87.7	8.34	7.50				
16	8.54	33.70	26.19	87.7	8.34	7.50				
17	8.45	33.70	26.21	87.8	8.34	7.51				
18	8.29	33.71	26.24	87.9	8.34	7.53				
19	8.19	33.70	26.25	87.9	8.34	7.56				
20	7.96	33.72	26.30	88.0	8.34	7.59	.01	2.64	5.64	.22
21	7.93	33.69	26.28	87.7	8.34	7.61				
22	7.80	33.69	26.30	87.8	8.34	7.63				
23	7.60	33.70	26.33	87.9	8.34	7.67				
24	7.31	33.75	26.42	87.9	8.34	7.72				
25	7.03	33.72	26.43	87.9	8.34	7.82				
26	6.96	33.76	26.47	87.8	8.34	7.87				
27	6.96	33.76	26.47	88.0	8.34	7.91				
28	6.92	33.77	26.48	88.0	8.33	7.93				
29	6.85	33.77	26.49	88.1	8.33	7.96				
30	6.75	33.78	26.51	88.2	8.33	7.99				
31	6.58	33.78	26.54	88.3	8.33	8.03				
32	6.27	33.80	26.59	88.3	8.33	8.08				
33	6.10	33.80	26.61	88.3	8.33	8.09				
34	5.99	33.78	26.61	88.4	8.33	8.05				
35	5.96	33.79	26.62	88.4	8.33	8.04				
36	5.87	33.82	26.66	88.8	8.33	8.00				
37	5.87	33.82	26.66	88.9	8.33	7.96				
38	5.87	33.82	26.66	88.7	8.33	7.93				
39	5.88	33.84	26.67	88.9	8.33	7.79				
40	5.87	33.84	26.67	89.1	8.33	7.69	.05	7.50	4.66	.52
41	5.87	33.84	26.68	89.0	8.33	7.60				
42	5.94	33.87	26.69	89.0	8.33	7.53				
43	6.11	33.90	26.69	89.0	8.33	7.50				
44	6.09	33.91	26.70	89.1	8.32	7.43				
45	6.07	33.91	26.70	89.1	8.32	7.39				
46	6.38	34.01	26.74	89.1	8.32	7.32				
47	6.69	34.06	26.74	89.1	8.32	7.22				
48	6.85	34.13	26.78	89.5	8.32	7.14				
49	6.83	34.12	26.77	89.6	8.32	7.12				
50	6.92	34.13	26.77	89.6	8.32	7.06				
60	7.71	34.41	26.88	89.7	8.33	6.52				
70	7.86	34.49	26.92	89.8	8.34	6.30				
80	7.21	34.44	26.97	89.6	8.35	5.67	.12	11.29	5.45	.93
90	7.46	34.51	26.99	89.7	8.34	5.46				
100	8.08	34.68	27.03	90.0	8.35	5.44				
110	8.29	34.80	27.09	89.4	8.35	5.21				
120	8.69	34.91	27.12	89.2	8.35	5.09				
121	8.72	34.90	27.10	89.2	8.35	5.09	.23	14.96	6.15	.99

KELEZ CRUISE XWCC-12 STATION 32 05/02/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

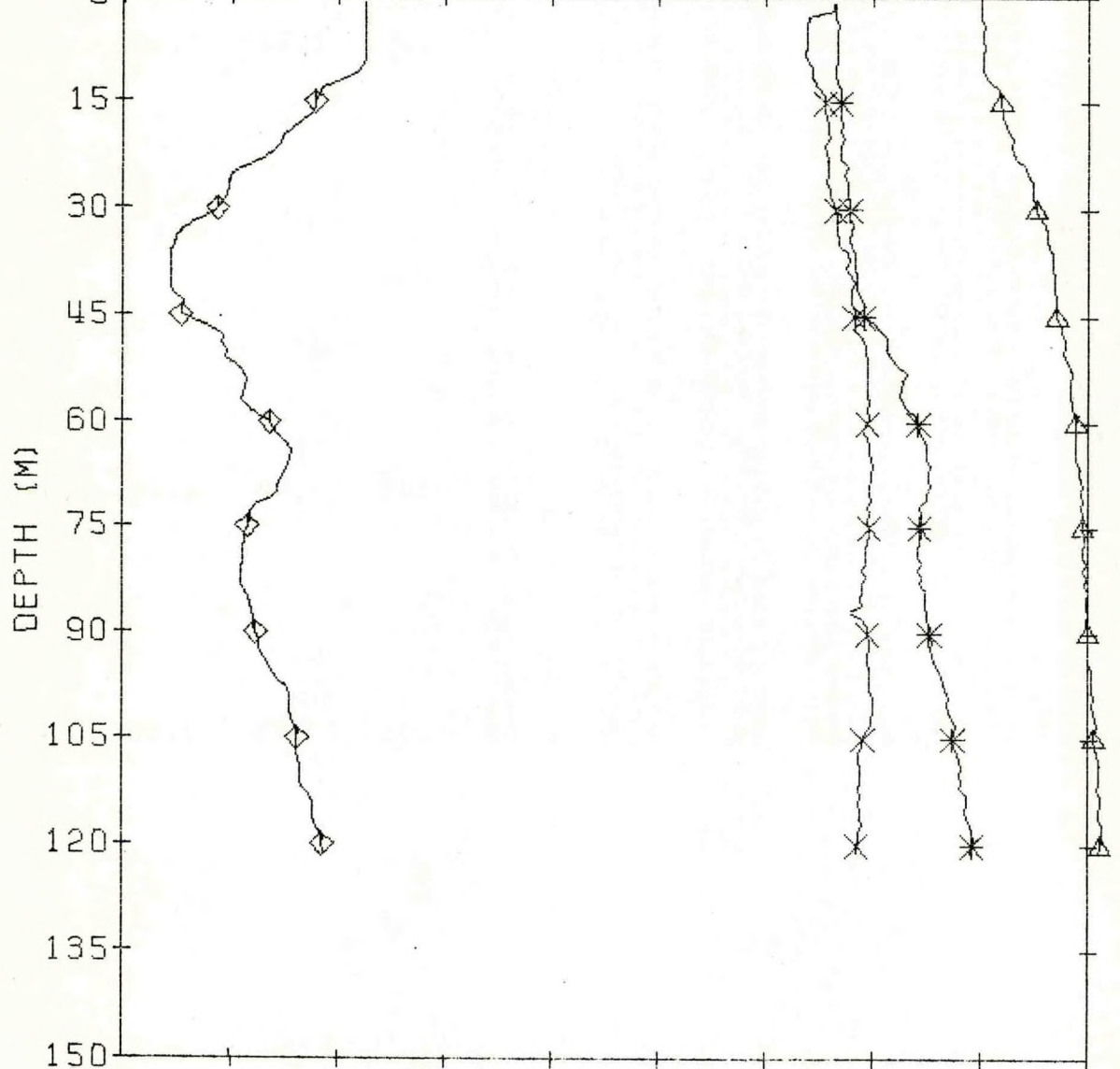
△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

◇ 5 7 9 11 13 15 17 19 21 23



XWCC-12 STA.033 LAT 40 10.0N; LONG 73 41.5W GMT 23.1 04/29/77
 DEPTH 062 AIR D/W 09.2/07.2 BARO 20.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 20/12 SEA DIR/HT 20/0 SWELL DIR/HT 20/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.10	32.90	25.63	90.1	8.36	6.76				
2	8.10	32.90	25.63	90.1	8.36	6.76	.00	.00	.89	.27
3	8.11	32.89	25.63	90.4	8.36	7.06				
4	8.11	32.90	25.63	90.4	8.36	7.06				
5	8.11	32.89	25.63	90.4	8.36	7.06				
6	8.10	32.89	25.63	90.5	8.36	7.07				
7	8.10	32.89	25.63	90.5	8.36	7.07				
8	8.09	32.89	25.63	90.6	8.36	7.07				
9	8.09	32.90	25.63	90.5	8.36	7.06				
10	8.08	32.90	25.63	90.6	8.36	7.06	.00	.00	.81	.26
11	8.07	32.91	25.64	90.6	8.36	7.06				
12	8.09	32.89	25.63	90.7	8.36	7.07				
13	8.10	32.90	25.63	90.6	8.36	7.07				
14	8.05	32.92	25.66	90.7	8.36	7.07				
15	7.94	32.95	25.69	90.6	8.36	7.08				
16	7.14	33.08	25.91	90.4	8.36	7.13				
17	6.58	33.15	26.04	90.4	8.36	7.28				
18	5.97	33.12	26.10	90.1	8.36	7.38				
19	5.63	33.14	26.15	90.0	8.37	7.47				
20	5.25	33.12	26.18	89.8	8.37	7.50	.05	1.28	3.68	.52
21	4.78	33.12	26.24	89.6	8.37	7.53				
22	4.56	33.14	26.27	89.4	8.37	7.51				
23	4.52	33.16	26.29	89.3	8.37	7.46				
24	4.42	33.14	26.29	89.3	8.37	7.36				
25	4.12	33.18	26.35	88.9	8.37	7.32				
26	4.13	33.18	26.35	88.9	8.37	7.25				
27	4.13	33.17	26.34	88.9	8.37	7.12				
28	4.14	33.19	26.36	88.9	8.37	7.02				
29	4.17	33.21	26.37	88.9	8.37	6.95				
30	4.28	33.25	26.39	88.9	8.36	6.87				
31	4.42	33.34	26.44	88.9	8.36	6.81				
32	4.56	33.44	26.51	88.9	8.36	6.76				
33	4.55	33.44	26.51	88.9	8.36	6.75				
34	4.51	33.45	26.52	88.9	8.35	6.77				
35	4.51	33.46	26.53	88.9	8.35	6.79				
36	4.55	33.47	26.53	88.9	8.35	6.79				
37	4.56	33.50	26.56	90.0	8.35	6.79				
38	4.58	33.52	26.57	90.0	8.35	6.80				
39	4.59	33.53	26.58	90.0	8.35	6.81				
40	4.59	33.54	26.59	90.1	8.35	6.82	.05	.74	3.20	.44
41	4.59	33.56	26.60	90.1	8.35	6.85				
42	4.60	33.55	26.60	90.1	8.35	6.88				
43	4.58	33.55	26.59	90.0	8.35	6.88				
44	4.54	33.56	26.61	89.9	8.35	6.89				
45	4.53	33.57	26.62	89.9	8.35	6.88				
46	4.52	33.57	26.62	89.9	8.35	6.86				
47	4.51	33.57	26.62	89.9	8.35	6.84				
48	4.51	33.57	26.62	89.9	8.35	6.81				
49	4.51	33.57	26.62	89.9	8.35	6.80				
50	4.51	33.58	26.62	89.9	8.35	6.77				
60	4.48	33.60	26.64	89.8	8.36	6.63	.06	.73	3.33	.45

KELEZ CRUISE XWCC-12 STATION 33 04/29/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

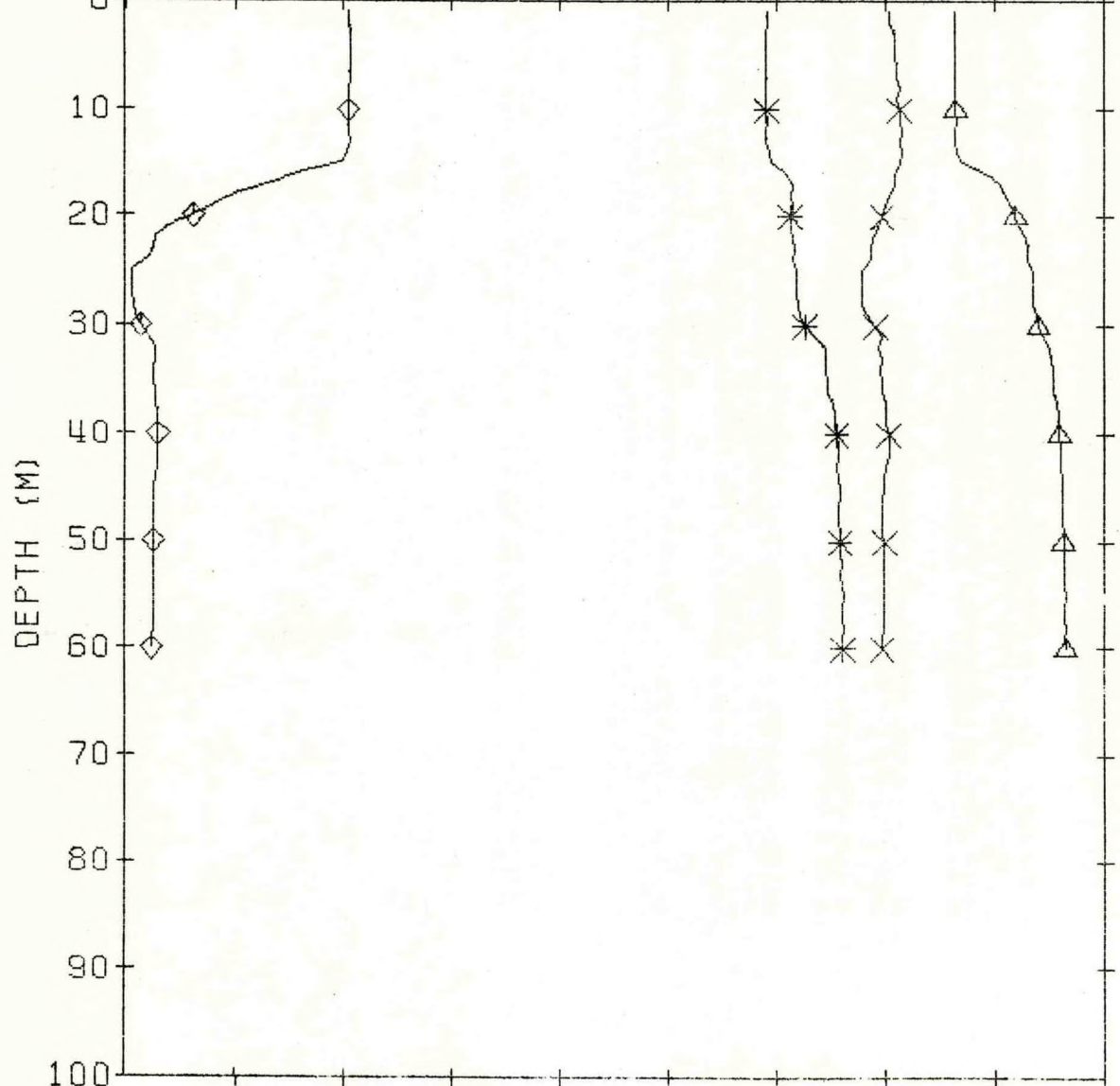
△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

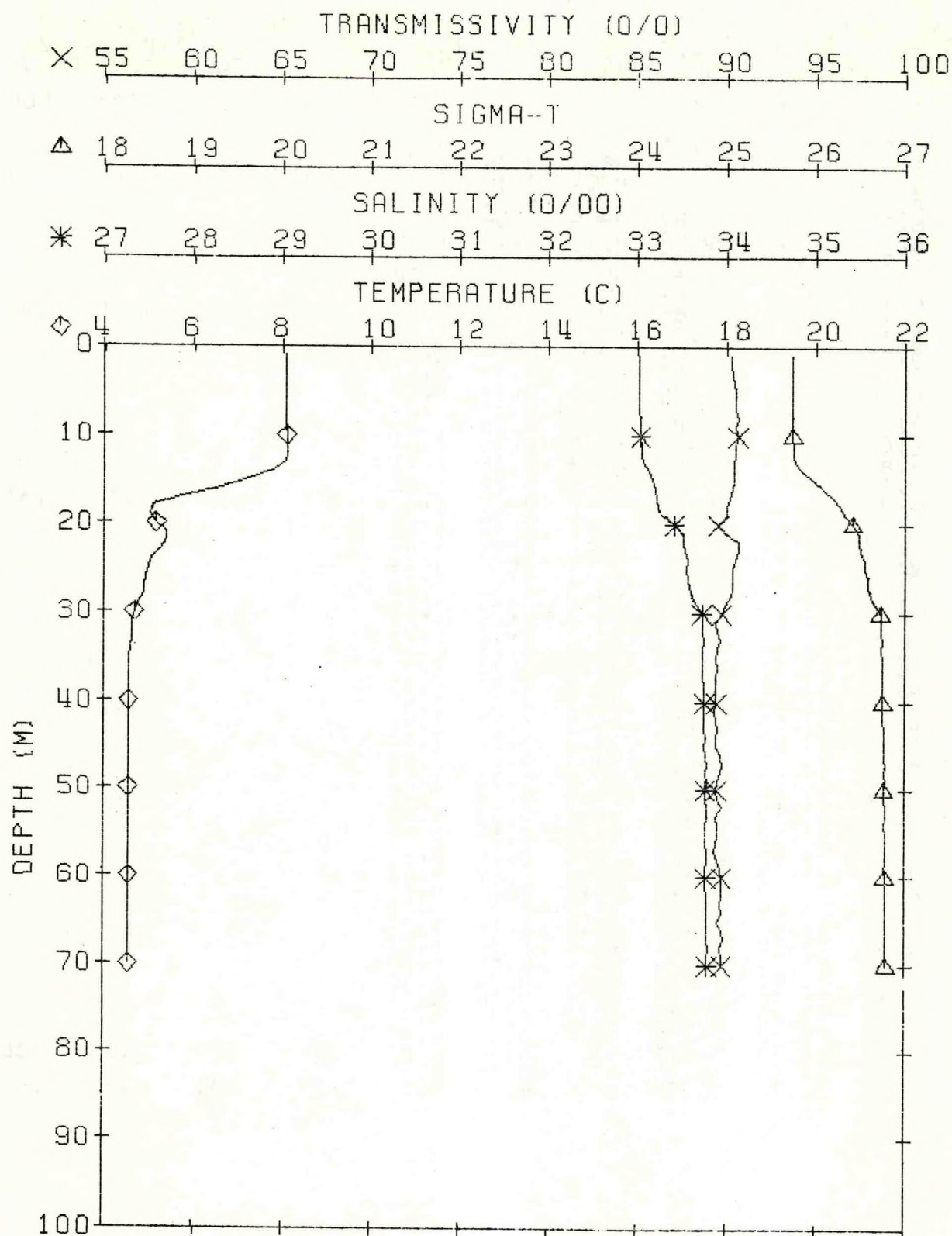
◇ 4 6 8 10 12 14 16 18 20 22



XWCC 12 STA. 034 LAT 40 5.5N; LONG 73 32.0W GMT 10.3 04/30/77
 DEPTH 072 AIR D/W 08.9/07.2 BARO 24.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 26/08 SEA DIR/HT 26/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.06	33.01	25.72	90.2	8.35	7.22				
2	8.06	33.01	25.72	90.2	8.35	7.22	.00	.00	.57	.23
3	8.06	33.02	25.73	90.3	8.35	7.24				
4	8.05	33.01	25.73	90.4	8.35	7.23				
5	8.05	33.01	25.73	90.5	8.35	7.24				
6	8.06	33.02	25.73	90.5	8.35	7.24				
7	8.06	33.01	25.73	90.5	8.35	7.24				
8	8.06	33.02	25.73	90.6	8.35	7.25				
9	8.06	33.03	25.74	90.5	8.35	7.25				
10	8.07	33.03	25.74	90.6	8.35	7.25	.00	.00	.79	.18
11	8.08	33.04	25.74	90.5	8.35	7.25				
12	8.07	33.05	25.75	90.5	8.35	7.25				
13	8.05	33.05	25.76	90.4	8.35	7.25				
14	7.79	33.12	25.85	90.4	8.35	7.26				
15	7.21	33.16	25.96	90.4	8.35	7.34				
16	6.60	33.19	26.07	90.3	8.35	7.41				
17	5.71	33.21	26.20	90.1	8.36	7.53				
18	5.08	33.23	26.29	90.0	8.36	7.66				
19	5.02	33.28	26.33	90.0	8.36	7.76				
20	5.16	33.41	26.42	89.5	8.36	7.76	.00	.00	.39	.26
21	5.39	33.51	26.47	89.9	8.36	7.72				
22	5.33	33.51	26.47	90.6	8.36	7.69				
23	5.25	33.52	26.49	90.6	8.36	7.69				
24	5.07	33.56	26.55	90.5	8.36	7.71				
25	4.97	33.54	26.54	90.3	8.36	7.72				
26	4.91	33.56	26.57	90.3	8.36	7.71				
27	4.88	33.58	26.58	90.3	8.36	7.69				
28	4.76	33.61	26.61	90.2	8.36	7.65				
29	4.76	33.66	26.66	89.9	8.36	7.63				
30	4.67	33.72	26.72	89.7	8.36	7.58				
31	4.62	33.73	26.73	89.4	8.36	7.45				
32	4.62	33.72	26.73	89.5	8.36	7.25				
33	4.60	33.73	26.74	89.6	8.36	7.06				
34	4.59	33.73	26.74	89.5	8.36	6.90				
35	4.57	33.73	26.74	89.4	8.36	6.75				
36	4.57	33.73	26.74	89.5	8.36	6.64				
37	4.57	33.73	26.74	89.4	8.36	6.53				
38	4.56	33.75	26.75	89.4	8.36	6.43				
39	4.56	33.74	26.75	89.4	8.36	6.35	.06	.42	3.71	.41
40	4.55	33.75	26.75	89.4	8.36	6.28				
41	4.55	33.75	26.75	89.3	8.36	6.22				
42	4.55	33.75	26.76	89.4	8.36	6.17				
43	4.55	33.75	26.76	89.5	8.36	6.12				
44	4.55	33.75	26.76	89.4	8.36	6.07				
45	4.55	33.75	26.76	89.4	8.36	6.03				
46	4.55	33.76	26.76	89.6	8.36	5.99				
47	4.55	33.77	26.77	89.7	8.36	5.97				
48	4.55	33.76	26.77	89.6	8.36	5.93				
49	4.55	33.77	26.77	89.5	8.36	5.91				
50	4.55	33.76	26.76	89.4	8.36	5.88				
60	4.55	33.77	26.77	89.5	8.36	5.77				
70	4.55	33.78	26.78	89.7	8.36	5.74	.07	.44	4.32	.46

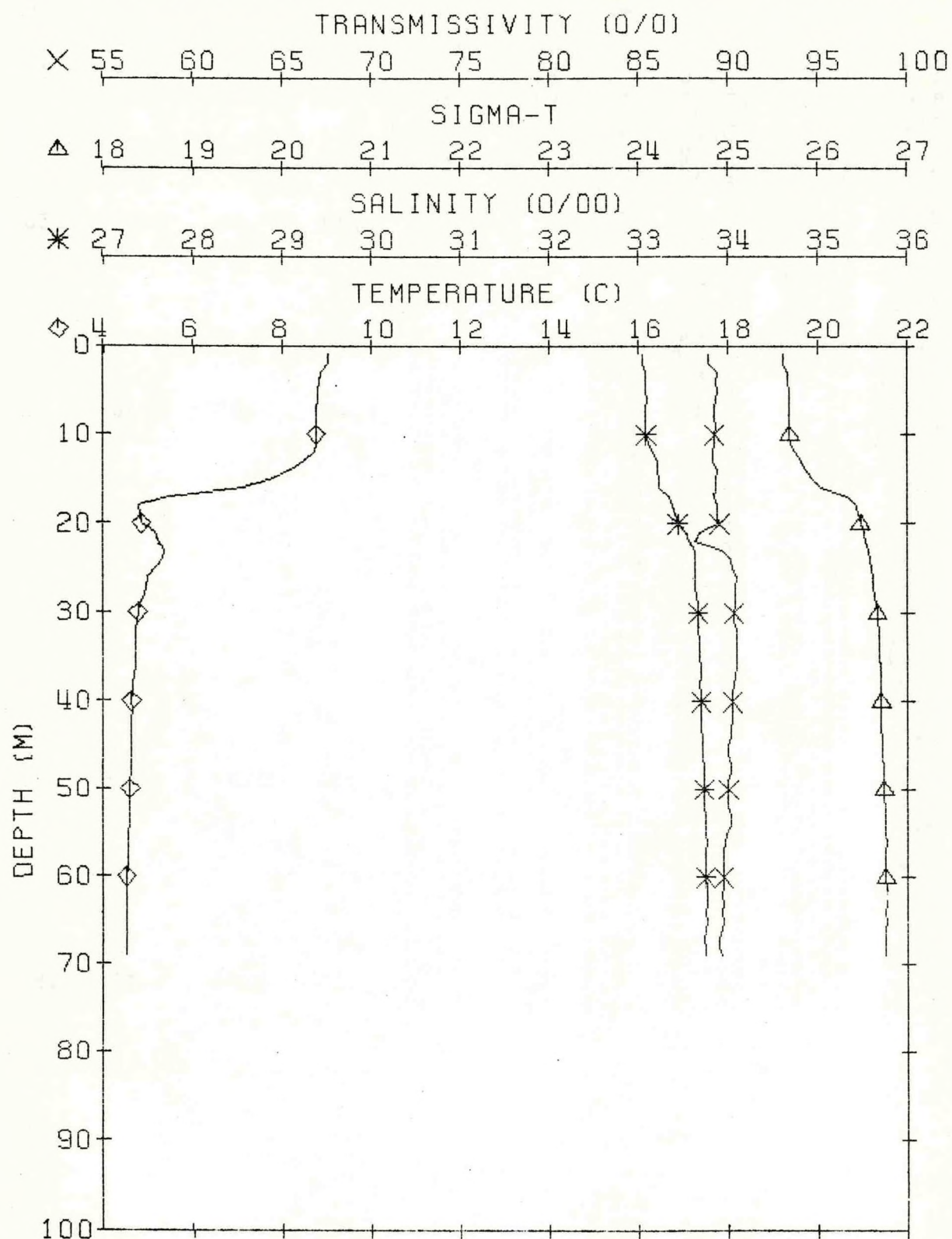
KELEZ CRUISE XWCC-12 STATION 34 04/30/77



XWCC_12 STA.035 LAT 39 59.0N; LONG 73 21.5W GMT 15.3 04/30/77
 DEPTH 070 AIR D/W 16.7/12.8 BARO 26.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 29/05 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	9.01	33.05	25.61	88.9	8.34	8.09				
2	9.01	33.05	25.61	88.9	8.34	8.08				
3	8.85	33.08	25.66	88.9	8.34	7.46	.00	.00	.87	.14
4	8.81	33.07	25.66	88.9	8.34	7.33				
5	8.79	33.08	25.67	88.9	8.34	7.21				
6	8.77	33.08	25.68	88.9	8.34	7.23				
7	8.75	33.08	25.67	88.9	8.34	7.21				
8	8.74	33.07	25.67	88.9	8.34	7.20				
9	8.74	33.08	25.68	88.9	8.34	7.20				
10	8.75	33.08	25.68	88.9	8.34	7.17	.00	.13	1.05	.22
11	8.76	33.10	25.69	88.9	8.34	7.25				
12	8.72	33.16	25.74	88.9	8.34	7.16				
13	8.49	33.20	25.81	88.9	8.34	7.17				
14	8.18	33.21	25.86	88.9	8.34	7.29				
15	7.79	33.22	25.93	88.9	8.34	7.34				
16	7.12	33.23	26.03	88.9	8.35	7.36				
17	5.47	33.34	26.33	88.9	8.35	7.61				
18	4.80	33.38	26.43	88.9	8.36	7.81				
19	4.82	33.41	26.46	88.9	8.36	7.83				
20	4.85	33.44	26.48	88.9	8.36	7.77	.01	.00	.74	.31
21	5.15	33.52	26.51	88.8	8.36	7.70				
22	5.20	33.56	26.53	88.1	8.35	7.64				
23	5.34	33.62	26.56	88.9	8.35	7.73				
24	5.32	33.63	26.57	90.1	8.34	7.57				
25	5.14	33.63	26.59	90.2	8.34	7.59				
26	4.98	33.63	26.61	90.5	8.33	7.63				
27	4.95	33.63	26.62	90.4	8.33	7.61				
28	4.91	33.64	26.63	90.4	8.33	7.76				
29	4.81	33.66	26.65	90.4	8.33	7.61				
30	4.77	33.66	26.66	90.3	8.33	7.63				
31	4.76	33.66	26.66	90.3	8.33	7.57				
32	4.73	33.66	26.67	90.5	8.33	7.42				
33	4.73	33.67	26.67	90.5	8.33	7.31				
34	4.72	33.68	26.68	90.5	8.33	7.22				
35	4.72	33.68	26.68	90.5	8.33	7.13				
36	4.71	33.69	26.69	90.5	8.33	7.06				
37	4.67	33.70	26.70	90.4	8.33	6.90				
38	4.66	33.68	26.69	90.3	8.34	6.42				
39	4.64	33.69	26.70	90.2	8.34	6.42				
40	4.63	33.69	26.70	90.2	8.34	6.39				
41	4.64	33.69	26.70	90.2	8.34	6.35				
42	4.62	33.69	26.70	90.2	8.34	6.31				
43	4.62	33.69	26.70	90.1	8.34	6.27				
44	4.62	33.70	26.71	90.1	8.34	6.22				
45	4.62	33.71	26.72	90.0	8.34	6.18				
46	4.61	33.71	26.71	90.0	8.34	6.13				
47	4.61	33.72	26.73	90.1	8.34	6.11				
48	4.61	33.72	26.73	90.1	8.34	6.07				
49	4.60	33.72	26.73	90.0	8.34	6.05				
50	4.60	33.73	26.73	90.0	8.34	6.03	.04	.27	2.26	.36
60	4.52	33.74	26.75	89.7	8.35	5.75				
69	4.53	33.74	26.75	89.6	8.35	5.65	.07	.61	4.56	.55

KELEZ CRUISE XWCC-12 STATION 35 04/30/77



XWCC-12 STA.036 LAT 39 54.7N; LONG 73 6.8W GMT 21.3 04/30/77
 DEPTH 067 AIR D/W 13.9/10.6 BARO 25.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 19/10 SEA DIR/HT 19/0 SWELL DIR/HT 20/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	9.35	32.67	25.26	91.0	8.35	7.19				
2	9.35	32.67	25.26	91.0	8.35	7.19	.00	.00	.69	.31
3	8.88	32.60	25.28	91.5	8.34	7.10				
4	8.48	32.57	25.32	91.6	8.34	7.13				
5	8.13	32.58	25.38	91.3	8.35	7.36				
6	8.06	32.59	25.40	91.1	8.35	7.33				
7	8.04	32.59	25.40	91.0	8.36	7.32				
8	8.00	32.60	25.41	91.0	8.36	7.27				
9	8.01	32.63	25.43	91.1	8.36	7.25				
10	8.03	32.63	25.43	90.9	8.35	7.22	.00	.20	1.09	.33
11	7.98	32.63	25.44	90.9	8.35	7.21				
12	7.98	32.62	25.43	90.9	8.35	7.23				
13	7.98	32.63	25.44	90.9	8.35	7.19				
14	7.99	32.63	25.44	90.9	8.35	7.18				
15	7.98	32.63	25.44	90.9	8.35	7.19				
16	7.95	32.62	25.44	90.8	8.35	7.20				
17	7.83	32.64	25.47	90.8	8.35	7.19				
18	7.00	32.71	25.63	90.7	8.35	7.25				
19	6.93	33.59	25.97	90.1	8.35	7.39				
20	7.99	33.59	26.19	89.4	8.35	7.31	.00	.00	1.00	.28
21	8.82	33.72	26.17	88.4	8.35	7.12				
22	8.80	33.74	26.18	88.2	8.34	7.14				
23	8.63	33.75	26.22	88.3	8.34	7.24				
24	8.23	33.69	26.23	88.6	8.34	7.36				
25	7.34	33.82	26.47	88.3	8.35	7.61				
26	7.14	33.88	26.53	88.1	8.36	7.71				
27	6.84	33.87	26.57	88.8	8.36	7.76				
28	6.63	33.88	26.61	89.4	8.36	7.80				
29	6.51	33.94	26.67	90.0	8.36	7.81				
30	6.46	33.94	26.68	90.3	8.36	7.72				
31	6.21	33.88	26.66	90.7	8.36	7.75				
32	5.90	33.89	26.71	90.9	8.36	7.73				
33	5.91	33.93	26.74	91.0	8.36	7.70				
34	5.84	33.92	26.74	91.1	8.36	7.63				
35	5.83	33.92	26.74	91.2	8.36	7.54				
36	5.63	33.93	26.77	91.3	8.35	7.43				
37	5.51	33.93	26.79	91.3	8.35	7.43				
38	5.46	33.93	26.80	91.3	8.35	7.33				
39	5.39	33.93	26.79	91.3	8.35	7.17				
40	5.12	33.89	26.80	91.3	8.35	7.06	.12	2.22	3.00	.69
41	5.03	33.91	26.83	91.2	8.35	6.93				
42	4.98	33.90	26.83	91.1	8.35	6.73				
43	4.96	33.90	26.83	91.1	8.35	6.55				
44	4.98	33.91	26.83	91.2	8.35	6.38				
45	5.00	33.90	26.83	91.2	8.35	6.22				
46	4.96	33.91	26.84	91.1	8.35	6.14				
47	4.97	33.91	26.84	91.1	8.34	6.06				
48	4.97	33.91	26.84	91.1	8.34	6.00				
49	4.98	33.92	26.84	91.2	8.34	5.94				
50	4.98	33.92	26.84	91.3	8.35	5.89				
60	4.95	33.92	26.85	91.3	8.35	5.70	.15	2.64	4.27	.82
65	4.94	33.92	26.85	91.3	8.35	5.68				

KELEZ CRUISE XWCC-12 STATION 36 04/30/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

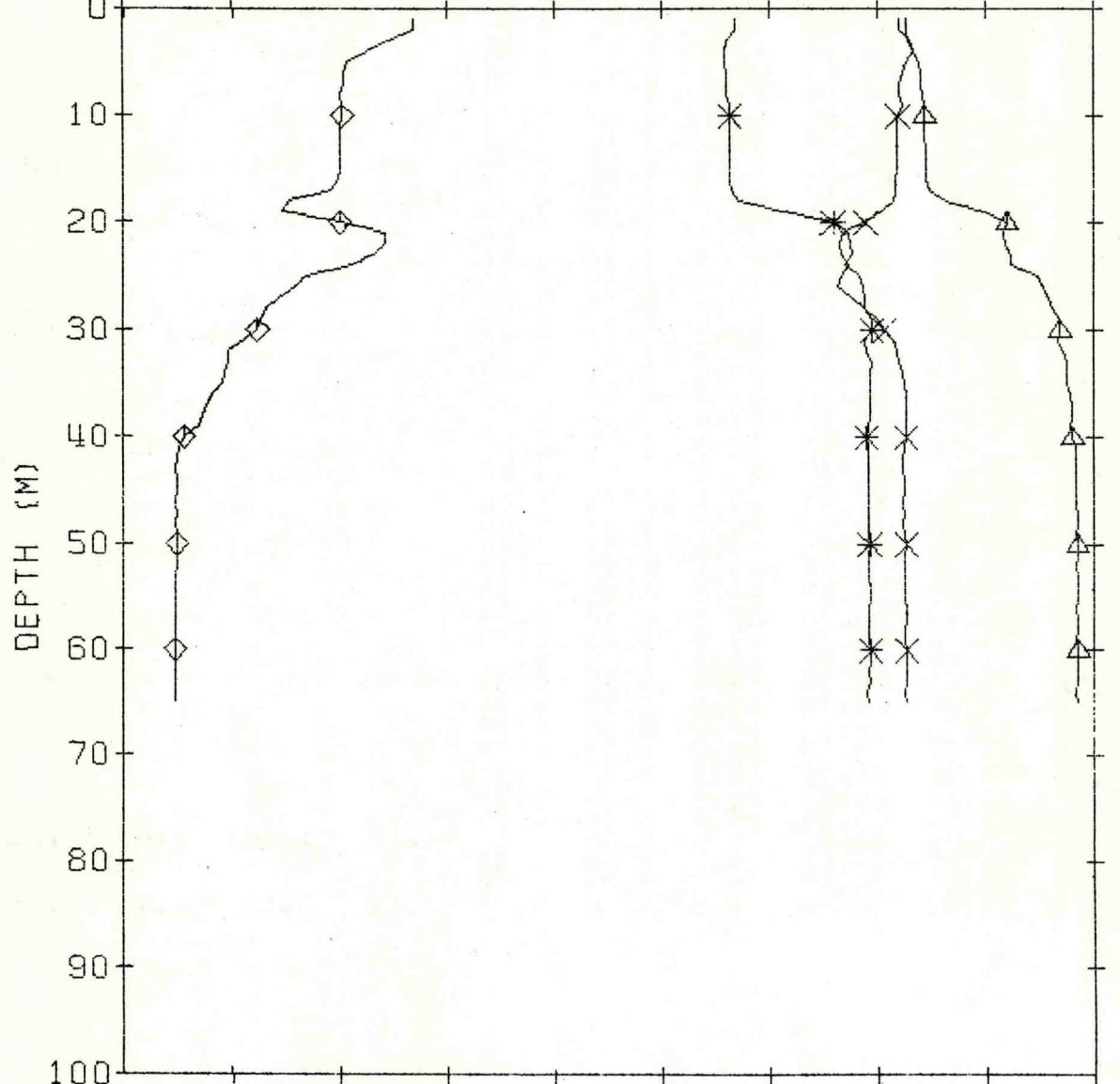
△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

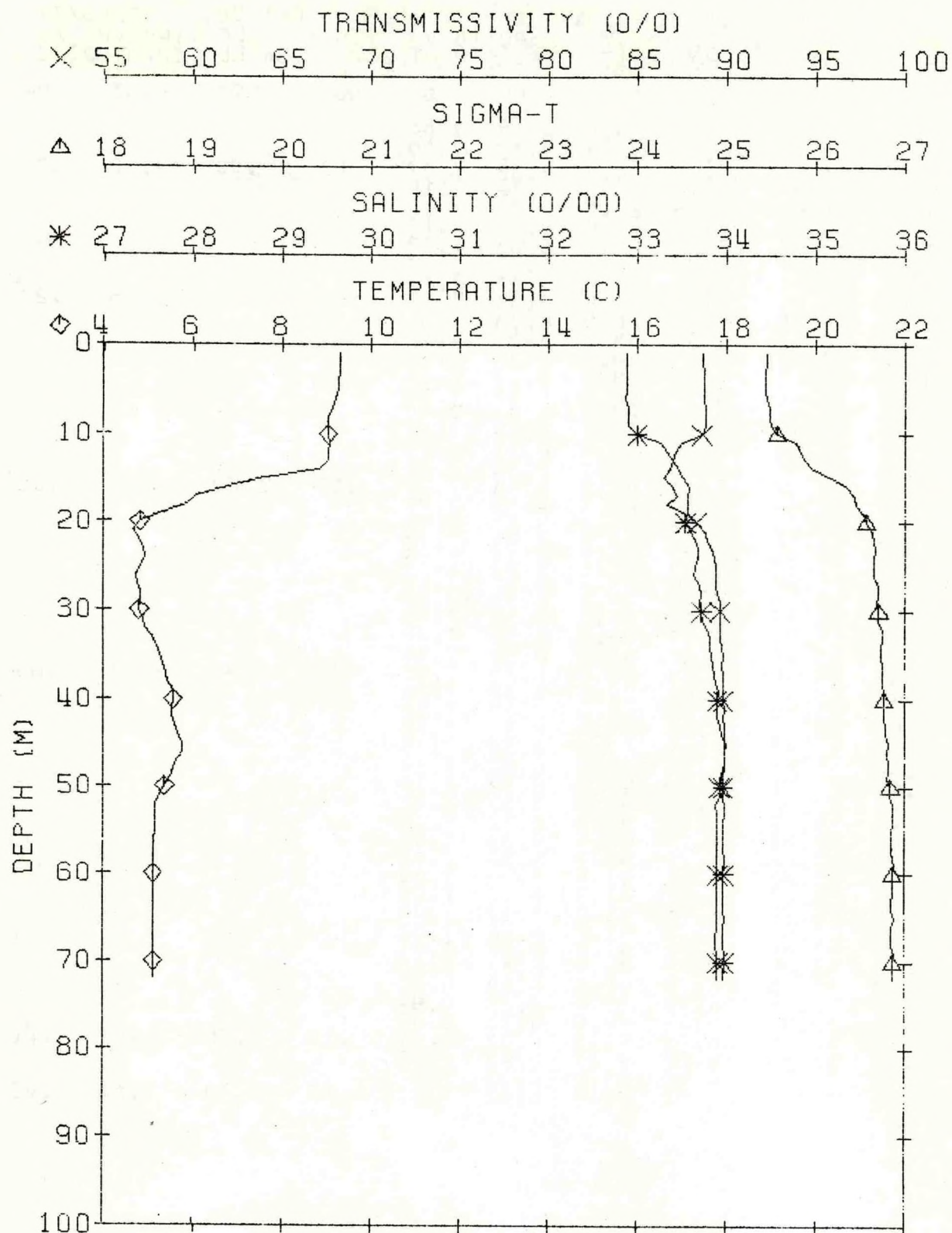
◇ 4 6 8 10 12 14 16 18 20 22



XWCC-12 STA.037 LAT 39 45.8N; LONG 72 57.1W GMT 03.1 05/01/77
 DEPTH 073 AIR D/W 10.6/09.4 BARO 26.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 22/13 SEA DIR/HT 22/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	9.27	32.88	25.44	88.6	8.34	6.91				
2	9.27	32.88	25.44	88.6	8.34	6.91	.01	.00	1.23	.32
3	9.27	32.88	25.44	88.7	8.34	6.95				
4	9.27	32.88	25.44	88.7	8.34	6.96				
5	9.26	32.87	25.43	88.7	8.34	6.97				
6	9.17	32.87	25.44	88.7	8.34	7.00				
7	9.13	32.90	25.47	88.8	8.34	7.00				
8	9.02	32.89	25.49	88.8	8.34	7.03				
9	9.01	32.89	25.49	88.8	8.34	7.00				
10	9.02	32.99	25.56	88.6	8.34	7.09	.01	.00	1.41	.31
11	9.06	33.26	25.77	87.5	8.34	7.07				
12	9.02	33.32	25.82	87.1	8.34	7.03				
13	9.02	33.40	25.88	87.0	8.34	7.15				
14	8.83	33.46	25.96	86.8	8.34	7.23				
15	7.59	33.51	26.19	86.5	8.34	7.35				
16	6.75	33.57	26.35	87.0	8.34	7.70				
17	6.04	33.56	26.43	87.2	8.34	7.77				
18	5.87	33.56	26.45	86.6	8.34	7.72				
19	5.33	33.56	26.52	87.6	8.34	7.84				
20	4.80	33.56	26.56	88.3	8.34	7.80	.10	.10	1.41	.49
21	4.64	33.60	26.63	88.7	8.34	7.77				
22	4.79	33.65	26.65	88.9	8.34	7.63				
23	4.89	33.68	26.66	89.1	8.34	7.49				
24	4.92	33.68	26.65	89.3	8.34	7.41				
25	4.83	33.64	26.64	89.5	8.34	7.38				
26	4.72	33.63	26.65	89.4	8.34	7.36				
27	4.74	33.69	26.69	89.5	8.34	7.30				
28	4.81	33.69	26.68	89.6	8.34	7.22				
29	4.80	33.72	26.70	89.6	8.34	7.18				
30	4.80	33.72	26.70	89.6	8.34	7.17				
31	4.82	33.78	26.74	89.6	8.34	7.13				
32	4.80	33.80	26.74	89.6	8.34	7.09				
33	4.81	33.81	26.73	89.7	8.34	7.04				
34	4.82	33.82	26.73	89.8	8.34	7.01				
35	4.82	33.82	26.74	89.8	8.34	7.00				
36	4.83	33.86	26.75	89.8	8.34	7.00				
37	4.84	33.87	26.75	89.8	8.34	7.00				
38	4.84	33.87	26.75	89.8	8.34	7.00				
39	4.84	33.87	26.75	89.8	8.34	7.00				
40	4.84	33.87	26.75	89.8	8.34	7.00				
41	4.84	33.87	26.75	89.8	8.34	7.00				
42	4.84	33.87	26.75	89.8	8.34	7.00				
43	4.84	33.87	26.75	89.8	8.34	7.00				
44	4.84	33.87	26.75	89.8	8.34	7.00				
45	4.84	33.87	26.75	89.8	8.34	7.00				
46	4.84	33.87	26.75	89.8	8.34	7.00				
47	4.84	33.87	26.75	89.8	8.34	7.00				
48	4.84	33.87	26.75	89.8	8.34	7.00				
49	4.84	33.87	26.75	89.8	8.34	7.00				
50	4.84	33.87	26.75	89.8	8.34	7.00				
51	4.84	33.87	26.75	89.8	8.34	7.00				
52	4.84	33.87	26.75	89.8	8.34	7.00				
53	4.84	33.87	26.75	89.8	8.34	7.00				
54	4.84	33.87	26.75	89.8	8.34	7.00				
55	4.84	33.87	26.75	89.8	8.34	7.00				
56	4.84	33.87	26.75	89.8	8.34	7.00				
57	4.84	33.87	26.75	89.8	8.34	7.00				
58	4.84	33.87	26.75	89.8	8.34	7.00				
59	4.84	33.87	26.75	89.8	8.34	7.00				
60	4.84	33.87	26.75	89.8	8.34	7.00				
61	4.84	33.87	26.75	89.8	8.34	7.00				
62	4.84	33.87	26.75	89.8	8.34	7.00				
63	4.84	33.87	26.75	89.8	8.34	7.00				
64	4.84	33.87	26.75	89.8	8.34	7.00				
65	4.84	33.87	26.75	89.8	8.34	7.00				
66	4.84	33.87	26.75	89.8	8.34	7.00				
67	4.84	33.87	26.75	89.8	8.34	7.00				
68	4.84	33.87	26.75	89.8	8.34	7.00				
69	4.84	33.87	26.75	89.8	8.34	7.00				
70	4.84	33.87	26.75	89.8	8.34	7.00				
71	4.84	33.87	26.75	89.8	8.34	7.00				
72	4.84	33.87	26.75	89.8	8.34	7.00				

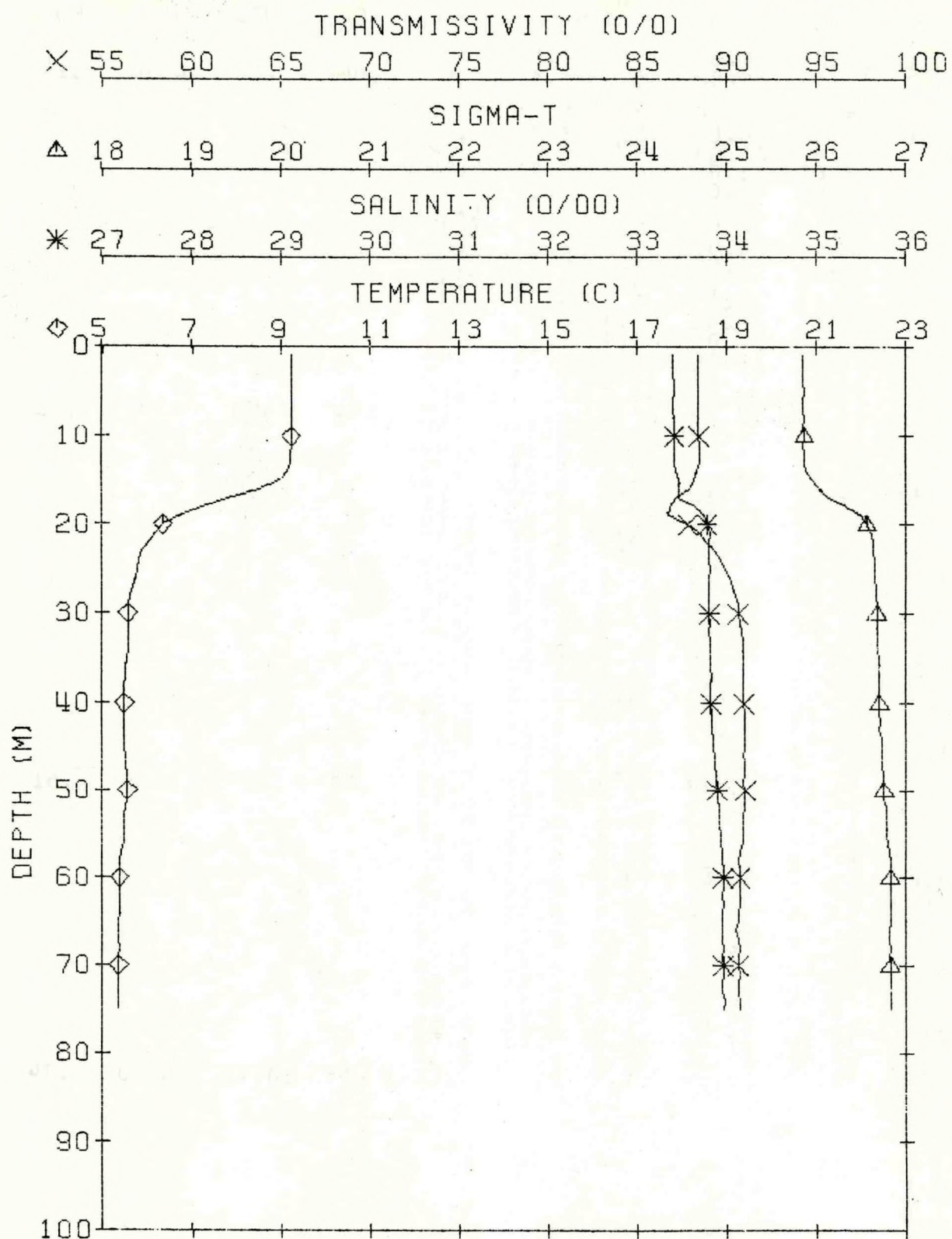
KELEZ CRUISE XWCC-12 STATION 37 05/01/77



XWCC_12 STA.038 LAT 39 39.0N; LONG 72 39.5W GMT 08.5 05/03/77
 DEPTH 077 AIR D/W 11.7/11.7 BARO 18.0 VIS 6 CLD TYP/CVR /8
 WETHR 2 WIND DIR/SPD 26/17 SEA DIR/HT 23/1 SWELL DIR/HT 23/2

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	9.21	33.39	25.85	88.4	8.33	7.09				
2	9.21	33.39	25.85	88.4	8.33	7.09				
3	9.21	33.39	25.85	88.4	8.32	7.07	.03	.00	2.00	.27
4	9.20	33.40	25.86	88.4	8.33	7.10				
5	9.20	33.40	25.86	88.4	8.33	7.12				
6	9.21	33.40	25.85	88.4	8.33	7.12				
7	9.21	33.40	25.85	88.4	8.33	7.12				
8	9.20	33.40	25.86	88.4	8.33	7.13				
9	9.20	33.40	25.86	88.4	8.33	7.12				
10	9.21	33.41	25.86	88.5	8.33	7.12	.02	.00	2.25	.27
11	9.20	33.40	25.86	88.5	8.33	7.11				
12	9.20	33.41	25.86	88.5	8.33	7.12				
13	9.19	33.41	25.87	88.5	8.33	7.13				
14	9.12	33.42	25.88	88.3	8.33	7.13				
15	8.95	33.46	25.94	88.1	8.33	7.14				
16	8.48	33.46	26.02	87.9	8.33	7.20				
17	7.77	33.46	26.12	87.1	8.33	7.37				
18	7.23	33.64	26.34	86.8	8.33	7.43				
19	6.73	33.75	26.49	86.7	8.34	7.58				
20	6.35	33.78	26.56	87.8	8.33	7.72	.07	3.22	4.69	.52
21	6.17	33.80	26.61	88.5	8.33	7.77				
22	6.05	33.80	26.62	88.8	8.33	7.78				
23	5.87	33.79	26.63	89.3	8.33	7.73				
24	5.81	33.79	26.64	89.6	8.33	7.70				
25	5.77	33.80	26.66	89.9	8.33	7.61				
26	5.74	33.79	26.65	90.1	8.33	7.55				
27	5.67	33.79	26.66	90.3	8.33	7.48				
28	5.61	33.79	26.67	90.5	8.33	7.42				
29	5.59	33.79	26.67	90.6	8.32	7.36				
30	5.57	33.80	26.68	90.7	8.32	7.33	.12	5.48	6.16	.66
31	5.58	33.80	26.68	90.8	8.32	7.26				
32	5.59	33.81	26.68	90.9	8.32	7.22				
33	5.58	33.81	26.69	90.9	8.32	7.18				
34	5.58	33.81	26.69	90.9	8.32	7.15				
35	5.52	33.81	26.69	90.9	8.32	7.14				
36	5.51	33.82	26.70	90.9	8.32	7.12				
37	5.50	33.82	26.70	90.9	8.32	7.12				
38	5.49	33.82	26.70	90.9	8.32	7.11				
39	5.49	33.82	26.70	90.9	8.32	7.09				
40	5.48	33.82	26.70	90.9	8.32	7.08				
41	5.48	33.83	26.71	91.0	8.32	7.06				
42	5.48	33.83	26.71	91.0	8.32	7.05				
43	5.49	33.83	26.71	91.0	8.32	7.04				
44	5.49	33.84	26.72	91.0	8.32	7.02				
45	5.40	33.84	26.72	91.0	8.32	7.01				
46	5.31	33.85	26.73	91.0	8.33	6.98				
47	5.26	33.85	26.73	91.0	8.33	6.97				
48	5.26	33.88	26.74	91.0	8.33	6.94				
49	5.26	33.87	26.74	90.9	8.33	6.91				
50	5.19	33.89	26.75	91.0	8.33	6.91	.12	5.80	5.83	.71
60	5.37	33.95	26.82	90.7	8.33	6.10				
70	5.37	33.95	26.83	90.6	8.33	5.87				
75	5.35	33.96	26.83	90.7	8.33	5.81	.19	7.10	7.87	.93

KELEZ CRUISE XWCC-12 STATION 38 05/03/77



XWCC-12 STA.039 LAT 39 32.0N; LONG 72 26.0W GMT 11.7 05/03/77
 DEPTH 249 AIR D/W 11.7/10.6 BARO 21.0 VIS 6 CLD TYP/CVR /8
 WETHR 2 WIND DIR/SPD 33/10 SEA DIR/HT 19/0 SWELL DIR/HT 19/2

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	S103	P04
1	9.08	33.59	26.02	88.0	8.32	7.01				
2	9.07	33.59	26.02	88.0	8.32	7.01	.04	.00	4.96	.24
3	9.07	33.60	26.04	88.2	8.32	7.08				
4	9.06	33.61	26.04	88.1	8.32	7.08				
5	9.06	33.61	26.04	88.2	8.32	7.08				
6	9.06	33.61	26.04	88.3	8.33	7.08				
7	9.06	33.61	26.04	88.2	8.33	7.09				
8	9.06	33.61	26.04	88.3	8.33	7.08				
9	9.06	33.61	26.04	88.3	8.33	7.09				
10	9.05	33.60	26.04	88.3	8.33	7.09				
11	9.04	33.61	26.04	88.3	8.33	7.08				
12	9.04	33.61	26.04	88.3	8.33	7.09				
13	9.04	33.60	26.04	88.3	8.33	7.09				
14	9.03	33.61	26.05	88.4	8.33	7.09				
15	9.01	33.61	26.05	88.4	8.33	7.08				
16	8.99	33.62	26.06	88.6	8.33	7.09				
17	8.99	33.63	26.07	88.8	8.33	7.08				
18	8.93	33.63	26.08	88.9	8.33	7.09				
19	8.91	33.64	26.09	88.9	8.33	7.09	.04	.00	5.92	.22
20	8.89	33.64	26.09	88.9	8.33	7.08				
21	8.88	33.65	26.10	88.9	8.33	7.09				
22	8.88	33.66	26.12	88.9	8.33	7.09				
23	8.88	33.66	26.13	88.9	8.33	7.09				
24	8.84	33.68	26.17	88.9	8.33	7.11				
25	8.57	33.67	26.17	88.9	8.33	7.19				
26	8.04	33.82	26.36	88.9	8.33	7.27				
27	7.70	33.87	26.45	88.9	8.33	7.34				
28	7.50	33.85	26.47	88.9	8.33	7.41				
29	7.21	33.87	26.52	88.9	8.33	7.47				
30	7.02	33.95	26.61	88.9	8.33	7.49				
31	7.08	34.00	26.64	88.9	8.33	7.45				
32	7.16	34.02	26.65	88.9	8.33	7.42				
33	7.09	34.06	26.69	88.9	8.33	7.36				
34	6.99	34.05	26.69	88.9	8.33	7.30				
35	6.81	34.07	26.73	90.1	8.33	7.24				
36	6.92	34.09	26.73	90.1	8.33	7.11				
37	6.95	34.07	26.72	90.1	8.33	7.02				
38	7.33	34.13	26.70	90.2	8.33	6.97				
39	7.84	34.31	26.78	90.1	8.33	6.83	.10	3.57	5.05	.51
40	7.96	34.33	26.78	90.2	8.33	6.79				
41	8.02	34.32	26.76	90.3	8.33	6.73				
42	8.22	34.44	26.82	90.6	8.33	6.62				
43	8.29	34.47	26.84	90.8	8.33	6.55				
44	8.37	34.48	26.83	90.8	8.33	6.45				
45	8.41	34.52	26.85	90.9	8.33	6.42				
46	8.46	34.55	26.86	90.9	8.33	6.37				
47	8.56	34.55	26.86	90.9	8.33	6.33				
48	8.57	34.61	26.91	91.0	8.33	6.28				
49	8.56	34.62	26.91	91.0	8.33	6.22				
50	8.56	34.65	26.93	91.0	8.33	6.16				
60	8.77	34.78	27.00	91.3	8.33	5.92				
80	9.47	34.97	27.04	91.4	8.33	5.66				
90	10.32	35.19	27.06	91.6	8.33	5.33				
100	10.86	35.36	27.10	91.7	8.34	5.32	.15	13.15	5.60	.74
101	10.86	35.35	27.09	91.7	8.34	5.32				

KELEZ CRUISE XWCC-12 STATION 39 05/03/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

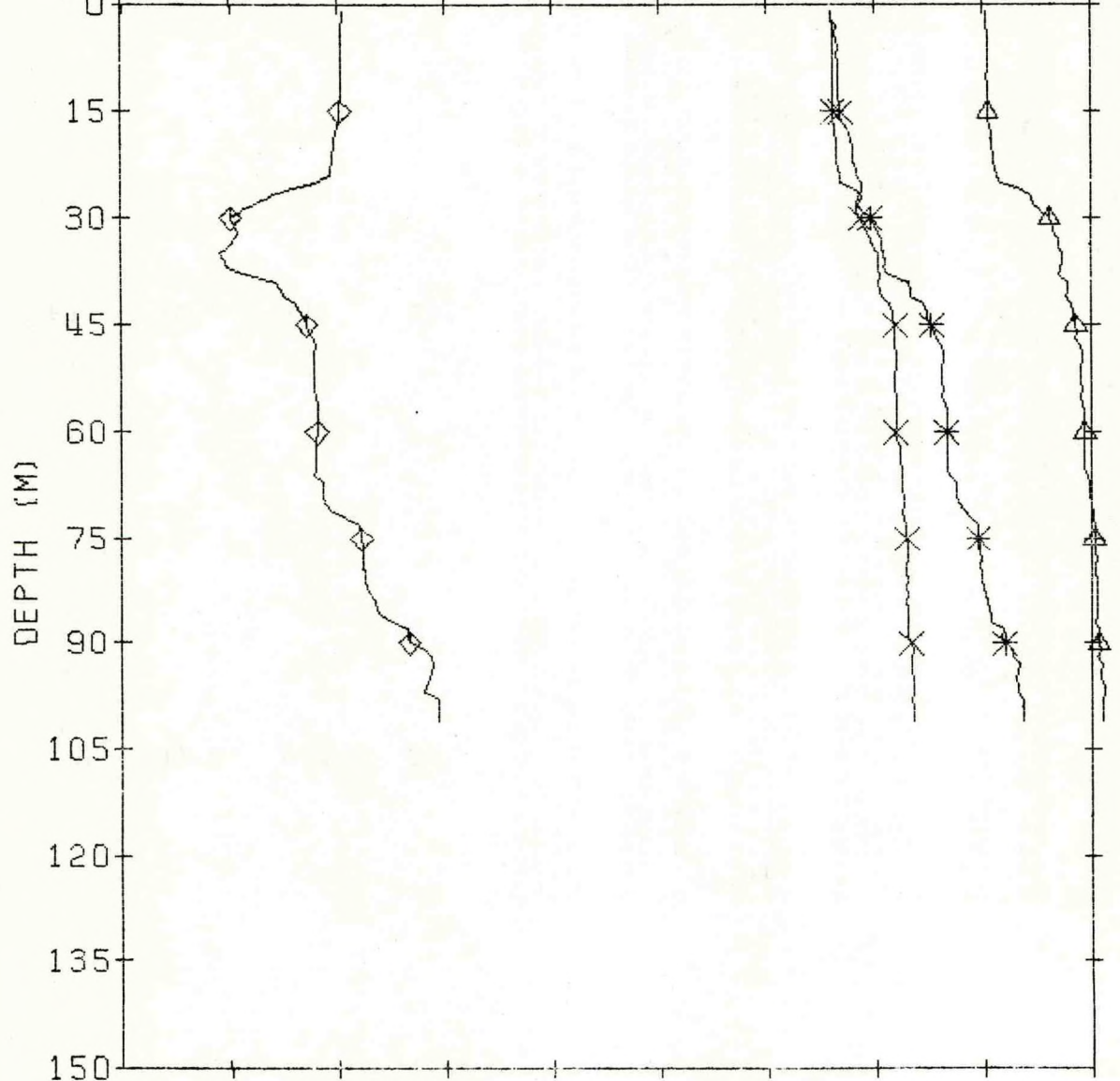
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SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

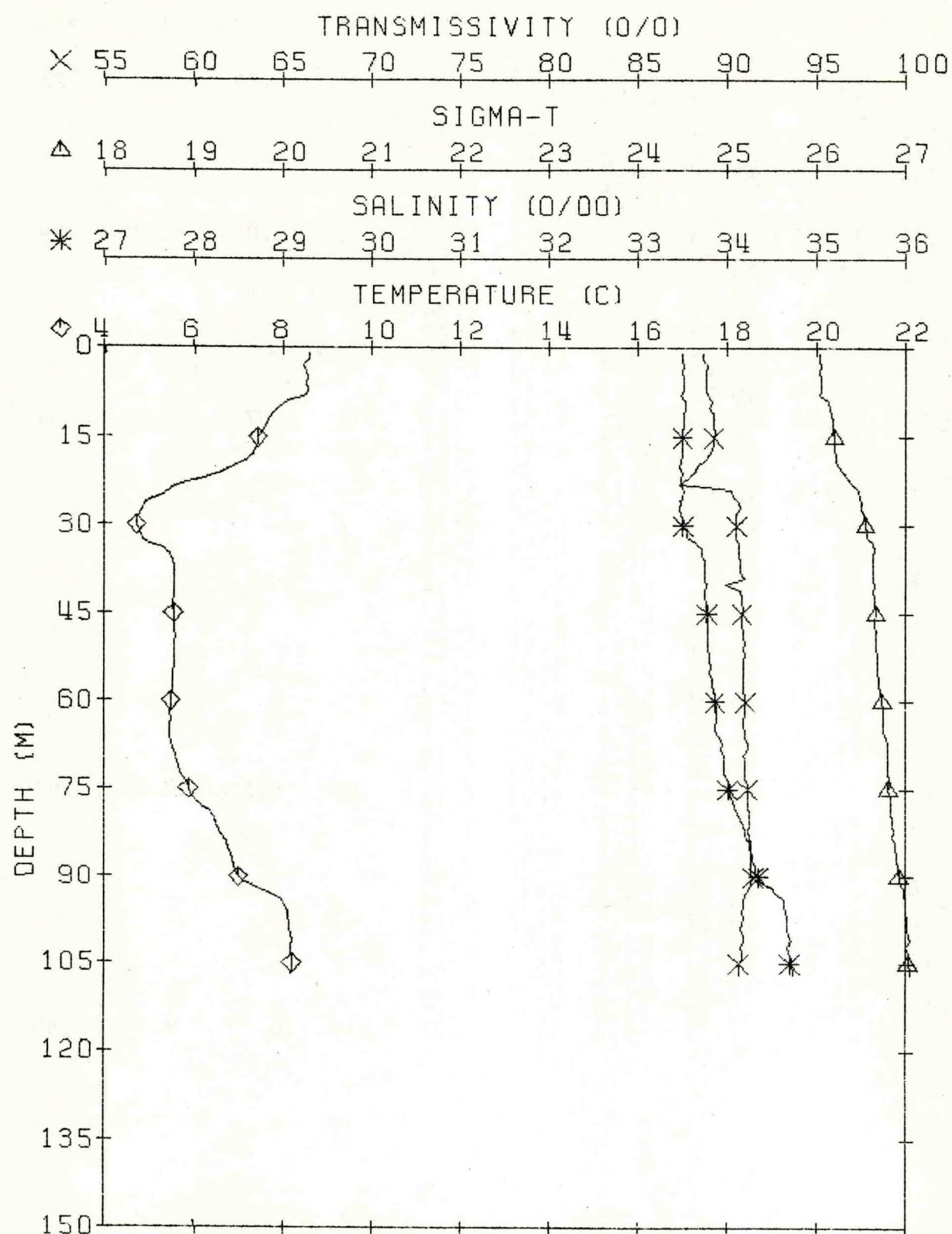
◇ 5 7 9 11 13 15 17 19 21 23



XWCC-12 STA.057 LAT 39 56.7N; LONG 71 51.9W GMT 14.3 05/02/77
 DEPTH 107 AIR D/W 12.2/10.8 BARO 35.0 VIS 7 CLD TYP/CVR /4
 WETHR 1 WIND DIR/SPD 21/20 SEA DIR/HT 21/0 SWELL DIR/HT 20/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.59	33.49	26.02	88.6	8.33	7.22				
2	8.58	33.49	26.02	88.6	8.33	7.22	.00	.00	8.06	.21
3	8.56	33.51	26.06	88.9	8.33	7.24				
4	8.53	33.49	26.03	88.8	8.33	7.27				
5	8.56	33.51	26.05	88.8	8.33	7.25				
6	8.52	33.51	26.05	88.8	8.33	7.25				
7	8.57	33.51	26.04	88.8	8.33	7.26				
8	8.51	33.48	26.03	88.9	8.33	7.26				
9	8.08	33.52	26.12	89.1	8.33	7.28				
10	7.88	33.52	26.15	89.0	8.33	7.36	.02	.00	7.81	.19
11	7.73	33.51	26.16	89.2	8.33	7.37				
12	7.65	33.51	26.18	89.2	8.33	7.38				
13	7.57	33.51	26.19	89.2	8.33	7.38				
14	7.51	33.50	26.18	89.3	8.33	7.39				
15	7.42	33.49	26.19	89.2	8.33	7.39				
16	7.41	33.50	26.20	89.2	8.33	7.38				
17	7.35	33.49	26.20	89.1	8.33	7.37				
18	7.27	33.49	26.21	89.0	8.33	7.36				
19	7.15	33.47	26.22	88.7	8.33	7.36				
20	6.85	33.46	26.25	88.3	8.33	7.37				
21	6.62	33.49	26.30	88.1	8.33	7.40				
22	6.20	33.48	26.33	87.7	8.33	7.42				
23	5.72	33.47	26.40	87.3	8.33	7.45				
24	5.44	33.51	26.46	90.2	8.33	7.47				
25	5.24	33.49	26.47	90.3	8.33	7.44				
26	4.93	33.47	26.49	90.6	8.33	7.41				
27	4.84	33.46	26.50	90.7	8.33	7.39				
28	4.78	33.48	26.52	90.5	8.33	7.35				
29	4.71	33.51	26.55	90.5	8.33	7.30				
30	4.72	33.50	26.54	90.5	8.33	7.26	.03	.11	7.81	.19
31	4.77	33.53	26.57	90.5	8.33	7.22				
32	4.83	33.55	26.57	90.5	8.32	7.17				
33	4.91	33.64	26.63	90.6	8.32	7.13				
34	5.31	33.71	26.64	90.6	8.32	7.08				
35	5.55	33.71	26.63	90.6	8.32	7.00				
36	5.51	33.73	26.64	90.7	8.32	7.00				
37	5.54	33.73	26.63	90.7	8.31	7.04				
38	5.54	33.74	26.63	90.7	8.31	7.09				
39	5.54	33.74	26.63	91.0	8.31	7.12				
40	5.55	33.75	26.64	90.9	8.31	7.16				
41	5.55	33.74	26.64	90.7	8.31	7.18				
42	5.55	33.75	26.64	90.8	8.31	7.20				
43	5.52	33.75	26.65	90.8	8.31	7.22				
44	5.51	33.76	26.66	90.9	8.31	7.24				
45	5.54	33.77	26.66	90.8	8.32	7.22				
46	5.56	33.75	26.65	90.8	8.32	7.21				
47	5.56	33.77	26.66	90.8	8.32	7.20				
48	5.55	33.77	26.66	90.9	8.32	7.20				
49	5.57	33.78	26.67	90.9	8.32	7.20				
50	5.48	33.86	26.74	91.0	8.32	7.20	.03	.00	8.06	.21
60	5.60	33.96	26.80	91.0	8.32	6.95				
70	5.45	33.15	26.84	91.2	8.32	6.41				
80	5.98	34.34	26.92	91.4	8.34	5.97				
90	6.16	34.68	27.02	90.9	8.34	5.55				
100	6.16	34.72	27.05	90.6	8.35	5.43				

KELEZ CRUISE XWCC-12 STATION 57 05/02/77



XWCC-12 STA.058 LAT 40 8.0N; LONG 71 58.0W GMT 11.7 05/02/77
 DEPTH 076 AIR D/W 12.2/11.1 BARO 24.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 22/22 SEA DIR/HT 00/0 SWELL DIR/HT 20/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.33	33.04	25.71	89.6	8.35	7.05				
2	8.33	33.04	25.71	89.6	8.35	7.05	.01	.02	1.08	.23
3	8.34	33.02	25.69	89.9	8.34	7.08				
4	8.38	33.01	25.68	89.9	8.34	7.07				
5	8.36	33.00	25.68	89.9	8.34	7.08				
6	8.24	33.99	25.68	90.0	8.34	7.10				
7	7.75	33.01	25.77	90.1	8.34	7.15				
8	7.39	33.00	25.82	89.9	8.34	7.26				
9	7.33	33.00	25.82	89.8	8.34	7.28				
10	7.28	33.00	25.83	89.6	8.34	7.29	.00	.07	1.20	.24
11	7.25	33.01	25.84	89.6	8.34	7.30				
12	7.22	33.00	25.84	89.6	8.34	7.30				
13	7.10	33.03	25.88	89.3	8.33	7.31				
14	7.01	33.07	25.92	89.1	8.34	7.34				
15	6.94	33.08	25.94	88.9	8.33	7.36				
16	6.58	33.39	26.23	88.0	8.33	7.43				
17	6.15	33.47	26.35	88.3	8.33	7.53				
18	5.66	33.56	26.48	88.7	8.33	7.68				
19	5.58	33.22	26.54	88.8	8.33	7.76				
20	5.57	33.63	26.54	89.1	8.33	7.76	.07	3.71	4.26	.44
21	5.50	33.63	26.55	89.4	8.33	7.72				
22	5.50	33.64	26.56	89.6	8.33	7.67				
23	5.44	33.65	26.57	89.7	8.33	7.63				
24	5.48	33.65	26.58	90.0	8.33	7.59				
25	5.44	33.65	26.59	90.4	8.33	7.55				
26	5.30	33.66	26.59	90.4	8.33	7.49				
27	5.11	33.67	26.61	90.6	8.33	7.44				
28	5.00	33.67	26.60	90.7	8.33	7.38				
29	5.00	33.67	26.60	90.8	8.33	7.34				
30	5.00	33.68	26.61	90.8	8.33	7.31				
31	5.00	33.68	26.61	90.8	8.33	7.29				
32	5.00	33.68	26.61	91.0	8.32	7.28				
33	5.00	33.69	26.62	91.0	8.32	7.26				
34	5.00	33.69	26.62	91.0	8.32	7.24				
35	5.00	33.70	26.63	91.1	8.32	7.22				
36	5.00	33.70	26.63	91.1	8.31	7.20				
37	5.00	33.71	26.63	91.1	8.32	7.20				
38	5.00	33.69	26.63	91.1	8.31	7.19				
39	5.00	33.71	26.65	91.2	8.31	7.18				
40	5.00	33.71	26.64	91.2	8.32	7.17	.09	5.15	5.27	.63
41	5.00	33.72	26.65	91.2	8.32	7.15				
42	5.00	33.72	26.66	91.2	8.32	7.12				
43	5.00	33.70	26.66	91.0	8.32	7.11				
44	4.88	33.69	26.68	90.7	8.33	7.08				
45	4.68	33.67	26.68	90.7	8.33	7.04				
46	4.55	33.68	26.70	90.5	8.33	6.94				
47	4.36	33.67	26.71	90.3	8.33	6.84				
48	4.31	33.66	26.71	90.2	8.33	6.76				
49	4.29	33.65	26.71	90.2	8.33	6.63				
50	4.27	33.65	26.71	90.2	8.33	6.53				
60	4.24	33.67	26.73	90.0	8.33	6.26				
70	4.23	33.67	26.72	90.3	8.32	6.20				
74	4.24	33.67	26.73	90.3	8.32	6.19	.12	6.87	7.96	.85

KELEZ CRUISE XWCC-12 STATION 58 05/02/77

TRANSMISSIVITY (0/0)

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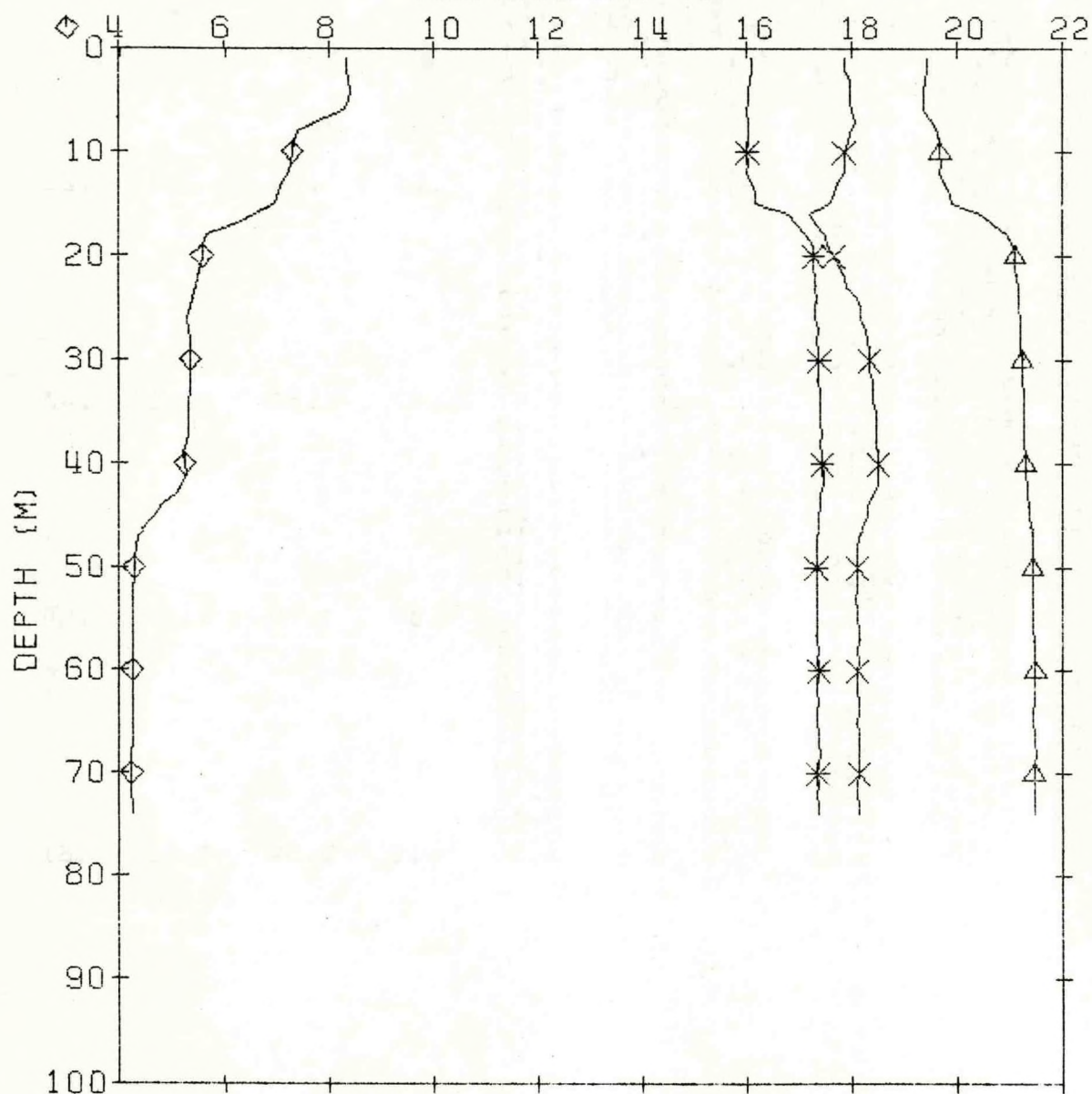
SIGMA-T

△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

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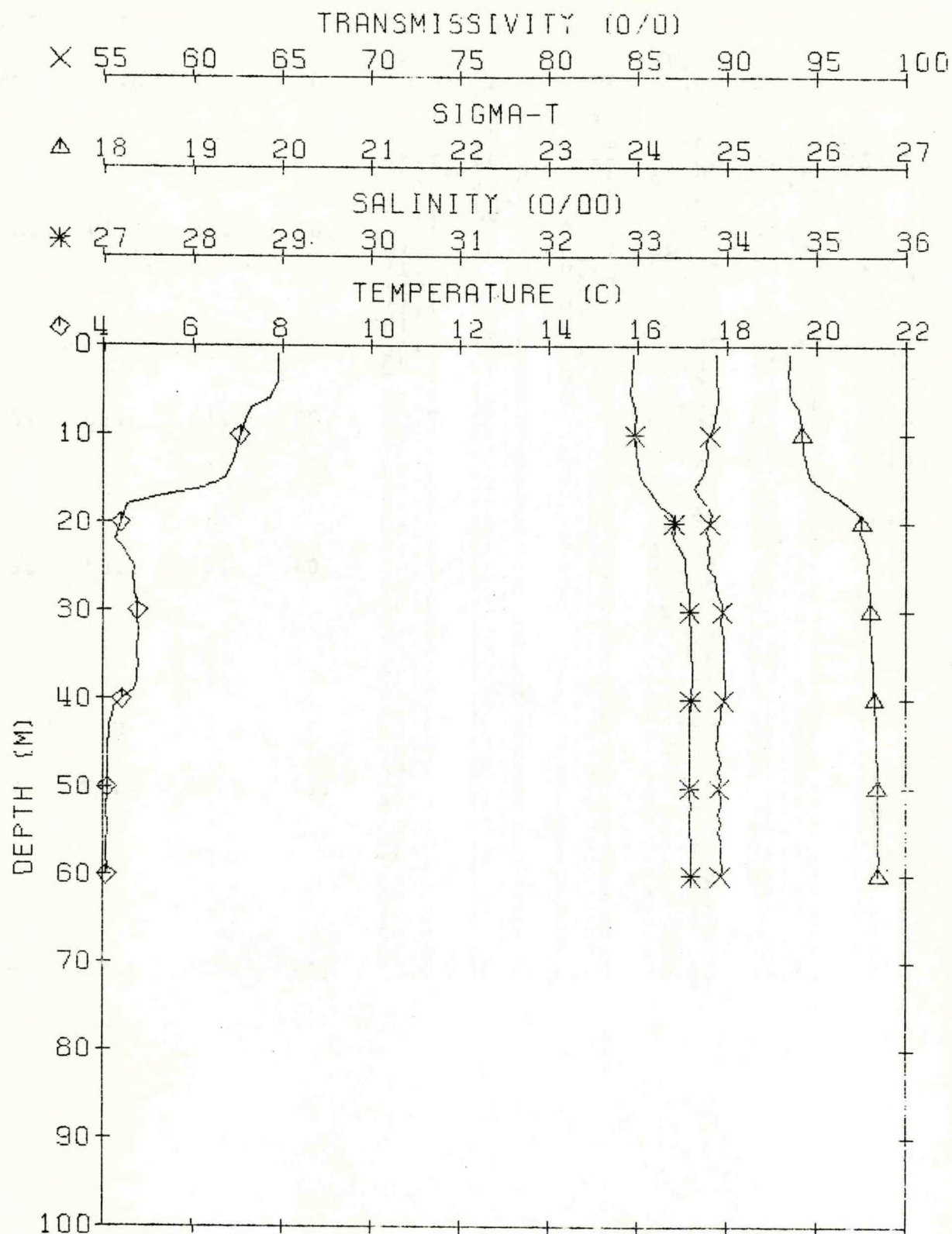
TEMPERATURE (C)



XWCC_12 STA.059 LAT 40 18.0N; LONG 72 4.0W GMT 09.6 05/02/77
 DEPTH 061 AIR D/W 11.1/09.7 BARO 24.0 VIS 7 CLD TYP/CVR /4
 WETHR 1 WIND DIR/SPD 21/18 SEA DIR/HT 18/0 SWELL DIR/HT 25/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	7.88	32.94	25.70	89.4	8.34	6.93				
2	7.88	32.94	25.70	89.4	8.34	6.92	.00	.02	2.05	.23
3	7.90	32.93	25.68	89.4	8.34	6.93				
4	7.87	32.93	25.69	89.4	8.34	6.94				
5	7.80	32.92	25.69	89.5	8.34	6.96				
6	7.68	32.92	25.71	89.5	8.34	6.98				
7	7.29	32.96	25.79	89.4	8.34	7.02				
8	7.19	32.97	25.82	89.3	8.34	7.07				
9	7.10	32.97	25.83	89.2	8.34	7.10				
10	7.04	32.96	25.83	89.0	8.34	7.12	.00	.00	1.75	.20
11	6.97	32.97	25.85	88.8	8.34	7.14				
12	6.94	32.98	25.86	88.9	8.34	7.17				
13	6.89	32.99	25.87	88.8	8.34	7.18				
14	6.78	33.01	25.90	88.7	8.34	7.21				
15	6.69	33.03	25.93	88.5	8.34	7.24				
16	6.21	33.11	26.06	88.1	8.34	7.29				
17	5.19	33.17	26.23	88.5	8.34	7.46				
18	4.50	33.24	26.36	88.9	8.34	7.69				
19	4.44	33.38	26.48	89.1	8.34	7.84				
20	4.38	33.40	26.50	89.0	8.34	7.84	.01	.06	.82	.22
21	4.33	33.47	26.48	88.8	8.34	7.76				
22	4.25	33.41	26.52	89.0	8.34	7.75				
23	4.44	33.48	26.55	88.9	8.34	7.74				
24	4.56	33.52	26.57	89.0	8.33	7.70				
25	4.68	33.52	26.56	88.9	8.33	7.66				
26	4.64	33.54	26.58	89.3	8.33	7.64				
27	4.67	33.55	26.58	89.4	8.33	7.62				
28	4.70	33.57	26.60	89.5	8.32	7.58				
29	4.74	33.58	26.60	89.7	8.32	7.53				
30	4.76	33.58	26.60	89.7	8.32	7.47	.07	1.88	2.61	.43
31	4.76	33.58	26.60	89.6	8.32	7.42				
32	4.77	33.59	26.61	89.7	8.32	7.38				
33	4.79	33.60	26.61	89.8	8.31	7.33				
34	4.76	33.60	26.61	89.8	8.31	7.30				
35	4.74	33.60	26.62	89.8	8.31	7.26				
36	4.77	33.60	26.62	89.8	8.31	7.19				
37	4.76	33.61	26.62	89.8	8.31	7.16				
38	4.75	33.61	26.62	89.9	8.31	7.14				
39	4.67	33.59	26.62	89.9	8.31	7.14				
40	4.41	33.59	26.64	89.8	8.31	7.14	.07	3.95	4.81	.60
41	4.22	33.57	26.65	89.6	8.31	7.15				
42	4.18	33.57	26.66	89.6	8.32	7.14				
43	4.13	33.57	26.66	89.5	8.32	7.10				
44	4.10	33.57	26.66	89.5	8.32	7.02				
45	4.09	33.57	26.66	89.4	8.32	6.94				
46	4.07	33.57	26.67	89.5	8.32	6.87				
47	4.08	33.58	26.67	89.5	8.32	6.79				
48	4.08	33.58	26.67	89.5	8.32	6.71				
49	4.07	33.58	26.67	89.5	8.32	6.65				
50	4.07	33.57	26.67	89.5	8.32	6.59				
60	4.07	33.59	26.68	89.6	8.32	6.34	.10	5.94	7.62	.81

KELEZ CRUISE XWCC-12 STATION 59 05/02/77



XWCC_12 STA.060 LAT 40 26.8N; LONG 72 9.0W GMT 07.6 05/02/77
 DEPTH 060 AIR D/W 10.0/08.9 BARO 25.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 19/13 SEA DIR/HT 19/0 SWELL DIR/HT 20/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	7.95	32.97	25.71	89.4	8.29	6.93				
2	7.87	33.05	25.78	89.1	8.32	6.93	.01	.01	3.23	.28
3	7.85	33.04	25.78	89.1	8.33	6.93				
4	7.84	33.03	25.78	89.1	8.32	6.93				
5	7.79	33.01	25.77	89.1	8.33	6.94				
6	7.63	33.01	25.78	89.2	8.33	6.95				
7	7.22	33.00	25.83	89.0	8.33	7.00				
8	6.97	33.08	25.93	88.9	8.33	7.08				
9	7.00	33.10	25.94	89.0	8.33	7.09				
10	7.00	33.09	25.94	88.9	8.33	7.09	.00	.05	3.14	.23
11	6.94	33.08	25.94	89.0	8.33	7.10				
12	6.91	33.09	25.95	88.9	8.33	7.11				
13	6.95	33.12	25.97	88.9	8.33	7.11				
14	6.82	33.08	25.95	88.9	8.33	7.11				
15	6.44	33.04	25.97	88.9	8.33	7.15				
16	5.22	33.07	26.15	89.1	8.33	7.31				
17	4.86	33.14	26.24	89.2	8.33	7.43				
18	4.76	33.17	26.28	88.9	8.33	7.47				
19	4.52	33.25	26.36	89.2	8.33	7.53				
20	4.40	33.33	26.36	89.2	8.33	7.58	.00	.14	.83	.25
21	4.34	33.33	26.41	89.2	8.32	7.65				
22	4.06	33.33	26.40	89.3	8.32	7.71				
23	3.82	33.33	26.42	89.4	8.32	7.74				
24	3.86	33.33	26.46	89.4	8.32	7.75				
25	3.53	33.33	26.47	89.5	8.32	7.70				
26	3.54	33.33	26.47	89.5	8.32	7.60				
27	3.56	33.33	26.48	89.5	8.32	7.49				
28	3.55	33.31	26.50	89.6	8.31	7.41	.04	.57	1.03	.27
29	3.80	33.33	26.50	89.6	8.31	7.34				
30	4.09	33.33	26.52	89.6	8.31	7.32				
31	4.00	33.33	26.53	89.7	8.31	7.32				
32	4.24	33.33	26.55	89.8	8.31	7.34				
33	4.31	33.33	26.55	89.8	8.31	7.36				
34	4.27	33.33	26.55	89.8	8.31	7.39				
35	4.01	33.33	26.55	89.8	8.31	7.40				
36	3.37	33.33	26.60	89.6	8.31	7.40				
37	2.73	33.33	26.64	89.3	8.31	7.40				
38	2.71	33.33	26.66	89.3	8.32	7.28				
39	2.71	33.33	26.66	89.3	8.32	7.08				
40	2.71	33.33	26.66	89.4	8.32	6.89	.07	2.96	6.27	.65
41	2.71	33.33	26.66	89.3	8.32	6.76				
42	2.71	33.33	26.66	89.3	8.32	6.66				
43	2.70	33.33	26.62	89.3	8.31	6.59				
44	2.72	33.33	26.62	89.3	8.31	6.53				
45	2.72	33.33	26.62	89.3	8.31	6.48				
46	2.71	33.33	26.66	89.3	8.31	6.45				
47	2.72	33.33	26.63	89.3	8.31	6.42				
48	2.72	33.33	26.66	89.3	8.31	6.40				
49	2.72	33.33	26.62	89.3	8.31	6.38				
50	2.73	33.33	26.64	89.3	8.31	6.37	.07	3.26	6.55	.65

KELEZ CRUISE XWCC-12 STATION 60 05/02/77

TRANSMISSIVITY (0/0)

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SIGMA-T

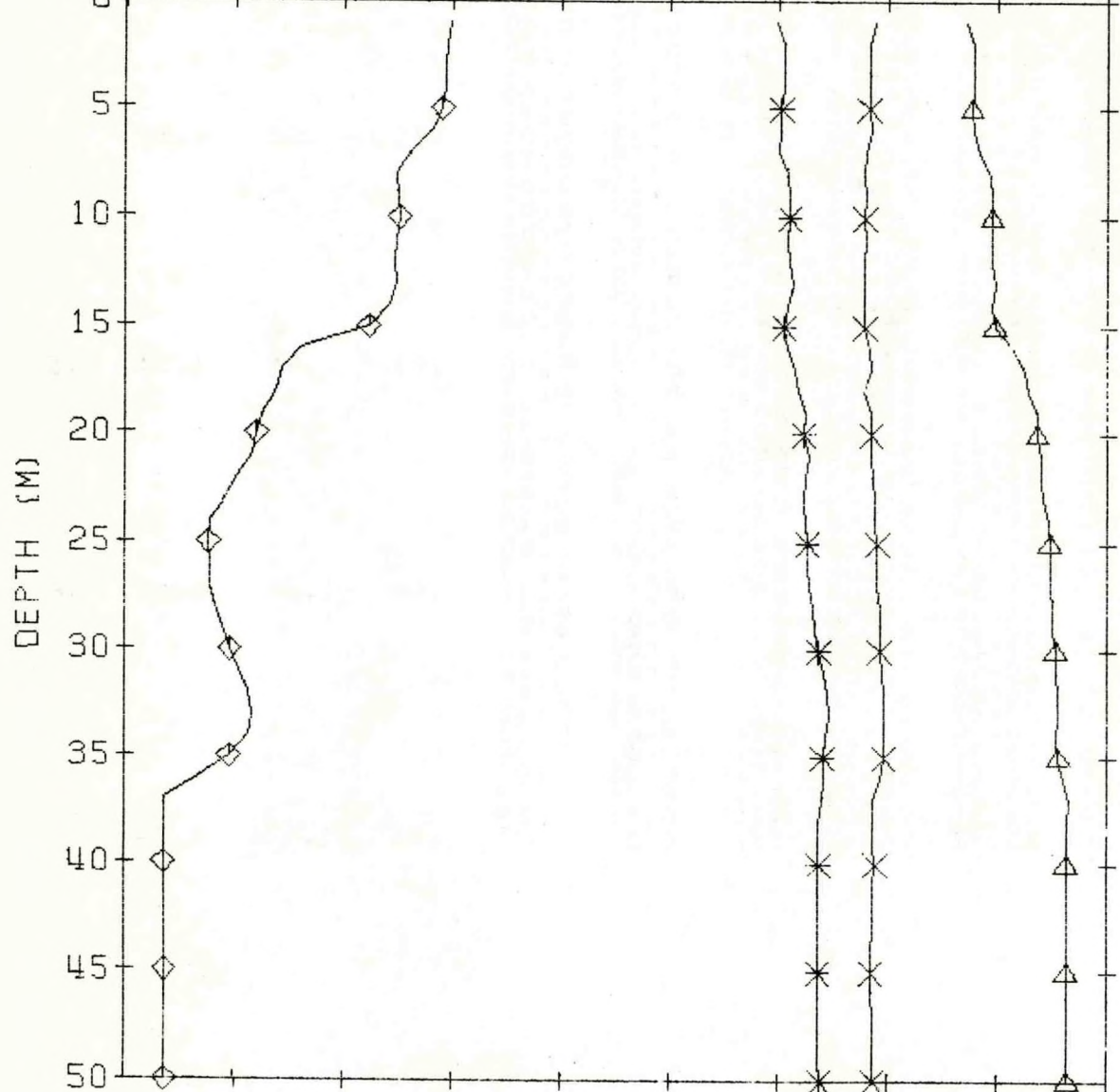
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SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

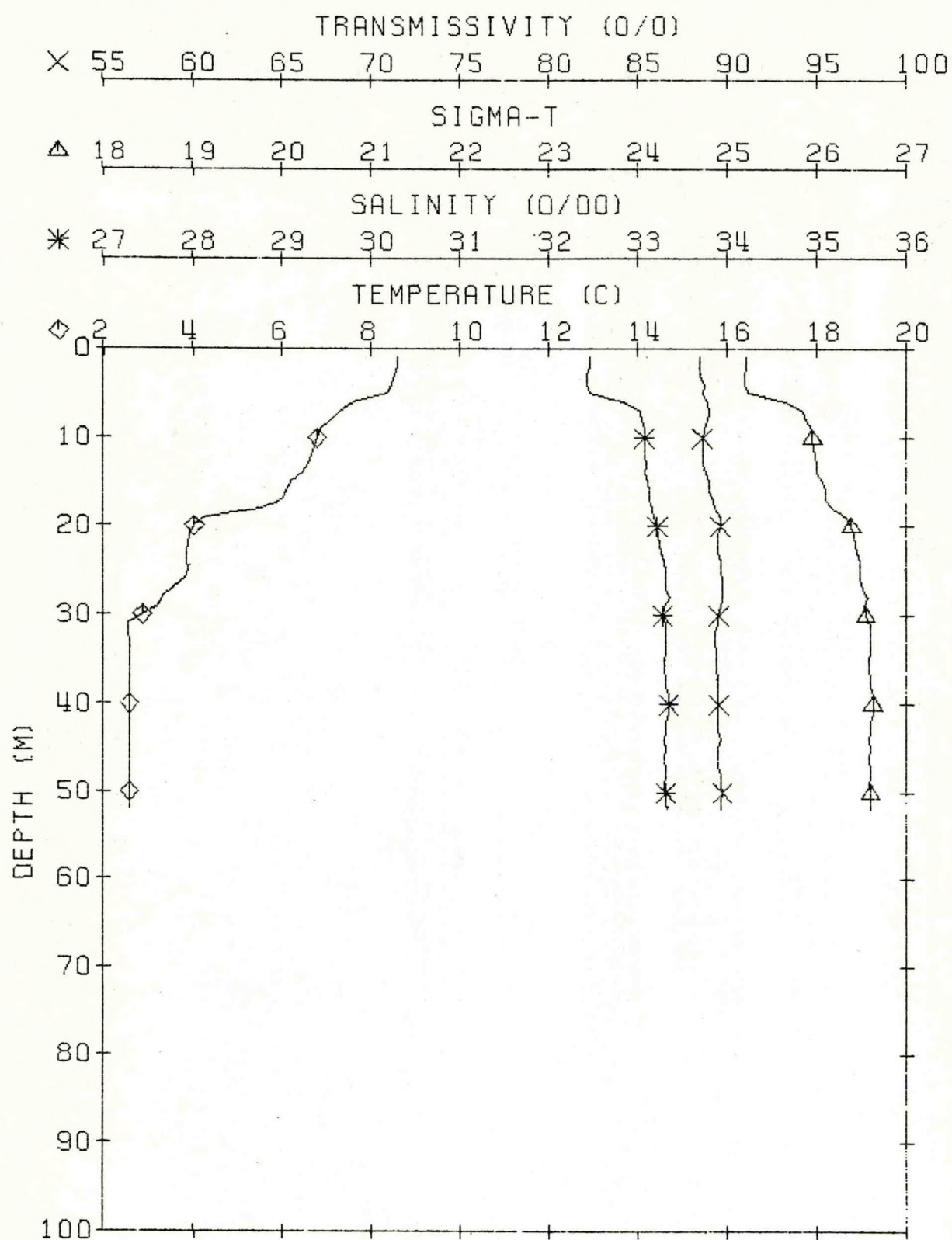
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XWCC 12 STA.061 LAT 40 33.0N; LONG 72 13.5W GMT 05.9 05/02/77
 DEPTH 053 AIR D/W 10.0/09.2 BARO 26.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 21/17 SEA DIR/HT 21/0 SWELL DIR/HT 20/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.60	32.45	25.21	88.5	8.33	6.78	.05	.00	2.75	.19
2	8.60	32.45	25.21	88.5	8.33	6.84				
3	8.53	32.42	25.20	88.5	8.33	6.81				
4	8.46	32.42	25.21	88.7	8.33	6.81				
5	8.35	32.46	25.26	88.6	8.33	6.87				
6	8.00	33.03	25.65	88.9	8.33	6.94				
7	7.27	33.02	25.84	89.0	8.33	7.01				
8	7.08	33.04	25.88	88.9	8.33	6.98				
9	6.86	33.07	25.94	88.7	8.33	6.96				
10	6.79	33.07	25.95	88.6	8.33	6.93	.02	.09	3.81	.19
11	6.73	33.07	25.96	88.6	8.33	6.89				
12	6.66	33.08	25.97	88.6	8.33	6.86				
13	6.57	33.09	25.99	88.6	8.33	6.83				
14	6.44	33.08	26.00	88.8	8.33	6.81				
15	6.18	33.11	26.06	89.0	8.33	6.80				
16	6.08	33.13	26.09	89.0	8.33	6.76				
17	5.97	33.13	26.10	89.2	8.33	6.71				
18	5.50	33.16	26.18	89.3	8.33	6.68				
19	4.44	33.18	26.33	89.6	8.33	6.78				
20	4.00	33.21	26.39	89.6	8.33	6.81	.02	.10	4.31	.20
21	3.92	33.23	26.41	89.5	8.33	6.72				
22	3.84	33.22	26.43	89.5	8.33	6.64				
23	3.84	33.22	26.44	89.5	8.33	6.60				
24	3.84	33.22	26.47	89.6	8.33	6.63				
25	3.84	33.22	26.48	89.6	8.33	6.66				
26	3.84	33.22	26.48	89.7	8.33	6.77				
27	3.51	33.31	26.51	89.7	8.33	6.90				
28	3.32	33.33	26.57	89.7	8.33	6.98				
29	3.27	33.33	26.53	89.6	8.33	7.01				
30	3.06	33.31	26.60	89.5	8.33	6.98	.03	.41	3.54	.30
31	2.96	33.31	26.60	89.5	8.33	6.97				
32	2.96	33.31	26.60	89.5	8.33	6.88				
33	2.96	33.31	26.60	89.5	8.33	6.77				
34	2.96	33.31	26.60	89.5	8.33	6.68				
35	2.96	33.31	26.60	89.5	8.33	6.61				
36	2.96	33.31	26.60	89.5	8.33	6.55				
37	2.96	33.31	26.60	89.5	8.33	6.49				
38	2.96	33.31	26.60	89.5	8.33	6.46				
39	2.96	33.31	26.60	89.5	8.33	6.43				
40	2.96	33.31	26.60	89.5	8.33	6.41	.06	1.84	5.65	.67
41	2.96	33.31	26.60	89.5	8.33	6.39				
42	2.96	33.31	26.60	89.5	8.33	6.37				
43	2.96	33.31	26.60	89.5	8.33	6.35				
44	2.96	33.31	26.60	89.5	8.33	6.35				
45	2.96	33.31	26.60	89.5	8.33	6.34				
46	2.96	33.31	26.60	89.5	8.33	6.33				
47	2.96	33.31	26.60	89.5	8.33	6.32				
48	2.96	33.31	26.60	89.5	8.33	6.30				
49	2.96	33.31	26.60	89.5	8.33	6.29				
50	2.96	33.31	26.60	89.5	8.33	6.29				
52	2.96	33.32	26.61	89.6	8.33	6.27	.05	1.90	5.79	.67

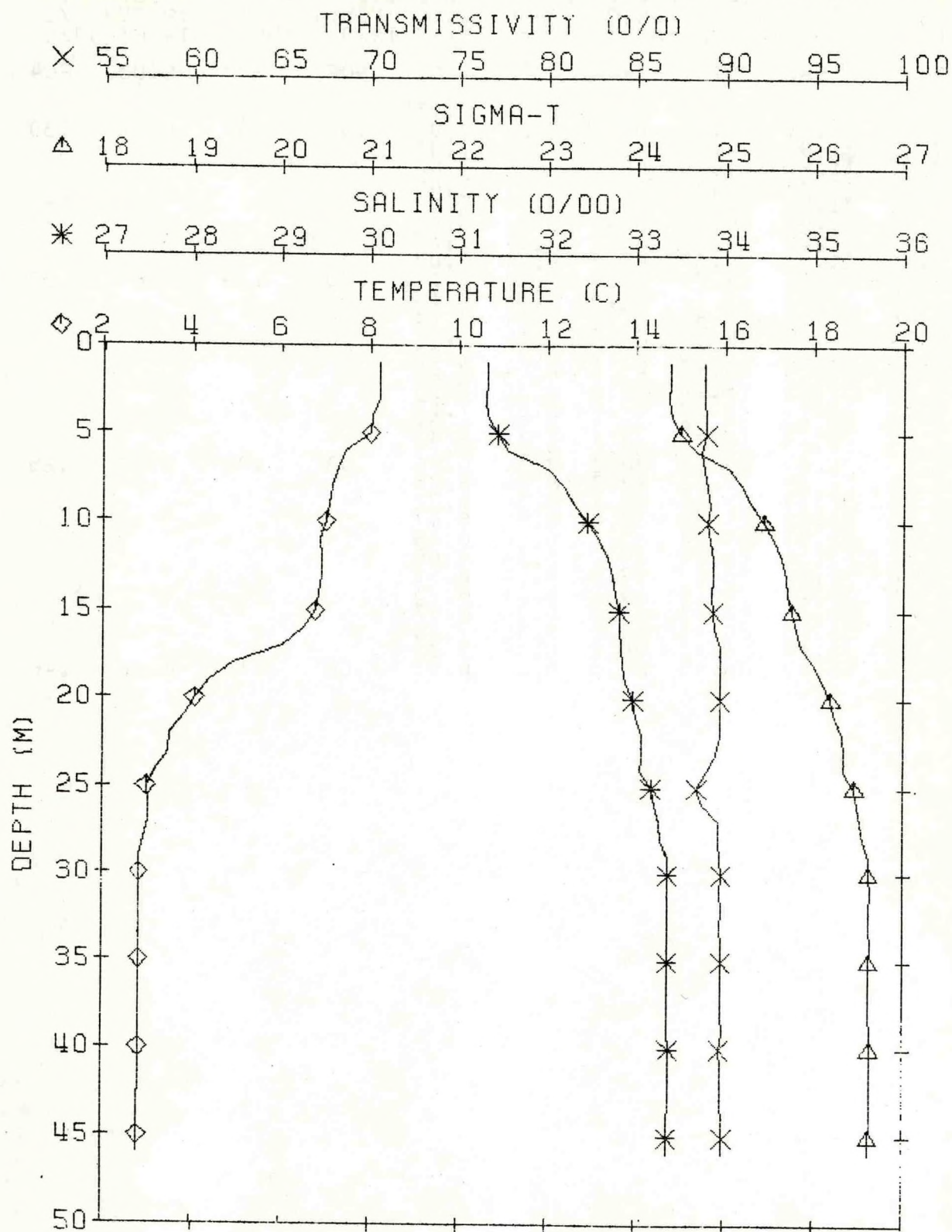
KELEZ CRUISE XWCC-12 STATION 61 05/02/77



XWCC-12 STA.062 LAT 40 40.0N; LONG 72 16.0W GMT 04.3 05/02/77
 DEPTH 048 AIR D/W 10.0/08.9 BARO 26.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 19/14 SEA DIR/HT 19/0 SWELL DIR/HT 20/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.20	31.32	24.38	88.8	8.34	6.86	.04	.00	4.68	.19
2	8.19	31.32	24.38	88.8	8.34	6.86				
3	8.20	31.30	24.36	88.8	8.34	6.86				
4	8.02	31.31	24.40	88.9	8.34	6.88				
5	7.98	31.43	24.50	88.9	8.34	6.89				
6	7.42	31.55	24.67	88.6	8.34	6.93				
7	7.27	31.99	25.04	88.8	8.34	6.99				
8	7.12	32.17	25.20	89.0	8.34	7.01				
9	7.06	32.29	25.30	89.1	8.34	7.00				
10	6.98	32.45	25.44	89.0	8.34	6.97	.04	.00	3.68	.18
11	6.84	32.58	25.56	89.1	8.34	7.02				
12	6.90	32.68	25.63	89.3	8.34	6.96				
13	6.88	32.73	25.67	89.3	8.34	6.95				
14	6.83	32.76	25.70	89.2	8.34	6.92				
15	6.75	32.80	25.75	89.3	8.34	6.90				
16	6.49	32.81	25.79	89.4	8.34	6.88				
17	6.00	32.82	25.85	89.7	8.34	6.92				
18	4.90	32.84	26.00	89.7	8.34	6.95				
19	4.36	32.88	26.09	89.7	8.33	7.16				
20	4.03	33.06	26.19	89.7	8.34	7.27	.03	.09	1.88	.21
21	3.83	33.00	26.23	89.7	8.35	7.32				
22	3.49	33.06	26.32	89.7	8.35	7.34				
23	3.45	33.06	26.33	89.5	8.35	7.37				
24	3.19	33.04	26.33	89.0	8.35	7.33				
25	2.97	33.17	26.45	88.4	8.35	7.33				
26	2.02	33.21	26.48	88.7	8.35	7.26				
27	2.02	33.25	26.51	89.6	8.35	7.14				
28	2.91	33.28	26.54	89.6	8.34	6.99				
29	2.81	33.36	26.61	89.7	8.34	7.14				
30	2.82	33.36	26.62	89.8	8.34	7.04	.00	1.58	3.50	.43
31	2.82	33.36	26.62	89.7	8.34	6.95				
32	2.81	33.35	26.61	89.8	8.33	6.87				
33	2.82	33.36	26.62	89.8	8.33	6.76				
34	2.82	33.36	26.62	89.8	8.33	6.66				
35	2.82	33.36	26.62	89.8	8.33	6.67				
36	2.82	33.36	26.61	89.8	8.33	6.59				
37	2.82	33.35	26.61	89.8	8.33	6.58				
38	2.81	33.35	26.61	89.8	8.33	6.51				
39	2.81	33.37	26.62	89.9	8.33	6.50				
40	2.81	33.37	26.62	89.7	8.33	6.46	.10	2.51	5.33	.56
41	2.81	33.37	26.62	89.8	8.32	6.44				
42	2.80	33.37	26.62	89.8	8.32	6.42				
43	2.80	33.37	26.63	89.8	8.32	6.40				
44	2.80	33.36	26.62	89.9	8.32	6.39				
45	2.79	33.36	26.62	89.9	8.32	6.37				
46	2.79	33.36	26.62	89.9	8.32	6.36	.09	2.47	5.46	.58

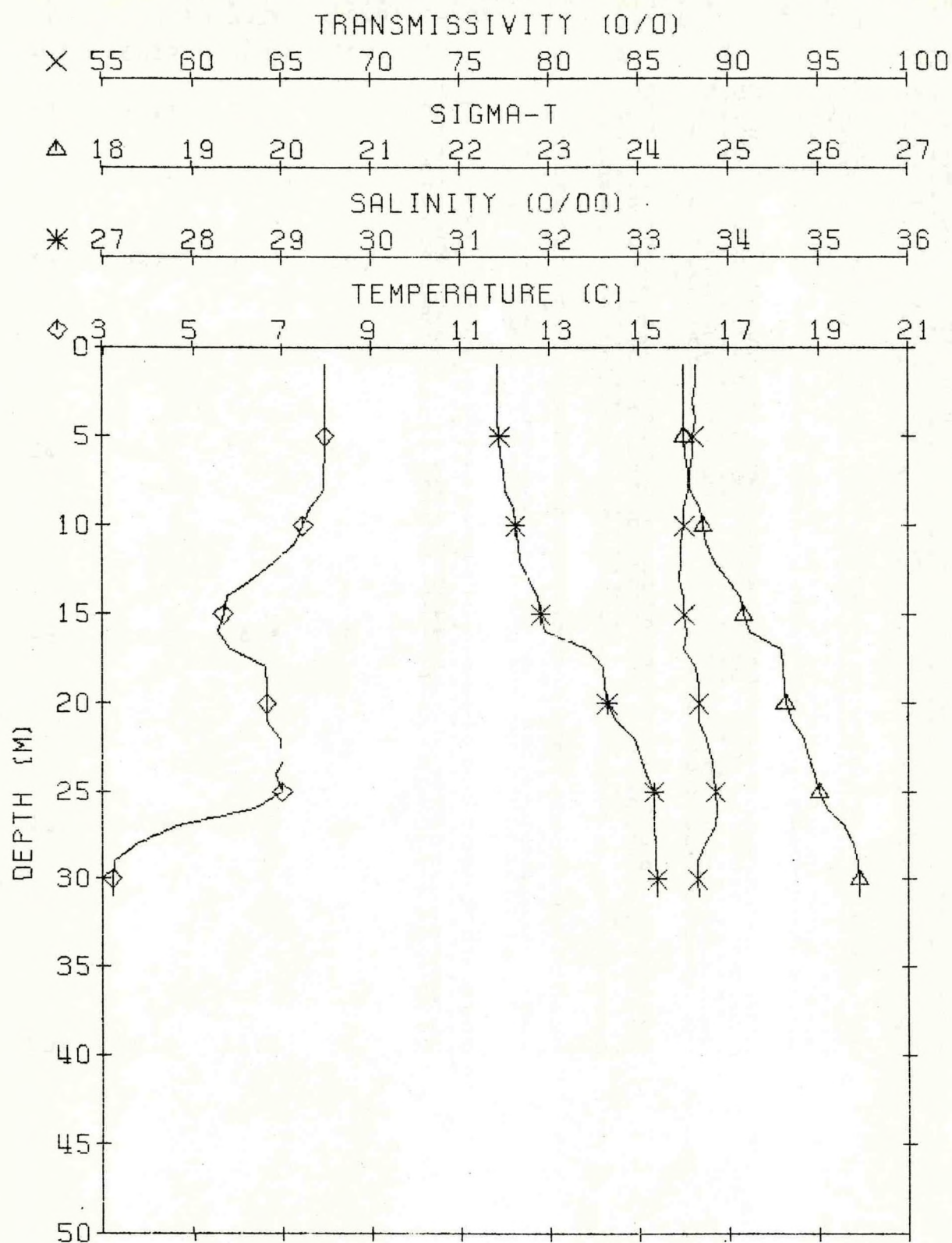
KELEZ CRUISE XWCC-12 STATION 62 05/02/77



XWCC-12 STA.063 LAT 40 47.0N; LONG 72 20.0W GMT 02.9 05/02/77
 DEPTH 032 AIR D/W 10.6/08.9 BARO 26.5 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 18/13 SEA DIR/HT 18/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	7.95	31.41	24.49	88.1	8.34	7.03				
2	7.95	31.41	24.49	88.1	8.34	7.03	.05	.09	4.00	.30
3	7.95	31.41	24.49	88.0	8.34	7.06				
4	7.95	31.41	24.49	88.1	8.34	7.03				
5	7.95	31.43	24.50	88.0	8.34	7.04				
6	7.95	31.44	24.51	88.0	8.34	7.08				
7	7.93	31.48	24.55	87.8	8.34	7.06				
8	7.91	31.50	24.56	87.7	8.34	7.07				
9	7.80	31.59	24.68	87.5	8.34	7.07				
10	7.46	31.61	24.71	87.5	8.34	7.14	.03	.19	3.64	.29
11	7.29	31.63	24.76	87.3	8.34	7.10				
12	6.86	31.66	24.83	87.3	8.34	7.15				
13	6.35	31.75	24.97	87.2	8.34	7.12				
14	5.75	31.86	25.13	87.5	8.35	7.28				
15	5.68	31.89	25.16	87.5	8.35	7.22				
16	5.57	31.95	25.22	87.6	8.35	7.15				
17	5.80	32.43	25.57	87.5	8.35	7.13				
18	6.63	32.59	25.60	88.1	8.35	6.91				
19	6.65	32.62	25.61	88.3	8.35	6.79				
20	6.65	32.64	25.63	88.3	8.34	6.76	.03	.08	1.80	.25
21	6.65	32.74	25.71	88.3	8.34	6.75				
22	6.99	32.93	25.82	88.7	8.34	6.72				
23	7.00	33.02	25.88	89.0	8.34	6.67				
24	6.88	33.07	25.94	89.1	8.34	6.66				
25	6.88	33.16	25.99	89.2	8.34	6.66				
26	6.33	33.16	26.07	89.3	8.34	6.61				
27	4.65	33.16	26.28	89.2	8.34	6.75				
28	3.78	33.17	26.38	88.6	8.34	6.97				
29	3.26	33.18	26.43	88.2	8.35	7.06				
30	3.21	33.19	26.45	88.2	8.35	7.01				
31	3.21	33.19	26.45	88.3	8.34	6.91	.08	1.18	4.96	.46

KELEZ CRUISE XWCC-12 STATION 63 05/02/77



XWCC-12 STA.064 LAT 40 12.0N; LONG 72 20.0W GMT 19.0 05/01/77
 DEPTH 067 AIR D/W 15.0/12.8 BARO 29.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 19/10 SEA DIR/HT 19/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	N02	N03	SI03	P04
1	7.89	32.81	25.59	89.3	8.34	7.10				
2	7.89	32.81	25.59	89.3	8.34	7.10	.01	.00	1.02	.18
3	7.81	32.85	25.64	89.3	8.34	7.12				
4	7.73	32.80	25.61	89.3	8.34	7.14				
5	7.72	32.84	25.64	89.3	8.34	7.16				
6	7.76	32.81	25.61	89.4	8.33	7.16				
7	7.75	32.83	25.63	89.4	8.33	7.17				
8	7.66	32.79	25.61	89.5	8.33	7.18				
9	7.21	32.81	25.69	89.3	8.33	7.22				
10	7.09	32.80	25.70	89.1	8.33	7.27	.01	.00	.84	.27
11	6.99	32.82	25.72	89.1	8.33	7.30				
12	6.92	32.81	25.73	89.1	8.33	7.31				
13	6.81	32.81	25.74	89.0	8.32	7.32				
14	6.67	32.80	25.76	89.0	8.32	7.34				
15	6.48	32.80	25.78	89.0	8.32	7.36				
16	6.11	32.87	25.88	88.9	8.32	7.40				
17	4.77	32.95	26.10	88.7	8.32	7.49				
18	4.27	33.05	26.23	88.0	8.32	7.70				
19	4.16	33.08	26.26	88.0	8.32	7.77				
20	4.08	33.07	26.27	88.1	8.32	7.77	.02	.23	.66	.32
21	3.98	33.10	26.30	88.2	8.32	7.76				
22	3.94	33.15	26.34	88.3	8.32	7.75				
23	4.09	33.24	26.40	88.2	8.32	7.72				
24	4.44	33.28	26.40	88.2	8.31	7.70				
25	4.47	33.32	26.42	88.5	8.30	7.69				
26	4.50	33.36	26.45	88.1	8.30	7.67				
27	4.54	33.40	26.48	88.6	8.30	7.61				
28	4.58	33.44	26.51	88.3	8.30	7.67				
29	4.54	33.48	26.54	88.3	8.30	7.73				
30	4.32	33.52	26.60	88.4	8.29	7.71	.09	3.39	3.85	.59
31	4.09	33.55	26.62	88.6	8.30	7.71				
32	3.74	33.48	26.63	88.7	8.30	7.74				
33	3.39	33.51	26.68	88.6	8.30	7.71				
34	3.23	33.55	26.69	88.6	8.30	7.63				
35	3.23	33.55	26.69	88.7	8.30	7.47				
36	3.22	33.55	26.69	88.6	8.30	7.31				
37	3.22	33.55	26.69	88.7	8.30	7.19				
38	3.22	33.49	26.68	88.7	8.30	7.09				
39	3.21	33.49	26.68	88.7	8.30	7.02				
40	3.21	33.50	26.69	88.7	8.30	6.96	.12	5.13	6.02	.81
41	3.22	33.50	26.69	88.8	8.29	6.90				
42	3.24	33.50	26.69	88.7	8.29	6.86				
43	3.27	33.51	26.69	88.7	8.29	6.81				
44	3.28	33.51	26.69	88.7	8.29	6.77				
45	3.30	33.51	26.69	88.7	8.29	6.74				
46	3.38	33.52	26.69	88.7	8.29	6.70				
47	3.58	33.57	26.71	88.7	8.29	6.66				
48	3.69	33.59	26.70	88.7	8.29	6.61				
49	3.71	33.59	26.72	88.7	8.29	6.56				
50	3.71	33.59	26.72	88.6	8.29	6.53				
60	3.78	33.60	26.72	88.6	8.30	6.36				
66	3.80	33.60	26.71	88.6	8.30	6.32	.19	5.13	6.22	.69

KELEZ CRUISE XWCC-12 STATION 64 05/01/77

TRANSMISSIVITY (0/0)

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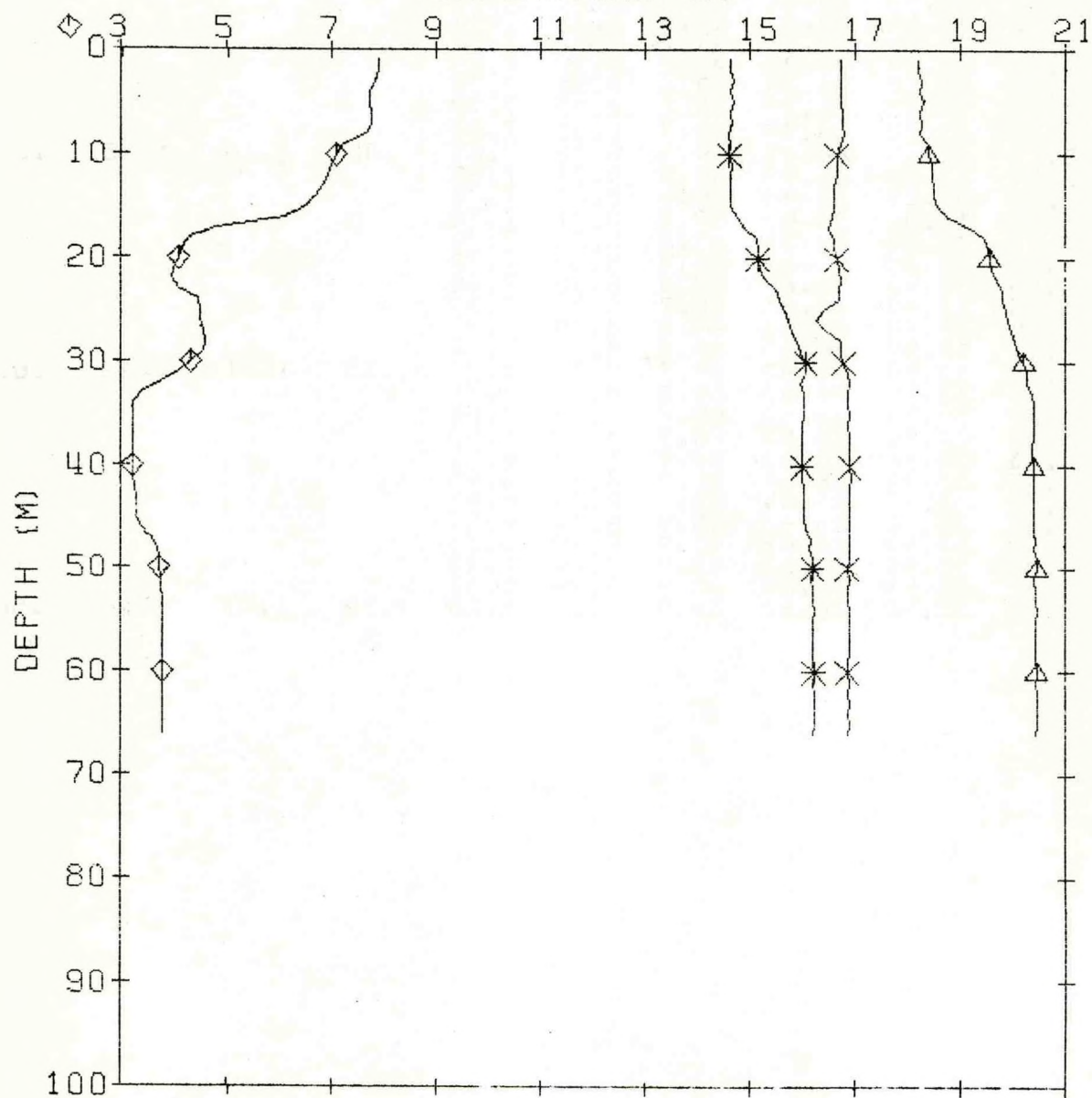
SIGMA-T

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SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)



XWCC 12 STA. 066 LAT 40 30.0N; LONG 72 34.0W GMT 22.3 05/01/77
 DEPTH 044 AIR D/W 12.2/10.6 BARO 27.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 19/10 SEA DIR/HT 19/0 SWELL DIR/HT 19/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.22	32.13	25.01	88.7	8.32	7.03				
2	8.22	32.13	25.01	88.7	8.32	7.03	.02	.00	2.95	.27
3	8.12	32.10	25.01	88.8	8.32	6.95				
4	8.07	32.09	25.01	89.1	8.32	6.99				
5	7.66	32.07	25.05	89.1	8.32	7.17				
6	7.54	32.08	25.07	88.9	8.32	7.19				
7	7.40	32.11	25.11	88.8	8.32	7.19				
8	7.23	32.16	25.17	88.9	8.32	7.21				
9	7.08	32.24	25.26	88.9	8.32	7.22				
10	7.00	32.34	25.34	89.1	8.32	7.23	.00	.04	1.61	.29
11	6.95	32.41	25.41	89.4	8.32	7.24				
12	6.89	32.46	25.46	89.6	8.32	7.25				
13	6.85	32.58	25.61	89.8	8.32	7.28				
14	6.53	32.84	25.93	90.0	8.32	7.40				
15	4.89	33.06	26.17	90.1	8.32	7.56				
16	4.57	33.09	26.23	90.2	8.32	7.69				
17	4.35	33.10	26.26	90.0	8.32	7.75				
18	4.26	33.12	26.29	90.0	8.32	7.79				
19	4.03	33.22	26.39	89.7	8.32	7.83				
20	3.79	33.24	26.43	89.4	8.32	7.84	.02	.16	1.93	.33
21	3.77	33.28	26.47	89.5	8.31	7.82				
22	3.73	33.29	26.48	89.6	8.31	7.78				
23	3.58	33.31	26.51	89.5	8.31	7.76				
24	3.44	33.33	26.51	89.3	8.30	7.74				
25	3.38	33.33	26.61	88.5	8.30	7.72				
26	3.05	33.33	26.62	88.6	8.30	7.62				
27	3.05	33.33	26.63	88.7	8.30	7.59				
28	3.04	33.33	26.63	88.8	8.30	7.20				
29	3.04	33.33	26.63	88.8	8.29	7.02				
30	3.04	33.33	26.63	88.7	8.29	6.90	.13	1.61	4.29	.60
31	3.04	33.33	26.63	88.8	8.29	6.74				
32	3.04	33.33	26.63	88.8	8.29	6.64				
33	3.03	33.33	26.63	88.9	8.29	6.56				
34	3.03	33.33	26.63	88.9	8.29	6.50				
35	3.03	33.33	26.64	88.8	8.29	6.45				
36	3.03	33.33	26.64	88.9	8.29	6.41				
37	3.03	33.33	26.63	88.9	8.29	6.37				
38	3.02	33.33	26.63	88.9	8.29	6.35				
39	3.00	33.33	26.63	88.9	8.29	6.33				
40	3.00	33.33	26.64	88.9	8.29	6.31				
41	3.00	33.33	26.63	88.9	8.29	6.28	.12	1.57	4.29	.58

KELEZ CRUISE XWCC-12 STATION 66 05/01/77

TRANSMISSIVITY (0/0)

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SIGMA-T

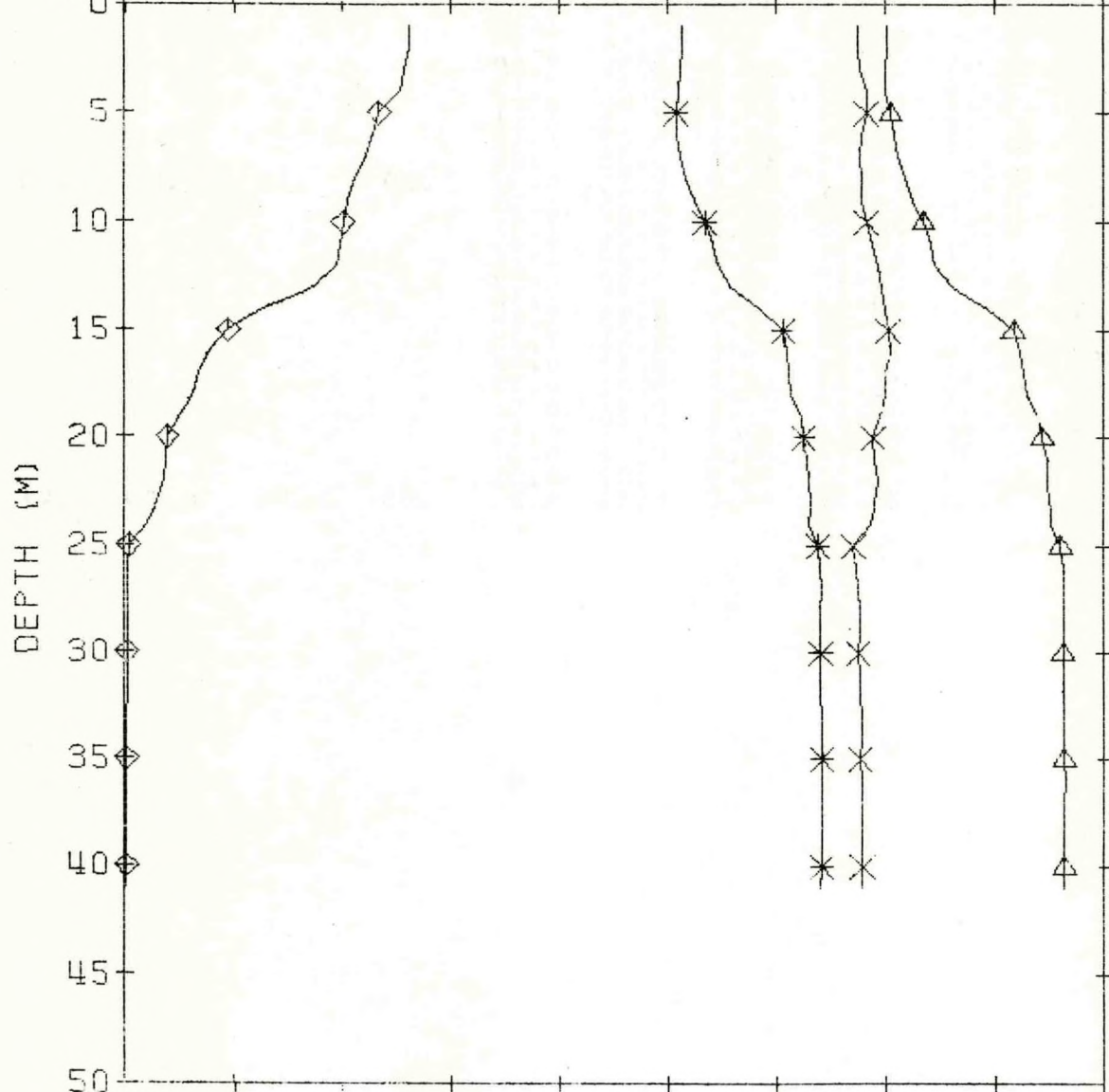
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SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

◇ 3 5 7 9 11 13 15 17 19 21



XWCC-12 STA.067 LAT 40 38.0N; LONG 72 40.0W GMT 23.9 05/01/77
 DEPTH 035 AIR D/W 10.6/09.4 BARO 26.5 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 19/12 SEA DIR/HT 19/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.82	31.64	24.54	87.3	8.33	6.93				
2	8.82	31.64	24.54	87.3	8.33	6.93	.03	.13	3.50	.25
3	8.94	31.63	24.51	87.2	8.33	6.96				
4	8.99	31.59	24.47	87.3	8.33	6.96				
5	8.81	31.67	24.57	87.5	8.33	7.04				
6	8.65	31.65	24.57	87.4	8.33	7.03				
7	7.56	31.69	24.76	87.7	8.34	7.08				
8	7.23	31.80	24.89	87.7	8.34	7.22				
9	7.13	31.86	24.95	87.8	8.34	7.17				
10	7.01	31.93	25.02	87.9	8.34	7.13	.04	.02	3.24	.24
11	6.57	32.31	25.38	88.5	8.34	7.14				
12	6.54	32.32	25.40	88.6	8.34	7.14				
13	6.53	32.31	25.39	88.6	8.34	7.10				
14	6.49	32.32	25.40	88.6	8.34	7.09				
15	6.44	32.57	25.61	89.0	8.34	7.10				
16	6.33	32.66	25.69	88.9	8.33	7.13				
17	6.18	32.66	25.70	88.8	8.33	7.11				
18	5.52	32.61	25.74	88.4	8.33	7.10				
19	5.46	32.71	25.84	88.4	8.33	7.05				
20	5.87	32.77	25.83	89.0	8.33	6.92	.09	.12	2.53	.23
21	5.85	32.74	25.81	89.1	8.33	6.93				
22	5.46	32.69	25.82	89.1	8.33	7.01				
23	4.32	32.71	25.96	89.0	8.33	7.22				
24	3.86	32.88	26.14	88.7	8.33	7.44				
25	3.52	32.90	26.19	88.3	8.33	7.48				
26	3.23	33.00	26.29	87.7	8.33	7.44				
27	3.11	33.06	26.35	87.8	8.33	7.25				
28	3.09	33.07	26.36	87.8	8.33	6.98				
29	3.07	33.08	26.37	87.8	8.33	6.73				
30	3.06	33.07	26.37	87.9	8.32	6.56				
31	3.05	33.08	26.38	87.9	8.32	6.45				
32	3.05	33.08	26.37	88.0	8.32	6.37				
33	3.05	33.08	26.38	88.0	8.32	6.31				
34	3.05	33.08	26.37	88.0	8.31	6.27	.05	.96	4.73	.41

KELEZ CRUISE XWCC-12 STATION 67 05/01/77

TRANSMISSIVITY (0/0)

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SIGMA-T

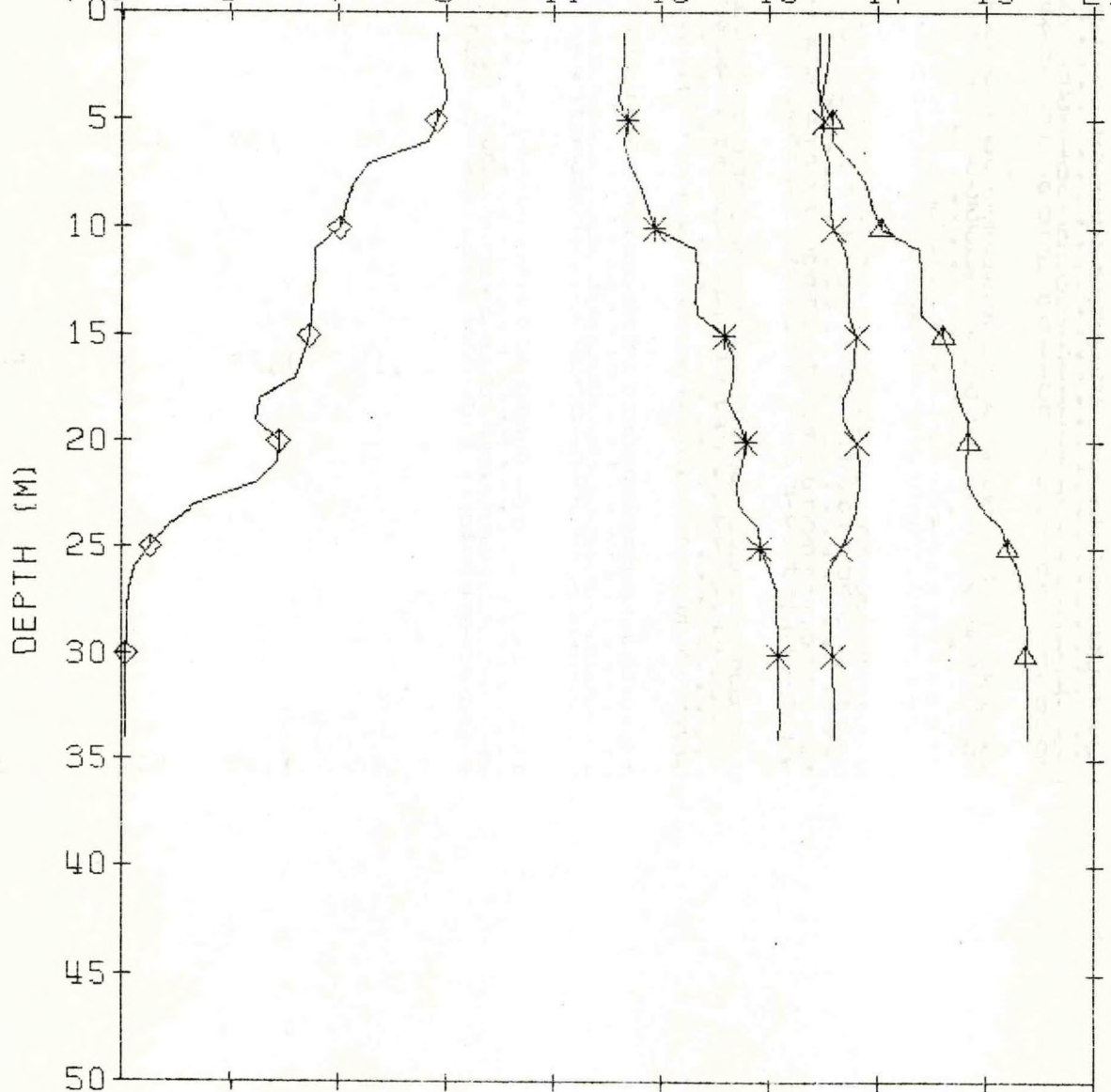
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SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

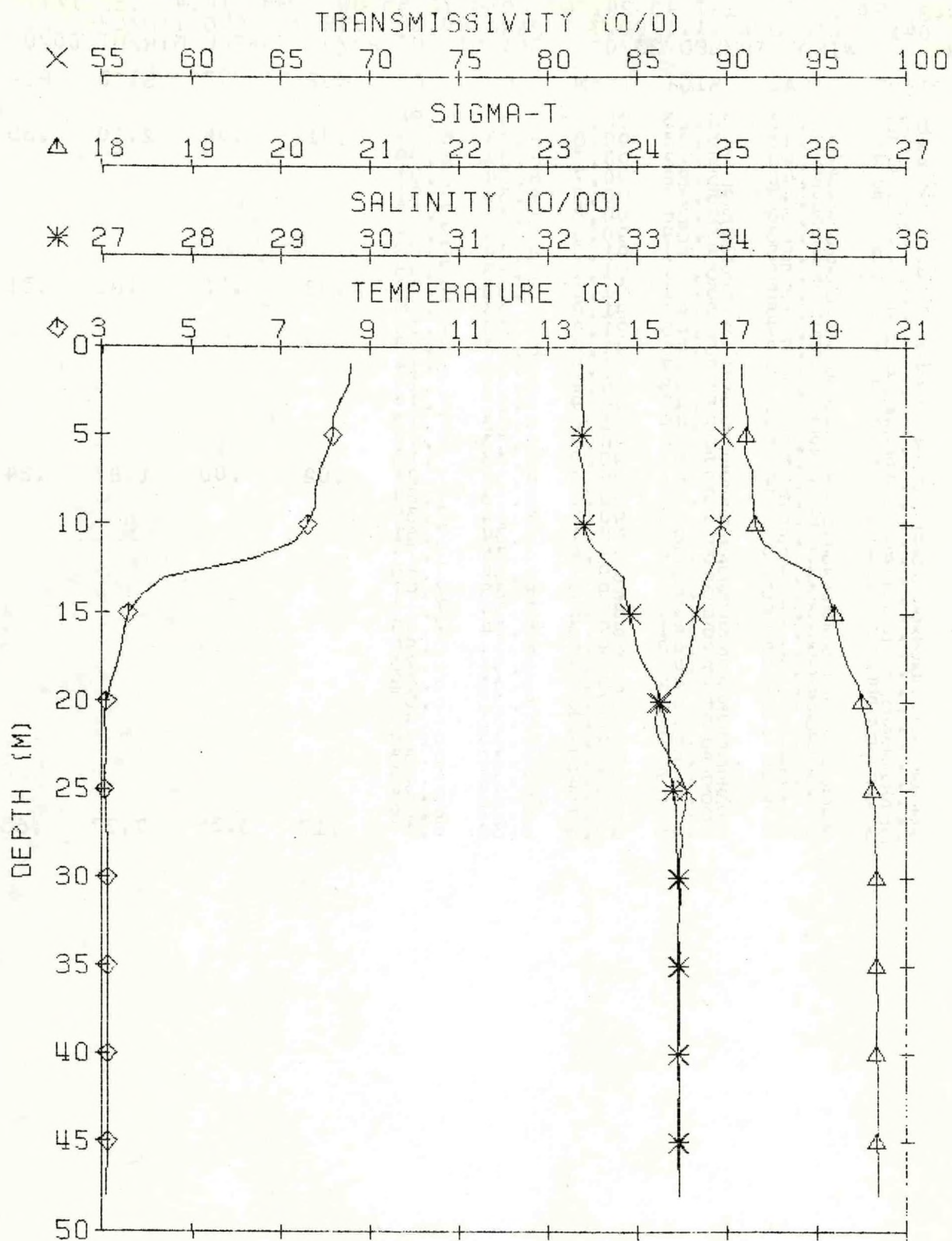
◇ 3 5 7 9 11 13 15 17 19 21



XWCC-12 STA.068 LAT 40 19.0N; LONG 72 46.2W GMT 16.0 05/01/77
 DEPTH 049 AIR D/W 12.2/10.6 BARO 29.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 23/08 SEA DIR/HT 23/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	N02	N03	SI03	P04
1	8.54	32.38	25.16	89.8	8.33	7.09				
2	8.52	32.38	25.17	89.8	8.33	7.09	.03	.00	1.92	.29
3	8.32	32.38	25.19	89.8	8.32	7.07				
4	8.14	32.39	25.22	89.8	8.32	7.06				
5	8.15	32.37	25.21	89.8	8.32	7.05				
6	8.01	32.34	25.21	89.7	8.33	7.08				
7	7.86	32.39	25.27	89.7	8.33	7.08				
8	7.76	32.39	25.28	89.7	8.33	7.10				
9	7.75	32.41	25.30	89.7	8.33	7.09				
10	7.58	32.40	25.31	89.6	8.33	7.10	.03	.00	1.97	.27
11	7.30	32.46	25.40	89.5	8.33	7.13				
12	6.32	32.62	25.66	89.3	8.33	7.19				
13	4.38	32.83	26.05	88.8	8.33	7.52				
14	3.88	32.86	26.12	88.5	8.34	7.69				
15	3.57	32.91	26.19	88.2	8.34	7.76				
16	3.50	32.95	26.23	88.1	8.34	7.75				
17	3.43	33.00	26.27	87.9	8.34	7.72				
18	3.33	33.08	26.35	87.7	8.34	7.71				
19	3.19	33.21	26.46	87.1	8.33	7.68				
20	3.10	33.25	26.50	86.1	8.33	7.61	.06	.47	2.64	.43
21	3.05	33.31	26.55	86.0	8.33	7.51				
22	3.09	33.34	26.57	86.1	8.32	7.38				
23	3.10	33.35	26.58	86.7	8.32	7.23				
24	3.06	33.35	26.59	87.3	8.31	7.12				
25	3.05	33.33	26.62	87.7	8.31	7.02				
26	3.07	33.42	26.64	87.6	8.31	6.92				
27	3.09	33.43	26.65	87.4	8.31	6.79				
28	3.10	33.43	26.65	87.5	8.31	6.71				
29	3.11	33.45	26.66	87.3	8.31	6.62				
30	3.11	33.45	26.66	87.3	8.30	6.56	.15	1.77	4.37	.56
31	3.10	33.45	26.67	87.4	8.30	6.51				
32	3.10	33.45	26.67	87.3	8.30	6.45				
33	3.10	33.45	26.66	87.2	8.31	6.41				
34	3.10	33.45	26.66	87.3	8.30	6.37				
35	3.10	33.45	26.66	87.3	8.31	6.34				
36	3.10	33.45	26.67	87.2	8.31	6.31				
37	3.10	33.46	26.67	87.2	8.31	6.29				
38	3.10	33.46	26.67	87.2	8.31	6.27				
39	3.10	33.45	26.66	87.2	8.31	6.26				
40	3.10	33.45	26.66	87.2	8.31	6.24				
41	3.10	33.46	26.67	87.2	8.31	6.22				
42	3.10	33.46	26.67	87.3	8.31	6.21				
43	3.10	33.46	26.67	87.2	8.31	6.20				
44	3.10	33.46	26.67	87.2	8.31	6.19				
45	3.10	33.45	26.66	87.2	8.31	6.18				
46	3.10	33.46	26.67	87.2	8.31	6.16				
47	3.10	33.46	26.67	87.3	8.32	6.17				
48	3.10	33.46	26.67	87.3	8.32	6.16	.16	1.85	4.23	.63

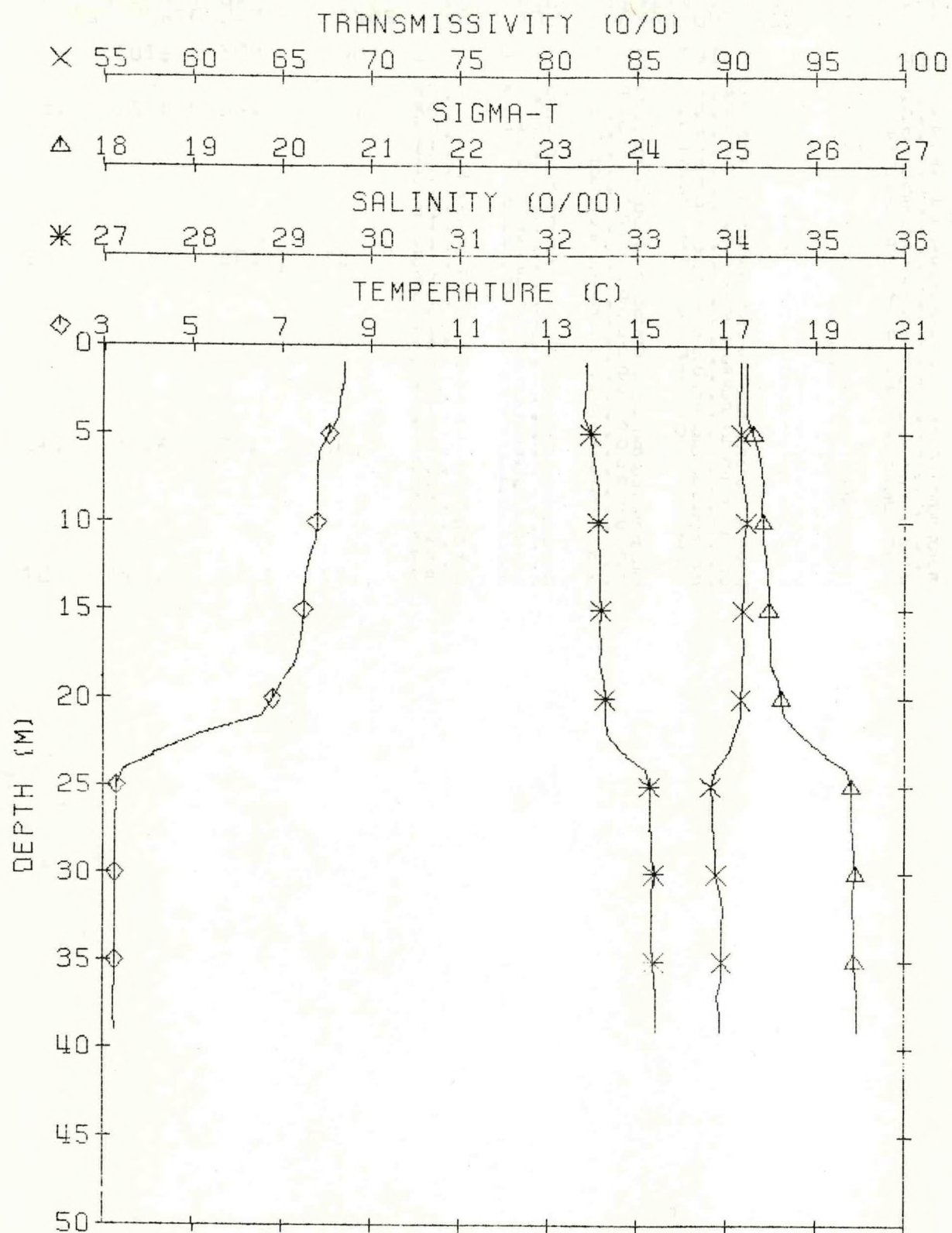
KELEZ CRUISE XWCC-12 STATION 68 05/01/77



XWCC-12 STA.069 LAT 40 24.9N; LONG 72 55.0W GMT 14.4 05/01/77
 DEPTH 041 AIR D/W 11.1/09.7 BARO 29.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 23/08 SEA DIR/HT 23/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.38	32.43	25.23	90.8	8.34	6.98				
2	8.38	32.43	25.23	90.8	8.34	6.98	.01	.04	2.10	.35
3	8.27	32.40	25.22	90.7	8.34	6.99				
4	8.26	32.40	25.22	90.7	8.34	7.01				
5	8.05	32.47	25.30	90.8	8.34	7.01				
6	7.82	32.50	25.36	90.8	8.34	7.07				
7	7.77	32.53	25.39	90.8	8.34	7.09				
8	7.78	32.55	25.41	91.0	8.34	7.09				
9	7.78	32.55	25.41	91.1	8.33	7.08				
10	7.77	32.55	25.41	91.1	8.33	7.08	.02	.02	1.82	.31
11	7.76	32.55	25.41	91.0	8.33	7.09				
12	7.63	32.57	25.45	91.0	8.33	7.10				
13	7.51	32.58	25.46	91.0	8.33	7.13				
14	7.49	32.58	25.47	91.0	8.33	7.14				
15	7.47	32.59	25.48	90.9	8.33	7.14				
16	7.46	32.58	25.47	90.9	8.33	7.14				
17	7.39	32.58	25.49	91.0	8.33	7.13				
18	7.29	32.58	25.50	90.9	8.33	7.14				
19	6.98	32.62	25.57	90.9	8.33	7.15				
20	6.78	32.64	25.61	90.8	8.33	7.21	.02	.00	1.87	.24
21	6.53	32.65	25.65	90.8	8.33	7.24				
22	6.24	32.66	25.83	90.5	8.34	7.39				
23	6.24	32.66	26.06	90.1	8.34	7.61				
24	6.24	32.69	26.34	89.4	8.34	7.74				
25	6.22	32.71	26.40	89.1	8.34	7.66				
26	6.22	32.71	26.40	89.2	8.35	7.41				
27	6.22	32.71	26.40	89.2	8.34	7.19				
28	6.22	32.71	26.41	89.3	8.34	7.00				
29	6.22	32.71	26.42	89.4	8.34	6.84				
30	6.22	32.71	26.44	89.4	8.34	6.73				
31	6.22	32.71	26.42	89.6	8.33	6.62				
32	6.22	32.71	26.41	89.8	8.33	6.55				
33	6.22	32.71	26.42	89.7	8.33	6.46				
34	6.22	32.71	26.42	89.7	8.33	6.40				
35	6.22	32.71	26.43	89.7	8.32	6.33				
36	6.22	32.71	26.45	89.7	8.32	6.28				
37	6.22	32.71	26.45	89.5	8.32	6.24				
38	6.22	32.71	26.46	89.6	8.32	6.20				
39	6.22	32.71	26.46	89.6	8.32	6.17	.17	3.35	7.37	.63

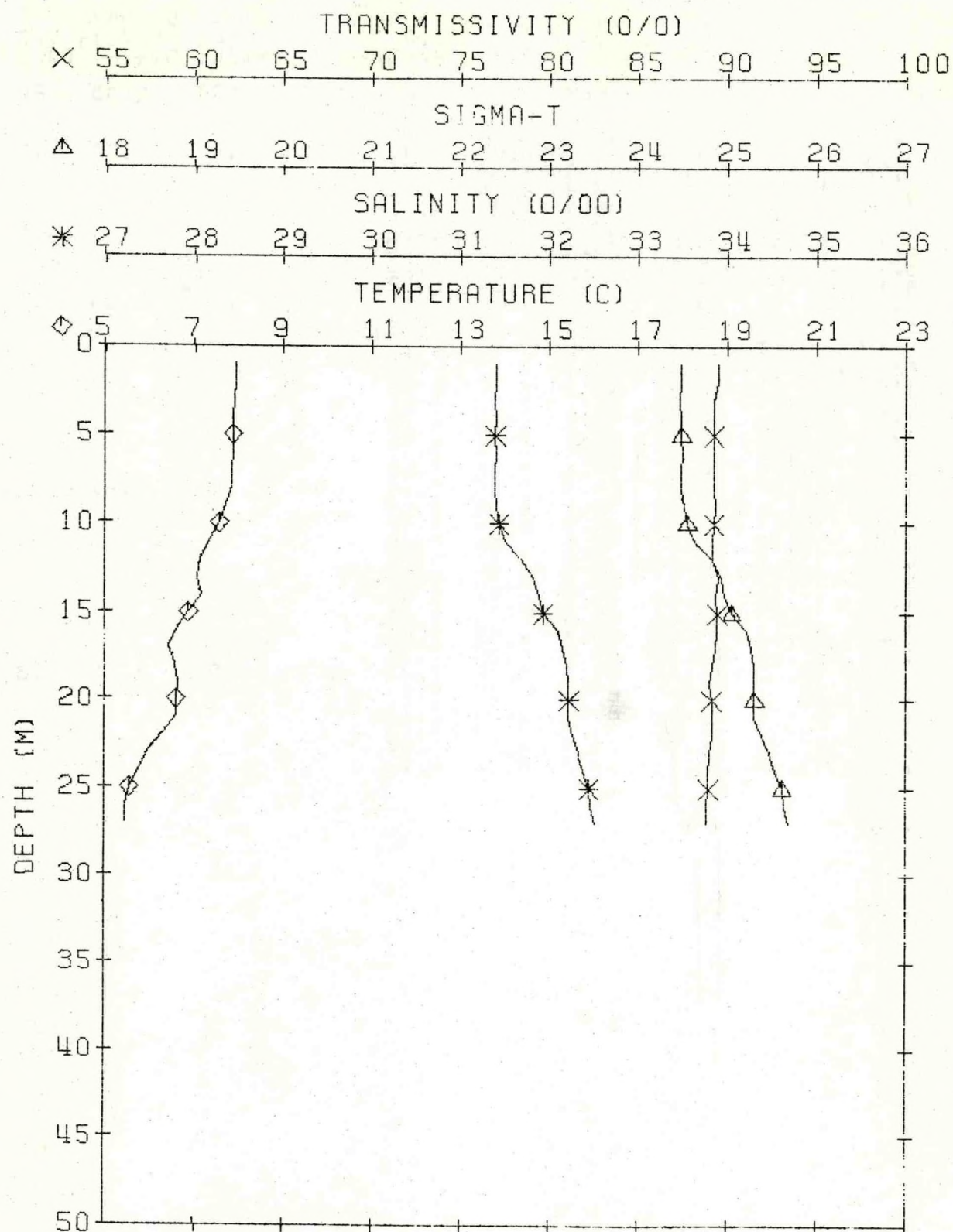
KELEZ CRUISE XWCC-12 STATION 69 05/01/77



XWCC-12 STA.070 LAT 40 32.0N; LONG 73 7.0W GMT 12.7 05/01/77
 DEPTH 028 AIR D/W 20.6/16.1 BARO 27.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 26/06 SEA DIR/HT 26/0 SWELL DIR/HT 21/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	7.90	31.40	24.49	89.5	8.35	7.08				
2	7.90	31.40	24.49	89.5	8.35	7.08	.05	.22	4.35	.52
3	7.89	31.37	24.47	89.2	8.35	7.08				
4	7.85	31.38	24.48	89.2	8.34	7.11				
5	7.85	31.38	24.48	89.2	8.34	7.11				
6	7.84	31.39	24.49	89.2	8.34	7.12				
7	7.83	31.38	24.48	89.2	8.34	7.12				
8	7.82	31.37	24.47	89.2	8.34	7.13				
9	7.68	31.39	24.51	89.3	8.34	7.14				
10	7.54	31.43	24.56	89.2	8.34	7.15	.03	.08	4.35	.46
11	7.33	31.49	24.64	89.1	8.34	7.16				
12	7.11	31.68	24.82	89.1	8.34	7.23				
13	7.05	31.80	24.92	89.5	8.34	7.22				
14	7.14	31.87	24.96	89.3	8.33	7.18				
15	6.86	31.93	25.04	89.4	8.33	7.22				
16	6.57	32.09	25.21	89.4	8.34	7.28				
17	6.43	32.13	25.26	89.3	8.34	7.21				
18	6.55	32.19	25.29	89.1	8.34	7.16				
19	6.61	32.21	25.30	89.0	8.34	7.07				
20	6.58	32.22	25.31	89.1	8.33	7.01	.03	.29	3.68	.45
21	6.58	32.21	25.30	89.1	8.33	6.94				
22	6.28	32.25	25.37	89.1	8.33	6.90				
23	5.95	32.32	25.46	89.0	8.33	6.95				
24	5.75	32.38	25.53	88.9	8.33	6.92				
25	5.56	32.44	25.61	88.9	8.33	6.86				
26	5.45	32.46	25.64	88.8	8.34	6.87				
27	5.44	32.51	25.68	88.8	8.35	6.87	.07	1.15	6.69	.57

KELEZ CRUISE XWCC-12 STATION 70 05/01/77



XWCC-12 STA.077 LAT 40 10.5N; LONG 73 34.1W GMT 09.0 04/30/77
 DEPTH 036 AIR D/W 08.9/06.9 BARO 23.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 26/08 SEA DIR/HT 26/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.17	32.93	25.65	88.6	8.34	7.05				
2	8.17	32.93	25.65	88.6	8.34	7.05	.00	.00	.52	.20
3	8.16	32.94	25.66	88.8	8.35	7.11				
4	8.16	32.94	25.66	88.8	8.34	7.11				
5	8.16	32.94	25.66	88.7	8.34	7.11				
6	8.16	32.94	25.66	88.8	8.34	7.11				
7	8.16	32.94	25.66	88.8	8.34	7.12				
8	8.16	32.94	25.66	88.8	8.34	7.12				
9	8.15	32.94	25.66	88.8	8.34	7.12				
10	8.15	32.95	25.66	88.8	8.34	7.12	.00	.00	.39	.19
11	8.14	32.95	25.66	88.9	8.34	7.11				
12	8.13	32.94	25.66	88.8	8.34	7.12				
13	8.02	33.00	25.72	89.0	8.34	7.12				
14	7.28	33.04	25.78	89.1	8.34	7.12				
15	5.47	33.08	25.12	89.4	8.35	7.27				
16	4.97	33.25	26.32	89.3	8.35	7.56				
17	4.88	33.25	26.32	89.2	8.35	7.67				
18	4.91	33.28	26.34	89.0	8.36	7.70				
19	4.89	33.26	26.33	88.8	8.36	7.68				
20	4.74	33.28	26.37	88.9	8.36	7.68	.00	.00	.61	.26
21	4.62	33.34	26.42	88.8	8.36	7.69				
22	4.54	33.37	26.45	88.8	8.36	7.70				
23	4.51	33.37	26.46	88.9	8.36	7.68				
24	4.51	33.41	26.49	89.0	8.36	7.66				
25	4.61	33.52	26.57	89.2	8.36	7.64				
26	4.66	33.55	26.59	89.3	8.36	7.59				
27	4.68	33.60	26.63	89.3	8.35	7.53				
28	4.69	33.63	26.64	89.3	8.35	7.46				
29	4.70	33.63	26.65	89.4	8.35	7.38				
30	4.70	33.65	26.66	89.3	8.35	7.28	.00	.59	3.14	.37
31	4.71	33.65	26.66	89.4	8.35	7.19				
32	4.71	33.65	26.66	89.4	8.35	7.11				
33	4.71	33.65	26.66	89.4	8.34	7.03				
34	4.71	33.65	26.66	89.4	8.34	6.97				
35	4.71	33.65	26.66	89.3	8.34	6.78				

KELEZ CRUISE XWCC-12 STATION 77 04/30/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

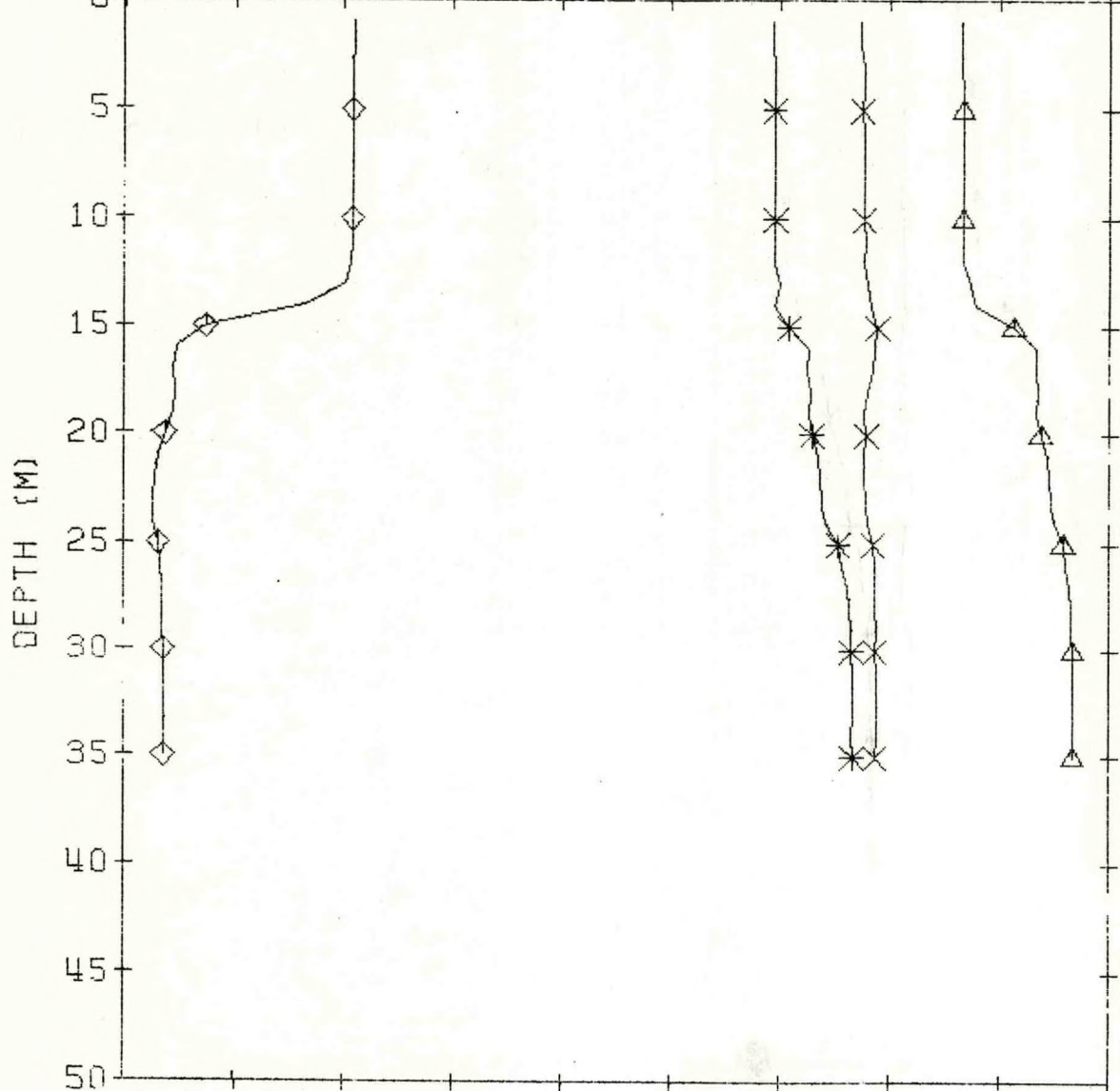
△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

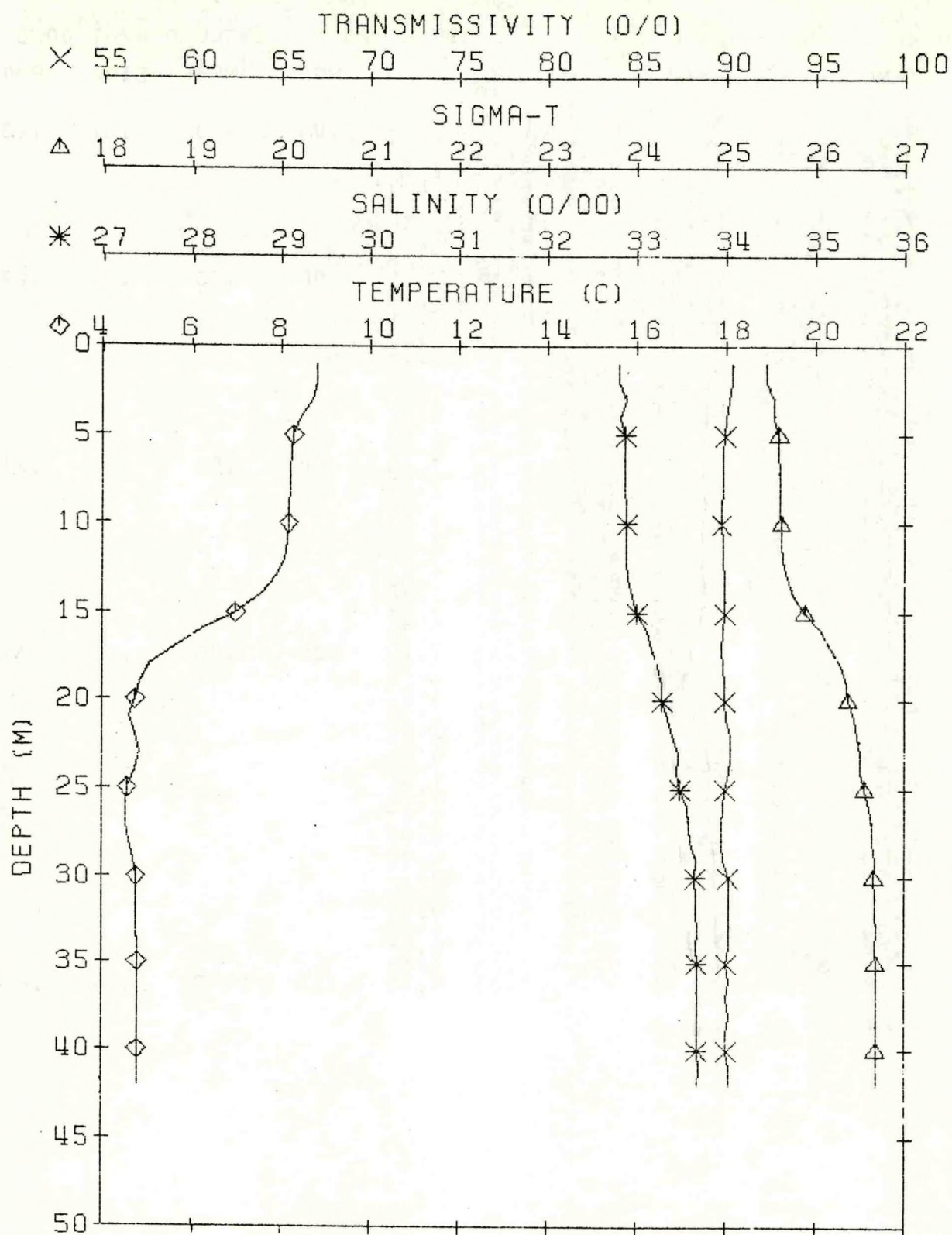
◇ 4 6 8 10 12 14 16 18 20 22



XWCC_12 STA.078 LAT 40 5.0N; LONG 73 21.5W GMT 17.4 04/30/77
 DEPTH 042 AIR D/W 16.1/12.2 BARO 26.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 22/07 SEA DIR/HT 22/0 SWELL DIR/HT 00/0

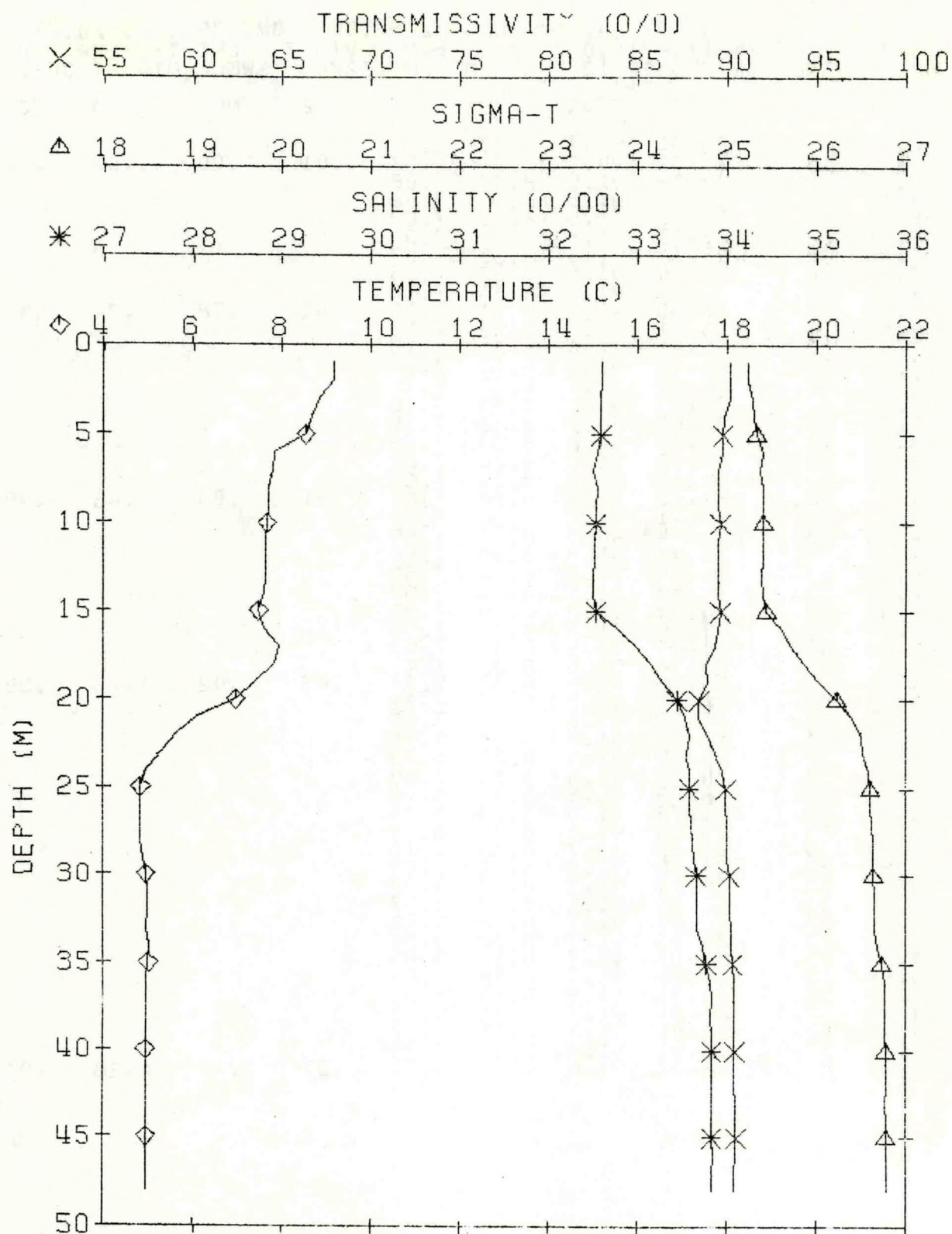
DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.79	32.79	25.45	90.3	8.35	7.11				
2	8.79	32.79	25.45	90.3	8.35	7.11	.00	.00	.35	.27
3	8.69	32.87	25.52	90.1	8.35	7.13				
4	8.41	32.81	25.52	90.0	8.35	7.15				
5	8.26	32.86	25.58	89.9	8.35	7.19				
6	8.22	32.86	25.58	89.8	8.35	7.22				
7	8.20	32.86	25.59	89.8	8.35	7.22				
8	8.18	32.87	25.60	89.8	8.35	7.21				
9	8.17	32.87	25.60	89.7	8.35	7.20				
10	8.15	32.88	25.61	89.7	8.35	7.20	.00	.00	.39	.23
11	8.12	32.87	25.61	89.8	8.35	7.19				
12	8.04	32.88	25.63	89.8	8.35	7.19				
13	7.84	32.90	25.67	89.9	8.35	7.20				
14	7.50	32.95	25.76	89.9	8.35	7.22				
15	6.96	33.00	25.87	89.9	8.35	7.28				
16	6.17	33.11	26.06	89.8	8.35	7.35				
17	5.57	33.15	26.17	89.7	8.35	7.52				
18	5.02	33.22	26.29	89.8	8.36	7.66				
19	4.82	33.27	26.35	89.9	8.36	7.74				
20	4.73	33.28	26.37	89.9	8.36	7.75	.00	.00	.35	.34
21	4.60	33.33	26.42	90.0	8.36	7.75				
22	4.72	33.40	26.46	90.2	8.35	7.72				
23	4.82	33.46	26.50	90.2	8.34	7.69				
24	4.70	33.45	26.50	90.1	8.34	7.69				
25	4.56	33.48	26.54	89.9	8.34	7.66				
26	4.53	33.55	26.60	89.8	8.34	7.59				
27	4.51	33.58	26.62	89.7	8.33	7.42				
28	4.58	33.60	26.63	89.7	8.33	7.20				
29	4.70	33.66	26.67	89.8	8.33	7.02				
30	4.75	33.65	26.66	90.1	8.33	6.85				
31	4.75	33.66	26.66	90.1	8.32	6.77				
32	4.76	33.66	26.66	90.1	8.32	6.72				
33	4.76	33.67	26.67	90.1	8.32	6.67				
34	4.77	33.67	26.67	90.1	8.32	6.62				
35	4.77	33.67	26.67	90.0	8.32	6.59				
36	4.77	33.67	26.67	90.1	8.32	6.56				
37	4.77	33.67	26.67	90.0	8.32	6.53				
38	4.77	33.68	26.67	90.1	8.32	6.50				
39	4.77	33.68	26.68	90.0	8.32	6.49				
40	4.77	33.67	26.67	90.0	8.32	6.47				
41	4.77	33.68	26.68	90.1	8.32	6.45				
42	4.78	33.68	26.68	90.1	8.32	6.44	.04	.57	3.37	.44

KELEZ CRUISE XWCC-12 STATION 78 04/30/77



XWCC 12 STA. 079 LAT 40 .0N; LONG 73 9.5W GMT 19.6 04/30/77
 DEPTH 048 AIR D/W 13.6/10.6 BARO 25.5 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 20/08 SEA DIR/HT 20/0 SWELL DIR/HT 00/0

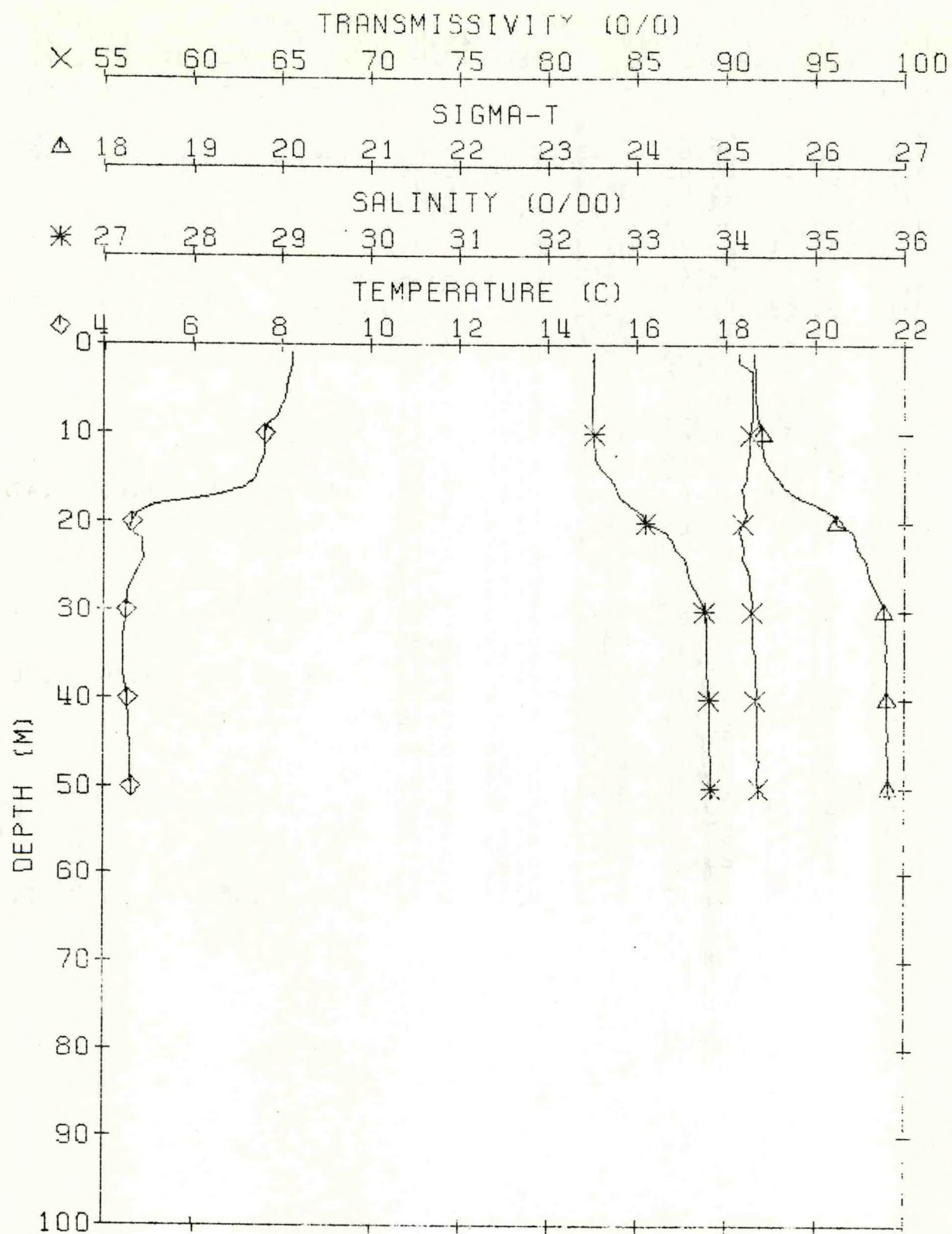
DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	9.14	32.59	25.23	90.1	8.36	7.09				
3	8.82	32.58	25.23	90.1	8.36	7.08	.00	.00	.61	.23
4	8.65	32.58	25.23	90.1	8.36	7.08				
5	8.52	32.58	25.23	90.1	8.36	7.14				
6	8.00	32.58	25.23	90.1	8.36	7.14				
7	7.79	32.58	25.23	90.1	8.36	7.25				
8	7.70	32.58	25.23	90.1	8.36	7.30				
9	7.67	32.58	25.23	90.1	8.36	7.24				
10	7.64	32.58	25.23	90.1	8.36	7.23				
11	7.63	32.58	25.23	90.1	8.36	7.22	.00	.00	.65	.27
12	7.62	32.58	25.23	90.1	8.36	7.22				
13	7.61	32.58	25.23	90.1	8.36	7.21				
14	7.57	32.58	25.23	90.1	8.36	7.20				
15	7.56	32.58	25.23	90.1	8.36	7.19				
16	7.58	32.58	25.23	90.1	8.36	7.26				
17	7.91	32.58	25.23	90.1	8.36	7.22				
18	7.82	32.58	25.23	90.1	8.36	7.19				
19	7.88	32.58	25.23	90.1	8.36	7.14				
20	6.94	32.58	25.23	90.1	8.36	7.37				
21	6.10	32.58	25.23	90.1	8.36	7.43	.00	.00	.92	.21
22	5.63	32.58	25.23	90.1	8.36	7.55				
23	5.63	32.58	25.23	90.1	8.36	7.73				
24	4.82	32.58	25.23	90.1	8.36	7.83				
25	4.83	32.58	25.23	90.1	8.36	7.88				
26	4.80	32.58	25.23	90.1	8.36	7.89				
27	4.80	32.58	25.23	90.1	8.36	7.83				
28	4.80	32.58	25.23	90.1	8.36	7.88				
29	4.80	32.58	25.23	90.1	8.36	7.82				
30	4.80	32.58	25.23	90.1	8.36	7.76	.00	.00	.87	.31
31	4.80	32.58	25.23	90.1	8.36	7.72				
32	4.80	32.58	25.23	90.1	8.36	7.70				
33	4.80	32.58	25.23	90.1	8.36	7.67				
34	4.80	32.58	25.23	90.1	8.36	7.66				
35	4.80	32.58	25.23	90.1	8.36	7.64				
36	4.80	32.58	25.23	90.1	8.36	7.60				
37	4.80	32.58	25.23	90.1	8.36	7.55				
38	4.80	32.58	25.23	90.1	8.36	7.41				
39	4.80	32.58	25.23	90.1	8.36	7.24				
40	4.80	32.58	25.23	90.1	8.36	7.07				
41	4.80	32.58	25.23	90.1	8.36	6.93				
42	4.80	32.58	25.23	90.1	8.36	6.82				
43	4.80	32.58	25.23	90.1	8.36	6.72				
44	4.80	32.58	25.23	90.1	8.36	6.64				
45	4.80	32.58	25.23	90.1	8.36	6.58				
46	4.80	32.58	25.23	90.1	8.36	6.52				
47	4.80	32.58	25.23	90.1	8.36	6.48				
48	4.80	32.58	25.23	90.1	8.36	6.36	.13	1.97	3.84	.61



XWCC_12 STA.080 LAT 39 54.5N; LONG 72 57.0W GMT 05.2 05/01/77
 DEPTH 053 AIR D/W 11.4/10.0 BARO 26.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 22/12 SEA DIR/HT 22/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.23	32.51	25.31	90.7	8.33	7.07				
2	8.23	32.51	25.31	90.7	8.33	7.07	.01	.00	1.01	.42
3	8.17	32.51	25.32	91.5	8.33	7.08				
4	8.12	32.51	25.33	91.5	8.33	7.08				
5	8.08	32.50	25.33	91.5	8.33	7.09				
6	8.05	32.50	25.33	91.5	8.33	7.09				
7	7.96	32.50	25.34	91.5	8.33	7.07				
8	7.88	32.49	25.34	91.5	8.33	7.15				
9	7.64	32.49	25.38	91.4	8.33	7.16				
10	7.60	32.51	25.40	91.3	8.33	7.16	.01	.08	.74	.47
11	7.60	32.52	25.41	91.3	8.33	7.15				
12	7.59	32.52	25.41	91.3	8.33	7.15				
13	7.56	32.53	25.42	91.2	8.33	7.15				
14	7.43	32.59	25.49	91.1	8.33	7.15				
15	7.38	32.69	25.57	91.1	8.33	7.16				
16	7.16	32.76	25.66	90.9	8.33	7.18				
17	6.45	32.80	25.78	91.0	8.33	7.22				
18	5.15	32.91	26.03	91.0	8.34	7.38				
19	4.73	33.06	26.19	91.1	8.34	7.62				
20	4.63	33.10	26.23	90.9	8.34	7.67	.01	.00	.43	.49
21	4.56	33.31	26.41	90.7	8.34	7.69				
22	4.86	33.39	26.44	90.9	8.34	7.65				
23	4.85	33.42	26.46	91.0	8.34	7.60				
24	4.87	33.52	26.54	90.9	8.34	7.58				
25	4.79	33.55	26.58	91.1	8.34	7.57				
26	4.69	33.58	26.61	91.3	8.34	7.56				
27	4.58	33.61	26.64	91.3	8.34	7.56				
28	4.53	33.67	26.70	91.4	8.34	7.53				
29	4.51	33.72	26.74	91.5	8.33	7.47				
30	4.50	33.75	26.76	91.4	8.33	7.37	.05	.42	1.23	.58
31	4.48	33.77	26.78	91.5	8.33	7.22				
32	4.45	33.77	26.78	91.5	8.33	7.07				
33	4.43	33.77	26.79	91.5	8.33	6.91				
34	4.42	33.77	26.79	91.5	8.33	6.73				
35	4.42	33.77	26.79	91.6	8.33	6.60				
36	4.42	33.77	26.79	91.6	8.33	6.45				
37	4.42	33.78	26.79	91.6	8.33	6.34				
38	4.44	33.79	26.80	91.6	8.33	6.24				
39	4.47	33.80	26.80	91.7	8.33	6.16				
40	4.52	33.80	26.80	91.6	8.32	6.09				
41	4.53	33.80	26.80	91.7	8.33	6.02				
42	4.53	33.81	26.80	91.7	8.32	5.97				
43	4.54	33.80	26.80	91.7	8.32	5.92				
44	4.56	33.82	26.81	91.7	8.32	5.88				
45	4.58	33.81	26.81	91.7	8.33	5.85				
46	4.58	33.82	26.81	91.7	8.32	5.82				
47	4.59	33.83	26.81	91.8	8.33	5.80				
48	4.59	33.82	26.81	91.7	8.33	5.78				
49	4.60	33.83	26.81	91.7	8.33	5.77				
50	4.61	33.83	26.81	91.8	8.33	5.75				
51	4.61	33.83	26.82	91.8	8.33	5.73	.27	3.10	4.28	.91

KELEZ CRUISE XWCC-12 STATION 80 05/01/77



XWCC-12 STA.081 LAT 39 44.8N; LONG 73 10.3W GMT 01.5 05/01/77
 DEPTH 043 AIR D/W 11.7/10.6 BARO 26.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 20/12 SEA DIR/HT 20/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	9.65	33.17	25.61	89.3	8.34	6.88				
2	9.65	33.17	25.61	89.3	8.34	6.88	.02	.00	.35	.29
3	9.62	33.18	25.61	88.2	8.34	6.89				
4	9.55	33.14	25.60	88.3	8.34	6.89				
5	9.36	33.14	25.63	88.3	8.34	6.93				
6	8.92	33.19	25.73	88.0	8.34	6.98				
7	8.79	33.21	25.77	87.8	8.34	7.03				
8	8.76	33.22	25.78	87.8	8.35	7.04				
9	8.75	33.22	25.78	87.9	8.35	7.04				
10	8.74	33.22	25.79	88.0	8.35	7.04	.01	.00	.70	.29
11	8.71	33.21	25.78	87.9	8.34	7.04				
12	8.61	33.20	25.79	87.8	8.35	7.04				
13	8.50	33.21	25.82	87.9	8.35	7.05				
14	8.03	33.23	25.90	87.9	8.34	7.08				
15	6.98	33.26	26.08	87.9	8.35	7.17				
16	5.90	33.54	26.44	87.8	8.34	7.38				
17	5.55	33.71	26.61	88.1	8.35	7.48				
18	5.46	33.71	26.62	88.4	8.36	7.51				
19	5.46	33.71	26.62	88.3	8.36	7.51				
20	5.46	33.74	26.65	87.8	8.35	7.50	.02	.40	1.63	.47
21	5.25	33.77	26.70	87.8	8.35	7.47				
22	4.94	33.71	26.69	88.1	8.35	7.44				
23	4.71	33.74	26.73	88.6	8.35	7.37				
24	4.61	33.72	26.73	88.7	8.35	7.19				
25	4.53	33.74	26.75	88.9	8.35	7.01				
26	4.49	33.74	26.76	88.8	8.35	6.80				
27	4.48	33.74	26.76	88.9	8.34	6.63				
28	4.48	33.74	26.76	88.9	8.34	6.48				
29	4.48	33.74	26.76	88.9	8.34	6.35				
30	4.46	33.74	26.76	89.0	8.34	6.26	.05	1.50	4.38	.70
31	4.46	33.74	26.76	89.0	8.34	6.19				
32	4.46	33.73	26.75	89.0	8.34	6.12				
33	4.45	33.74	26.76	89.0	8.34	6.07				
34	4.45	33.74	26.76	89.0	8.34	6.04				
35	4.45	33.74	26.76	89.0	8.33	5.01				
36	4.45	33.74	26.76	89.1	8.33	5.98				
37	4.46	33.74	26.76	89.1	8.33	5.96				
38	4.45	33.74	26.76	89.0	8.33	5.95				
39	4.45	33.74	26.76	89.1	8.33	5.93				
40	4.46	33.73	26.75	89.1	8.33	5.92				
41	4.46	33.74	26.76	89.1	8.33	5.91				
42	4.46	33.75	26.77	89.1	8.33	5.90	.06	1.56	4.67	.74

KELEZ CRUISE XWCC-12 STATION 81 05/01/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

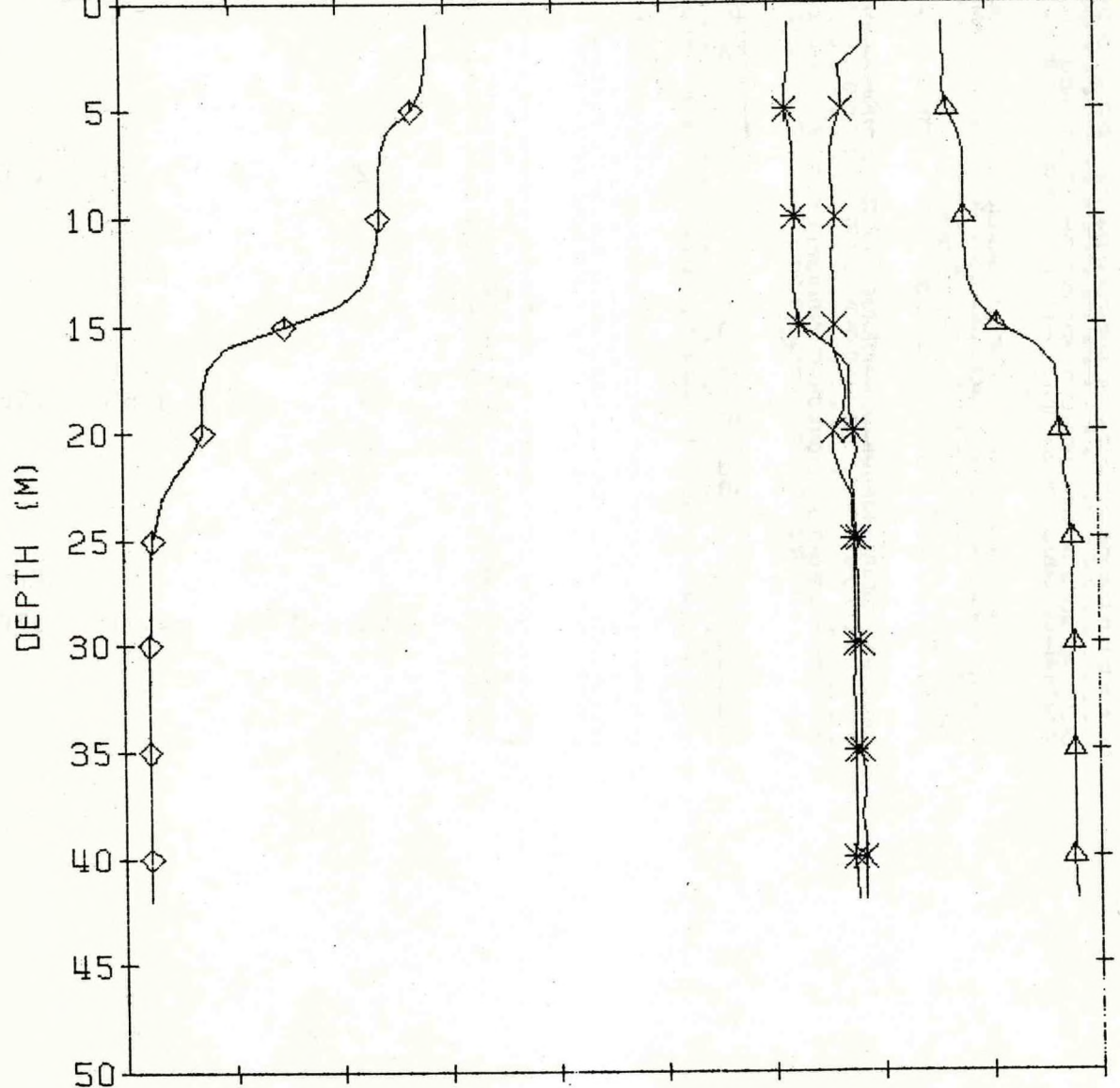
△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

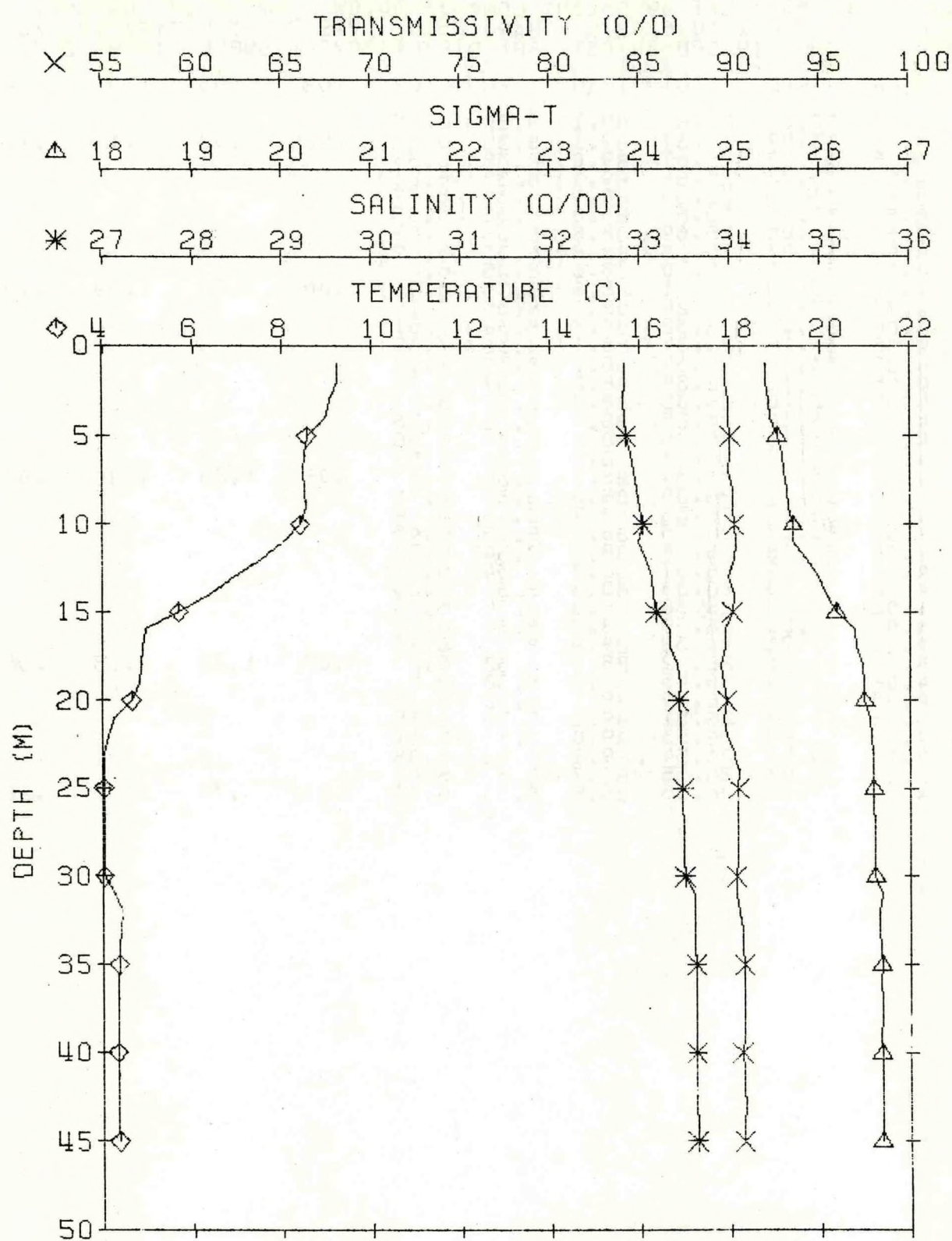
◇ 4 6 8 10 12 14 16 18 20 22



XWCC-12 STA.082 LAT 39 51.0N; LONG 73 20.5W GMT 23.6 04/30/77
 DEPTH 046 AIR D/W 12.2/11.1 BARO 25.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 19/08 SEA DIR/HT 19/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	9.23	32.83	25.41	89.7	8.34	6.86				
2	9.23	32.83	25.41	89.7	8.34	6.86	.01	.00	.00	.24
3	9.06	32.82	25.42	89.9	8.34	6.91				
4	8.96	32.83	25.45	89.9	8.34	6.92				
5	8.54	32.84	25.52	90.0	8.34	6.98				
6	8.48	32.93	25.58	90.0	8.34	6.96				
7	8.47	32.93	25.60	89.9	8.34	7.05				
8	8.50	32.96	25.62	90.1	8.35	6.99				
9	8.51	32.99	25.64	90.1	8.34	6.98				
10	8.38	32.03	25.69	90.2	8.34	7.01	.01	.00	.43	.33
11	8.33	32.97	25.70	90.3	8.34	7.04				
12	7.53	33.06	25.84	90.2	8.35	7.10				
13	6.92	33.13	25.98	89.9	8.35	7.17				
14	6.33	33.15	26.07	90.2	8.35	7.24				
15	5.99	33.17	26.17	90.1	8.35	7.28				
16	4.96	33.33	26.38	89.7	8.35	7.48				
17	4.90	33.33	26.39	89.7	8.35	7.50				
18	4.85	33.42	26.46	89.5	8.36	7.40				
19	4.88	33.44	26.48	89.6	8.36	7.34				
20	4.64	33.42	26.48	89.8	8.36	7.23	.02	.38	1.95	.52
21	4.26	33.44	26.54	89.6	8.36	7.19				
22	4.11	33.45	26.56	89.8	8.36	7.14				
23	4.00	33.45	26.58	90.2	8.36	6.96				
24	4.00	33.46	26.58	90.5	8.36	6.80				
25	4.00	33.46	26.59	90.4	8.36	6.63				
26	4.00	33.46	26.59	90.4	8.36	6.47				
27	4.00	33.47	26.59	90.4	8.36	6.36				
28	4.00	33.48	26.60	90.4	8.36	6.26				
29	4.00	33.48	26.60	90.4	8.36	6.18				
30	4.00	33.49	26.60	90.3	8.36	6.13	.04	.66	2.55	.56
31	4.22	33.50	26.67	90.3	8.36	6.04				
32	4.44	33.59	26.64	90.5	8.36	6.02				
33	4.33	33.59	26.65	90.6	8.36	5.96				
34	4.33	33.60	26.66	90.6	8.36	5.97				
35	4.33	33.61	26.67	90.7	8.36	5.99				
36	4.33	33.60	26.66	90.7	8.36	5.98				
37	4.22	33.61	26.67	90.7	8.36	5.97				
38	4.33	33.61	26.67	90.7	8.36	5.95				
39	4.33	33.60	26.67	90.7	8.36	5.93				
40	4.33	33.61	26.67	90.6	8.36	5.92	.05	1.26	4.10	.70
41	4.33	33.61	26.67	90.7	8.36	5.90				
42	4.33	33.61	26.67	90.7	8.36	5.87				
43	4.33	33.62	26.67	90.8	8.36	5.86				
44	4.33	33.62	26.68	90.7	8.36	5.84				
45	4.33	33.62	26.68	90.7	8.36	5.85				

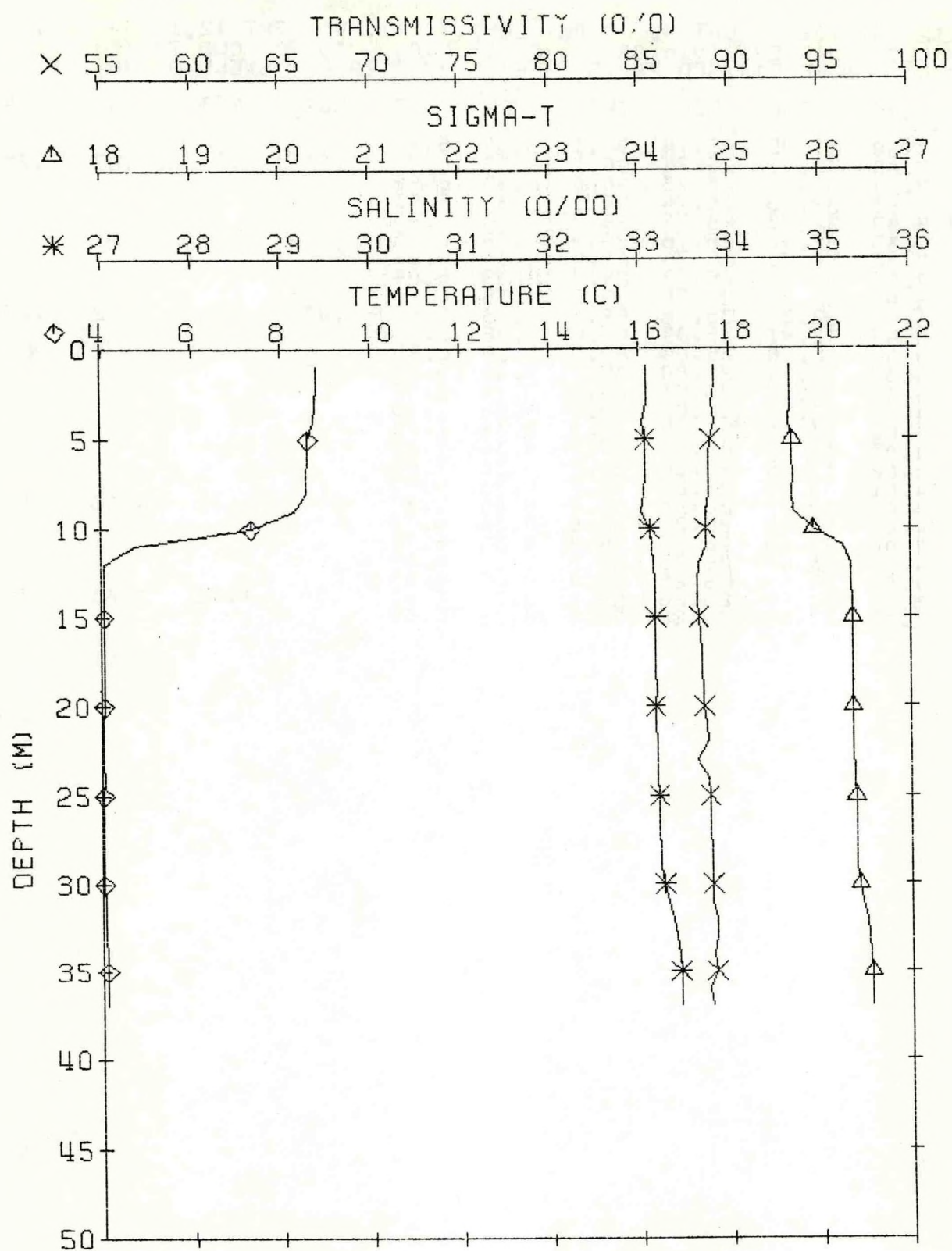
KELEZ CRUISE XWCC-12 STATION 82 04/30/77



XWCC-12 STA.083 LAT 39 56.3N; LONG 73 30.0W GMT 13.7 04/30/77
 DEPTH 039 AIR D/W 10.6/08.6 BARO 25.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 30/05 SEA DIR/HT 30/0 SWELL DIR/HT 20/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.77	33.07	25.67	89.1	8.35	6.85				
2	8.77	33.07	25.67	89.1	8.35	6.85	.00	.00	.17	.23
3	8.75	33.07	25.67	89.0	8.35	6.86				
4	8.71	33.03	25.64	89.1	8.35	6.86				
5	8.60	33.06	25.68	88.9	8.35	6.87				
6	8.58	33.05	25.68	88.8	8.35	6.89				
7	8.57	33.06	25.69	88.8	8.35	6.89				
8	8.56	33.04	25.68	88.8	8.35	6.89				
9	8.28	33.01	25.70	88.6	8.35	6.89				
10	7.30	33.10	25.91	88.6	8.35	6.96	.00	.00	1.09	.19
11	4.73	33.12	26.24	88.6	8.35	7.18				
12	4.06	33.14	26.32	88.2	8.36	7.51				
13	4.06	33.16	26.34	88.1	8.36	7.38				
14	4.05	33.16	26.34	88.1	8.37	7.18				
15	4.05	33.16	26.34	88.2	8.37	7.01				
16	4.04	33.16	26.35	88.3	8.37	6.87				
17	4.04	33.16	26.35	88.4	8.36	6.76				
18	4.04	33.16	26.35	88.4	8.36	6.66				
19	4.04	33.17	26.35	88.5	8.36	6.59				
20	4.04	33.16	26.34	88.5	8.36	6.53	.05	1.20	4.80	.67
21	4.03	33.17	26.35	88.6	8.35	6.48				
22	4.03	33.17	26.35	88.7	8.35	6.44				
23	4.03	33.17	26.35	88.1	8.35	6.48				
24	4.04	33.18	26.36	88.7	8.34	6.37				
25	4.03	33.19	26.37	88.8	8.34	6.35				
26	4.02	33.20	26.38	88.8	8.34	6.33				
27	4.02	33.20	26.38	88.8	8.34	6.30				
28	4.02	33.21	26.39	88.9	8.34	6.28				
29	4.02	33.21	26.38	88.9	8.33	6.26				
30	4.03	33.25	26.42	88.9	8.33	6.23	.07	1.38	4.95	.66
31	4.04	33.30	26.45	88.9	8.33	6.21				
32	4.05	33.35	26.49	89.1	8.33	6.18				
33	4.06	33.38	26.51	89.1	8.33	6.15				
34	4.08	33.40	26.53	89.0	8.33	6.11				
35	4.10	33.42	26.54	89.1	8.33	6.08				
36	4.10	33.43	26.55	88.7	8.33	6.05	.02	.70	2.77	.26
37	4.10	33.43	26.55	88.9	8.33	6.03				

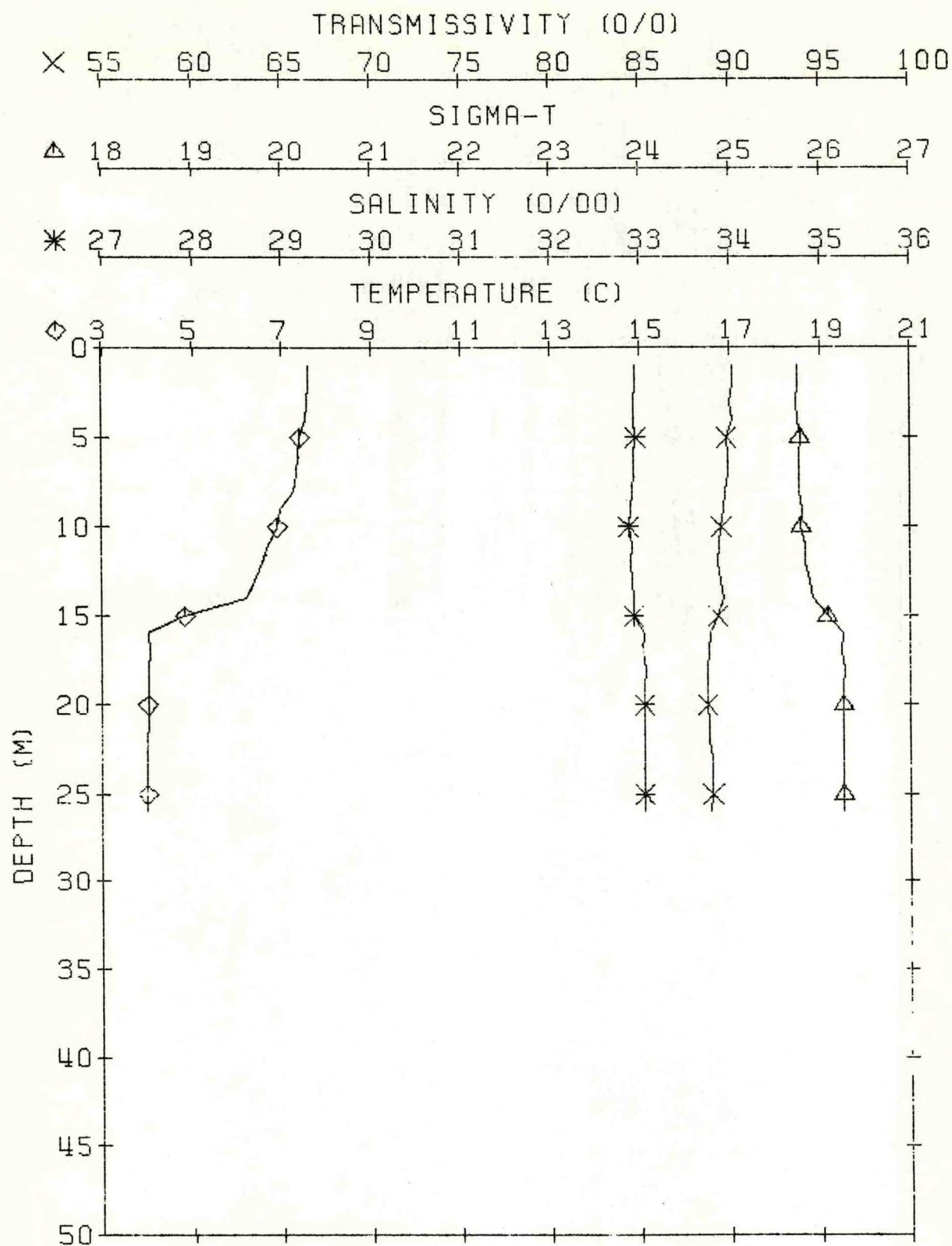
KELEZ CRUISE XWCC-12 STATION 83 04/30/77



XWCC-12 STA.084 LAT 40 2.0N; LONG 73 41.7W GMT 12.1 04/30/77
 DEPTH 027 AIR D/W 10.6/08.9 BARO 25.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 28/05 SEA DIR/HT 28/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	7.60	32.95	25.74	90.1	8.35	6.92				
2	7.60	32.95	25.74	90.1	8.35	6.92	.03	.16	.87	.25
3	7.54	32.92	25.73	90.0	8.35	6.92				
4	7.53	32.93	25.74	90.1	8.35	6.93				
5	7.39	32.95	25.77	89.8	8.35	6.93				
6	7.35	32.92	25.76	89.9	8.35	6.95				
7	7.32	32.93	25.76	89.9	8.35	6.94				
8	7.25	32.91	25.77	89.7	8.35	6.94				
9	6.94	32.89	25.79	89.6	8.35	6.96				
10	6.89	32.87	25.78	89.5	8.35	6.98	.03	.24	.92	.20
11	6.69	32.91	25.84	89.4	8.35	6.97				
12	6.54	32.88	25.84	89.3	8.35	6.98				
13	6.39	32.91	25.88	89.5	8.36	6.99				
14	6.18	32.92	25.91	89.6	8.36	6.98				
15	4.83	32.93	26.08	89.3	8.36	7.05				
16	4.03	33.05	26.25	88.9	8.36	7.23				
17	4.05	33.02	26.23	88.8	8.36	7.18				
18	4.02	33.05	26.26	88.7	8.36	6.95				
19	4.01	33.04	26.25	88.7	8.36	6.87	.04	1.21	4.13	.50
20	4.00	33.04	26.25	88.8	8.36	6.79				
21	4.00	33.04	26.25	88.8	8.36	6.74				
22	4.00	33.04	26.25	88.8	8.36	6.69				
23	4.00	33.04	26.25	89.0	8.35	6.65				
24	4.00	33.04	26.25	89.0	8.35	6.65				
25	3.99	33.04	26.26	89.0	8.35	6.61	.06	1.21	3.61	.55
26	3.99	33.04	26.26	88.9	8.35	6.58				

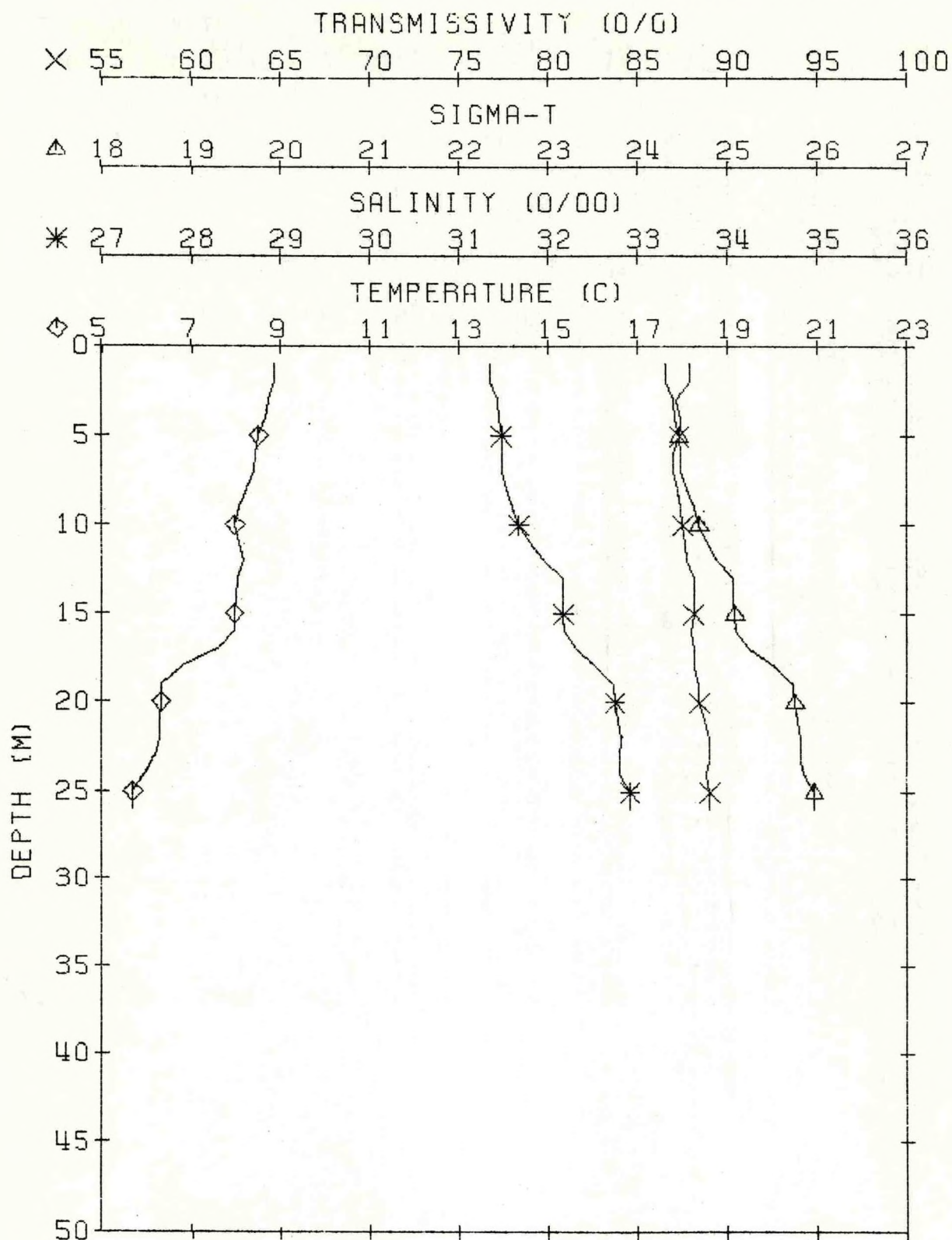
KELEZ CRUISE XWCC-12 STATION 84 04/30/77



XWCC-12 STA.085 LAT 40 8.0N; LONG 73 51.5W GMT 21.2 04/29/77
 DEPTH 027 AIR D/W 10.0/07.8 BARO 19.5 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 18/16 SEA DIR/HT 18/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.84	31.35	24.31	87.9	8.35	7.31				
2	8.84	31.35	24.31	87.9	8.35	7.31	.10	.40	1.05	.33
3	8.73	31.43	24.39	87.1	8.35	7.39				
4	8.66	31.45	24.41	87.4	8.35	7.41				
5	8.50	31.47	24.46	87.3	8.35	7.44				
6	8.41	31.48	24.48	87.0	8.35	7.48				
7	8.38	31.48	24.48	87.0	8.35	7.52				
8	8.22	31.52	24.54	87.2	8.35	7.54				
9	8.04	31.59	24.62	87.4	8.35	7.54				
10	7.96	31.66	24.69	87.5	8.35	7.44	.08	.39	1.67	.37
11	8.04	31.79	24.77	87.6	8.35	7.29				
12	8.14	31.94	24.88	87.7	8.35	7.09				
13	8.02	32.15	25.06	88.1	8.35	6.93				
14	7.98	32.15	25.07	88.1	8.35	6.70				
15	7.96	32.17	25.08	88.1	8.35	6.66				
16	7.94	32.18	25.09	88.0	8.35	6.52				
17	7.57	32.31	25.24	88.1	8.35	6.60				
18	6.77	32.53	25.53	88.1	8.35	6.61				
19	6.33	32.72	25.74	88.4	8.35	6.75				
20	6.32	32.74	25.75	88.4	8.35	6.73	.05	.35	2.47	.43
21	6.30	32.78	25.79	88.7	8.36	6.68				
22	6.27	32.81	25.81	89.0	8.35	6.66				
23	6.17	32.80	25.82	89.0	8.35	6.67				
24	5.94	32.79	25.84	88.8	8.35	6.67				
25	5.70	32.91	25.96	89.0	8.35	6.68				
26	5.67	32.91	25.97	89.0	8.34	6.68	.04	.59	2.56	.49

KELEZ CRUISE XWCC-12 STATION 85 04/29/77



XWCC-12 STA.113 LAT 40 8.5N; LONG 72 55.5W GMT 07.8 05/01/77
 DEPTH 049 AIR D/W 08.9/08.9 BARO 26.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 23/10 SEA DIR/HT 22/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	7.82	32.60	25.44	90.1	8.33	7.06	.00	.00	1.19	.50
2	7.82	32.60	25.44	90.1	8.33	7.06				
3	7.81	32.60	25.44	90.2	8.33	7.07				
4	7.81	32.61	25.44	90.2	8.33	7.07				
5	7.82	32.60	25.44	90.2	8.33	7.08				
6	7.82	32.60	25.44	90.2	8.33	7.08				
7	7.82	32.60	25.44	90.2	8.33	7.08				
8	7.82	32.60	25.44	90.2	8.33	7.08				
9	7.82	32.61	25.44	90.2	8.33	7.08				
10	7.82	32.61	25.45	90.2	8.33	7.08	.00	.00	1.41	.47
11	7.82	32.61	25.45	90.2	8.33	7.07				
12	7.82	32.60	25.44	90.3	8.33	7.08				
13	7.81	32.60	25.44	90.3	8.33	7.07				
14	7.79	32.60	25.44	90.2	8.33	7.07				
15	7.76	32.60	25.44	90.2	8.33	7.07				
16	7.75	32.60	25.45	90.2	8.33	7.08				
17	7.73	32.59	25.44	90.2	8.33	7.07				
18	7.62	32.56	25.44	90.2	8.33	7.08				
19	7.43	32.56	25.46	90.2	8.33	7.10				
20	7.24	32.59	25.51	90.1	8.33	7.13	.00	.00	.83	.49
21	6.87	32.57	25.54	90.2	8.33	7.15				
22	5.50	32.84	25.93	90.3	8.34	7.31				
23	4.87	33.13	26.23	90.1	8.34	7.52				
24	4.76	33.19	26.29	89.7	8.34	7.56				
25	4.65	33.23	26.33	89.7	8.35	7.57				
26	4.64	33.23	26.34	89.7	8.34	7.58				
27	4.60	33.28	26.38	89.6	8.34	7.58				
28	4.32	33.35	26.46	89.5	8.34	7.59				
29	4.17	33.43	26.54	89.8	8.34	7.62				
30	4.17	33.43	26.54	89.9	8.33	7.53				
31	4.10	33.47	26.58	89.9	8.33	7.43				
32	4.03	33.50	26.61	89.9	8.33	7.34				
33	3.97	33.55	26.66	89.9	8.33	7.23				
34	3.97	33.55	26.66	90.0	8.33	7.06				
35	3.97	33.55	26.66	89.9	8.33	6.89				
36	3.97	33.55	26.66	89.9	8.33	6.74				
37	3.97	33.54	26.65	90.0	8.33	6.61				
38	3.97	33.54	26.65	89.9	8.33	6.52				
39	3.97	33.55	26.66	90.0	8.33	6.45				
40	3.97	33.55	26.66	89.9	8.33	6.38				
41	3.97	33.55	26.66	90.0	8.33	6.32				
42	3.97	33.55	26.66	89.9	8.33	6.28				
43	3.97	33.55	26.66	89.9	8.33	6.24				
44	3.97	33.55	26.66	89.9	8.33	6.21				
45	3.97	33.55	26.66	90.0	8.33	6.18				
46	3.97	33.55	26.66	90.0	8.33	6.16				
47	3.97	33.55	26.66	90.0	8.33	6.14	.34	1.85	4.38	.74

KELEZ CRUISE XWCC-12 STATION 113 05/01/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

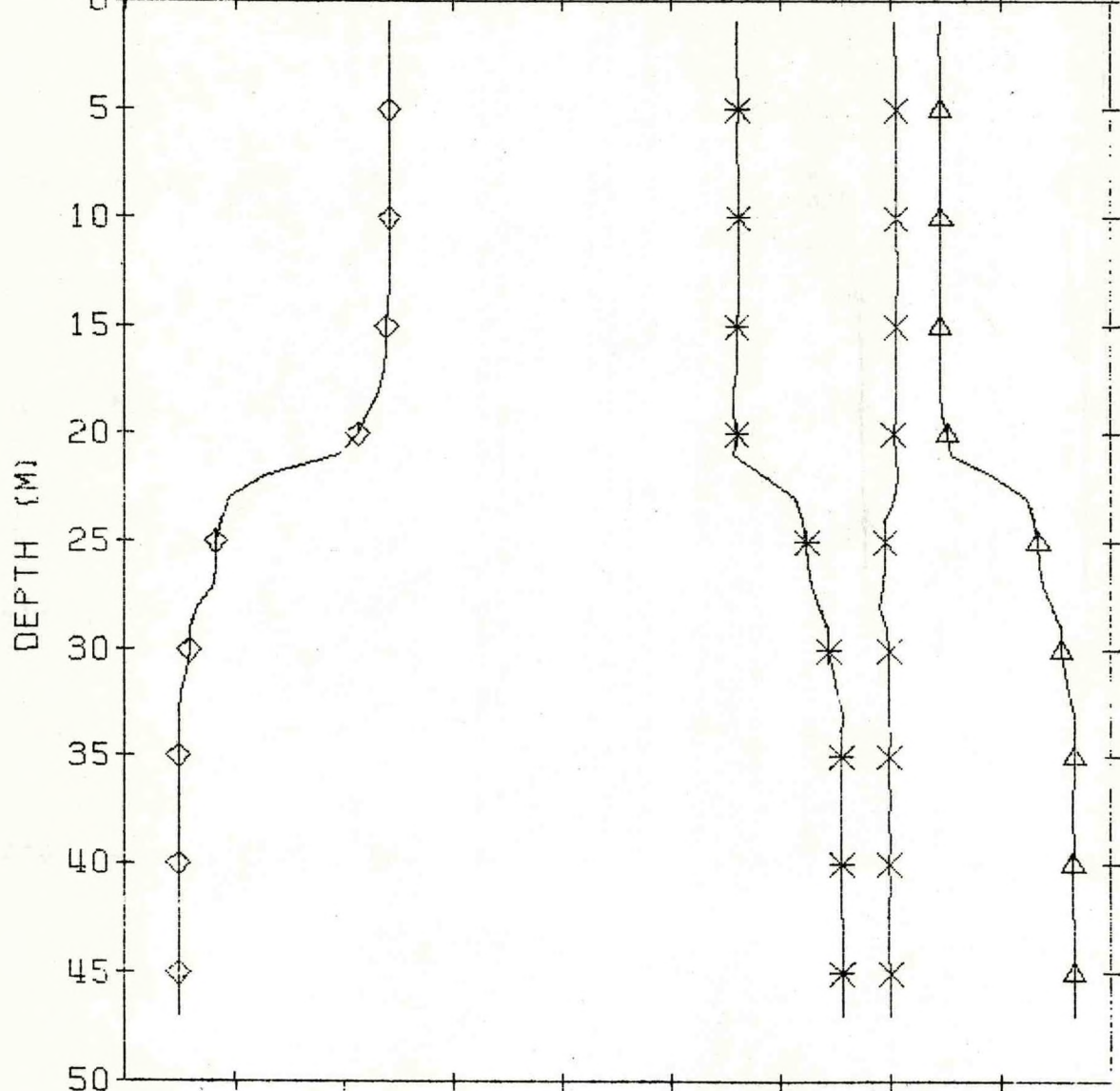
Δ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

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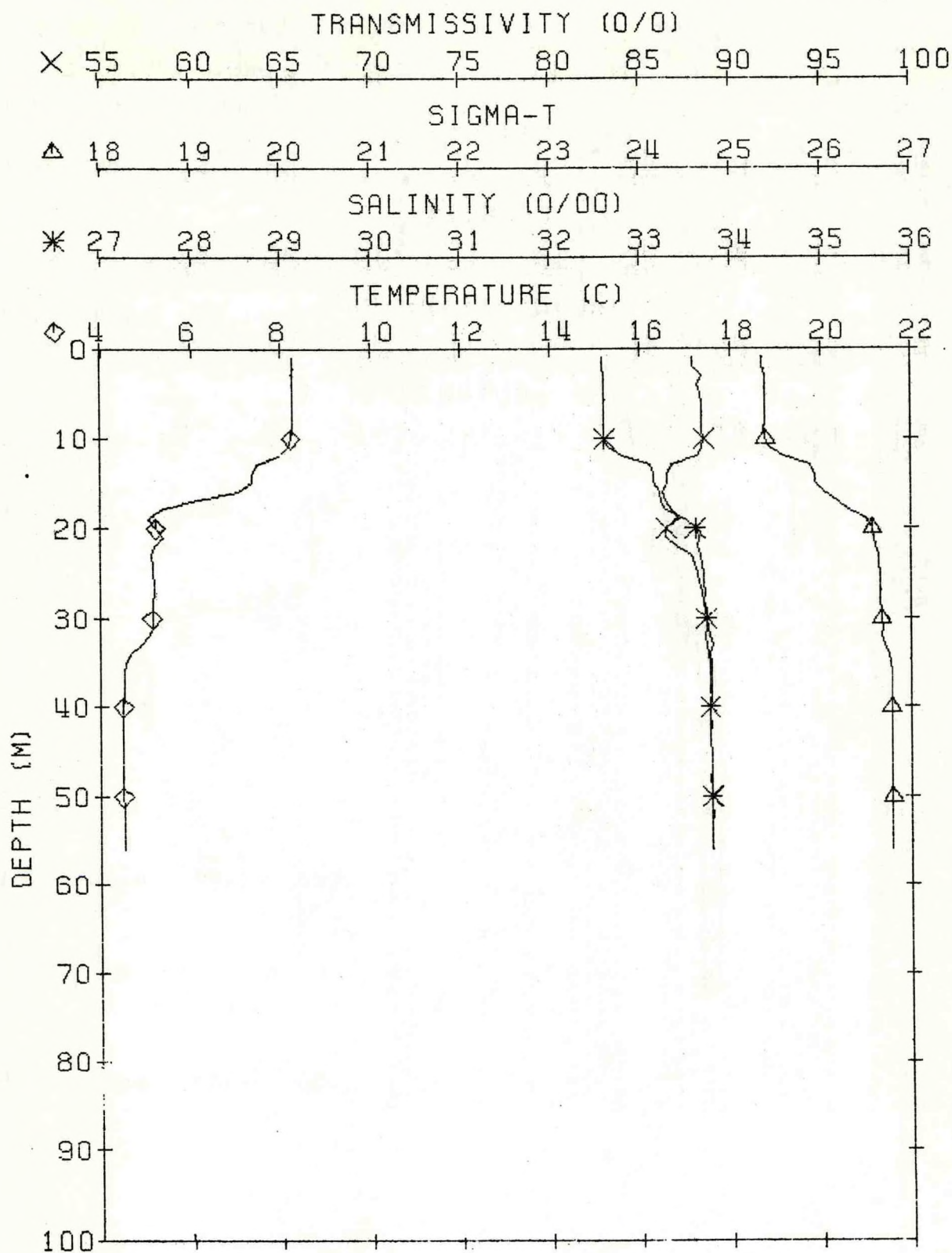
TEMPERATURE (C)

◇ 3 5 7 9 11 13 15 17 19 21



XWCC 12 STA. 114 LAT 40 4.0N; LONG 72 45.4W GMT 03.3 05/03/77
 DEPTH 057 AIR D/W 12.8/11.7 BARO 16.5 VIS 6 CLD TYP/CVR /8
 WETHR 2 WIND DIR/SPD 23/24 SEA DIR/HT 23/1 SWELL DIR/HT 22/2

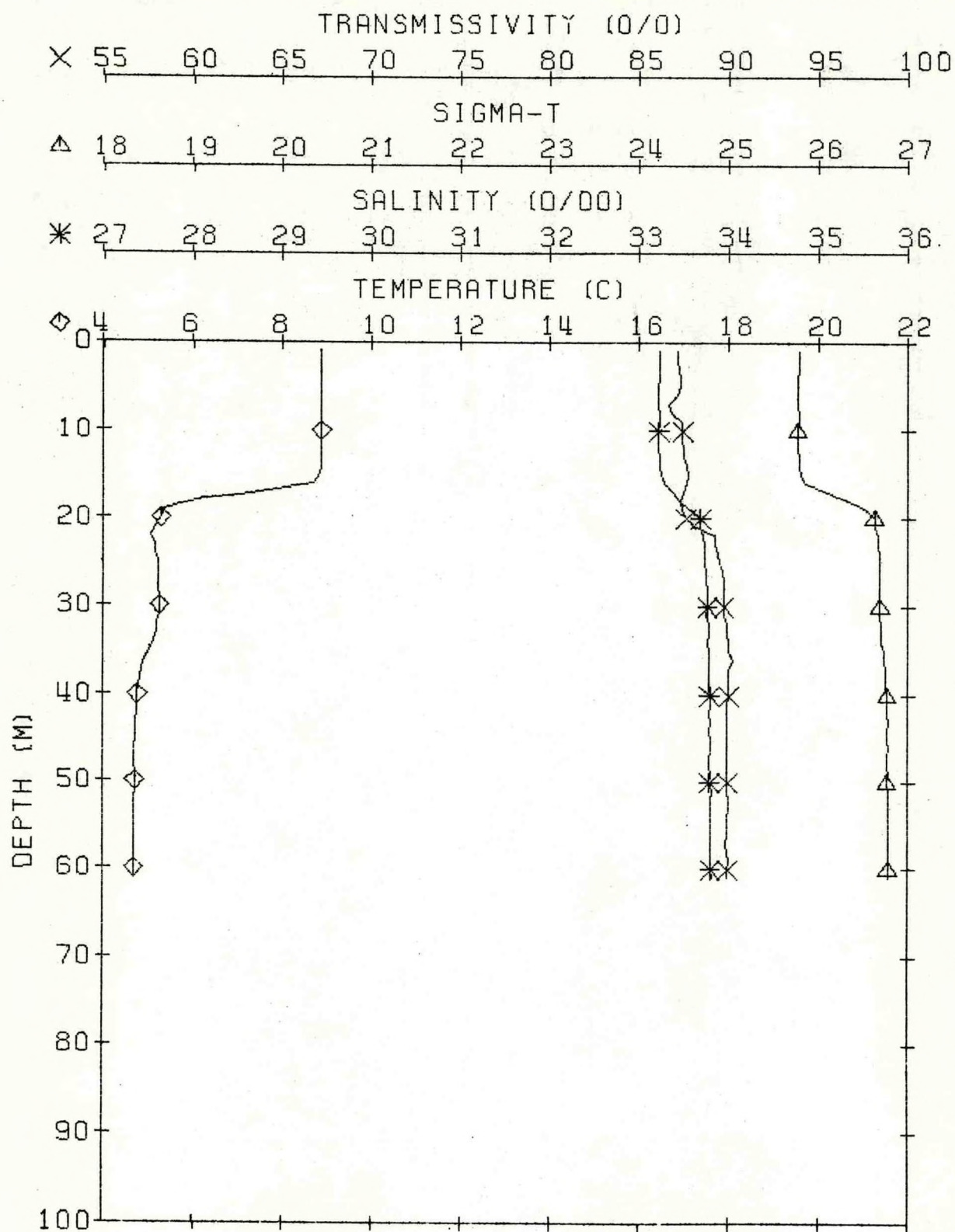
DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.24	32.57	25.35	87.9	8.34	6.81				
2	8.24	32.57	25.35	87.9	8.34	6.81	.03	.25	1.38	.24
3	8.24	32.60	25.38	88.4	8.34	7.02				
4	8.24	32.59	25.37	88.1	8.34	7.00				
5	8.24	32.59	25.37	88.3	8.34	7.00				
6	8.24	32.59	25.37	88.4	8.34	7.00				
7	8.24	32.59	25.37	88.4	8.34	7.01				
8	8.24	32.59	25.37	88.4	8.34	7.00				
9	8.24	32.59	25.37	88.4	8.34	7.00				
10	8.22	32.60	25.38	88.5	8.34	7.00	.04	.00	1.71	.35
11	8.17	32.65	25.42	88.4	8.34	7.00				
12	7.94	32.79	25.57	88.1	8.34	7.01				
13	7.45	33.10	25.89	86.7	8.35	7.10				
14	7.36	33.14	25.92	86.5	8.35	7.22				
15	7.36	33.15	25.93	86.5	8.35	7.27				
16	7.05	33.21	26.02	86.2	8.35	7.32				
17	5.99	33.23	26.18	86.4	8.35	7.44				
18	5.32	33.28	26.30	86.7	8.35	7.63				
19	5.06	33.48	26.49	87.1	8.35	7.67				
20	5.22	33.60	26.57	86.4	8.35	7.66				
21	5.39	33.63	26.57	86.4	8.35	7.62	.03	.00	1.34	.29
22	5.17	33.63	26.59	87.0	8.35	7.60				
23	5.13	33.66	26.62	87.8	8.35	7.60				
24	5.13	33.67	26.63	88.0	8.34	7.56				
25	5.16	33.69	26.64	88.1	8.34	7.52				
26	5.17	33.70	26.65	88.2	8.34	7.47				
27	5.19	33.71	26.65	88.4	8.34	7.42				
28	5.16	33.70	26.65	88.5	8.34	7.40				
29	5.14	33.71	26.66	88.6	8.34	7.38				
30	5.14	33.72	26.67	88.6	8.34	7.33				
31	5.14	33.73	26.67	88.7	8.34	7.29	.10	1.50	1.83	.50
32	5.04	33.70	26.66	88.8	8.34	7.25				
33	4.90	33.73	26.70	89.0	8.34	7.22				
34	4.65	33.74	26.74	88.8	8.34	7.16				
35	4.57	33.76	26.76	88.9	8.34	6.99				
36	4.53	33.76	26.77	88.9	8.35	6.86				
37	4.51	33.76	26.77	88.9	8.35	6.61				
38	4.51	33.76	26.77	88.9	8.35	6.50				
39	4.50	33.77	26.78	88.9	8.35	6.39				
40	4.50	33.76	26.77	88.8	8.34	6.26	.45	3.22	4.69	.73
41	4.50	33.77	26.77	88.8	8.35	6.23				
42	4.50	33.77	26.78	88.8	8.35	6.17				
43	4.50	33.76	26.77	88.8	8.34	6.11				
44	4.50	33.77	26.77	88.8	8.35	6.08				
45	4.50	33.77	26.78	88.9	8.35	6.04				
46	4.50	33.77	26.78	88.9	8.35	6.01				
47	4.50	33.77	26.78	88.9	8.35	6.00				
48	4.50	33.77	26.78	88.8	8.34	5.99				
49	4.50	33.77	26.78	88.9	8.35	5.98				
50	4.50	33.78	26.79	88.9	8.35	5.97				
56	4.51	33.77	26.78	88.9	8.35	5.93	.47	3.35	4.69	.74



XWCC-12 STA.115 LAT 39 58.4N; LONG 72 34.1W GMT 00.9 05/03/77
 DEPTH 064 AIR D/W 11.7/11.1 BARO 17.0 VIS 6 CLD TYP/CVR /8
 WETHR 2 WIND DIR/SPD 22/24 SEA DIR/HT 22/1 SWELL DIR/HT 22/2

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	8.86	33.22	25.77	87.1	8.35	7.16				
2	8.86	33.22	25.77	87.1	8.35	7.16	.00	.00	1.84	.21
3	8.86	33.22	25.77	87.2	8.35	7.20				
4	8.86	33.22	25.77	87.3	8.35	7.23				
5	8.87	33.21	25.76	87.3	8.35	7.23				
6	8.87	33.21	25.76	87.1	8.35	7.22				
7	8.86	33.21	25.76	86.6	8.35	7.23				
8	8.86	33.22	25.77	86.8	8.35	7.23				
9	8.86	33.22	25.77	87.4	8.35	7.23				
10	8.86	33.22	25.76	87.4	8.35	7.22	.05	.00	1.84	.19
11	8.86	33.22	25.77	87.4	8.35	7.23				
12	8.86	33.22	25.77	87.5	8.35	7.24				
13	8.86	33.22	25.77	87.5	8.35	7.23				
14	8.85	33.22	25.77	87.6	8.35	7.22				
15	8.81	33.24	25.79	87.7	8.35	7.23				
16	7.87	33.28	25.85	87.6	8.35	7.22				
17	7.50	33.37	26.09	87.5	8.35	7.29				
18	6.04	33.44	26.34	87.3	8.35	7.52				
19	5.35	33.56	26.52	87.4	8.35	7.75				
20	5.00	33.68	26.62	87.6	8.35	7.78	.03	.04	1.79	.21
21	5.15	33.67	26.63	88.1	8.35	7.82				
22	5.04	33.70	26.67	89.2	8.35	7.82				
23	5.14	33.72	26.66	89.2	8.35	7.67				
24	5.14	33.72	26.67	89.4	8.35	7.66				
25	5.11	33.73	26.67	89.5	8.35	7.54				
26	5.11	33.74	26.67	89.6	8.35	7.43				
27	5.00	33.75	26.68	89.7	8.35	7.38				
28	5.00	33.76	26.69	89.7	8.35	7.33				
29	5.00	33.76	26.68	89.7	8.35	7.29				
30	5.00	33.76	26.68	89.7	8.35	7.26				
31	5.00	33.74	26.68	89.7	8.35	7.25				
32	5.00	33.77	26.70	89.9	8.35	7.24				
33	5.19	33.77	26.70	89.9	8.35	7.23				
34	5.11	33.75	26.70	90.0	8.35	7.21				
35	5.01	33.77	26.72	90.0	8.35	7.18				
36	4.93	33.78	26.74	90.2	8.35	7.11				
37	4.87	33.78	26.75	90.0	8.35	7.02				
38	4.82	33.77	26.74	90.0	8.35	6.95				
39	4.78	33.78	26.75	90.0	8.35	6.79				
40	4.76	33.79	26.76	90.0	8.35	6.69	.20	3.89	4.70	.61
41	4.75	33.78	26.76	89.9	8.35	6.58				
42	4.74	33.78	26.76	89.9	8.35	6.49				
43	4.72	33.79	26.77	89.9	8.35	6.44				
44	4.72	33.78	26.76	89.9	8.35	6.39				
45	4.71	33.78	26.77	89.9	8.35	6.34				
46	4.70	33.78	26.77	89.9	8.35	6.28				
47	4.70	33.78	26.77	89.9	8.35	6.24				
48	4.70	33.78	26.76	89.9	8.35	6.21				
49	4.70	33.79	26.77	89.9	8.35	6.17				
50	4.70	33.78	26.76	89.9	8.35	6.14				
60	4.69	33.79	26.77	89.9	8.35	6.04	.38	4.23	6.54	.69
61	4.69	33.81	26.79	89.9	8.35	6.05				

KELEZ CRUISE XWCC-12 STATION 115 05/03/77



XWCC-12 STA.120 LAT 39 46.2N; LONG 73 55.4W GMT 02.7 05/04/77
 DEPTH 022 AIR D/W 11.7/10.6 BARO 22.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 24/13 SEA DIR/HT 24/0 SWELL DIR/HT 20/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	10.14	30.97	23.81	89.9	8.33	9.58				
2	10.14	30.97	23.81	89.9	8.33	9.58				
3	10.14	31.00	23.83	85.5	8.31	9.46	.05	.02	.00	.03
4	9.82	31.00	23.89	87.7	8.33	9.13				
5	9.96	30.99	23.86	87.8	8.33	8.26				
6	10.05	30.99	23.84	87.6	8.33	8.03				
7	9.93	30.99	23.86	87.3	8.33	7.97				
8	9.81	30.99	23.88	87.5	8.33	7.93				
9	9.41	31.04	23.98	87.3	8.33	7.92				
10	9.18	31.01	24.00	87.2	8.33	7.94	.05	.00	.43	.13
11	8.60	31.41	24.40	87.0	8.33	7.95				
12	7.87	31.87	24.86	87.2	8.33	8.02				
13	7.49	32.11	25.10	87.5	8.33	8.09				
14	7.04	32.23	25.25	87.4	8.34	8.11				
15	6.43	32.39	25.46	87.5	8.34	8.10				
16	5.45	32.64	25.78	86.4	8.33	7.97				
17	4.26	33.08	26.26	86.7	8.34	7.96				
18	4.23	33.13	26.30	87.2	8.32	7.96				
19	4.23	33.14	26.30	87.4	8.32	7.96				
20	4.24	33.14	26.30	87.6	8.32	7.96				
21	4.24	33.13	26.30	87.6	8.34	7.96	.05	1.91	5.00	.73

KELEZ CRUISE XWCC-12 STATION 120 05/04/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

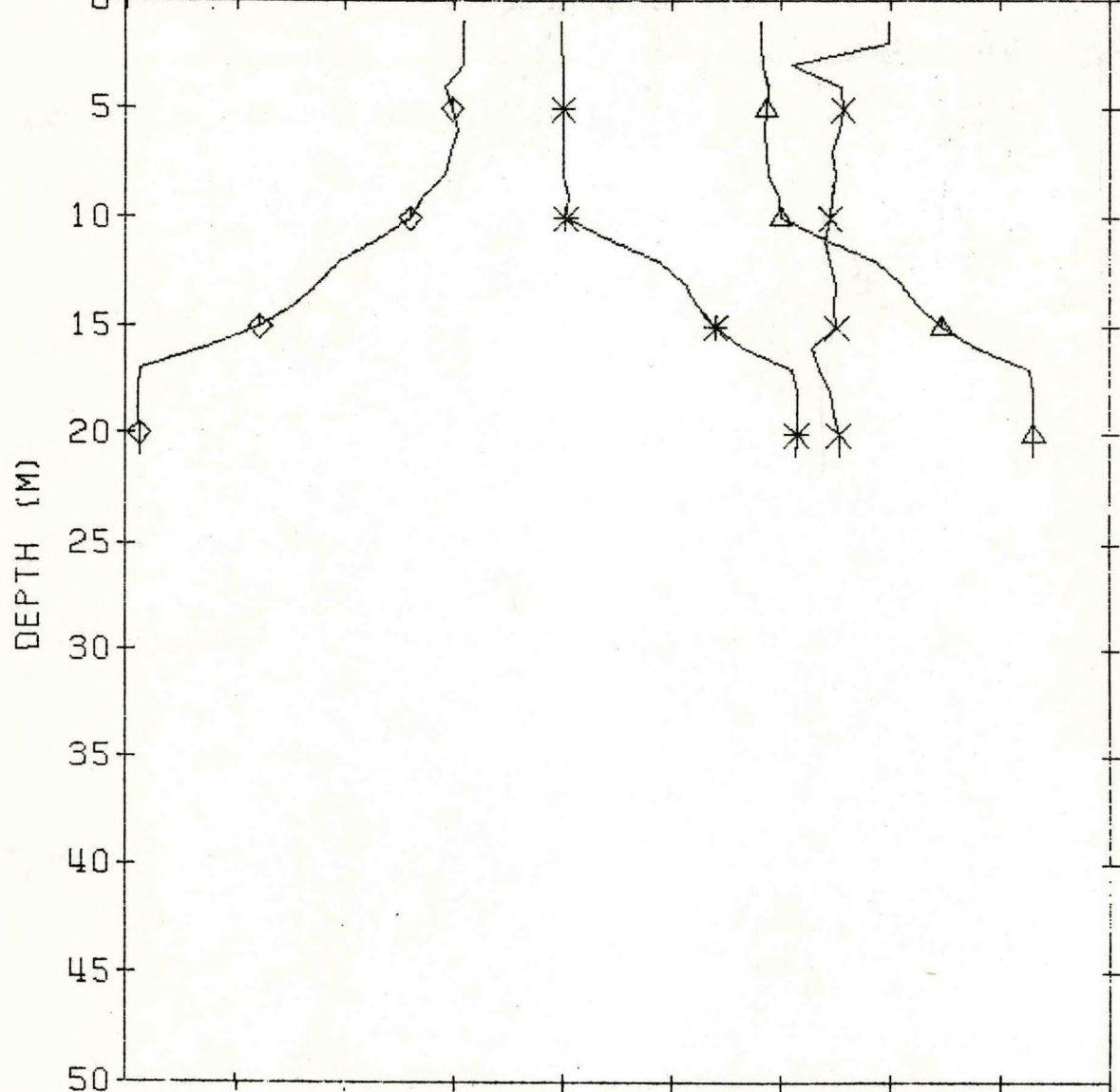
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SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

◇ 4 6 8 10 12 14 16 18 20 22



XWCC-12 STA.121 LAT 39 42.8N; LONG 73 46.0W GMT 01.3 05/04/77
 DEPTH 019 AIR D/W 12.2/10.6 BARO 22.0 VIS 7 CLD TYP/CVR /4
 WETHR 1 WIND DIR/SPD 22/12 SEA DIR/HT 22/0 SWELL DIR/HT 20/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	10.70	30.84	23.62	87.1	8.32	6.70				
2	10.70	30.84	23.61	87.1	8.32	6.70	.05	.00	.00	.05
3	10.42	30.85	23.67	87.3	8.32	7.23				
4	10.33	30.85	23.69	87.3	8.32	7.28				
5	10.27	30.90	23.73	87.3	8.32	7.29				
6	9.87	31.05	23.92	87.1	8.32	7.31				
7	9.50	31.28	24.16	87.3	8.32	7.35				
8	8.61	31.81	24.71	87.5	8.33	7.46				
9	8.43	31.84	24.76	87.5	8.33	7.51				
10	8.39	31.87	24.78	87.5	8.33	7.46	.05	.00	.36	.13
11	8.23	31.90	24.83	87.1	8.33	7.36				
12	6.09	32.35	25.48	87.7	8.33	7.37				
13	4.75	33.15	26.26	87.6	8.33	7.64				
14	4.76	33.10	26.22	87.5	8.33	7.57				
15	4.75	33.09	26.22	87.3	8.33	7.47				
16	4.74	33.10	26.22	87.2	8.33	7.21				
17	4.73	33.12	26.24	87.2	8.32	6.86				
18	4.73	33.12	26.24	87.3	8.32	6.56	.05	1.36	3.34	.55
19	4.73	33.12	26.24	87.1	8.32	6.56				

KELEZ CRUISE XWCC-12 STATION 121 05/04/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

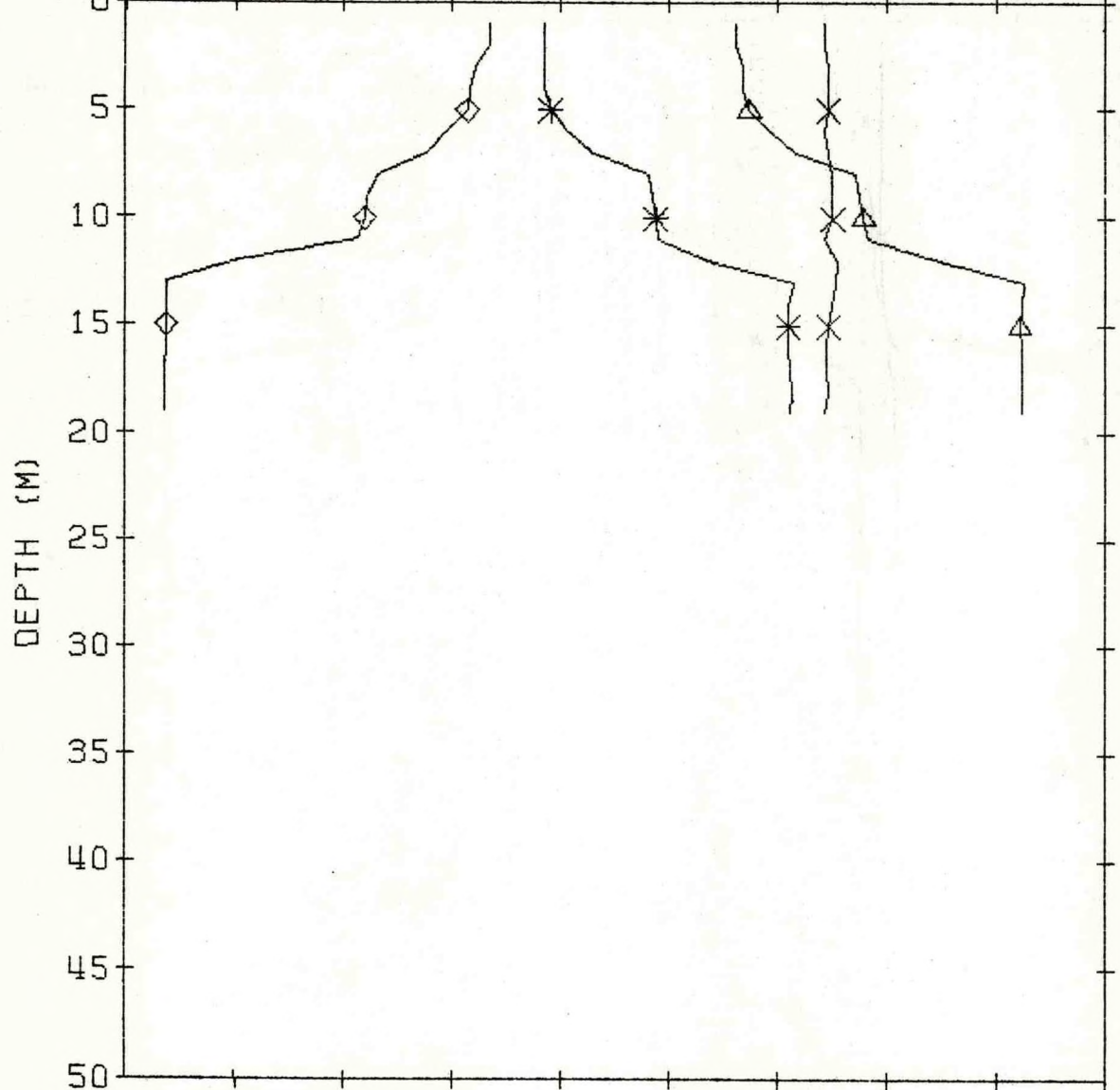
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SALINITY (0/00)

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TEMPERATURE (C)

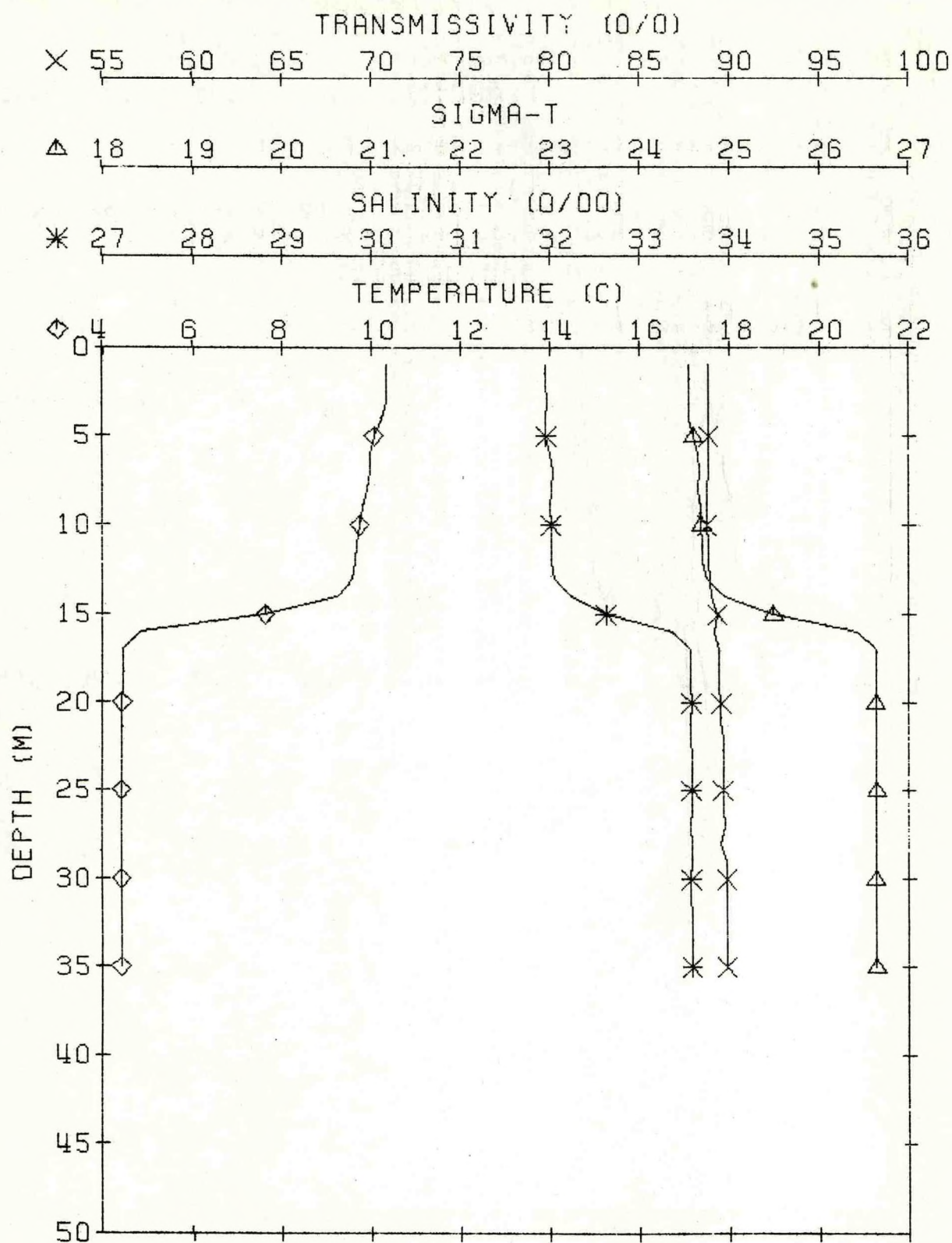
◇ 4 6 8 10 12 14 16 18 20 22



XWCC-12 STA. 122 LAT 39 39.5N; LONG 73 36.0W GMT 23.6 05/03/77
 DEPTH 036 AIR D/W 12.8/11.1 BARO 21.5 VIS 7 CLD TYP/CVR /4
 WETHR 1 WIND DIR/SPD 23/12 SEA DIR/HT 23/0 SWELL DIR/HT 18/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	10.33	31.95	24.54	88.8	8.34	6.92				
2	10.33	31.95	24.54	88.8	8.34	6.92	.02	.00	.00	.00
3	10.30	31.96	24.55	88.8	8.34	6.92				
4	10.23	31.94	24.55	88.8	8.34	6.93				
5	10.04	31.95	24.59	88.8	8.34	6.94				
6	9.95	32.00	24.64	88.8	8.34	6.96				
7	9.94	32.02	24.66	88.8	8.34	6.96				
8	9.89	32.00	24.65	88.7	8.34	6.96				
9	9.78	32.00	24.67	88.7	8.34	6.97				
10	9.72	32.00	24.68	88.7	8.34	6.98	.02	.00	.00	.06
11	9.66	32.00	24.69	88.8	8.34	6.97				
12	9.62	32.01	24.70	88.8	8.34	6.97				
13	9.56	32.05	24.74	88.9	8.34	6.96				
14	9.22	32.24	24.95	89.0	8.34	6.97				
15	7.62	32.62	25.48	89.3	8.34	7.07				
16	4.84	33.36	26.41	89.1	8.34	7.46				
17	4.45	33.56	26.62	89.4	8.35	7.59				
18	4.44	33.56	26.62	89.4	8.35	7.35				
19	4.44	33.56	26.62	89.4	8.35	7.11				
20	4.43	33.57	26.63	89.5	8.34	6.96	.06	1.79	5.12	.65
21	4.43	33.57	26.62	89.5	8.34	6.79				
22	4.43	33.57	26.62	89.6	8.34	6.69				
23	4.43	33.57	26.63	89.6	8.34	6.60				
24	4.42	33.57	26.63	89.6	8.34	6.54				
25	4.42	33.57	26.63	89.6	8.34	6.47				
26	4.42	33.57	26.63	89.6	8.34	6.43				
27	4.42	33.57	26.63	89.7	8.34	6.41				
28	4.42	33.57	26.63	89.5	8.33	6.37				
29	4.42	33.57	26.63	89.8	8.33	6.35				
30	4.42	33.57	26.63	89.8	8.33	6.33	.07	1.79	5.08	.62
31	4.41	33.56	26.63	89.8	8.33	6.31				
32	4.41	33.57	26.63	89.8	8.33	6.30				
33	4.40	33.58	26.64	89.8	8.33	6.28				
34	4.41	33.57	26.63	89.8	8.33	6.27				
35	4.41	33.57	26.63	89.8	8.33	6.26				

KELEZ CRUISE XWCC-12 STATION 122 05/03/77



XWCC-12 STA.123 LAT 39 35.0N; LONG 73 26.0W GMT 22.0 05/03/77
 DEPTH 037 AIR D/W 16.4/13.3 BARO 21.5 VIS 7 CLD TYP/CVR /4
 WETHR 1 WIND DIR/SPD 21/05 SEA DIR/HT 00/0 SWELL DIR/HT 19/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	S103	P04
1	11.55	32.57	24.80	89.1	8.34	6.08				
2	11.55	32.57	24.80	89.1	8.34	6.08				
3	11.53	32.57	24.81	89.7	8.35	7.19				
4	11.41	32.57	24.83	89.8	8.35	7.29	.02	.00	.32	.11
5	10.51	32.56	24.99	89.6	8.35	7.31				
6	10.10	32.57	25.06	89.2	8.35	7.40				
7	9.91	32.62	25.13	89.0	8.35	7.41				
8	9.82	32.61	25.14	89.0	8.35	7.40				
9	9.69	32.64	25.18	89.1	8.35	7.36				
10	9.56	32.65	25.21	89.0	8.35	7.34	.02	.00	.32	.11
11	9.50	32.65	25.22	89.0	8.35	7.34				
12	9.43	32.66	25.24	89.0	8.35	7.32				
13	9.40	32.68	25.26	88.9	8.35	7.32				
14	9.34	32.68	25.34	88.9	8.35	7.31				
15	9.34	32.68	25.34	88.9	8.35	7.36				
16	9.22	32.68	26.42	88.9	8.36	7.65				
17	9.22	32.69	26.63	88.9	8.36	7.89				
18	9.17	32.70	26.65	88.9	8.36	7.84				
19	9.15	32.71	26.66	88.9	8.36	7.71				
20	9.15	32.72	26.66	88.9	8.36	7.58	.05	1.05	2.84	.48
21	9.15	32.72	26.67	88.9	8.36	7.47				
22	9.15	32.71	26.66	88.9	8.36	7.38				
23	9.14	32.72	26.67	88.9	8.36	7.29				
24	9.14	32.72	26.67	88.9	8.36	7.23				
25	9.14	32.73	26.67	88.9	8.36	7.17				
26	9.14	32.71	26.66	88.9	8.36	7.12				
27	9.13	32.72	26.67	88.9	8.36	7.08				
28	9.13	32.73	26.68	88.9	8.36	7.04				
29	9.13	32.73	26.68	88.9	8.36	7.01				
30	9.13	32.72	26.67	88.9	8.36	6.98				
31	9.13	32.72	26.67	88.9	8.36	6.96				
32	9.13	32.72	26.67	88.9	8.34	6.93				
33	9.13	32.73	26.67	88.9	8.34	6.92				
34	9.13	32.72	26.67	90.0	8.34	6.89				
35	9.13	32.72	26.67	90.0	8.34	6.88	.02	1.13	2.88	.48

KELEZ CRUISE XWCC-12 STATION 123 05/03/77

TRANSMISSIVITY (0/0)

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SIGMA-T

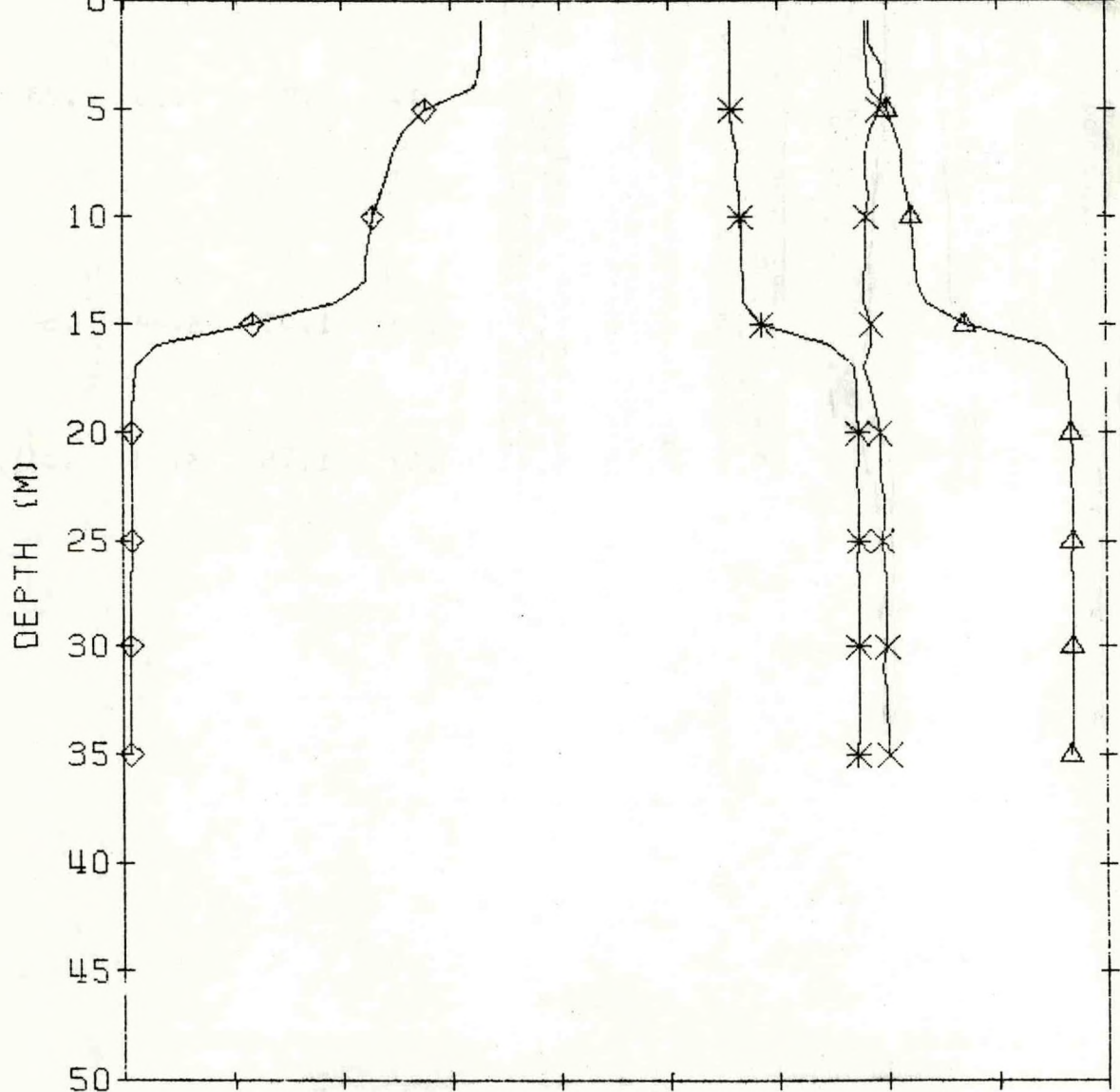
△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

◇ 5 7 9 11 13 15 17 19 21 23



XWCC-12 STA.124 LAT 39 30.0N; LONG 73 11.7W GMT 20.0 05/03/77
 DEPTH 039 AIR D/W 18.3/14.4 BARO 22.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 02/02 SEA DIR/HT 00/0 SWELL DIR/HT 20/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	10.59	33.01	25.32	89.2	8.33	6.79				
2	10.59	33.01	25.32	89.2	8.33	6.79	.04	.00	.04	.11
3	10.47	32.96	25.30	89.3	8.33	6.83				
4	10.51	33.00	25.33	89.3	8.33	6.83				
5	10.37	32.96	25.32	89.3	8.33	6.83				
6	10.07	32.95	25.37	89.3	8.33	6.86				
7	10.00	32.95	25.37	89.1	8.34	6.90				
8	9.93	32.94	25.37	89.2	8.34	6.89				
9	9.86	32.92	25.38	88.9	8.33	6.86				
10	9.73	32.93	25.41	88.9	8.34	6.92	.03	.00	.00	.11
11	9.63	32.93	25.42	88.7	8.34	6.92				
12	9.59	32.93	25.42	88.7	8.34	6.93				
13	9.57	32.92	25.42	88.6	8.34	6.92				
14	9.56	32.92	25.42	88.5	8.34	6.92				
15	9.58	32.92	25.42	88.6	8.34	6.91				
16	9.48	32.92	25.44	88.5	8.34	6.90				
17	8.57	33.06	25.69	88.3	8.33	6.93				
18	7.78	33.18	25.90	88.3	8.34	7.09				
19	6.73	33.45	26.26	87.5	8.34	7.23				
20	6.29	33.53	26.37	86.7	8.34	7.36	.04	.00	1.13	.23
21	5.79	33.71	26.58	86.9	8.34	7.44				
22	5.52	33.79	26.68	88.0	8.34	7.46				
23	5.25	33.87	26.77	88.3	8.34	7.44				
24	5.18	33.90	26.81	88.7	8.33	7.35				
25	5.17	33.90	26.80	88.8	8.33	7.22				
26	5.16	33.89	26.80	88.9	8.33	7.08				
27	5.16	33.90	26.81	88.9	8.33	6.96				
28	5.15	33.90	26.81	89.0	8.32	6.87				
29	5.15	33.89	26.80	89.1	8.32	6.81	.06	1.53	3.44	.60
30	5.15	33.90	26.81	89.0	8.32	6.75				
31	5.14	33.90	26.81	89.0	8.32	6.68				
32	5.15	33.91	26.82	89.1	8.32	6.62				
33	5.14	33.91	26.81	89.1	8.32	6.58				
34	5.15	33.90	26.81	89.0	8.32	6.54				
35	5.15	33.90	26.81	89.1	8.32	6.52	.07	1.55	3.53	.51
36	5.15	33.90	26.81	89.1	8.32	6.41				

KELEZ CRUISE XWCC-12 STATION 124 05/03/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

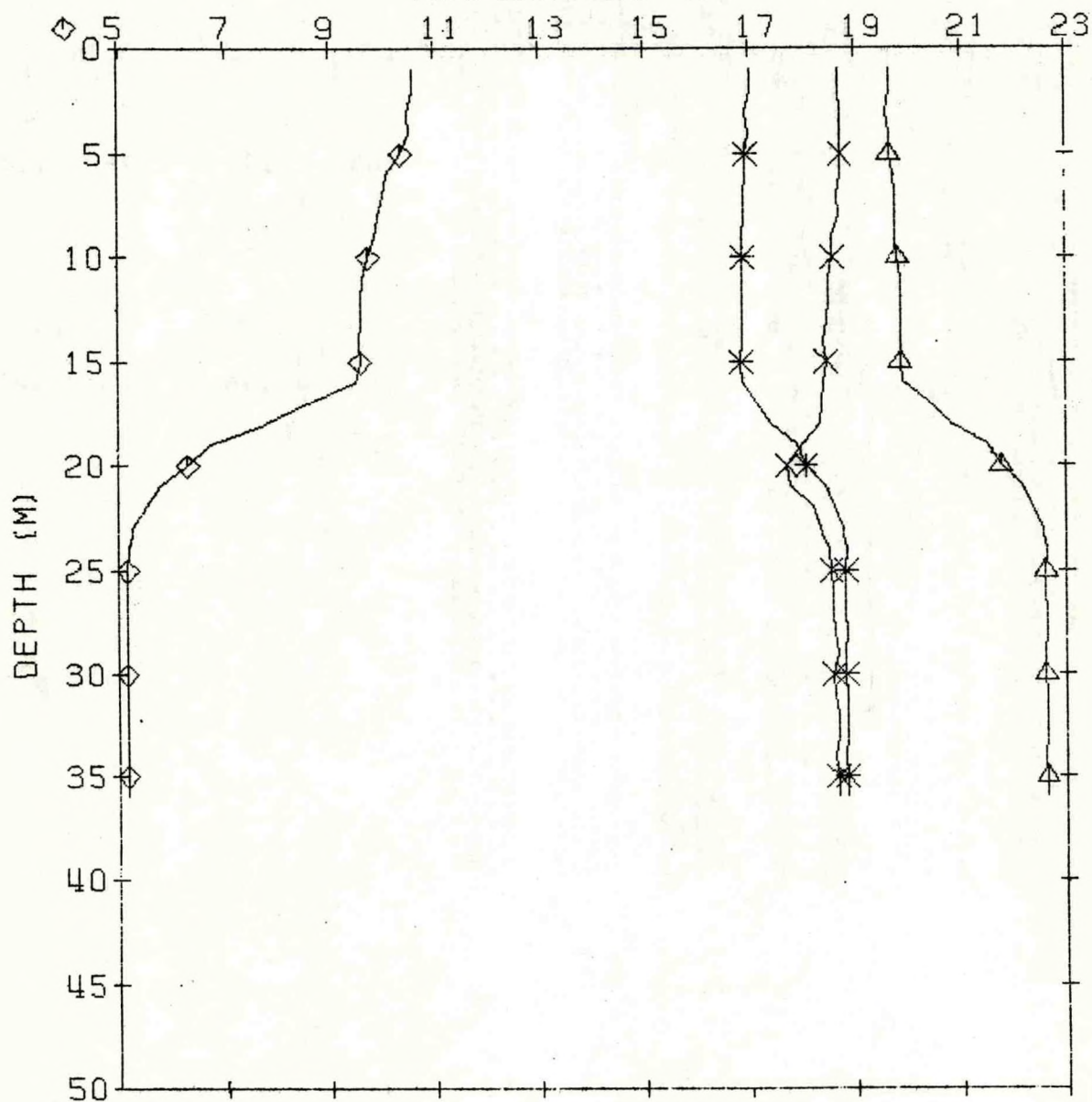
SIGMA-T

△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

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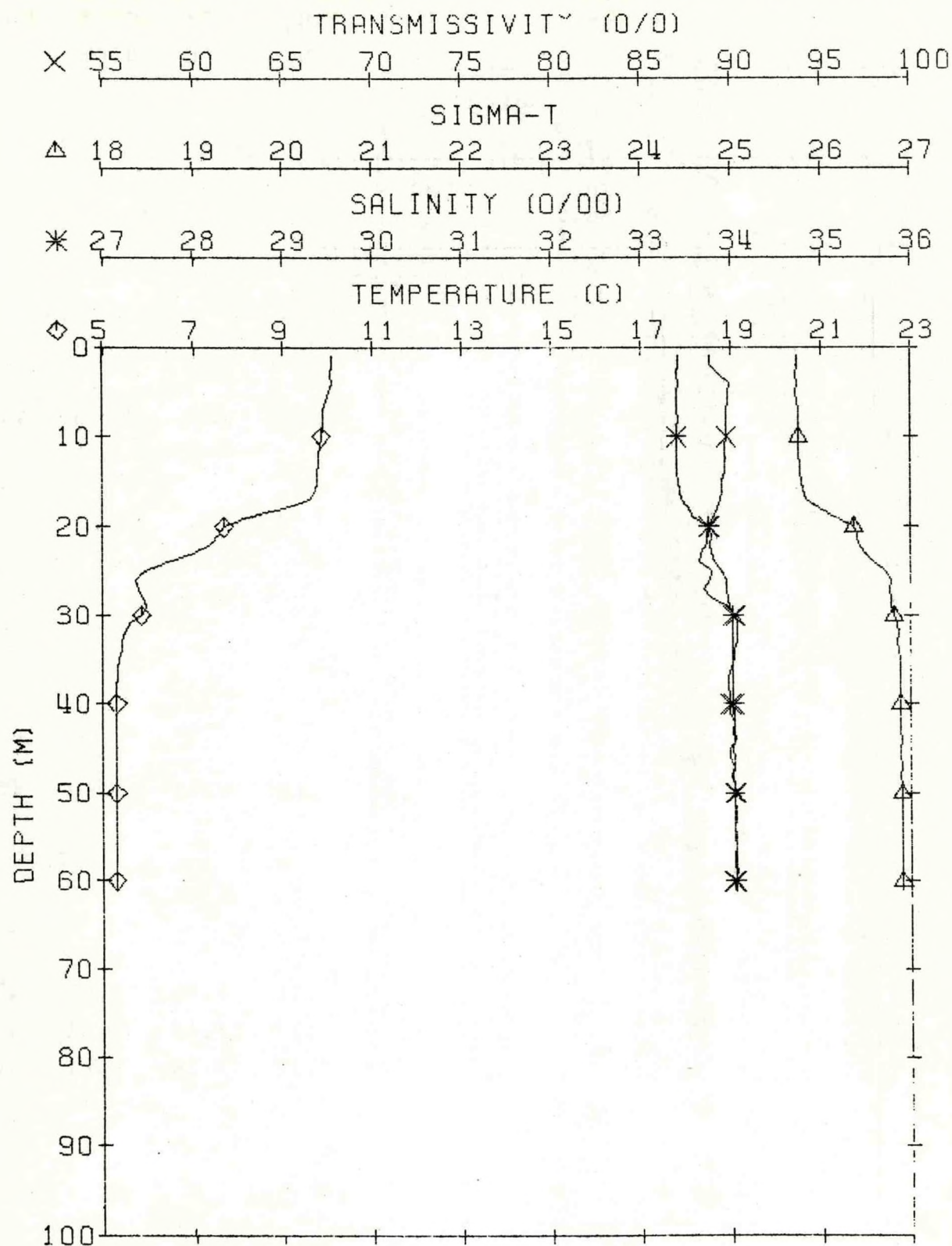
TEMPERATURE (C)



XWCC-12 STA.125 LAT 39 24.0N; LONG 72 57.0W GMT 17.3 05/03/77
 DEPTH 062 AIR D/W 15.6/11.9 BARO 22.5 VIS 7 CLD TYP/CVR 74
 WETH 1 WIND DIR/SPD 30/08 SEA DIR/HT 30/1 SWELL DIR/HT 20/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	R04
1	10.09	33.41	25.72	88.8	8.30	6.43				
2	10.09	33.41	25.72	88.8	8.30	6.43	.04	.00	1.17	.12
3	10.04	33.39	25.71	89.3	8.32	6.77				
4	10.07	33.41	25.72	89.9	8.32	6.92				
5	10.02	33.39	25.72	89.8	8.32	6.92				
6	9.94	33.39	25.73	89.8	8.32	6.93				
7	9.90	33.40	25.74	89.7	8.32	6.94				
8	9.88	33.40	25.75	89.7	8.32	6.94				
9	9.87	33.40	25.74	89.7	8.32	6.94	.03	.00	.92	.12
10	9.85	33.39	25.74	89.7	8.32	6.93				
11	9.81	33.40	25.75	89.6	8.32	6.93				
12	9.80	33.39	25.75	89.6	8.32	6.93				
13	9.77	33.39	25.76	89.6	8.32	6.93				
14	9.76	33.40	25.76	89.6	8.33	6.93				
15	9.74	33.41	25.78	89.5	8.33	6.93				
16	9.71	33.42	25.79	89.5	8.32	6.93				
17	9.58	33.44	25.82	89.4	8.32	6.93				
18	9.53	33.52	25.98	89.2	8.33	6.96				
19	9.22	33.57	26.14	89.0	8.33	7.11				
20	7.69	33.75	26.36	88.7	8.33	7.23	.04	.00	.76	.13
21	7.54	33.77	26.40	88.6	8.33	7.29				
22	7.39	33.76	26.41	88.6	8.33	7.31				
23	7.03	33.78	26.47	88.3	8.33	7.35				
24	6.42	33.81	26.58	88.2	8.33	7.45				
25	6.09	33.89	26.71	88.9	8.33	7.53				
26	5.72	33.94	26.77	88.8	8.33	7.56				
27	5.78	33.94	26.76	88.5	8.33	7.51				
28	5.87	33.96	26.77	88.8	8.32	7.45				
29	5.96	33.98	26.78	89.8	8.32	7.38				
30	5.95	34.01	26.81	90.0	8.32	7.28	.06	.48	.40	.27
31	5.58	34.01	26.85	90.3	8.32	7.20				
32	5.47	34.01	26.86	90.3	8.32	7.08				
33	5.43	34.00	26.86	90.3	8.31	6.88				
34	5.41	34.00	26.86	90.1	8.31	6.70				
35	5.36	34.01	26.87	90.1	8.31	6.53				
36	5.33	34.00	26.87	90.0	8.31	6.41				
37	5.33	34.00	26.87	89.8	8.31	6.31				
38	5.29	34.01	26.88	89.8	8.31	6.23				
39	5.29	34.02	26.88	89.9	8.31	6.16				
40	5.29	34.01	26.88	89.9	8.31	6.10				
41	5.29	34.02	26.88	89.9	8.31	6.02				
42	5.29	34.02	26.89	90.1	8.31	5.95				
43	5.29	34.02	26.88	90.1	8.31	5.89				
44	5.29	34.03	26.89	90.2	8.31	5.83				
45	5.29	34.01	26.88	89.9	8.31	5.78				
46	5.29	34.02	26.89	89.9	8.31	5.74				
47	5.29	34.02	26.89	90.1	8.32	5.71				
48	5.29	34.02	26.88	90.0	8.31	5.68				
49	5.29	34.02	26.89	90.1	8.32	5.66				
50	5.29	34.02	26.89	90.2	8.32	5.64				
60	5.29	34.03	26.90	90.1	8.32	5.54				
61	5.29	34.03	26.90	90.2	8.32	5.54				

KELEZ CRUISE XWCC-12 STATION 125 05/03/77



XWCC-12 STA.126 LAT 39 19.0N; LONG 72 42.1W GMT 15.0 05/03/77
 DEPTH 104 AIR D/W 11.4/08.9 BARO 22.5 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 34/12 SEA DIR/HT 34/0 SWELL DIR/HT 22/2

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	9.70	33.67	25.99	87.7	8.32	6.98	.04	.00	4.02	.17
2	9.70	33.67	25.99	87.7	8.32	6.98				
3	9.68	33.66	25.98	87.9	8.32	7.12				
4	9.68	33.66	25.98	87.9	8.32	7.13				
5	9.67	33.66	25.98	87.9	8.32	7.13				
6	9.62	33.65	25.99	87.9	8.32	7.15				
7	9.59	33.66	26.00	88.0	8.32	7.14				
8	9.50	33.66	25.99	88.0	8.32	7.16				
9	9.56	33.66	26.00	88.0	8.32	7.16				
10	9.53	33.65	26.00	88.1	8.32	7.16				
11	9.50	33.66	26.01	88.0	8.33	7.17				
12	9.48	33.66	26.01	88.1	8.32	7.18				
13	9.46	33.66	26.02	88.2	8.32	7.19				
14	9.44	33.66	26.02	88.2	8.33	7.18				
15	9.43	33.63	26.02	88.2	8.33	7.19				
16	8.49	33.62	26.14	88.2	8.33	7.23				
17	7.83	33.62	26.23	88.1	8.33	7.37				
18	7.44	33.62	26.29	88.1	8.33	7.44				
19	7.22	33.62	26.32	88.2	8.33	7.52				
20	7.09	33.67	26.38	88.4	8.33	7.57	.05	1.41	4.78	.29
21	6.98	33.69	26.41	88.5	8.33	7.58				
22	6.80	33.69	26.46	88.7	8.33	7.61				
23	6.60	33.65	26.66	88.7	8.33	7.62				
24	6.40	33.68	26.52	88.7	8.33	7.67				
25	6.25	33.73	26.58	88.6	8.33	7.69				
26	6.09	33.72	26.58	88.7	8.33	7.67				
27	5.97	33.72	26.59	88.9	8.33	7.64				
28	5.80	33.73	26.61	89.0	8.32	7.62				
29	5.66	33.72	26.61	89.1	8.32	7.60				
30	5.50	33.74	26.64	89.3	8.32	7.57				
31	5.33	33.74	26.64	89.3	8.32	7.54				
32	5.17	33.73	26.63	89.4	8.32	7.51				
33	5.00	33.74	26.63	89.4	8.32	7.48				
34	4.83	33.75	26.65	89.5	8.32	7.44				
35	4.66	33.74	26.65	89.5	8.32	7.41				
36	4.49	33.77	26.65	89.6	8.32	7.38				
37	4.32	33.79	26.67	89.6	8.32	7.35				
38	4.15	33.78	26.67	89.6	8.31	7.32				
39	3.98	33.79	26.67	89.6	8.31	7.29	.12	4.53	5.69	.57
40	3.80	33.80	26.68	89.7	8.31	7.26				
41	3.63	33.81	26.68	89.6	8.31	7.23				
42	3.46	33.81	26.68	89.7	8.31	7.21				
43	3.29	33.80	26.68	89.7	8.31	7.19				
44	3.12	33.81	26.68	89.7	8.31	7.17				
45	2.95	33.81	26.68	89.7	8.31	7.14				
46	2.78	33.83	26.70	89.8	8.31	7.13				
47	2.61	33.84	26.76	90.0	8.32	7.12				
48	2.44	33.89	26.81	90.0	8.32	7.11				
49	2.27	33.90	26.86	90.0	8.32	7.10				
50	2.10	33.91	26.91	90.1	8.33	7.09	.11	6.50	7.47	.71
60	1.93	34.02	26.81	90.0	8.32	6.95	.17	10.12	9.61	.88
70	1.76	34.11	26.86	90.0	8.32	6.46	.17	10.14	9.61	.85
80	1.59	34.09	26.85	90.0	8.32	6.09				
90	1.42	34.17	26.91	90.1	8.33	5.90				
100	1.25	34.17	26.91	90.1	8.33	5.83				

KELEZ CRUISE XWCC-12 STATION 126 05/03/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

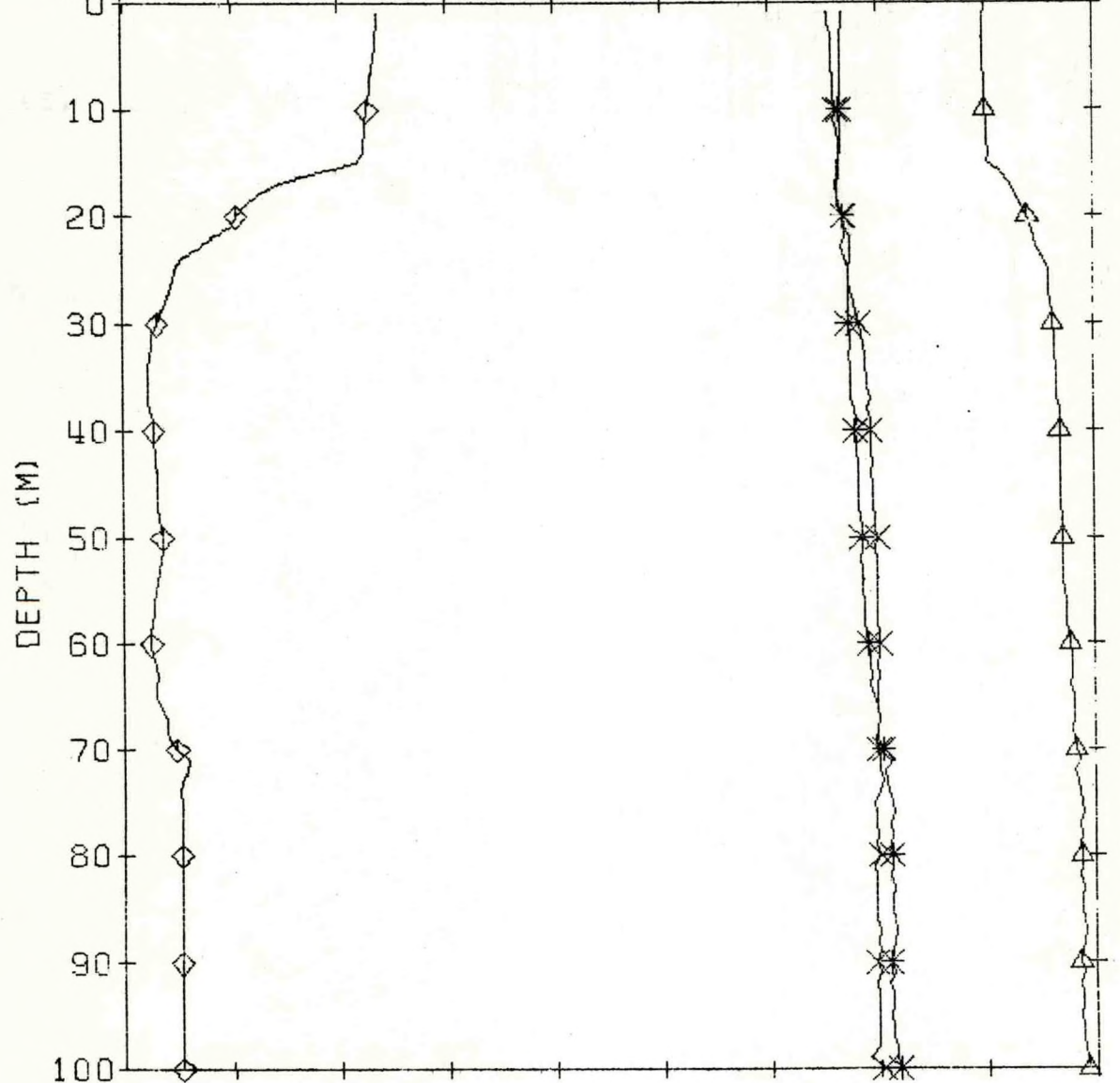
△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

◇ 5 7 9 11 13 15 17 19 21 23



XWCC-12 STA.130 LAT 39 27.8N; LONG 74 6.0W GMT 05.4 05/04/77
 DEPTH 020 AIR D/W 13.3/11.4 BARO 23.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 27/09 SEA DIR/HT 00/0 SWELL DIR/HT 21/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	10.69	30.75	23.55	84.8	8.30	6.09				
2	10.69	30.75	23.55	84.8	8.30	6.09	.05	.00	.00	.01
3	10.64	30.68	23.51	85.6	8.31	6.60				
4	10.63	30.69	23.51	85.6	8.32	6.65				
5	10.60	30.69	23.52	85.6	8.32	6.66				
6	10.58	30.69	23.52	85.7	8.32	6.68				
7	10.53	30.68	23.52	85.8	8.32	6.67				
8	10.46	30.69	23.54	85.9	8.32	6.65				
9	10.04	30.70	23.62	86.4	8.32	6.66				
10	8.78	31.00	24.05	87.3	8.32	6.75	.05	.90	6.71	.64
11	5.43	32.63	25.78	88.2	8.32	7.03				
12	4.78	33.01	26.15	88.0	8.33	7.33				
13	4.81	32.98	26.12	87.8	8.33	7.13				
14	4.81	32.97	26.11	87.7	8.34	6.88				
15	4.80	32.98	26.12	87.8	8.34	6.66				
16	4.80	32.98	26.12	87.9	8.34	6.46				
17	4.80	32.98	26.12	87.9	8.34	6.31				
18	4.80	32.98	26.12	87.9	8.34	6.20				
19	4.80	33.00	26.13	88.0	8.33	6.08	.05	.93	6.85	.59

KELEZ CRUISE XWCC-12 STATION 130 05/04/77

TRANSMISSIVITY (0/0)

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SIGMA-T

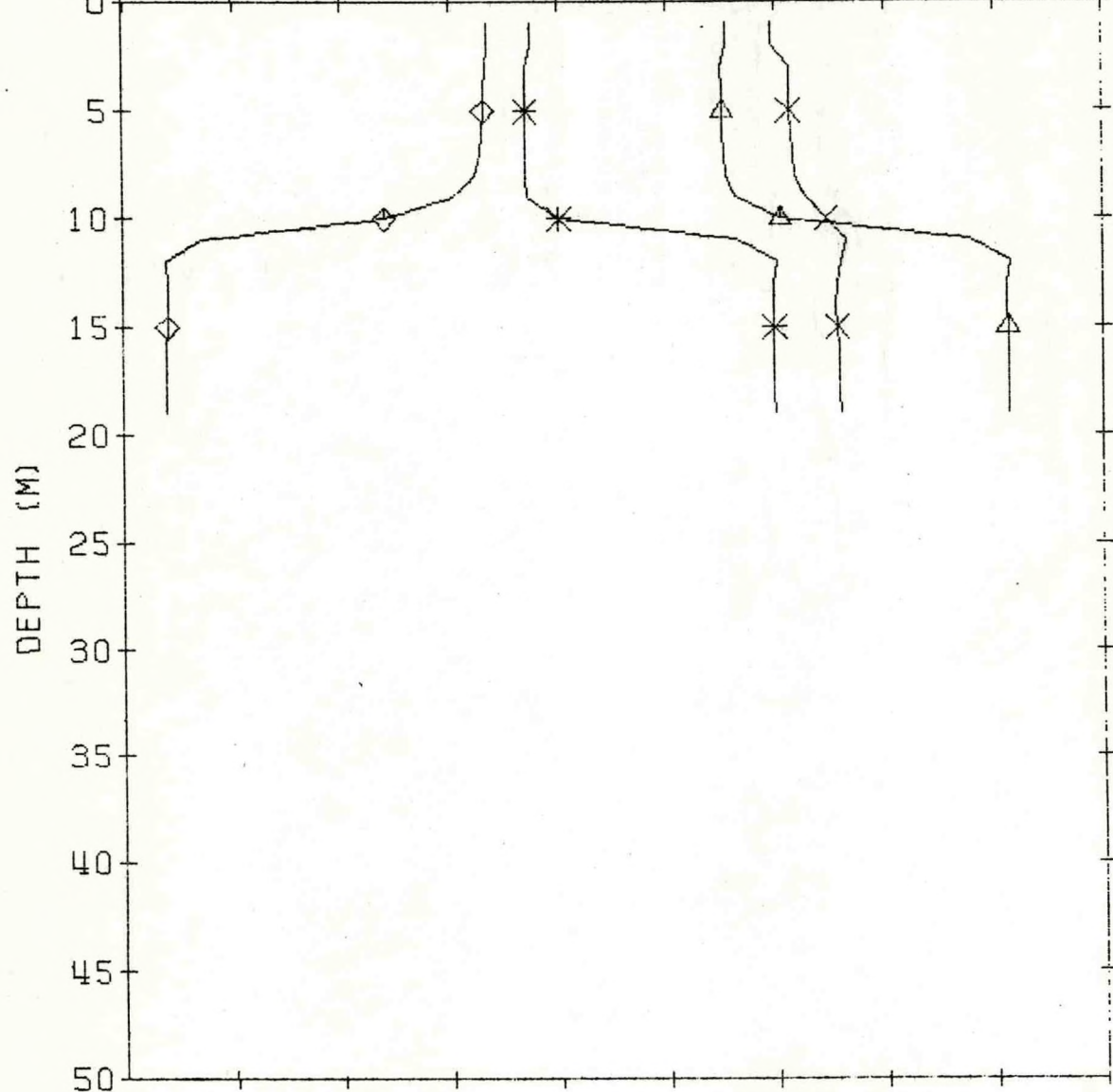
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SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

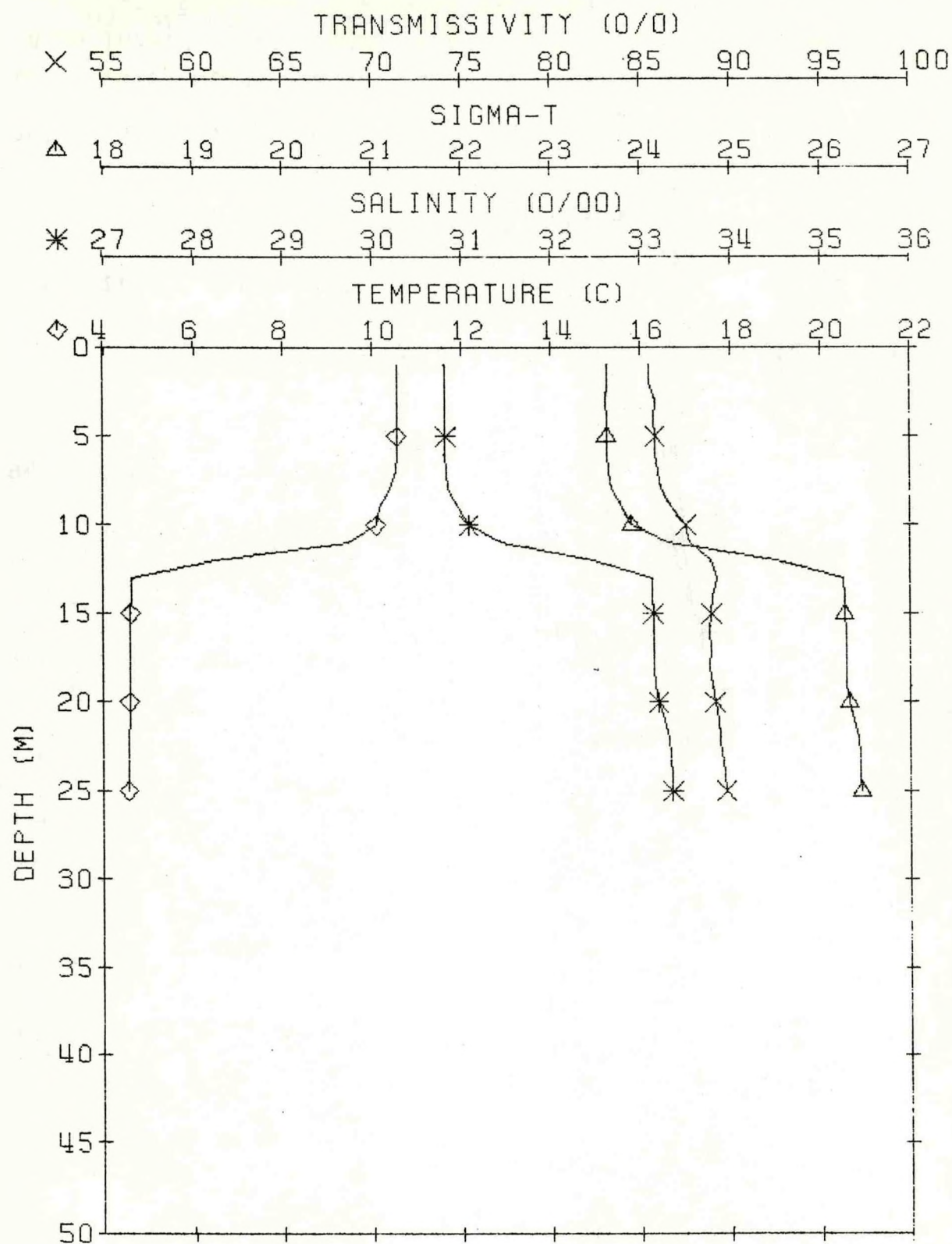
◇ 4 6 8 10 12 14 16 18 20 22



XWCC-12 STA.131 LAT 39 23.5N; LONG 73 56.2W GMT 06.9 05/04/77
 DEPTH 027 AIR D/W 11.7/10.4 BARO 22.5 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 30/08 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	10.55	30.81	23.62	85.5	8.32	6.73				
2	10.55	30.81	23.62	85.5	8.32	6.73	.05	.00	1.51	.02
3	10.55	30.81	23.62	85.8	8.32	6.74				
4	10.55	30.81	23.62	85.7	8.32	6.74				
5	10.54	30.82	23.62	85.8	8.32	6.76				
6	10.54	30.82	23.62	85.8	8.32	6.76				
7	10.51	30.83	23.64	86.0	8.32	6.77				
8	10.39	30.85	23.67	86.1	8.32	6.78				
9	10.14	30.95	23.80	86.7	8.32	6.79				
10	10.07	31.07	23.90	87.5	8.32	6.82	.05	.02	.76	.03
11	9.44	31.45	24.29	87.7	8.32	6.81				
12	6.50	32.47	25.52	88.9	8.33	6.88				
13	4.63	33.12	26.25	89.2	8.33	7.36				
14	4.61	33.13	26.26	89.0	8.33	7.49				
15	4.60	33.14	26.27	88.8	8.34	7.33				
16	4.60	33.14	26.27	88.8	8.34	7.14				
17	4.60	33.14	26.27	88.9	8.34	6.98				
18	4.60	33.14	26.27	88.8	8.35	6.86				
19	4.59	33.15	26.28	89.0	8.35	6.73				
20	4.58	33.19	26.31	89.1	8.35	6.64				
21	4.57	33.26	26.36	89.3	8.34	6.55				
22	4.56	33.31	26.41	89.5	8.34	6.49				
23	4.56	33.32	26.42	89.5	8.34	6.43				
24	4.56	33.34	26.43	89.6	8.34	6.40				
25	4.56	33.35	26.44	89.7	8.33	6.36	.05	1.15	4.86	.51

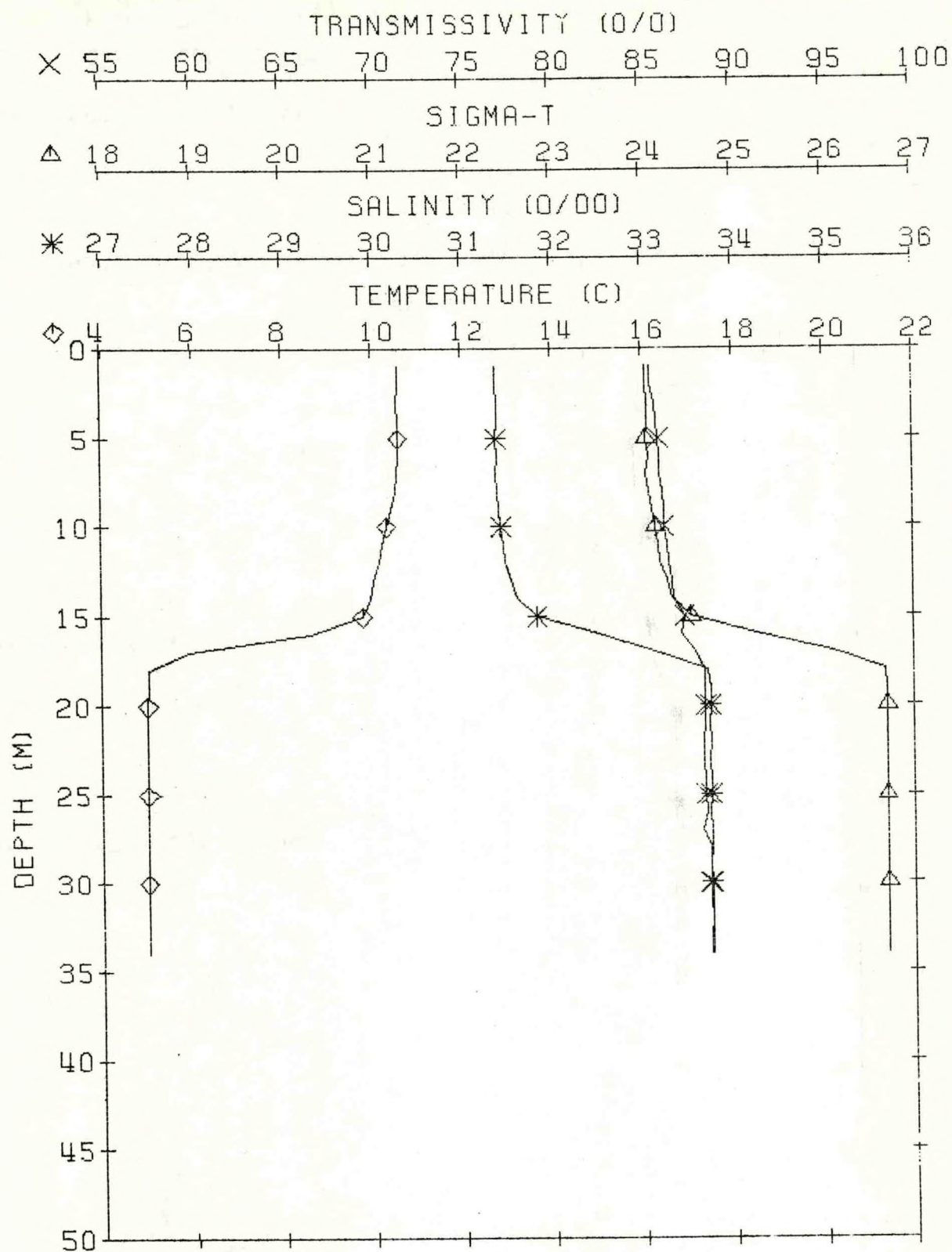
KELEZ CRUISE XWCC-12 STATION 131 05/04/77



XWCC-12 STA.132 LAT 39 20.6N; LONG 73 46.4W GMT 08.3 05/04/77
 DEPTH 035 AIR D/W 11.1/10.0 BARO 23.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 30/06 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	10.58	31.37	24.05	85.5	8.32	6.63				
2	10.58	31.37	24.05	85.5	8.32	6.63	.05	.00	.07	.00
3	10.56	31.38	24.06	85.7	8.32	6.63				
4	10.57	31.38	24.06	85.8	8.32	6.63				
5	10.58	31.38	24.06	85.9	8.32	6.63				
6	10.58	31.40	24.07	86.0	8.32	6.63				
7	10.57	31.38	24.06	86.0	8.32	6.63				
8	10.51	31.40	24.08	86.1	8.32	6.63				
9	10.41	31.41	24.11	86.2	8.32	6.65				
10	10.32	31.43	24.14	86.2	8.32	6.66	.05	.02	.11	.00
11	10.23	31.45	24.17	86.4	8.32	6.68				
12	10.14	31.48	24.20	86.5	8.32	6.69				
13	10.03	31.54	24.28	86.6	8.32	6.69				
14	9.95	31.61	24.34	86.7	8.32	6.70				
15	9.77	31.82	24.54	87.3	8.32	6.70				
16	8.61	32.51	25.25	87.1	8.31	6.73				
17	5.91	33.12	26.11	87.9	8.32	6.95				
18	5.00	33.71	26.68	88.4	8.33	7.33				
19	5.00	33.73	26.69	88.4	8.34	7.36				
20	5.00	33.74	26.70	88.4	8.34	7.24	.05	.80	3.25	.48
21	5.00	33.73	26.69	88.4	8.34	7.14				
22	5.00	33.74	26.70	88.3	8.34	7.04				
23	5.00	33.73	26.69	88.3	8.33	6.97				
24	5.00	33.74	26.70	88.4	8.33	6.92				
25	5.00	33.73	26.70	88.4	8.33	6.87				
26	5.00	33.73	26.69	88.5	8.33	6.83				
27	4.99	33.74	26.70	88.2	8.33	6.80				
28	4.99	33.73	26.70	88.6	8.32	6.78				
29	4.99	33.73	26.69	88.6	8.32	6.76				
30	4.99	33.74	26.70	88.6	8.32	6.75	.05	.68	3.37	.28
31	4.99	33.74	26.70	88.6	8.32	6.74				
32	4.98	33.73	26.70	88.7	8.32	6.73				
33	4.98	33.73	26.69	88.7	8.31	6.73				
34	4.98	33.73	26.69	88.7	8.32	6.72				

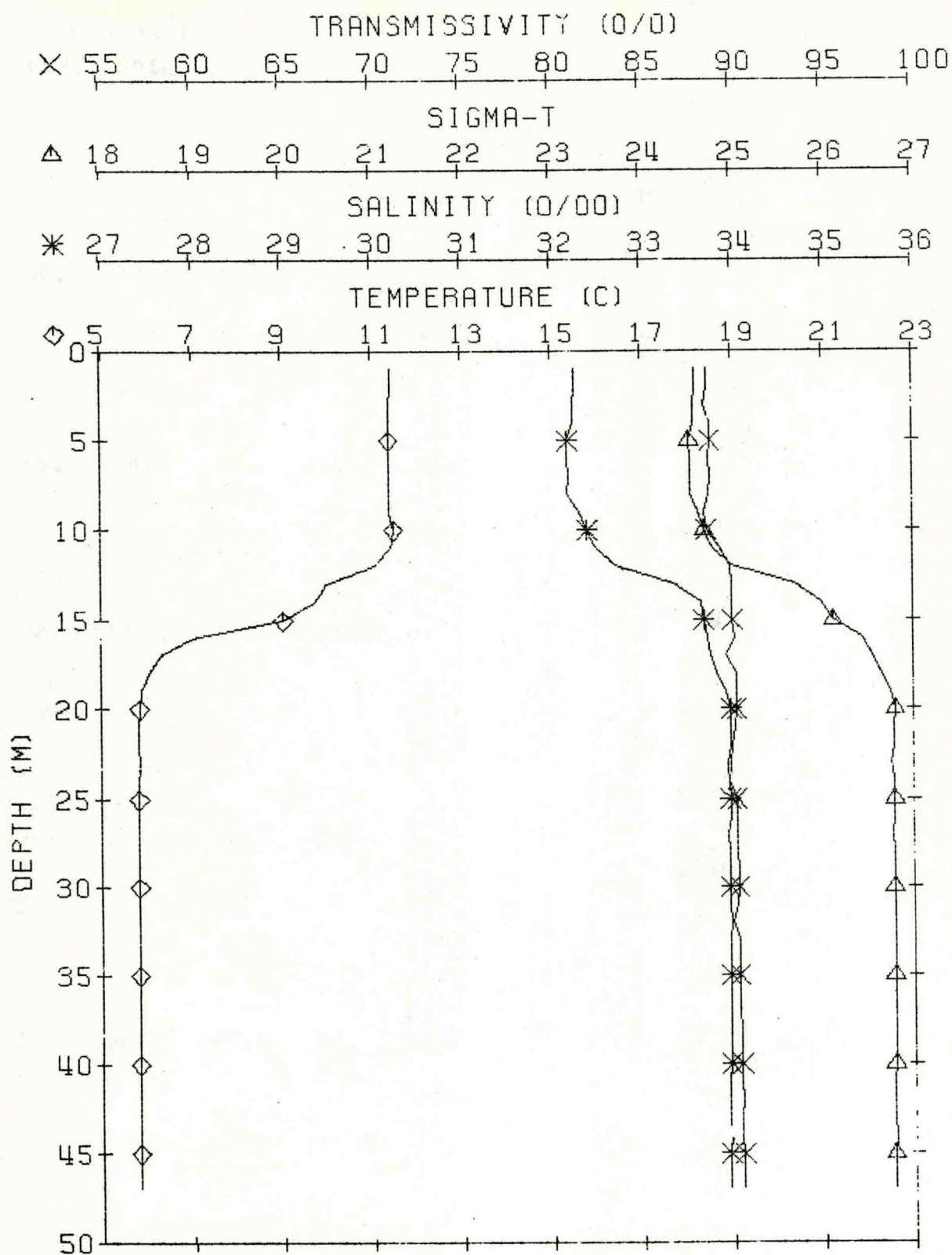
KELEZ CRUISE XWCC-12 STATION 132 05/04/77



XWCC-12 STA.133 LAT 39 12.0N; LONG 73 36.2W GMT 16.1 05/05/77
 DEPTH 047 AIR D/W 16.1/15.0 BARO 10.0 VIS 0 CLD TYP/CVR /9
 WETHR 4 WIND DIR/SPD 28/06 SEA DIR/HT 00/0 SWELL DIR/HT 15/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	11.42	32.26	24.59	88.6	8.33	6.13				
2	11.42	32.26	24.59	88.6	8.33	6.13	.00	.00	.66	.06
3	11.40	32.24	24.58	88.5	8.33	6.44				
4	11.39	32.24	24.58	88.8	8.33	6.44				
5	11.39	32.18	24.54	88.8	8.33	6.45				
6	11.38	32.18	24.54	88.7	8.33	6.45				
7	11.39	32.19	24.54	88.8	8.33	6.46				
8	11.39	32.18	24.54	88.7	8.33	6.47				
9	11.39	32.30	24.63	88.5	8.33	6.47				
10	11.48	32.40	24.69	88.6	8.33	6.47	.00	.00	.78	.06
11	11.48	32.50	24.77	89.3	8.33	6.47				
12	11.50	32.70	25.00	89.9	8.33	6.46				
13	9.99	33.35	25.69	90.0	8.33	6.52				
14	9.99	33.66	25.97	90.0	8.33	6.66				
15	9.00	33.69	26.11	90.0	8.33	6.72				
16	7.00	33.72	26.43	90.1	8.33	6.80				
17	6.00	33.75	26.55	89.6	8.33	7.04				
18	6.00	33.83	26.65	90.2	8.33	7.25				
19	6.00	33.93	26.74	90.2	8.33	7.26				
20	6.00	33.98	26.79	90.2	8.33	7.23	.00	.17	2.58	.30
21	6.00	33.97	26.78	90.1	8.33	7.19				
22	6.00	33.97	26.78	90.0	8.33	7.12				
23	6.00	33.94	26.76	89.9	8.33	7.08				
24	6.00	33.95	26.77	89.8	8.33	7.03				
25	6.00	33.97	26.78	90.2	8.33	7.01				
26	6.00	33.97	26.79	90.2	8.33	6.97				
27	6.00	33.95	26.77	90.2	8.31	6.95				
28	6.00	33.99	26.77	90.2	8.31	6.91				
29	6.00	33.96	26.77	90.3	8.31	6.91				
30	6.00	33.96	26.78	90.3	8.31	6.89	.00	.00	2.70	.31
31	6.00	33.99	26.77	90.2	8.31	6.88				
32	6.00	33.97	26.78	90.3	8.31	6.86				
33	6.00	33.96	26.78	90.3	8.31	6.85				
34	6.00	33.96	26.78	90.3	8.30	6.84				
35	6.00	33.96	26.77	90.3	8.30	6.83				
36	6.00	33.95	26.77	90.3	8.30	6.82				
37	6.00	33.95	26.77	90.3	8.30	6.81				
38	6.00	33.96	26.78	90.4	8.30	6.81				
39	6.00	33.96	26.77	90.4	8.30	6.81				
40	6.00	33.96	26.78	90.4	8.30	6.80				
41	6.00	33.95	26.77	90.4	8.30	6.79	.00	.00	2.54	.28
42	6.00	33.95	26.77	90.5	8.30	6.79				
43	6.00	33.94	26.76	90.4	8.30	6.79				
44	6.00	33.95	26.77	90.4	8.30	6.80				
45	6.00	33.95	26.76	90.5	8.30	6.77				
46	6.00	33.95	26.76	90.5	8.30	6.78				
47	6.00	33.95	26.77	90.5	8.31	6.78				

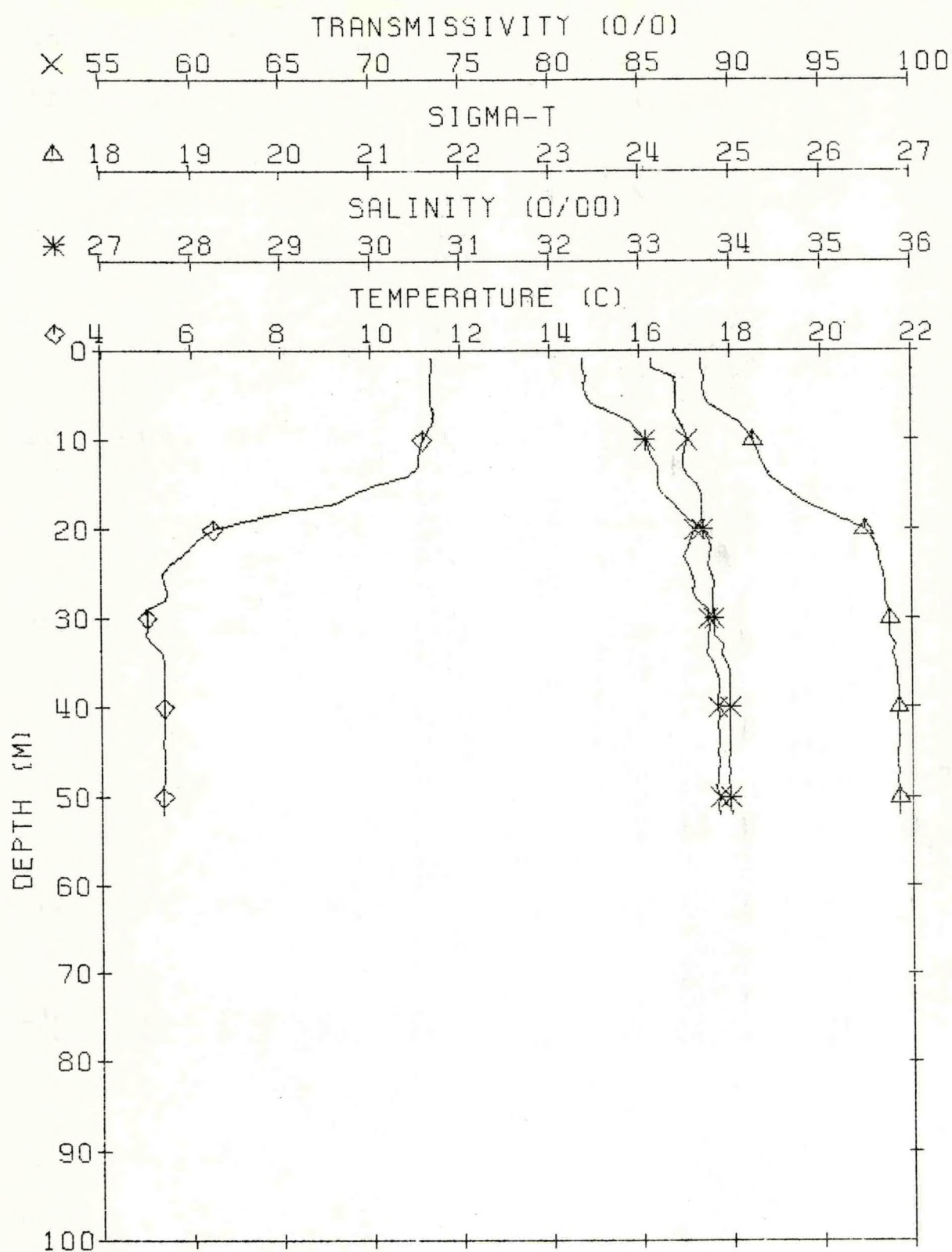
KELEZ CRUISE XWCC-12 STATION 133 05/05/77



XWCC-12 STA.134 LAT 39 11.0N; LONG 73 21.8W GMT 18.3 05/05/77
 DEPTH 052 AIR D/W 16.9/15.3 BARO 10.5 VIS 0 CLD TYP/CVR /9
 WETHR 4 WIND DIR/SPD 28/06 SEA DIR/HT 00/0 SWELL DIR/HT 18/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	11.35	32.36	24.68	85.6	8.32	5.89				
2	11.35	32.36	24.68	85.6	8.32	5.89	.00	.00	.70	.04
3	11.31	32.39	24.71	86.0	8.31	6.39				
4	11.32	32.38	24.70	87.0	8.31	6.47				
5	11.32	32.39	24.71	87.0	8.31	6.50				
6	11.32	32.45	24.76	87.0	8.31	6.53				
7	11.37	32.69	24.93	86.9	8.31	6.54				
8	11.39	32.90	25.09	87.2	8.31	6.56				
9	11.26	32.98	25.18	87.5	8.32	6.57				
10	11.14	33.05	25.26	87.6	8.32	6.58	.00	.00	1.00	.06
11	11.07	33.09	25.30	87.5	8.32	6.59				
12	11.06	33.13	25.33	87.4	8.32	6.58				
13	11.04	33.19	25.38	87.4	8.32	6.58				
14	11.03	33.19	25.42	87.6	8.32	6.56				
15	11.00	33.20	25.55	88.1	8.32	6.65				
16	10.99	33.25	25.68	88.4	8.32	6.73				
17	10.99	33.36	25.82	88.4	8.32	6.82				
18	10.99	33.43	26.05	88.4	8.32	6.89				
19	10.75	33.55	26.26	88.4	8.32	7.00				
20	10.47	33.68	26.48	88.8	8.32	7.20	.00	.00	1.49	.22
21	10.17	33.75	26.56	87.8	8.32	7.32				
22	10.09	33.78	26.61	87.6	8.32	7.35				
23	10.79	33.76	26.62	87.4	8.32	7.36				
24	10.51	33.74	26.64	87.6	8.32	7.40				
25	10.36	33.77	26.68	87.8	8.32	7.43				
26	10.37	33.80	26.70	88.0	8.32	7.44				
27	10.44	33.79	26.69	87.9	8.32	7.43				
28	10.40	33.80	26.70	88.1	8.31	7.36	.04	.77	2.97	.40
29	10.00	33.79	26.74	88.7	8.31	7.38				
30	10.00	33.81	26.75	88.7	8.31	7.33				
31	10.00	33.81	26.76	88.8	8.31	7.18				
32	10.00	33.81	26.75	88.7	8.30	7.00				
33	10.00	33.91	26.81	88.7	8.30	6.83				
34	10.00	33.88	26.77	88.6	8.30	6.69				
35	10.00	33.94	26.82	89.0	8.30	6.60				
36	10.00	33.97	26.83	89.1	8.30	6.59				
37	10.00	33.97	26.83	89.3	8.30	6.53				
38	10.00	33.98	26.84	89.3	8.30	6.53				
39	10.00	33.98	26.84	89.3	8.31	6.46	.00	1.49	3.65	.49
40	10.00	33.98	26.84	89.3	8.31	6.42				
41	10.00	33.98	26.84	89.3	8.31	6.40				
42	10.00	33.97	26.84	89.3	8.31	6.36				
43	10.00	33.97	26.84	89.3	8.31	6.33				
44	10.00	33.97	26.84	89.3	8.31	6.33				
45	10.00	33.96	26.83	89.3	8.31	6.33				
46	10.00	33.97	26.84	89.3	8.31	6.29				
47	10.00	33.97	26.84	89.3	8.31	6.27				
48	10.00	33.97	26.84	89.3	8.31	6.27				
49	10.00	33.98	26.85	89.3	8.32	6.27	.00	1.54	3.86	.51
50	10.00	33.98	26.85	89.3	8.32	6.26				
52	10.36	33.99	26.86	89.3	8.32	6.26				

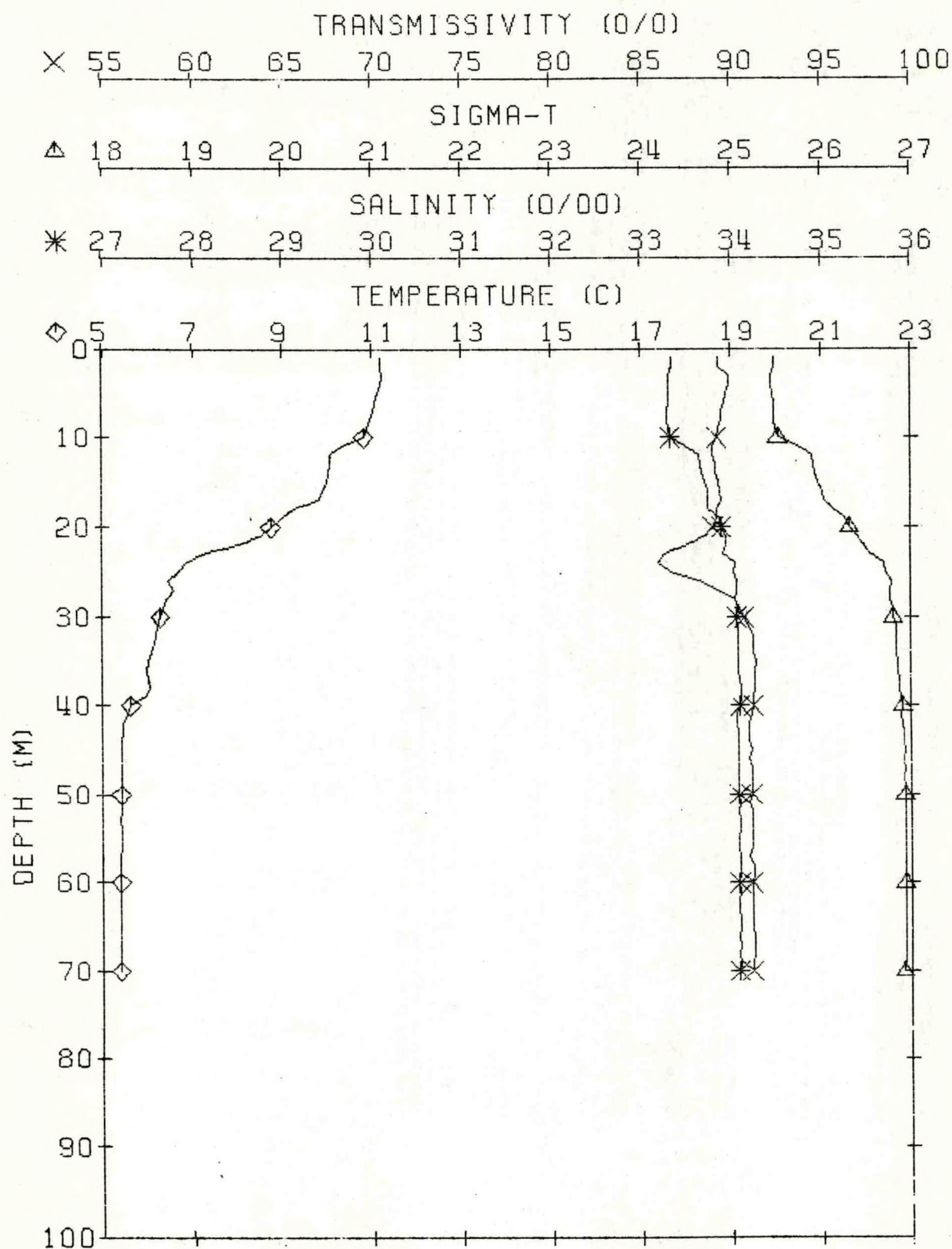
KELEZ CRUISE XWCC-12 STATION 134 05/05/77



XWCC-12 STA.135 LAT 39 5.2N; LONG 73 6.5W GMT 20.8 05/05/77
 DEPTH 071 AIR D/W 13.6/13.1 BARO 08.0 VIS 0 CLD TYP/CVR /9
 WETHR 4 WIND DIR/SPD 18/06 SEA DIR/HT 00/0 SWELL DIR/HT 18/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	11.18	33.35	25.48	89.3	8.30	6.05				
2	11.18	33.35	25.48	89.3	8.30	6.05	.00	.00	1.53	.17
3	11.22	33.31	25.45	89.9	8.32	6.52				
4	11.18	33.30	25.44	89.9	8.32	6.53				
5	11.11	33.31	25.46	89.7	8.32	6.56				
6	11.06	33.31	25.47	89.6	8.32	6.58				
7	11.00	33.30	25.47	89.5	8.32	6.59				
8	10.95	33.29	25.47	89.5	8.32	6.61				
9	10.88	33.31	25.50	89.3	8.32	6.62				
10	10.81	33.32	25.53	89.2	8.32	6.64				
11	10.33	33.49	25.74	89.0	8.32	6.66				
12	10.05	33.64	25.90	89.0	8.31	6.74				
13	10.05	33.65	25.91	89.1	8.32	6.78				
14	10.02	33.67	25.93	89.1	8.32	6.81				
15	9.99	33.70	25.97	89.3	8.33	6.83				
16	9.98	33.74	26.01	89.4	8.33	6.86				
17	9.97	33.75	26.03	89.5	8.33	6.88				
18	9.95	33.75	26.12	89.2	8.33	6.93				
19	8.99	33.88	26.26	89.9	8.32	7.03	.00	.00	1.68	.15
20	8.74	33.89	26.31	89.0	8.32	7.08				
21	8.50	33.94	26.39	88.6	8.33	7.16				
22	8.01	33.94	26.46	87.6	8.33	7.24				
23	7.20	33.90	26.55	86.3	8.33	7.33				
24	6.86	34.04	26.70	86.0	8.33	7.46				
25	6.69	34.02	26.71	86.6	8.33	7.56				
26	6.46	34.07	26.78	88.2	8.33	7.59				
27	6.59	34.06	26.76	89.2	8.33	7.58				
28	6.44	34.04	26.77	90.2	8.32	7.52				
29	6.33	34.07	26.79	90.5	8.32	7.47	.00	.00	1.95	.18
30	6.28	34.06	26.80	90.7	8.32	7.39				
31	6.22	34.08	26.82	91.0	8.32	7.31				
32	6.19	34.08	26.82	91.2	8.32	7.23				
33	6.15	34.07	26.82	91.2	8.32	7.16				
34	6.09	34.07	26.83	91.2	8.31	7.09				
35	6.01	34.07	26.84	91.4	8.31	7.01				
36	5.99	34.08	26.85	91.3	8.31	6.96				
37	5.92	34.10	26.86	91.3	8.31	6.89				
38	5.84	34.10	26.86	91.3	8.31	6.82				
39	5.94	34.11	26.88	91.2	8.31	6.76				
40	5.63	34.09	26.90	91.2	8.31	6.73				
41	5.55	34.06	26.89	91.1	8.31	6.71				
42	5.47	34.06	26.90	91.0	8.31	6.62				
43	5.44	34.08	26.92	91.0	8.31	6.53				
44	5.44	34.07	26.91	91.0	8.31	6.41	.00	3.89	3.90	.48
45	5.42	34.08	26.92	91.1	8.31	6.30				
46	5.41	34.08	26.92	91.0	8.31	6.19				
47	5.41	34.08	26.92	91.1	8.31	6.11				
48	5.42	34.08	26.92	91.1	8.31	6.02				
49	5.41	34.08	26.92	91.1	8.31	5.96				
50	5.40	34.08	26.92	91.1	8.31	5.90	.00	2.93	5.14	.66
60	5.39	34.08	26.92	91.1	8.31	5.59	.00	2.96	5.23	.66
70	5.39	34.07	26.92	91.1	8.31	5.50				

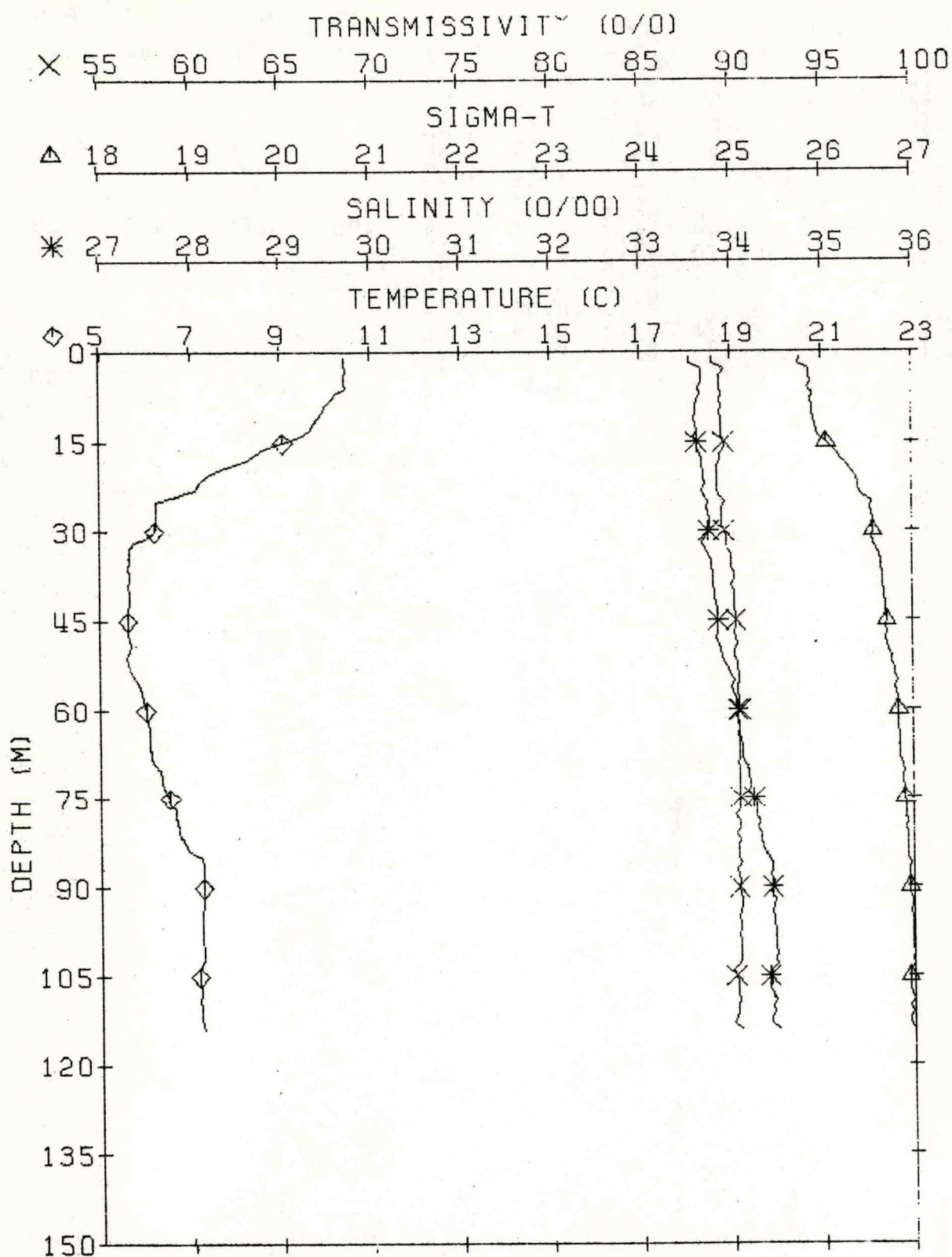
KELEZ CRUISE XWCC-12 STATION 135 05/05/77



XWCC-12 STA.136 LAT 39.0N; LONG 72 52.0W GMT 23.4 05/05/77
 DEPTH 115 AIR D/W 12.8/12.2 BARO 08.5 VIS 0 CLD TYP/CVR /9
 WETHR 4 WIND DIR/SPD 21/11 SEA DIR/HT 00/0 SWELL DIR/HT 19/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	10.42	33.53	25.76	89.0	8.31	6.93				
2	10.42	33.53	25.76	89.0	8.31	6.93				
3	10.47	33.67	25.86	89.6	8.32	6.90	.00	.00	5.36	.18
4	10.43	33.67	25.86	89.4	8.32	6.91				
5	10.42	33.68	25.87	89.4	8.32	6.92				
6	10.45	33.64	25.84	89.5	8.32	6.90				
7	10.22	33.66	25.89	89.5	8.32	6.90				
8	10.11	33.63	25.88	89.4	8.32	6.93				
9	10.00	33.61	25.89	89.4	8.32	6.95				
10	9.92	33.60	25.90	89.5	8.32	6.97				
11	9.92	33.60	25.91	89.5	8.33	6.98				
12	9.73	33.61	25.93	89.5	8.33	6.99				
13	9.64	33.52	25.95	89.5	8.33	6.99				
14	9.46	33.59	25.96	89.5	8.33	7.01				
15	9.06	33.62	26.05	89.6	8.33	7.03				
16	8.64	33.62	26.11	89.6	8.33	7.09				
17	8.44	33.65	26.17	89.4	8.33	7.17				
18	8.29	33.65	26.21	89.4	8.33	7.18				
19	7.88	33.68	26.27	89.2	8.33	7.22				
20	7.51	33.68	26.33	89.2	8.33	7.28	.00	.00	5.96	.18
21	7.31	33.69	26.37	89.2	8.33	7.33				
22	7.19	33.70	26.39	89.2	8.33	7.35				
23	7.10	33.68	26.39	89.2	8.33	7.35				
24	6.77	33.70	26.46	89.2	8.33	7.36				
25	6.26	33.74	26.55	89.2	8.33	7.42				
26	6.22	33.72	26.53	89.2	8.33	7.45				
27	6.22	33.74	26.55	89.2	8.33	7.40				
28	6.22	33.76	26.55	89.2	8.33	7.35				
29	6.22	33.75	26.56	89.2	8.33	7.30				
30	6.22	33.71	26.55	89.2	8.33	7.28				
31	6.07	33.68	26.55	89.7	8.33	7.26				
32	6.06	33.70	26.60	90.0	8.33	7.28				
33	6.06	33.75	26.63	90.0	8.33	7.26				
34	6.04	33.77	26.65	90.0	8.33	7.22				
35	6.03	33.78	26.65	90.0	8.33	7.19				
36	6.03	33.79	26.66	90.0	8.33	7.13				
37	6.03	33.78	26.66	90.0	8.33	7.09				
38	6.03	33.79	26.66	90.0	8.33	7.06				
39	6.03	33.80	26.67	90.0	8.33	7.02	.00	3.52	7.46	.51
40	6.03	33.82	26.68	90.0	8.33	6.98				
41	6.03	33.83	26.68	90.0	8.33	6.96				
42	6.02	33.84	26.70	90.0	8.33	6.92				
43	6.02	33.84	26.70	90.0	8.33	6.87				
44	6.01	33.85	26.71	90.0	8.33	6.84				
45	6.01	33.85	26.71	90.0	8.33	6.80				
46	6.01	33.85	26.71	90.0	8.33	6.77				
47	6.01	33.85	26.71	90.0	8.33	6.75				
48	6.01	33.85	26.71	90.0	8.33	6.71				
49	6.01	33.85	26.71	90.0	8.33	6.67				
50	6.00	33.88	26.73	90.0	8.33	6.67				
60	6.00	34.06	26.83	90.4	8.33	6.13				
70	6.31	34.18	26.89	90.4	8.33	5.89	.12	11.20	9.69	.82
80	6.71	34.28	26.91	90.4	8.33	5.72				
90	7.25	34.42	26.95	90.4	8.33	5.59				
100	7.44	34.46	26.98	90.4	8.33	5.57				
110	7.17	34.42	26.96	90.2	8.33	5.57				
114	7.25	34.42	27.00	90.4	8.34	5.57				

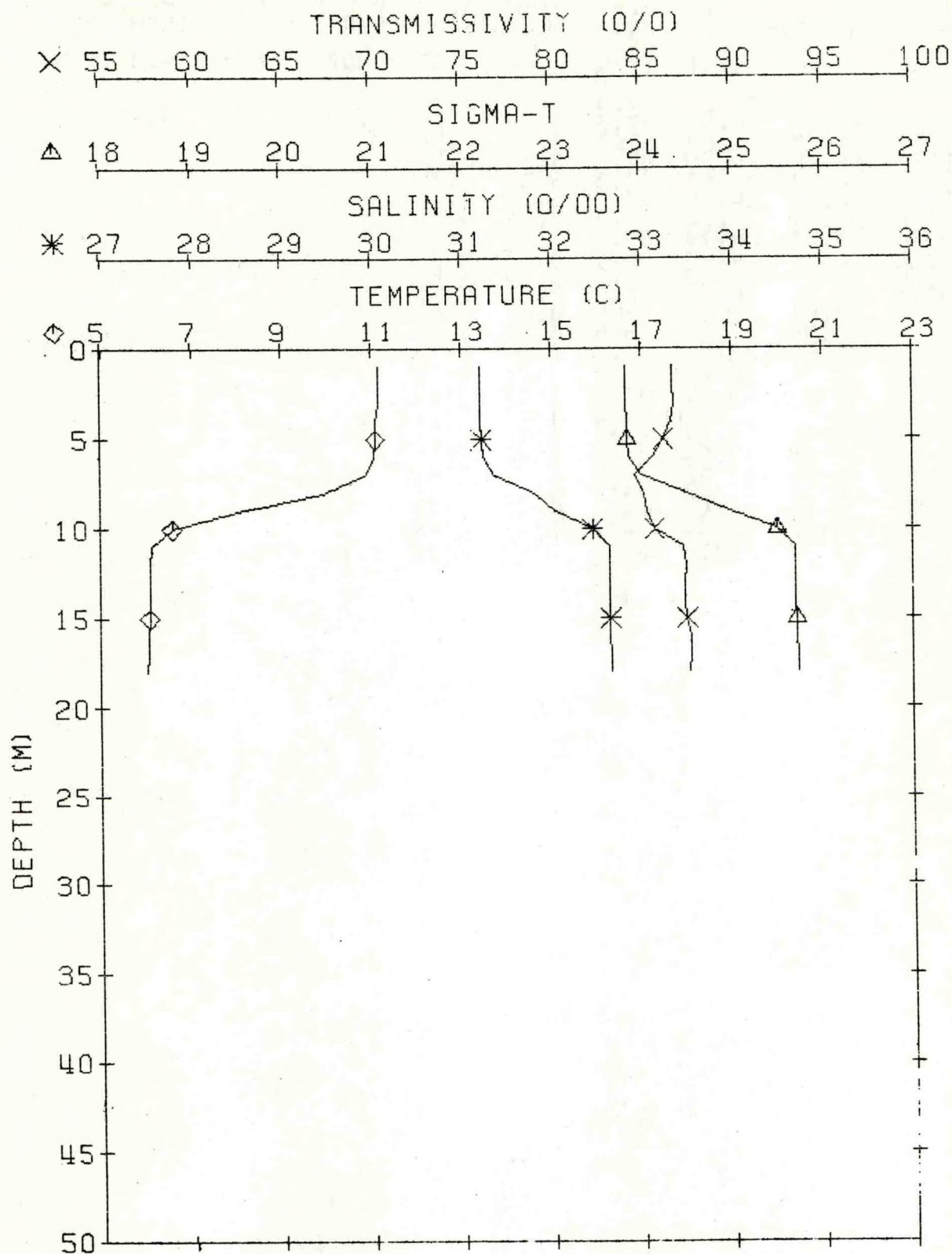
KELEZ CRUISE XWCC-12 STATION 136 05/05/77



XWCC-12 STA.140 LAT 39 11.0N; LONG 74 24.8W GMT 14.4 05/04/77
 DEPTH 019 AIR D/W 13.9/12.2 BARO 23.5 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 02/02 SEA DIR/HT 00/0 SWELL DIR/HT 09/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	11.14	31.22	23.83	86.7	8.32	6.63	.00	.00	1.44	.16
2	11.14	31.22	23.83	86.7	8.32	6.63				
3	11.16	31.20	23.82	86.8	8.32	6.64				
4	11.10	31.22	23.84	86.6	8.31	6.66				
5	11.09	31.22	23.84	86.2	8.32	6.68				
6	11.05	31.24	23.87	85.6	8.32	6.68				
7	10.85	31.36	23.99	84.6	8.32	6.69				
8	9.93	31.82	24.50	85.1	8.33	6.75				
9	8.01	32.04	24.97	85.3	8.33	6.93				
10	6.57	32.45	25.49	85.7	8.33	7.14	.00	.71	6.82	.29
11	6.10	32.64	25.70	87.3	8.34	7.17				
12	6.09	32.64	25.71	87.5	8.34	6.96				
13	6.08	32.64	25.71	87.4	8.35	6.73				
14	6.07	32.64	25.71	87.4	8.35	6.52				
15	6.07	32.65	25.71	87.5	8.34	6.36				
16	6.05	32.65	25.71	87.7	8.34	6.22				
17	6.03	32.67	25.73	87.7	8.34	6.11				
18	6.02	32.66	25.73	87.6	8.34	6.03	.00	.79	7.58	.39

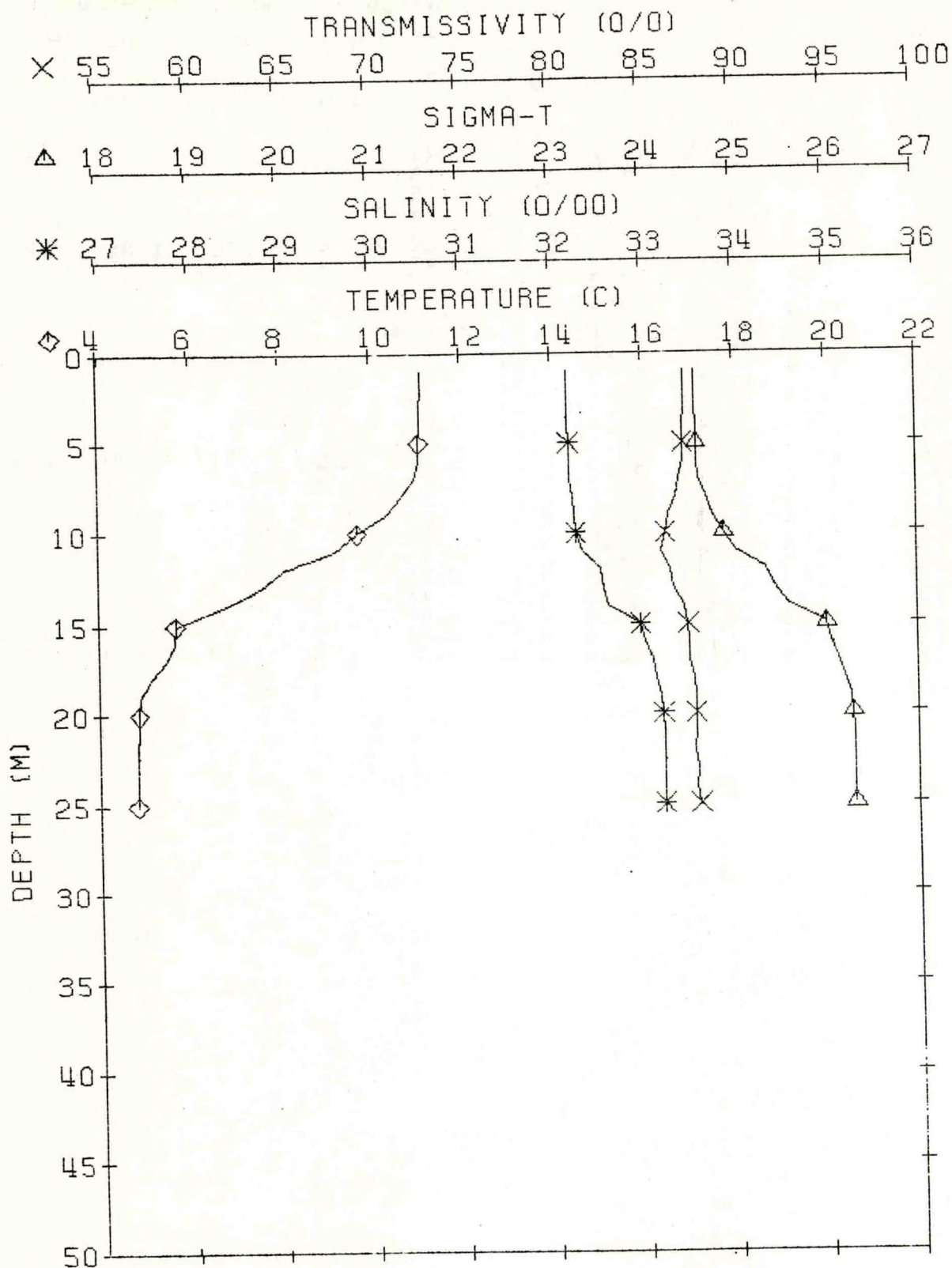
KELEZ CRUISE XWCC-12 STATION 140 05/04/77



XWCC-12 STA.141 LAT 39 7.1N; LONG 74 14.2W GMT 13.0 05/04/77
 DEPTH 026 AIR D/W 13.9/12.8 BARO 23.5 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 00/00 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	11.11	32.17	24.58	87.3	8.33	6.39				
2	11.11	32.17	24.57	87.3	8.33	6.39	.00	.00	3.70	.08
3	11.07	32.17	24.58	87.3	8.32	6.40				
4	11.07	32.18	24.59	87.2	8.33	6.40				
5	11.06	32.18	24.60	87.2	8.33	6.39				
6	11.05	32.19	24.60	87.2	8.33	6.39				
7	10.96	32.19	24.62	87.0	8.33	6.39				
8	10.66	32.23	24.70	86.8	8.33	6.40				
9	10.32	32.24	24.77	86.4	8.33	6.44				
10	9.69	32.26	24.89	86.2	8.33	6.49	.00	.76	4.56	.44
11	9.17	32.32	25.02	86.0	8.33	6.55				
12	8.05	32.53	25.35	86.5	8.33	6.65				
13	7.56	32.56	25.44	86.6	8.33	6.74				
14	6.71	32.60	25.59	87.2	8.34	6.74				
15	5.68	32.96	26.00	87.4	8.34	6.80				
16	5.65	33.01	26.04	87.5	8.34	6.82				
17	5.45	33.09	26.13	87.5	8.34	6.73				
18	5.11	33.12	26.20	87.7	8.34	6.66				
19	4.88	33.18	26.27	87.8	8.34	6.61				
20	4.88	33.20	26.29	87.8	8.34	6.57				
21	4.84	33.20	26.29	87.8	8.34	6.51				
22	4.83	33.21	26.30	87.7	8.34	6.44				
23	4.83	33.21	26.30	87.9	8.34	6.38				
24	4.81	33.20	26.30	87.8	8.34	6.33				
25	4.80	33.21	26.30	88.0	8.33	6.29	.00	.00	1.94	.03

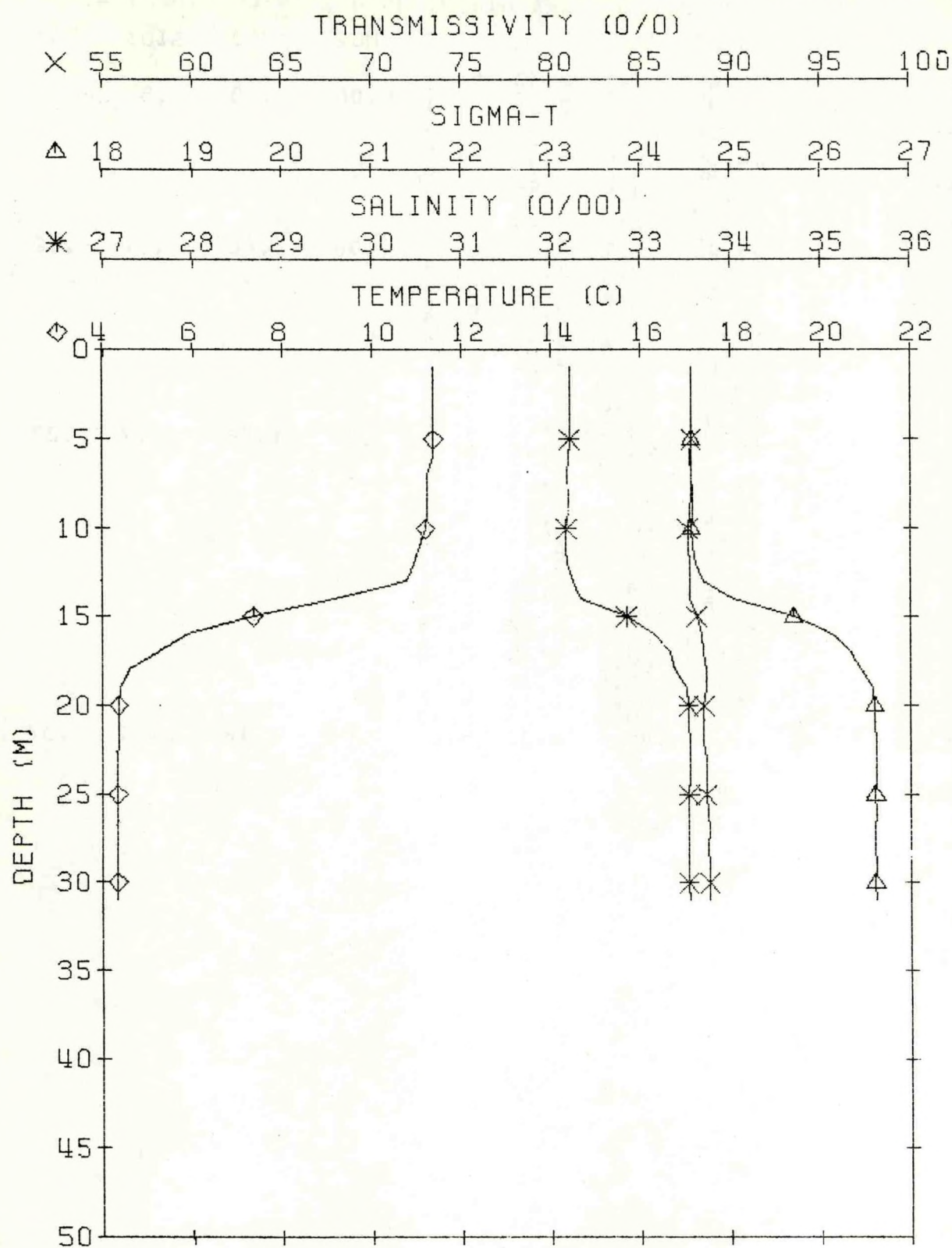
KELEZ CRUISE XWCC-12 STATION 141 05804/77



XWCC-12 STA.142 LAT 39 2.9N; LONG 74 5.9W GMT 11.6 05/04/77
 DEPTH 033 AIR D/W 12.8/11.7 BARO 23.0 VIS 7 CLD TYP/CVR /4
 WETHR 1 WIND DIR/SPD 00/00 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	11.37	32.22	24.57	87.8	8.31	6.34				
2	11.37	32.22	24.57	87.8	8.31	6.34	.05	.00	1.97	.00
3	11.36	32.20	24.56	87.8	8.32	6.34				
4	11.36	32.21	24.56	87.8	8.32	6.34				
5	11.36	32.20	24.56	87.8	8.32	6.34				
6	11.34	32.20	24.56	87.8	8.32	6.35				
7	11.23	32.17	24.56	87.8	8.32	6.35				
8	11.20	32.19	24.58	87.8	8.32	6.36				
9	11.20	32.19	24.58	87.7	8.32	6.36				
10	11.18	32.17	24.56	87.6	8.33	6.35	.05	.00	1.85	.00
11	11.04	32.16	24.58	87.6	8.32	6.36				
12	10.92	32.18	24.62	87.7	8.33	6.37				
13	10.74	32.25	24.70	87.7	8.33	6.38				
14	9.14	32.32	25.03	87.7	8.33	6.42				
15	7.34	32.84	25.69	88.1	8.33	6.66				
16	5.89	33.14	26.12	88.4	8.33	6.88				
17	5.26	33.32	26.34	88.5	8.34	7.07				
18	4.58	33.37	26.46	88.6	8.34	7.08				
19	4.38	33.50	26.58	88.6	8.34	7.09				
20	4.36	33.52	26.60	88.5	8.34	6.99				
21	4.35	33.53	26.61	88.5	8.34	6.88	.05	.93	3.89	.34
22	4.34	33.54	26.61	88.5	8.34	6.78				
23	4.33	33.54	26.61	88.6	8.34	6.70				
24	4.33	33.54	26.61	88.6	8.33	6.63				
25	4.33	33.53	26.61	88.6	8.33	6.58				
26	4.33	33.53	26.61	88.7	8.33	6.54				
27	4.33	33.53	26.61	88.8	8.32	6.50				
28	4.33	33.53	26.61	88.7	8.32	6.47				
29	4.33	33.53	26.61	88.8	8.32	6.44				
30	4.33	33.52	26.60	88.8	8.32	6.42				
31	4.32	33.54	26.61	88.8	8.31	6.37	.00	1.13	3.74	.45

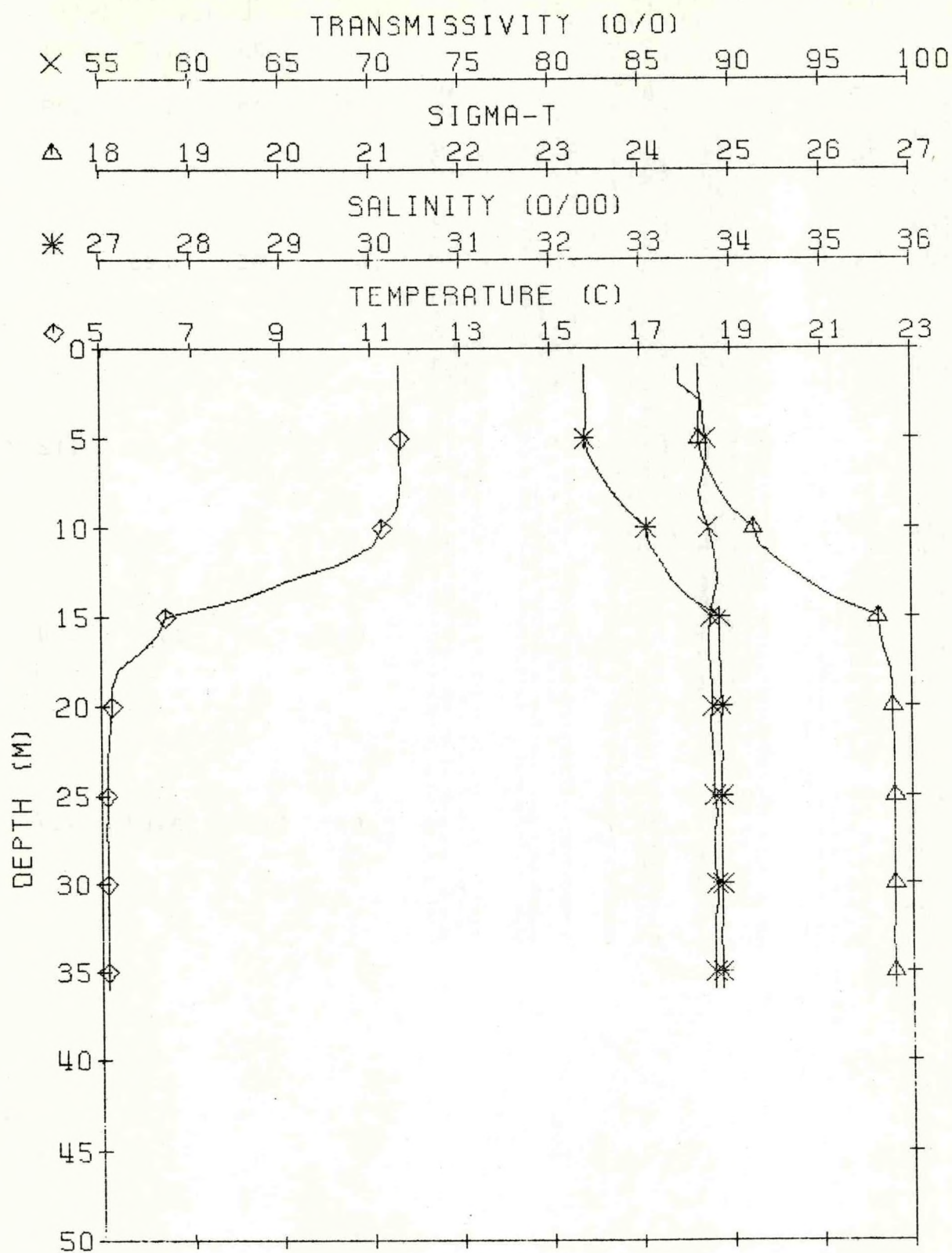
KELEZ CRUISE XWCC-12 STATION 142 05/04/77



XWCC-12 STA.143 LAT 38 58.1N; LONG 73 56.0W GMT 13.2 05/05/77
 DEPTH 037 AIR D/W 15.6/14.4 BARO 10.5 VIS 6 CLD TYP/CVR /7
 WETHR 2 WIND DIR/SPD 25/12 SEA DIR/HT 00/0 SWELL DIR/HT 49/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	11.63	32.38	24.65	87.1	8.33	5.84				
2	11.63	32.38	24.65	87.1	8.33	5.84	.00	.00	.55	.06
3	11.63	32.40	24.66	88.4	8.33	6.31				
4	11.63	32.39	24.65	88.5	8.33	6.37				
5	11.64	32.38	24.64	88.6	8.33	6.38				
6	11.63	32.43	24.69	88.6	8.33	6.39				
7	11.64	32.55	24.77	88.5	8.33	6.39				
8	11.62	32.67	24.87	88.2	8.33	6.40				
9	11.56	32.84	25.02	88.4	8.33	6.40				
10	11.23	33.05	25.24	88.7	8.33	6.43	.00	.00	.81	.12
11	11.03	33.10	25.31	89.0	8.33	6.48				
12	10.31	33.23	25.54	89.1	8.33	6.54				
13	9.10	33.34	25.82	89.2	8.33	6.70				
14	8.07	33.55	26.15	89.0	8.33	6.87				
15	6.43	33.86	26.62	88.8	8.33	7.15				
16	6.24	33.86	26.64	88.7	8.33	7.31				
17	6.24	33.86	26.69	88.7	8.33	7.28				
18	5.55	33.87	26.76	88.8	8.33	7.28				
19	5.22	33.88	26.78	88.9	8.33	7.19	.00	1.06	2.77	.37
20	5.22	33.88	26.79	88.9	8.33	7.11				
21	5.17	33.88	26.79	88.8	8.33	7.05				
22	5.14	33.88	26.80	89.0	8.33	6.99				
23	5.12	33.88	26.80	89.0	8.33	6.94				
24	5.11	33.88	26.80	89.0	8.33	6.90				
25	5.10	33.88	26.80	89.0	8.33	6.87				
26	5.10	33.88	26.80	89.0	8.33	6.83				
27	5.10	33.88	26.79	89.0	8.33	6.81				
28	5.10	33.88	26.80	89.0	8.33	6.79				
29	5.10	33.88	26.80	89.0	8.33	6.78				
30	5.10	33.88	26.79	89.1	8.33	6.76				
31	5.10	33.87	26.79	89.0	8.33	6.75				
32	5.10	33.87	26.79	89.0	8.33	6.74				
33	5.10	33.87	26.79	89.0	8.33	6.73				
34	5.10	33.88	26.80	89.0	8.33	6.73				
35	5.10	33.88	26.80	89.0	8.33	6.72	.00	1.16	2.97	.37
36	5.10	33.88	26.80	89.0	8.33	6.72				

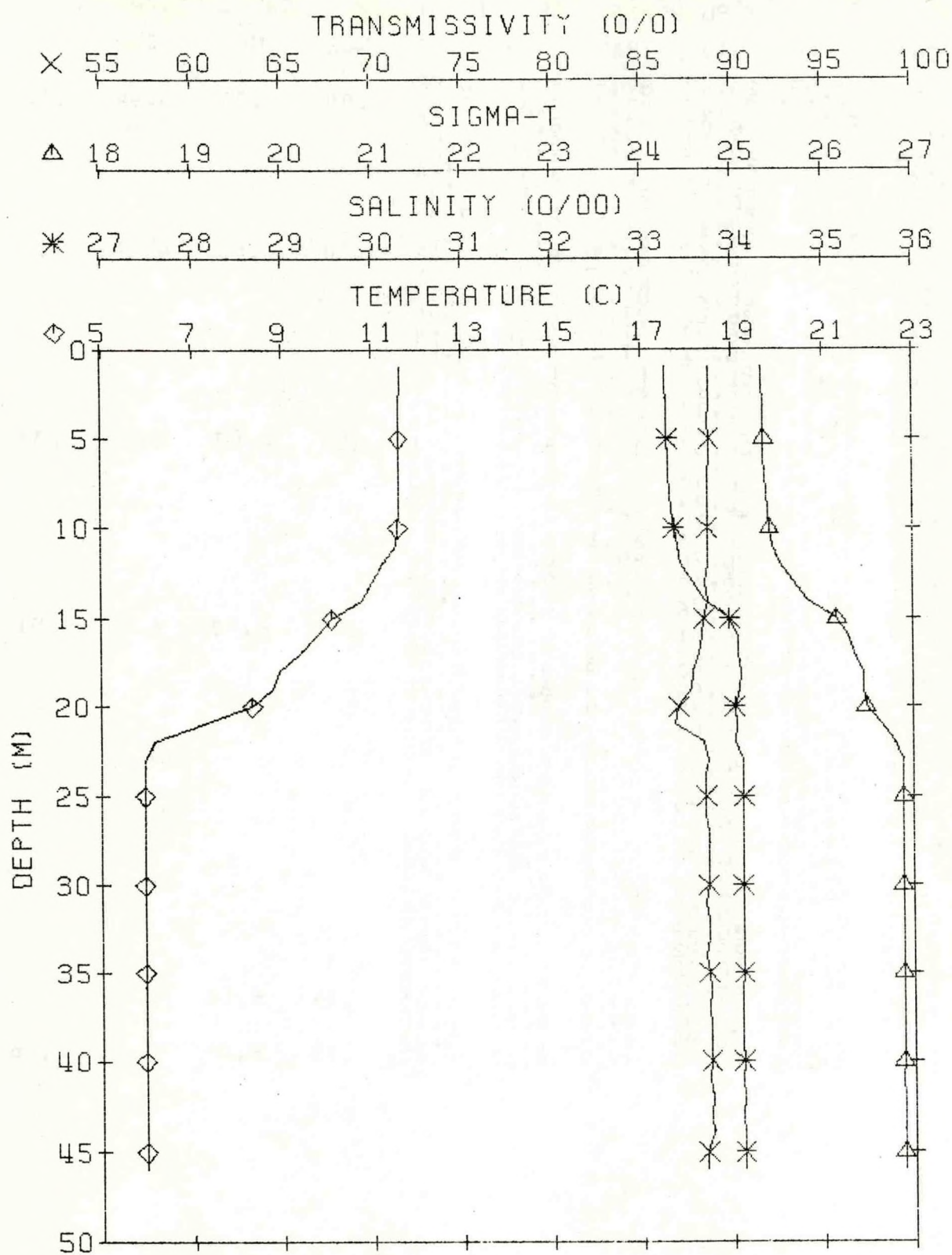
KELEZ CRUISE XWCC-12 STATION 143 05/05/77



XWCC_12 STA.144 LAT 38 51.6N; LONG 73 42.6W GMT 11.3 05/05/77
 DEPTH 048 AIR D/W 14.4/13.9 BARO 11.5 VIS 6 CLD TYP/CVR /7
 WETHR 4 WIND DIR/SPD 24/13 SEA DIR/HT 24/1 SWELL DIR/HT 24/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	11.61	33.26	25.33	88.7	8.34	6.48				
2	11.61	33.26	25.33	88.7	8.34	6.48	.00	.00	.70	.09
3	11.60	33.27	25.34	88.7	8.33	6.49				
4	11.59	33.27	25.34	88.6	8.34	6.49				
5	11.59	33.28	25.35	88.7	8.33	6.48				
6	11.59	33.29	25.36	88.7	8.34	6.48				
7	11.59	33.30	25.36	88.6	8.34	6.48				
8	11.58	33.32	25.38	88.6	8.34	6.48				
9	11.57	33.33	25.39	88.6	8.34	6.47				
10	11.56	33.35	25.42	88.6	8.34	6.48	.00	.00	.93	.11
11	11.52	33.39	25.45	88.6	8.34	6.48				
12	11.21	33.42	25.53	88.6	8.34	6.49				
13	10.97	33.56	25.68	88.5	8.34	6.55				
14	10.76	33.69	25.82	88.6	8.34	6.59				
15	10.08	33.97	26.15	88.4	8.34	6.64				
16	9.74	34.05	26.28	88.3	8.34	6.77				
17	9.39	34.06	26.34	88.1	8.34	6.86				
18	8.91	34.09	26.44	87.8	8.33	6.93				
19	8.79	34.07	26.45	87.7	8.34	7.05				
20	8.32	34.02	26.48	87.0	8.34	7.11	.00	.00	1.76	.12
21	7.25	34.04	26.65	86.8	8.34	7.25				
22	6.14	34.03	26.79	88.4	8.34	7.46				
23	5.96	34.10	26.87	88.6	8.34	7.58				
24	5.94	34.11	26.88	88.5	8.34	7.51				
25	5.94	34.11	26.88	88.5	8.34	7.37				
26	5.94	34.11	26.88	88.5	8.34	7.26				
27	5.94	34.11	26.88	88.6	8.34	7.16				
28	5.94	34.11	26.88	88.6	8.34	7.08				
29	5.94	34.11	26.88	88.6	8.33	7.01				
30	5.94	34.10	26.87	88.6	8.33	6.96	.00	1.64	2.07	.40
31	5.94	34.10	26.87	88.5	8.33	6.92				
32	5.94	34.10	26.87	88.6	8.33	6.89				
33	5.94	34.10	26.87	88.6	8.33	6.86				
34	5.94	34.11	26.88	88.5	8.33	6.83				
35	5.94	34.11	26.88	88.6	8.33	6.81				
36	5.94	34.10	26.87	88.7	8.33	6.79				
37	5.94	34.10	26.87	88.6	8.33	6.78				
38	5.94	34.10	26.87	88.7	8.33	6.76				
39	5.94	34.10	26.87	88.7	8.33	6.75				
40	5.94	34.10	26.87	88.7	8.33	6.74	.00	1.67	2.07	.37
41	5.94	34.09	26.86	88.6	8.33	6.73				
42	5.94	34.10	26.87	88.8	8.33	6.73				
43	5.94	34.10	26.87	88.7	8.33	6.73				
44	5.94	34.10	26.87	88.8	8.33	6.72				
45	5.94	34.11	26.88	88.5	8.33	6.71				
46	5.94	34.11	26.88	88.5	8.33	6.71				

KELEZ CRUISE XWCC-12 STATION 144 05/05/77



XWCC-12 STA.145 LAT 38 45.0N; LONG 73 27.9W GMT 09.2 05/05/77
 DEPTH 074 AIR D/W 14.4/13.9 BARO 13.0 VIS 6 CLD TYP/CVR /7
 WETHR 2 WIND DIR/SPD 25/15 SEA DIR/HT 13/1 SWELL DIR/HT 13/1

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	N02	N03	SI03	P04
1	10.61	33.98	26.07	87.8	8.33	6.98				
2	10.61	33.98	26.07	87.8	8.33	6.98	.00	.00	3.94	.15
3	10.61	33.97	26.06	87.8	8.33	6.98				
4	10.57	33.98	26.07	87.8	8.33	6.98				
5	10.57	33.97	26.07	87.8	8.33	6.99				
6	10.49	33.97	26.08	87.8	8.33	7.00				
7	10.44	33.95	26.08	87.9	8.33	7.01				
8	10.19	33.94	26.11	87.9	8.33	7.03				
9	10.04	33.96	26.15	87.7	8.33	7.08				
10	9.87	33.96	26.18	87.7	8.33	7.12	.00	.00	4.14	.16
11	9.76	33.96	26.20	87.5	8.33	7.15				
12	9.69	33.96	26.21	87.5	8.33	7.18				
13	9.64	33.96	26.22	87.4	8.33	7.20				
14	9.55	33.95	26.23	87.4	8.33	7.22				
15	9.55	33.86	26.21	87.2	8.33	7.23				
16	8.88	33.86	26.27	86.9	8.33	7.30				
17	8.33	33.91	26.39	86.6	8.33	7.38				
18	8.00	33.91	26.43	86.5	8.34	7.46				
19	7.74	33.85	26.47	87.0	8.34	7.53				
20	7.12	33.92	26.57	87.4	8.34	7.61	.00	2.67	5.91	.37
21	6.90	33.90	26.59	87.8	8.34	7.63				
22	6.87	33.40	26.70	88.2	8.33	7.63				
23	7.10	33.41	26.74	88.3	8.33	7.56				
24	7.21	33.41	26.74	88.7	8.33	7.47				
25	7.21	33.41	26.73	89.1	8.33	7.40				
26	6.82	33.41	26.76	89.4	8.33	7.36				
27	6.71	33.41	26.78	89.7	8.33	7.33				
28	6.66	33.41	26.80	89.9	8.33	7.26				
29	6.66	33.41	26.80	89.8	8.33	7.20	.00	6.02	5.65	.51
30	6.70	33.41	26.81	89.9	8.33	7.12				
31	6.75	33.41	26.82	89.8	8.33	7.06				
32	6.88	33.41	26.83	89.9	8.33	6.97				
33	6.88	33.41	26.84	89.9	8.33	6.91				
34	6.88	33.41	26.85	89.9	8.33	6.86				
35	6.88	33.41	26.87	90.0	8.33	6.82				
36	6.88	33.41	26.86	90.0	8.33	6.77				
37	6.88	33.41	26.86	90.0	8.33	6.73				
38	6.88	33.41	26.86	90.0	8.33	6.72				
39	6.88	33.41	26.88	90.0	8.33	6.71				
40	6.79	33.41	26.88	90.0	8.33	6.68				
41	6.75	33.41	26.88	90.0	8.33	6.65				
42	6.69	33.41	26.88	90.0	8.33	6.62				
43	6.69	33.41	26.88	90.0	8.33	6.60				
44	6.69	33.41	26.88	90.0	8.33	6.56				
45	6.69	33.41	26.88	90.0	8.33	6.53				
46	6.69	33.41	26.88	90.0	8.33	6.46				
47	6.69	33.41	26.88	90.0	8.33	6.43				
48	6.69	33.41	26.88	90.0	8.33	6.38	.14	5.66	3.89	.65
49	6.69	33.41	26.88	90.0	8.33	6.33				
50	6.69	33.41	26.88	90.0	8.33	6.30				
70	6.69	33.41	26.88	90.0	8.33	6.03	.15	5.63	3.94	.66
71	6.69	33.41	26.88	90.0	8.33	6.02				

KELEZ CRUISE XWCC-12 STATION 145 05/05/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

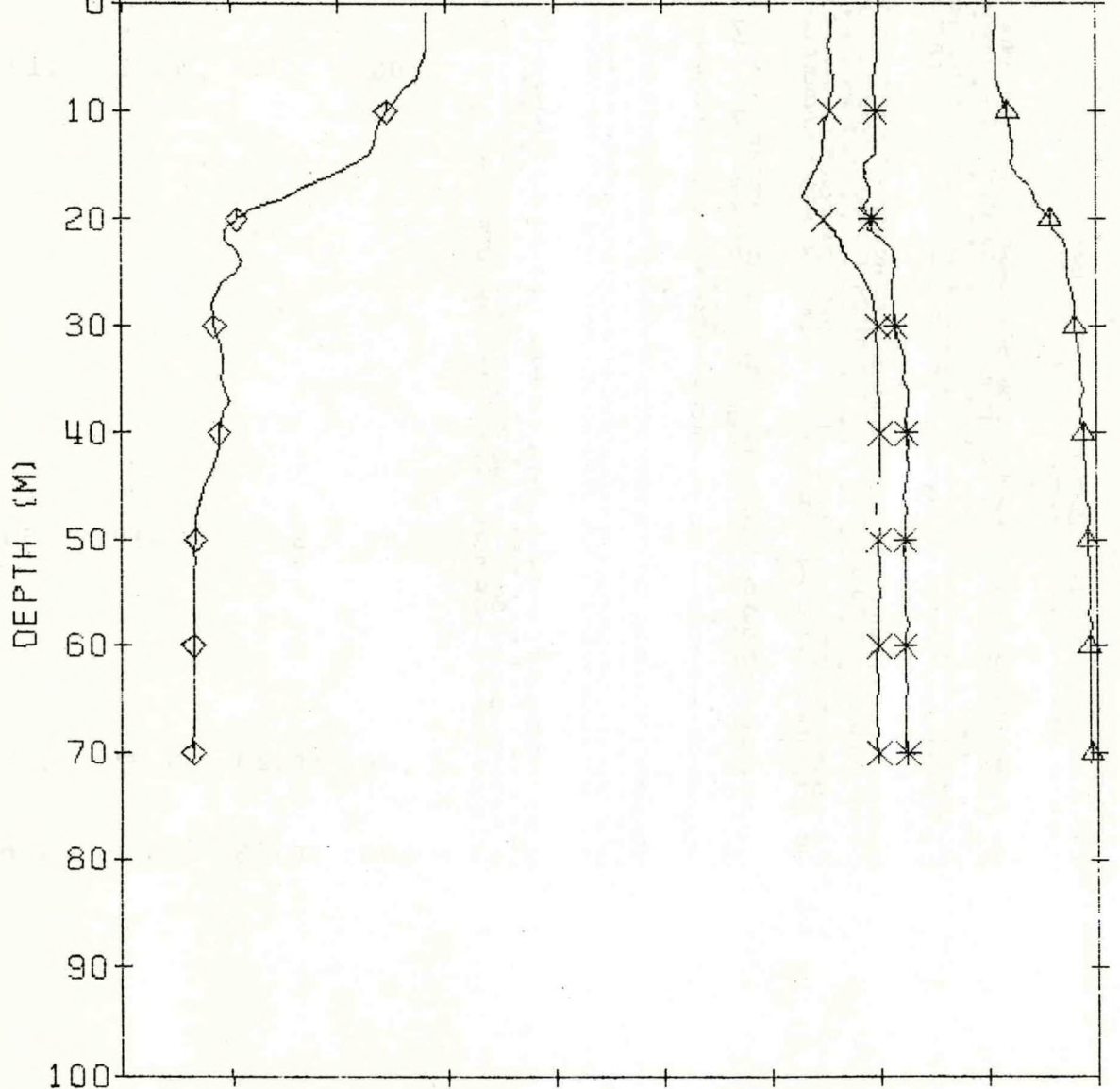
△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

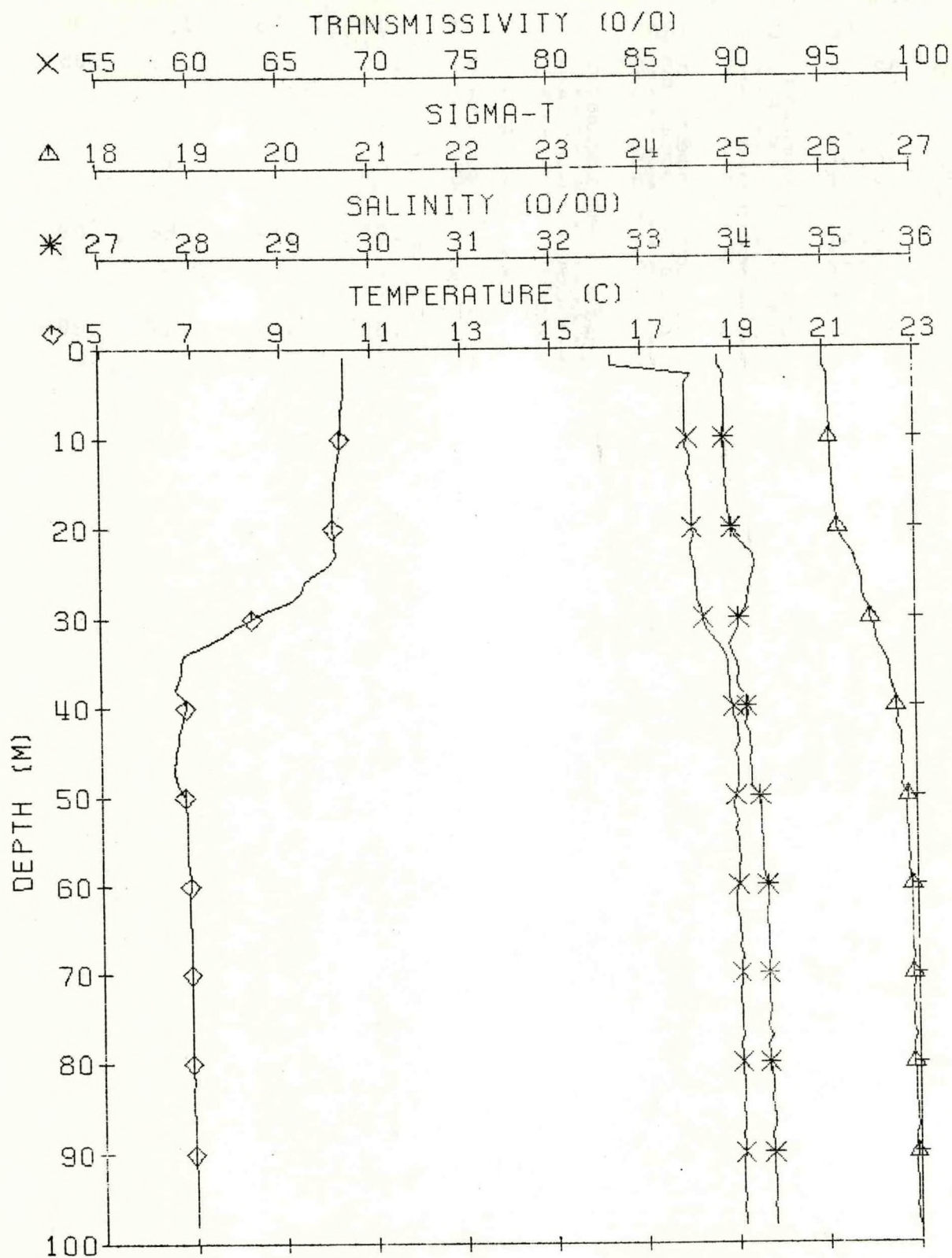
◇ 5 7 9 11 13 15 17 19 21 23



XWCC-12 STA.146 LAT 38 39.2N; LONG 73 15.5W GMT 07.3 05/05/77
 DEPTH 099 AIR D/W 14.4/13.9 BARO 14.0 VIS 6 CLD TYP/CVR /8
 WETHR 6 WIND DIR/SPD 24/16 SEA DIR/HT 24/1 SWELL DIR/HT 15/1

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	10.40	33.85	26.00	83.3	8.30	6.06				
2	10.40	33.85	26.00	83.3	8.30	6.06	.00	.00	4.22	.15
3	10.39	33.90	26.05	87.7	8.31	6.67				
4	10.38	33.90	26.04	87.4	8.31	6.95				
5	10.37	33.89	26.04	87.4	8.31	6.98				
6	10.34	33.90	26.06	87.4	8.31	7.01				
7	10.32	33.90	26.06	87.4	8.31	7.03				
8	10.31	33.91	26.07	87.4	8.31	7.04				
9	10.31	33.91	26.07	87.4	8.30	7.05				
10	10.30	33.90	26.06	87.5	8.31	7.07				
11	10.27	33.91	26.07	87.4	8.31	7.08				
12	10.24	33.91	26.08	87.6	8.31	7.10				
13	10.21	33.91	26.09	87.6	8.32	7.10				
14	10.19	33.92	26.10	87.5	8.32	7.11				
15	10.17	33.92	26.10	87.6	8.32	7.12				
16	10.15	33.93	26.11	87.7	8.32	7.12				
17	10.13	33.93	26.11	87.7	8.32	7.13				
18	10.12	33.94	26.13	87.7	8.32	7.14				
19	10.12	33.96	26.14	87.7	8.32	7.14				
20	10.13	33.97	26.15	87.7	8.32	7.14	.00	.00	4.35	.19
21	10.14	34.01	26.18	87.8	8.32	7.14				
22	10.16	34.12	26.25	87.6	8.32	7.14				
23	10.18	34.20	26.32	87.6	8.32	7.13				
24	10.04	34.22	26.35	87.8	8.32	7.14				
25	9.76	34.21	26.39	87.9	8.33	7.18				
26	9.48	34.17	26.41	87.9	8.33	7.21				
27	9.40	34.16	26.41	88.0	8.33	7.25				
28	9.22	34.14	26.43	88.0	8.33	7.25				
29	8.77	34.13	26.50	88.2	8.33	7.29				
30	8.33	34.05	26.50	88.3	8.33	7.33				
31	7.96	34.05	26.55	88.4	8.33	7.37				
32	7.68	34.00	26.56	88.7	8.33	7.40				
33	7.27	33.94	26.57	89.1	8.33	7.41				
34	6.82	33.97	26.66	89.5	8.33	7.44				
35	6.74	34.02	26.70	89.6	8.33	7.45				
36	6.77	34.04	26.72	89.6	8.33	7.41				
37	6.70	34.03	26.71	89.7	8.33	7.34				
38	6.61	34.05	26.74	89.7	8.33	7.32				
39	6.83	34.13	26.78	89.7	8.33	7.21				
40	6.88	34.13	26.77	89.9	8.33	7.19				
41	6.80	34.14	26.79	89.9	8.33	7.13	.09	6.52	6.12	.55
42	6.76	34.11	26.77	90.1	8.33	7.08				
43	6.70	34.16	26.82	90.1	8.33	7.04				
44	6.67	34.15	26.82	90.2	8.33	6.99				
45	6.62	34.17	26.84	90.0	8.33	6.97				
46	6.61	34.16	26.83	90.1	8.31	6.90				
47	6.57	34.17	26.85	90.1	8.31	6.84				
48	6.63	34.18	26.84	90.1	8.31	6.81				
49	6.69	34.17	26.83	90.1	8.31	6.73				
50	6.80	34.27	26.89	90.0	8.31	6.64				
60	6.90	34.34	26.93	90.1	8.32	6.16	.08	10.29	7.31	.75
70	6.91	34.34	26.93	90.2	8.32	5.84				
80	6.91	34.34	26.93	90.2	8.32	5.74				
90	6.95	34.38	26.96	90.3	8.33	5.70				
98	6.99	34.40	26.97	90.3	8.32	5.67	.06	10.86	7.72	.76

KELEZ CRUISE XWCC-12 STATION 146 05/05/77



XWCC-12 STA.150 LAT 38 54.0N; LONG 74 42.0W GMT 17.2 05/04/77
 DEPTH 016 AIR D/W 13.9/12.2 BARO 23.0 VIS 7 CLD TYP/CVR /0
 WETHR 0 WIND DIR/SPD 12/05 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	10.63	32.34	24.79	89.0	8.33	6.39	.00	.12	1.29	.06
2	10.63	32.34	24.79	89.0	8.33	6.39				
3	10.61	32.34	24.80	88.5	8.33	6.39				
4	10.46	32.36	24.84	88.9	8.33	6.40				
5	10.35	32.38	24.87	88.8	8.33	6.42				
6	10.18	32.39	24.91	88.9	8.33	6.43				
7	9.99	32.47	25.00	88.8	8.33	6.46				
8	10.01	32.47	25.00	88.9	8.33	6.46				
9	10.02	32.49	25.01	88.9	8.33	6.45				
10	10.07	32.51	25.02	88.9	8.33	6.43	.00	.14	1.56	.09
11	10.11	32.53	25.03	89.2	8.33	6.40				
12	10.00	32.55	25.06	89.3	8.33	6.39				
13	9.60	32.59	25.16	89.1	8.33	6.40				
14	9.46	32.62	25.20	89.0	8.33	6.43				
15	9.42	32.61	25.20	89.0	8.33	6.40	.00	.17	2.17	.20

KELEZ CRUISE XWCC-12 STATION 150 05/04/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

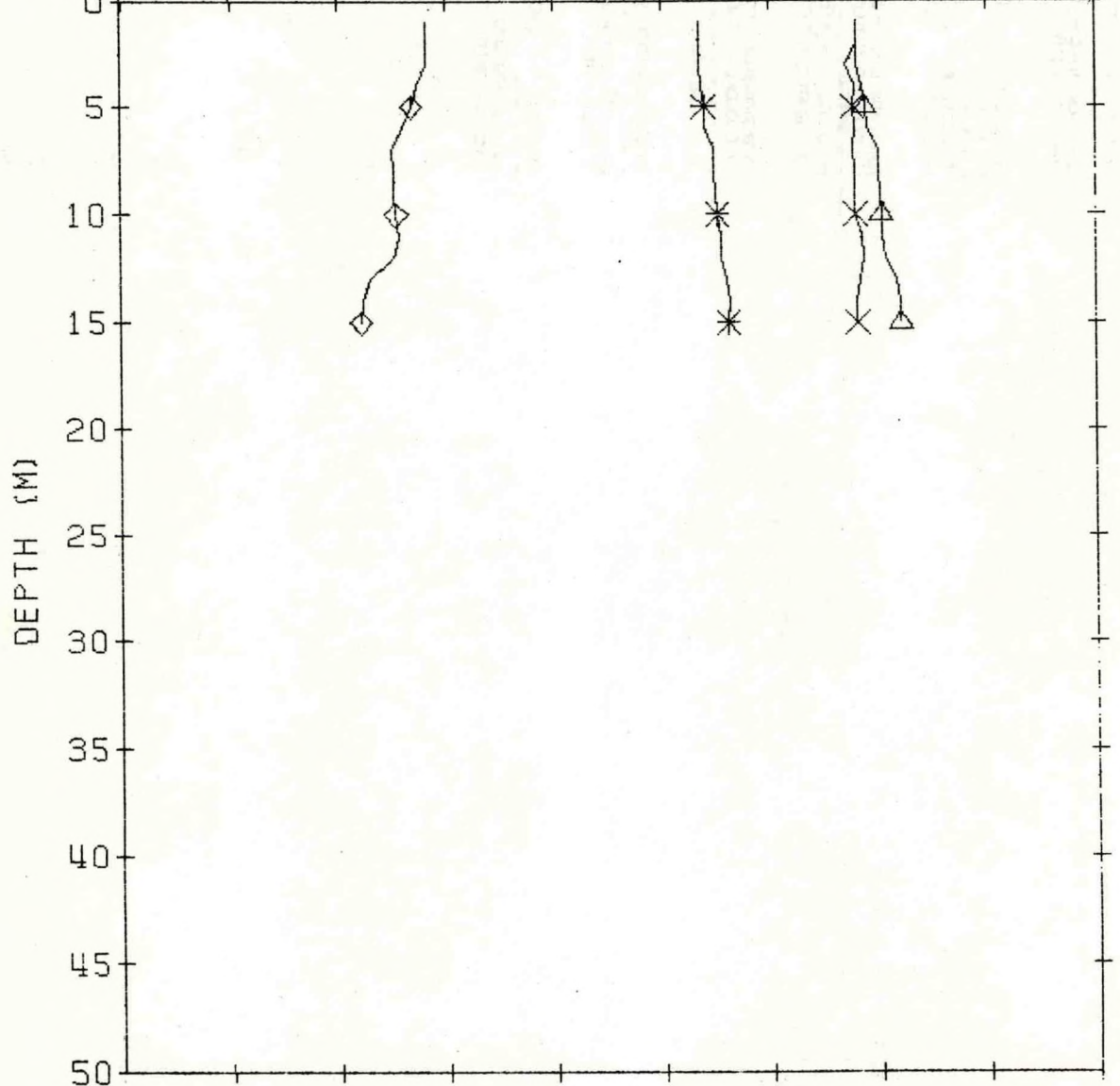
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SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

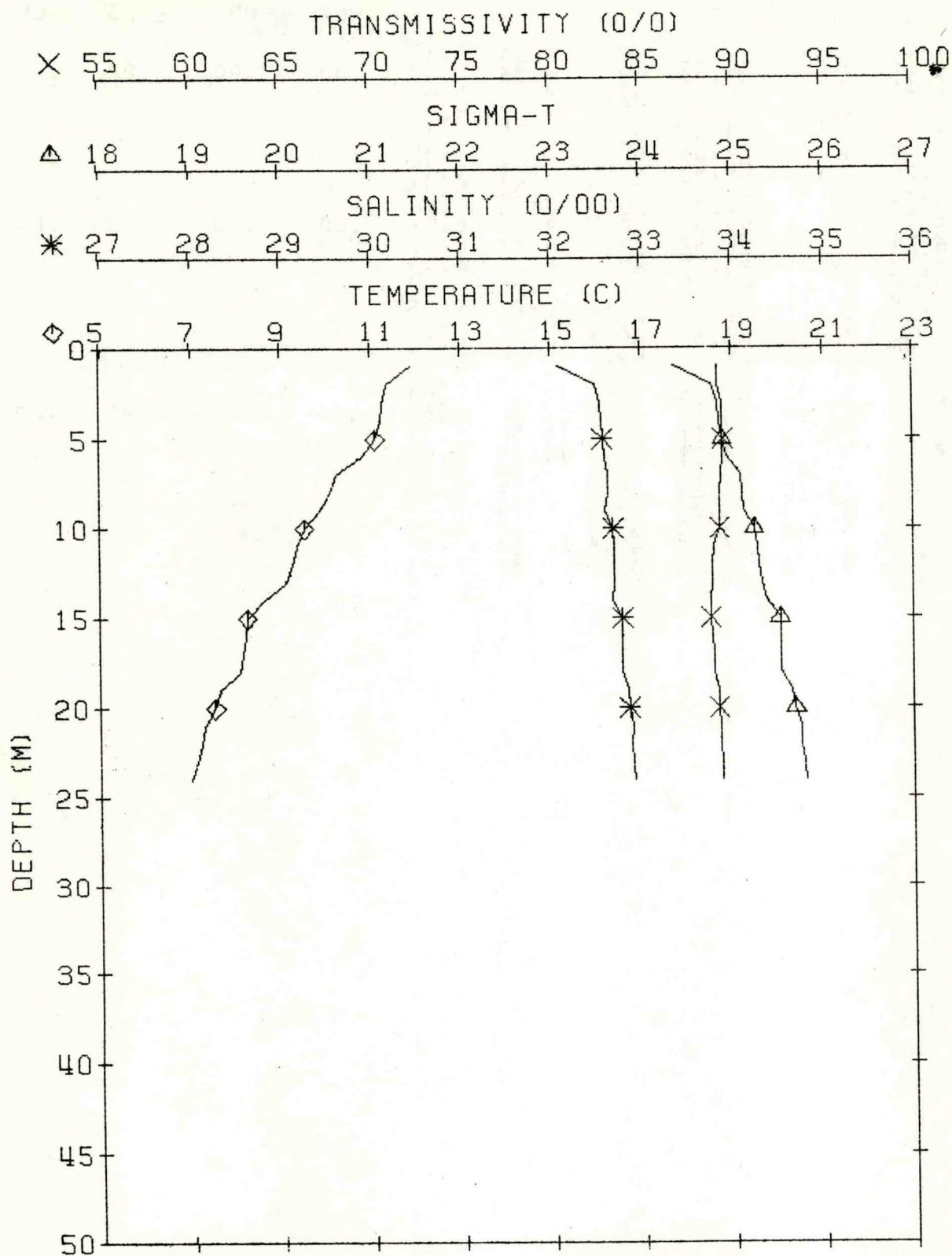
◇ 5 7 9 11 13 15 17 19 21 23



XWCC-12 STA. 151 LAT 38 50.0N; LONG 74 34.2W GMT 18.7 05/04/77
 DEPTH 024 AIR D/W 13.1/11.9 BARO 22.0 VIS 7 CLD TYP/CVR /7
 WETHR 2 WIND DIR/SPD 12/13 SEA DIR/HT 10/1 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	11.89	32.08	24.37	89.2	8.32	6.25				
2	11.34	32.49	24.79	89.2	8.32	6.25	.00	.10	2.01	.03
3	11.25	32.54	24.84	89.2	8.32	6.26				
4	11.21	32.56	24.86	89.2	8.32	6.27				
5	11.10	32.57	24.89	89.2	8.32	6.27				
6	10.79	32.59	24.96	89.2	8.32	6.29				
7	10.21	32.63	25.09	89.2	8.32	6.34				
8	10.10	32.63	25.11	89.2	8.32	6.38				
9	9.85	32.60	25.12	89.2	8.32	6.36	.00	.29	2.99	.16
10	9.51	32.68	25.24	89.2	8.32	6.36				
11	9.35	32.69	25.28	89.2	8.32	6.37				
12	9.25	32.70	25.30	89.2	8.32	6.36				
13	9.12	32.69	25.32	89.2	8.32	6.33				
14	8.63	32.68	25.38	89.2	8.32	6.31				
15	8.25	32.78	25.52	89.2	8.32	6.34				
16	8.21	32.77	25.52	89.2	8.32	6.32				
17	8.15	32.78	25.53	89.2	8.32	6.32				
18	8.08	32.77	25.54	89.2	8.32	6.32				
19	7.64	32.84	25.65	89.2	8.32	6.32				
20	7.53	32.85	25.68	89.2	8.32	6.32				
21	7.33	32.88	25.74	89.2	8.32	6.33				
22	7.23	32.89	25.74	89.2	8.32	6.33				
23	7.11	32.89	25.77	89.2	8.32	6.30				
24	6.99	32.91	25.80	89.2	8.32	6.30	.00	.39	3.03	.19

KELEZ CRUISE XWCC-12 STATION 151 05/04/77



XWCC-12 STA.152 LAT 38 46.0N; LONG 74 27.2W GMT 19.9 05/04/77
 DEPTH 031 AIR D/W 13.3/11.9 BARO 20.0 VIS 7 CLD TYP/CVR /7
 WETHR 6 WIND DIR/SPD 09/16 SEA DIR/HT 09/1 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	11.71	32.06	24.38	89.1	8.33	6.47				
2	11.71	32.06	24.38	89.1	8.33	6.47	.00	.00	.22	.11
3	11.71	32.06	24.38	89.3	8.33	6.47				
4	11.70	32.06	24.39	89.3	8.33	6.47				
5	11.68	32.06	24.39	89.3	8.33	6.48				
6	11.69	32.07	24.39	89.1	8.33	6.48				
7	11.69	32.12	24.49	89.5	8.33	6.48				
8	10.86	32.25	24.69	89.4	8.33	6.53				
9	10.43	32.38	24.86	89.3	8.33	6.58				
10	10.37	32.38	24.87	89.4	8.33	6.62	.00	.00	.92	.03
11	9.63	32.49	25.08	89.5	8.33	6.60				
12	9.28	32.57	25.20	89.4	8.33	6.66				
13	8.16	32.60	25.24	89.3	8.34	6.65				
14	8.95	32.58	25.25	89.3	8.34	6.62				
15	8.39	32.70	25.43	89.3	8.34	6.60				
16	8.03	32.74	25.53	89.5	8.34	6.64				
17	7.31	32.84	25.70	89.5	8.34	6.63				
18	6.95	32.94	25.83	89.4	8.34	6.69				
19	6.88	32.94	25.84	89.4	8.34	6.68				
20	6.34	32.88	25.94	89.4	8.34	6.64	.00	.56	3.42	.25
21	6.04	32.88	26.03	89.4	8.34	6.65				
22	5.96	32.88	26.04	89.4	8.34	6.63				
23	5.80	32.88	26.06	89.4	8.34	6.58				
24	5.30	32.88	26.32	89.5	8.34	6.56				
25	5.10	32.88	26.33	89.4	8.34	6.52				
26	5.09	32.88	26.33	89.5	8.33	6.46				
27	5.09	32.88	26.33	89.5	8.33	6.41				
28	5.09	32.88	26.33	89.5	8.33	6.41				

KELEZ CRUISE XWCC-12 STATION 152 05/04/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

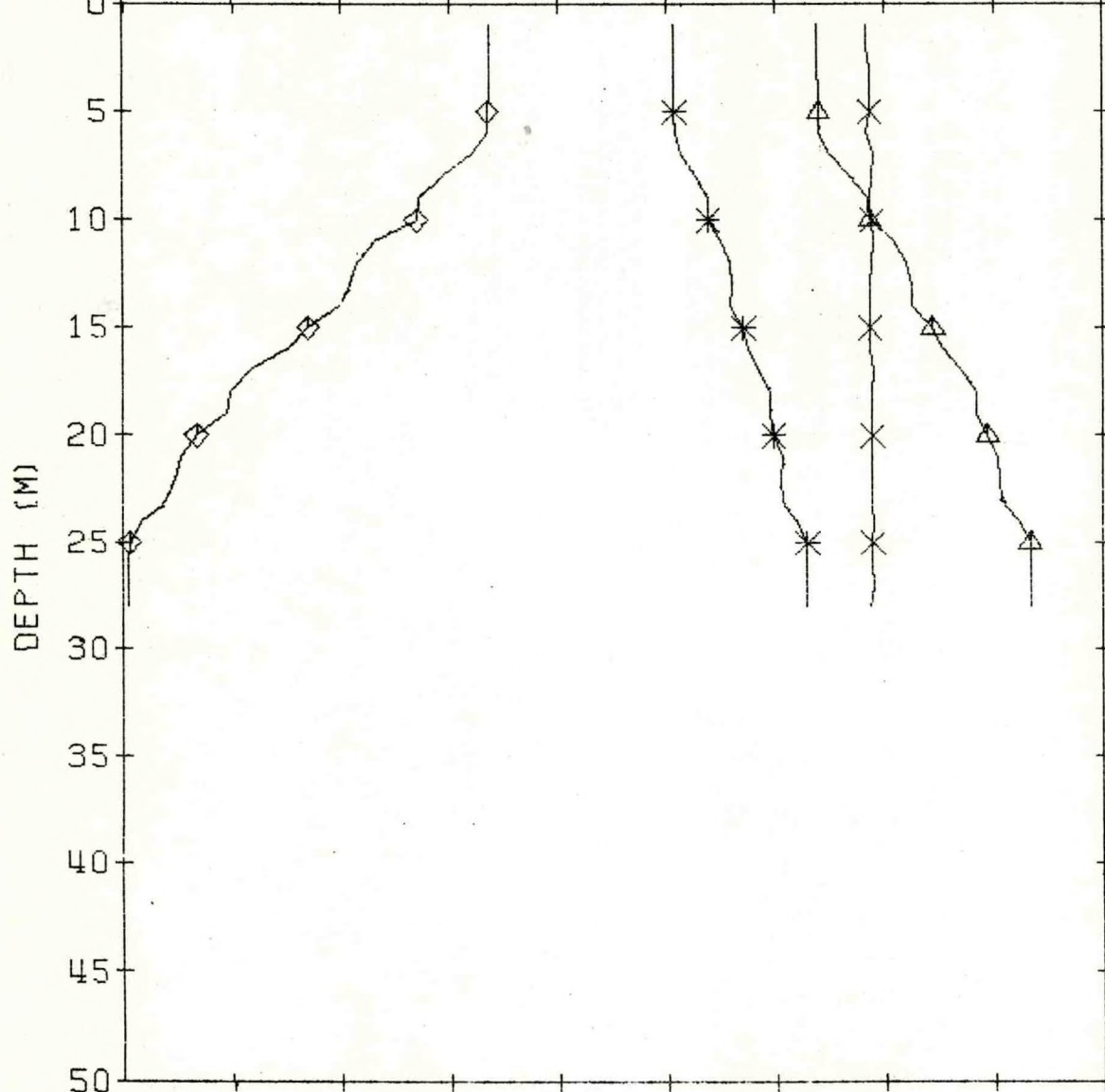
Δ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

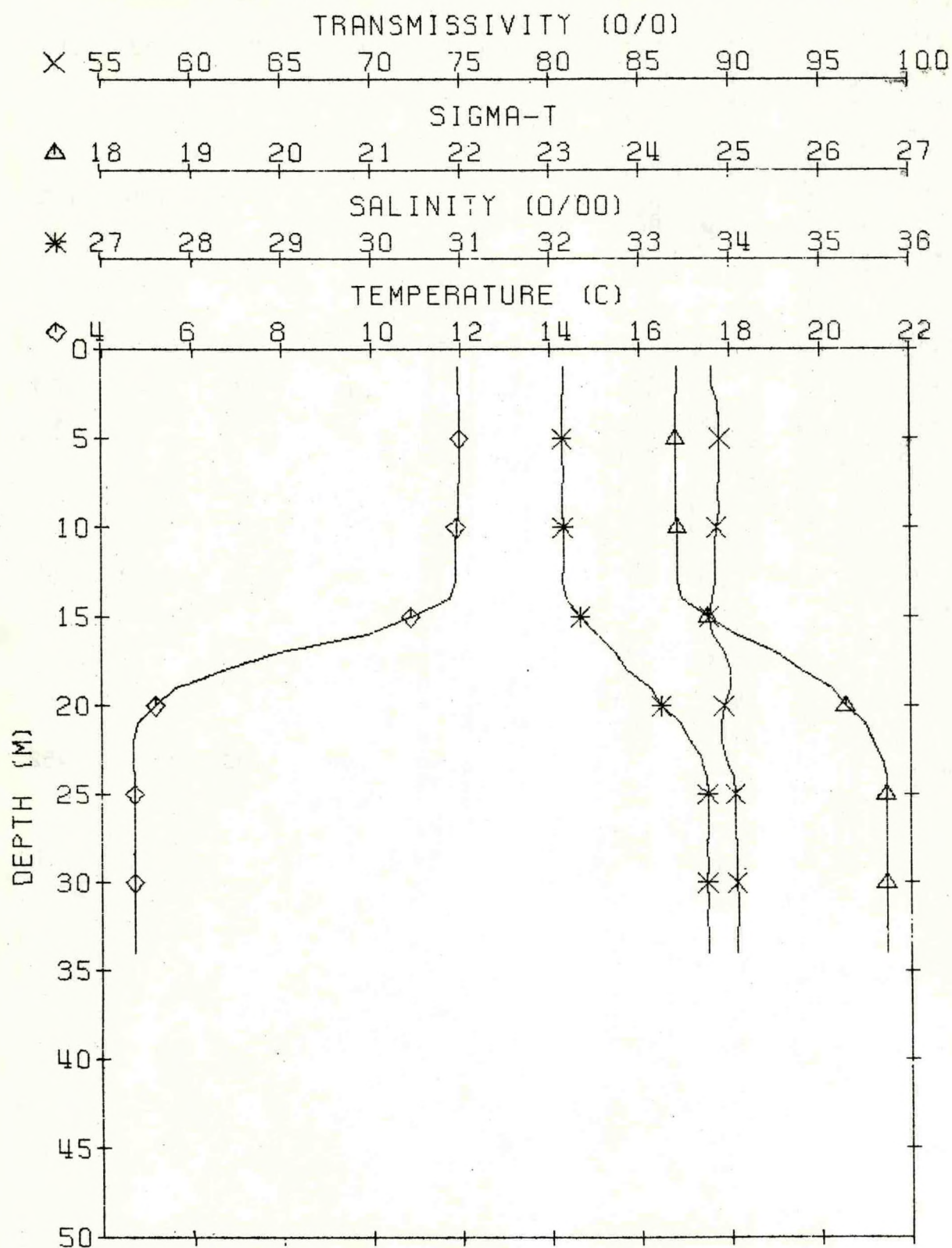
◇ 5 7 9 11 13 15 17 19 21 23



XWCC-12 STA.153 LAT 38 41.1N; LONG 74 20.2W GMT 21.3 05/04/77
 DEPTH 037 AIR D/W 13.9/12.2 BARO 19.5 VIS 7 CLD TYP/CVR /7
 WETHR 6 WIND DIR/SPD 11/12 SEA DIR/HT 11/1 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	11.92	32.14	24.41	89.0	8.31	6.29				
2	11.92	32.14	24.41	89.0	8.31	6.29	.00	.00	.40	.00
3	11.94	32.13	24.39	89.3	8.32	6.36				
4	11.95	32.12	24.39	89.4	8.33	6.36				
5	11.95	32.13	24.39	89.4	8.33	6.36				
6	11.95	32.13	24.39	89.4	8.32	6.37				
7	11.94	32.13	24.40	89.4	8.32	6.38				
8	11.93	32.13	24.39	89.3	8.32	6.38				
9	11.92	32.13	24.40	89.4	8.32	6.38				
10	11.87	32.14	24.41	89.2	8.32	6.39	.00	.00	.51	.00
11	11.85	32.14	24.42	89.1	8.32	6.40				
12	11.84	32.14	24.42	89.1	8.32	6.40				
13	11.84	32.13	24.42	89.1	8.32	6.40				
14	11.73	32.17	24.46	89.0	8.32	6.40				
15	10.88	32.33	24.74	88.8	8.32	6.45				
16	9.88	32.51	25.05	89.0	8.33	6.55				
17	7.92	32.70	25.50	89.6	8.33	6.75				
18	6.70	32.84	25.78	90.0	8.34	6.98				
19	5.63	33.10	26.12	90.0	8.34	7.17				
20	5.18	33.22	26.27	89.6	8.35	7.25	.00	.39	2.05	.20
21	4.79	33.44	26.49	89.5	8.35	7.30				
22	4.67	33.54	26.57	89.5	8.35	7.27				
23	4.68	33.67	26.68	89.7	8.34	7.16				
24	4.71	33.73	26.73	90.1	8.34	7.02				
25	4.72	33.73	26.73	90.2	8.34	6.90				
26	4.72	33.74	26.73	90.2	8.33	6.79				
27	4.72	33.73	26.73	90.2	8.33	6.70				
28	4.72	33.73	26.73	90.3	8.33	6.63				
29	4.72	33.74	26.73	90.3	8.33	6.57				
30	4.72	33.73	26.72	90.3	8.33	6.51	.00	1.07	3.46	.45
31	4.71	33.74	26.73	90.4	8.32	6.47				
32	4.71	33.73	26.72	90.4	8.32	6.43				
33	4.71	33.74	26.73	90.3	8.32	6.41				
34	4.71	33.74	26.73	90.3	8.32	6.39				

KELEZ CRUISE XWCC-12 STATION 153 05/04/77



XWCC-12 STA.154 LAT 38 37.1N; LONG 74 12.8W GMT 22.6 05/04/77
 DEPTH 047 AIR D/W 13.3/12.8 BARO 19.0 VIS 7 CLD TYP/CVR /7
 WETHR 2 WIND DIR/SPD 10/12 SEA DIR/HT 11/1 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	12.10	32.21	24.43	87.9	8.33	6.32				
2	12.10	32.21	24.43	87.9	8.33	6.32	.00	.00	.33	.03
3	11.98	32.21	24.45	88.2	8.33	6.38				
4	11.92	32.20	24.46	88.2	8.33	6.39				
5	11.92	32.22	24.47	88.2	8.33	6.39				
6	11.90	32.21	24.47	88.2	8.33	6.39				
7	11.87	32.22	24.48	88.2	8.33	6.40				
8	11.85	32.22	24.48	88.2	8.33	6.40				
9	11.84	32.22	24.48	88.1	8.33	6.40				
10	11.84	32.22	24.50	88.1	8.33	6.41	.00	.00	.29	.02
11	11.86	32.22	24.66	88.2	8.33	6.44				
12	10.45	32.27	24.77	88.1	8.33	6.55				
13	9.24	32.51	25.15	88.1	8.33	6.66				
14	7.33	32.80	25.80	87.9	8.33	6.85				
15	6.26	32.18	26.11	87.9	8.33	7.13				
16	6.17	32.50	26.37	88.0	8.33	7.20				
17	6.49	32.63	26.43	88.3	8.33	7.14				
18	6.50	32.72	26.47	88.3	8.33	7.09				
19	6.44	32.72	26.51	88.3	8.33	7.10				
20	6.10	32.72	26.55	88.1	8.33	7.13	.00	.00	.47	.23
21	5.92	32.74	26.59	88.1	8.33	7.20				
22	5.74	32.83	26.68	88.1	8.33	7.25				
23	5.73	32.87	26.72	88.0	8.33	7.26				
24	5.30	32.84	26.74	88.0	8.33	7.27				
25	4.98	32.98	26.89	88.2	8.33	7.33				
26	4.98	32.99	26.90	88.2	8.33	7.26				
27	4.98	32.99	26.90	88.2	8.33	7.14				
28	4.97	32.99	26.90	88.2	8.33	7.01				
29	4.97	32.99	26.90	88.2	8.33	6.92	.00	1.78	2.59	.45
30	4.97	32.99	26.90	88.2	8.33	6.84				
31	4.97	32.99	26.90	88.2	8.33	6.78				
32	4.97	32.99	26.90	88.2	8.33	6.74				
33	4.97	32.99	26.90	88.2	8.33	6.70				
34	4.97	32.99	26.90	88.2	8.33	6.66				
35	4.97	32.99	26.90	88.2	8.33	6.63				
36	4.97	32.99	26.90	88.2	8.33	6.60				
37	4.97	32.99	26.90	88.2	8.33	6.58				
38	4.97	32.99	26.90	88.2	8.33	6.56				
39	4.97	32.99	26.90	88.2	8.33	6.55	.00	1.83	2.67	.52
40	4.97	32.99	26.90	88.2	8.33	6.54				
41	4.97	32.99	26.90	88.2	8.33	6.53				
42	4.97	32.99	26.90	88.2	8.33	6.52				
43	4.97	32.99	26.90	88.2	8.33	6.51				
44	4.97	32.99	26.90	88.2	8.33	6.51				
45	4.97	32.98	26.90	88.2	8.33	6.50				

KELEZ CRUISE XWCC-12 STATION 154 05/04/77

TRANSMISSIVITY (0/0)

× 55 60 65 70 75 80 85 90 95 100

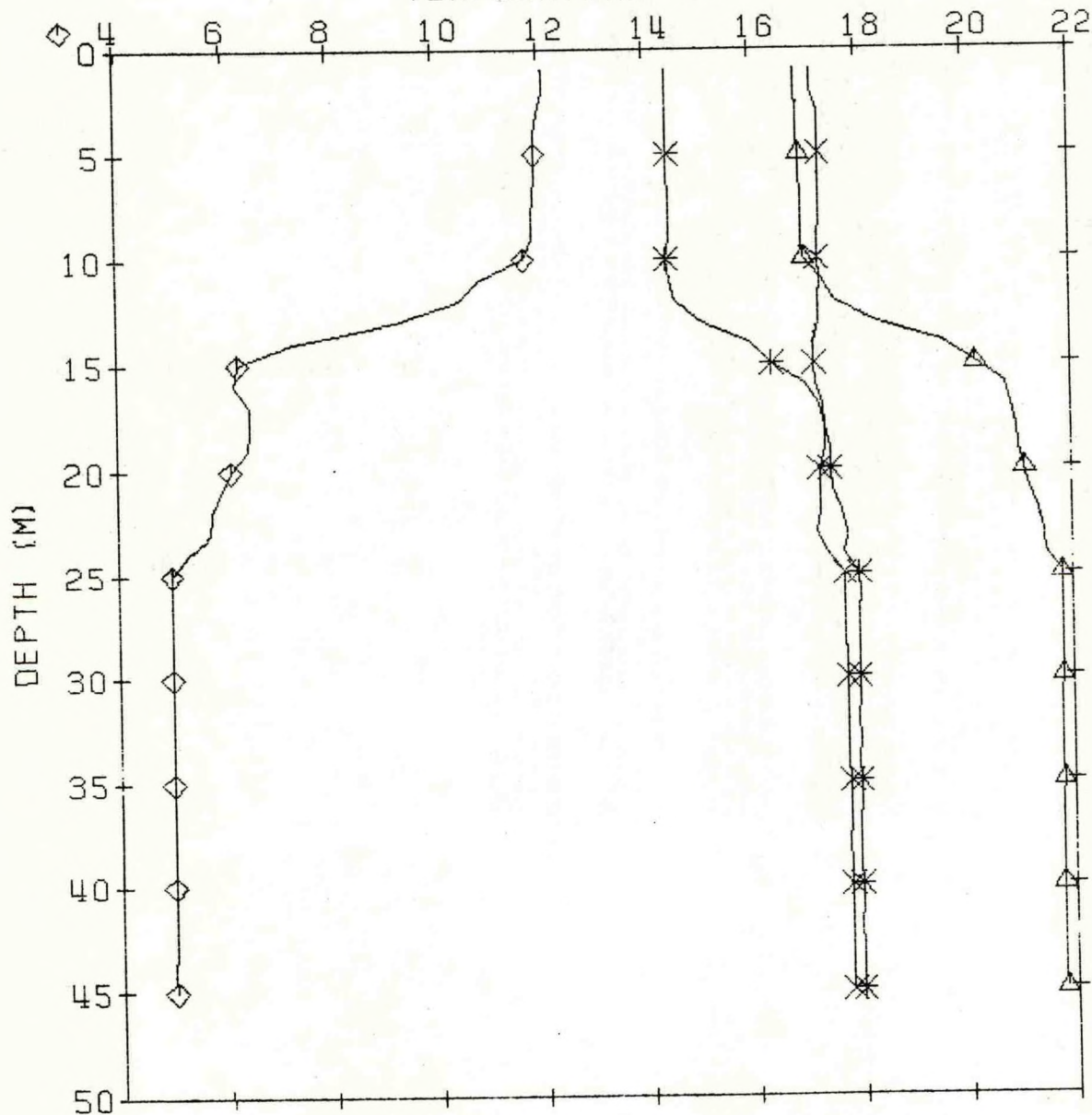
SIGMA-T

△ 18 19 20 21 22 23 24 25 26 27

SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)



XWCC-12 STA.155 LAT 38 31.4N; LONG 74 4.5W GMT 00.2 05/05/77
 DEPTH 060 AIR D/W 15.0/13.3 BARO 18.0 VIS 7 CLD TYP/CVR /7
 WETHR 2 WIND DIR/SPD 12/15 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	11.96	32.66	24.81	88.00	8.33	6.38				
2	11.96	32.66	24.81	88.00	8.33	6.38	.00	.05	.47	.20
3	11.96	32.66	24.81	87.99	8.33	6.39				
4	11.96	32.66	24.81	88.00	8.33	6.39				
5	11.95	32.67	24.82	88.00	8.33	6.39				
6	11.92	32.68	24.83	88.00	8.33	6.40				
7	11.79	32.75	24.90	88.22	8.33	6.41				
8	11.70	32.78	24.94	88.11	8.33	6.44				
9	11.61	32.83	25.00	88.11	8.33	6.45				
10	11.58	32.84	25.01	88.11	8.33	6.47				
11	11.53	32.85	25.03	88.11	8.33	6.47	.00	.00	4.11	.13
12	11.50	32.84	25.03	88.11	8.33	6.48				
13	11.42	32.89	25.08	88.11	8.33	6.47				
14	11.24	33.37	25.49	88.11	8.33	6.48				
15	10.72	33.81	25.92	88.4	8.33	6.54				
16	10.66	33.83	25.95	88.5	8.33	6.60				
17	10.60	33.84	25.96	88.3	8.33	6.64				
18	10.52	33.86	26.03	88.6	8.33	6.67				
19	9.99	33.92	26.20	87.5	8.33	6.76				
20	7.33	34.09	26.67	87.3	8.33	6.97	.00	.02	.11	.19
21	6.88	34.14	26.78	87.6	8.33	7.32				
22	6.67	34.15	26.79	87.7	8.33	7.38				
23	6.67	34.14	26.80	86.8	8.33	7.38				
24	6.65	34.16	26.82	86.6	8.33	7.40				
25	6.66	34.20	26.86	86.7	8.33	7.41				
26	6.66	34.20	26.86	86.2	8.33	7.40				
27	6.66	34.20	26.86	85.9	8.33	7.39				
28	6.66	34.22	26.88	86.2	8.33	7.36				
29	6.66	34.22	26.88	86.7	8.33	7.35				
30	6.66	34.22	26.88	86.7	8.33	7.30				
31	6.66	34.22	26.88	86.7	8.33	7.24	.00	1.35	.15	.27
32	6.66	34.22	26.88	86.4	8.33	7.20				
33	6.66	34.22	26.88	86.9	8.33	7.17				
34	6.66	34.22	26.88	86.9	8.33	7.12				
35	6.66	34.22	26.88	86.9	8.33	7.07				
36	6.66	34.22	26.88	86.9	8.33	6.98				
37	6.66	34.22	26.88	86.9	8.33	6.90				
38	6.66	34.22	26.88	86.9	8.33	6.83				
39	6.66	34.22	26.88	86.9	8.33	6.76				
40	6.66	34.22	26.88	86.9	8.33	6.71	.00	3.41	2.80	.50
41	6.66	34.22	26.88	86.9	8.33	6.66				
42	6.66	34.22	26.88	86.9	8.33	6.62				
43	6.66	34.22	26.88	86.9	8.33	6.58				
44	6.66	34.22	26.88	86.9	8.33	6.54				
45	6.66	34.22	26.88	86.9	8.33	6.52				
46	6.66	34.22	26.88	86.9	8.33	6.49				
47	6.66	34.22	26.88	86.9	8.33	6.47				
48	6.66	34.22	26.88	86.9	8.33	6.45				
49	6.66	34.22	26.88	86.9	8.33	6.44				
50	6.66	34.22	26.88	86.9	8.33	6.43				
51	6.66	34.22	26.88	86.9	8.33	6.35				

KELEZ CRUISE XWCC-12 STATION 155 05/05/77

TRANSMISSIVITY (0/0)

X 55 60 65 70 75 80 85 90 95 100

SIGMA-T

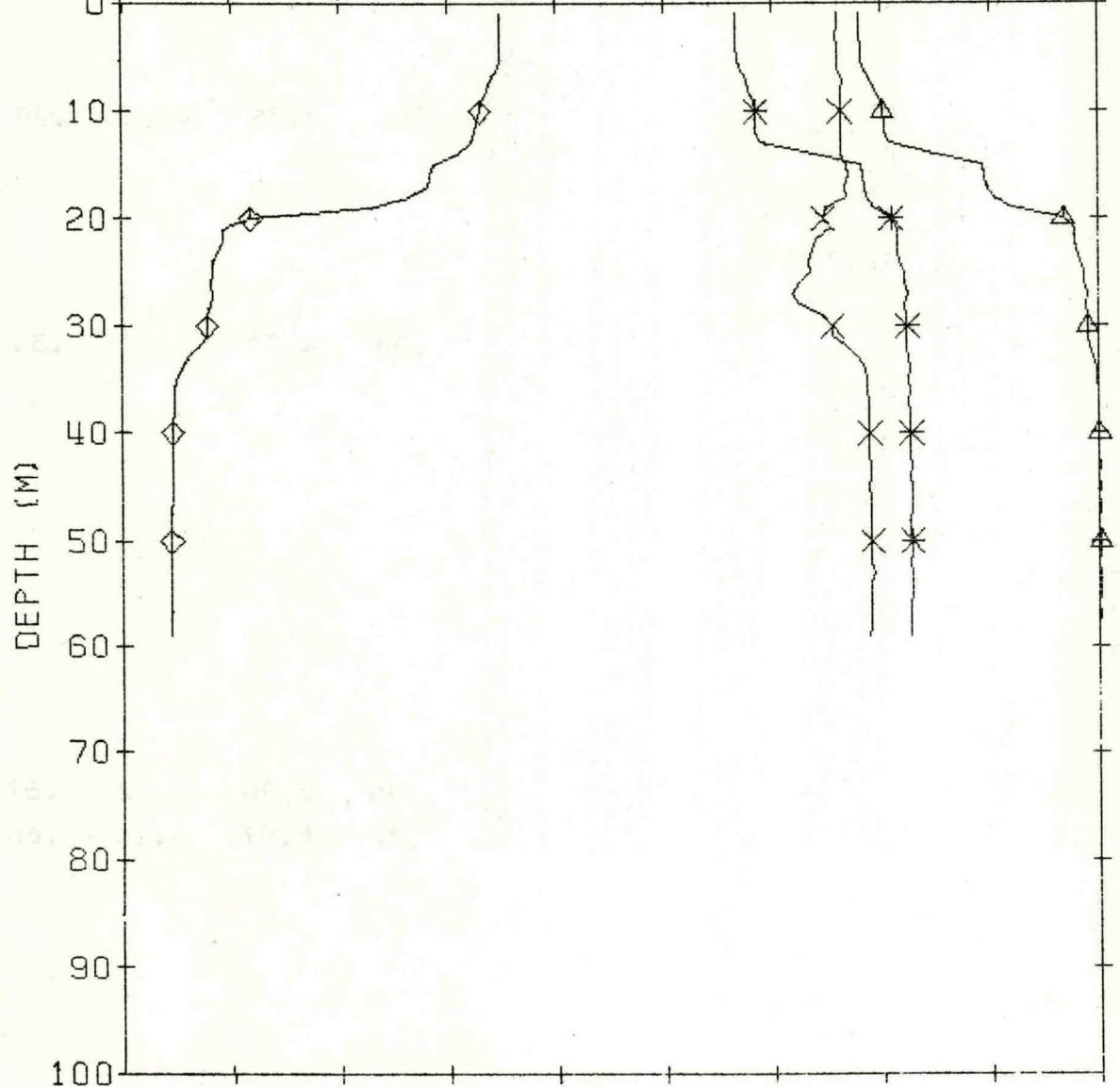
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SALINITY (0/00)

* 27 28 29 30 31 32 33 34 35 36

TEMPERATURE (C)

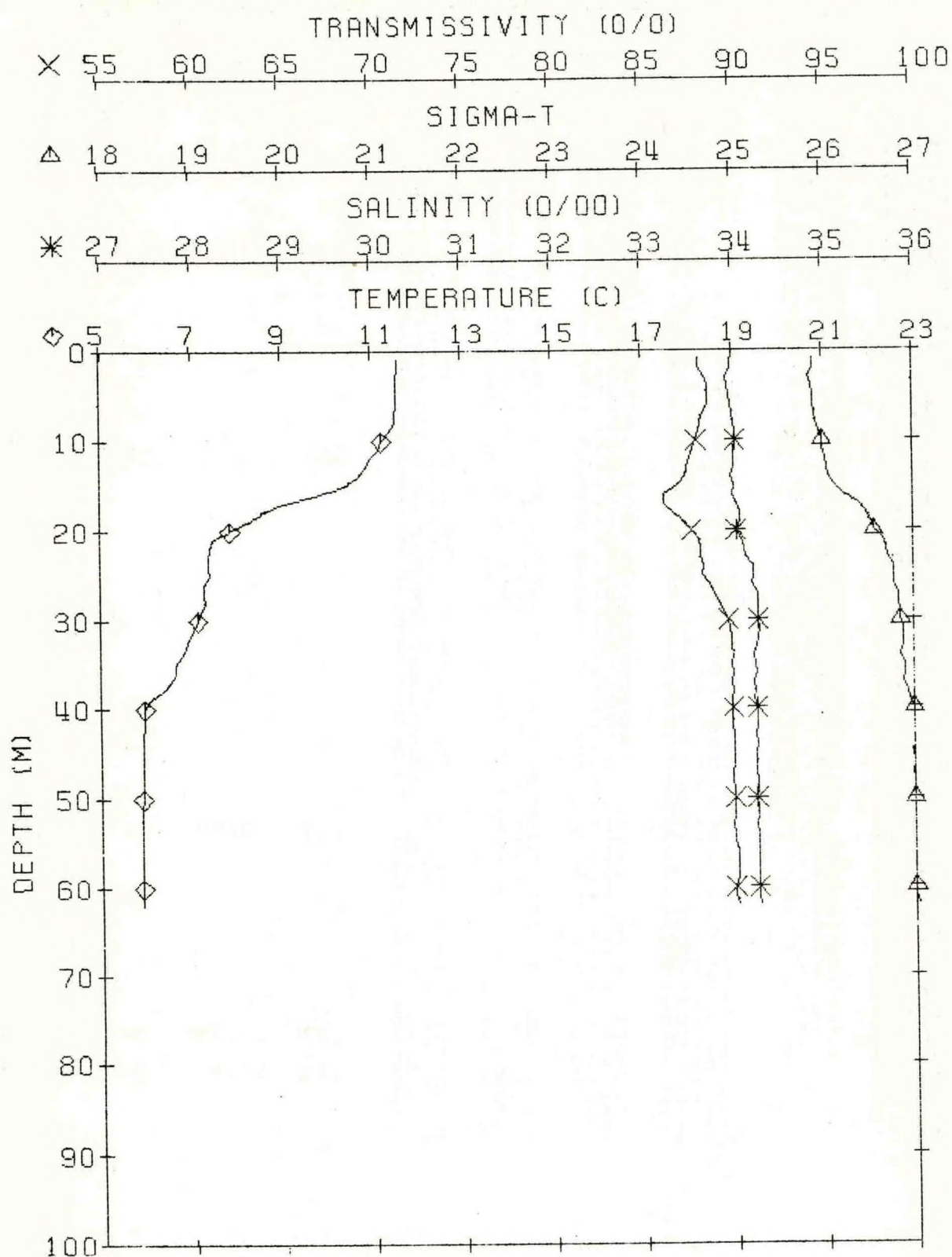
◇ 5 7 9 11 13 15 17 19 21 23



XWCC-12 STA.156 LAT 38 25.3N; LONG 73 53.0W GMT 02.1 05/05/77
 DEPTH 063 AIR D/W 14.4/13.3 BARO 17.0 VIS 7 CLD TYP/CVR /7
 WETHR 2 WIND DIR/SPD 13/13 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	11.57	33.98	25.90	88.1	8.33	6.65				
2	11.57	33.98	25.90	88.1	8.33	6.65	.00	.00	2.26	.14
3	11.56	33.99	25.86	88.5	8.33	6.68				
4	11.56	33.95	25.87	88.6	8.33	6.69				
5	11.56	33.97	25.89	88.6	8.33	6.69				
6	11.55	33.97	25.89	88.6	8.33	6.69				
7	11.53	34.01	25.91	88.4	8.33	6.69				
8	11.52	34.01	25.93	88.2	8.33	6.70				
9	11.40	34.02	25.96	88.1	8.33	6.71				
10	11.23	34.02	25.99	88.0	8.33	6.75	.00	.00	2.57	.14
11	11.14	34.01	26.00	87.8	8.33	6.77				
12	10.97	34.00	26.03	87.6	8.33	6.81				
13	10.84	34.01	26.06	87.5	8.33	6.84				
14	10.69	33.98	26.06	87.4	8.33	6.88				
15	10.37	34.01	26.06	87.0	8.33	6.92				
16	9.76	33.98	26.22	86.2	8.33	6.99				
17	8.95	34.04	26.39	86.2	8.33	7.12				
18	8.57	34.08	26.48	86.7	8.33	7.27				
19	8.24	34.07	26.53	87.3	8.33	7.33				
20	8.06	34.04	26.56	87.7	8.33	7.37	.00	2.75	4.18	.29
21	7.48	34.09	26.66	88.1	8.33	7.41				
22	7.42	34.12	26.69	88.2	8.33	7.42				
23	7.36	34.15	26.72	88.3	8.33	7.38				
24	7.37	34.22	26.77	88.4	8.33	7.33				
25	7.42	34.23	26.77	88.3	8.33	7.28				
26	7.22	34.22	26.78	88.7	8.33	7.22				
27	7.22	34.27	26.83	89.0	8.33	7.20				
28	7.31	34.28	26.83	89.0	8.33	7.16				
29	7.21	34.28	26.84	89.0	8.33	7.11				
30	7.11	34.28	26.85	89.0	8.33	7.10	.00	4.30	2.57	.36
31	7.05	34.29	26.88	89.0	8.33	7.05				
32	6.90	34.27	26.88	89.0	8.33	7.04				
33	6.89	34.26	26.88	89.0	8.33	7.01				
34	6.89	34.26	26.88	89.0	8.33	6.99				
35	6.66	34.26	26.88	89.0	8.33	6.97				
36	6.66	34.26	26.88	89.0	8.33	6.96				
37	6.55	34.26	26.89	89.0	8.33	6.93				
38	6.55	34.26	26.89	89.0	8.33	6.93				
39	6.55	34.26	26.89	89.0	8.33	6.92				
40	6.55	34.26	26.89	89.0	8.33	6.91				
41	6.55	34.26	26.89	89.0	8.33	6.80				
42	6.55	34.26	26.89	89.0	8.33	6.40				
43	6.55	34.26	26.89	89.0	8.33	6.17				
44	6.55	34.26	26.89	89.0	8.33	6.16				
45	6.55	34.26	26.89	89.0	8.33	6.14				
46	6.55	34.26	26.89	89.0	8.33	6.14				
47	6.55	34.26	26.89	89.0	8.33	6.12				
48	6.55	34.26	26.89	89.0	8.33	6.12				
49	6.55	34.26	26.89	89.0	8.33	6.10				
50	6.55	34.26	26.89	89.0	8.33	6.10	.00	5.06	4.02	.67
51	6.55	34.26	26.89	89.0	8.33	6.05				
52	6.55	34.26	26.89	89.0	8.33	6.06	.00	4.97	4.15	.66

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XWCC 12 STA. 157 LAT 38 19.5N; LONG 73 43.2W GMT 03.6 05/05/77
 DEPTH 110 AIR D/W 15.0/14.4 BARO 16.0 VIS 6 CLD TYP/CVR /8
 WETHR 6 WIND DIR/SPD 15/15 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	02	N02	N03	SI03	P04
1	12.51	34.73	26.30	85.7	8.33	6.68				
2	12.51	34.73	26.30	85.7	8.33	6.68	.00	.00	2.78	.03
3	12.52	34.73	26.29	86.0	8.33	7.02				
4	12.53	34.73	26.30	86.2	8.33	7.06				
5	12.53	34.74	26.30	86.2	8.33	7.07				
6	12.53	34.73	26.30	86.1	8.33	7.08				
7	12.53	34.73	26.30	86.2	8.33	7.09				
8	12.54	34.74	26.30	86.1	8.33	7.09				
9	12.54	34.74	26.31	86.0	8.33	7.09				
10	12.54	34.74	26.30	86.1	8.33	7.09				
11	12.55	34.74	26.30	86.2	8.33	7.09				
12	12.55	34.74	26.30	86.0	8.33	7.09				
13	12.55	34.74	26.30	86.1	8.33	7.09				
14	12.55	34.74	26.30	86.1	8.33	7.10				
15	12.58	34.76	26.33	86.1	8.33	7.10				
16	12.57	34.93	26.44	85.3	8.33	7.10				
17	12.58	35.04	26.47	85.3	8.33	7.05				
18	13.13	35.18	26.52	86.3	8.33	7.01				
19	13.22	35.26	26.56	86.6	8.33	6.93	.00	.91	2.35	.04
20	13.37	35.33	26.59	86.9	8.33	6.88				
21	13.55	35.41	26.61	87.2	8.33	6.81				
22	13.66	35.47	26.64	87.6	8.33	6.77				
23	13.69	35.48	26.64	87.8	8.33	6.71				
24	13.76	35.54	26.67	88.0	8.33	6.66				
25	13.88	35.56	26.67	88.4	8.33	6.63				
26	13.92	35.60	26.69	88.7	8.33	6.58				
27	13.94	35.61	26.69	88.8	8.33	6.54				
28	13.97	35.64	26.70	88.9	8.33	6.49				
29	14.01	35.66	26.71	88.9	8.33	6.45				
30	14.07	35.71	26.73	89.0	8.33	6.41				
31	14.11	35.72	26.73	89.0	8.33	6.39				
32	14.11	35.74	26.75	89.0	8.33	6.36				
33	14.06	35.73	26.75	90.2	8.33	6.33				
34	13.78	35.65	26.75	90.5	8.33	6.30				
35	13.14	35.57	26.82	91.0	8.33	6.29				
36	12.67	35.53	26.88	91.1	8.33	6.29				
37	12.50	35.52	26.91	91.0	8.33	6.26				
38	12.53	35.55	26.93	91.0	8.33	6.20				
39	12.72	35.60	26.94	91.1	8.33	6.11	.27	9.59	4.70	.53
40	12.85	35.64	26.94	91.2	8.33	6.01				
41	12.87	35.65	26.94	91.2	8.33	5.95				
42	12.88	35.65	26.94	91.2	8.33	5.89				
43	12.86	35.64	26.94	91.2	8.33	5.85				
44	12.87	35.65	26.94	91.2	8.33	5.81				
45	12.71	35.66	26.98	91.3	8.33	5.78				
46	12.06	35.48	26.97	91.3	8.33	5.78				
47	12.19	35.53	26.99	91.2	8.33	5.82				
48	12.33	35.59	27.01	91.3	8.33	5.78				
49	12.33	35.59	27.00	91.3	8.33	5.73				
50	12.15	35.54	27.00	91.4	8.33	5.68	.17	10.76	5.13	.53
60	9.86	35.05	27.04	90.9	8.33	5.72	.14	11.61	5.31	.54
70	11.30	35.42	27.07	91.4	8.33	5.46				
80	10.36	35.22	27.08	91.1	8.33	5.52				
90	10.21	35.24	27.12	90.9	8.33	5.51				
100	10.15	35.23	27.12	91.0	8.33	5.50				
105	10.06	35.24	27.15	91.2	8.33	5.49				

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