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NOAA Data Report OMPA-4

MESA NEW YORK BIGHT PROJECT

EXPANDED WATER COLUMN CHARACTERIZATION

CRUISE (XWCC 18)

NOAA SHIP GEORGE B. KELEZ

JUNE 1978

John B. Hazelworth
Terren M. Niedrauer
George A. Berberian

Boulder, Colorado
May 1981

noaa NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION / Office of Marine Pollution Assessment

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National Oceanic and Atmospheric Administration
Atlantic Oceanographic and Meteorological Laboratories
4301 Rickenbacker Causeway
Miami, Florida 33149

Boulder, Colorado
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MESA NEW YORK BIGHT PROJECT
EXPANDED WATER COLUMN CHARACTERIZATION CRUISE (XWCC 18)
NOAA SHIP GEORGE B. KELEZ
JUNE 1978

John B. Hazelworth
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During the period 30 May - 9 June 1978, 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 represents 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 publications presenting oceanographic data from the New York Bight. In May-June of 1978, a cruise of 103 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 (Figure 1 and Table 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). Water samples at selected stations were obtained for the analysis of dissolved organic carbon, labile sugars, and plankton. These results will be reported separately.

This report is the seventeenth 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, 1977 a,b), Hazelworth and Darnell (1976), Kolitz et al. (1976 a,b) and Hazelworth et al. (1976, 1977 a,b, 1978 a,b,c,d,e, 1981).

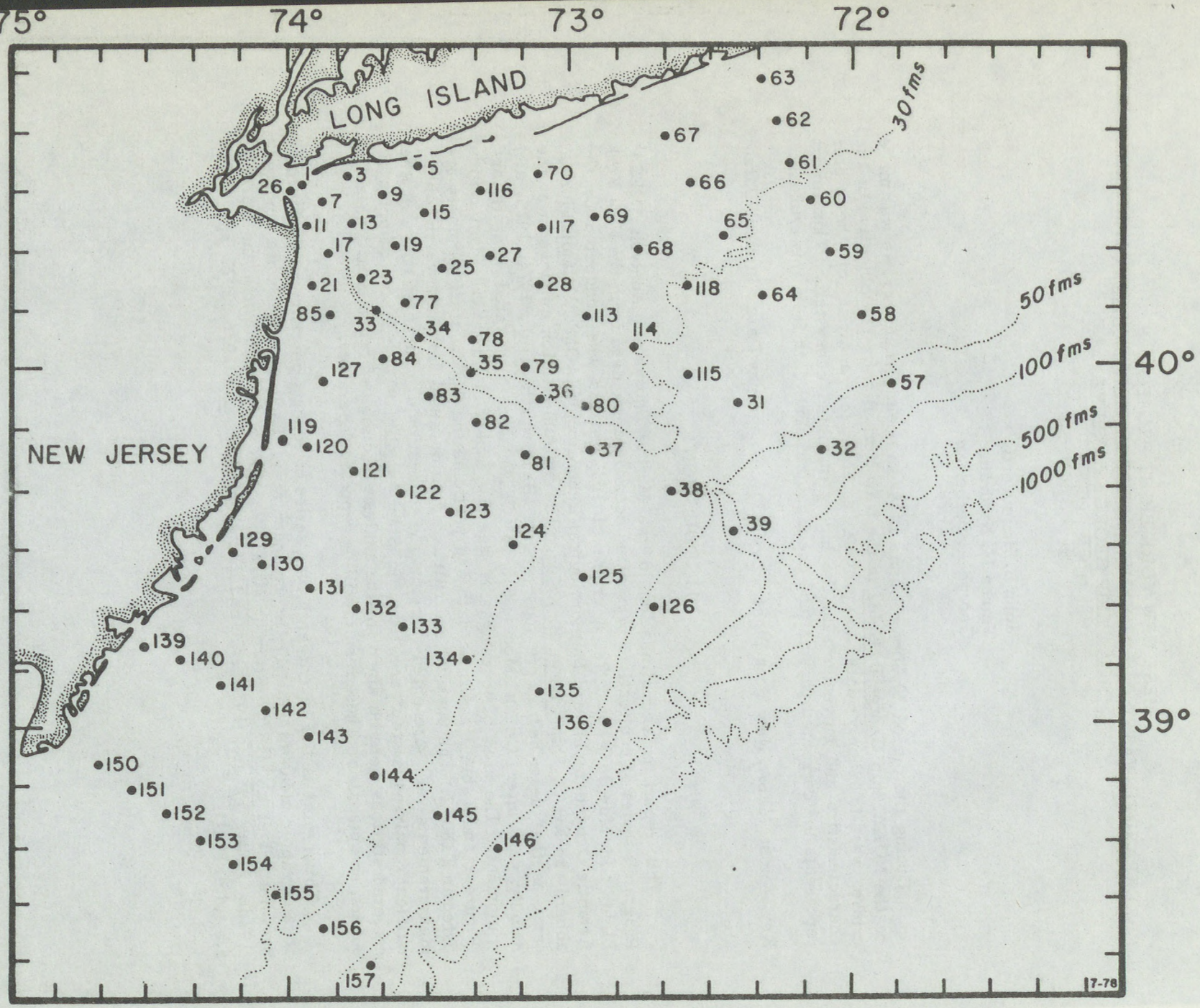

Figure 1: Locations of stations occupied during XWCC 18.

TABLE 1

NEW YORK BIGHT STATIONS POSITIONS

STATION	LATITUDE	LONGITUDE	STATION	LATITUDE	LONGITUDE
1	40° 30.2	73° 57.3	83	39° 56.5	73° 30.5
3	40° 31.5	73° 48.4	84	40° 02.0	73° 51.5
5	40° 33.3	73° 32.5	85	40° 08.0	73° 51.5
7	40° 26.9	73° 53.0	113	40° 08.8	72° 55.5
9	40° 28.3	73° 39.6	114	40° 04.0	72° 45.2
11	40° 22.2	73° 56.7	115	39° 58.7	72° 34.1
13*(5)	40° 23.3	73° 47.0	116	40° 30.0	73° 18.7
15	40° 25.2	73° 30.4	117	40° 23.1	72° 05.0
17*(5)	40° 18.5	73° 51.8	118	40° 14.4	72° 34.1
19	40° 20.2	73° 37.9	119	39° 48.4	74° 00.0
21	40° 13.5	73° 56.1	120*(3)	39° 46.5	73° 55.5
23	40° 14.8	73° 45.6	121*(3)	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	72° 12.2
28	40° 13.5	73° 07.0	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° 07.0	127	39° 57.2	73° 53.4
33	40° 10.0	73° 41.5	129	39° 30.0	74° 11.0
34	40° 05.5	73° 31.5	130*(3)	39° 27.7	74° 06.1
35	39° 59.0	73° 21.5	131*(3)	39° 23.2	73° 55.5
36	39° 55.0	73° 06.5	132	39° 20.0	73° 46.5
37	39° 46.0	72° 57.0	133	39° 16.9	73° 35.8
38	39° 39.0	72° 39.5	134	39° 11.1	73° 21.9
39	39° 32.0	72° 26.0	135	39° 05.2	73° 06.5
57	39° 57.0	71° 52.0	136	39° 00.0	72° 52.0
58	40° 08.0	71° 58.0	139	39° 13.5	74° 30.0
59	40° 18.0	72° 04.0	140	39° 11.0	74° 24.5
60	40° 27.0	72° 09.0	141	39° 06.8	74° 15.2
61	40° 33.0	72° 13.0	142	39° 02.9	74° 05.9
62	40° 40.0	72° 16.0	143	39° 58.1	73° 56.0
63	40° 47.0	72° 20.0	144	38° 51.6	73° 42.0
64	40° 12.0	72° 20.0	145	38° 45.0	73° 27.9
65	40° 21.0	72° 28.0	146	38° 39.4	73° 16.1
66	40° 30.0	72° 34.0	150	38° 53.8	74° 41.9
67	40° 38.0	72° 40.0	151	38° 49.7	74° 34.0
68	40° 19.0	72° 46.0	152	38° 45.4	74° 27.2
69	40° 25.0	72° 55.0	153	38° 41.5	74° 20.0
70	40° 32.0	73° 07.0	154	38° 37.1	74° 12.8
77	40° 10.5	73° 34.0	155	38° 31.4	74° 04.5
78	40° 05.0	73° 21.5	156	38° 25.3	73° 53.0
79	40° 00.0	73° 09.5	157	38° 19.5	73° 43.2
80	39° 54.5	72° 57.0			
81	39° 44.5	73° 10.0			
82	39° 50.5	73° 20.5			

*Station occupied n-times

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

Cruise	Date	AOML Personnel
XWCC 18	May 30 - June 9, 1978	Donald K. Atwood, Chief Scientist Adriana Cantillo Phillip McGillivary Dale Finch George Harvey

2. DATA ANALYSIS

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 transmissivity correction factors were calculated. However, this sensor was calibrated before the cruise. The statistical parameters in Table 3 were computed using the following formules:

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

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 = date (Julian day, Table 3); and
D = depth (Table 3).

Table 3. Correction Factors and Data Accuracy for Cruise XWCC 18

	Calib. Offset	Calib. Recheck	X	S_x	Precision (Repeatability)
Temperature (°C)	+.002T-.001D-.497		+.00	.02	
Salinity (°/oo)	+.001T+.001D-.364		+.00	.02	
O_2 (mℓ/ℓ)	-.003T-.001D+.975		.00	.06	
Depth (Meters)	0.0				±0.5

3. DATA PRESENTATION

Tables of the interpolated data and the corresponding depth profiles of temperature (°C), salinity (°/oo), sigma-t and transmissivity (0-100% transmission) are given in Section 7, 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. The column O_2 is the dissolved oxygen data as recorded by the electronic probe. The column heading O_2W is the dissolved oxygen as determined by water samples by means of the modified Winkler method, Strickland and Parsons (1968). Dissolved ammonia values below the detection limit of 0.2 μg-at N/ℓ are reported as zero. Profiles were produced from the processed 1-m interval 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 6: 1) Horizontally at the 1-m depth (Figures 2-4), and 2) vertically along the axis of the Hudson Shelf Valley (Figures 5-7). Information describing the methods used for the computer drawn figures can be found in Herman and Niedrauer (1978) and Niedrauer and Herman (1978).

The detection limits and accuracies of analysis for the five nutrients are listed in Table 4.

Table 4. Operational Characteristics of the Nutrient-Analysis System

Parameter	Detection Limit μg-at / ℓ	Coefficient of Variation (95% confidence level) % at μg-at / ℓ
Nitrate	0.4	0.17 at 15.0
Nitrite	0.1	1.2 at 3.2
Phosphate	0.05	1.6 at 0.64
Silicate	0.5	2.3 at 33.0
Ammonia	0.2	0.31 at 8.0

4. ACKNOWLEDGMENTS

The authors express their thanks to the officers and crew of the NOAA Ship George B. Kelez, under the command of Lcdr. C. Berman, 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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6. AREAL AND CROSS-SECTION DISTRIBUTIONS OF TEMPERATURE, SALINITY, AND SIGMA-T

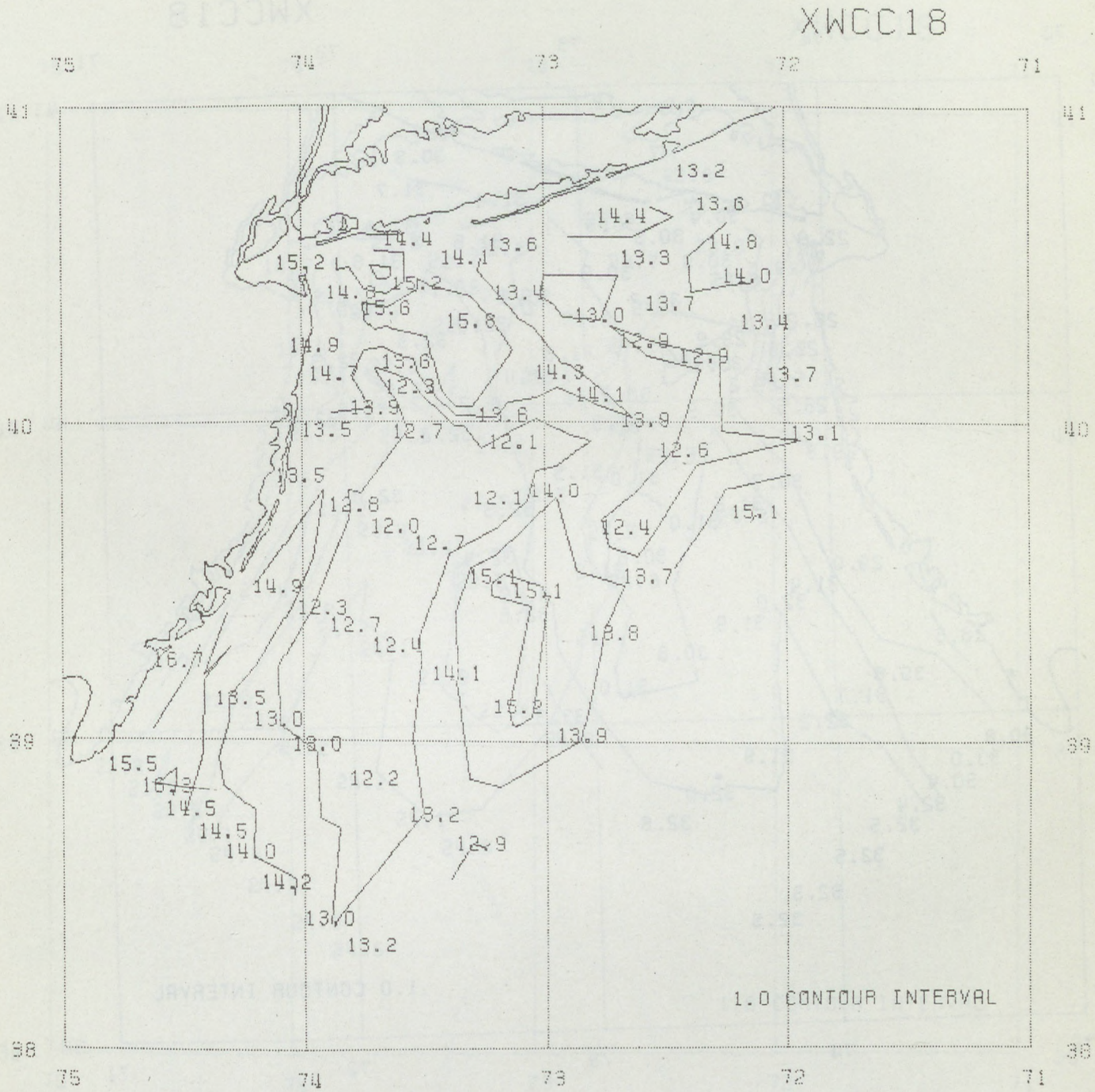


FIGURE 2. SURFACE WATER TEMPERATURES (C) 5/30/78-6/09/78

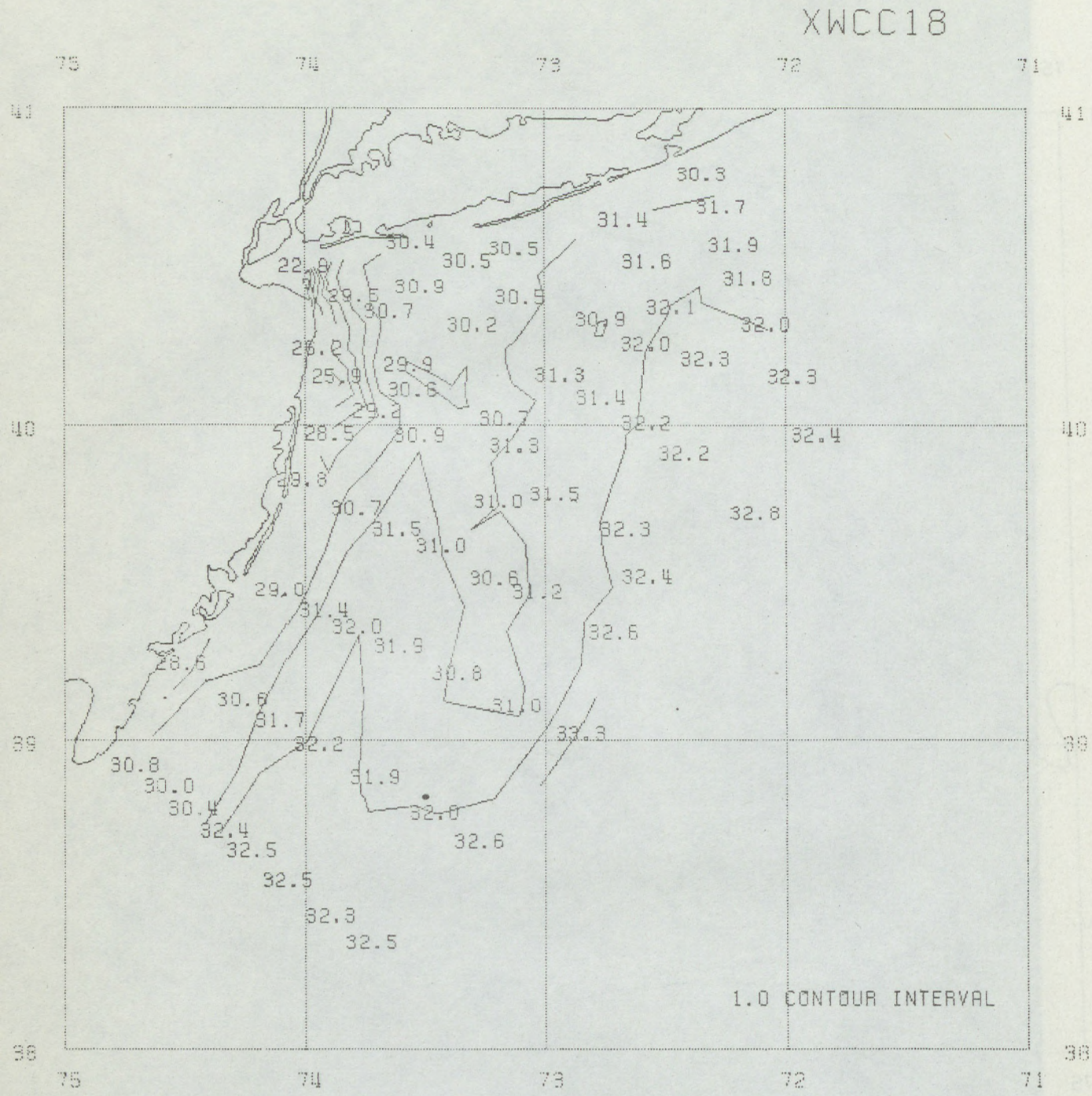


FIGURE 3. SURFACE SALINITIES (0/00) 5/30/78-6/09/78

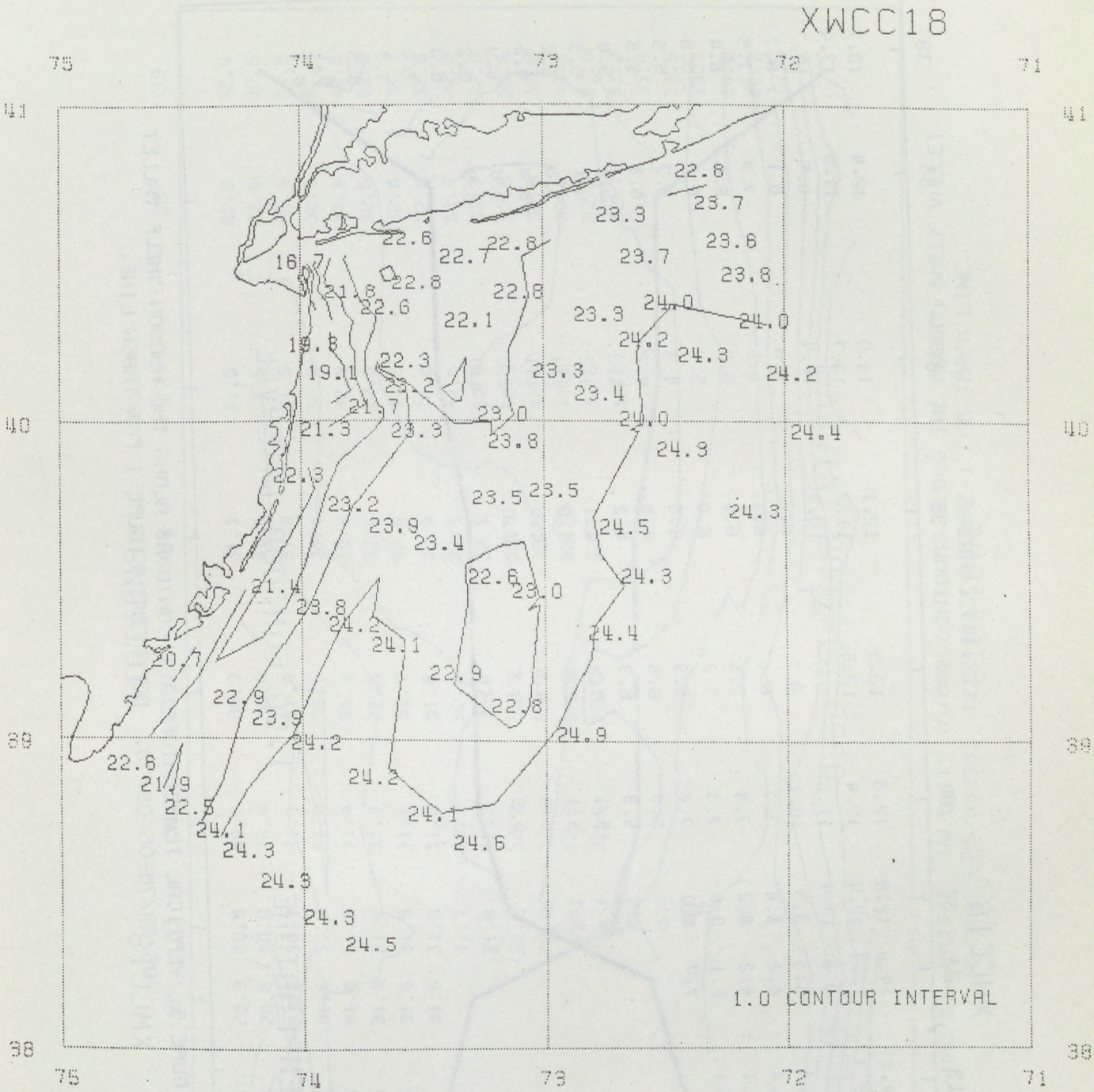


FIGURE 4. SURFACE SIGMA-T 5/30/78-6/09/78

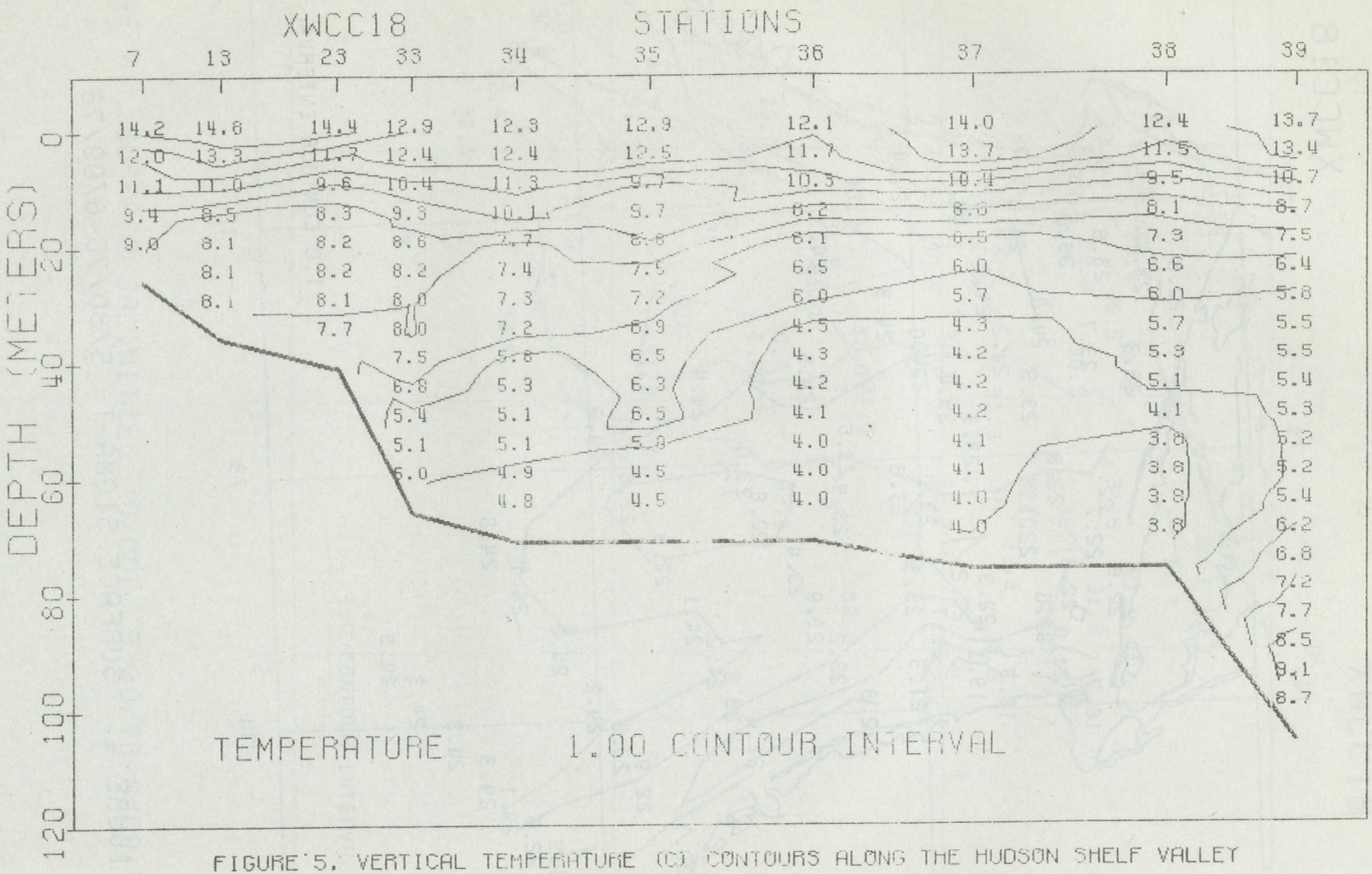


FIGURE 5. VERTICAL TEMPERATURE (C) CONTOURS ALONG THE HUDSON SHELF VALLEY 05/30/78-06/09/78. REFERENCE FIGURE 1 FOR TRACK LINE.

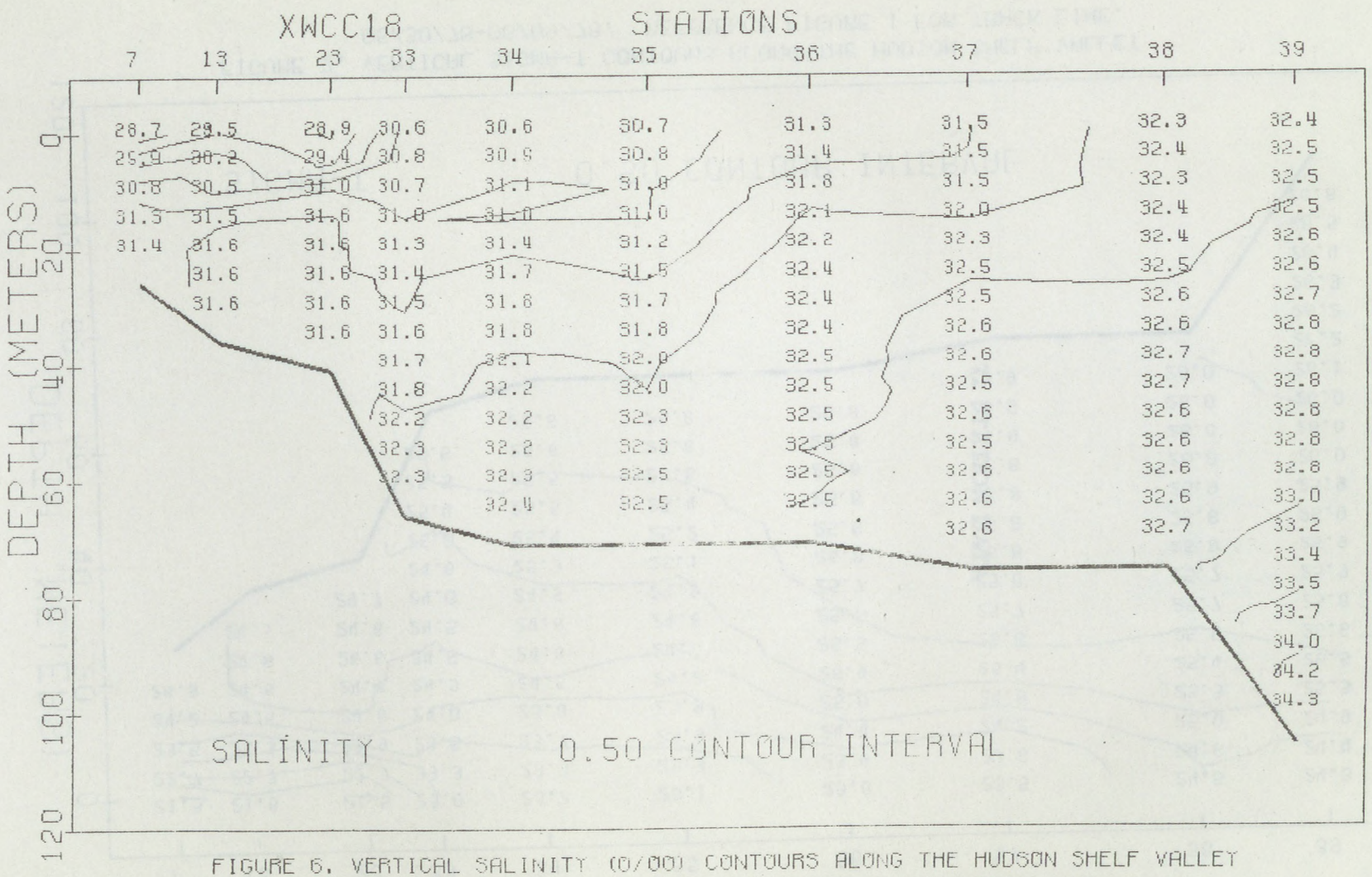


FIGURE 6. VERTICAL SALINITY (0/00) CONTOURS ALONG THE HUDSON SHELF VALLEY 05/30/78-06/09/78. REFERENCE FIGURE 1 FOR TRACK LINE.

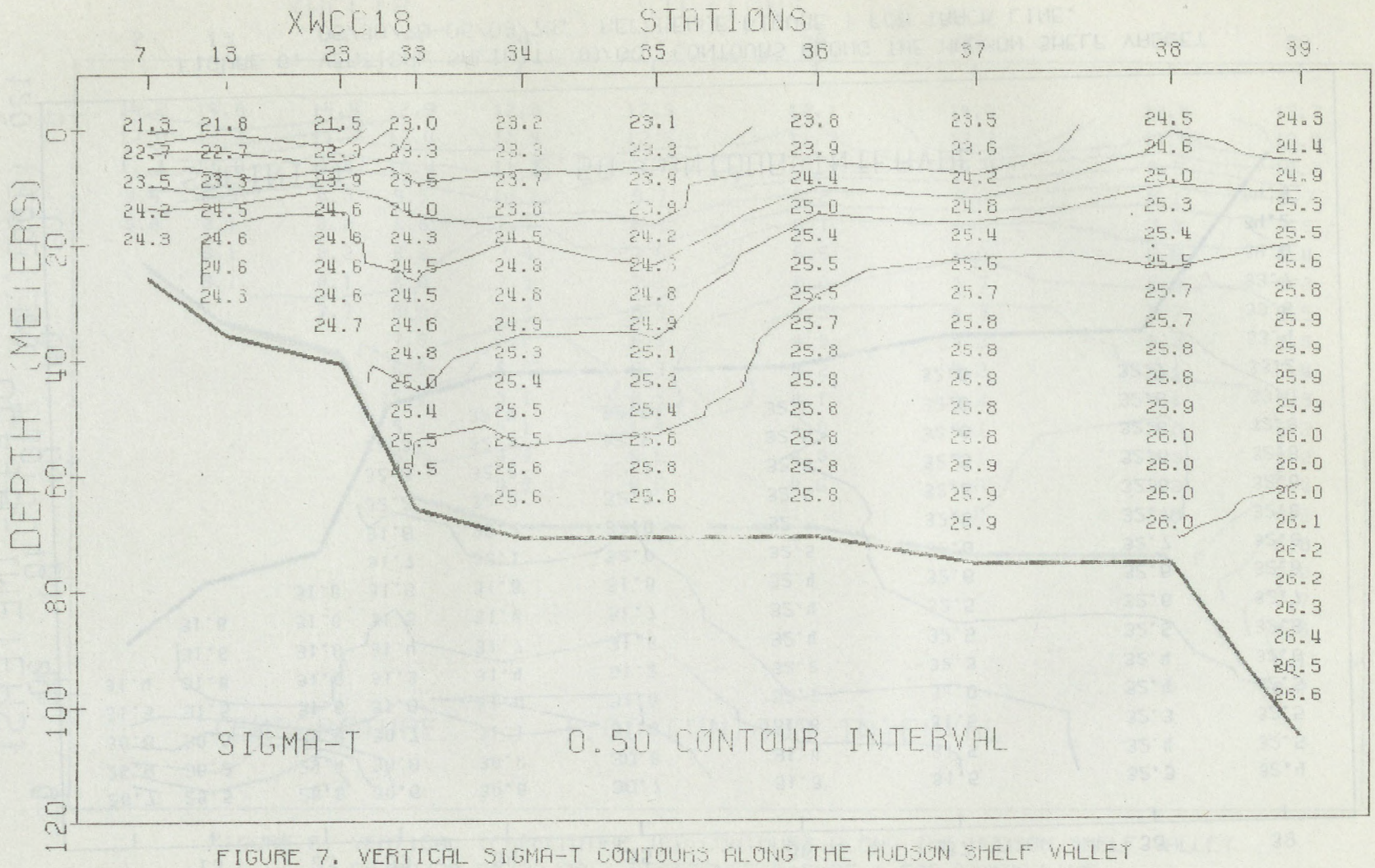
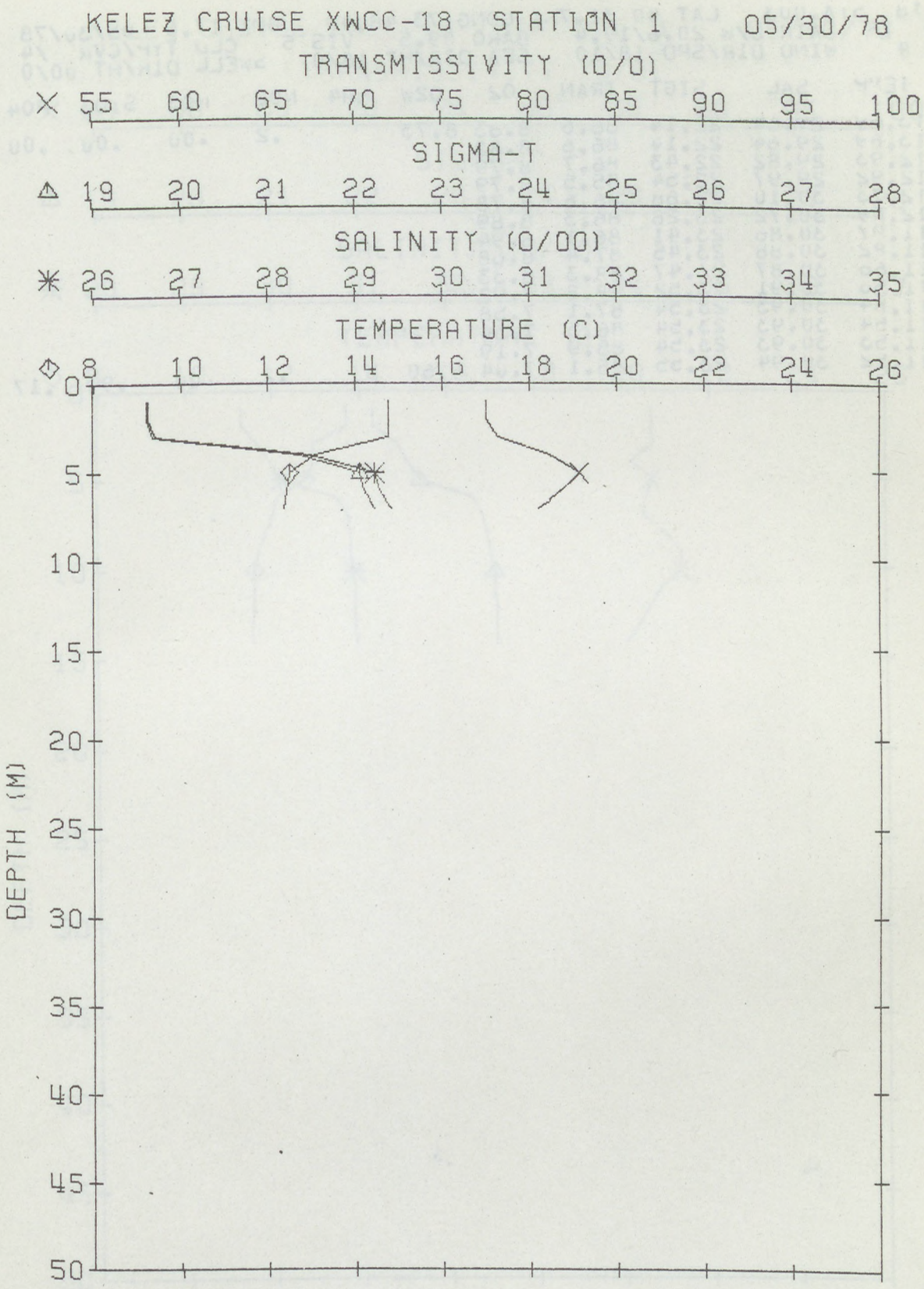


FIGURE 7. VERTICAL SIGMA-T CONTOURS ALONG THE HUDSON SHELF VALLEY 05/30/78-06/09/78. REFERENCE FIGURE 1 FOR TRACK LINE.

7. STATION DATA

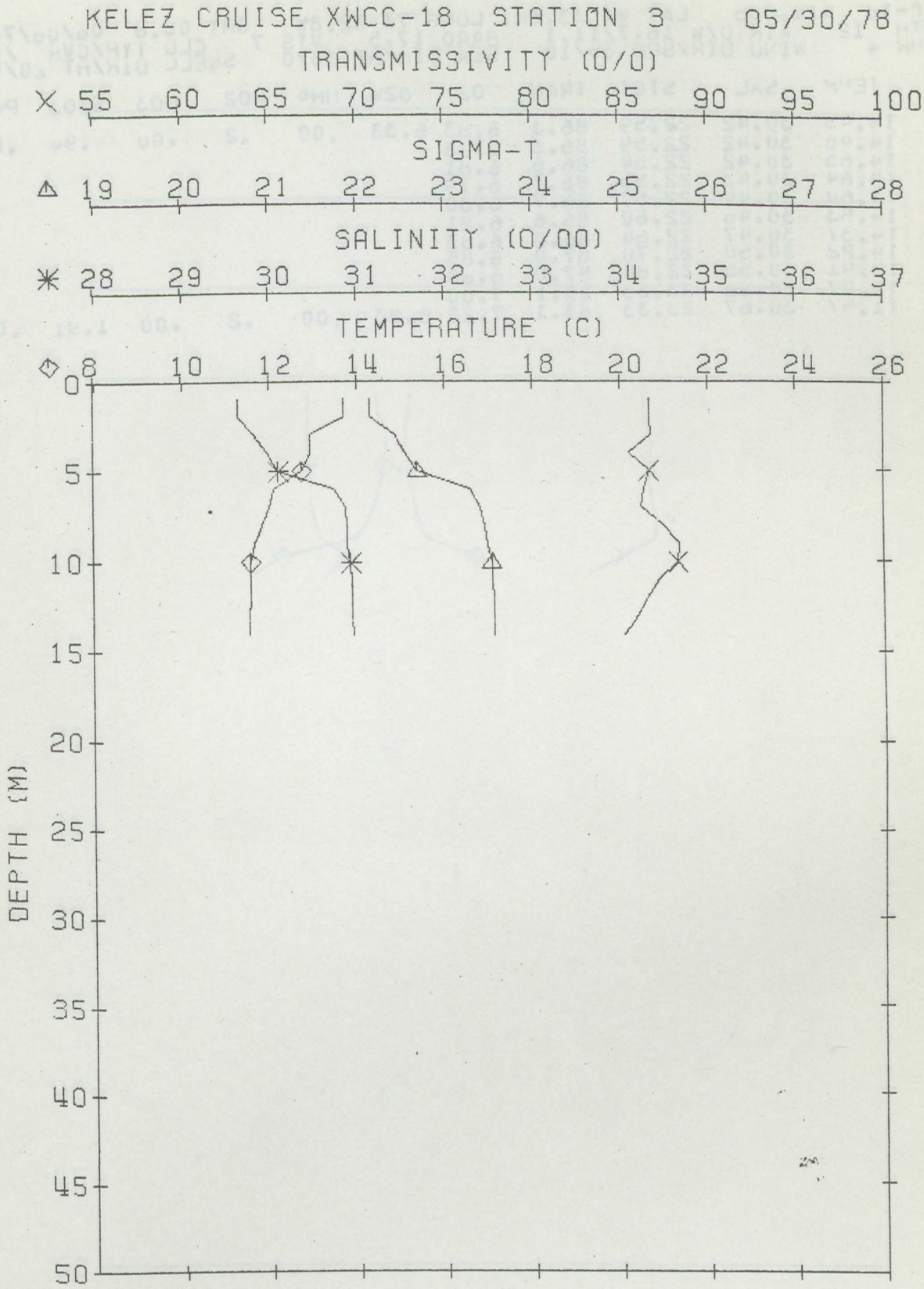
XWCC-18 STA.001 LAT 40 30.1N; LONG 73 57.5W GMT 12.7 05/30/78
DEPTH 8 AIR D/W 21.7/20.0 BARO 12.0 VIS 5 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 15/10 SEA DIR/HT 15/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.77	26.62	19.61	77.5	6.47	6.75		.8	2.59	5.89	.58
2	14.76	26.62	19.61	77.5	6.47						
3	14.75	26.70	19.68	78.1	6.46						
4	13.06	23.47	21.36	81.1	6.51						
5	12.48	29.21	22.04	82.8	6.71						
6	12.42	29.28	22.11	81.8	6.69						
7	12.37	29.41	22.21	80.5	6.61						


KELEZ CRUISE XWCC-18 STATION 1 05/30/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
26 27 28 29 30 31 32 33 34 35
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

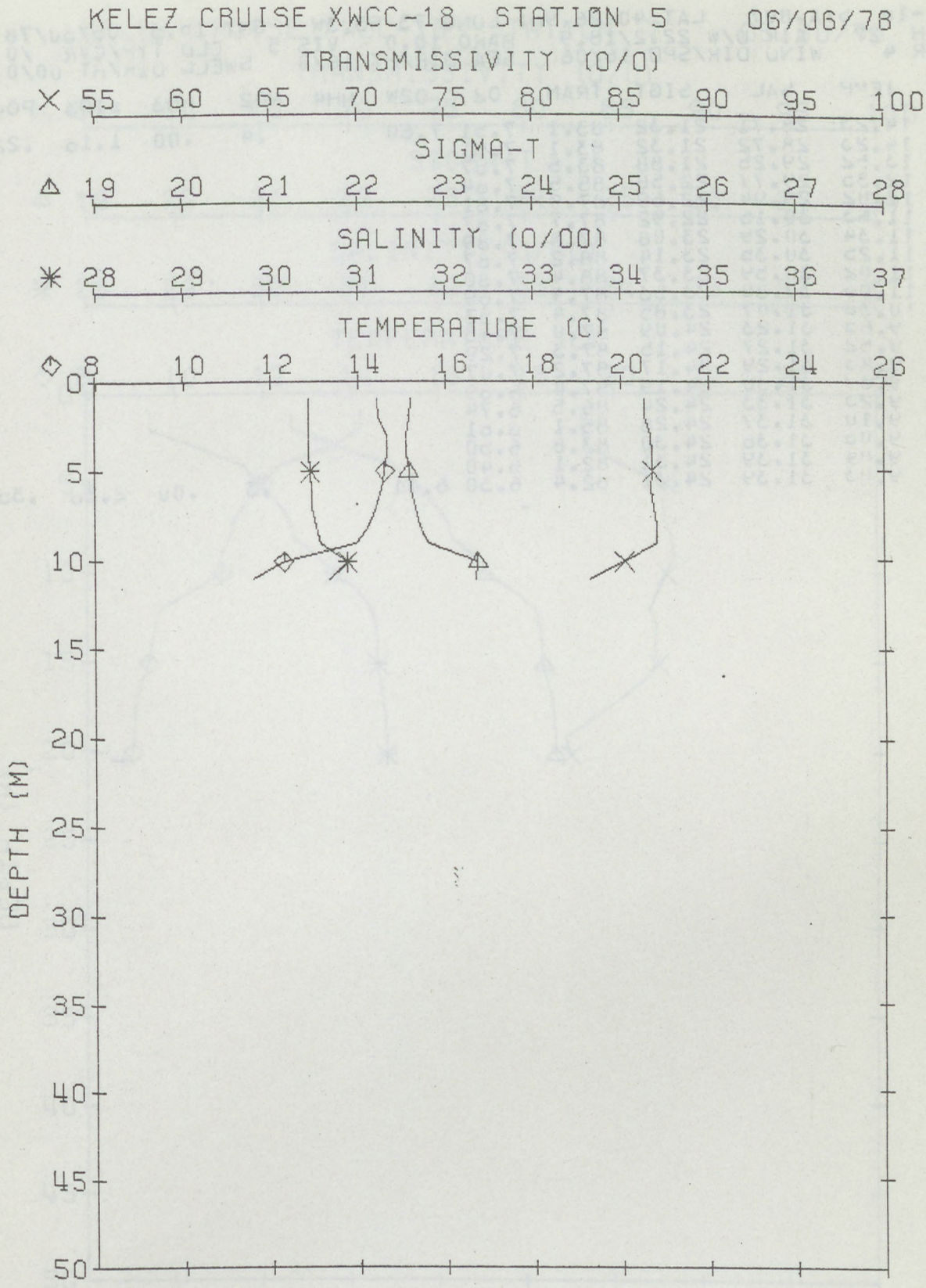
XWCC-18 STA.003 LAT 40 31.7N; LONG 73 48.4W GMT 17.0 05/30/78
DEPTH 16 AIR D/W 20.6/19.4 BARO 09.5 VIS 5 CLD TYP/CVR /4
WEIHR 4 WIND DIR/SPD 18/10 SEA DIR/HT 18/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.69	29.64	22.14	86.6	8.83	8.73		.2	.00	.00	.00
2	13.69	29.64	22.14	86.6	8.82						
3	12.93	29.82	22.43	86.7	8.79						
4	12.92	29.97	22.54	85.5	8.79						
5	12.73	30.10	22.68	86.6	8.78						
6	12.09	30.72	23.28	86.3	8.89						
7	11.97	30.86	23.41	86.1	8.94						
8	11.82	30.88	23.45	87.4	8.68						
9	11.66	30.87	23.47	88.3	8.33						
10	11.56	30.91	23.52	88.2	7.92						
11	11.54	30.93	23.54	87.1	7.58						
12	11.54	30.93	23.54	86.5	7.34						
13	11.53	30.93	23.54	85.9	7.19						
14	11.52	30.94	23.55	85.1	7.04	6.60		.2	.00	.99	.17


KELEZ CRUISE XWCC-18 STATION 3 05/30/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

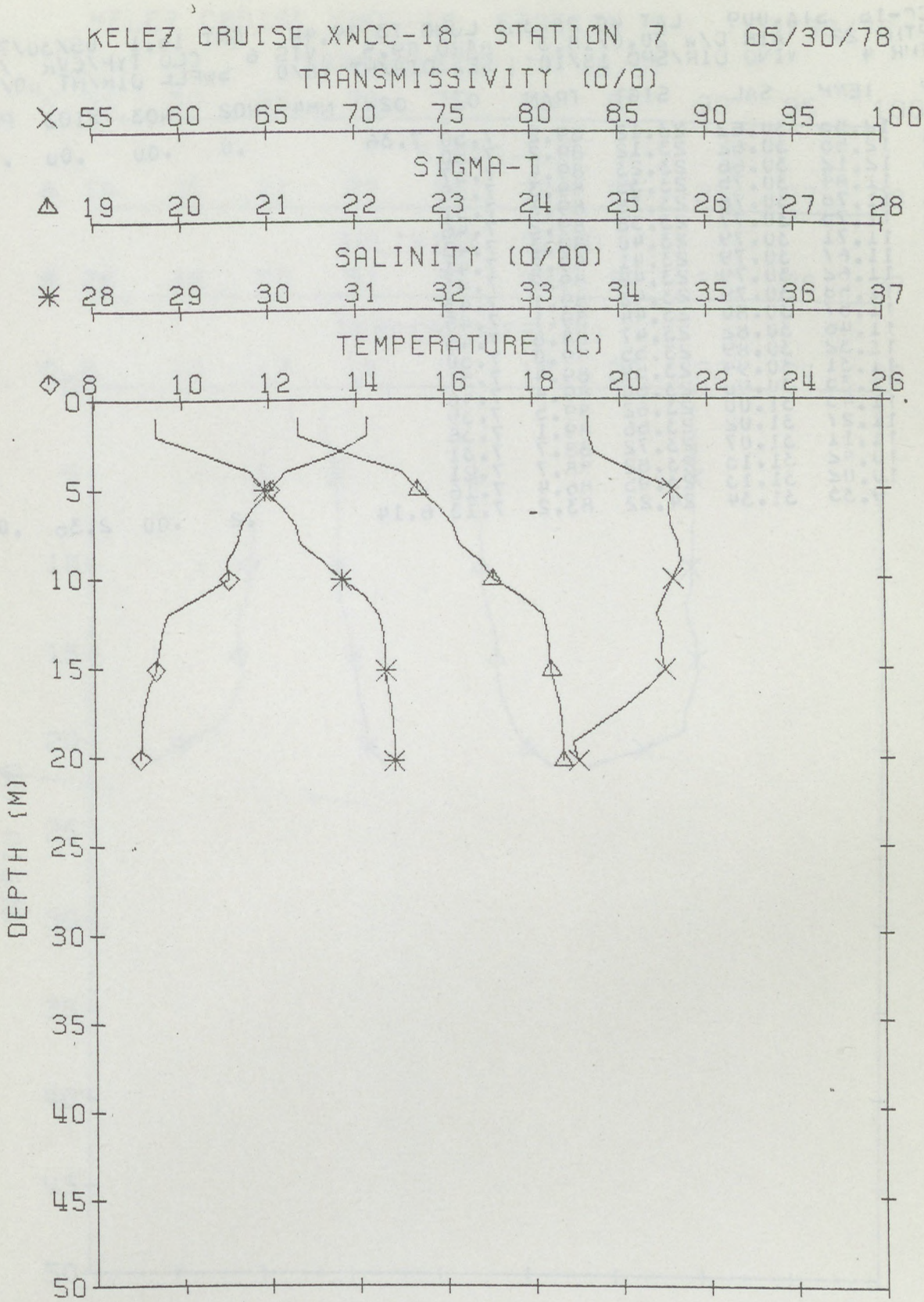
XWCC-18 STA.005 LAT 40 33.6N; LONG 73 32.8W GMT 08.8 06/06/78
DEPTH 12 AIR D/W 16.7/11.1 BARO 17.5 VTS 7 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 35/10 SEA DIR/HT 35/0 SWELL DIR/HT 20/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.45	30.42	22.59	86.3	6.83	6.33	.00	.2	.00	.94	.00
2	14.46	30.42	22.59	86.3	6.83						
3	14.65	30.42	22.54	86.6	6.81						
4	14.64	30.43	22.55	86.7	6.79						
5	14.60	30.44	22.57	86.7	6.80						
6	14.53	30.46	22.60	86.6	6.81						
7	14.37	30.47	22.64	86.8	6.83						
8	14.22	30.50	22.70	87.0	6.85						
9	13.91	30.55	22.80	87.0	6.88						
10	12.27	30.86	23.35	85.1	7.00						
11	11.57	30.67	23.33	83.1	7.22	6.83	.00	.2	.00	1.91	.00


KELEZ CRUISE XWCC-18 STATIØN 5 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

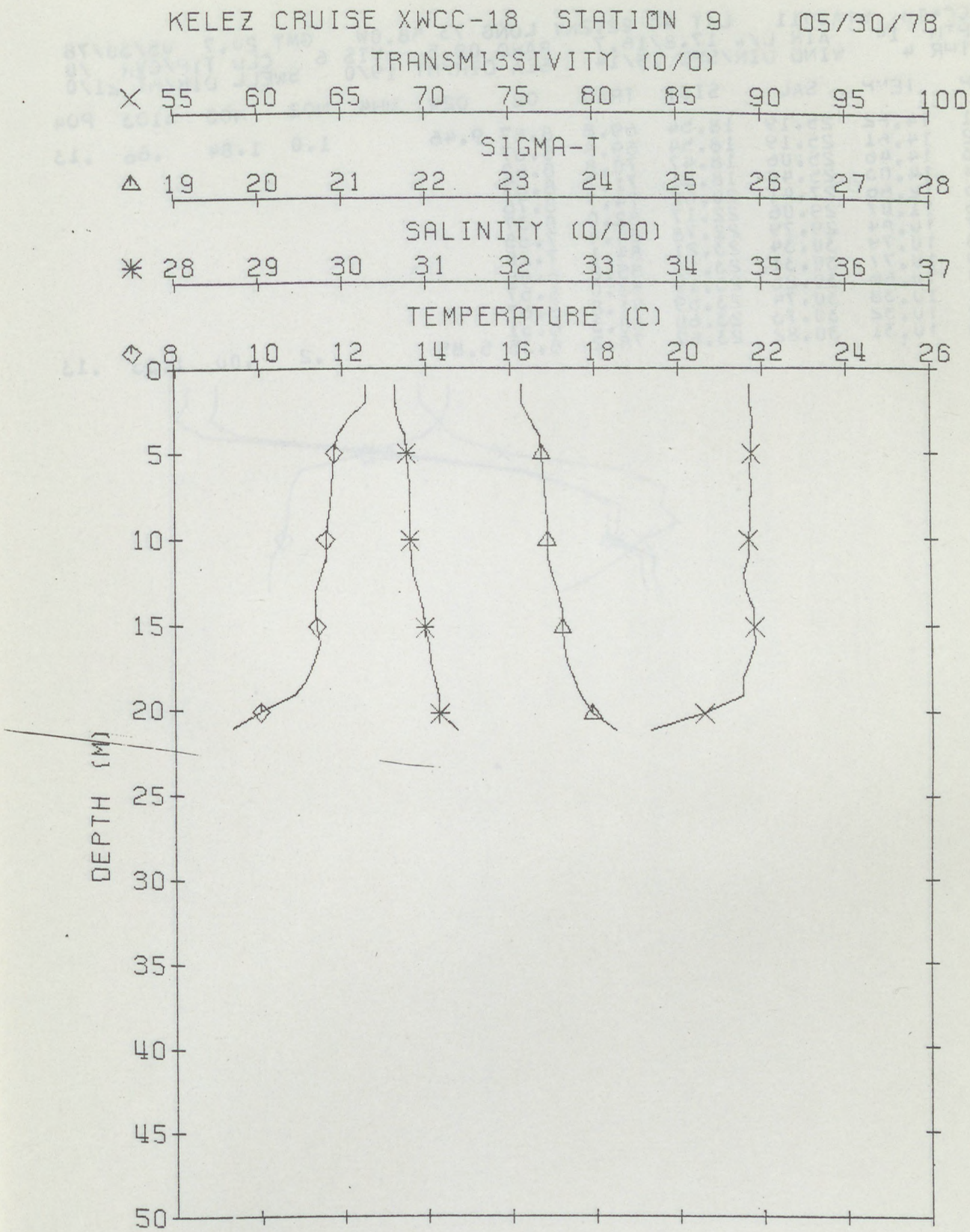
XMCC-18 STA.007 LAT 40 26.9N; LONG 73 53.3W GMT 15.5 05/30/78
DEPTH 22 AIR D/W 22.2/18.9 BARO 10.0 VIS 5 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 16/06 SEA DIR/HT 16/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.23	28.71	21.32	83.1	7.51	7.60		.4	.00	1.16	.22
2	14.23	28.72	21.32	83.1	7.51						
3	13.52	29.25	21.88	83.5	7.57						
4	12.35	29.77	22.50	85.5	7.64						
5	12.02	29.94	22.69	87.9	7.81						
6	11.63	30.15	22.92	87.7	7.87						
7	11.34	30.29	23.08	87.8	7.89						
8	11.25	30.35	23.14	88.2	7.87						
9	11.02	30.59	23.37	88.4	7.80						
10	11.03	30.80	23.53	87.9	7.69						
11	10.33	31.07	23.85	87.4	7.53						
12	9.63	31.23	24.09	87.0	7.43						
13	9.52	31.27	24.15	87.3	7.29						
14	9.43	31.29	24.17	87.2	7.07						
15	9.39	31.30	24.19	87.4	6.89						
16	9.23	31.33	24.24	86.5	6.74						
17	9.10	31.37	24.28	85.1	6.61						
18	9.05	31.38	24.30	83.6	6.50						
19	9.04	31.39	24.31	82.1	6.40						
20	9.03	31.39	24.31	82.4	6.30	6.11		.3	.00	2.36	.35


KELEZ CRUISE XWCC-18 STATION 7 05/30/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

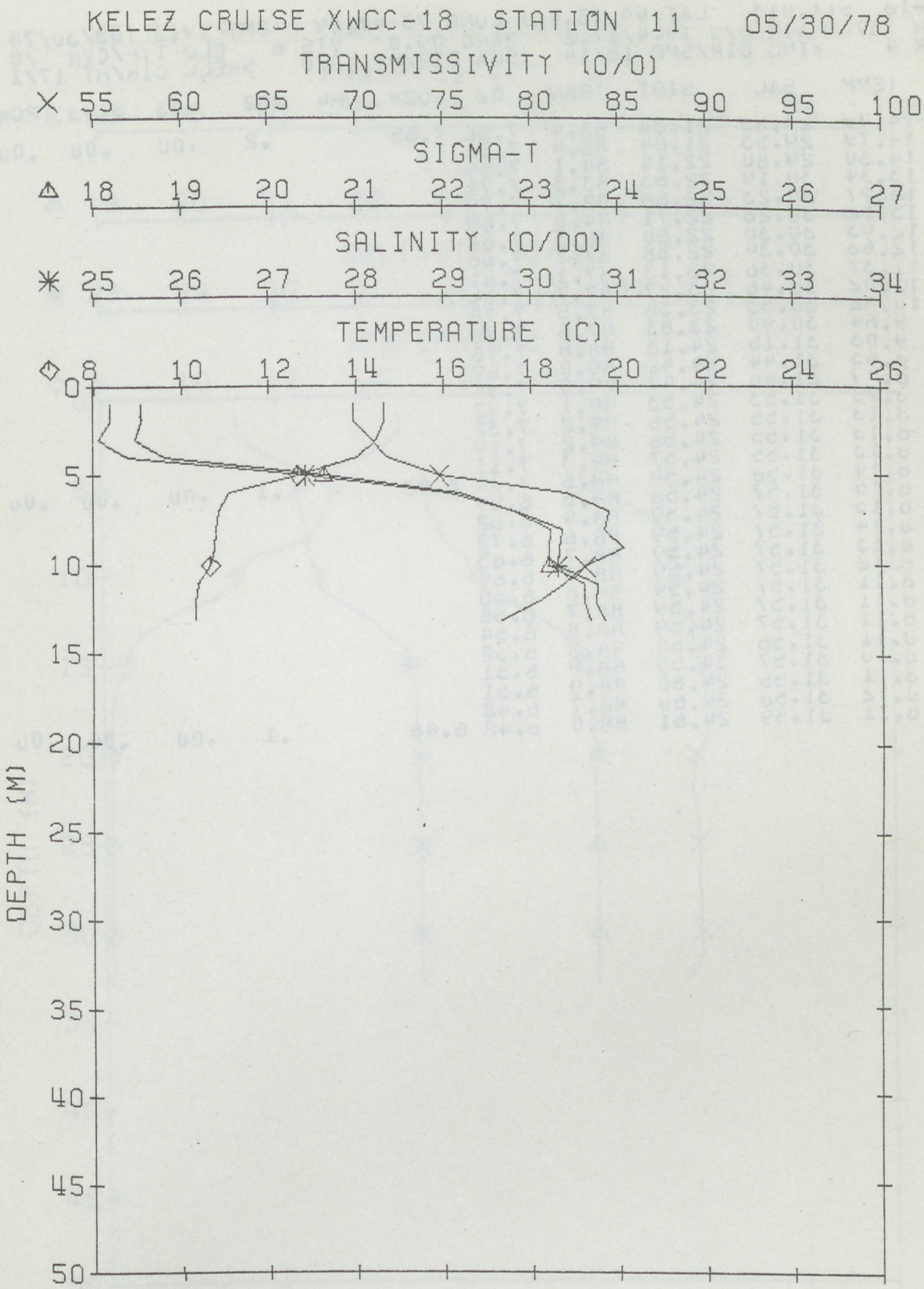
XWCC-16 STA.009 LAT 40 28.3N; LONG 73 39.4W GMT 18.1 05/30/78
DEPTH 22 AIR D/W 20.0/18.3 BARO 09.5 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 18/10 SEA DIR/HT 18/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.55	30.62	23.12	89.2	7.50	7.36		.0	.00	.00	.17
2	12.55	30.62	23.12	89.2	7.50						
3	12.12	30.66	23.23	89.4	7.57						
4	11.84	30.75	23.35	89.3	7.55						
5	11.78	30.76	23.36	89.3	7.51						
6	11.75	30.77	23.38	89.2	7.46						
7	11.71	30.79	23.40	89.3	7.43						
8	11.67	30.79	23.41	89.2	7.41						
9	11.62	30.79	23.42	89.2	7.41						
10	11.58	30.79	23.43	89.1	7.43						
11	11.57	30.80	23.44	89.1	7.45						
12	11.46	30.82	23.47	88.8	7.45						
13	11.32	30.89	23.55	89.0	7.50						
14	11.31	30.94	23.59	89.4	7.51						
15	11.35	30.96	23.60	89.4	7.46						
16	11.45	31.00	23.62	89.5	7.39						
17	11.27	31.02	23.66	89.1	7.36						
18	11.11	31.07	23.72	88.7	7.31						
19	10.82	31.13	23.82	88.7	7.21						
20	10.02	31.13	23.95	86.4	7.16						
21	9.35	31.34	24.22	83.2	7.13	6.14		.2	.00	2.36	.00


KELEZ CRUISE XWCC-18 STATION 9 05/30/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

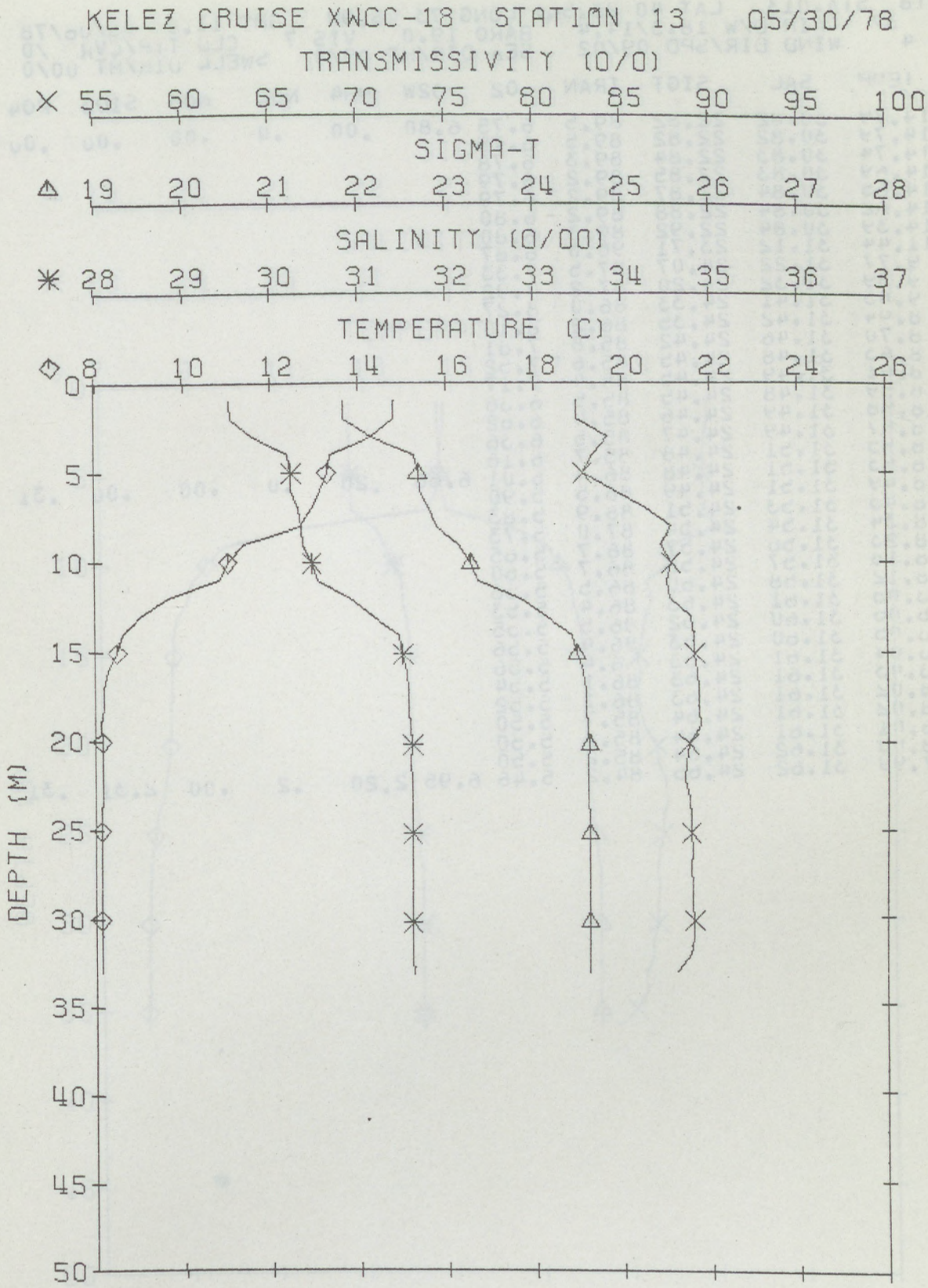
XWCC-13 STA.011 LAT 40 22.2N; LONG 73 58.0W GMT 20.7 05/30/78
DEPTH 14 AIR D/W 17.8/16.7 BARO 09.5 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 19/14 SEA DIR/HT 19/0 SWELL DIR/HT 21/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.62	25.19	18.54	69.8	8.87	9.46		1.0	1.84	.66	.13
2	14.61	25.19	18.54	69.8	8.87						
3	14.46	25.06	18.47	70.8	8.62						
4	14.03	25.40	18.81	71.7	8.87						
5	12.66	27.41	20.62	74.7	8.76						
6	11.07	29.06	22.17	82.0	8.37						
7	10.84	29.79	22.78	84.4	7.85						
8	10.79	30.34	23.21	84.1	7.26						
9	10.77	30.31	23.19	85.2	6.86						
10	10.66	30.28	23.19	83.0	6.57						
11	10.38	30.74	23.59	81.8	6.67						
12	10.32	30.73	23.60	80.3	6.51						
13	10.31	30.82	23.67	78.2	6.35	5.85		.2	.00	1.33	.13


KELEZ CRUISE XWCC-18 STATION 11 05/30/78
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)
25 26 27 28 29 30 31 32 33 34
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

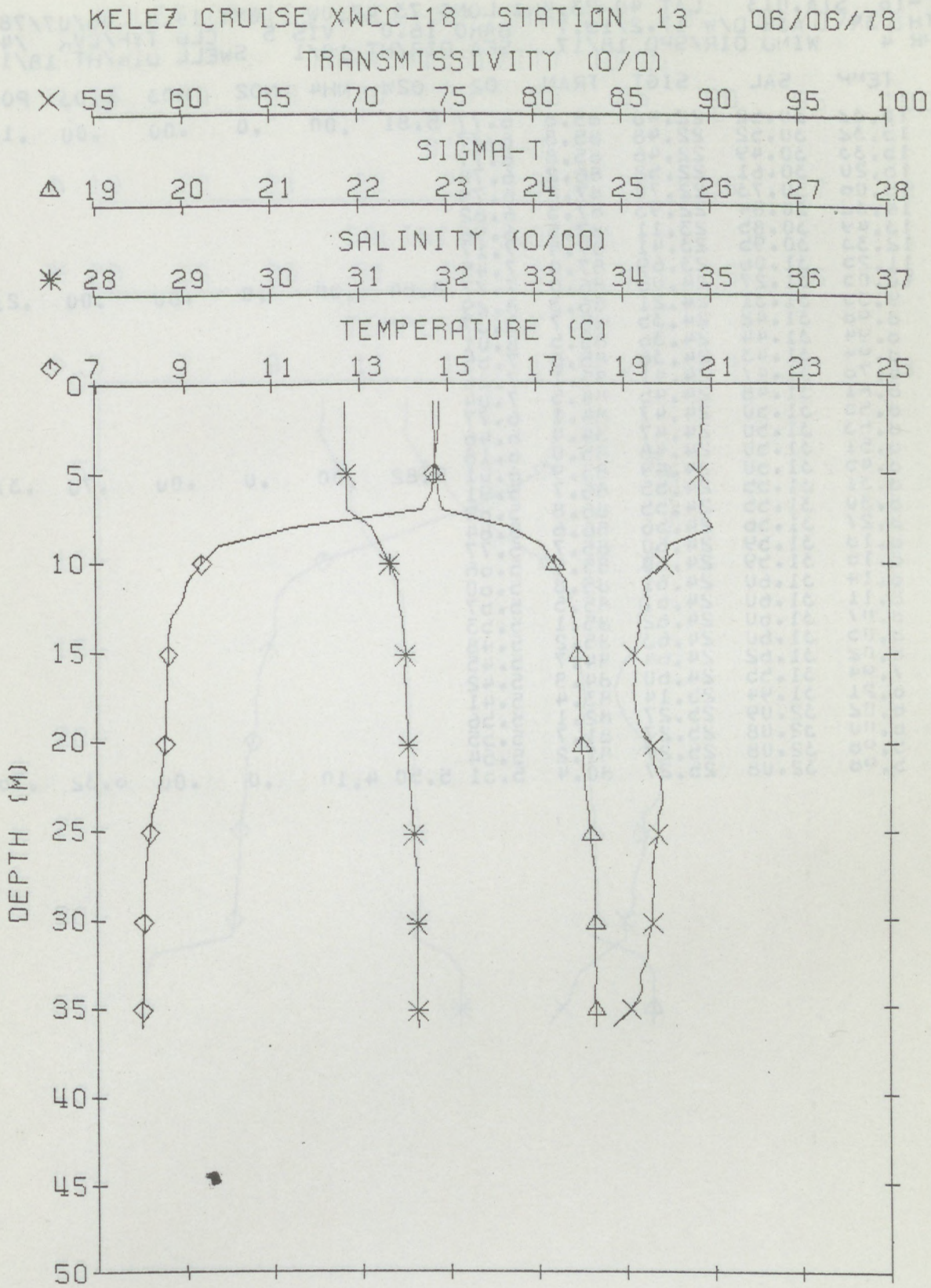
XWCC-18 STA.013 LAT 40 23.4N; LONG 73 47.0W GMT 19.3 05/30/78
DEPTH 37 AIR D/W 19.4/17.2 BARO 09.0 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 18/14 SEA DIR/HT 18/0 SWELL DIR/HT 17/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.79	29.53	21.84	82.4	7.56	7.65		.2	.00	.00	.00
2	14.79	29.53	21.84	82.4	7.56						
3	14.30	29.80	22.14	84.1	7.59						
4	13.34	30.19	22.63	83.3	7.71						
5	13.27	30.23	22.68	82.7	7.75						
6	13.12	30.23	22.71	84.5	7.69						
7	12.93	30.30	22.80	86.3	7.68						
8	12.66	30.34	22.88	87.7	7.68						
9	11.37	30.36	23.13	87.1	7.81						
10	11.02	30.46	23.27	87.7	7.94						
11	10.82	30.53	23.36	87.5	7.78						
12	9.64	30.90	23.83	87.6	7.76						
13	9.03	31.15	24.13	88.8	7.78						
14	8.63	31.44	24.42	89.0	7.69						
15	8.49	31.48	24.47	89.0	7.54						
16	8.23	31.53	24.53	89.1	7.42						
17	8.13	31.55	24.56	89.2	7.32						
18	8.13	31.55	24.56	89.2	7.19						
19	8.13	31.55	24.57	89.3	7.11						
20	8.14	31.58	24.59	88.6	7.04	6.48		.1	.00	.00	.00
21	8.15	31.57	24.58	88.5	6.94						
22	8.15	31.57	24.59	88.4	6.82						
23	8.14	31.57	24.59	88.6	6.72						
24	8.13	31.57	24.59	88.7	6.65						
25	8.12	31.57	24.59	88.7	6.60						
26	8.11	31.57	24.59	88.8	6.58						
27	8.11	31.57	24.59	88.7	6.56						
28	8.11	31.57	24.59	88.8	6.54						
29	8.11	31.58	24.60	88.8	6.52						
30	8.10	31.57	24.59	88.9	6.51						
31	8.11	31.58	24.60	88.9	6.51						
32	8.12	31.58	24.60	88.7	6.48						
33	8.11	31.59	24.61	88.0	6.48	6.46		.1	.00	.00	.00


KELEZ CRUISE XWCC-18 STATION 13 05/30/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

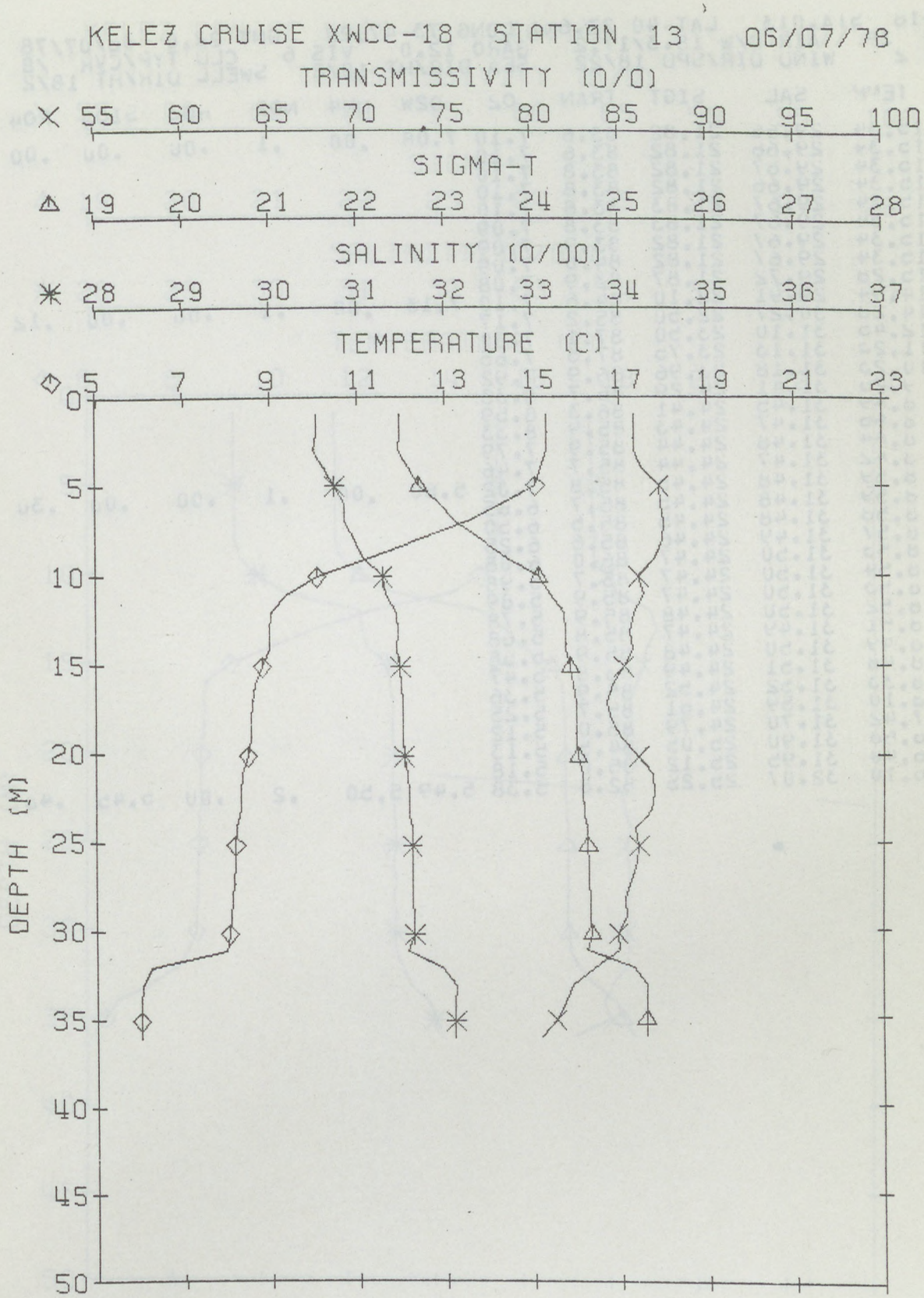
XWCC-18 STA.013 LAT 40 23.5N; LONG 73 46.9W GMT 11.9 06/06/78
DEPTH 37 AIR D/W 18.3/14.4 BARO 19.0 VIS 7 CLD TYP/CVR /0
WEIHR 4 WIND DIR/SPD 09/02 SEA DIR/HT 09/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.79	30.82	22.82	89.5	6.75	6.80	.00	.0	.00	.00	.00
2	14.79	30.82	22.82	89.5	6.75						
3	14.74	30.83	22.84	89.3	6.78						
4	14.69	30.83	22.85	89.2	6.79						
5	14.65	30.84	22.87	89.2	6.79						
6	14.62	30.84	22.88	89.2	6.80						
7	14.39	30.84	22.92	89.3	6.80						
8	11.44	31.12	23.71	90.0	6.87						
9	9.77	31.22	24.07	87.5	7.33						
10	9.39	31.32	24.20	87.2	7.92						
11	9.05	31.41	24.33	86.0	8.27						
12	8.94	31.42	24.35	86.2	8.10						
13	8.70	31.46	24.42	85.8	7.81						
14	8.65	31.48	24.45	85.6	7.52						
15	8.61	31.49	24.45	85.4	7.17						
16	8.59	31.48	24.45	85.5	6.86						
17	8.58	31.49	24.46	85.4	6.62						
18	8.57	31.49	24.47	85.5	6.36						
19	8.55	31.51	24.48	85.7	6.16						
20	8.53	31.51	24.48	86.4	6.01	6.66	.20	.0	.00	.00	.31
21	8.49	31.51	24.49	86.5	5.90						
22	8.45	31.53	24.51	86.9	5.83						
23	8.34	31.54	24.54	87.0	5.73						
24	8.23	31.56	24.57	86.7	5.65						
25	8.18	31.57	24.58	86.7	5.60						
26	8.12	31.58	24.60	86.5	5.56						
27	8.08	31.61	24.63	86.4	5.53						
28	8.06	31.60	24.62	86.5	5.55						
29	8.05	31.60	24.63	86.4	5.56						
30	8.04	31.61	24.63	86.4	5.56						
31	8.03	31.61	24.63	86.1	5.54						
32	8.02	31.61	24.63	86.1	5.52						
33	8.02	31.61	24.64	85.7	5.50						
34	8.01	31.61	24.64	85.8	5.50						
35	8.00	31.62	24.64	85.2	5.50						
36	7.99	31.62	24.65	84.2	5.46	6.95	2.20	.2	.00	2.31	.31


KELEZ CRUISE XWCC-18 STATION 13 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

XWCC-16 STA.013 LAT 40 23.4N; LONG 73 47.0W GMT 14.4 06/07/78
DEPTH 38 AIR D/W 17.2/16.7 BARO 16.0 VIS 5 CLD TYP/CVR /4
WETHR 4 WIND DIR/SPD 18/17 SEA DIR/HT 18/1 SWELL DIR/HT 18/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.32	30.52	22.48	85.8	6.77	5.81	.00	.0	.00	.00	.16
2	15.32	30.52	22.48	85.8	6.77						
3	15.33	30.49	22.46	85.8	6.77						
4	15.20	30.61	22.58	86.2	6.78						
5	15.06	30.73	22.70	87.2	6.79						
6	14.32	30.84	22.93	87.3	6.82						
7	13.49	30.85	23.11	87.5	6.96						
8	12.33	30.95	23.41	87.4	7.17						
9	11.25	31.06	23.69	87.0	7.45						
10	10.05	31.27	24.06	86.0	7.77	8.84	.00	.0	.00	.00	.21
11	9.35	31.31	24.21	86.3	8.29						
12	8.98	31.42	24.35	85.7	8.37						
13	8.94	31.44	24.36	85.5	8.01						
14	8.94	31.43	24.36	85.6	7.55						
15	8.78	31.47	24.41	85.1	7.26						
16	8.61	31.48	24.45	84.5	7.04						
17	8.55	31.50	24.47	84.1	6.77						
18	8.53	31.50	24.47	84.4	6.46						
19	8.51	31.50	24.48	85.0	6.18						
20	8.45	31.50	24.49	85.9	6.01	5.82	.00	.0	.00	.70	.37
21	8.31	31.55	24.55	86.7	5.91						
22	8.30	31.55	24.55	86.8	5.89						
23	8.27	31.56	24.56	86.6	5.84						
24	8.18	31.59	24.60	85.7	5.77						
25	8.15	31.59	24.60	85.9	5.66						
26	8.14	31.60	24.61	85.8	5.60						
27	8.11	31.60	24.61	85.5	5.57						
28	8.07	31.60	24.62	85.1	5.53						
29	8.05	31.60	24.63	85.2	5.48						
30	8.02	31.62	24.64	84.7	5.45						
31	7.94	31.55	24.60	84.8	5.42						
32	6.21	31.94	25.14	83.4	5.41						
33	6.02	32.09	25.27	82.1	5.56						
34	6.00	32.08	25.27	81.7	5.55						
35	5.98	32.08	25.27	81.2	5.54						
36	5.98	32.08	25.27	80.4	5.51	5.50	4.10	.0	.00	6.32	.76


KELEZ CRUISE XWCC-18 STATION 13 06/07/78
TRANSMISSIVITY (0/0)
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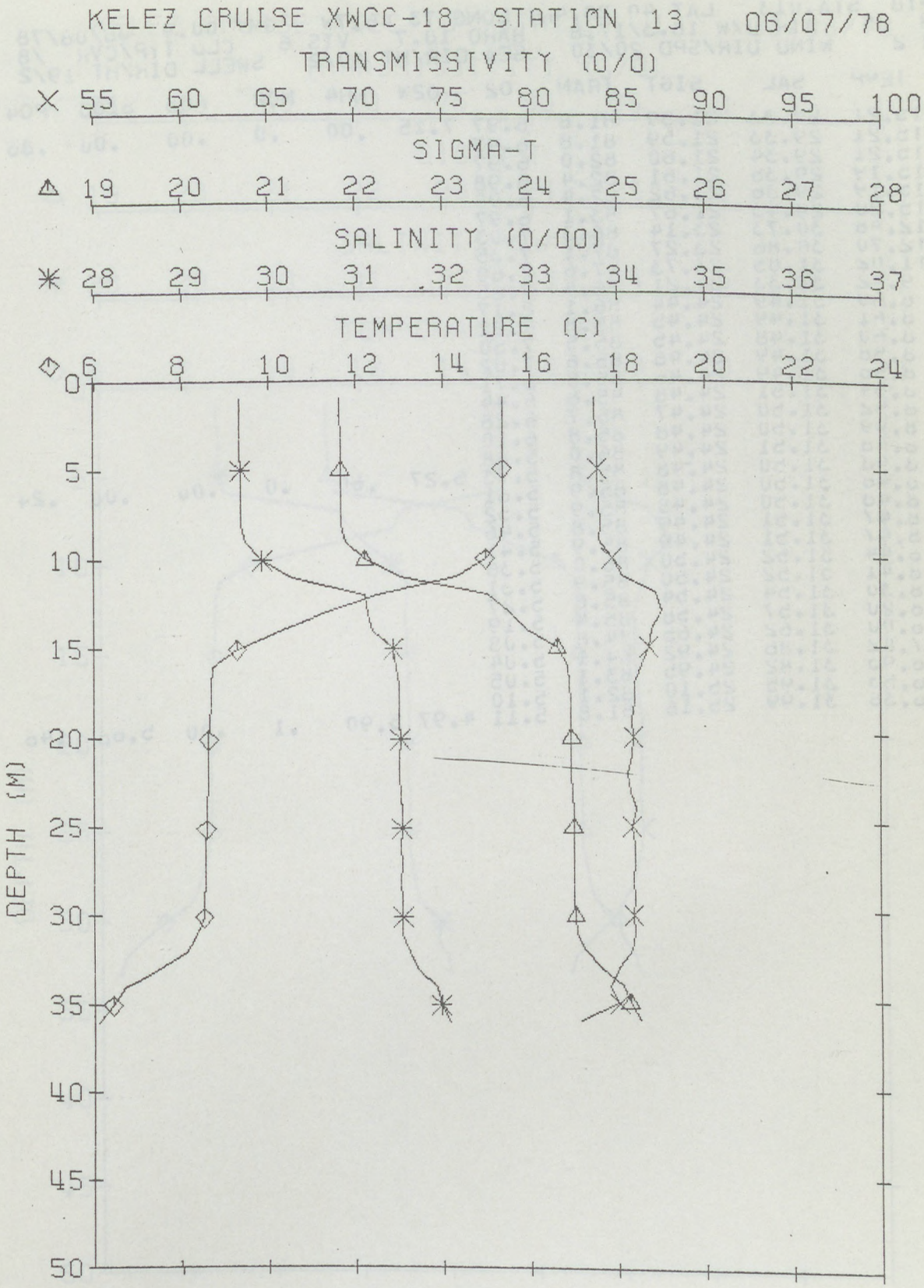
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
5 7 9 11 13 15 17 19 21 23
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

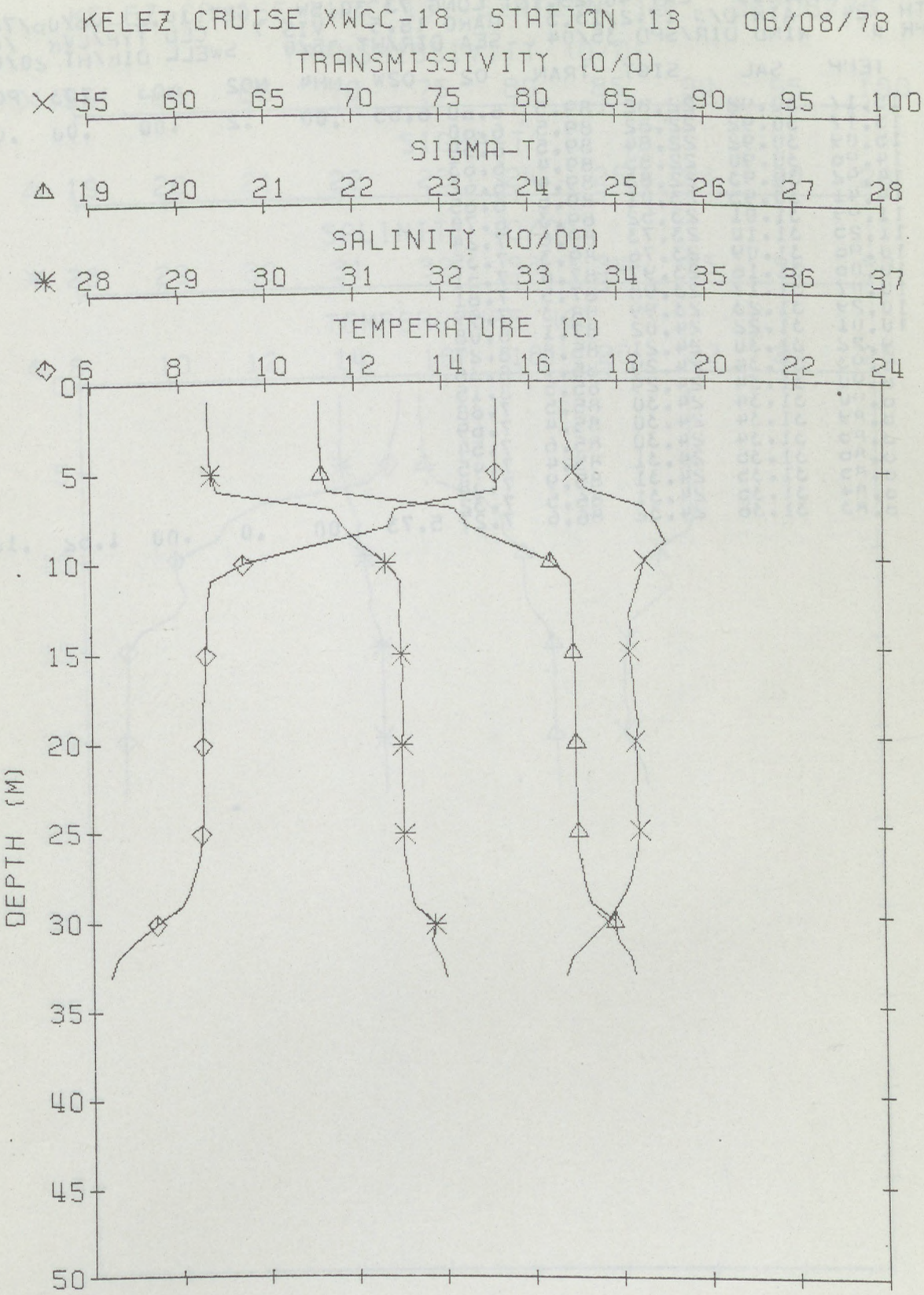
XWCC-18 STA.013 LAT 40 23.6N; LONG 73 47.2W GMT 22.0 06/07/78
DEPTH 38 AIR D/W 18.3/17.2 BARO 12.0 VIS 6 CLD TYP/CVR /8
WETHR 2 WIND DIR/SPD 18/22 SEA DIR/HT 18/2 SWELL DIR/HT 18/2

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.34	29.66	21.82	83.6	7.10	7.08	.00	.1	.00	.00	.00
2	15.34	29.66	21.82	83.6	7.10						
3	15.34	29.67	21.82	83.8	7.10						
4	15.34	29.66	21.82	83.8	7.10						
5	15.34	29.67	21.83	83.8	7.10						
6	15.34	29.67	21.83	83.8	7.09						
7	15.34	29.67	21.82	83.9	7.09						
8	15.34	29.67	21.82	84.0	7.09						
9	15.28	29.72	21.87	83.9	7.08						
10	14.94	29.91	22.10	84.6	7.10	7.13	.00	.1	.00	.00	.12
11	14.28	30.27	22.50	85.2	7.17						
12	12.45	31.10	23.50	87.1	7.30						
13	11.25	31.13	23.75	87.5	7.65						
14	10.25	31.18	23.96	86.9	7.92						
15	9.26	31.41	24.29	86.7	8.33						
16	8.69	31.45	24.41	86.3	8.59						
17	8.65	31.47	24.43	85.9	8.53						
18	8.64	31.48	24.44	85.9	7.79						
19	8.62	31.47	24.44	85.7	7.46						
20	8.59	31.48	24.45	85.8	7.02	5.60	.00	.1	.00	.00	.30
21	8.59	31.48	24.45	85.7	6.65						
22	8.58	31.48	24.45	85.5	6.50						
23	8.57	31.49	24.46	85.6	6.25						
24	8.56	31.50	24.47	86.0	6.08						
25	8.54	31.50	24.47	85.7	5.98						
26	8.53	31.50	24.47	85.9	5.89						
27	8.52	31.50	24.48	85.9	5.78						
28	8.51	31.49	24.47	85.8	5.68						
29	8.49	31.50	24.48	85.9	5.58						
30	8.48	31.51	24.49	85.8	5.47						
31	8.35	31.52	24.52	85.9	5.36						
32	8.10	31.59	24.61	85.7	5.25						
33	7.42	31.70	24.79	85.0	5.12						
34	6.68	31.90	25.05	84.5	5.13						
35	6.40	31.95	25.12	85.0	5.18						
36	6.10	32.07	25.25	82.8	5.38	5.49	5.50	.2	.00	5.45	.48


KELEZ CRUISE XWCC-18 STATION 13 06/07/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
6 8 10 12 14 16 18 20 22 24
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

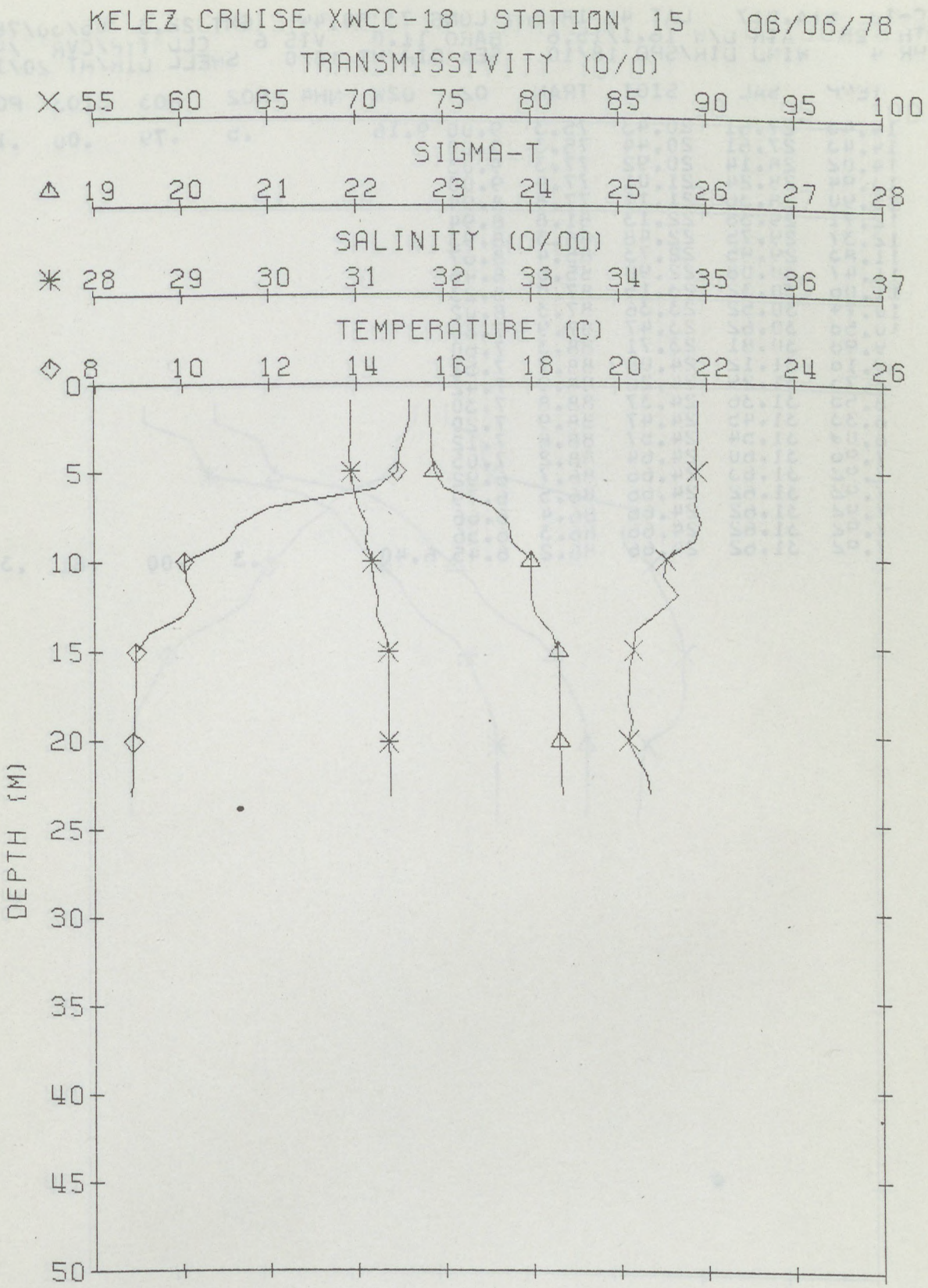
XWCC-18 STA.013 LAT 40 23.4N; LONG 73 46.7W GMT 00.9 06/08/78
DEPTH 35 AIR D/W 18.3/17.8 BARO 10.7 VIS 6 CLD TYP/CVR /8
WETHR 2 WIND DIR/SPD 20/30 SEA DIR/HT 20/2 SWELL DIR/HT 19/2

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.21	29.33	21.59	81.8	6.97	7.15	.00	.0	.00	.00	.86
2	15.21	29.33	21.59	81.8	6.97						
3	15.21	29.34	21.60	82.0	6.97						
4	15.19	29.35	21.61	82.4	6.98						
5	15.19	29.36	21.62	82.4	6.98						
6	15.20	29.43	21.67	83.1	6.97						
7	12.88	30.73	23.14	86.3	7.03						
8	12.70	30.86	23.27	87.1	7.35						
9	11.02	31.05	23.73	87.6	7.60						
10	9.42	31.33	24.21	86.4	7.85						
11	8.69	31.49	24.44	86.1	8.17						
12	8.61	31.49	24.45	85.8	7.92						
13	8.60	31.48	24.45	85.5	7.50						
14	8.58	31.49	24.46	85.6	7.02						
15	8.55	31.49	24.46	85.5	6.71						
16	8.54	31.51	24.48	85.6	6.44						
17	8.52	31.50	24.47	85.7	6.28						
18	8.49	31.50	24.48	85.8	6.10						
19	8.48	31.51	24.49	86.0	5.88						
20	8.48	31.50	24.48	85.8	5.73	5.27	.60	.0	.00	.00	.24
21	8.48	31.50	24.48	85.9	5.61						
22	8.48	31.50	24.48	85.9	5.52						
23	8.47	31.51	24.49	85.8	5.46						
24	8.47	31.51	24.49	85.9	5.41						
25	8.44	31.52	24.50	86.0	5.36						
26	8.41	31.52	24.50	85.9	5.31						
27	8.30	31.54	24.54	85.6	5.27						
28	8.20	31.57	24.58	85.4	5.19						
29	8.00	31.62	24.65	84.8	5.08						
30	7.42	31.86	24.92	84.1	5.04						
31	6.93	31.82	24.95	83.1	5.05						
32	6.53	31.95	25.10	82.1	5.10						
33	6.38	31.99	25.16	81.8	5.11	4.97	5.90	.1	.00	5.68	.46


KELEZ CRUISE XWCC-18 STATION 13 06/08/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
6 8 10 12 14 16 18 20 22 24
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

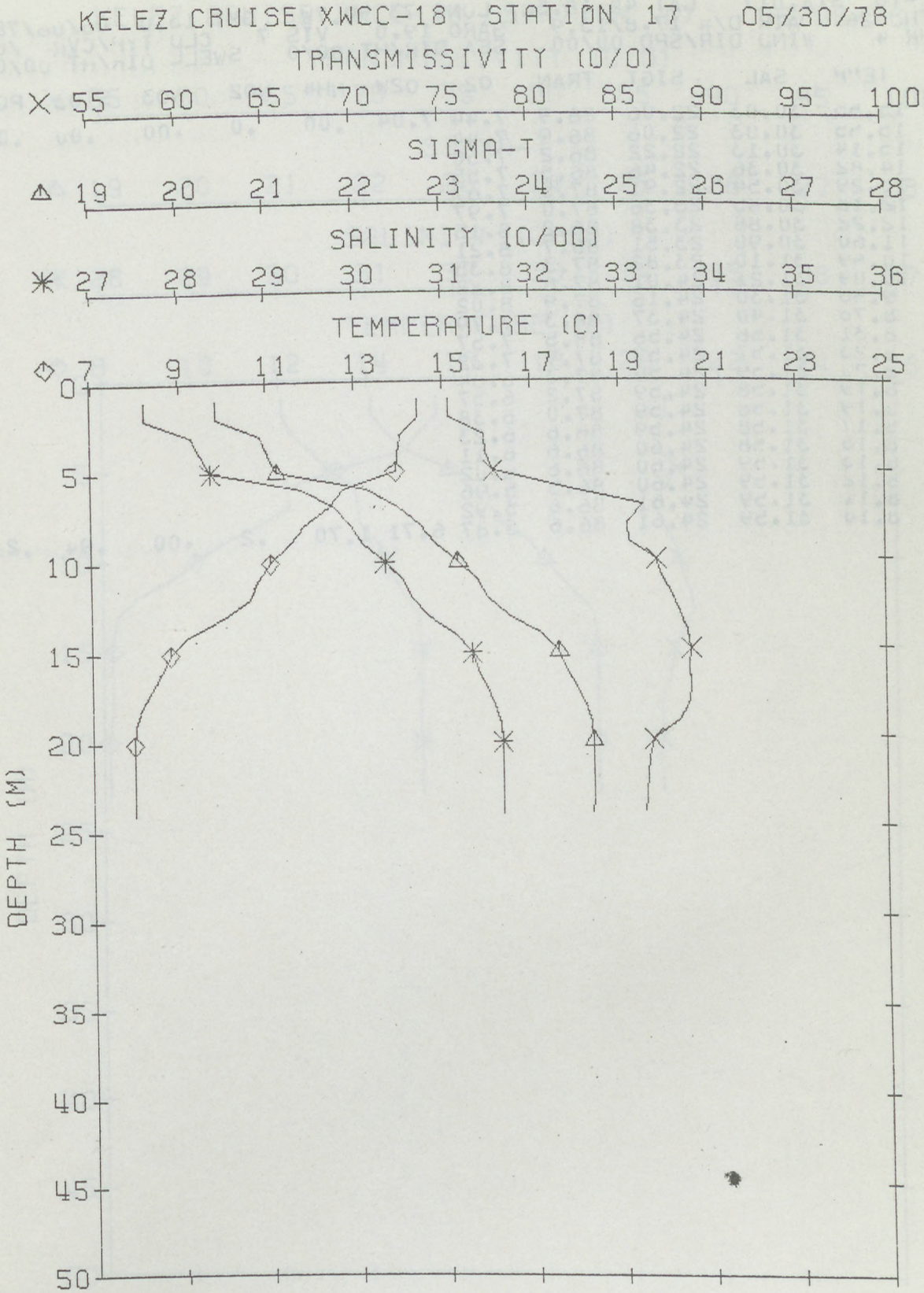
XWCC-18 STA.015 LAT 40 25.1N; LONG 73 30.5W GMT 10.2 06/06/78
DEPTH 24 AIR D/W 17.2/13.3 BARO 18.5 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 35/04 SEA DIR/HT 35/0 SWELL DIR/HT 20/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.17	30.92	22.82	89.5	6.60	6.55	.00	.2	.00	.00	.00
2	15.17	30.92	22.82	89.5	6.60						
3	15.09	30.92	22.84	89.5	6.59						
4	14.96	30.90	22.85	89.4	6.63						
5	14.92	30.93	22.88	89.4	6.62						
6	14.41	30.95	23.01	89.5	6.65						
7	11.99	31.01	23.52	89.3	6.70						
8	11.25	31.10	23.73	89.6	7.24						
9	10.96	31.09	23.76	89.3	7.35						
10	10.06	31.16	23.97	87.6	7.51						
11	10.07	31.17	23.98	87.5	7.81						
12	10.29	31.23	23.99	88.3	7.99						
13	10.01	31.22	24.02	87.1	8.08						
14	9.22	31.30	24.21	85.8	8.27						
15	8.93	31.34	24.29	85.7	8.36						
16	8.90	31.34	24.29	85.5	8.15						
17	8.90	31.34	24.30	85.5	7.88						
18	8.89	31.34	24.30	85.4	7.69						
19	8.88	31.34	24.30	85.6	7.54						
20	8.86	31.35	24.31	85.4	7.45						
21	8.85	31.35	24.31	85.9	7.38						
22	8.84	31.35	24.31	86.5	7.32						
23	8.83	31.36	24.32	86.6	7.27	5.73	.00	.0	.00	1.52	.10


KELEZ CRUISE XWCC-18 STATION 15 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

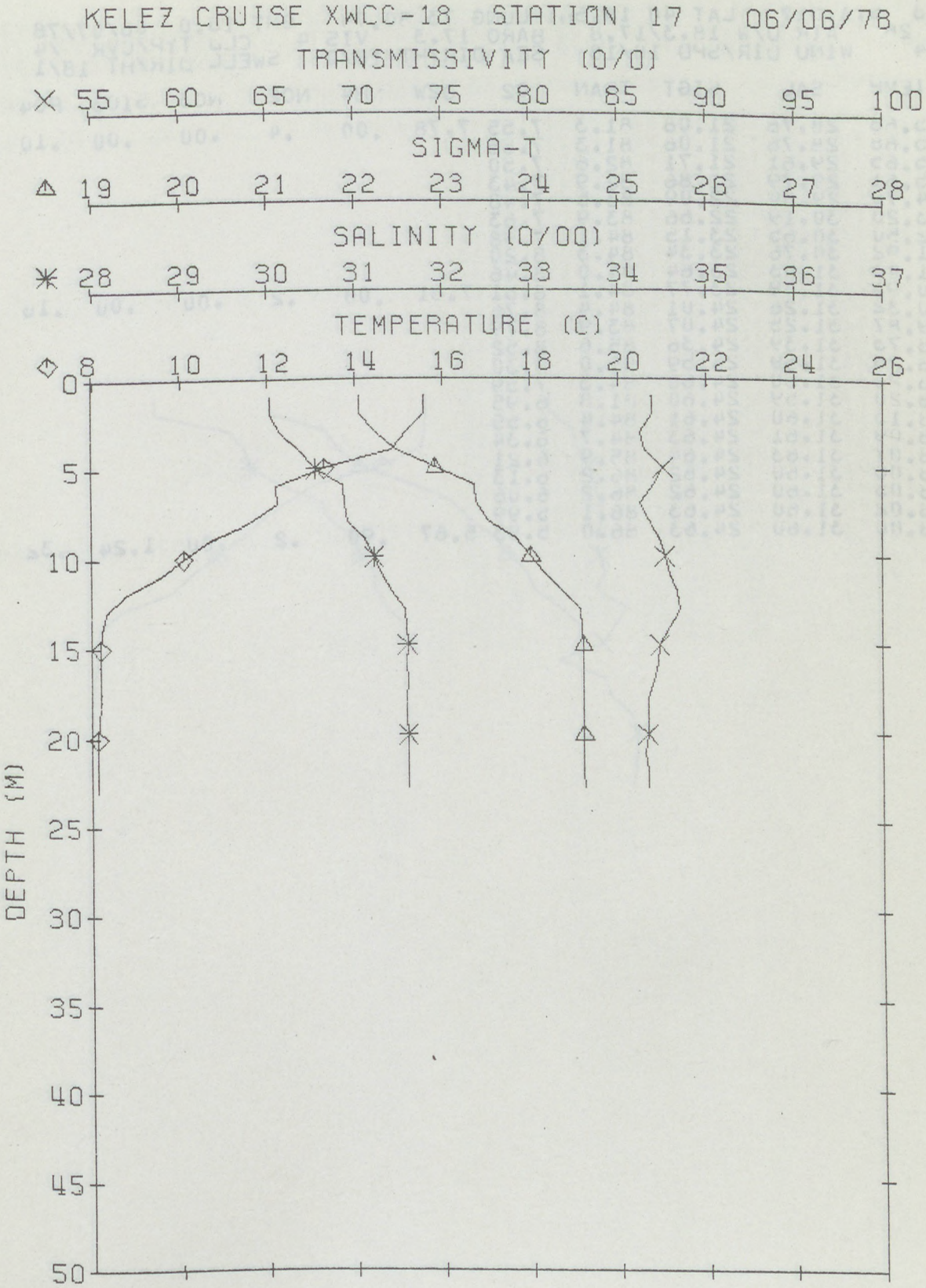
XWCC-18 STA.017 LAT 40 18.5N; LONG 73 50.4W GMT 22.3 05/30/78
DEPTH 25 AIR D/W 16.1/15.6 BARO 11.0 VIS 6 CLD TYP/CVR /4
WETHR 4 WIND DIR/SPD 18/10 SEA DIR/HT 18/0 SWELL DIR/HT 20/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.43	27.61	20.43	75.3	9.00	9.16		.5	.79	.00	.10
2	14.43	27.61	20.44	75.3	9.00						
3	14.02	28.14	20.92	77.3	9.03						
4	13.94	28.24	21.01	77.4	9.00						
5	13.90	28.36	21.11	77.8	8.94						
6	12.71	29.38	22.13	81.8	8.94						
7	12.37	29.75	22.48	86.3	8.93						
8	11.83	29.95	22.73	85.4	8.67						
9	11.47	30.08	22.90	85.5	8.46						
10	11.06	30.32	23.15	87.0	8.23						
11	10.74	30.52	23.36	87.3	8.02						
12	10.58	30.62	23.47	87.9	7.80						
13	9.98	30.81	23.71	88.3	7.60						
14	9.10	31.12	24.08	88.7	7.51						
15	8.75	31.29	24.28	88.9	7.42						
16	8.55	31.36	24.37	88.8	7.30						
17	8.33	31.45	24.47	88.9	7.20						
18	8.09	31.54	24.57	88.8	7.12						
19	7.96	31.60	24.64	88.2	7.05						
20	7.92	31.63	24.66	86.7	6.92						
21	7.92	31.62	24.66	86.5	6.79						
22	7.92	31.62	24.66	86.4	6.66						
23	7.92	31.62	24.66	86.3	6.56						
24	7.92	31.62	24.66	86.2	6.45	6.40		.3	.00	.81	.36


KELEZ CRUISE XWCC-18 STATION 17 05/30/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
27 28 29 30 31 32 33 34 35 36
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

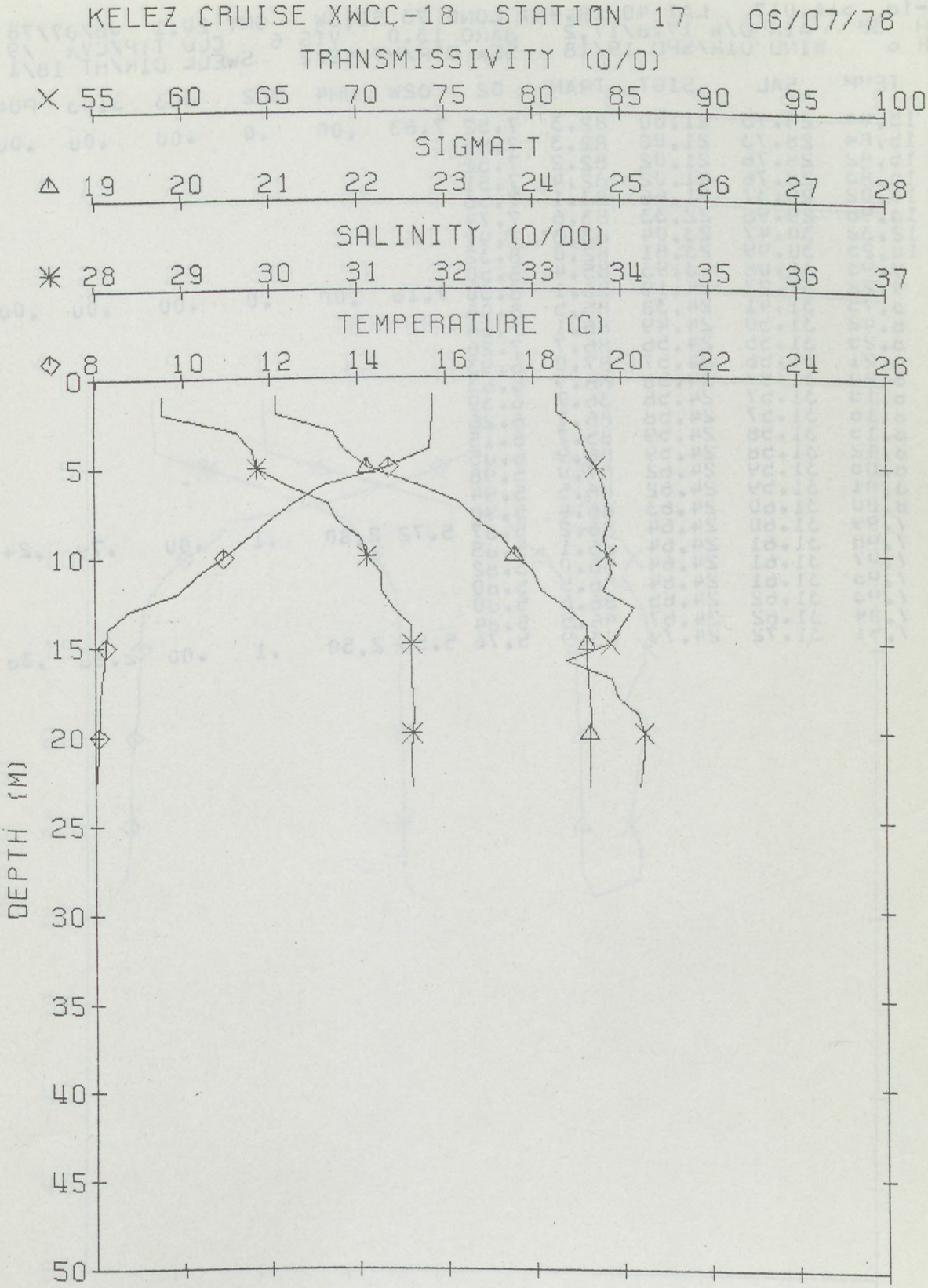
XWCC-18 STA.017 LAT 40 18.5N; LONG 73 50.7W GMT 13.0 06/06/78
DEPTH 26 AIR D/W 17.8/13.9 BARO 19.0 VIS 7 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 00/00 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SiO3	PO4
1	15.55	30.03	22.06	86.9	7.44	7.04	.00	.0	.00	.00	.00
2	15.55	30.03	22.06	86.9	7.44						
3	15.14	30.13	22.22	86.2	7.50						
4	14.82	30.36	22.46	86.5	7.55						
5	13.29	30.54	22.91	87.5	7.67						
6	12.18	30.85	23.36	87.0	7.97						
7	12.22	30.88	23.38	86.2	8.15						
8	11.60	30.90	23.51	86.7	8.21						
9	10.69	31.10	23.82	87.3	8.35						
10	10.09	31.21	24.01	87.6	8.28						
11	9.56	31.30	24.16	87.9	8.02						
12	8.76	31.40	24.37	88.3	7.79						
13	8.31	31.56	24.56	88.5	7.57						
14	8.23	31.57	24.57	87.9	7.22						
15	8.20	31.59	24.59	87.3	6.84						
16	8.19	31.58	24.59	87.2	6.57						
17	8.19	31.58	24.59	87.0	6.38						
18	8.17	31.58	24.59	86.6	6.23						
19	8.15	31.58	24.60	86.6	6.11						
20	8.13	31.59	24.60	86.6	6.02						
21	8.12	31.59	24.60	86.5	5.96						
22	8.11	31.59	24.61	86.6	5.92						
23	8.10	31.59	24.61	86.6	5.87	6.71	1.70	.2	.00	.94	.21


KELEZ CRUISE XWCC-18 STATION 17 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

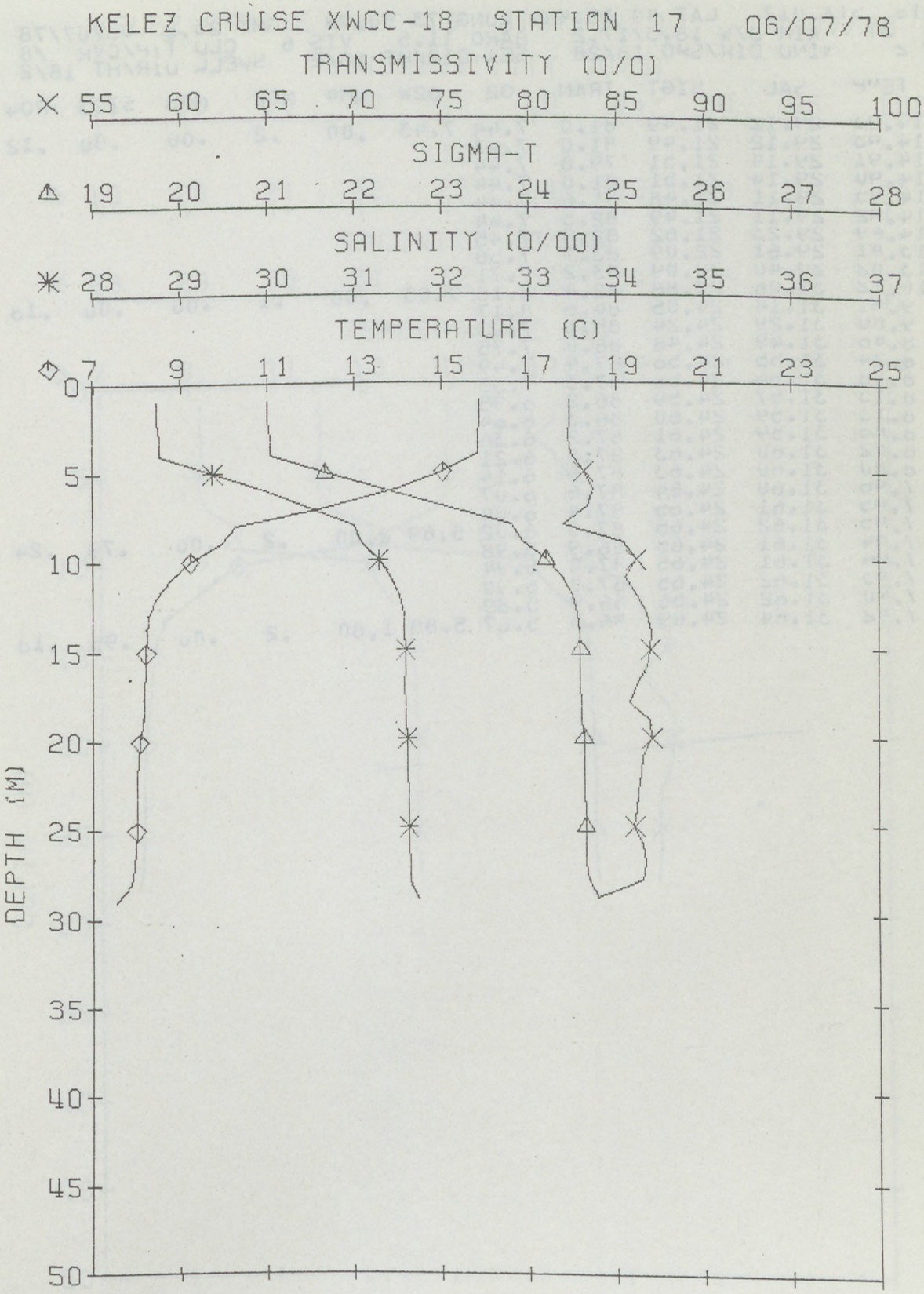
XWCC-13 STA.017 LAT 40 18.5N; LONG 73 50.7W GMT 13.0 06/07/78
DEPTH 26 AIR D/W 18.3/17.8 BARO 17.3 VIS 4 CLD TYP/CVR /4
WETHR 4 WIND DIR/SPD 18/18 SEA DIR/HT 18/0 SWELL DIR/HT 18/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.68	28.76	21.06	81.3	7.55	7.78	.00	.4	.00	.00	.10
2	15.68	28.76	21.06	81.3	7.55						
3	15.65	29.61	21.71	82.6	7.50						
4	15.61	29.79	21.86	82.9	7.43						
5	14.70	29.84	22.09	83.5	7.48						
6	13.20	30.19	22.66	83.9	7.63						
7	12.50	30.65	23.15	84.1	7.98						
8	11.92	30.76	23.34	84.3	8.20						
9	11.43	31.03	23.64	84.0	8.46						
10	10.93	31.09	23.77	84.1	8.61	7.81	.00	.2	.00	.00	.16
11	10.32	31.26	24.01	84.4	8.76						
12	9.87	31.25	24.07	83.9	8.79						
13	8.73	31.39	24.36	85.6	8.52						
14	8.23	31.59	24.59	85.0	8.30						
15	8.23	31.60	24.60	84.3	7.59						
16	8.20	31.59	24.60	81.8	6.95						
17	8.13	31.60	24.61	84.4	6.55						
18	8.09	31.61	24.63	84.7	6.34						
19	8.07	31.63	24.64	85.9	6.21						
20	8.06	31.60	24.62	86.2	6.13						
21	8.05	31.60	24.62	86.2	6.06						
22	8.02	31.60	24.63	86.1	5.99						
23	8.00	31.60	24.63	86.0	5.93	5.67	.90	.2	.00	1.24	.32


KELEZ CRUISE XWCC-18 STATION 17 06/07/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

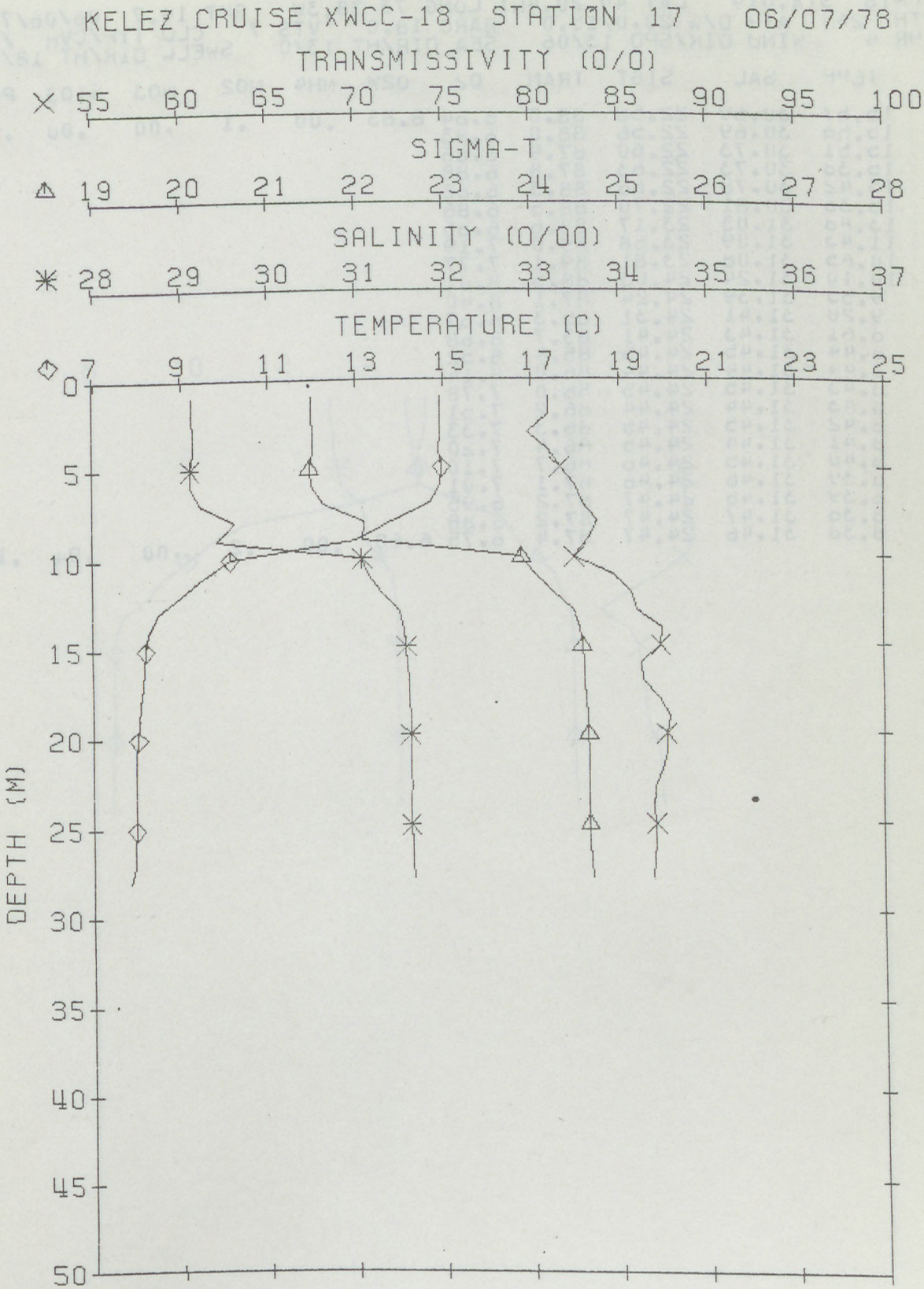
XWCC-18 STA.017 LAT 40 18.4N; LONG 73 51.0W GMT 20.1 06/07/78
DEPTH 33 AIR D/W 17.8/17.2 BARO 13.0 VIS 6 CLD TYP/CVR /9
WETHR o WIND DIR/SPD 19/18 SEA DIR/HT 19/2 SWELL DIR/HT 18/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.84	28.73	21.00	82.3	7.52	7.63	.00	.0	.00	.00	.00
2	15.84	28.73	21.00	82.3	7.52						
3	15.82	28.76	21.02	82.2	7.52						
4	15.83	28.76	21.02	82.4	7.51						
5	15.02	29.37	21.66	83.1	7.56						
6	13.96	29.96	22.33	83.6	7.74						
7	12.32	30.47	23.04	83.3	7.91						
8	10.25	30.99	23.81	82.0	8.32						
9	9.93	31.08	23.93	85.4	8.50						
10	9.22	31.27	24.19	86.1	8.30	7.16	.00	.0	.00	.00	.00
11	8.75	31.41	24.38	85.5	8.06						
12	8.42	31.50	24.49	86.1	7.64						
13	8.25	31.55	24.56	86.7	7.26						
14	8.21	31.56	24.57	87.0	6.93						
15	8.20	31.57	24.58	86.9	6.63						
16	8.18	31.57	24.58	86.7	6.39						
17	8.10	31.57	24.58	86.1	6.26						
18	8.15	31.58	24.59	85.7	6.15						
19	8.12	31.58	24.59	86.9	6.05						
20	8.05	31.59	24.62	87.0	5.98						
21	8.01	31.59	24.62	86.5	5.94						
22	8.00	31.60	24.63	86.4	5.90						
23	7.99	31.60	24.64	86.2	5.87	5.72	2.80	.1	.00	.79	.24
24	7.98	31.61	24.64	86.1	5.85						
25	7.97	31.61	24.64	86.0	5.82						
26	7.95	31.61	24.64	86.5	5.80						
27	7.93	31.62	24.65	86.6	5.80						
28	7.84	31.62	24.67	86.5	5.84						
29	7.51	31.72	24.79	83.9	5.76	5.56	2.50	.1	.00	2.26	.36


KELEZ CRUISE XWCC-18 STATION 17 06/07/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

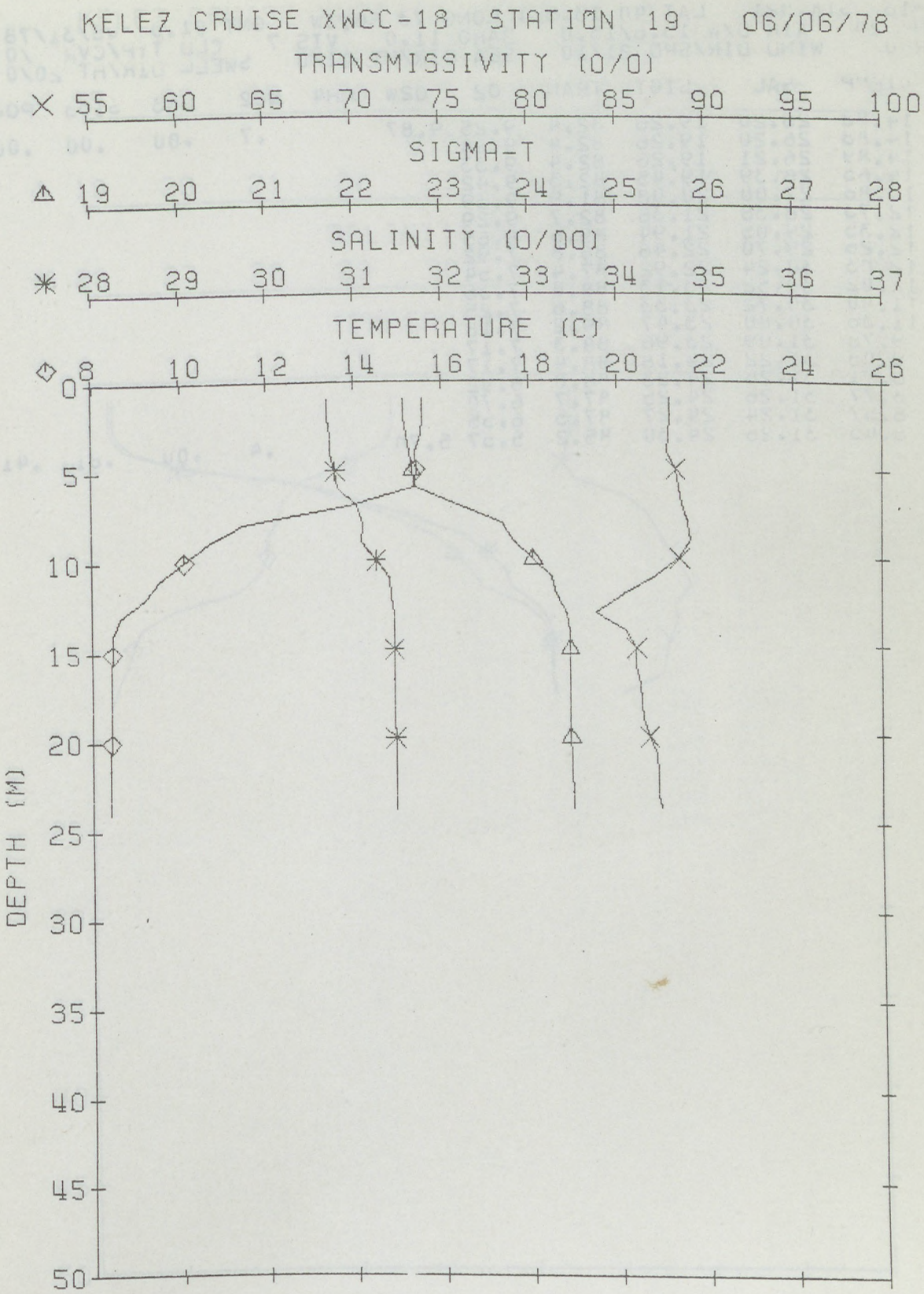
XWCC-18 STA.017 LAT 40 18.4N; LONG 73 50.7W GMT 23.6 06/07/78
DEPTH 31 AIR D/W 18.3/17.2 BARO 11.5 VIS 6 CLD TYP/CVR /8
WETHR 2 WIND DIR/SPD 18/28 SEA DIR/HT 18/2 SWELL DIR/HT 18/2

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.93	29.12	21.49	81.0	7.44	7.43	.00	.2	.00	.00	.12
2	14.93	29.12	21.49	81.0	7.43						
3	14.91	29.14	21.51	79.8	7.44						
4	14.90	29.14	21.51	81.0	7.44						
5	14.95	29.11	21.48	81.6	7.44						
6	14.92	29.11	21.49	82.5	7.44						
7	14.69	29.23	21.62	82.9	7.45						
8	13.81	29.61	22.09	83.7	7.56						
9	13.02	29.40	22.09	83.2	7.71						
10	10.12	31.06	23.88	82.4	8.18	7.03	.00	.1	.00	.00	.18
11	9.51	31.14	24.05	84.6	8.17						
12	9.00	31.29	24.24	85.6	7.93						
13	8.46	31.49	24.48	86.0	7.75						
14	8.24	31.55	24.56	87.4	7.49						
15	8.18	31.56	24.58	87.3	7.33						
16	8.15	31.57	24.59	86.2	6.95						
17	8.13	31.59	24.60	86.3	6.64						
18	8.06	31.59	24.61	87.2	6.36						
19	8.02	31.60	24.63	87.8	6.21						
20	8.00	31.60	24.63	87.6	6.14						
21	7.96	31.60	24.64	87.6	6.07						
22	7.95	31.61	24.65	87.4	6.04						
23	7.95	31.62	24.65	87.0	6.02	5.69	2.00	.2	.00	.79	.24
24	7.94	31.61	24.65	86.9	5.98						
25	7.94	31.61	24.65	87.0	5.94						
26	7.93	31.62	24.65	87.0	5.90						
27	7.90	31.62	24.66	86.9	5.89						
28	7.82	31.64	24.69	86.8	5.87	5.80	1.80	.2	.00	.95	.18


KELEZ CRUISE XWCC-18 STATION 17 06/07/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

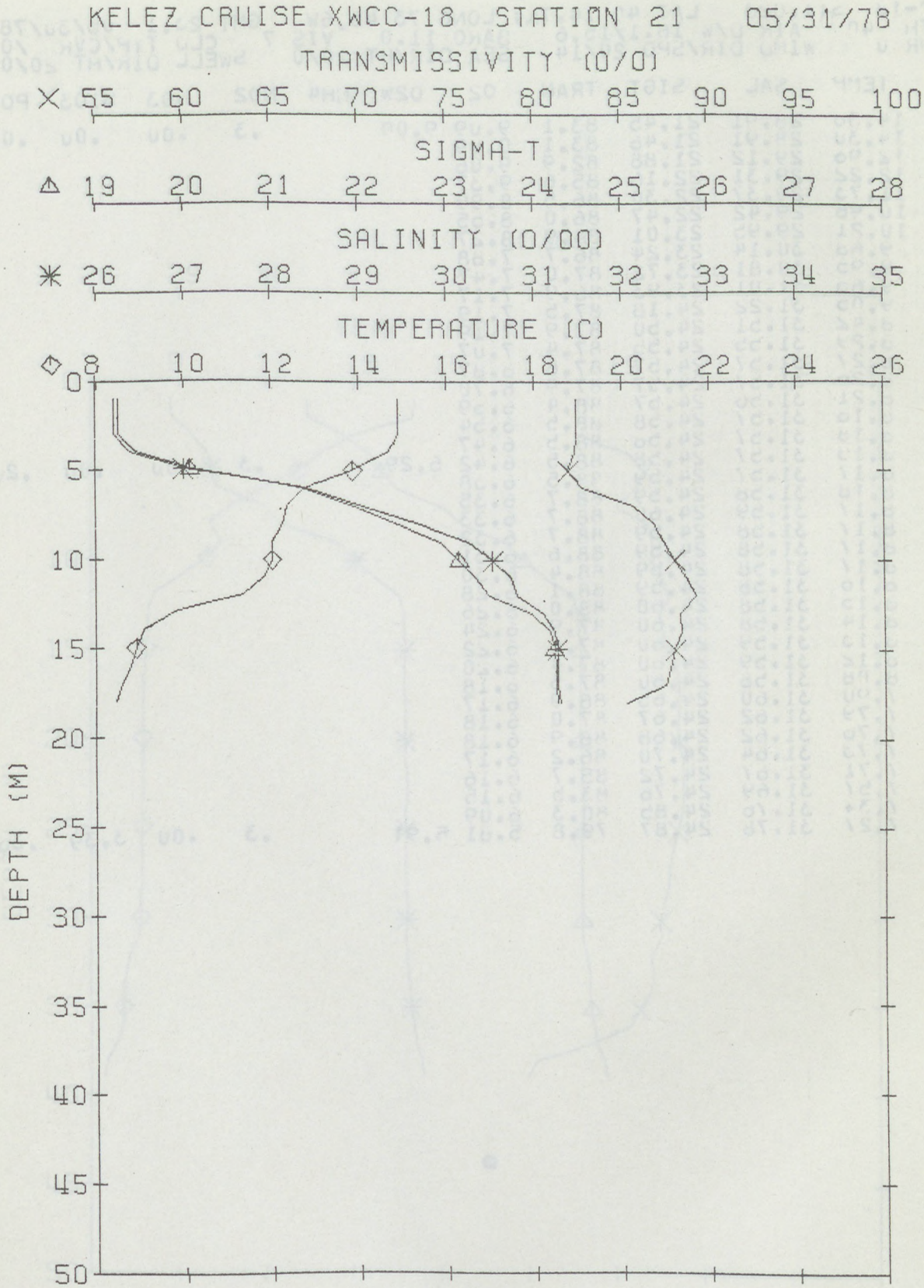
XWCC-18 STA.019 LAT 40 20.4N; LONG 73 38.3W GMT 14.7 06/06/78
DEPTH 26 AIR D/W 20.0/15.0 BARO 18.0 VIS 7 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 13/06 SEA DIR/HT 13/0 SWELL DIR/HT 18/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.57	30.69	22.56	88.0	6.84	6.83	.00	.1	.00	.00	.00
2	15.56	30.69	22.56	88.0	6.83						
3	15.51	30.73	22.60	87.9	6.86						
4	15.38	30.73	22.63	87.8	6.88						
5	15.42	30.78	22.66	88.3	6.88						
6	15.36	30.81	22.70	88.5	6.86						
7	13.88	31.03	23.17	88.6	6.85						
8	11.43	31.09	23.68	89.0	7.19						
9	10.65	31.08	23.81	89.1	7.77						
10	10.10	31.24	24.03	88.5	8.01						
11	9.55	31.39	24.24	87.1	8.40						
12	9.20	31.41	24.31	85.3	8.67						
13	8.61	31.43	24.41	83.7	8.68						
14	8.44	31.45	24.45	85.4	8.52						
15	8.44	31.44	24.44	86.0	8.14						
16	8.43	31.45	24.45	86.0	7.78						
17	8.43	31.44	24.44	86.2	7.51						
18	8.42	31.45	24.45	86.3	7.33						
19	8.41	31.44	24.45	86.4	7.20						
20	8.40	31.45	24.46	86.7	7.10						
21	8.39	31.46	24.46	87.1	7.01						
22	8.39	31.46	24.47	87.2	6.95						
23	8.38	31.47	24.47	87.2	6.88						
24	8.38	31.46	24.47	87.4	6.75	6.60	.00	.2	.00	.94	.10


KELEZ CRUISE XWCC-18 STATION 19 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

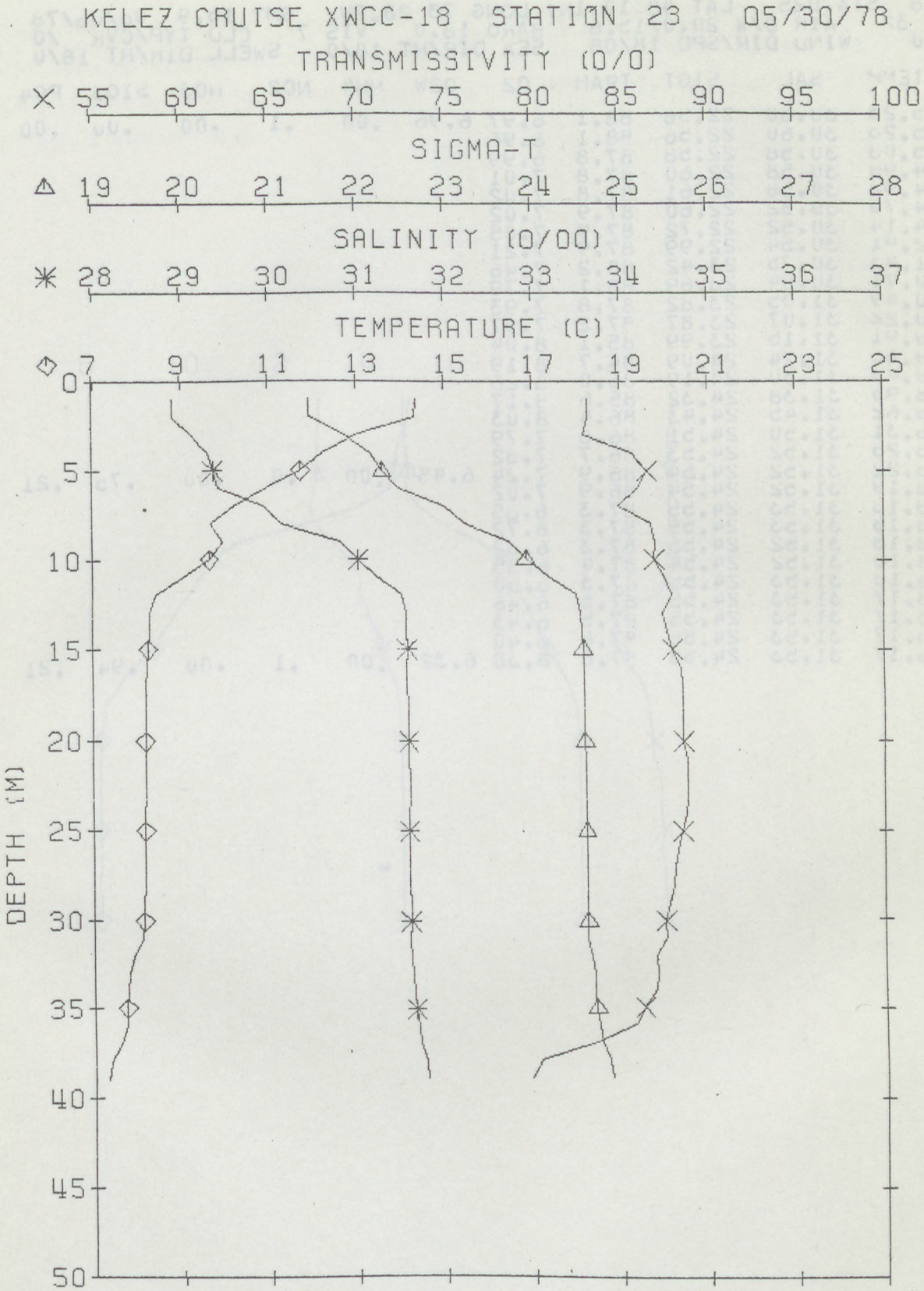
XWCC-16 STA.021 LAT 40 13.5N; LONG 73 56.3W GMT 01.0 05/31/78
DEPTH 20 AIR D/W 15.6/15.0 BARO 11.0 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 21/10 SEA DIR/HT 21/0 SWELL DIR/HT 20/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.88	26.20	19.26	82.4	9.25	9.87		.7	.00	.00	.00
2	14.88	26.20	19.26	82.4	9.24						
3	14.89	26.21	19.26	82.4	9.33						
4	14.65	26.39	19.45	82.3	9.42						
5	13.86	27.00	20.08	81.9	9.39						
6	12.75	28.38	21.36	82.7	9.29						
7	12.35	29.05	21.94	85.6	8.65						
8	12.26	29.70	22.46	86.8	7.92						
9	12.05	30.24	22.92	87.4	7.54						
10	12.02	30.52	23.13	88.0	7.36						
11	11.80	30.72	23.33	88.6	7.25						
12	11.36	30.80	23.47	89.2	7.18						
13	9.78	31.09	23.96	88.3	7.17						
14	9.08	31.22	24.18	88.4	7.17						
15	8.91	31.25	24.23	88.0	6.92						
16	8.77	31.26	24.25	87.7	6.70						
17	8.57	31.24	24.27	87.5	6.55						
18	8.45	31.26	24.30	85.2	5.57	5.70		.4	.00	.81	.41


KELEZ CRUISE XWCC-18 STATION 21 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
26 27 28 29 30 31 32 33 34 35
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

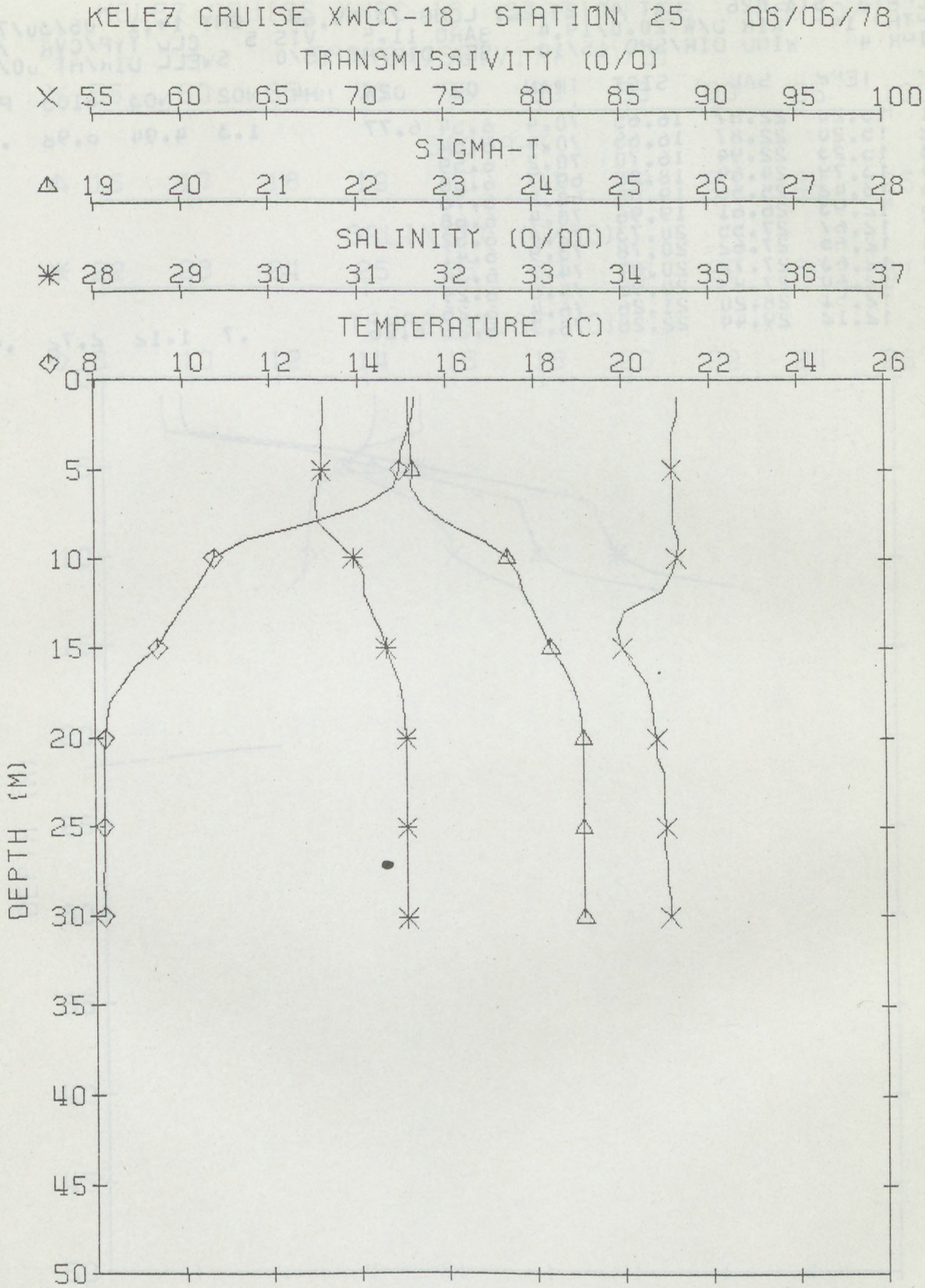
XWCC-13 STA.023 LAT 40 14.7N; LONG 73 45.6W GMT 20.1 05/30/78
DEPTH 40 AIR D/W 16.1/15.6 BARO 11.0 VIS 7 CLD TYP/CVR /0
WETWR 0 WIND DIR/SPD 20/14 SEA DIR/HT 20/0 SWELL DIR/HT 20/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.30	28.91	21.45	83.1	9.09	9.00		.3	.00	.00	.00
2	14.30	28.91	21.46	83.1	9.09						
3	12.96	29.12	21.88	82.9	9.06						
4	12.22	29.31	22.16	85.6	9.37						
5	11.73	29.37	22.30	86.5	8.99						
6	10.96	29.42	22.47	86.0	8.55						
7	10.21	29.95	23.01	84.9	8.27						
8	9.63	30.14	23.24	86.7	7.88						
9	9.95	30.81	23.72	87.0	7.47						
10	9.65	31.01	23.93	86.9	7.17						
11	9.05	31.22	24.18	87.5	7.19						
12	8.42	31.51	24.50	87.9	7.19						
13	8.29	31.55	24.55	87.4	7.07						
14	8.27	31.57	24.57	87.6	6.87						
15	8.26	31.57	24.57	87.9	6.70						
16	8.21	31.56	24.57	88.4	6.59						
17	8.18	31.57	24.58	88.5	6.54						
18	8.18	31.57	24.58	88.5	6.47						
19	8.13	31.57	24.58	88.5	6.42	6.29		.3	.00	.00	.26
20	8.17	31.57	24.59	88.5	6.38						
21	8.18	31.58	24.59	88.7	6.35						
22	8.17	31.59	24.60	88.7	6.33						
23	8.17	31.58	24.59	88.7	6.32						
24	8.17	31.58	24.59	88.6	6.31						
25	8.17	31.58	24.59	88.4	6.30						
26	8.16	31.58	24.59	88.1	6.28						
27	8.15	31.58	24.60	88.0	6.26						
28	8.14	31.58	24.60	87.9	6.24						
29	8.15	31.59	24.60	87.6	6.22						
30	8.12	31.59	24.60	87.4	6.20						
31	8.08	31.58	24.60	87.5	6.18						
32	7.90	31.60	24.65	86.9	6.17						
33	7.79	31.62	24.67	87.0	6.18						
34	7.76	31.62	24.68	86.9	6.18						
35	7.75	31.64	24.70	86.2	6.17						
36	7.71	31.67	24.72	85.7	6.16						
37	7.57	31.69	24.76	83.5	6.15						
38	7.34	31.76	24.85	80.3	6.09						
39	7.27	31.78	24.87	79.8	5.81	5.91		.3	.00	3.39	.36


KELEZ CRUISE XWCC-18 STATION 23 05/30/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

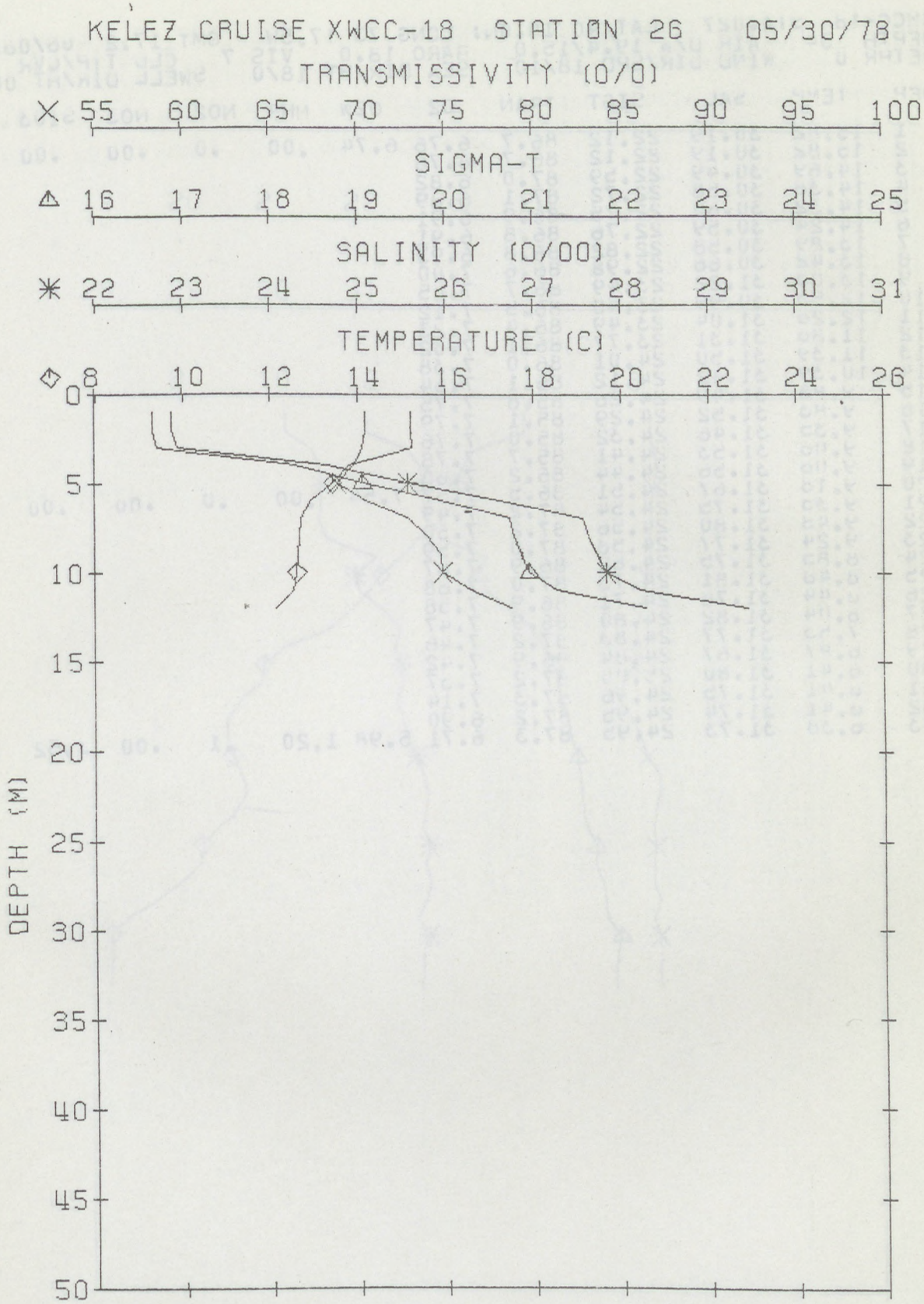
XWCC-18 STA.025 LAT 40 17.1N; LONG 73 28.2W GMT 15.9 06/06/78
DEPTH 32 AIR D/W 20.0/15.6 BARO 18.0 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 18/08 SEA DIR/HT 18/0 SWELL DIR/HT 18/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.23	30.60	22.56	88.1	6.97	6.96	.00	.1	.00	.00	.00
2	15.23	30.60	22.56	88.1	6.96						
3	15.03	30.58	22.58	87.8	6.99						
4	14.96	30.58	22.60	87.8	7.01						
5	14.92	30.58	22.61	87.8	7.02						
6	14.79	30.52	22.60	87.9	7.02						
7	14.14	30.52	22.72	87.9	7.05						
8	12.91	30.54	22.99	87.9	7.21						
9	11.43	30.75	23.42	88.2	7.46						
10	10.71	30.94	23.69	88.1	7.79						
11	10.49	31.05	23.82	87.8	7.93						
12	10.22	31.07	23.87	87.2	7.97						
13	9.91	31.15	23.99	85.1	8.04						
14	9.60	31.24	24.09	84.7	8.19						
15	9.43	31.30	24.19	85.0	8.26						
16	8.93	31.38	24.32	85.6	8.17						
17	8.62	31.45	24.43	86.4	8.03						
18	8.31	31.50	24.51	86.6	7.79						
19	8.20	31.52	24.53	86.7	7.52						
20	8.22	31.52	24.54	86.9	7.24	6.45	.00	.0	.00	.75	.21
21	8.19	31.52	24.54	86.9	7.02						
22	8.18	31.53	24.55	87.3	6.85						
23	8.18	31.53	24.55	87.3	6.72						
24	8.18	31.52	24.55	87.3	6.62						
25	8.18	31.52	24.54	87.4	6.55						
26	8.18	31.53	24.55	87.3	6.50						
27	8.17	31.53	24.55	87.5	6.46						
28	8.17	31.53	24.55	87.5	6.43						
29	8.17	31.53	24.55	87.6	6.40						
30	8.17	31.53	24.55	87.6	6.38	6.32	.00	.1	.00	.94	.21


KELEZ CRUISE XWCC-18 STATION 25 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

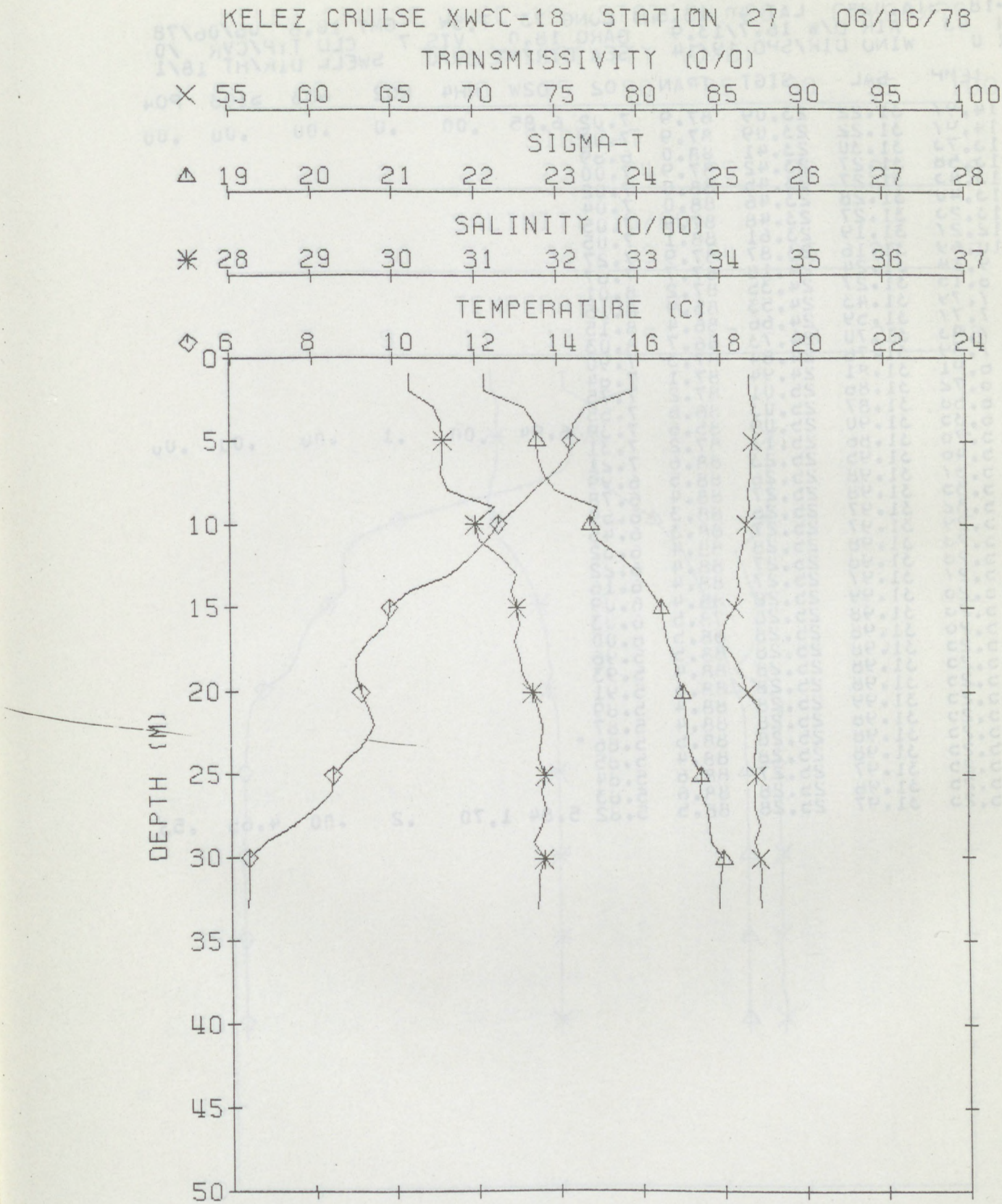
XMCC-18 STA.026 LAT 40 29.2N; LONG 73 59.6W GMT 14.1 05/30/78
DEPTH 14 AIR D/W 20.0/19.4 BARO 11.5 VIS 5 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 15/10 SEA DIR/HT 15/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.20	22.87	16.65	70.4	6.54	6.77		1.3	4.94	8.98	.72
2	15.20	22.87	16.65	70.4	6.54						
3	15.23	22.94	16.70	70.2	6.59						
4	13.79	24.64	18.28	69.7	6.68						
5	13.42	25.56	19.05	68.8	6.76						
6	12.93	26.61	19.96	70.4	6.68						
7	12.67	27.55	20.73	72.8	6.52						
8	12.65	27.62	20.78	73.9	6.41						
9	12.63	27.72	20.87	74.7	6.34						
10	12.60	27.83	20.95	74.8	6.29						
11	12.51	28.20	21.26	76.4	6.26						
12	12.12	29.44	22.28	78.7	6.26	6.26		.7	1.12	2.72	.49


KELEZ CRUISE XWCC-18 STATION 26 05/30/78
TRANSMISSIVITY (0/0)
X 55 60 65 70 75 80 85 90 95 100
SIGMA-T
Δ 16 17 18 19 20 21 22 23 24 25
SALINITY (0/00)
✳ 22 23 24 25 26 27 28 29 30 31
TEMPERATURE (C)
◇ 8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

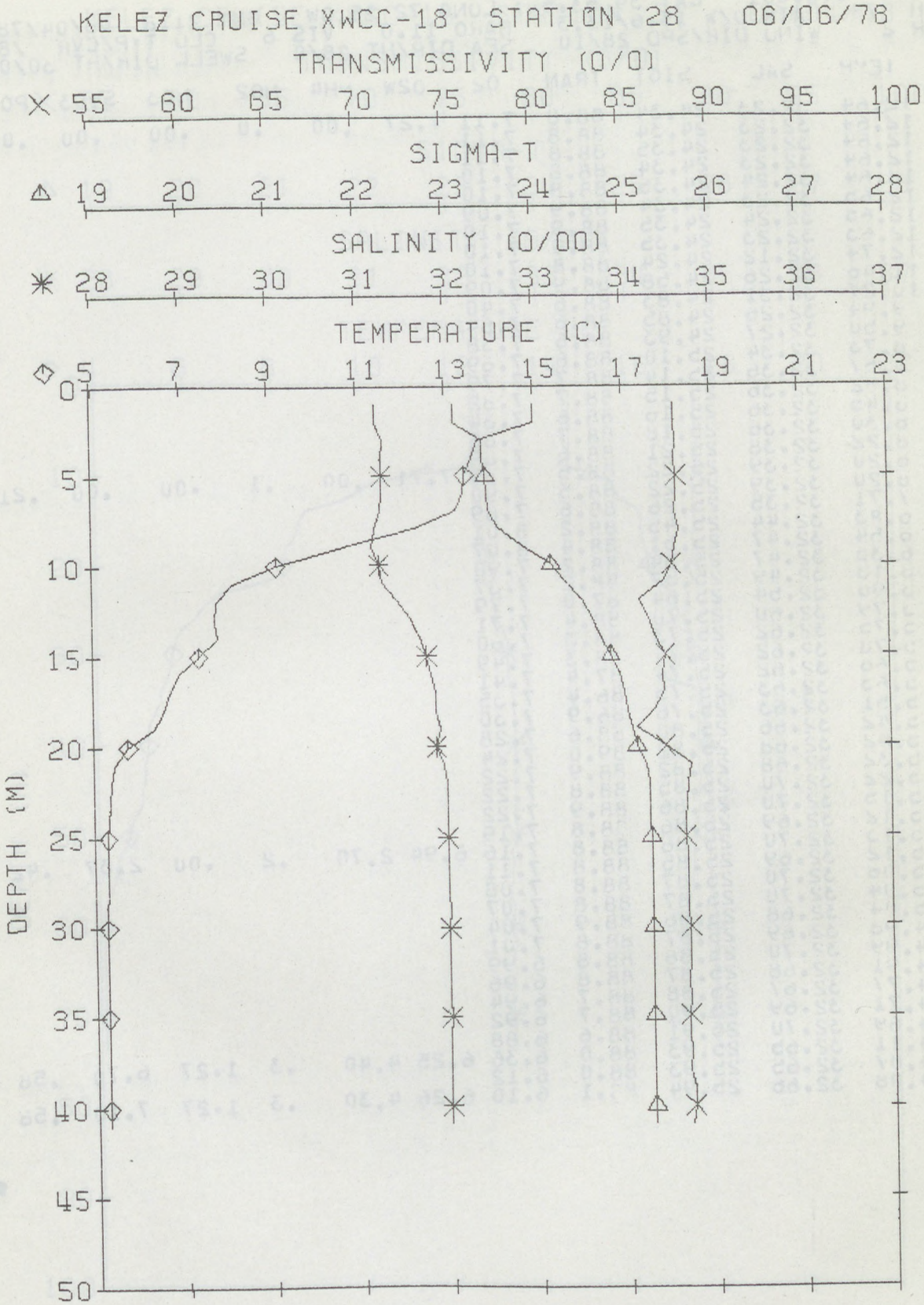
XWCC-18 STA.027 LAT 40 18.0N; LONG 73 17.5W GMT 17.2 06/06/78
DEPTH 34 AIR D/W 19.4/15.0 BARO 18.0 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 18/10 SEA DIR/HT 18/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.82	30.19	22.12	86.7	6.76	6.74	.00	.0	.00	.00	.10
2	15.82	30.19	22.12	86.7	6.76						
3	14.69	30.49	22.59	87.0	6.82						
4	14.38	30.58	22.72	87.1	6.89						
5	14.32	30.60	22.75	86.9	6.91						
6	14.24	30.59	22.76	86.8	6.91						
7	13.89	30.58	22.82	86.8	6.93						
8	13.42	30.66	22.98	86.6	7.00						
9	13.05	31.22	23.49	86.7	7.05						
10	12.55	30.99	23.40	86.5	7.12						
11	12.20	31.04	23.49	86.4	7.23						
12	11.80	31.31	23.77	86.1	7.32						
13	11.39	31.50	24.01	86.0	7.38						
14	10.39	31.42	24.12	86.1	7.54						
15	9.88	31.49	24.26	85.8	7.75						
16	9.85	31.52	24.29	85.1	7.79						
17	9.55	31.46	24.32	85.0	7.76						
18	9.06	31.53	24.41	85.7	7.78						
19	9.06	31.56	24.44	86.2	7.68						
20	9.18	31.67	24.51	86.5	7.57	7.54	.00	.0	.00	.00	.10
21	9.35	31.75	24.54	87.2	7.49						
22	9.48	31.80	24.56	87.2	7.50						
23	9.24	31.77	24.58	87.0	7.59						
24	8.85	31.75	24.62	86.9	7.67						
25	8.48	31.81	24.73	87.0	7.68						
26	8.44	31.78	24.71	86.9	7.58						
27	8.04	31.82	24.80	86.9	7.47						
28	7.55	31.77	24.83	87.2	7.46						
29	8.87	31.67	24.84	86.9	7.42						
30	8.41	31.80	25.00	87.2	7.37						
31	8.41	31.75	24.96	87.3	7.14						
32	8.41	31.74	24.95	87.2	6.90						
33	8.38	31.73	24.95	87.3	6.71	5.98	1.20	.1	.00	3.52	.42


KELEZ CRUISE XWCC-18 STATION 27 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
6 8 10 12 14 16 18 20 22 24
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

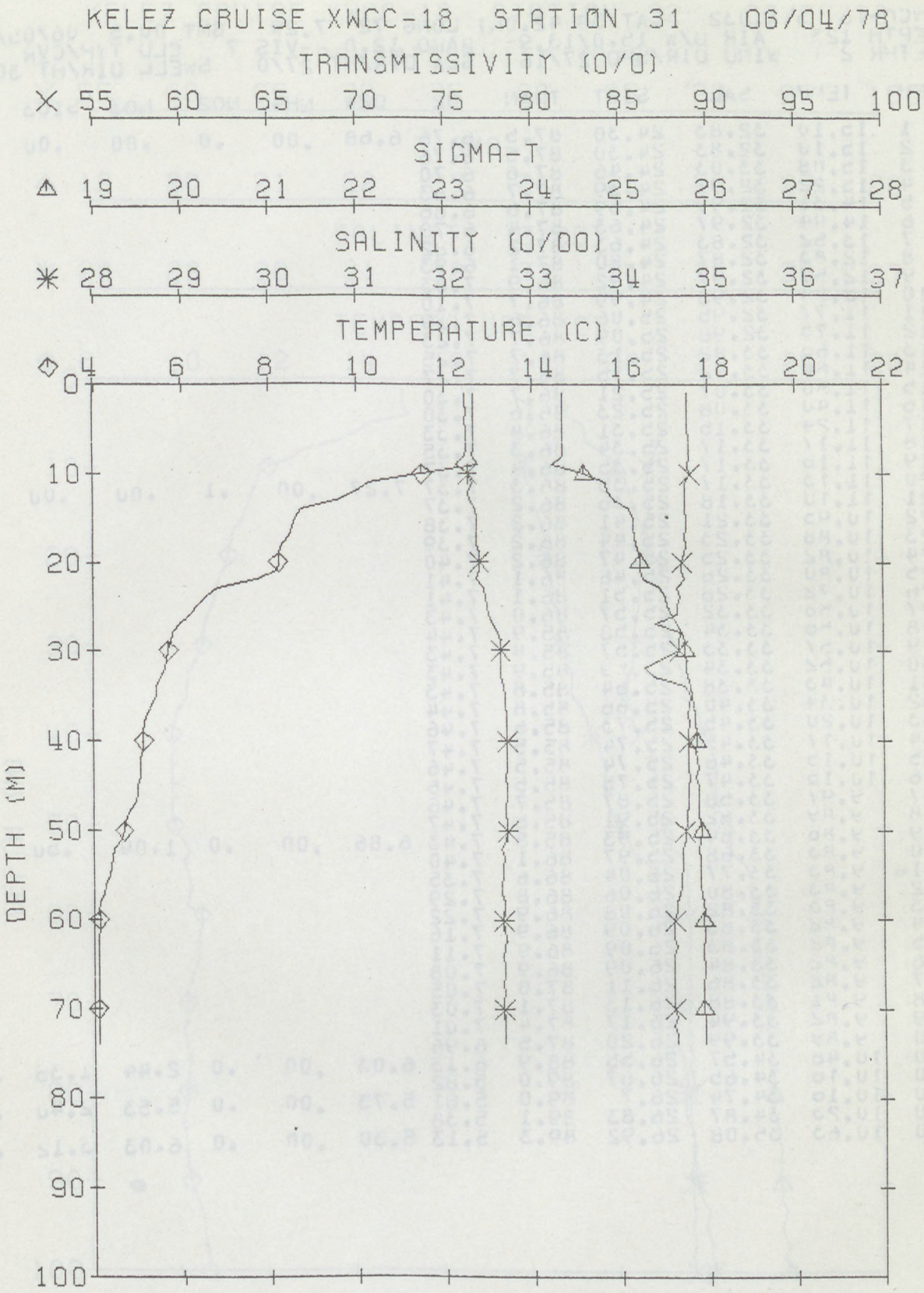
XWCC-18 STA.028 LAT 40 13.5N; LONG 73 7.5W GMT 18.6 06/06/78
DEPTH 43 AIR D/W 16.7/13.9 BARO 18.0 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 19/14 SEA DIR/HT 19/0 SWELL DIR/HT 18/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.97	31.22	23.09	87.9	7.02	6.85	.00	.0	.00	.00	.00
2	14.97	31.22	23.09	87.9	7.02						
3	13.73	31.30	23.41	88.0	6.89						
4	13.58	31.27	23.42	87.9	7.00						
5	13.43	31.27	23.45	88.0	7.02						
6	13.40	31.28	23.46	88.0	7.04						
7	13.23	31.27	23.48	87.9	7.05						
8	12.27	31.19	23.61	88.1	7.05						
9	10.69	31.16	23.87	87.9	7.27						
10	9.14	31.24	24.18	87.7	7.67						
11	8.15	31.27	24.35	87.2	8.01						
12	7.79	31.43	24.53	85.9	8.15						
13	7.77	31.59	24.66	86.4	8.15						
14	7.83	31.70	24.73	86.7	8.03						
15	7.39	31.76	24.84	87.3	7.90						
16	6.91	31.81	24.94	87.1	7.84						
17	6.72	31.86	25.01	87.2	7.75						
18	6.58	31.87	25.03	86.6	7.55						
19	6.35	31.90	25.09	85.6	7.39	6.94	.00	.1	.00	.00	.00
20	5.76	31.86	25.13	87.2	7.31						
21	5.46	31.95	25.23	88.6	7.21						
22	5.37	31.98	25.26	88.5	6.99						
23	5.35	31.98	25.27	88.4	6.78						
24	5.32	31.97	25.26	88.3	6.59						
25	5.29	31.97	25.27	88.3	6.45						
26	5.28	31.98	25.28	88.4	6.32						
27	5.28	31.98	25.27	88.4	6.22						
28	5.27	31.97	25.27	88.4	6.16						
29	5.26	31.99	25.28	88.4	6.09						
30	5.26	31.98	25.28	88.5	6.03						
31	5.26	31.98	25.28	88.5	6.00						
32	5.25	31.98	25.28	88.5	5.96						
33	5.25	31.98	25.28	88.4	5.93						
34	5.25	31.98	25.28	88.5	5.91						
35	5.25	31.99	25.28	88.4	5.89						
36	5.25	31.98	25.28	88.4	5.87						
37	5.25	31.98	25.28	88.5	5.86						
38	5.25	31.98	25.28	88.4	5.85						
39	5.25	31.97	25.27	88.6	5.84						
40	5.25	31.98	25.28	88.6	5.83						
41	5.25	31.97	25.28	88.5	5.82	5.84	1.70	.2	.00	4.65	.53


KELEZ CRUISE XWCC-18 STATION 28 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
5 7 9 11 13 15 17 19 21 23
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

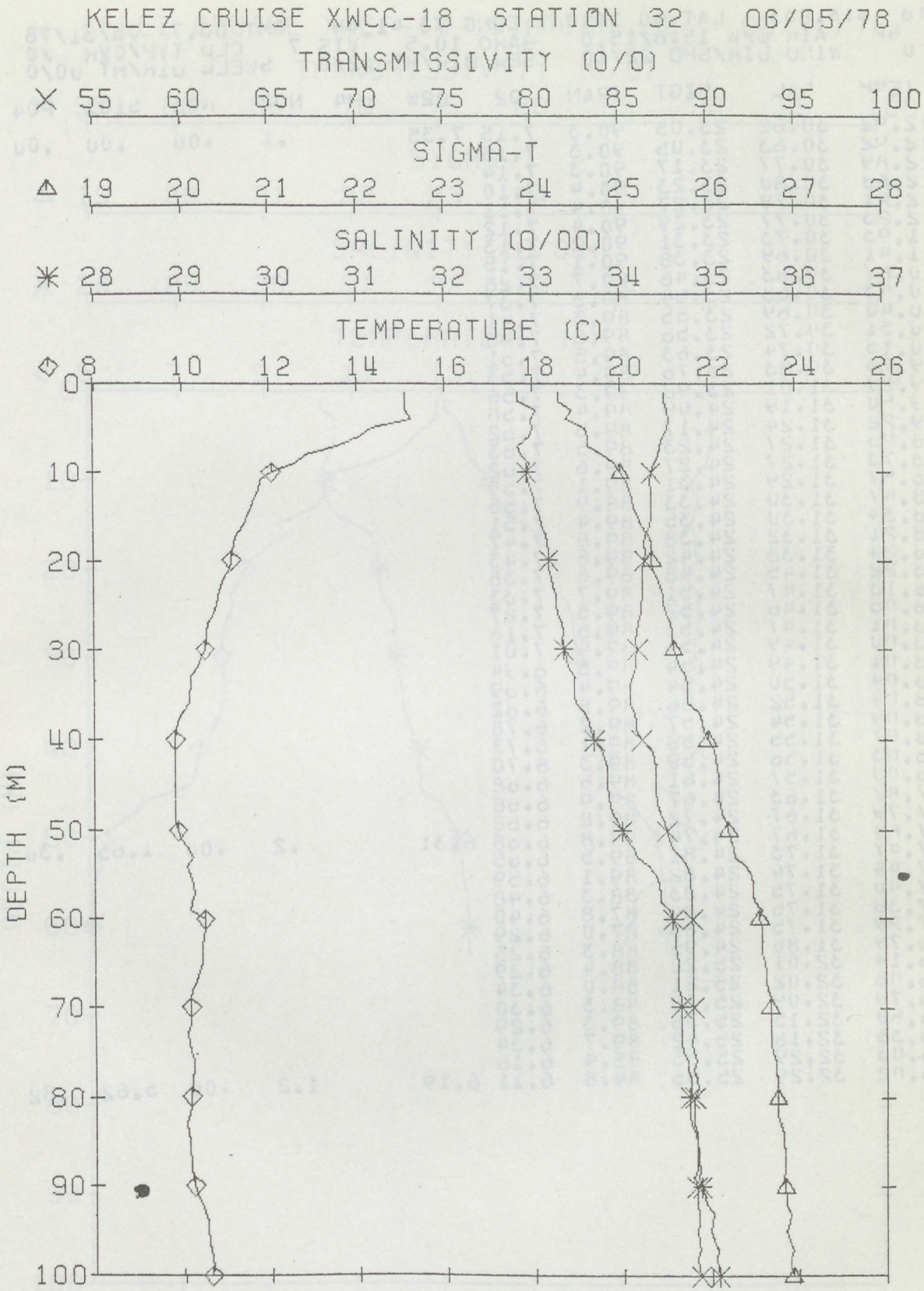
XWCC-18 STA.031 LAT 39 53.5N; LONG 72 25.0W GMT 21.8 06/04/78
DEPTH 75 AIR D/W 15.6/13.3 BARO 11.0 VIS 6 CLD TYP/CVR /8
WETHR 2 WIND DIR/SPD 28/10 SEA DIR/HT 28/0 SWELL DIR/HT 30/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.64	32.23	24.34	88.8	7.11	7.27	.00	.0	.00	.00	.00
2	12.64	32.23	24.34	88.8	7.11						
3	12.64	32.23	24.35	88.8	7.11						
4	12.64	32.23	24.34	88.8	7.10						
5	12.64	32.24	24.35	88.8	7.10						
6	12.65	32.23	24.34	88.9	7.09						
7	12.65	32.24	24.35	88.9	7.10						
8	12.65	32.23	24.35	88.9	7.10						
9	12.74	32.12	24.24	88.8	7.10						
10	11.46	32.26	24.58	88.9	7.09						
11	10.27	32.31	24.83	88.6	7.40						
12	9.94	32.26	24.85	88.6	7.54						
13	9.50	32.27	24.93	88.6	7.58						
14	8.73	32.34	25.10	88.6	7.69						
15	8.57	32.36	25.14	88.7	7.79						
16	8.52	32.36	25.15	88.7	7.82						
17	8.45	32.36	25.16	88.6	7.84						
18	8.30	32.36	25.18	88.7	7.86						
19	8.22	32.38	25.21	88.6	7.89						
20	8.20	32.39	25.22	88.5	7.89	7.71	.00	.1	.00	.00	.21
21	8.20	32.39	25.22	88.5	7.90						
22	7.71	32.35	25.26	88.6	7.89						
23	6.83	32.44	25.45	88.2	8.01						
24	6.54	32.47	25.51	88.4	8.07						
25	6.35	32.47	25.54	88.2	7.98						
26	6.13	32.49	25.57	88.2	7.87						
27	5.96	32.54	25.64	87.0	7.79						
28	5.79	32.60	25.70	88.4	7.71						
29	5.75	32.62	25.73	88.3	7.60						
30	5.70	32.62	25.74	88.3	7.49						
31	5.65	32.62	25.74	87.4	7.41						
32	5.63	32.63	25.75	86.4	7.35						
33	5.51	32.63	25.76	86.9	7.30						
34	5.42	32.66	25.80	88.6	7.28						
35	5.42	32.68	25.82	89.0	7.24						
36	5.32	32.68	25.82	88.9	7.22						
37	5.22	32.70	25.85	88.8	7.22						
38	5.15	32.70	25.86	88.9	7.22						
39	5.12	32.69	25.86	88.8	7.19						
40	5.13	32.70	25.86	88.8	7.16	6.94	2.70	.2	.00	2.37	.42
41	5.12	32.69	25.85	88.8	7.11						
42	5.06	32.70	25.87	88.8	7.08						
43	5.04	32.70	25.87	88.8	7.07						
44	5.04	32.68	25.86	88.9	7.04						
45	4.98	32.69	25.87	88.8	7.01						
46	4.99	32.70	25.88	88.8	6.99						
47	4.91	32.68	25.87	88.8	6.96						
48	4.77	32.67	25.88	88.7	6.94						
49	4.71	32.69	25.90	88.7	6.92						
50	4.69	32.70	25.91	88.6	6.88						
60	4.11	32.65	25.93	88.0	6.36	6.25	4.40	.3	1.27	6.70	.58
70	4.07	32.65	25.93	88.0	6.12						
74	4.08	32.66	25.94	88.1	6.10	6.26	4.30	.3	1.27	7.10	.58


KELEZ CRUISE XWCC-18 STATION 31 06/04/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

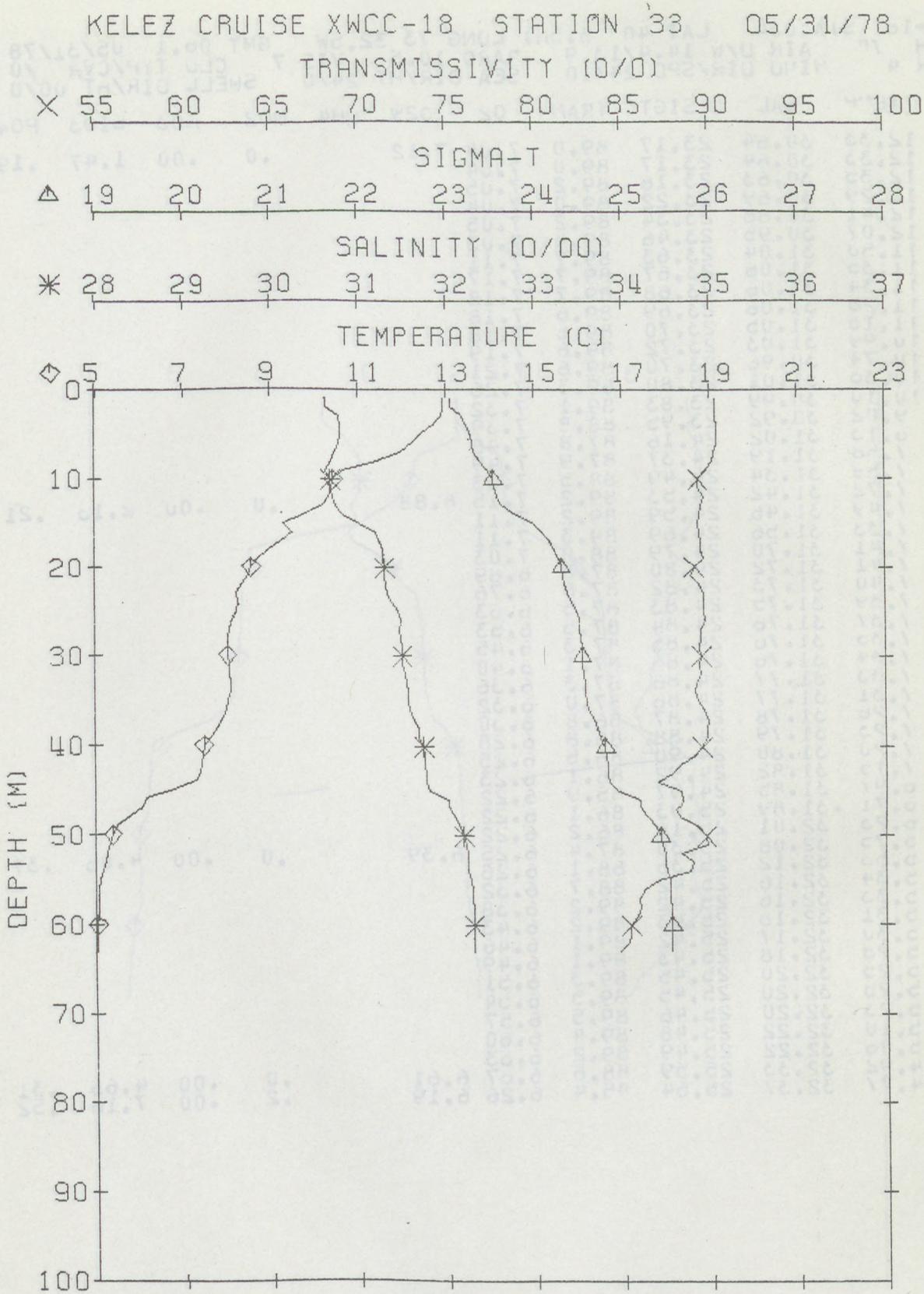
XWCC-18 STA.032 LAT 39 42.0N; LONG 72 7.2W GMT 00.5 06/05/78
DEPTH 123 AIR D/W 15.0/13.9 BARO 12.0 VIS 7 CLD TYP/CVR /8
WETHR 2 WIND DIR/SPD 27/16 SEA DIR/HT 27/0 SWELL DIR/HT 30/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.10	32.83	24.30	87.5	6.76	6.68	.00	.0	.00	.00	.10
2	15.10	32.83	24.30	87.5	6.76						
3	15.08	33.03	24.46	87.6	6.70						
4	15.22	32.97	24.39	87.7	6.63						
5	14.31	32.99	24.59	87.6	6.66						
6	14.04	32.97	24.63	87.4	6.78						
7	13.52	32.83	24.63	87.2	6.82						
8	12.83	32.87	24.80	87.1	6.93						
9	12.57	32.97	24.92	86.9	7.03						
10	12.04	32.93	24.99	86.7	7.10						
11	11.77	32.95	25.06	86.6	7.19						
12	11.75	32.98	25.09	86.7	7.23						
13	11.60	33.02	25.13	86.7	7.25						
14	11.60	33.02	25.15	86.7	7.27						
15	11.50	33.07	25.21	86.7	7.30						
16	11.40	33.08	25.23	86.6	7.30						
17	11.24	33.15	25.31	86.4	7.33						
18	11.17	33.17	25.34	86.3	7.35						
19	11.15	33.17	25.35	86.4	7.37						
20	11.13	33.17	25.35	86.3	7.37	7.27	.00	.1	.00	.00	.10
21	11.10	33.18	25.36	86.2	7.37						
22	10.95	33.21	25.41	86.2	7.38						
23	10.88	33.23	25.44	86.2	7.39						
24	10.82	33.25	25.47	86.2	7.40						
25	10.80	33.26	25.48	86.1	7.41						
26	10.72	33.28	25.51	86.1	7.41						
27	10.58	33.32	25.57	86.0	7.43						
28	10.50	33.34	25.58	85.9	7.44						
29	10.57	33.33	25.57	85.8	7.43						
30	10.52	33.34	25.59	85.9	7.43						
31	10.45	33.38	25.64	85.8	7.43						
32	10.34	33.40	25.66	85.8	7.44						
33	10.20	33.45	25.73	85.6	7.46						
34	10.17	33.45	25.74	85.5	7.47						
35	10.15	33.46	25.74	85.5	7.46						
36	10.15	33.47	25.75	85.5	7.46						
37	9.97	33.58	25.87	85.7	7.46						
38	9.89	33.62	25.91	85.8	7.47						
39	9.85	33.64	25.93	85.8	7.43	6.86	.00	.0	1.09	.50	.21
40	9.83	33.68	25.97	86.1	7.40						
41	9.83	33.77	26.04	86.6	7.35						
42	9.83	33.80	26.06	86.8	7.29						
43	9.83	33.82	26.08	86.9	7.22						
44	9.82	33.83	26.09	86.9	7.16						
45	9.82	33.83	26.09	86.9	7.11						
46	9.82	33.84	26.09	86.9	7.08						
47	9.82	33.86	26.11	87.0	7.05						
48	9.81	33.88	26.13	87.1	7.03						
49	9.82	33.94	26.17	87.4	7.01						
50	9.89	33.99	26.20	87.5	6.96						
60	10.48	34.57	26.55	88.9	6.13	6.03	.00	.0	2.44	1.35	.37
70	10.16	34.65	26.67	89.0	5.82						
80	10.16	34.74	26.7	89.0	5.61	5.73	.00	.0	5.53	2.40	.37
90	10.23	34.87	26.83	89.1	5.38						
100	10.63	35.08	26.92	89.3	5.13	5.30	.00	.0	6.03	3.12	.48


KELEZ CRUISE XWCC-18 STATION 32 06/05/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

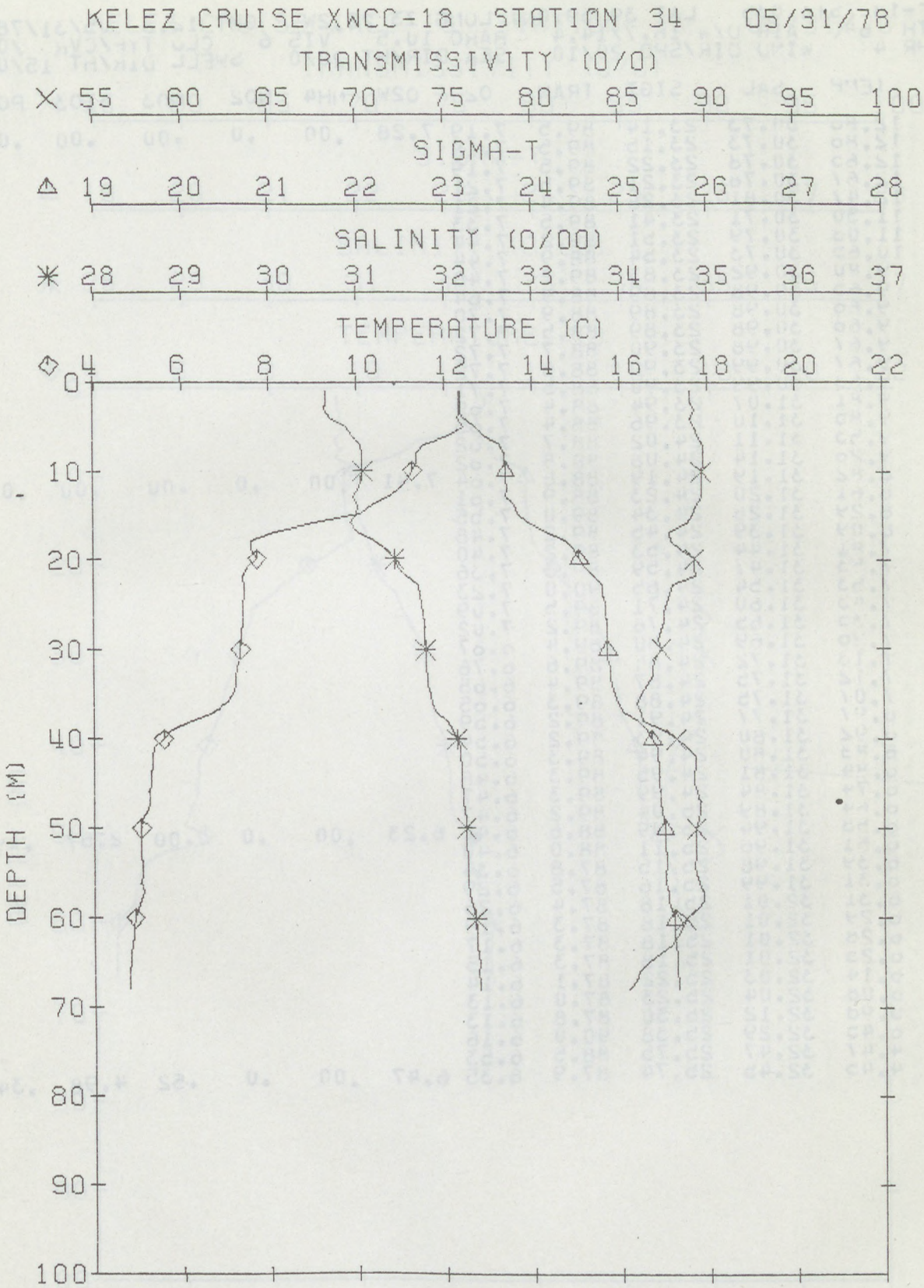
XWCC-18 STA.033 LAT 40 10.0N; LONG 73 41.4W GMT 03.7 05/31/78
DEPTH 62 AIR D/W 15.6/15.0 BARO 10.5 VIS 7 CLD TYP/CVR /0
WEIPR 0 WIND DIR/SPD 22/10 SEA DIR/HT 22/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.92	30.62	23.05	90.3	7.15	7.35		.1	.00	.00	.00
2	12.92	30.63	23.05	90.3	7.15						
3	12.89	30.77	23.17	90.3	7.14						
4	12.68	30.80	23.23	90.4	7.10						
5	12.41	30.79	23.27	90.4	7.11						
6	12.23	30.77	23.29	90.4	7.12						
7	11.95	30.73	23.31	90.2	7.13						
8	11.41	30.69	23.38	90.1	7.15						
9	10.67	30.63	23.46	89.7	7.28						
10	10.43	30.68	23.54	89.3	7.37						
11	10.40	30.69	23.55	89.3	7.41						
12	10.31	30.72	23.58	89.6	7.48						
13	10.15	30.74	23.63	89.5	7.51						
14	9.75	30.83	23.76	89.4	7.53						
15	9.29	31.01	23.98	89.3	7.56						
16	9.50	31.19	24.09	89.4	7.58						
17	9.22	31.24	24.17	89.5	7.62						
18	8.95	31.27	24.23	89.5	7.63						
19	8.73	31.27	24.27	89.6	7.62						
20	8.57	31.29	24.31	89.1	7.59						
21	8.47	31.30	24.33	88.9	7.55						
22	8.34	31.30	24.35	89.4	7.51						
23	8.21	31.32	24.38	89.6	7.47						
24	8.24	31.38	24.42	89.6	7.43						
25	8.22	31.45	24.48	89.6	7.38						
26	8.13	31.47	24.51	89.7	7.33						
27	8.05	31.46	24.52	89.5	7.27						
28	8.01	31.47	24.53	89.5	7.16						
29	8.00	31.49	24.54	89.4	7.01						
30	8.01	31.49	24.54	89.5	6.94						
31	8.04	31.50	24.54	89.4	6.89						
32	8.04	31.52	24.56	89.5	6.82						
33	8.09	31.54	24.57	89.2	6.78						
34	8.07	31.55	24.58	89.1	6.73						
35	8.03	31.56	24.59	89.3	6.70						
36	8.00	31.57	24.61	89.6	6.68						
37	7.87	31.63	24.67	89.9	6.68						
38	7.79	31.67	24.72	89.8	6.68						
39	7.64	31.67	24.74	89.8	6.68	6.31		.2	.00	1.65	.30
40	7.47	31.73	24.81	89.5	6.65						
41	7.44	31.74	24.82	89.1	6.59						
42	7.40	31.75	24.83	88.3	6.48						
43	7.38	31.75	24.84	87.8	6.40						
44	7.29	31.75	24.85	87.0	6.29						
45	6.79	31.80	24.95	88.3	6.25						
46	6.14	32.01	25.20	88.4	6.29						
47	6.06	32.02	25.21	88.0	6.34						
48	5.79	32.09	25.30	88.3	6.30						
49	5.50	32.15	25.38	89.3	6.29						
50	5.38	32.18	25.42	89.7	6.34						
60	5.03	32.29	25.55	85.4	6.16						
63	5.02	32.29	25.55	84.8	6.11	6.19		1.2	.00	5.62	.52


KELEZ CRUISE XWCC-18 STATION 33 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
5 7 9 11 13 15 17 19 21 23
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

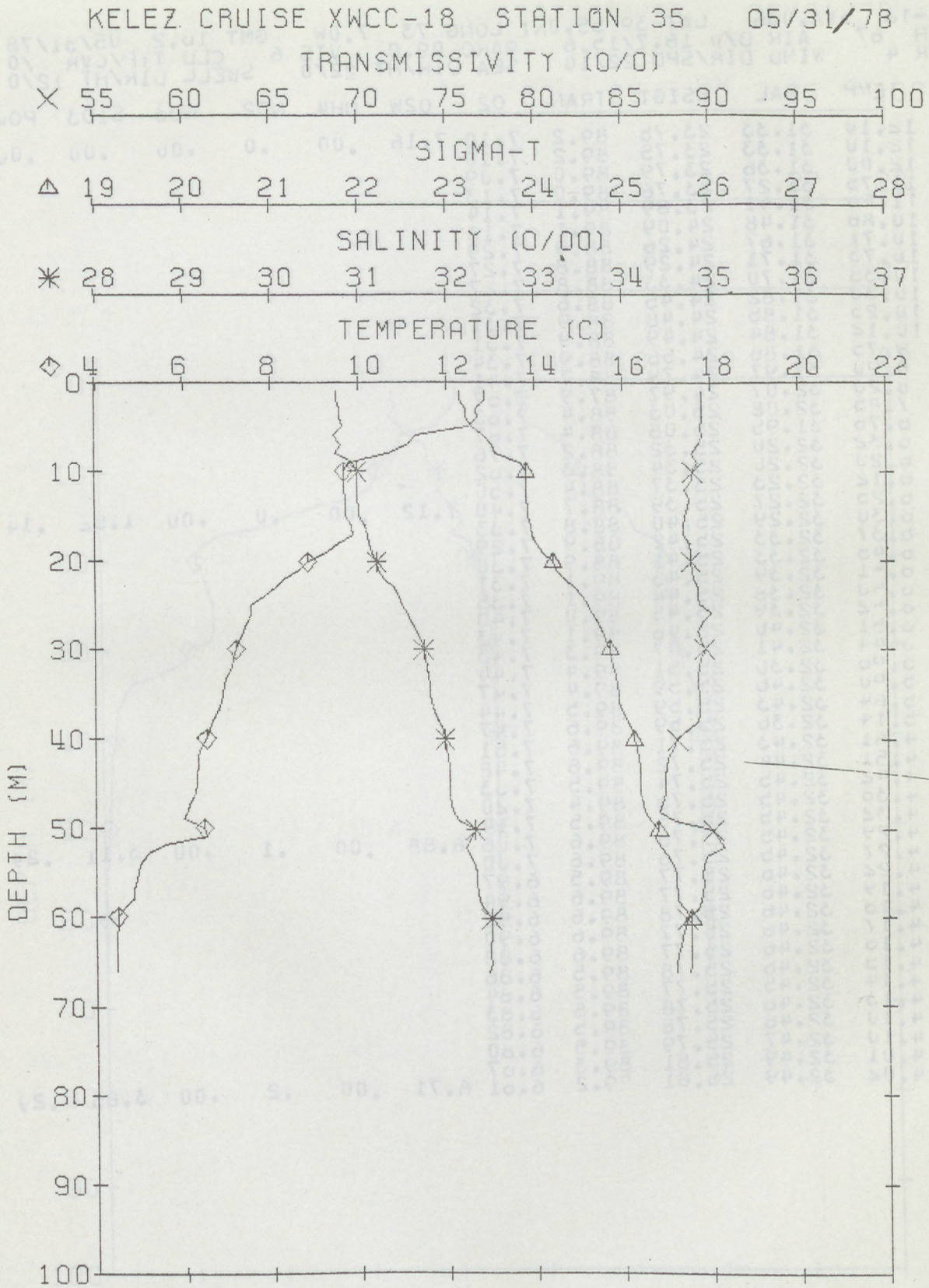
XWCC-16 STA.034 LAT 40 5.5N; LONG 73 32.5W GMT 06.1 05/31/78
DEPTH 70 AIR D/W 14.4/13.9 BARO 10.5 VIS 7 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 24/10 SEA DIR/HT 24/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.35	30.64	23.17	89.0	7.04	7.12		.0	.00	1.47	.19
2	12.35	30.64	23.17	89.0	7.04						
3	12.35	30.63	23.16	89.2	7.05						
4	12.29	30.69	23.22	89.0	7.04						
5	12.41	30.88	23.34	89.2	7.05						
6	12.07	30.95	23.46	89.4	7.03						
7	11.50	31.04	23.63	89.7	7.11						
8	11.35	31.06	23.67	89.7	7.17						
9	11.34	31.06	23.68	89.7	7.18						
10	11.20	31.06	23.69	89.6	7.18						
11	11.15	31.05	23.70	89.6	7.18						
12	10.99	31.03	23.72	89.6	7.19						
13	10.74	30.96	23.70	89.6	7.21						
14	10.36	31.01	23.80	89.3	7.26						
15	10.10	30.99	23.83	89.1	7.32						
16	9.02	30.92	23.95	88.9	7.39						
17	8.15	31.02	24.16	87.8	7.48						
18	7.58	31.19	24.37	87.9	7.49						
19	7.59	31.34	24.49	88.5	7.33						
20	7.72	31.42	24.53	89.2	7.15	6.88		.0	.00	2.15	.21
21	7.49	31.46	24.59	89.2	7.11						
22	7.33	31.56	24.69	89.3	7.11						
23	7.41	31.70	24.79	88.0	7.03						
24	7.41	31.72	24.80	87.8	6.89						
25	7.40	31.73	24.82	87.6	6.76						
26	7.39	31.75	24.83	87.5	6.63						
27	7.37	31.76	24.84	87.5	6.53						
28	7.35	31.76	24.85	87.3	6.45						
29	7.34	31.76	24.85	87.1	6.40						
30	7.33	31.77	24.86	87.3	6.36						
31	7.31	31.77	24.86	87.0	6.32						
32	7.26	31.78	24.87	86.8	6.30						
33	7.23	31.79	24.88	86.8	6.28						
34	7.20	31.80	24.90	86.5	6.25						
35	7.15	31.82	24.92	86.1	6.23						
36	6.97	31.85	24.97	85.9	6.22						
37	6.71	31.89	25.03	86.1	6.22						
38	6.23	32.01	25.19	86.2	6.22						
39	5.75	32.08	25.30	87.4	6.25	6.39		.0	.00	4.05	.37
40	5.56	32.12	25.35	88.1	6.28						
41	5.34	32.16	25.42	88.7	6.32						
42	5.33	32.16	25.42	89.2	6.38						
43	5.31	32.18	25.43	89.2	6.43						
44	5.30	32.17	25.42	89.1	6.46						
45	5.28	32.18	25.43	89.1	6.49						
46	5.25	32.20	25.45	89.3	6.51						
47	5.25	32.20	25.45	89.5	6.54						
48	5.23	32.20	25.46	89.5	6.57						
49	5.10	32.22	25.48	89.4	6.60						
50	5.06	32.22	25.49	89.2	6.63						
60	4.92	32.33	25.59	88.6	6.07	6.61		.0	.00	4.65	.31
68	4.77	32.37	25.64	85.4	6.26	6.19		.2	.00	7.16	.52


KELEZ CRUISE XWCC-18 STATION 34 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

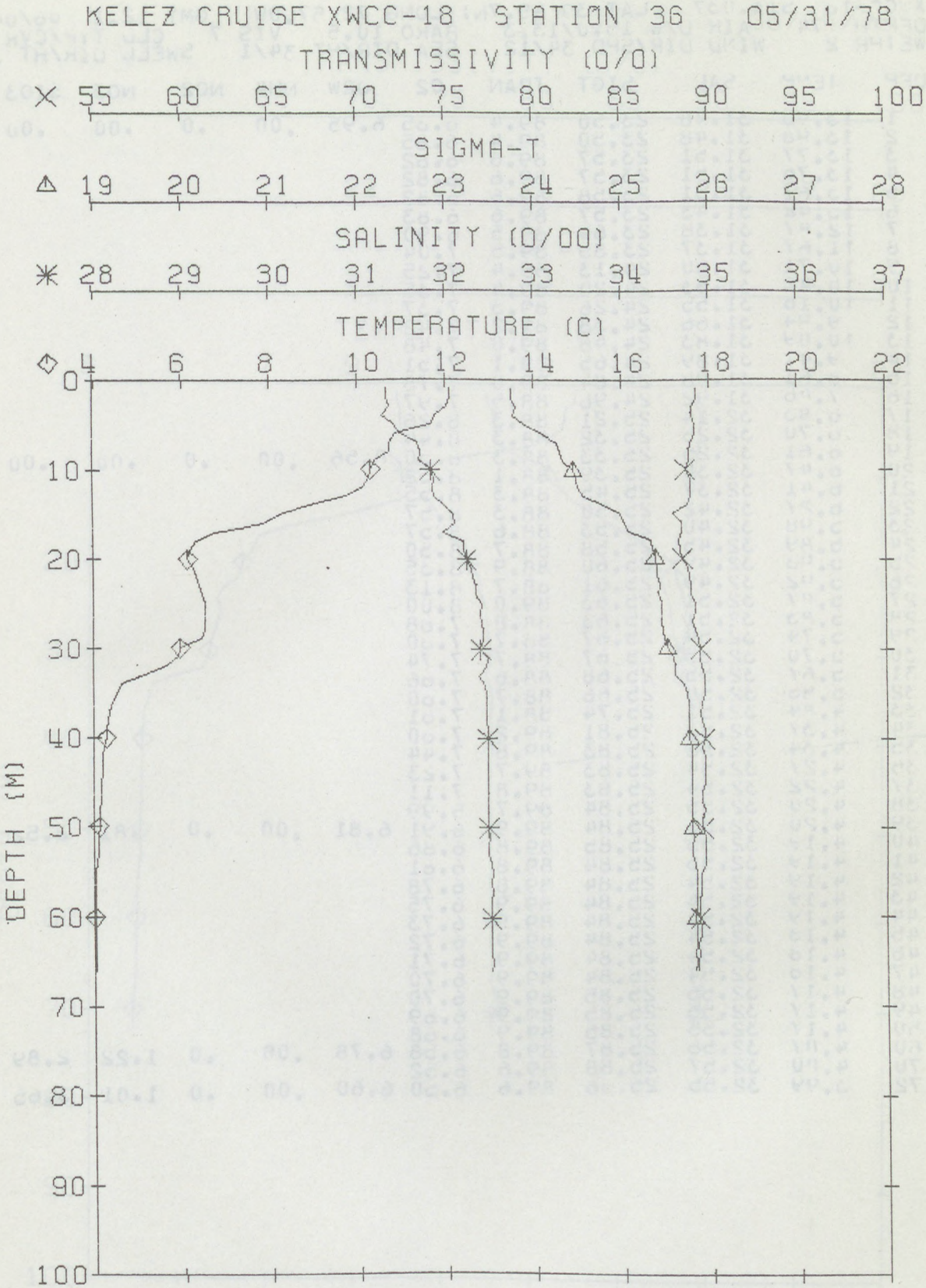
XWCC-18 STA.035 LAT 39 59.0N; LONG 73 22.2W GMT 12.8 05/31/78
DEPTH 68 AIR D/W 16.7/14.4 BARO 10.5 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 20/10 SEA DIR/HT 20/0 SWELL DIR/HT 15/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.85	30.73	23.14	89.5	7.19	7.28	.00	.0	.00	.00	.00
2	12.80	30.73	23.15	89.5	7.18						
3	12.65	30.78	23.22	89.5	7.19						
4	12.67	30.78	23.21	89.5	7.21						
5	12.47	30.81	23.28	89.4	7.21						
6	11.30	30.71	23.41	89.5	7.33						
7	11.08	30.79	23.51	89.2	7.44						
8	10.65	30.73	23.54	88.9	7.44						
9	9.80	30.92	23.83	89.2	7.48						
10	9.65	30.98	23.89	88.9	7.64						
11	9.68	30.98	23.89	88.9	7.70						
12	9.68	30.98	23.89	88.5	7.72						
13	9.67	30.98	23.90	88.7	7.72						
14	9.67	30.99	23.90	88.6	7.72						
15	9.63	30.99	23.90	88.5	7.71						
16	9.81	31.07	23.94	88.4	7.69						
17	9.85	31.10	23.96	88.4	7.65						
18	9.55	31.11	24.02	88.7	7.62						
19	9.20	31.14	24.08	88.8	7.62						
20	8.82	31.19	24.19	88.8	7.64	7.41	.00	.0	.00	.00	.00
21	8.61	31.20	24.23	88.9	7.61						
22	8.29	31.28	24.34	89.0	7.55						
23	8.09	31.39	24.45	89.2	7.48						
24	7.81	31.44	24.53	89.2	7.40						
25	7.53	31.47	24.59	89.3	7.36						
26	7.53	31.54	24.65	90.0	7.23						
27	7.45	31.60	24.71	89.5	7.09						
28	7.35	31.65	24.76	89.2	7.02						
29	7.26	31.69	24.80	89.4	6.87						
30	7.13	31.72	24.84	89.6	6.76						
31	7.12	31.75	24.87	89.4	6.68						
32	7.07	31.75	24.88	89.3	6.65						
33	6.97	31.77	24.91	89.2	6.59						
34	6.92	31.80	24.93	89.2	6.54						
35	6.83	31.80	24.94	89.3	6.50						
36	6.84	31.81	24.95	89.3	6.48						
37	6.74	31.84	24.99	89.3	6.47						
38	6.64	31.89	25.04	89.2	6.47						
39	6.58	31.94	25.09	88.6	6.45	6.23	.00	.0	.00	2.57	.19
40	6.51	31.96	25.11	88.0	6.40						
41	6.39	31.98	25.15	87.8	6.34						
42	6.31	31.99	25.16	87.5	6.29						
43	6.31	32.01	25.18	87.4	6.26						
44	6.29	32.01	25.18	87.3	6.19						
45	6.28	32.01	25.18	87.3	6.17						
46	6.25	32.01	25.18	87.3	6.15						
47	6.14	32.03	25.22	87.1	6.14						
48	6.08	32.04	25.23	87.0	6.13						
49	5.98	32.12	25.30	87.8	6.13						
50	6.45	32.29	25.38	90.0	6.16						
60	4.47	32.47	25.75	88.5	6.53						
66	4.45	32.45	25.74	87.9	6.35	6.47	.00	.0	.52	4.98	.34


KELEZ CRUISE XWCC-18 STATION 35 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

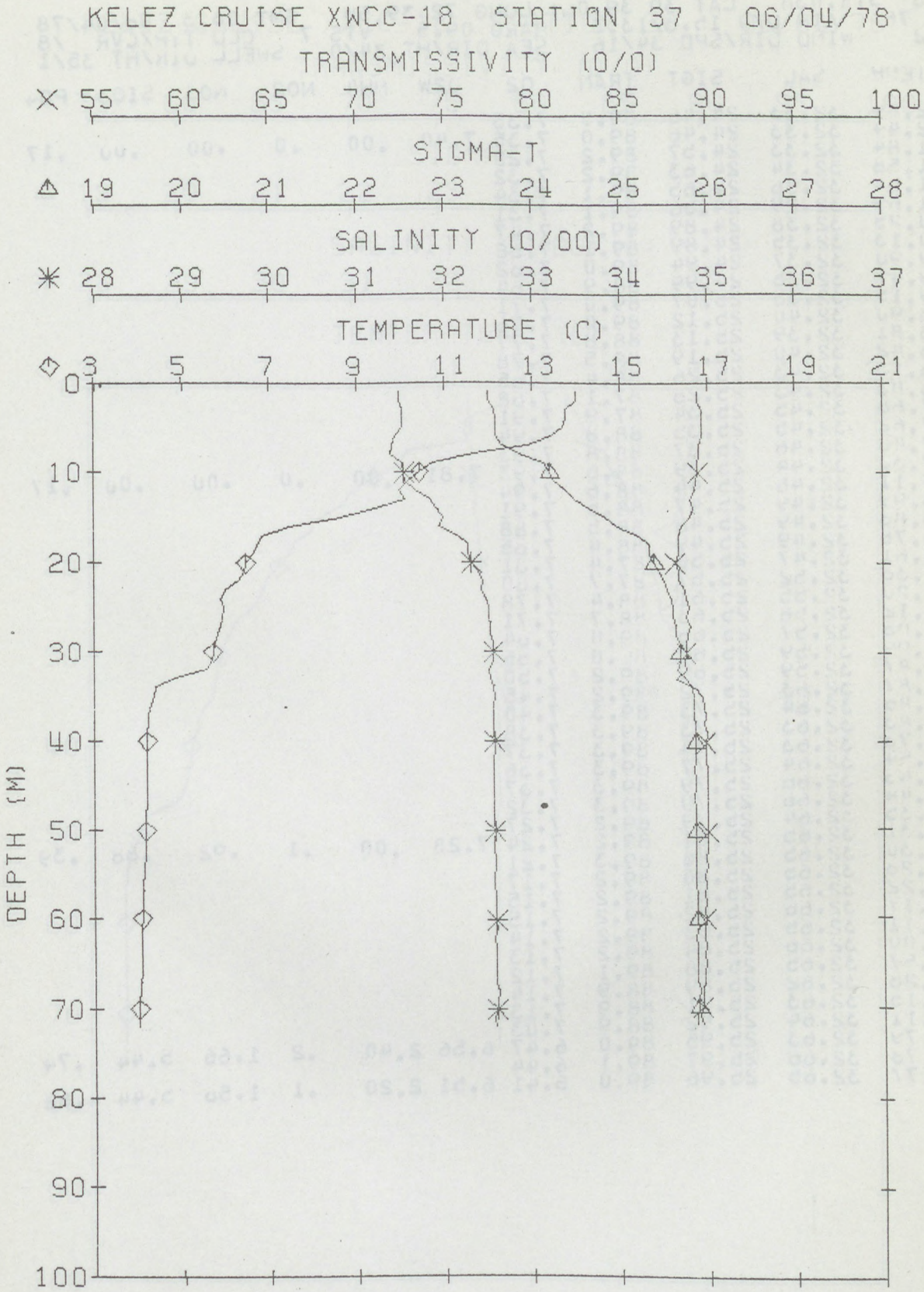
XWCC-13 STA.036 LAT 39 55.0N; LONG 73 7.0W GMT 16.2 05/31/78
DEPTH 67 AIR D/W 16.7/15.6 BARO 09.0 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 22/10 SEA DIR/HT 22/0 SWELL DIR/HT 12/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.10	31.33	23.75	89.2	7.10	7.16	.00	.0	.00	.00	.00
2	12.10	31.33	23.75	89.2	7.10						
3	12.00	31.36	23.79	89.0	7.09						
4	11.75	31.27	23.76	89.0	7.13						
5	11.66	31.41	23.89	89.1	7.14						
6	10.86	31.48	24.09	89.1	7.18						
7	10.71	31.67	24.26	88.9	7.29						
8	10.75	31.71	24.29	88.8	7.27						
9	10.38	31.70	24.33	88.8	7.27						
10	10.30	31.82	24.45	88.6	7.32						
11	10.25	31.85	24.48	88.9	7.31						
12	10.12	31.84	24.49	88.9	7.31						
13	9.75	31.86	24.56	88.9	7.34						
14	8.90	31.97	24.79	88.7	7.41						
15	8.25	32.07	24.97	87.9	7.57						
16	7.85	32.08	25.03	88.4	7.63						
17	8.70	31.95	25.08	88.4	7.67						
18	8.32	32.20	25.32	88.2	7.76						
19	8.20	32.20	25.34	88.3	7.82						
20	8.12	32.23	25.37	88.4	7.50						
21	8.25	32.27	25.39	88.7	7.40	7.12	.00	.0	.00	1.52	.14
22	8.30	32.29	25.40	88.8	7.33						
23	8.37	32.33	25.42	88.9	7.29						
24	8.45	32.33	25.41	88.9	7.30						
25	8.51	32.39	25.45	89.1	7.31						
26	8.50	32.38	25.44	89.1	7.35						
27	8.52	32.39	25.45	89.0	7.40						
28	8.51	32.40	25.46	89.1	7.43						
29	8.44	32.41	25.47	89.3	7.43						
30	8.00	32.38	25.51	89.4	7.44						
31	5.90	32.46	25.59	89.4	7.47						
32	5.64	32.43	25.59	89.5	7.44						
33	5.14	32.36	25.59	89.6	7.47						
34	4.61	32.43	25.71	89.6	7.51						
35	4.51	32.44	25.72	89.6	7.48						
36	4.42	32.45	25.74	89.5	7.33						
37	4.35	32.45	25.75	89.4	7.20						
38	4.32	32.45	25.75	89.5	7.14						
39	4.29	32.45	25.76	89.6	7.06	6.88	.00	.1	.00	3.11	.29
40	4.27	32.45	25.76	89.6	7.00						
41	4.22	32.46	25.77	89.5	6.97						
42	4.19	32.46	25.77	89.6	6.94						
43	4.18	32.46	25.78	89.6	6.92						
44	4.17	32.46	25.77	89.6	6.90						
45	4.16	32.46	25.77	89.6	6.88						
46	4.15	32.46	25.78	89.5	6.86						
47	4.14	32.45	25.77	89.5	6.84						
48	4.13	32.46	25.78	89.6	6.83						
49	4.10	32.46	25.78	89.5	6.82						
50	4.10	32.47	25.79	89.5	6.80						
60	4.01	32.49	25.81	89.3	6.67						
66	4.02	32.49	25.81	89.2	6.61	6.71	.00	.2	.00	3.85	.29


KELEZ CRUISE XWCC-18 STATION 36 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

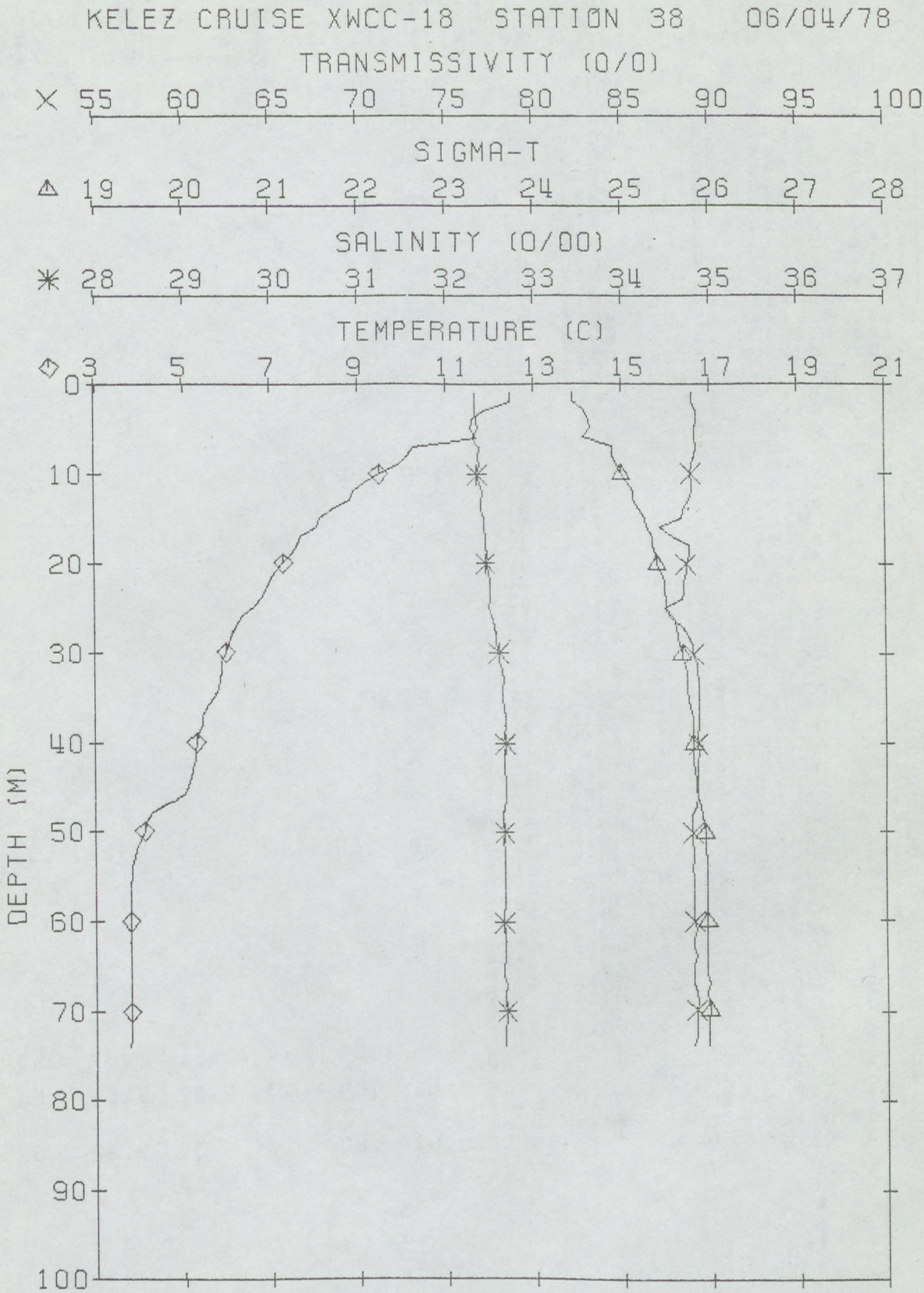
XWCC-16 STA.037 LAT 39 45.7N; LONG 72 57.0W GMT 12.1 06/04/78
DEPTH 74 AIR D/W 15.0/13.3 BARO 10.5 VIS 7 CLD TYP/CVR /8
WETHR 2 WIND DIR/SPD 34/12 SEA DIR/HT 34/1 SWELL DIR/HT 33/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.98	31.48	23.50	89.4	6.85	6.95	.00	.0	.00	.00	.05
2	13.98	31.48	23.50	89.4	6.85						
3	13.77	31.51	23.57	89.6	6.82						
4	13.76	31.51	23.57	89.6	6.82						
5	13.67	31.51	23.58	89.6	6.82						
6	13.42	31.43	23.57	89.6	6.83						
7	12.87	31.38	23.64	89.5	6.90						
8	11.67	31.37	23.85	89.5	7.04						
9	10.71	31.50	24.13	89.4	7.25						
10	10.42	31.53	24.20	89.4	7.35						
11	10.16	31.55	24.26	89.3	7.37						
12	9.94	31.66	24.38	89.2	7.42						
13	10.09	31.83	24.48	89.0	7.48						
14	9.41	31.89	24.65	89.1	7.51						
15	8.61	31.98	24.84	89.0	7.78						
16	7.80	31.92	24.96	88.5	7.97						
17	6.83	32.14	25.21	88.3	8.26						
18	6.70	32.25	25.32	88.3	8.44						
19	6.61	32.25	25.33	88.3	8.50	8.56	.00	.0	.00	.00	.11
20	6.47	32.30	25.39	88.1	8.52						
21	6.41	32.37	25.45	88.3	8.55						
22	6.27	32.42	25.50	88.3	8.57						
23	5.98	32.40	25.53	88.6	8.57						
24	5.89	32.45	25.58	88.7	8.50						
25	5.85	32.49	25.60	88.9	8.35						
26	5.82	32.49	25.61	88.7	8.13						
27	5.87	32.51	25.63	89.0	8.00						
28	5.85	32.51	25.63	88.8	7.88						
29	5.74	32.54	25.67	88.7	7.80						
30	5.70	32.55	25.67	88.7	7.74						
31	5.67	32.55	25.68	88.6	7.66						
32	5.50	32.50	25.66	88.7	7.60						
33	4.84	32.51	25.74	88.1	7.61						
34	4.37	32.53	25.81	89.2	7.60						
35	4.34	32.56	25.83	89.6	7.44						
36	4.27	32.54	25.83	89.7	7.23						
37	4.22	32.54	25.83	89.8	7.11						
38	4.20	32.55	25.84	89.7	6.99						
39	4.20	32.55	25.84	89.9	6.91	6.81	.00	.0	.81	2.52	.45
40	4.19	32.55	25.85	89.8	6.86						
41	4.19	32.55	25.84	89.8	6.81						
42	4.19	32.54	25.84	89.8	6.78						
43	4.19	32.54	25.84	89.9	6.75						
44	4.19	32.54	25.84	89.9	6.73						
45	4.18	32.54	25.84	89.9	6.72						
46	4.18	32.54	25.84	89.9	6.71						
47	4.18	32.54	25.84	89.9	6.70						
48	4.17	32.55	25.85	89.9	6.70						
49	4.17	32.55	25.85	89.9	6.69						
50	4.17	32.55	25.85	89.9	6.68						
60	4.07	32.56	25.87	89.8	6.58	6.78	.00	.0	1.22	2.89	.45
70	4.00	32.57	25.88	89.6	6.52						
72	3.99	32.55	25.86	89.6	6.50	6.60	.00	.0	1.01	3.65	.50


KELEZ CRUISE XWCC-18 STATION 37 06/04/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
3 5 7 9 11 13 15 17 19 21
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

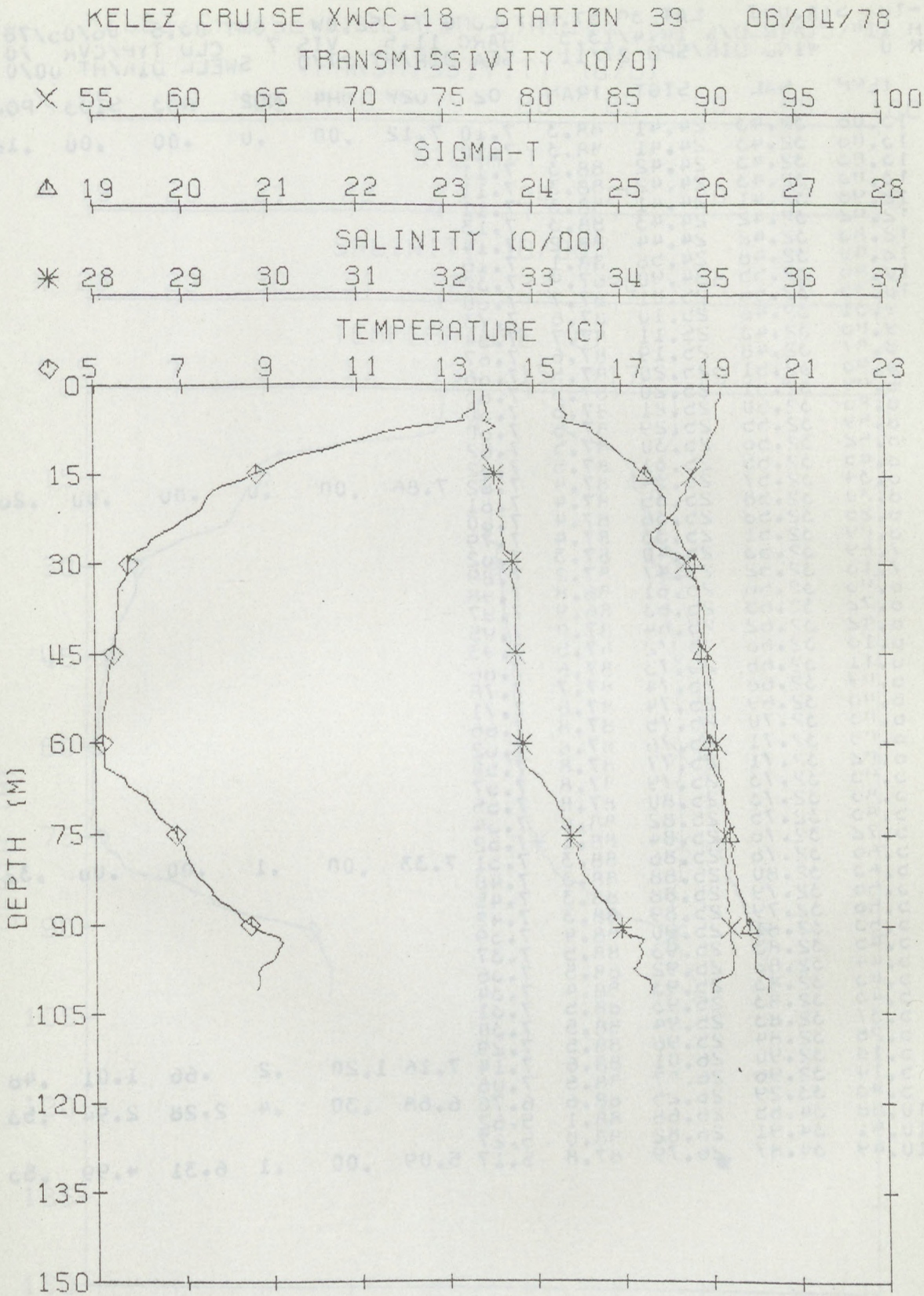
XWCC-18 STA.038 LAT 39 39.0N; LONG 72 39.5W GMT 08.3 06/04/78
DEPTH 76 AIR D/W 15.3/13.3 BARO 09.5 VTS 7 CLD TYP/CVR /8
WETHR 2 WIND DIR/SPD 34/16 SEA DIR/HT 34/0 SWELL DIR/HT 35/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.44	32.33	24.46	89.0	7.35						
2	12.44	32.33	24.46	89.0	7.35	7.40	.00	.0	.00	.00	.17
3	11.84	32.33	24.57	89.2	7.22						
4	11.58	32.34	24.63	89.2	7.32						
5	11.54	32.36	24.65	89.1	7.34						
6	11.69	32.29	24.56	89.1	7.31						
7	10.25	32.38	24.89	89.2	7.47						
8	10.13	32.35	24.89	89.1	7.58						
9	9.90	32.37	24.94	89.0	7.62						
10	9.47	32.35	24.99	88.9	7.64						
11	9.15	32.38	25.07	89.0	7.71						
12	8.90	32.40	25.12	89.0	7.76						
13	8.81	32.39	25.13	88.8	7.77						
14	8.42	32.40	25.19	88.5	7.78						
15	8.13	32.43	25.26	88.4	7.85						
16	8.03	32.43	25.28	87.1	7.88						
17	7.68	32.45	25.34	87.9	7.91						
18	7.62	32.45	25.35	88.8	7.94						
19	7.48	32.46	25.37	88.8	7.93						
20	7.30	32.44	25.39	88.6	7.93	7.81	.00	.0	.00	.00	.17
21	7.11	32.48	25.44	88.6	7.94						
22	6.99	32.49	25.47	88.5	7.91						
23	6.83	32.49	25.48	88.5	7.88						
24	6.78	32.49	25.49	88.4	7.85						
25	6.61	32.47	25.50	87.4	7.81						
26	6.36	32.52	25.57	87.7	7.80						
27	6.20	32.55	25.61	88.4	7.78						
28	6.12	32.56	25.63	88.7	7.71						
29	6.05	32.57	25.65	89.0	7.64						
30	5.99	32.59	25.67	89.0	7.55						
31	5.87	32.59	25.69	89.2	7.50						
32	5.87	32.63	25.72	89.2	7.45						
33	5.86	32.64	25.73	89.3	7.40						
34	5.85	32.63	25.73	89.3	7.38						
35	5.75	32.63	25.74	89.3	7.37						
36	5.54	32.64	25.77	89.3	7.36						
37	5.45	32.66	25.79	89.3	7.37						
38	5.44	32.66	25.79	89.3	7.32						
39	5.35	32.64	25.79	89.2	7.27						
40	5.31	32.65	25.81	89.2	7.24	7.28	.00	.1	.92	.88	.39
41	5.30	32.65	25.80	89.3	7.21						
42	5.23	32.65	25.80	89.2	7.17						
43	5.22	32.65	25.81	89.2	7.15						
44	5.17	32.66	25.82	89.2	7.15						
45	5.11	32.65	25.83	89.2	7.14						
46	5.00	32.66	25.84	89.2	7.13						
47	4.57	32.65	25.88	89.1	7.12						
48	4.28	32.62	25.89	88.9	7.14						
49	4.15	32.63	25.91	88.9	7.13						
50	4.11	32.64	25.92	88.9	7.03						
60	3.79	32.63	25.95	89.0	6.47	6.56	2.40	.2	1.66	5.44	.74
70	3.78	32.66	25.97	89.1	6.44						
74	3.77	32.65	25.96	89.0	6.41	6.51	2.20	.1	1.56	5.44	.62


KELEZ CRUISE XWCC-18 STATION 38 06/04/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
3 5 7 9 11 13 15 17 19 21
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

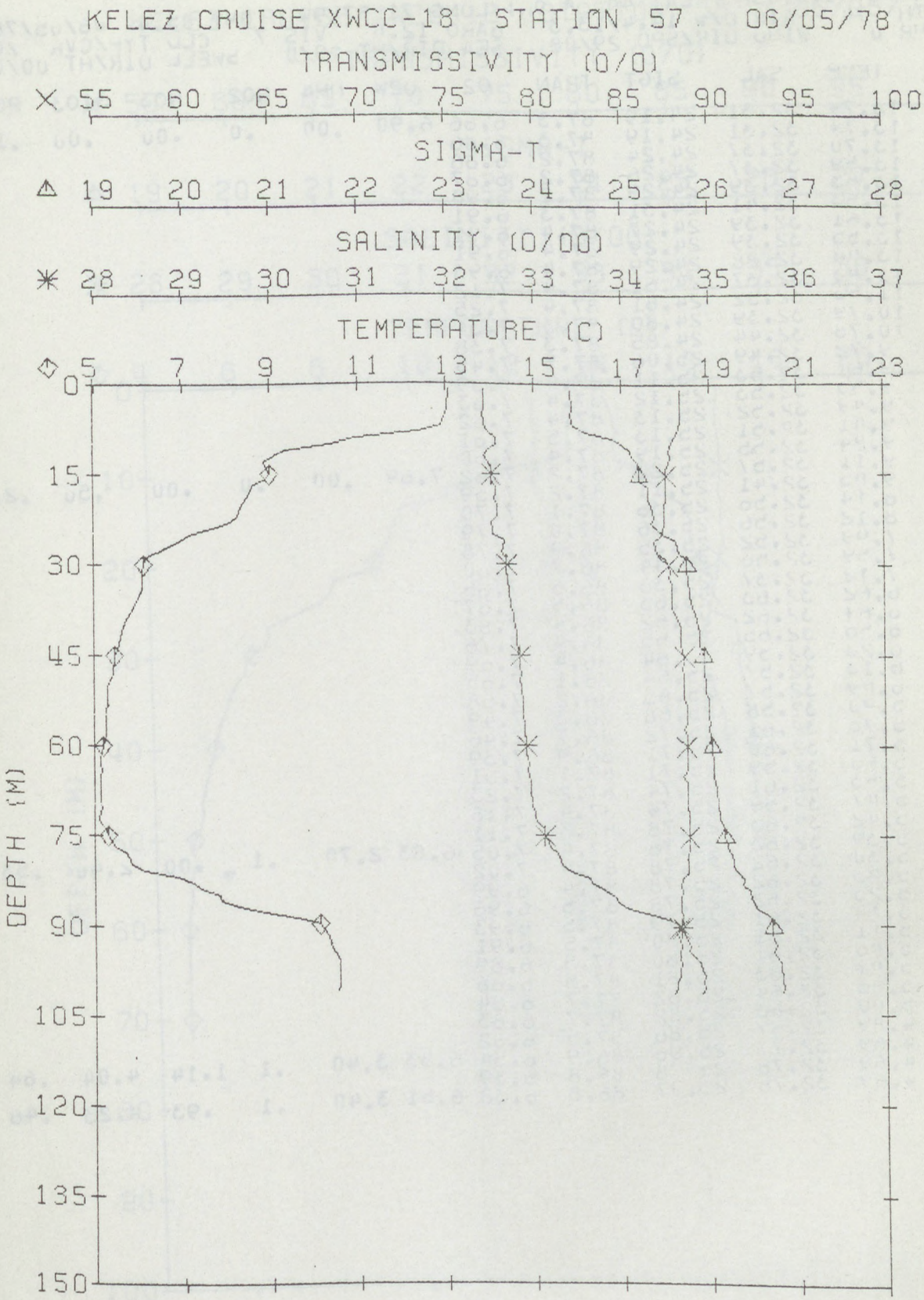
XWCC-16 STA.039 LAT 39 29.9N; LONG 72 34.2W GMT 06.4 06/04/78
DEPTH 109 AIR D/W 14.4/13.9 BARO 08.0 VTS 7 CLD TYP/CVR /8
WETHR 2 WIND DIR/SPD 01/14 SEA DIR/HT 01/2 SWELL DIR/HT 36/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.60	32.42	24.29	90.6	7.08	7.06	.00	.0	.00	.00	.22
2	13.60	32.42	24.29	90.6	7.08						
3	13.60	32.44	24.31	90.4	7.07						
4	13.60	32.45	24.31	90.4	7.06						
5	13.40	32.48	24.38	90.4	7.08						
6	13.43	32.42	24.34	90.5	7.10						
7	12.30	32.55	24.66	90.4	7.12						
8	11.62	32.43	24.68	90.1	7.33						
9	11.13	32.45	24.78	90.0	7.45						
10	10.69	32.46	24.88	89.8	7.53						
11	10.32	32.47	24.95	89.7	7.60						
12	9.70	32.42	25.01	89.6	7.66						
13	9.25	32.48	25.13	89.3	7.77						
14	9.06	32.50	25.18	89.1	7.83						
15	8.70	32.54	25.26	88.9	7.86						
16	8.45	32.61	25.35	88.8	7.94						
17	7.96	32.57	25.40	88.6	7.96						
18	7.69	32.60	25.45	88.6	8.03						
19	7.54	32.61	25.49	88.3	3.07						
20	7.50	32.61	25.49	88.2	8.08	7.90	.00	.0	.00	.00	.22
21	7.41	32.60	25.50	88.1	8.08						
22	7.22	32.58	25.50	87.8	8.07						
23	6.94	32.63	25.59	87.4	8.10						
24	6.80	32.64	25.61	87.1	8.11						
25	6.43	32.63	25.65	86.6	8.12						
26	6.23	32.65	25.69	86.6	8.12						
27	6.13	32.65	25.70	86.8	8.01						
28	5.96	32.66	25.73	87.2	7.91						
29	5.73	32.74	25.81	88.5	7.85						
30	5.77	32.74	25.82	88.6	7.76						
31	5.76	32.75	25.83	88.6	7.66						
32	5.73	32.73	25.82	88.7	7.58						
33	5.60	32.74	25.84	89.2	7.54						
34	5.53	32.77	25.87	89.3	7.50						
35	5.52	32.77	25.87	89.4	7.44						
36	5.51	32.78	25.88	89.4	7.39						
37	5.51	32.77	25.87	89.5	7.35						
38	5.50	32.77	25.88	89.6	7.32						
39	5.49	32.77	25.88	89.6	7.30						
40	5.49	32.78	25.88	89.6	7.28	7.20	.00	.0	.61	1.23	.50
41	5.48	32.78	25.89	89.6	7.26						
42	5.45	32.78	25.89	89.6	7.26						
43	5.44	32.77	25.88	89.6	7.24						
44	5.41	32.78	25.90	89.7	7.23						
45	5.40	32.78	25.89	89.8	7.22						
46	5.35	32.78	25.90	89.8	7.20						
47	5.30	32.79	25.92	89.9	7.19						
48	5.29	32.79	25.92	89.9	7.18						
49	5.28	32.79	25.92	90.0	7.16						
50	5.27	32.80	25.93	90.0	7.15						
60	5.16	32.84	25.97	90.3	7.04	7.04	1.00	.0	.61	.87	.45
70	6.21	33.22	26.15	90.7	6.80						
80	7.16	33.50	26.24	90.7	6.64	6.61	.00	.3	2.04	1.59	.50
90	8.47	33.96	26.41	91.0	6.37						
100	8.68	34.29	26.64	90.0	5.88						
101	8.63	34.27	26.63	90.0	5.58	5.67	.00	.3	6.37	4.22	.68


KELEZ CRUISE XWCC-18 STATION 39 06/04/78
TRANSMISSIVITY (0/0)
X 55 60 65 70 75 80 85 90 95 100
SIGMA-T
Δ 19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
✳ 28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
◇ 5 7 9 11 13 15 17 19 21 23
DEPTH (M)
0 15 30 45 60 75 90 105 120 135 150

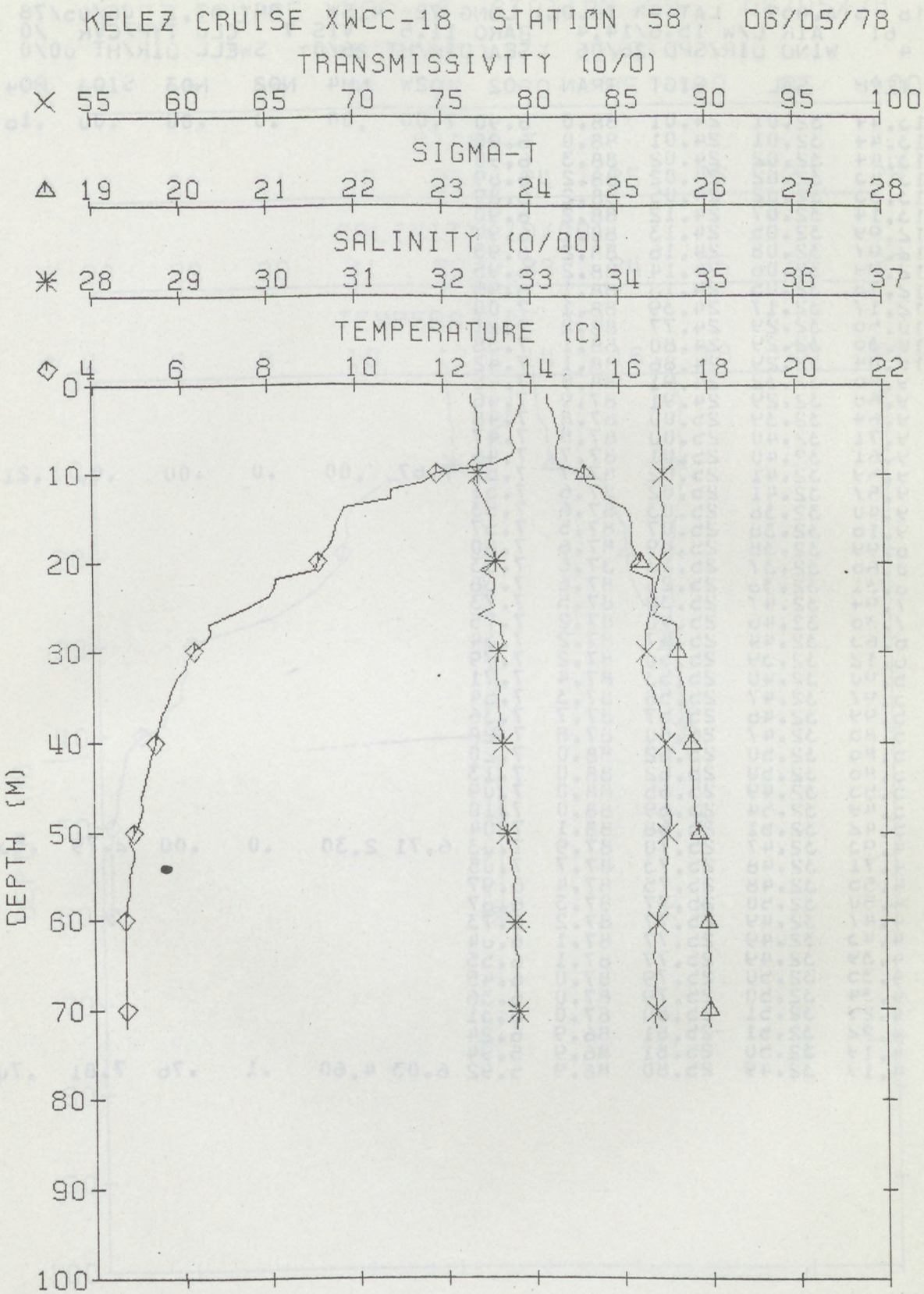
XMCC-16 STA.057 LAT 39 57.0N; LONG 71 52.0W GMT 03.5 06/05/78
DEPTH 110 AIR D/W 14.4/13.3 BARO 11.5 VIS 7 CLD TYP/CVR /0
WETBR 0 WIND DIR/SPD 27/11 SEA DIR/HT 27/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.06	32.43	24.41	88.3	7.10	7.12	.00	.0	.00	.00	.16
2	13.06	32.43	24.41	88.3	7.10						
3	13.05	32.43	24.42	88.3	7.11						
4	13.05	32.43	24.42	88.3	7.11						
5	12.98	32.41	24.41	88.3	7.11						
6	12.92	32.42	24.43	88.3	7.13						
7	12.83	32.42	24.44	88.2	7.14						
8	12.40	32.48	24.58	88.1	7.16						
9	10.96	32.55	24.90	87.9	7.32						
10	10.35	32.56	25.01	87.7	7.60						
11	9.31	32.46	25.10	87.6	7.73						
12	9.06	32.43	25.11	87.7	7.84						
13	8.87	32.48	25.19	87.6	7.87						
14	8.93	32.51	25.20	87.5	7.86						
15	8.99	32.51	25.20	87.5	7.83						
16	8.80	32.50	25.21	87.5	7.80						
17	8.59	32.55	25.29	87.5	7.80						
18	8.52	32.56	25.30	87.5	7.82						
19	8.45	32.55	25.31	87.5	7.82						
20	8.34	32.57	25.34	87.4	7.82	7.86	.00	.0	.00	.00	.20
21	8.30	32.58	25.35	87.4	7.81						
22	8.25	32.58	25.36	87.4	7.80						
23	8.09	32.51	25.33	87.4	7.79						
24	7.69	32.53	25.40	87.3	7.82						
25	7.16	32.52	25.47	87.2	7.89						
26	6.95	32.66	25.61	86.8	7.98						
27	6.72	32.65	25.63	86.9	7.97						
28	6.42	32.62	25.64	87.0	7.95						
29	6.16	32.68	25.72	87.5	7.93						
30	6.11	32.68	25.73	87.6	7.86						
31	6.09	32.68	25.74	87.7	7.78						
32	6.08	32.69	25.74	87.6	7.71						
33	6.08	32.70	25.75	87.8	7.66						
34	6.03	32.71	25.76	87.8	7.62						
35	6.02	32.71	25.77	87.8	7.58						
36	5.95	32.73	25.79	87.8	7.57						
37	5.88	32.73	25.80	87.8	7.55						
38	5.85	32.75	25.82	88.0	7.54						
39	5.72	32.76	25.84	88.1	7.52						
40	5.60	32.78	25.86	88.3	7.51	7.33	.00	.1	.00	.00	.32
41	5.63	32.80	25.88	88.3	7.48						
42	5.58	32.79	25.88	88.3	7.45						
43	5.50	32.79	25.89	88.3	7.42						
44	5.53	32.81	25.90	88.4	7.39						
45	5.45	32.83	25.93	88.5	7.37						
46	5.44	32.82	25.92	88.5	7.36						
47	5.43	32.83	25.93	88.4	7.34						
48	5.43	32.83	25.93	88.5	7.31						
49	5.37	32.83	25.94	88.5	7.30						
50	5.28	32.84	25.96	88.5	7.29						
60	5.18	32.90	26.01	88.6	7.14	7.16	1.20	.2	.66	1.01	.48
70	5.14	32.96	26.07	88.6	7.06						
80	5.83	33.29	26.25	88.6	6.76	6.68	.30	.4	2.28	2.94	.53
90	10.08	34.65	26.68	88.1	5.82						
100	10.51	34.91	26.82	88.0	5.27						
101	10.49	34.87	26.79	87.8	5.17	5.09	.00	.1	6.31	4.99	.53


KELEZ CRUISE XWCC-18 STATION 57 06/05/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
5 7 9 11 13 15 17 19 21 23
DEPTH (M)
0 15 30 45 60 75 90 105 120 135 150

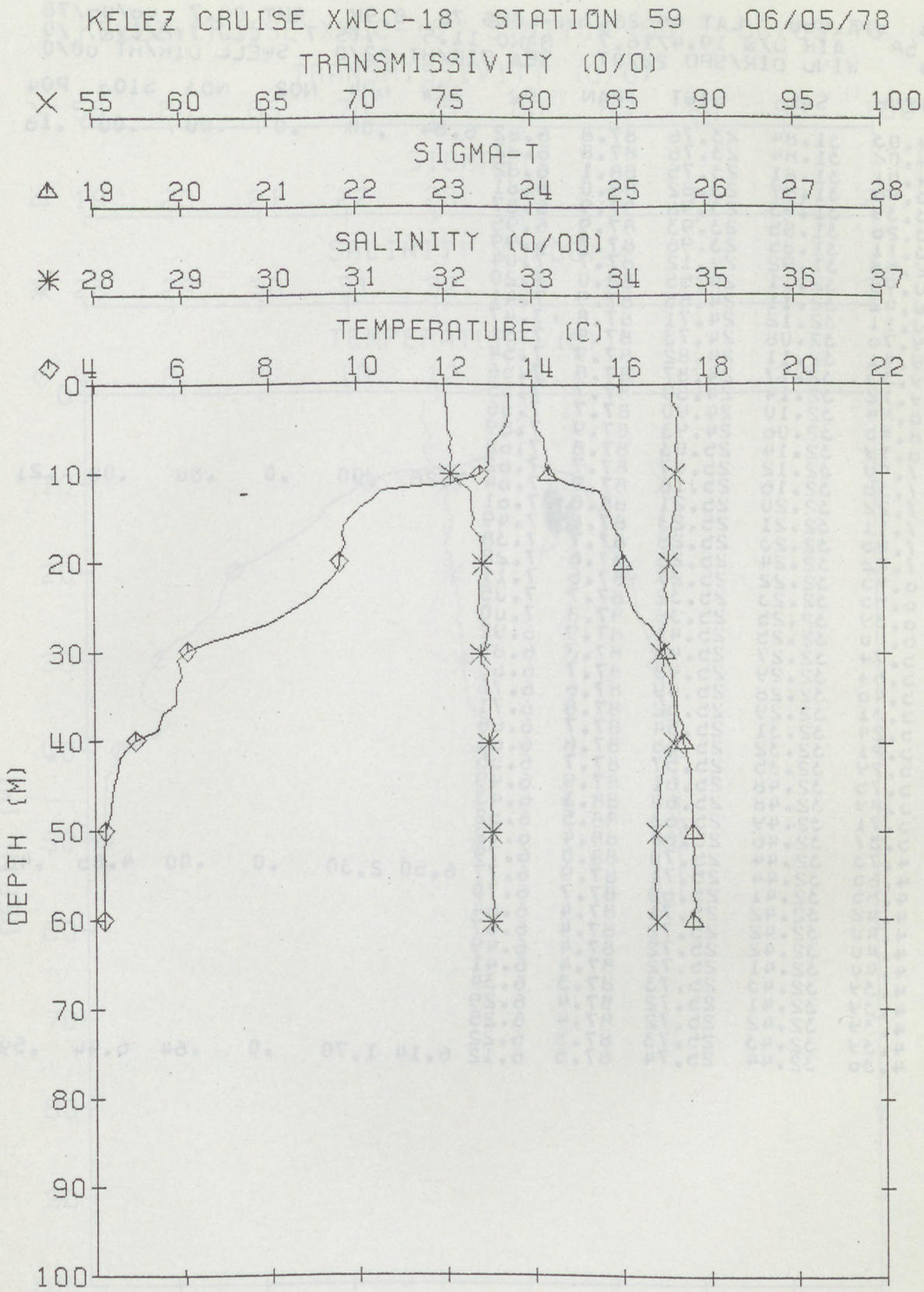
XWCC-18 STA.058 LAT 40 8.0N; LONG 71 57.9W GMT 05.4 06/05/78
DEPTH 74 AIR D/W 14.4/13.3 BARO 12.0 VIS 7 CLD TYP/CVR /0
WEIHR 0 WIND DIR/SPD 29/08 SEA DIR/HT 29/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.74	32.31	24.19	87.3	6.86	6.90	.00	.0	.00	.00	.15
2	13.74	32.31	24.19	87.3	6.86						
3	13.70	32.37	24.24	87.2	6.88						
4	13.59	32.37	24.26	87.2	6.87						
5	13.53	32.39	24.29	87.2	6.90						
6	13.53	32.41	24.31	87.3	6.91						
7	13.61	32.39	24.27	87.4	6.91						
8	13.55	32.39	24.29	87.4	6.91						
9	13.06	32.28	24.29	87.4	6.93						
10	11.83	32.37	24.61	87.4	7.12						
11	11.53	32.32	24.61	87.4	7.25						
12	10.79	32.39	24.80	87.3	7.31						
13	10.78	32.44	24.85	87.3	7.38						
14	9.72	32.49	25.06	87.5	7.45						
15	9.61	32.53	25.11	87.4	7.59						
16	9.53	32.53	25.12	87.4	7.63						
17	9.49	32.52	25.13	87.4	7.62						
18	9.41	32.51	25.13	87.5	7.61						
19	9.24	32.55	25.19	87.4	7.60						
20	9.11	32.57	25.22	87.2	7.62	7.69	.00	.0	.00	.50	.21
21	9.05	32.41	25.11	87.2	7.59						
22	8.14	32.56	25.36	87.1	7.70						
23	8.12	32.56	25.36	87.0	7.79						
24	7.99	32.52	25.35	86.9	7.78						
25	7.59	32.50	25.44	86.7	7.80						
26	7.12	32.37	25.36	86.6	7.85						
27	6.62	32.63	25.63	86.5	7.87						
28	6.64	32.62	25.62	86.4	7.83						
29	6.50	32.65	25.65	86.4	7.76						
30	6.23	32.59	25.64	86.4	7.69						
31	6.13	32.57	25.64	86.1	7.65						
32	6.09	32.57	25.65	86.2	7.58						
33	5.90	32.58	25.68	86.3	7.49						
34	5.78	32.61	25.72	86.7	7.46						
35	5.71	32.60	25.71	86.9	7.39						
36	5.60	32.59	25.71	87.1	7.31						
37	5.53	32.61	25.74	87.2	7.23						
38	5.47	32.59	25.74	87.4	7.18						
39	5.42	32.63	25.78	87.3	7.11						
40	5.39	32.63	25.78	87.4	7.05	6.83	2.70	.1	.00	2.40	.53
41	5.30	32.62	25.78	87.4	7.02						
42	5.25	32.62	25.78	87.4	6.99						
43	5.23	32.62	25.78	87.5	6.96						
44	5.14	32.61	25.79	87.5	6.93						
45	5.11	32.61	25.80	87.5	6.91						
46	5.06	32.61	25.80	87.5	6.89						
47	5.07	32.63	25.81	87.5	6.86						
48	5.06	32.64	25.82	87.7	6.84						
49	5.00	32.63	25.82	87.7	6.83						
50	4.89	32.67	25.86	87.5	6.82						
60	4.69	32.77	25.96	86.9	6.54	6.53	3.40	.1	1.14	4.04	.64
70	4.69	32.78	25.98	86.8	6.39						
72	4.69	32.78	25.97	86.8	6.38	6.51	3.40	.1	.93	4.23	.48


KELEZ CRUISE XWCC-18 STATION 58 06/05/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

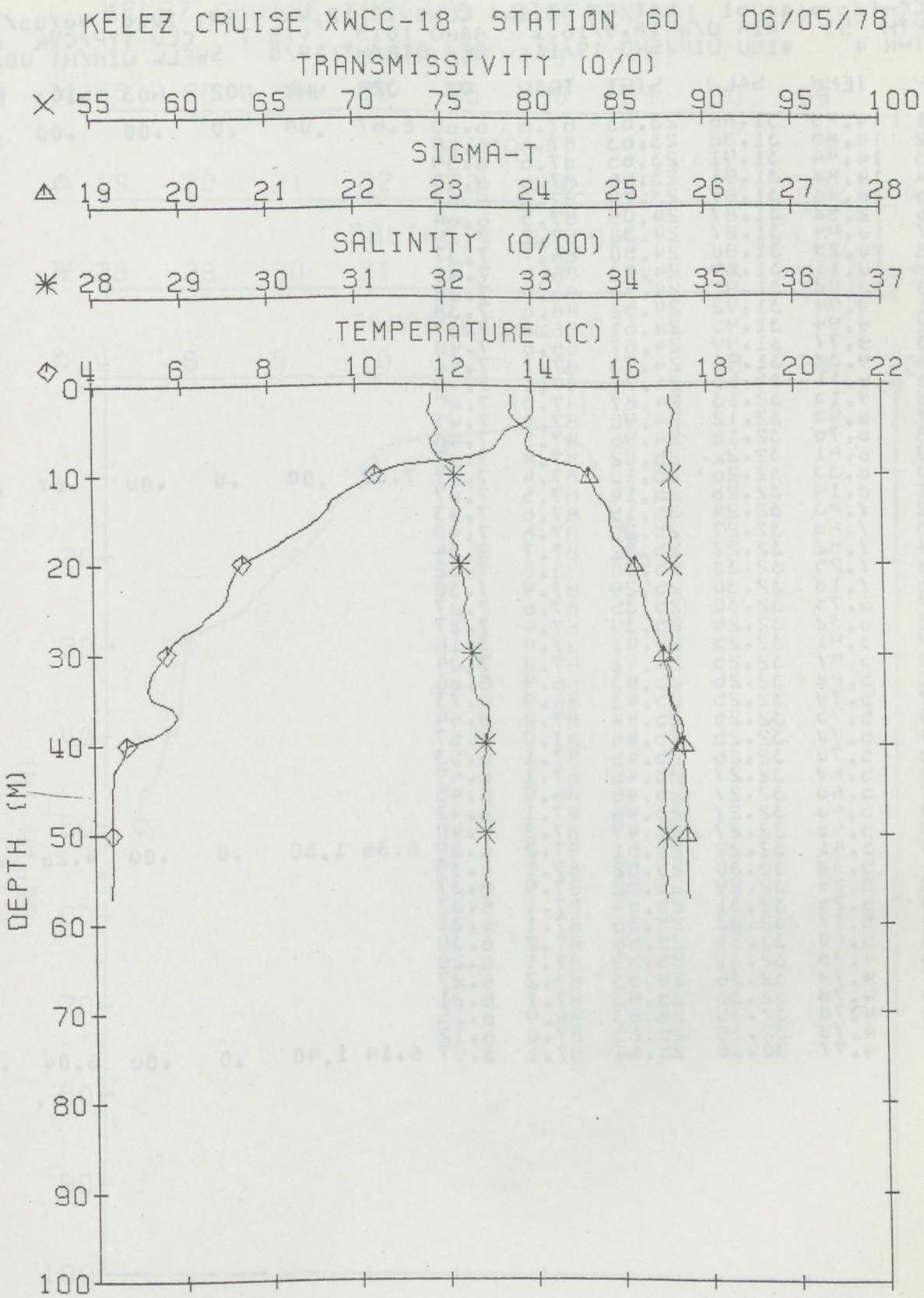
XWCC-18 STA.059 LAT 40 18.0N; LONG 72 4.5W GMT 07.1 06/05/78
DEPTH 61 AIR D/W 15.6/14.4 BARO 11.5 VIS 7 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 26/06 SEA DIR/HT 26/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.44	32.01	24.01	88.0	6.90	7.00	.00	.0	.00	.00	.16
2	13.44	32.01	24.01	88.0	6.90						
3	13.44	32.02	24.02	88.3	6.90						
4	13.43	32.02	24.02	88.2	6.89						
5	13.33	32.02	24.05	88.2	6.89						
6	13.14	32.07	24.12	88.2	6.90						
7	12.99	32.05	24.13	88.1	6.94						
8	12.97	32.08	24.16	88.2	6.95						
9	12.99	32.06	24.14	88.2	6.95						
10	12.78	32.05	24.18	88.1	6.95						
11	12.17	32.17	24.39	88.1	7.00						
12	10.50	32.29	24.77	88.2	7.21						
13	10.30	32.29	24.80	88.1	7.38						
14	10.04	32.29	24.86	88.1	7.42						
15	9.80	32.32	24.91	88.0	7.45						
16	9.68	32.29	24.91	87.9	7.46						
17	9.64	32.39	25.00	87.8	7.48						
18	9.71	32.40	25.00	87.8	7.47						
19	9.61	32.40	25.01	87.7	7.46						
20	9.59	32.41	25.02	87.7	7.50	7.67	.00	.0	.00	.00	.21
21	9.57	32.41	25.02	87.6	7.51						
22	9.40	32.38	25.03	87.6	7.53						
23	9.16	32.38	25.07	87.5	7.57						
24	8.99	32.38	25.09	87.6	7.60						
25	8.60	32.37	25.13	87.6	7.63						
26	8.31	32.38	25.20	87.6	7.68						
27	7.94	32.47	25.32	87.5	7.73						
28	7.30	32.46	25.40	87.2	7.75						
29	6.63	32.44	25.47	87.2	7.84						
30	6.12	32.39	25.50	87.2	7.79						
31	5.90	32.40	25.53	87.4	7.71						
32	5.97	32.47	25.58	87.3	7.54						
33	5.99	32.46	25.57	87.7	7.36						
34	5.85	32.47	25.60	87.8	7.28						
35	5.80	32.50	25.62	88.0	7.20						
36	5.80	32.50	25.62	88.0	7.13						
37	5.53	32.49	25.65	88.0	7.09						
38	5.49	32.54	25.69	88.0	7.10						
39	5.42	32.51	25.68	88.1	7.04						
40	4.93	32.47	25.70	87.9	7.03	6.71	2.30	.0	.00	2.79	.53
41	4.71	32.48	25.73	87.7	7.05						
42	4.53	32.48	25.75	87.4	6.97						
43	4.50	32.50	25.77	87.3	6.87						
44	4.47	32.49	25.77	87.2	6.73						
45	4.43	32.49	25.77	87.1	6.64						
46	4.39	32.49	25.77	87.1	6.55						
47	4.35	32.50	25.79	87.0	6.45						
48	4.34	32.50	25.79	87.0	6.36						
49	4.29	32.51	25.80	87.0	6.31						
50	4.22	32.51	25.81	86.9	6.24						
60	4.19	32.50	25.81	86.9	5.94						
61	4.19	32.49	25.80	86.9	5.92	6.03	4.60	.1	.76	7.81	.70


KELEZ CRUISE XWCC-18 STATION 59 06/05/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

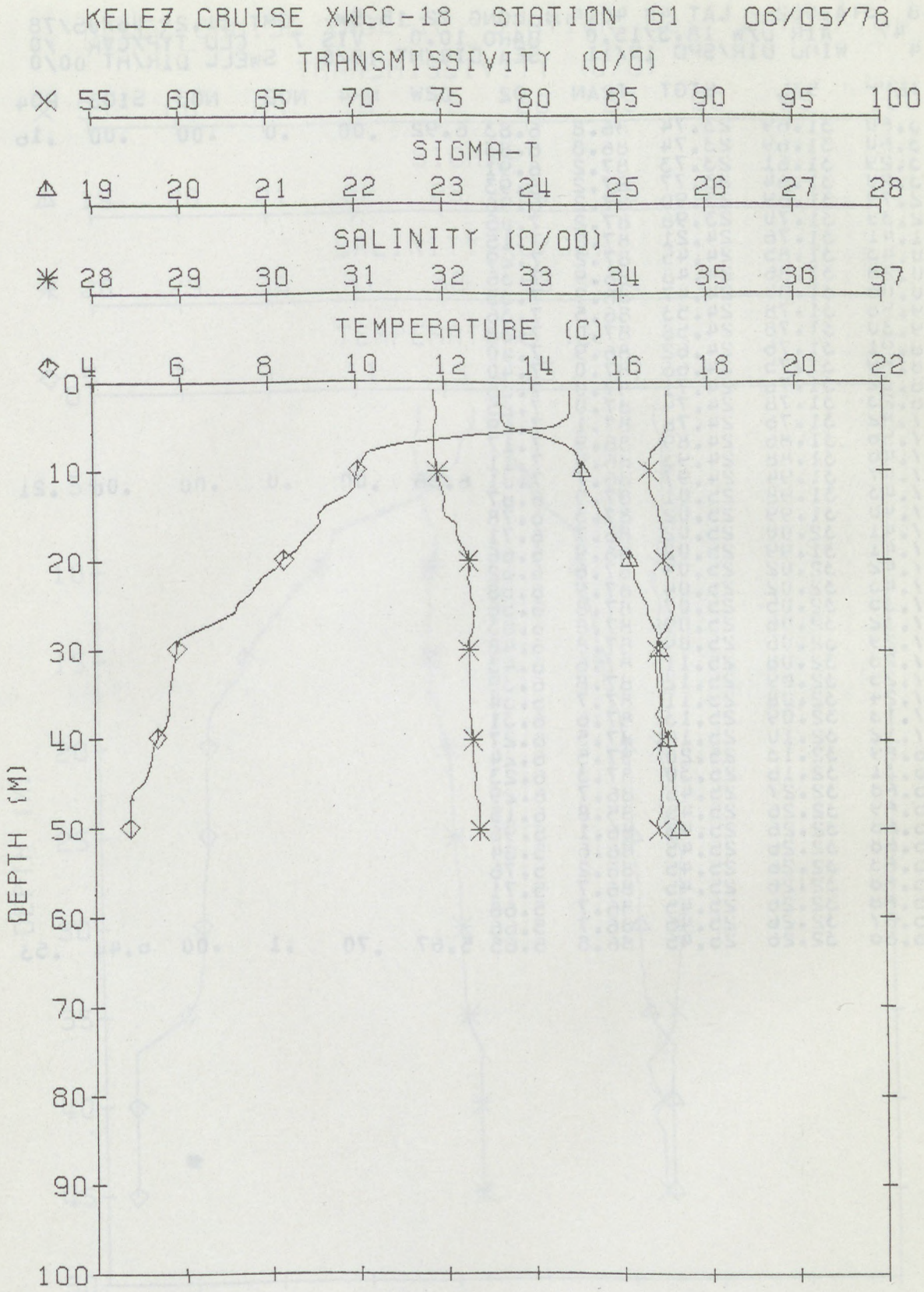
XWCC-18 STA.060 LAT 40 26.7N; LONG 72 8.9W GMT 08.7 06/05/78
DEPTH 58 AIR D/W 19.4/16.7 BARO 11.5 VIS 7 CLD TYP/CVR /0
WEATHR 4 WIND DIR/SPD 22/07 SEA DIR/HT 22/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.03	31.84	23.76	87.8	6.82	6.84	.00	.0	.00	.00	.16
2	14.02	31.84	23.76	87.8	6.82						
3	14.01	31.81	23.75	88.1	6.82						
4	13.86	31.87	23.82	88.0	6.81						
5	13.39	31.93	23.96	87.9	6.87						
6	13.26	31.85	23.93	87.9	6.95						
7	13.11	31.85	23.96	87.7	6.99						
8	12.58	31.92	24.12	87.7	7.04						
9	10.98	32.11	24.55	88.0	7.20						
10	10.42	32.11	24.65	87.9	7.41						
11	10.11	32.12	24.71	87.8	7.47						
12	9.76	32.08	24.73	87.9	7.51						
13	9.41	32.11	24.82	87.9	7.54						
14	9.33	32.17	24.87	87.8	7.56						
15	9.12	32.14	24.89	87.7	7.55						
16	8.84	32.10	24.90	87.7	7.56						
17	8.43	32.06	24.93	87.9	7.59						
18	8.19	32.14	25.03	87.8	7.62						
19	7.90	32.12	25.07	87.7	7.62						
20	7.38	32.16	25.16	87.9	7.64	7.26	.00	.0	.00	.00	.21
21	7.22	32.20	25.21	88.0	7.61						
22	7.11	32.21	25.23	87.8	7.49						
23	7.05	32.23	25.25	87.7	7.38						
24	7.02	32.24	25.26	87.6	7.20						
25	6.85	32.22	25.27	87.6	7.11						
26	6.53	32.23	25.32	87.7	7.05						
27	6.39	32.25	25.36	87.8	7.00						
28	6.00	32.25	25.41	87.9	6.92						
29	5.74	32.27	25.45	87.8	6.88						
30	5.64	32.29	25.48	87.7	6.83						
31	5.48	32.28	25.49	87.6	6.76						
32	5.31	32.29	25.52	87.8	6.71						
33	5.24	32.31	25.54	87.7	6.66						
34	5.21	32.32	25.55	87.6	6.61						
35	5.29	32.35	25.57	87.7	6.55						
36	5.75	32.48	25.61	87.9	6.49						
37	5.89	32.48	25.60	88.3	6.43						
38	5.71	32.49	25.63	88.5	6.52						
39	5.37	32.46	25.64	88.4	6.72						
40	4.73	32.44	25.70	88.0	6.79						
41	4.65	32.44	25.71	87.9	6.77	6.50	2.30	.0	.00	4.85	.48
42	4.55	32.41	25.69	87.7	6.70						
43	4.42	32.42	25.71	87.4	6.64						
44	4.40	32.42	25.72	87.4	6.57						
45	4.40	32.42	25.72	87.4	6.49						
46	4.40	32.41	25.72	87.4	6.41						
47	4.39	32.43	25.73	87.3	6.34						
48	4.39	32.41	25.72	87.4	6.29						
49	4.39	32.42	25.72	87.4	6.25						
50	4.39	32.43	25.73	87.5	6.22						
57	4.36	32.44	25.74	87.5	6.12	6.14	1.70	.0	.64	6.44	.59


KELEZ CRUISE XWCC-18 STATION 60 06/05/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

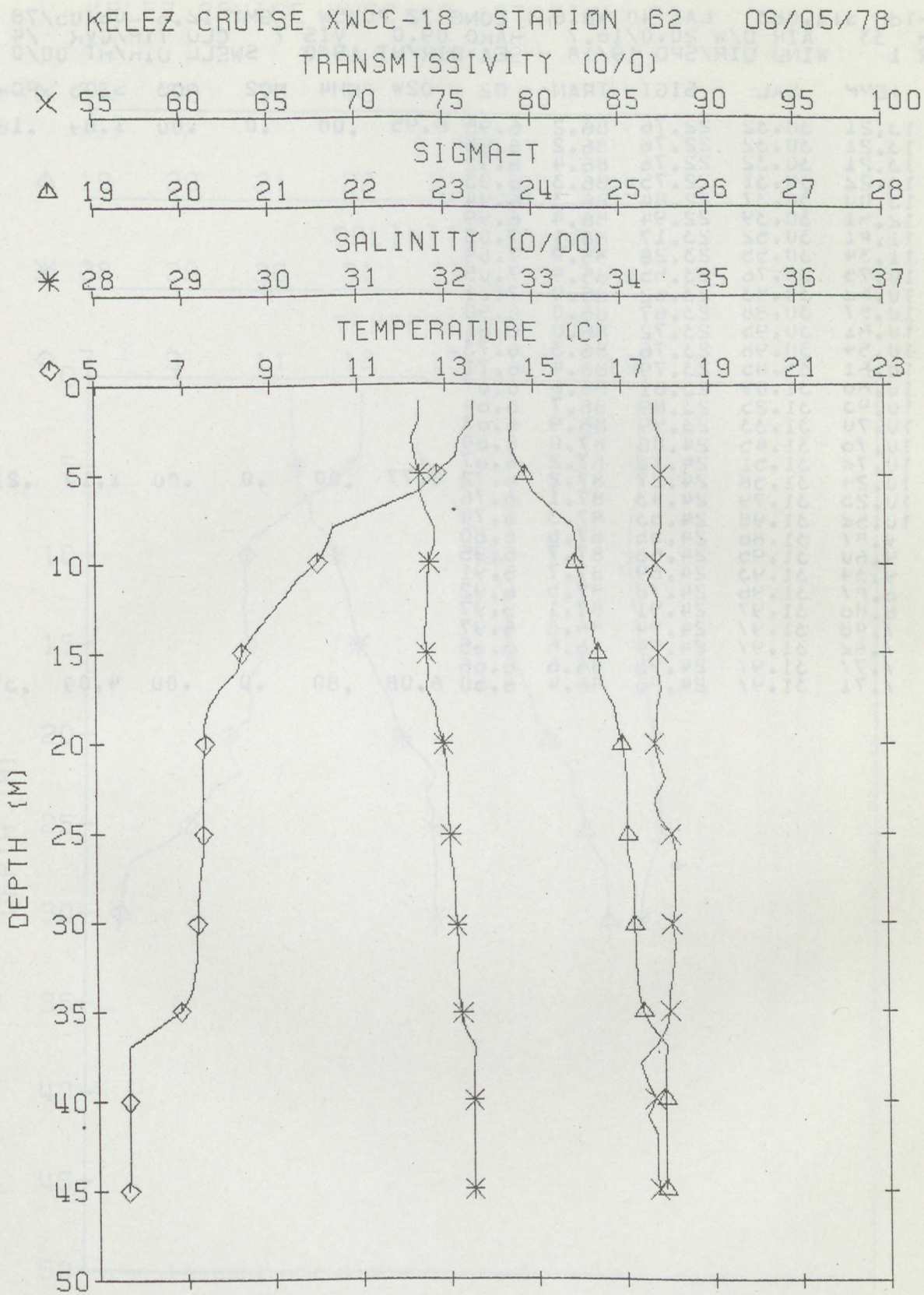
XWCC-18 STA.061 LAT 40 33.1N; LONG 72 12.4W GMT 10.0 06/05/78
DEPTH 53 AIR D/W 18.9/16.1 BARO 10.5 VIS 7 CLD TYP/CVR /0
WEIHR 4 WIND DIR/SPD 19/11 SEA DIR/HT 19/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.85	31.88	23.63	87.6	6.60	6.67	.00	.0	.00	.00	.16
2	14.85	31.88	23.63	87.6	6.60						
3	14.84	31.91	23.65	87.6	6.59						
4	14.82	31.91	23.66	87.6	6.60						
5	14.48	31.87	23.70	87.6	6.60						
6	12.52	31.87	24.09	87.5	6.64						
7	10.94	31.87	24.38	87.2	7.14						
8	10.25	31.88	24.50	86.7	7.37						
9	10.11	31.89	24.53	86.6	7.41						
10	10.02	31.91	24.56	86.6	7.38						
11	9.94	31.92	24.58	86.6	7.38						
12	9.94	31.95	24.61	86.6	7.37						
13	9.77	31.99	24.67	86.8	7.40						
14	9.32	31.98	24.73	87.1	7.46						
15	9.11	32.00	24.77	87.1	7.49						
16	9.15	32.13	24.87	87.3	7.49						
17	8.95	32.12	24.90	87.4	7.47						
18	8.70	32.16	24.96	87.5	7.48						
19	8.61	32.22	25.02	87.4	7.47						
20	8.35	32.26	25.10	87.4	7.47	7.32	.00	.0	.00	.67	.21
21	8.14	32.28	25.14	87.5	7.47						
22	7.85	32.24	25.15	87.6	7.43						
23	7.68	32.27	25.20	87.6	7.40						
24	7.52	32.27	25.22	87.7	7.34						
25	7.25	32.33	25.30	88.0	7.32						
26	7.18	32.30	25.29	87.9	7.30						
27	6.78	32.30	25.35	87.6	7.27						
28	6.32	32.29	25.39	87.4	7.27						
29	5.91	32.25	25.41	87.0	7.18						
30	5.87	32.25	25.42	87.0	7.04						
31	5.82	32.26	25.43	86.9	6.96						
32	5.79	32.25	25.43	86.9	6.73						
33	5.75	32.25	25.44	87.0	6.64						
34	5.70	32.25	25.44	87.0	6.57						
35	5.70	32.26	25.45	87.1	6.53						
36	5.69	32.27	25.45	87.1	6.49						
37	5.68	32.27	25.46	86.9	6.45						
38	5.65	32.27	25.46	87.1	6.42						
39	5.58	32.27	25.47	87.2	6.40						
40	5.41	32.29	25.51	87.2	6.39	6.36	1.50	.0	.00	4.28	.48
41	5.32	32.30	25.52	87.1	6.39						
42	5.28	32.29	25.52	87.0	6.37						
43	5.25	32.31	25.54	87.1	6.33						
44	5.17	32.33	25.56	87.1	6.31						
45	5.08	32.31	25.56	87.2	6.30						
46	4.85	32.31	25.59	87.1	6.28						
47	4.79	32.36	25.63	87.2	6.27						
48	4.78	32.36	25.63	87.1	6.21						
49	4.78	32.36	25.63	86.9	6.15						
50	4.78	32.36	25.63	87.0	6.12						
51	4.77	32.36	25.64	87.1	6.07	6.14	1.40	.0	.00	6.04	.59


KELEZ CRUISE XWCC-18 STATION 61 06/05/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

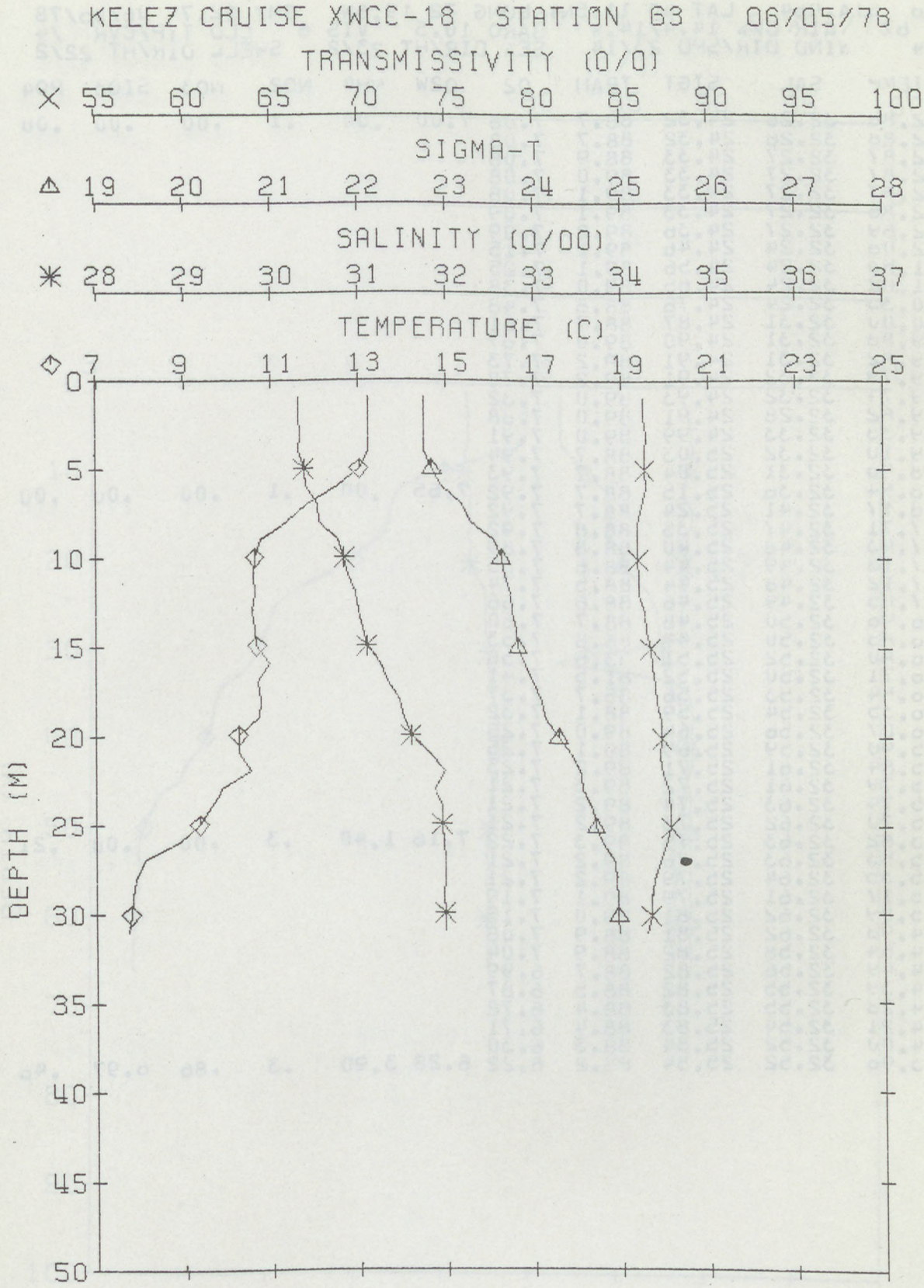
XWCC-18 STA.062 LAT 40 40.4N; LONG 72 15.5W GMT 11.2 06/05/78
DEPTH 47 AIR D/W 18.3/15.0 BARO 10.0 VIS 7 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 19/11 SEA DIR/HT 19/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.60	31.69	23.74	86.8	6.83	6.92	.00	.0	.00	.00	.16
2	13.60	31.69	23.74	86.8	6.83						
3	13.29	31.61	23.73	87.2	6.91						
4	13.20	31.64	23.77	87.2	6.93						
5	12.79	31.69	23.90	87.2	6.96						
6	12.38	31.70	23.98	87.2	7.05						
7	11.41	31.76	24.21	87.2	7.15						
8	10.43	31.85	24.45	87.2	7.29						
9	10.28	31.86	24.48	86.9	7.36						
10	10.06	31.80	24.47	86.9	7.35						
11	9.58	31.78	24.53	86.5	7.36						
12	9.30	31.78	24.58	87.0	7.38						
13	8.91	31.76	24.62	86.9	7.40						
14	8.59	31.75	24.66	87.0	7.40						
15	8.32	31.76	24.71	87.0	7.35						
16	8.23	31.78	24.74	87.0	7.25						
17	7.82	31.76	24.78	87.1	7.19						
18	7.56	31.86	24.89	86.9	7.17						
19	7.46	31.88	24.93	86.9	7.11						
20	7.47	31.94	24.97	86.7	7.01	6.56	.00	.0	.00	.00	.21
21	7.43	31.98	25.01	87.0	6.87						
22	7.40	31.99	25.02	87.3	6.78						
23	7.41	32.00	25.02	86.7	6.71						
24	7.41	31.99	25.02	86.9	6.66						
25	7.42	32.02	25.04	87.6	6.62						
26	7.43	32.02	25.04	87.9	6.58						
27	7.33	32.05	25.07	87.8	6.56						
28	7.32	32.06	25.09	87.8	6.53						
29	7.29	32.06	25.09	87.8	6.48						
30	7.23	32.08	25.11	87.6	6.43						
31	7.23	32.09	25.12	87.8	6.39						
32	7.24	32.08	25.11	87.7	6.34						
33	7.13	32.09	25.13	87.6	6.31						
34	7.12	32.10	25.14	87.5	6.27						
35	6.89	32.13	25.20	87.5	6.24						
36	6.31	32.16	25.30	87.3	6.23						
37	5.68	32.27	25.46	86.7	6.29						
38	5.69	32.26	25.45	85.8	6.15						
39	5.68	32.26	25.45	86.1	5.96						
40	5.68	32.26	25.45	86.6	5.84						
41	5.68	32.26	25.45	86.2	5.76						
42	5.68	32.26	25.45	86.7	5.71						
43	5.68	32.26	25.45	86.7	5.68						
44	5.67	32.26	25.45	86.7	5.66						
45	5.60	32.26	25.45	86.8	5.65	5.67	.70	.1	.00	6.44	.53


KELEZ CRUISE XWCC-18 STATION 62 06/05/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
5 7 9 11 13 15 17 19 21 23
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

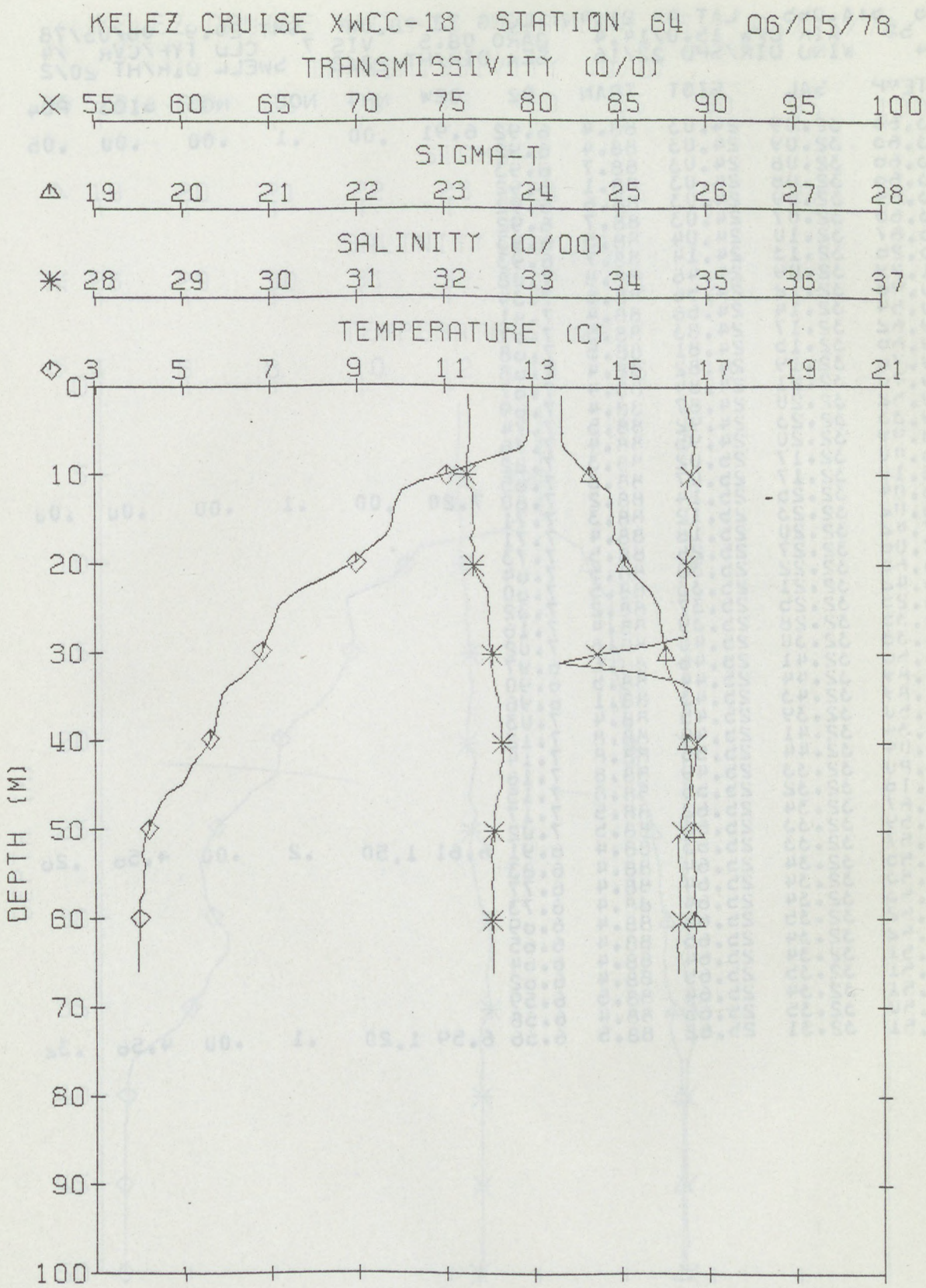
XWCC-18 STA.063 LAT 40 46.6N; LONG 72 20.5W GMT 12.6 06/05/78
DEPTH 33 AIR D/W 20.0/16.7 BARO 09.0 VIS 7 CLD TYP/CVR /4
WETHR 1 WIND DIR/SPD 19/18 SEA DIR/HT 19/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.21	30.32	22.76	86.2	6.95	6.95	.00	.0	.00	1.89	.16
2	13.21	30.32	22.76	86.2	6.95						
3	13.21	30.32	22.76	86.4	6.92						
4	13.22	30.31	22.75	86.3	6.93						
5	13.00	30.37	22.84	86.3	6.94						
6	12.51	30.39	22.94	86.4	6.99						
7	11.81	30.52	23.17	86.1	7.05						
8	11.34	30.55	23.28	85.9	7.09						
9	10.75	30.76	23.55	85.9	7.05						
10	10.62	30.83	23.62	85.9	7.01						
11	10.57	30.88	23.67	86.0	6.90						
12	10.61	30.95	23.72	86.0	6.81						
13	10.54	30.98	23.76	86.3	6.73						
14	10.61	31.05	23.79	86.4	6.71						
15	10.60	31.09	23.81	86.6	6.67						
16	10.65	31.25	23.89	86.7	6.64						
17	10.70	31.33	23.99	86.9	6.63						
18	10.76	31.45	24.08	87.0	6.69						
19	10.72	31.51	24.13	87.2	6.67						
20	10.24	31.58	24.27	87.2	6.72	6.77	.00	.0	.00	1.19	.21
21	10.25	31.79	24.43	87.1	6.76						
22	10.52	31.98	24.53	87.3	6.74						
23	9.87	31.86	24.55	87.6	6.80						
24	9.60	31.95	24.66	87.7	6.95						
25	9.34	31.93	24.69	87.7	6.91						
26	8.87	31.96	24.78	87.5	6.92						
27	8.08	31.97	24.91	87.1	6.97						
28	7.88	31.97	24.94	86.8	6.97						
29	7.82	31.97	24.94	86.6	6.85						
30	7.77	31.97	24.95	86.6	6.66						
31	7.71	31.97	24.96	86.4	6.50	6.08	.80	.0	.00	4.09	.37


KELEZ CRUISE XWCC-18 STATION 63 06/05/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

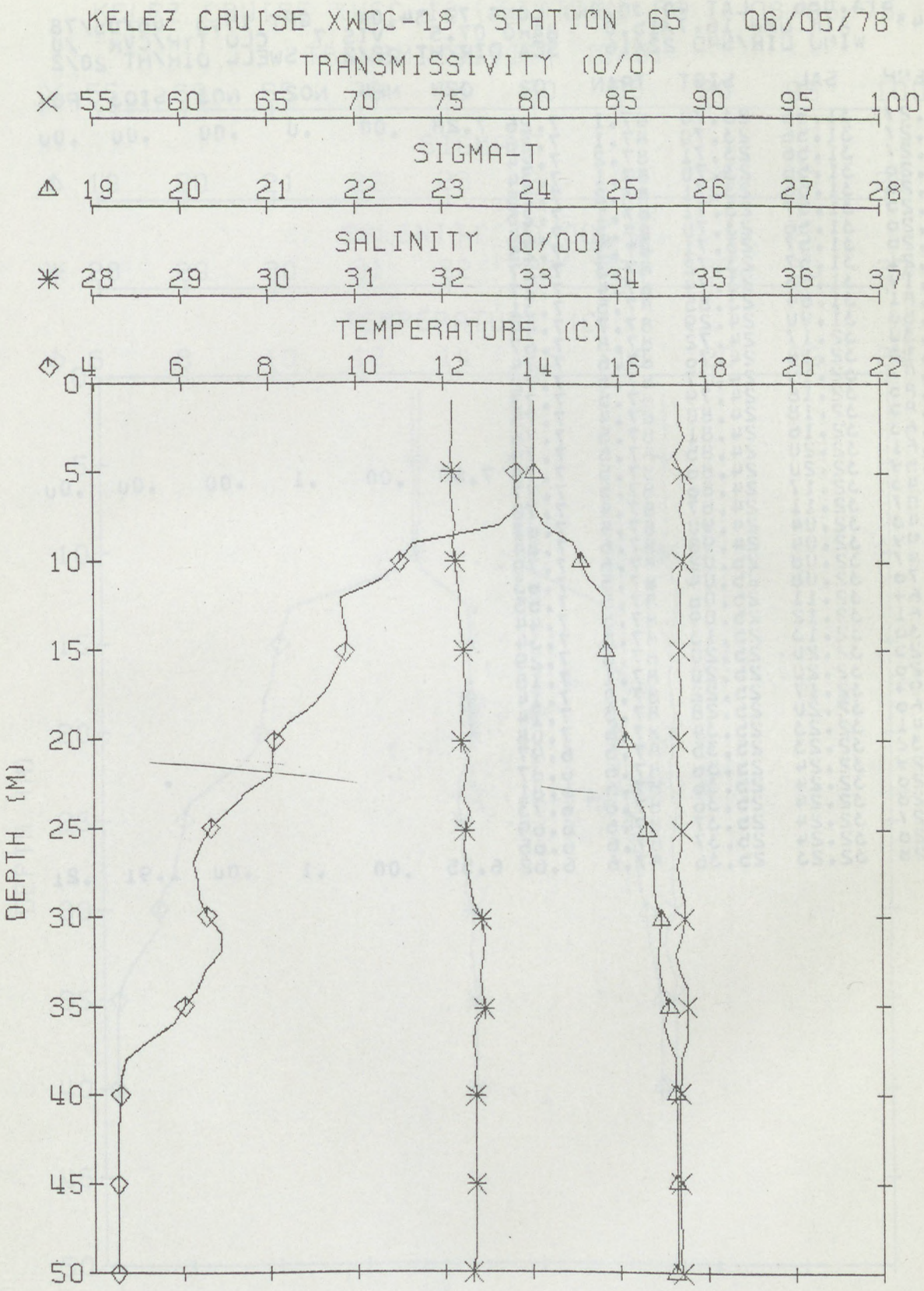
XWCC-16 STA.064 LAT 40 11.5N; LONG 72 19.6W GMT 22.7 06/05/78
DEPTH 67 AIR D/W 14.4/14.4 BARO 10.5 VIS 6 CLD TYP/CVR /4
WETHR 4 WIND DIR/SPD 23/14 SEA DIR/HT 23/2 SWELL DIR/HT 22/2

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.88	32.26	24.32	88.7	7.08	7.00	.00	.1	.00	.00	.00
2	12.88	32.26	24.32	88.7	7.08						
3	12.87	32.27	24.33	88.9	7.08						
4	12.87	32.27	24.33	89.0	7.08						
5	12.87	32.27	24.33	89.1	7.08						
6	12.86	32.27	24.33	89.1	7.09						
7	12.69	32.27	24.36	89.2	7.09						
8	12.08	32.24	24.46	89.1	7.15						
9	11.53	32.24	24.56	89.1	7.25						
10	11.02	32.24	24.65	89.0	7.38						
11	10.35	32.24	24.76	88.8	7.48						
12	10.00	32.31	24.87	88.7	7.61						
13	9.88	32.31	24.90	89.0	7.67						
14	9.82	32.31	24.91	89.2	7.73						
15	9.79	32.32	24.91	89.2	7.78						
16	9.74	32.32	24.93	89.0	7.82						
17	9.62	32.28	24.91	89.0	7.88						
18	9.33	32.33	24.99	89.0	7.91						
19	9.10	32.32	25.03	88.7	7.94						
20	8.96	32.31	25.04	88.7	7.93						
21	8.54	32.36	25.15	88.7	7.92	7.65	.00	.1	.00	.00	.00
22	8.17	32.41	25.24	88.7	7.92						
23	7.71	32.47	25.35	88.8	7.92						
24	7.43	32.48	25.40	88.8	7.89						
25	7.13	32.49	25.44	88.6	7.85						
26	7.12	32.48	25.44	88.5	7.74						
27	7.05	32.49	25.46	88.6	7.56						
28	6.96	32.50	25.48	88.7	7.60						
29	6.83	32.50	25.49	86.8	7.53						
30	6.80	32.52	25.51	83.6	7.50						
31	6.71	32.50	25.52	81.5	7.41						
32	6.54	32.53	25.56	85.7	7.37						
33	6.35	32.54	25.59	88.1	7.32						
34	6.07	32.56	25.64	89.0	7.28						
35	5.90	32.59	25.69	89.1	7.25						
36	5.84	32.61	25.71	89.2	7.23						
37	5.79	32.61	25.72	89.3	7.21						
38	5.74	32.63	25.74	89.2	7.21						
39	5.70	32.62	25.73	89.2	7.21						
40	5.62	32.63	25.75	89.3	7.22	7.16	1.40	.3	.00	.00	.21
41	5.53	32.63	25.76	89.2	7.21						
42	5.35	32.64	25.79	89.2	7.21						
43	5.17	32.61	25.79	89.1	7.19						
44	5.09	32.62	25.81	89.0	7.15						
45	4.98	32.62	25.81	88.9	7.08						
46	4.64	32.58	25.82	88.9	7.04						
47	4.49	32.56	25.82	88.7	6.99						
48	4.39	32.55	25.82	88.5	6.87						
49	4.28	32.55	25.83	88.4	6.78						
50	4.21	32.54	25.83	88.4	6.71						
60	4.00	32.52	25.84	88.3	6.30						
66	3.96	32.52	25.84	88.2	6.22	6.28	3.90	.3	.86	6.97	.48


KELEZ CRUISE XWCC-18 STATION 64 06/05/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
3 5 7 9 11 13 15 17 19 21
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

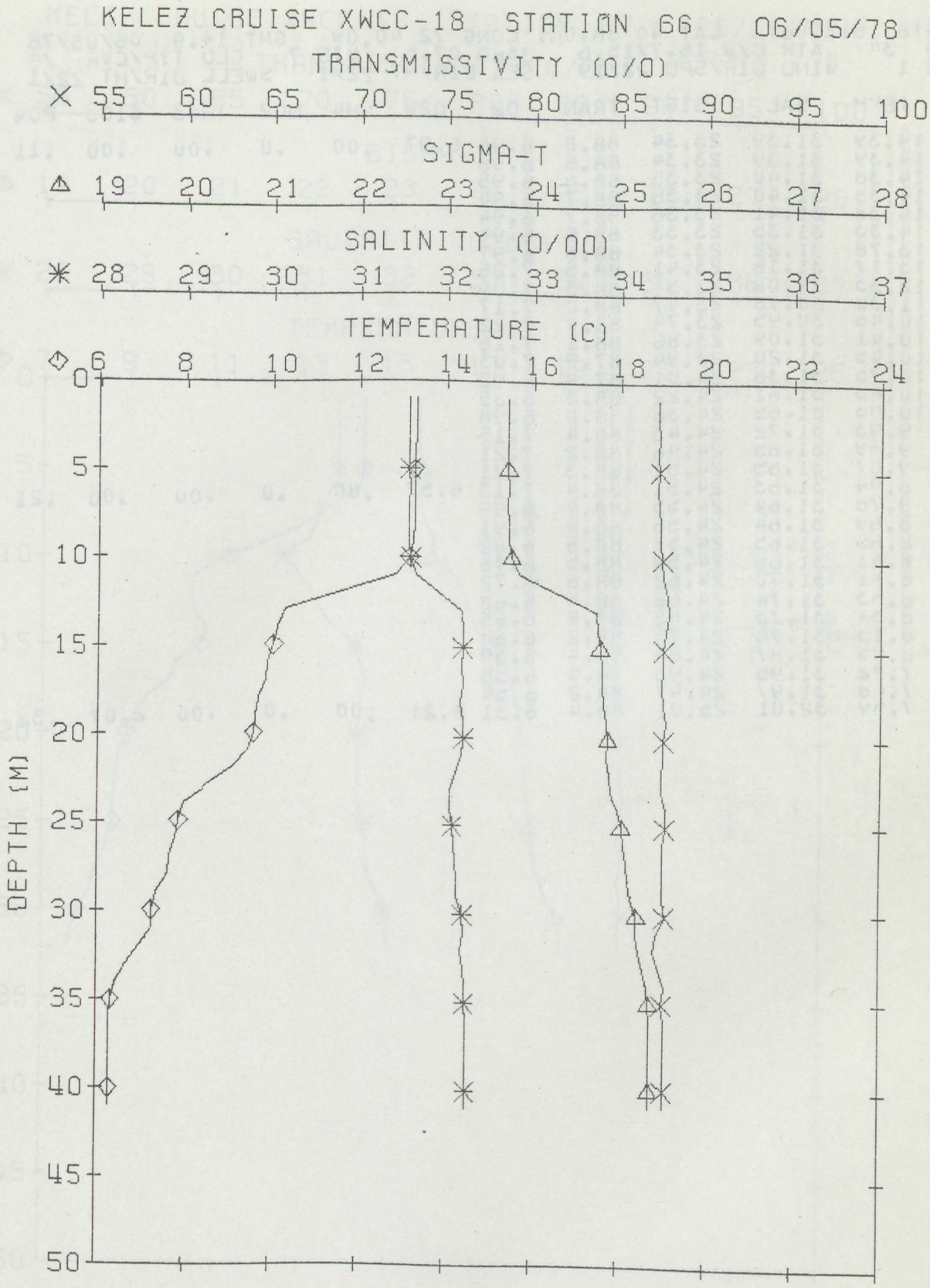
XWCC-18 STA.065 LAT 40 21.4N; LONG 72 28.0W GMT 20.9 06/05/78
DEPTH 52 AIR D/W 15.0/14.4 BARO 08.5 VIS 7 CLD TYP/CVR /4
WETHR 4 WIND DIR/SPD 22/16 SEA DIR/HT 22/2 SWELL DIR/HT 20/2

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.63	32.09	24.03	88.4	6.92	6.91	.00	.1	.00	.00	.05
2	13.63	32.09	24.03	88.4	6.92						
3	13.66	32.08	24.03	88.7	6.93						
4	13.66	32.08	24.03	88.1	6.92						
5	13.64	32.09	24.03	88.6	6.92						
6	13.63	32.07	24.03	88.7	6.92						
7	13.67	32.10	24.04	88.5	6.93						
8	13.26	32.13	24.14	88.7	6.93						
9	11.29	32.09	24.48	88.8	7.08						
10	10.98	32.12	24.56	88.6	7.34						
11	10.54	32.14	24.66	88.4	7.41						
12	9.62	32.17	24.83	88.5	7.57						
13	9.60	32.15	24.81	88.5	7.68						
14	9.76	32.19	24.82	88.4	7.68						
15	9.70	32.21	24.84	88.4	7.67						
16	9.52	32.20	24.87	88.4	7.69						
17	9.33	32.23	24.92	88.5	7.74						
18	8.09	32.20	24.95	88.4	7.76						
19	8.00	32.17	25.02	88.3	7.82						
20	8.10	32.17	25.07	88.3	7.85						
21	8.04	32.25	25.14	88.2	7.80	7.20	.00	.1	.00	.00	.00
22	8.02	32.23	25.12	88.3	7.71						
23	7.42	32.20	25.18	88.4	7.71						
24	7.00	32.27	25.26	88.5	7.73						
25	6.65	32.22	25.30	88.5	7.64						
26	6.42	32.21	25.33	88.5	7.60						
27	6.25	32.25	25.37	88.2	7.32						
28	6.35	32.28	25.39	88.4	7.16						
29	6.38	32.30	25.40	88.6	7.02						
30	6.50	32.41	25.46	88.6	6.97						
31	6.89	32.44	25.44	88.5	6.90						
32	6.89	32.43	25.43	88.1	6.96						
33	6.50	32.39	25.45	88.4	7.03						
34	6.34	32.41	25.49	88.8	7.12						
35	6.04	32.44	25.55	88.8	7.14						
36	5.80	32.33	25.49	88.8	7.16						
37	5.18	32.32	25.55	88.8	7.15						
38	4.67	32.34	25.62	88.5	7.17						
39	4.59	32.33	25.63	88.5	7.02						
40	4.57	32.33	25.63	88.4	6.91	6.61	1.50	.2	.00	4.56	.26
41	4.55	32.34	25.64	88.4	6.83						
42	4.53	32.34	25.64	88.4	6.77						
43	4.53	32.34	25.64	88.4	6.73						
44	4.52	32.35	25.65	88.4	6.69						
45	4.52	32.34	25.65	88.4	6.65						
46	4.51	32.34	25.64	88.4	6.64						
47	4.51	32.35	25.65	88.4	6.62						
48	4.51	32.34	25.64	88.5	6.59						
49	4.50	32.35	25.65	88.4	6.58						
50	4.51	32.31	25.62	88.5	6.56	6.59	1.20	.1	.00	4.56	.32


KELEZ CRUISE XWCC-18 STATION 65 06/05/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

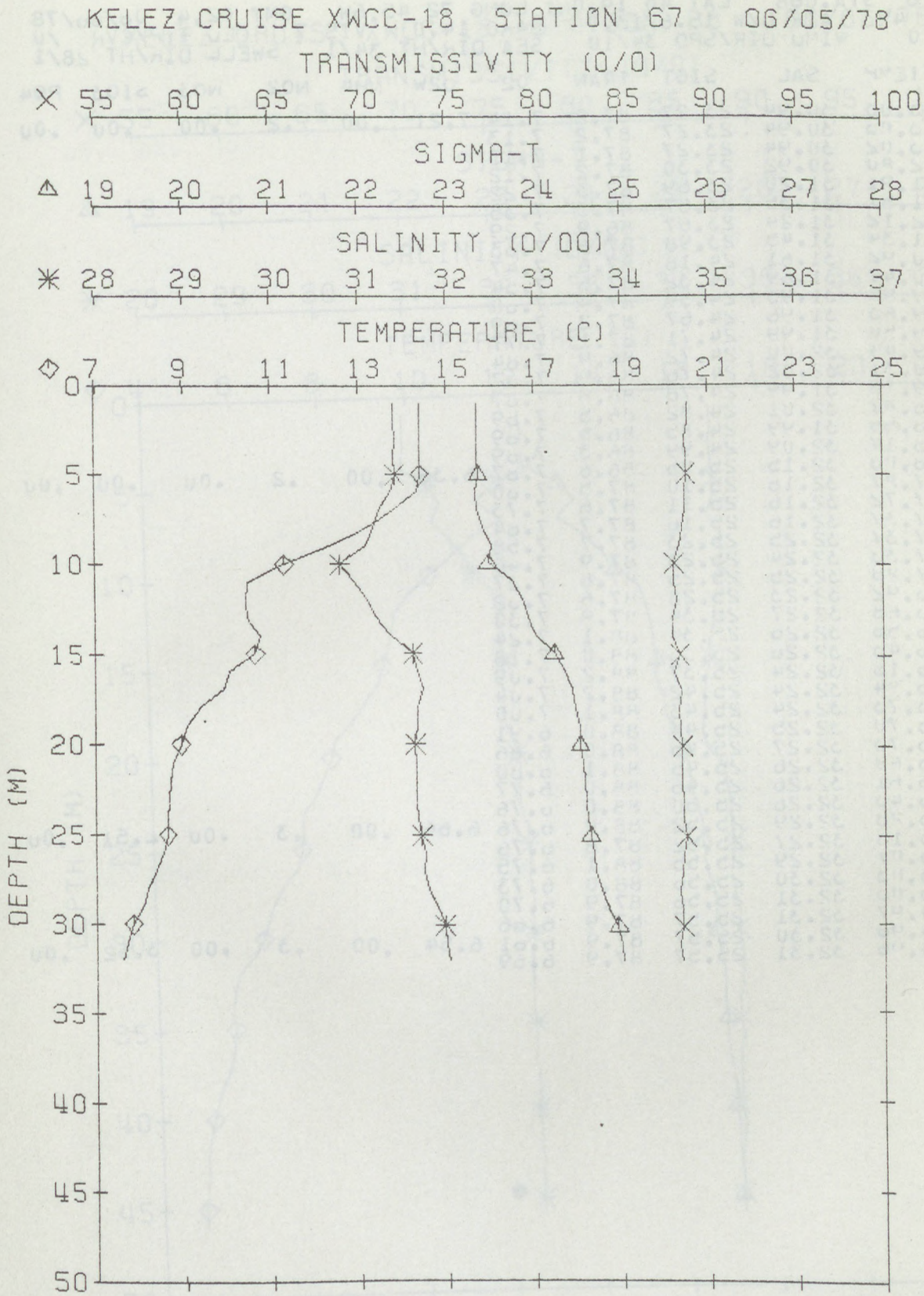
XWCC-16 STA.066 LAT 40 30.0N; LONG 72 34.0W GMT 19.3 06/05/78
DEPTH 43 AIR D/W 16.7/15.0 BARO 07.5 VIS 7 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 22/16 SEA DIR/HT 22/2 SWELL DIR/HT 20/2

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.27	31.56	23.70	87.1	7.26	7.28	.00	.0	.00	.00	.00
2	13.27	31.56	23.70	87.1	7.26						
3	13.27	31.56	23.71	87.2	7.24						
4	13.26	31.56	23.70	87.1	7.24						
5	13.26	31.56	23.71	87.2	7.25						
6	13.25	31.57	23.71	87.1	7.25						
7	13.26	31.56	23.70	87.2	7.24						
8	13.26	31.57	23.71	87.3	7.25						
9	13.21	31.57	23.72	87.3	7.27						
10	13.14	31.58	23.74	87.4	7.27						
11	12.81	31.64	23.85	87.5	7.31						
12	11.56	31.90	24.29	87.7	7.44						
13	10.30	32.17	24.72	87.8	7.67						
14	10.13	32.18	24.76	87.6	7.74						
15	10.05	32.19	24.77	87.5	7.72						
16	9.85	32.18	24.79	87.5	7.73						
17	9.85	32.18	24.80	87.4	7.75						
18	9.68	32.16	24.81	87.5	7.76						
19	9.61	32.20	24.85	87.6	7.79						
20	9.59	32.20	24.86	87.5	7.78	7.60	.00	.1	.00	.00	.00
21	9.45	32.17	24.86	87.5	7.77						
22	9.07	32.11	24.87	87.4	7.78						
23	8.48	32.04	24.90	87.4	7.82						
24	7.99	32.04	24.98	87.6	7.84						
25	7.87	32.08	25.02	87.6	7.79						
26	7.76	32.08	25.04	87.5	7.63						
27	7.64	32.11	25.06	87.5	7.55						
28	7.61	32.12	25.09	87.5	7.44						
29	7.36	32.13	25.13	87.5	7.34						
30	7.25	32.20	25.20	87.6	7.29						
31	7.26	32.20	25.20	87.1	7.18						
32	6.94	32.17	25.22	87.0	7.14						
33	6.60	32.20	25.28	87.3	7.14						
34	6.41	32.23	25.34	87.6	7.08						
35	6.32	32.23	25.35	87.5	6.97						
36	6.29	32.24	25.36	87.6	6.87						
37	6.28	32.24	25.36	87.6	6.81						
38	6.28	32.24	25.36	87.6	6.73						
39	6.27	32.24	25.37	87.6	6.69						
40	6.28	32.24	25.37	87.6	6.65						
41	6.28	32.23	25.36	87.6	6.62	6.55	.00	.1	.00	1.91	.21


KELEZ CRUISE XWCC-18 STATION 66 06/05/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
6 8 10 12 14 16 18 20 22 24
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

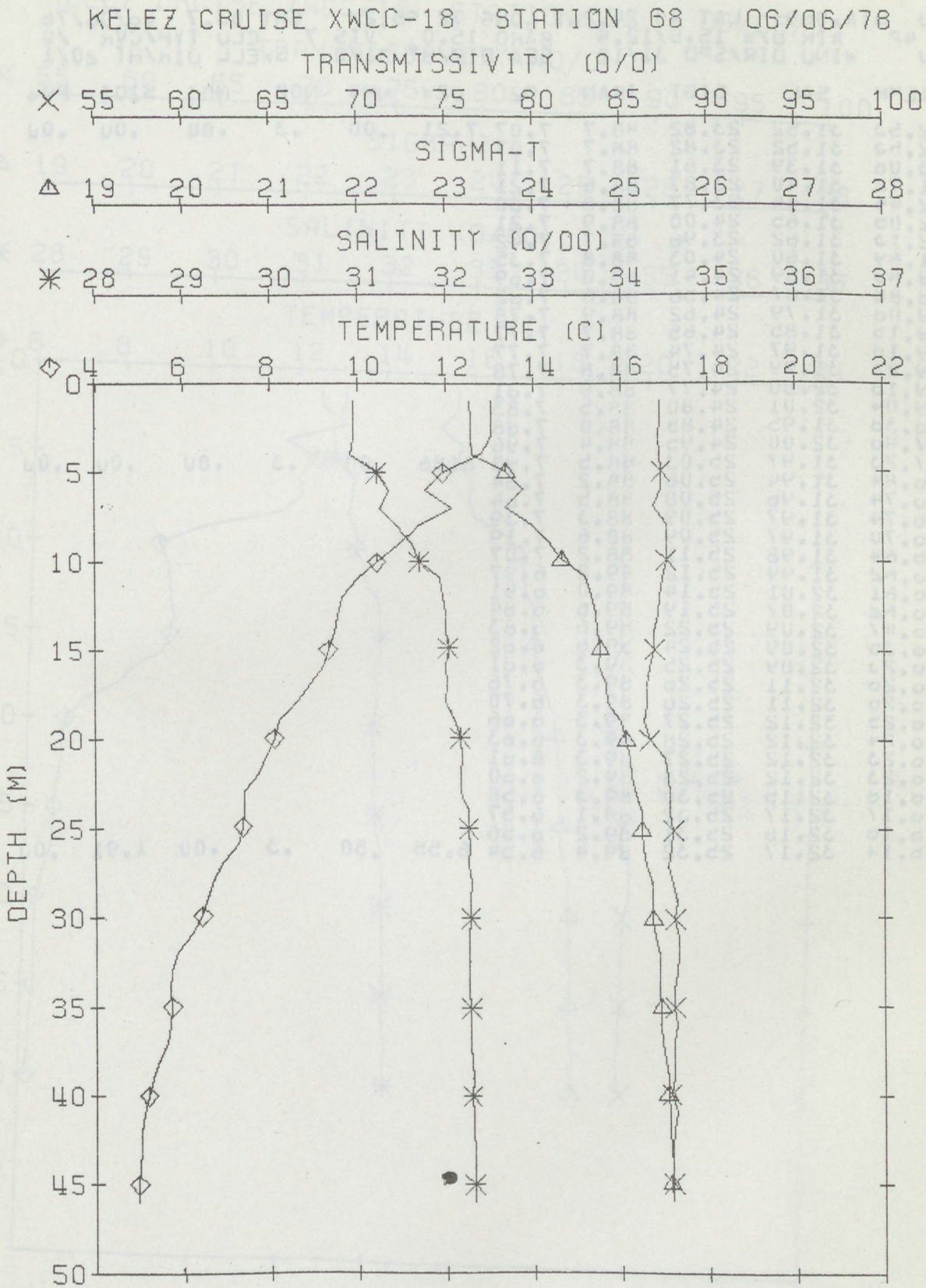
XWCC-18 STA.067 LAT 40 38.0N; LONG 72 40.0W GMT 14.9 06/05/78
DEPTH 3M AIR D/W 16.7/15.6 BARO 07.5 VIS 7 CLD TYP/CVR /4
WETHR 1 WIND DIR/SPD 22/19 SEA DIR/HT 22/1 SWELL DIR/HT 22/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.39	31.39	23.34	88.8	6.96	6.97	.00	.0	.00	.00	.11
2	14.39	31.39	23.34	88.8	6.96						
3	14.38	31.40	23.35	88.6	6.95						
4	14.38	31.40	23.35	88.7	6.94						
5	14.38	31.41	23.36	88.7	6.94						
6	14.35	31.35	23.33	88.6	6.94						
7	13.78	31.22	23.34	88.6	6.97						
8	13.17	31.16	23.41	88.5	7.05						
9	12.35	31.08	23.51	88.3	7.09						
10	11.30	30.78	23.47	88.0	7.17						
11	10.46	30.95	23.74	88.0	7.22						
12	10.41	31.09	23.86	88.1	7.16						
13	10.45	31.20	23.94	87.9	7.03						
14	10.75	31.36	24.01	87.9	6.92						
15	10.65	31.61	24.22	88.3	6.85						
16	10.05	31.65	24.36	88.0	6.98						
17	9.95	31.72	24.43	88.4	7.15						
18	9.39	31.65	24.46	88.2	7.21						
19	9.07	31.65	24.51	88.3	7.21						
20	8.94	31.63	24.51	88.4	7.13	6.57	.00	.0	.00	.00	.21
21	8.76	31.64	24.55	88.4	6.99						
22	8.69	31.64	24.56	88.4	6.91						
23	8.65	31.65	24.57	88.5	6.82						
24	8.61	31.66	24.59	88.5	6.76						
25	8.61	31.70	24.62	88.6	6.72						
26	8.53	31.74	24.66	88.5	6.68						
27	8.34	31.73	24.68	88.4	6.65						
28	8.15	31.78	24.75	88.2	6.64						
29	8.05	31.87	24.83	88.4	6.59						
30	7.82	31.95	24.93	88.4	6.55						
31	7.68	31.97	24.97	88.2	6.54						
32	7.59	32.01	25.01	88.4	6.51	6.21	.00	.0	.00	2.07	.32


KELEZ CRUISE XWCC-18 STATION 67 06/05/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

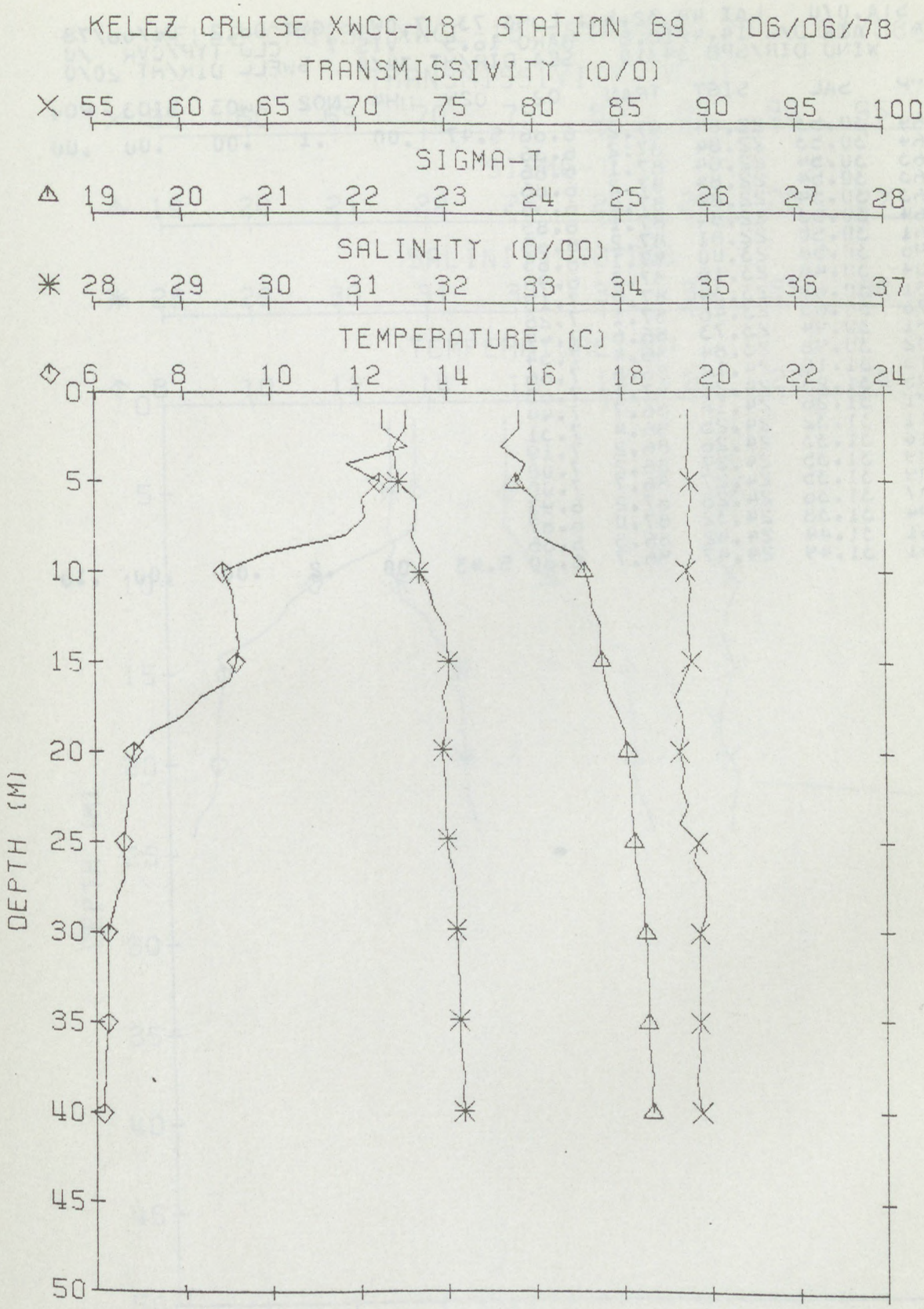
XWCC-18 STA.068 LAT 40 19.0N; LONG 72 45.6W GMT 02.4 06/06/78
DEPTH 49 AIR D/W 15.6/13.9 BARO 14.0 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 34/10 SEA DIR/HT 34/1 SWELL DIR/HT 28/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.03	30.94	23.27	87.2	7.14	7.21	.00	.2	.00	.00	.00
2	13.03	30.94	23.27	87.2	7.13						
3	13.02	30.94	23.27	87.1	7.13						
4	12.80	30.92	23.30	87.2	7.12						
5	11.91	31.20	23.69	87.3	7.22						
6	11.51	31.35	23.87	87.3	7.35						
7	12.12	31.24	23.67	86.9	7.29						
8	11.34	31.45	23.98	87.6	7.33						
9	10.92	31.61	24.18	87.6	7.47						
10	10.42	31.69	24.32	87.6	7.54						
11	9.94	31.93	24.59	87.4	7.60						
12	9.63	31.96	24.67	87.2	7.69						
13	9.50	31.99	24.71	87.1	7.77						
14	9.44	32.00	24.72	86.9	7.84						
15	9.31	32.02	24.76	86.9	7.87						
16	9.13	31.99	24.76	86.6	7.87						
17	8.87	32.01	24.82	86.5	7.89						
18	8.59	31.99	24.85	86.5	7.89						
19	8.17	32.09	24.99	86.3	7.89						
20	8.03	32.15	25.05	86.6	7.87	6.36	.00	.2	.00	.00	.00
21	7.87	32.18	25.10	87.5	7.80						
22	7.72	32.16	25.11	87.6	7.73						
23	7.37	32.16	25.16	87.7	7.64						
24	7.37	32.25	25.23	87.7	7.58						
25	7.33	32.24	25.23	87.9	7.46						
26	7.20	32.25	25.25	87.8	7.37						
27	6.92	32.23	25.28	87.6	7.32						
28	6.63	32.27	25.34	87.9	7.30						
29	6.50	32.26	25.34	88.1	7.24						
30	6.43	32.26	25.36	88.0	7.18						
31	6.18	32.24	25.37	88.2	7.09						
32	5.94	32.24	25.42	88.2	7.04						
33	5.73	32.24	25.43	88.1	7.00						
34	5.70	32.25	25.44	88.0	6.91						
35	5.73	32.27	25.45	88.0	6.86						
36	5.69	32.26	25.45	88.1	6.80						
37	5.61	32.26	25.46	88.0	6.77						
38	5.43	32.28	25.50	88.0	6.76						
39	5.28	32.29	25.52	88.0	6.76	6.66	.00	.3	.00	2.51	.00
40	5.13	32.27	25.52	87.8	6.76						
41	5.07	32.29	25.55	88.1	6.75						
42	5.03	32.30	25.56	88.0	6.73						
43	5.03	32.31	25.56	87.9	6.70						
44	4.97	32.31	25.57	87.9	6.66						
45	4.96	32.30	25.57	87.9	6.61	6.54	.00	.3	.00	3.52	.00
46	4.96	32.31	25.57	87.9	6.59						


KELEZ CRUISE XWCC-18 STATION 68 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

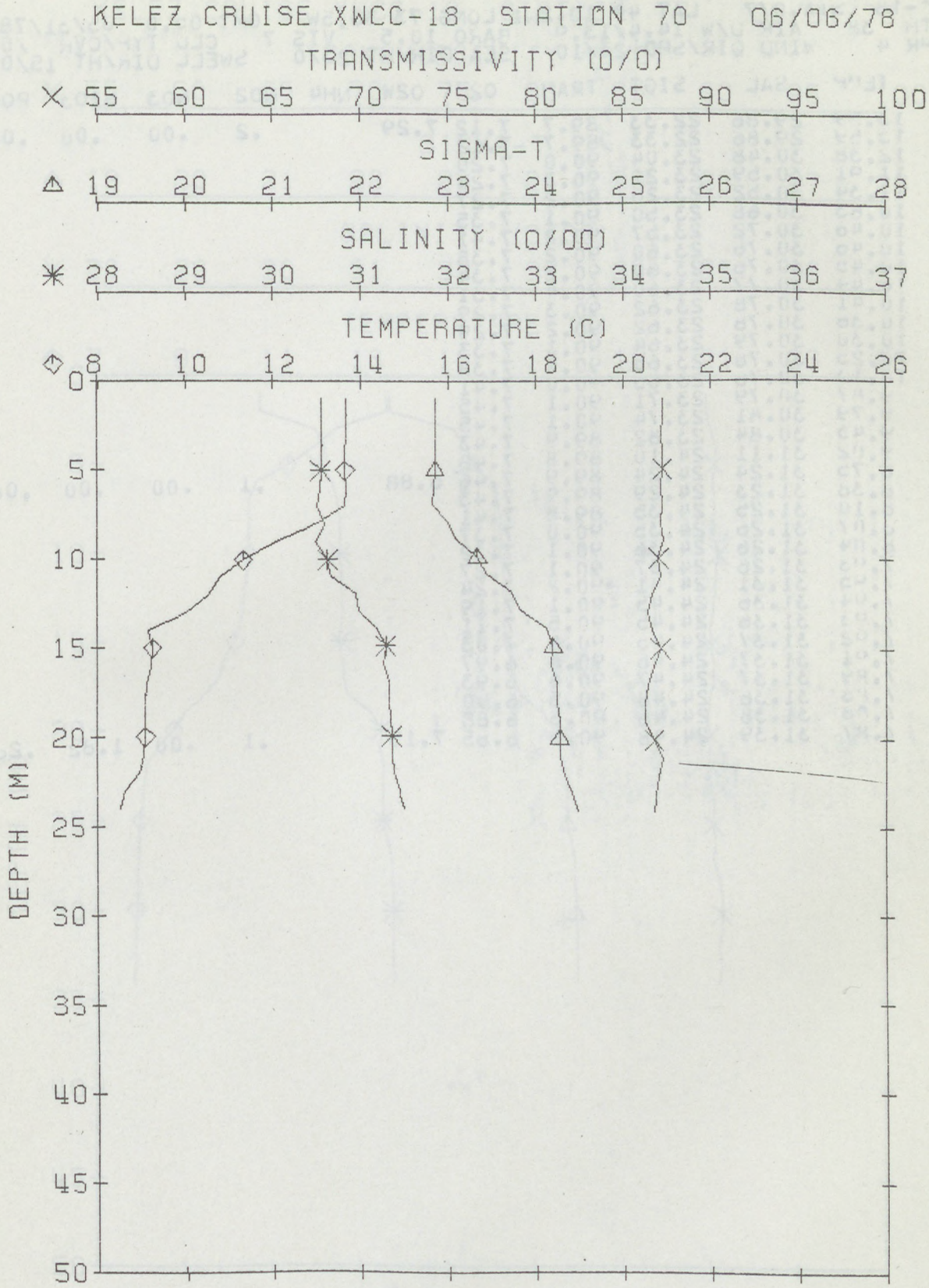
XWCC-18 STA.069 LAT 40 24.2N; LONG 72 55.2W GMT 03.7 06/06/78
DEPTH 42 AIR D/W 15.0/12.8 BARO 15.0 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 31/12 SEA DIR/HT 31/0 SWELL DIR/HT 20/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.53	31.52	23.82	88.7	7.07	7.21	.00	.3	.00	.00	.00
2	12.53	31.52	23.82	88.7	7.07						
3	13.08	31.39	23.61	88.7	7.11						
4	11.72	31.40	23.87	88.6	7.21						
5	12.44	31.44	23.77	88.8	7.30						
6	12.05	31.65	24.00	88.9	7.21						
7	12.13	31.62	23.96	88.7	7.42						
8	11.69	31.60	24.03	88.8	7.35						
9	9.89	31.69	24.41	89.0	7.09						
10	8.88	31.67	24.56	88.6	7.82						
11	9.08	31.79	24.62	88.9	7.78						
12	9.15	31.85	24.65	88.7	7.77						
13	9.18	31.97	24.74	88.7	7.77						
14	9.23	31.99	24.75	88.8	7.78						
15	9.18	32.00	24.77	88.9	7.81						
16	9.04	32.01	24.80	88.5	7.83						
17	8.38	31.95	24.85	88.0	7.88						
18	7.98	32.00	24.95	88.4	7.96						
19	7.23	31.97	25.03	88.5	7.93	6.86	.00	.3	.00	.00	.00
20	6.84	31.94	25.06	88.2	7.84						
21	6.74	31.96	25.08	88.5	7.64						
22	6.74	31.97	25.09	88.3	7.39						
23	6.70	31.97	25.09	88.6	7.19						
24	6.64	31.98	25.11	88.2	7.07						
25	6.62	31.99	25.12	89.2	6.97						
26	6.61	32.01	25.14	89.0	6.91						
27	6.62	32.07	25.19	89.6	6.84						
28	6.47	32.09	25.22	89.6	6.83						
29	6.35	32.09	25.24	89.6	6.82						
30	6.23	32.09	25.25	89.3	6.81						
31	6.20	32.11	25.26	89.3	6.76						
32	6.20	32.11	25.26	89.3	6.70						
33	6.23	32.12	25.27	89.3	6.66						
34	6.24	32.12	25.28	89.3	6.63						
35	6.23	32.12	25.27	89.3	6.61						
36	6.23	32.12	25.28	89.2	6.60						
37	6.18	32.15	25.30	89.3	6.58						
38	6.17	32.17	25.32	89.1	6.57						
39	6.16	32.16	25.31	89.2	6.56						
40	6.14	32.17	25.32	89.4	6.54	6.55	.50	.3	.00	1.91	.00


KELEZ CRUISE XWCC-18 STATION 69 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
6 8 10 12 14 16 18 20 22 24
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

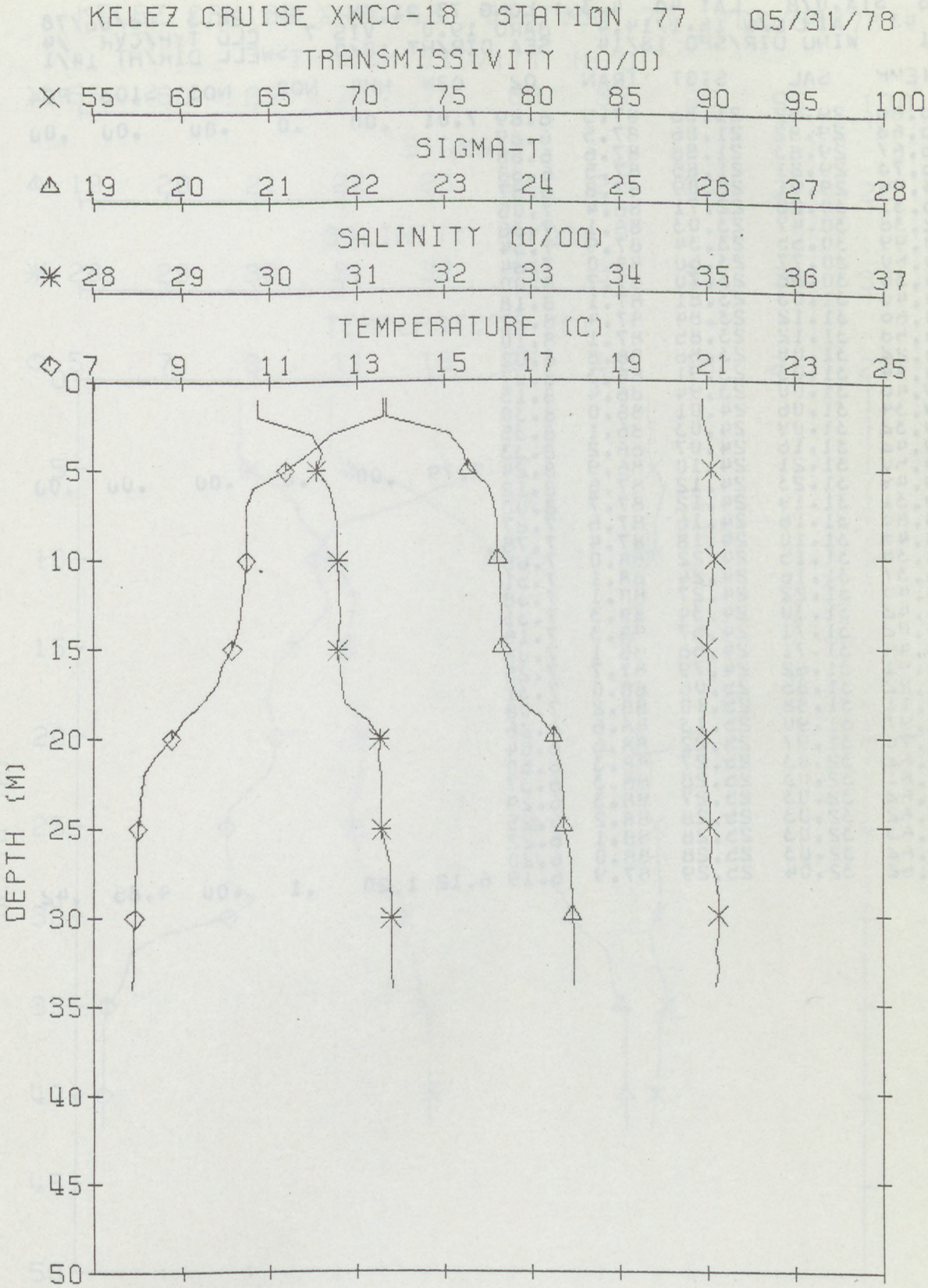
XWCC-18 STA.0/0 LAT 40 32.5N; LONG 73 7.0W GMT 00.2 06/06/78
DEPTH 26 AIR D/W 14.4/12.8 BARO 16.5 VIS 7 CLD TYP/CVR /0
WEIHR 4 WIND DIR/SPD 34/10 SEA DIR/HT 34/0 SWELL DIR/HT 20/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.64	30.53	22.84	87.2	6.86	5.47	.00	.1	.00	.00	.00
2	13.64	30.53	22.84	87.2	6.86						
3	13.63	30.54	22.84	87.1	6.86						
4	13.63	30.54	22.84	87.2	6.86						
5	13.63	30.54	22.84	87.2	6.86						
6	13.64	30.53	22.84	87.1	6.85						
7	13.61	30.50	22.81	87.2	6.85						
8	12.96	30.58	23.00	87.1	6.85						
9	12.04	30.46	23.10	87.3	6.96						
10	11.31	30.62	23.34	87.0	7.15						
11	10.78	30.65	23.46	87.1	7.28						
12	10.51	30.94	23.73	86.6	7.44						
13	10.02	30.98	23.84	86.4	7.54						
14	9.15	31.18	24.13	86.6	7.66						
15	9.25	31.28	24.20	87.1	7.63						
16	9.21	31.26	24.18	86.7	7.44						
17	9.11	31.32	24.25	86.4	7.31						
18	9.10	31.33	24.26	86.2	7.19						
19	9.09	31.35	24.27	86.2	7.08						
20	9.09	31.35	24.27	86.7	7.00						
21	9.07	31.36	24.28	87.2	6.93						
22	8.94	31.38	24.32	87.0	6.87						
23	8.61	31.44	24.42	86.8	6.85						
24	8.51	31.49	24.47	86.7	6.80	5.43	.00	.2	.00	.00	.10


KELEZ CRUISE XWCC-18 STATION 70 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

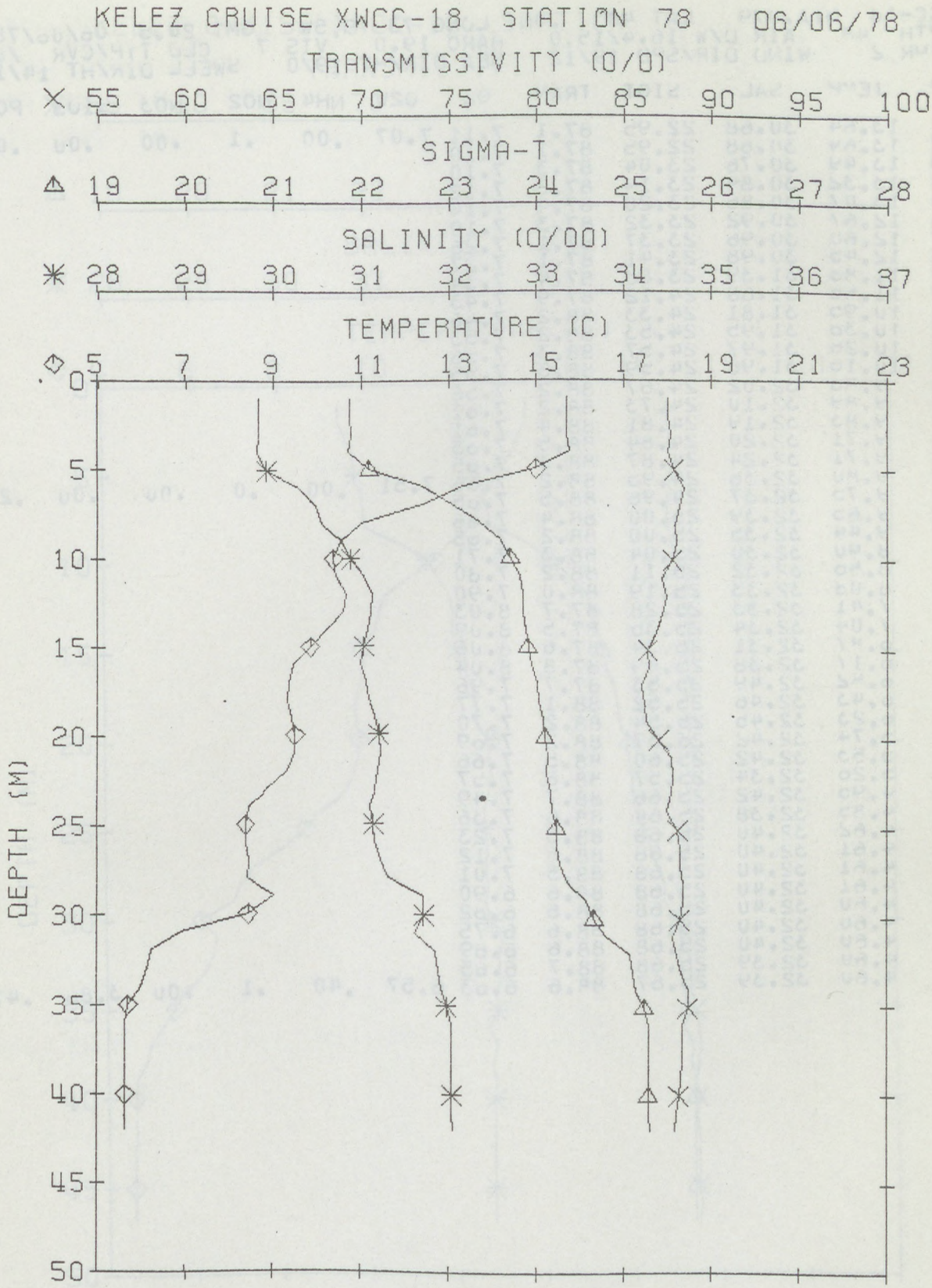
XWCC-18 STA.017 LAT 40 10.2N; LONG 73 33.5W GMT 05.0 05/31/78
DEPTH 38 AIR D/W 14.4/13.9 BARO 10.5 VIS 7 CLD TYP/CVR /0
WETWR 4 WIND DIR/SPD 23/10 SEA DIR/HT 23/0 SWELL DIR/HT 15/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.59	29.86	22.33	89.7	7.12	7.29		.2	.00	.00	.00
2	13.59	29.86	22.33	89.7	7.12						
3	12.38	30.48	23.04	90.0	7.20						
4	11.91	30.59	23.21	90.3	7.24						
5	11.34	30.52	23.26	90.2	7.27						
6	10.63	30.68	23.50	90.1	7.35						
7	10.46	30.72	23.57	90.2	7.41						
8	10.46	30.76	23.60	90.2	7.38						
9	10.45	30.76	23.60	90.2	7.34						
10	10.44	30.77	23.60	90.4	7.31						
11	10.41	30.78	23.62	90.3	7.29						
12	10.36	30.78	23.62	90.2	7.29						
13	10.30	30.79	23.64	90.1	7.33						
14	10.25	30.78	23.65	90.0	7.38						
15	10.13	30.76	23.65	90.0	7.41						
16	9.87	30.79	23.71	90.1	7.45						
17	9.79	30.81	23.74	90.1	7.45						
18	9.45	30.84	23.82	89.9	7.43						
19	9.02	31.11	24.10	89.8	7.48						
20	8.75	31.24	24.24	89.9	7.46	6.88		.1	.00	.00	.00
21	8.38	31.23	24.29	89.9	7.43						
22	8.10	31.25	24.35	89.8	7.41						
23	8.07	31.26	24.35	90.0	7.37						
24	8.04	31.26	24.36	90.1	7.32						
25	7.93	31.26	24.37	90.1	7.27						
26	7.95	31.31	24.41	90.2	7.24						
27	7.94	31.36	24.45	90.1	7.19						
28	7.95	31.36	24.45	90.5	7.11						
29	7.92	31.37	24.45	90.6	7.03						
30	7.91	31.37	24.46	90.6	6.97						
31	7.89	31.37	24.47	90.6	6.93						
32	7.85	31.38	24.48	90.5	6.90						
33	7.88	31.38	24.48	90.6	6.88						
34	7.87	31.39	24.48	90.5	6.85	7.15		.1	.00	1.82	.20


KELEZ CRUISE XWCC-18 STATION 77 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

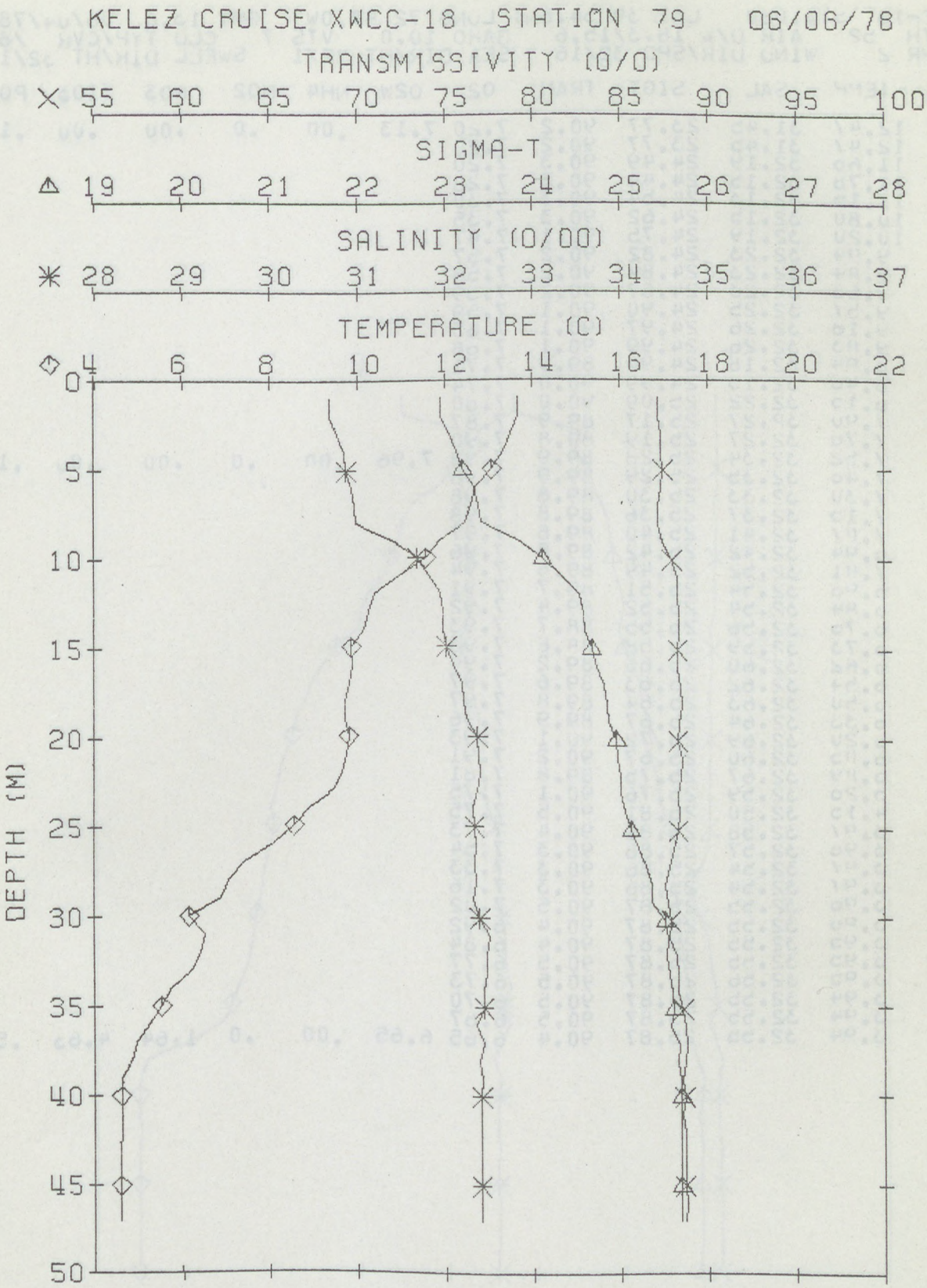
XWCC-18 STA.078 LAT 40 4.3N; LONG 73 21.8W GMT 22.3 06/06/78
DEPTH 43 AIR D/W 16.1/14.4 BARO 19.0 VIS 7 CLD TYP/CVR /4
WETHR 1 WIND DIR/SPD 18/14 SEA DIR/HT 18/0 SWELL DIR/HT 14/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.68	29.82	21.86	87.5	6.89	7.01	.00	.0	.00	.00	.00
2	15.68	29.82	21.86	87.5	6.89						
3	15.67	29.83	21.88	87.6	6.88						
4	15.73	29.81	21.85	87.5	6.88						
5	14.99	29.91	22.09	87.8	6.87						
6	13.31	30.28	22.71	88.4	7.05						
7	12.38	30.47	23.03	88.1	7.36						
8	10.99	30.55	23.34	87.9	7.54						
9	10.50	30.77	23.60	88.0	7.84						
10	10.36	30.88	23.70	87.7	8.00						
11	10.40	31.03	23.81	87.1	8.18						
12	10.60	31.12	23.84	87.4	8.22						
13	10.58	31.12	23.85	87.1	8.10						
14	10.22	31.08	23.88	86.8	8.02						
15	9.84	31.03	23.91	86.3	8.07						
16	9.46	31.00	23.94	86.4	8.15						
17	9.34	31.06	24.01	86.0	8.30						
18	9.32	31.09	24.03	86.1	8.35						
19	9.42	31.16	24.07	86.2	8.33						
20	9.50	31.21	24.10	86.9	8.24	7.79	.00	.0	.00	.00	.00
21	9.49	31.23	24.12	87.6	8.12						
22	9.31	31.19	24.12	87.7	8.00						
23	8.80	31.16	24.16	87.6	7.87						
24	8.45	31.10	24.18	87.4	7.75						
25	8.38	31.15	24.22	88.0	7.65						
26	8.37	31.16	24.24	88.1	7.51						
27	8.45	31.22	24.27	88.1	7.38						
28	8.42	31.30	24.34	88.3	7.31						
29	9.02	31.71	24.57	88.3	7.16						
30	8.44	31.71	24.66	88.1	7.06						
31	8.91	31.62	24.79	87.7	7.25						
32	8.22	31.85	25.06	88.0	7.31						
33	8.11	31.88	25.10	88.2	7.08						
34	5.97	31.90	25.13	88.6	6.86						
35	5.70	31.97	25.22	88.6	6.64						
36	5.62	32.03	25.27	88.3	6.50						
37	5.61	32.03	25.28	88.3	6.37						
38	5.62	32.03	25.27	88.3	6.29						
39	5.62	32.03	25.28	88.2	6.25						
40	5.63	32.03	25.28	88.1	6.22						
41	5.62	32.03	25.28	88.0	6.20						
42	5.62	32.04	25.29	87.9	6.19	6.12	1.20	.1	.00	4.85	.42


KELEZ CRUISE XWCC-18 STATION 78 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
5 7 9 11 13 15 17 19 21 23
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

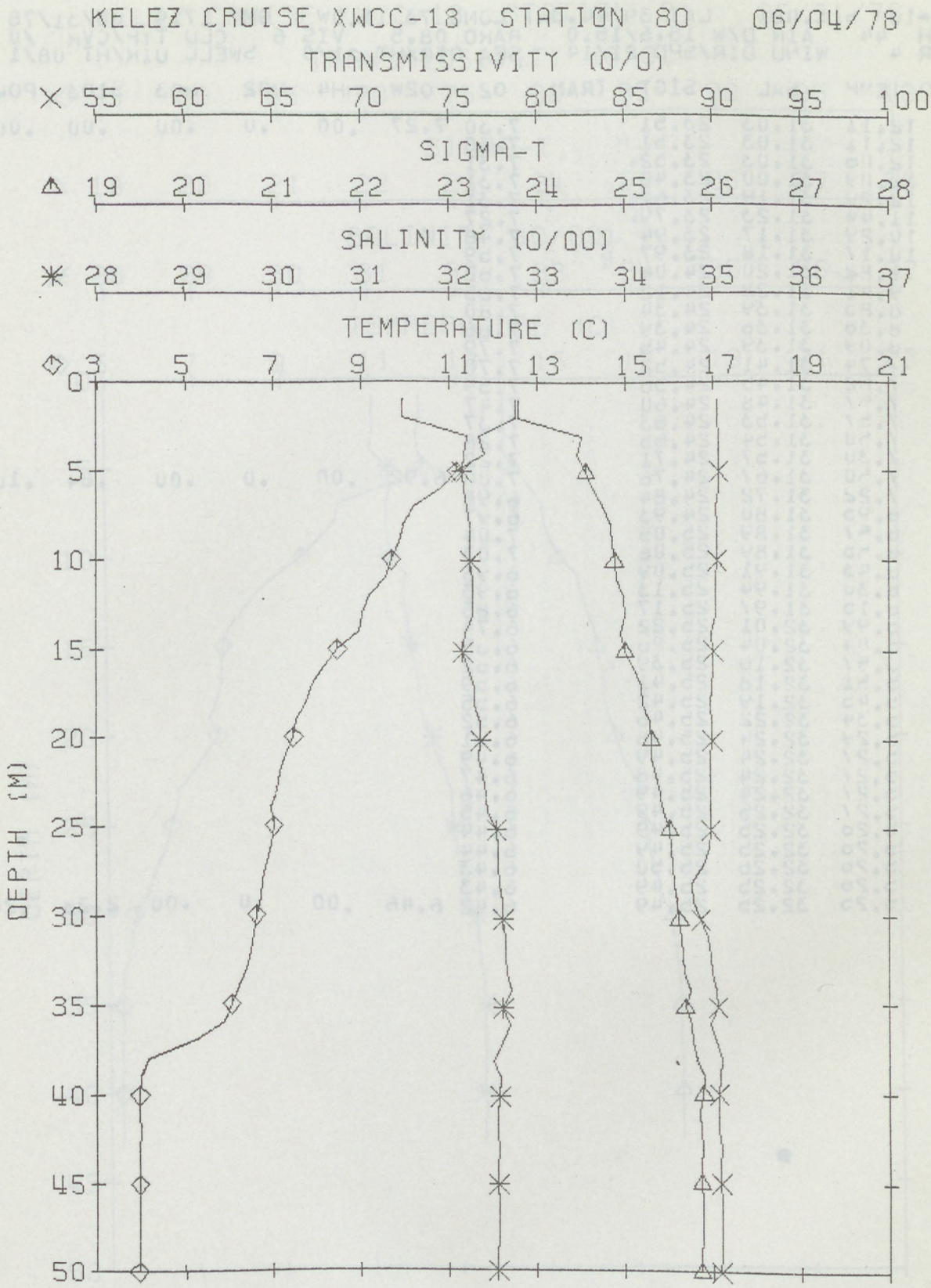
XWCC-18 STA.079 LAT 40 .0N; LONG 73 9.5W GMT 20.5 06/06/78
DEPTH 48 AIR D/W 16.4/15.0 BARO 19.0 VIS 7 CLD TYP/CVR /8
WETHR 2 WIND DIR/SPD 19/12 SEA DIR/HT 19/0 SWELL DIR/HT 14/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.64	30.68	22.95	87.1	7.11	7.07	.00	.1	.00	.00	.00
2	13.64	30.68	22.95	87.1	7.10						
3	13.49	30.76	23.04	87.3	7.10						
4	13.32	30.84	23.14	87.3	7.12						
5	13.07	30.86	23.20	87.4	7.14						
6	12.67	30.92	23.32	87.3	7.19						
7	12.60	30.96	23.37	87.1	7.26						
8	12.45	30.98	23.41	87.1	7.27						
9	11.86	31.39	23.83	87.4	7.34						
10	11.56	31.68	24.12	87.9	7.43						
11	10.95	31.81	24.33	88.2	7.46						
12	10.38	31.95	24.53	88.2	7.53						
13	10.26	31.97	24.57	88.3	7.56						
14	10.10	31.98	24.59	88.3	7.55						
15	9.86	32.02	24.67	88.2	7.56						
16	9.89	32.10	24.73	88.2	7.61						
17	9.83	32.19	24.81	88.4	7.61						
18	9.71	32.20	24.84	88.5	7.63						
19	9.71	32.24	24.87	88.3	7.65						
20	9.80	32.36	24.95	88.2	7.66	7.51	.00	.0	.00	.00	.26
21	9.75	32.37	24.96	88.5	7.65						
22	9.65	32.39	25.00	88.4	7.66						
23	9.44	32.35	25.00	88.2	7.65						
24	8.90	32.30	25.04	88.3	7.71						
25	8.56	32.32	25.11	88.2	7.80						
26	8.08	32.33	25.19	88.0	7.90						
27	7.41	32.33	25.28	87.7	8.03						
28	7.04	32.34	25.35	87.5	8.09						
29	6.87	32.31	25.34	87.6	8.06						
30	6.17	32.38	25.49	87.8	8.04						
31	6.52	32.49	25.53	87.7	7.96						
32	6.43	32.46	25.52	88.1	7.77						
33	6.23	32.45	25.54	88.2	7.70						
34	5.74	32.42	25.57	88.2	7.69						
35	5.53	32.42	25.60	88.5	7.66						
36	5.26	32.34	25.57	88.6	7.57						
37	4.95	32.42	25.66	88.7	7.49						
38	4.85	32.38	25.64	88.6	7.36						
39	4.62	32.40	25.68	88.5	7.23						
40	4.61	32.40	25.68	88.6	7.12						
41	4.61	32.40	25.68	88.5	7.01						
42	4.61	32.40	25.68	88.6	6.90						
43	4.60	32.40	25.68	88.6	6.82						
44	4.60	32.40	25.68	88.6	6.75						
45	4.60	32.40	25.68	88.6	6.69						
46	4.60	32.39	25.68	88.7	6.65						
47	4.60	32.39	25.67	88.6	6.63	6.57	.40	.1	.00	3.86	.47


KELEZ CRUISE XWCC-18 STATION 79 06/06/78
TRANSMISSIVITY (0/0)
X 55 60 65 70 75 80 85 90 95 100
SIGMA-T
Δ 19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
✳ 28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
◇ 4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

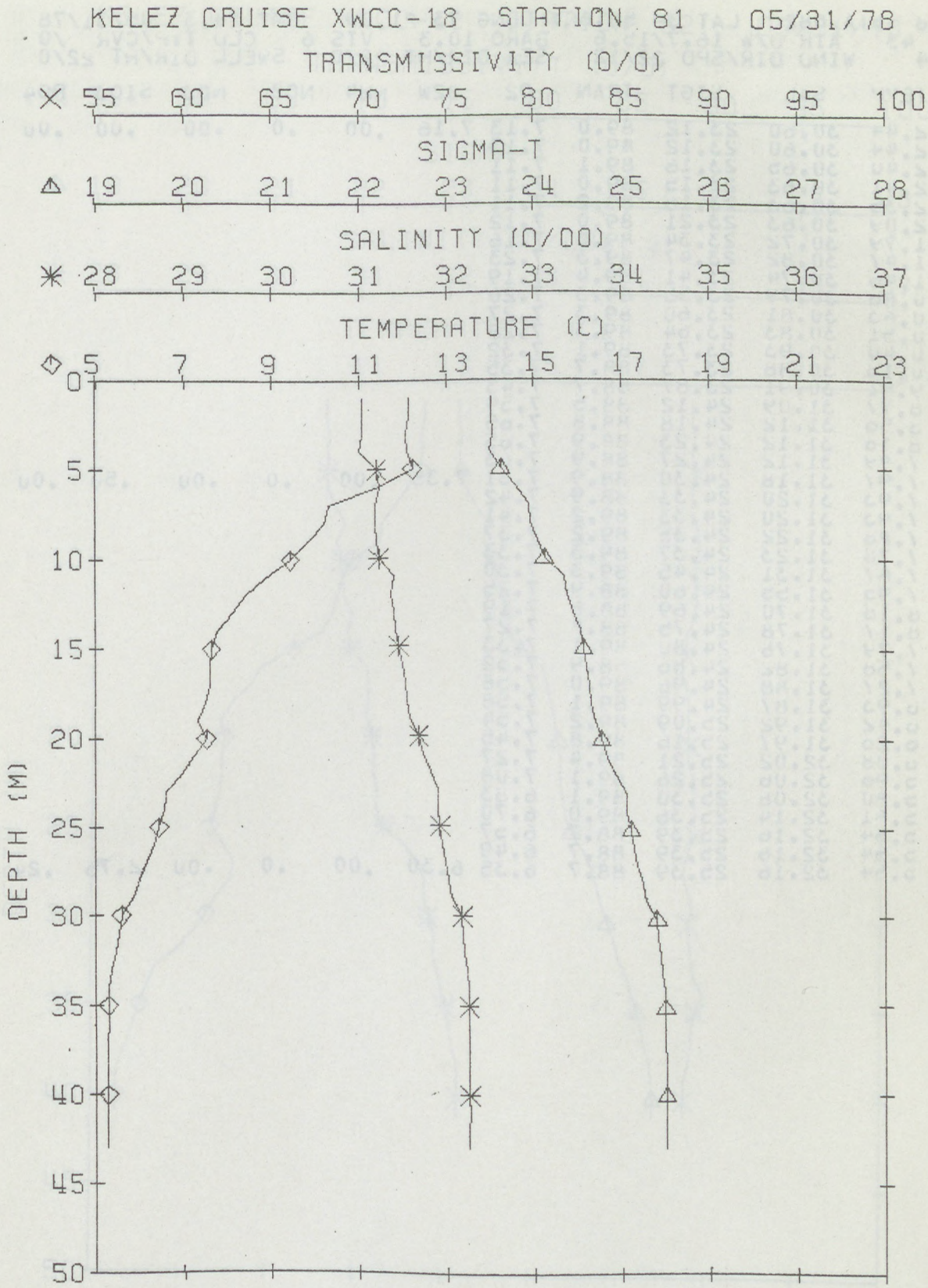
XWCC-13 STA.080 LAT 39 54.6N; LONG 72 57.0W GMT 13.6 06/04/78
DEPTH 52 AIR D/W 18.3/15.6 BARO 10.0 VTS 7 CLD TYP/CVR /8
WETHR 2 WIND DIR/SPD 32/16 SEA DIR/HT 32/1 SWELL DIR/HT 32/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.47	31.45	23.77	90.2	7.20	7.13	.00	.0	.00	.00	.11
2	12.47	31.45	23.77	90.2	7.20						
3	11.66	32.19	24.49	90.3	7.20						
4	11.78	32.15	24.44	90.3	7.28						
5	11.15	32.13	24.54	90.3	7.30						
6	10.80	32.15	24.62	90.3	7.35						
7	10.20	32.19	24.75	90.1	7.47						
8	9.94	32.23	24.82	90.2	7.57						
9	9.84	32.23	24.84	90.2	7.58						
10	9.68	32.23	24.87	90.2	7.59						
11	9.57	32.25	24.90	90.1	7.59						
12	9.18	32.26	24.97	90.1	7.63						
13	9.03	32.26	24.99	90.1	7.68						
14	8.94	32.18	24.94	89.9	7.71						
15	8.46	32.15	24.99	90.0	7.74						
16	8.15	32.22	25.09	90.0	7.80						
17	7.90	32.27	25.17	89.9	7.87						
18	7.76	32.27	25.19	89.8	7.90						
19	7.52	32.34	25.28	89.9	7.92	7.96	.00	.0	.00	.00	.11
20	7.46	32.35	25.29	89.9	7.96						
21	7.30	32.33	25.30	89.8	7.98						
22	7.15	32.37	25.36	89.8	7.98						
23	7.07	32.41	25.40	89.8	7.97						
24	6.94	32.42	25.42	89.8	7.96						
25	7.01	32.52	25.49	89.8	7.94						
26	6.96	32.54	25.51	89.7	7.91						
27	6.84	32.54	25.52	89.4	7.92						
28	6.76	32.56	25.55	88.7	7.93						
29	6.73	32.59	25.58	88.8	7.93						
30	6.62	32.60	25.60	89.2	7.94						
31	6.54	32.62	25.63	89.6	7.97						
32	6.50	32.63	25.64	89.8	7.97						
33	6.33	32.64	25.67	89.9	7.96						
34	6.20	32.69	25.72	90.1	7.93						
35	6.05	32.60	25.67	90.2	7.91						
36	5.89	32.67	25.75	89.8	7.81						
37	5.26	32.59	25.76	90.1	7.75						
38	4.15	32.50	25.81	90.5	7.75						
39	3.97	32.58	25.89	90.4	7.73						
40	3.96	32.57	25.88	90.3	7.54						
41	3.97	32.54	25.86	90.3	7.33						
42	3.97	32.54	25.86	90.3	7.16						
43	3.96	32.55	25.87	90.5	7.02						
44	3.96	32.55	25.87	90.4	6.92						
45	3.95	32.55	25.87	90.4	6.84						
46	3.95	32.55	25.87	90.5	6.77						
47	3.95	32.56	25.87	90.5	6.73						
48	3.94	32.55	25.87	90.5	6.70						
49	3.94	32.55	25.87	90.5	6.67						
50	3.94	32.55	25.87	90.4	6.65	6.65	.00	.0	1.64	4.63	.56


KELEZ CRUISE XWCC-18 STATION 80 06/04/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
3 5 7 9 11 13 15 17 19 21
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

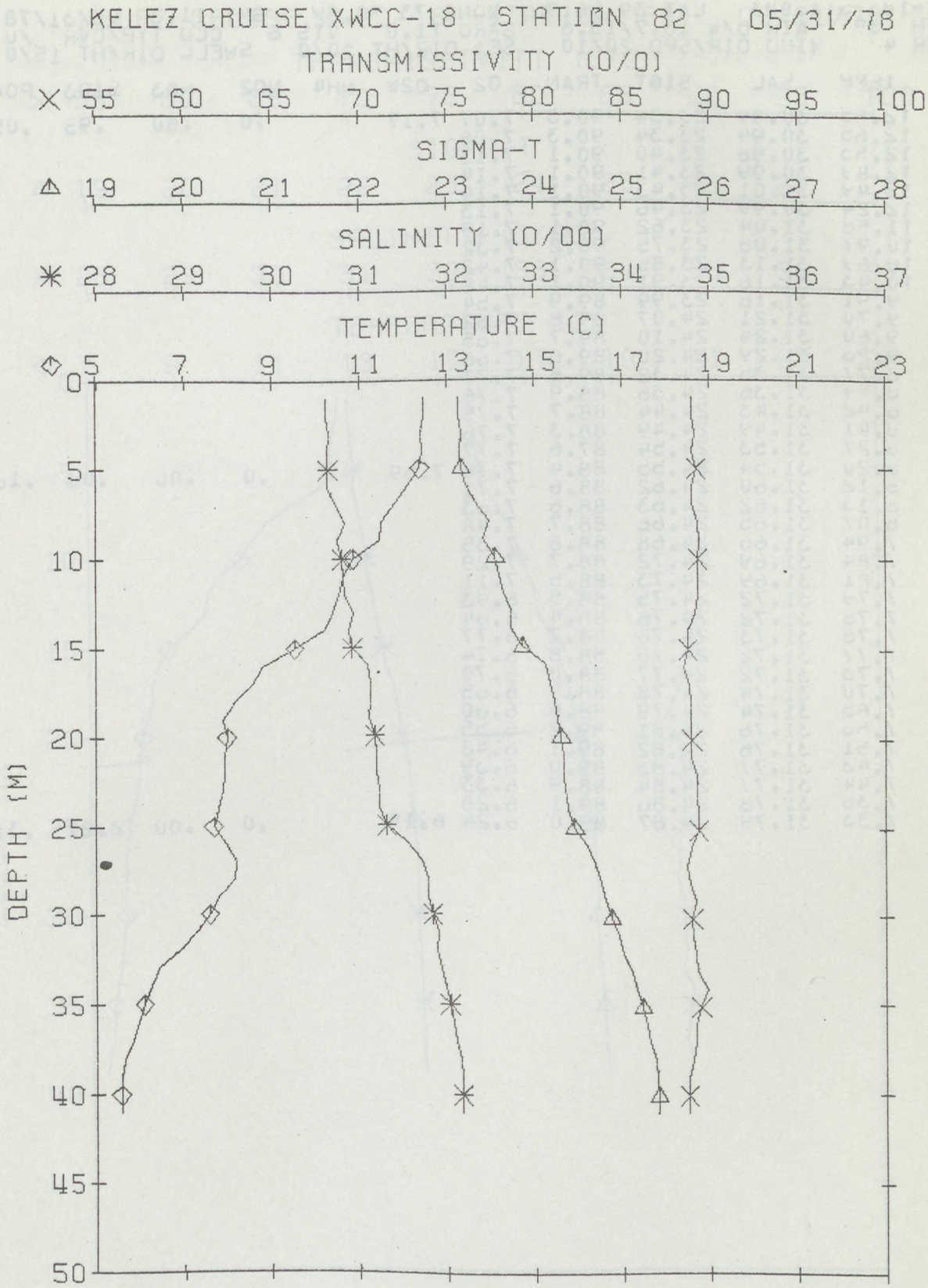
XWCC-18 STA.081 LAT 39 44.3N; LONG 73 11.0W GMT 17.9 05/31/78
DEPTH 44 AIR D/W 15.6/15.0 BARO 08.5 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 21/14 SEA DIR/HT 21/0 SWELL DIR/HT 08/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.11	31.03	23.51		7.30	7.27	.00	.0	.00	.00	.00
2	12.11	31.03	23.51		7.30						
3	12.06	31.03	23.52		7.31						
4	12.09	31.00	23.49		7.31						
5	12.20	31.19	23.62		7.31						
6	11.44	31.23	23.79		7.27						
7	10.29	31.17	23.94		7.48						
8	10.17	31.18	23.97		7.59						
9	9.82	31.20	24.04		7.60						
10	9.41	31.22	24.12		7.65						
11	8.85	31.39	24.34		7.80						
12	8.38	31.36	24.39		7.86						
13	8.09	31.39	24.45		7.79						
14	7.74	31.41	24.52		7.70						
15	7.62	31.45	24.56		7.59						
16	7.57	31.48	24.60		7.47						
17	7.57	31.53	24.63		7.37						
18	7.50	31.54	24.65		7.28						
19	7.30	31.57	24.71		7.22						
20	7.50	31.67	24.76		7.06	6.92	.00	.0	.00	.84	.10
21	7.22	31.72	24.84		6.98						
22	6.95	31.80	24.93		6.97						
23	6.57	31.89	25.05		7.04						
24	6.55	31.89	25.06		7.03						
25	6.43	31.91	25.09		6.98						
26	6.30	31.94	25.13		6.93						
27	6.15	31.97	25.17		6.85						
28	5.99	32.01	25.22		6.74						
29	5.84	32.04	25.26		6.65						
30	5.57	32.16	25.39		6.62						
31	5.51	32.18	25.41		6.59						
32	5.45	32.19	25.42		6.55						
33	5.34	32.22	25.46		6.52						
34	5.29	32.24	25.48		6.51						
35	5.27	32.24	25.49		6.49						
36	5.27	32.24	25.48		6.47						
37	5.27	32.24	25.49		6.46						
38	5.27	32.25	25.49		6.45						
39	5.26	32.25	25.49		6.44						
40	5.26	32.25	25.49		6.44						
41	5.26	32.26	25.50		6.43						
42	5.26	32.25	25.49		6.43						
43	5.25	32.25	25.49		6.42	6.46	.00	.0	.00	2.23	.24


KELEZ CRUISE XWCC-18 STATION 81 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
5 7 9 11 13 15 17 19 21 23
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

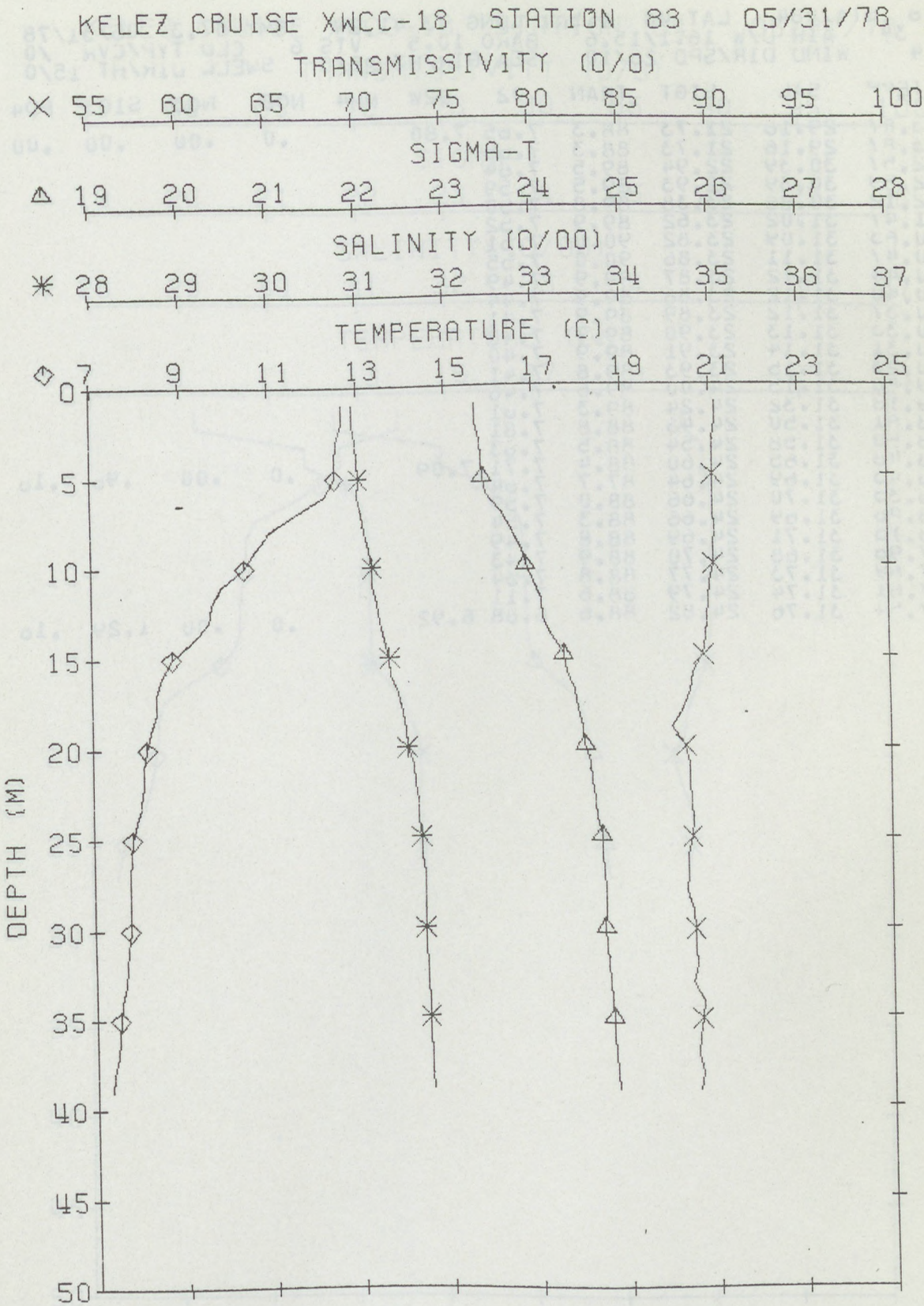
XWCC-16 STA.082 LAT 39 50.6N; LONG 73 21.0W GMT 14.3 05/31/78
DEPTH 43 AIR D/W 16.7/15.6 BARO 10.3 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 22/12 SEA DIR/HT 22/0 SWELL DIR/HT 22/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.44	30.60	23.12	89.0	7.13	7.16	.00	.0	.00	.00	.00
2	12.44	30.60	23.12	89.0	7.13						
3	12.40	30.65	23.16	89.1	7.11						
4	12.41	30.63	23.15	89.0	7.11						
5	12.36	30.63	23.16	89.2	7.11						
6	12.09	30.63	23.21	89.0	7.12						
7	11.79	30.72	23.34	89.0	7.16						
8	11.47	30.82	23.47	89.3	7.23						
9	11.46	30.74	23.41	89.4	7.19						
10	10.86	30.79	23.55	89.3	7.26						
11	10.63	30.81	23.60	89.3	7.27						
12	10.51	30.83	23.64	89.3	7.28						
13	10.40	30.93	23.73	89.1	7.32						
14	10.18	30.88	23.73	88.7	7.35						
15	9.51	30.91	23.87	88.7	7.43						
16	8.77	31.09	24.12	88.5	7.59						
17	8.50	31.12	24.18	88.8	7.65						
18	8.10	31.12	24.23	88.9	7.65						
19	7.99	31.12	24.27	88.9	7.63						
20	7.97	31.18	24.30	88.9	7.51	7.35	.00	.0	.00	.50	.00
21	7.93	31.20	24.33	88.9	7.42						
22	7.93	31.20	24.33	89.2	7.41						
23	7.88	31.22	24.35	89.2	7.37						
24	7.78	31.23	24.37	89.3	7.33						
25	7.67	31.31	24.45	89.3	7.30						
26	7.93	31.55	24.60	88.9	7.25						
27	8.18	31.70	24.69	88.6	7.19						
28	8.17	31.78	24.75	88.8	7.27						
29	7.79	31.78	24.80	89.1	7.33						
30	7.58	31.82	24.86	88.9	7.32						
31	7.27	31.88	24.96	89.0	7.58						
32	6.93	31.87	24.99	89.1	7.58						
33	6.42	31.92	25.09	89.2	7.54						
34	6.20	31.97	25.16	89.8	7.45						
35	6.08	32.02	25.21	89.4	7.27						
36	5.96	32.06	25.26	89.1	7.08						
37	5.80	32.08	25.30	89.1	6.83						
38	5.61	32.14	25.36	89.0	6.70						
39	5.54	32.16	25.39	88.7	6.57						
40	5.54	32.16	25.39	88.7	6.49						
41	5.54	32.16	25.39	88.7	6.35	6.30	.00	.0	.00	2.75	.24


KELEZ CRUISE XWCC-18 STATION 82 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
5 7 9 11 13 15 17 19 21 23
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

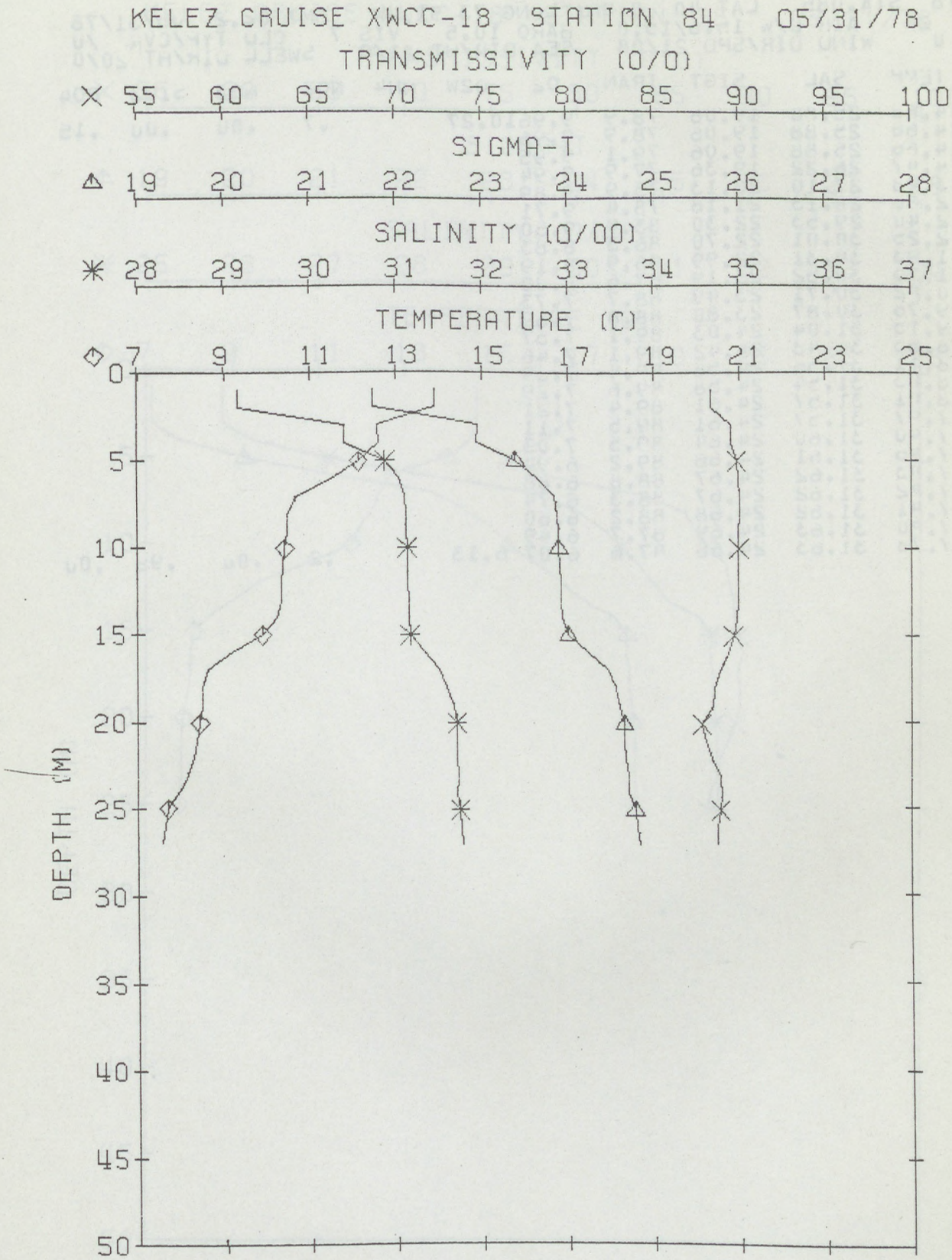
XWCC-18 STA.083 LAT 39 56.9N; LONG 73 30.8W GMT 11.3 05/31/78
DEPTH 39 AIR D/W 16.7/15.6 BARO 11.0 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 20/10 SEA DIR/HT 20/0 SWELL DIR/HT 15/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.65	30.94	23.34	90.3	7.07	7.17		.0	.00	.95	.05
2	12.65	30.94	23.34	90.3	7.06						
3	12.53	30.98	23.40	90.1	7.13						
4	12.49	30.99	23.41	90.1	7.14						
5	12.49	31.01	23.43	90.1	7.14						
6	12.24	30.99	23.46	90.1	7.13						
7	11.58	31.04	23.62	90.1	7.19						
8	10.97	31.08	23.75	90.2	7.32						
9	10.69	31.13	23.85	90.1	7.42						
10	10.43	31.16	23.91	90.1	7.48						
11	9.91	31.16	23.99	89.9	7.54						
12	9.70	31.21	24.07	89.8	7.62						
13	9.60	31.24	24.10	89.7	7.65						
14	9.26	31.29	24.20	89.6	7.66						
15	8.77	31.35	24.32	89.5	7.73						
16	8.54	31.36	24.36	88.9	7.76						
17	8.42	31.43	24.44	88.7	7.75						
18	8.41	31.49	24.49	88.3	7.76						
19	8.27	31.53	24.54	87.6	7.77						
20	8.20	31.54	24.55	88.4	7.76	7.59		.0	.00	.00	.10
21	8.12	31.60	24.62	88.6	7.71						
22	8.13	31.62	24.63	88.6	7.63						
23	8.07	31.65	24.66	88.7	7.48						
24	7.94	31.66	24.68	88.8	7.35						
25	7.84	31.69	24.72	88.7	7.29						
26	7.81	31.69	24.73	88.5	7.11						
27	7.79	31.72	24.75	88.5	6.93						
28	7.73	31.72	24.76	88.4	6.84						
29	7.78	31.73	24.76	88.7	6.77						
30	7.77	31.72	24.76	88.8	6.74						
31	7.73	31.72	24.77	88.8	6.70						
32	7.70	31.74	24.78	88.9	6.65						
33	7.65	31.74	24.79	88.6	6.60						
34	7.56	31.76	24.81	89.2	6.55						
35	7.51	31.76	24.82	89.1	6.48						
36	7.46	31.77	24.83	89.0	6.39						
37	7.44	31.77	24.84	88.9	6.33						
38	7.36	31.78	24.86	89.1	6.28						
39	7.33	31.79	24.87	89.0	6.24	6.18		.0	.00	2.27	.31


KELEZ CRUISE XWCC-18 STATION 83 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

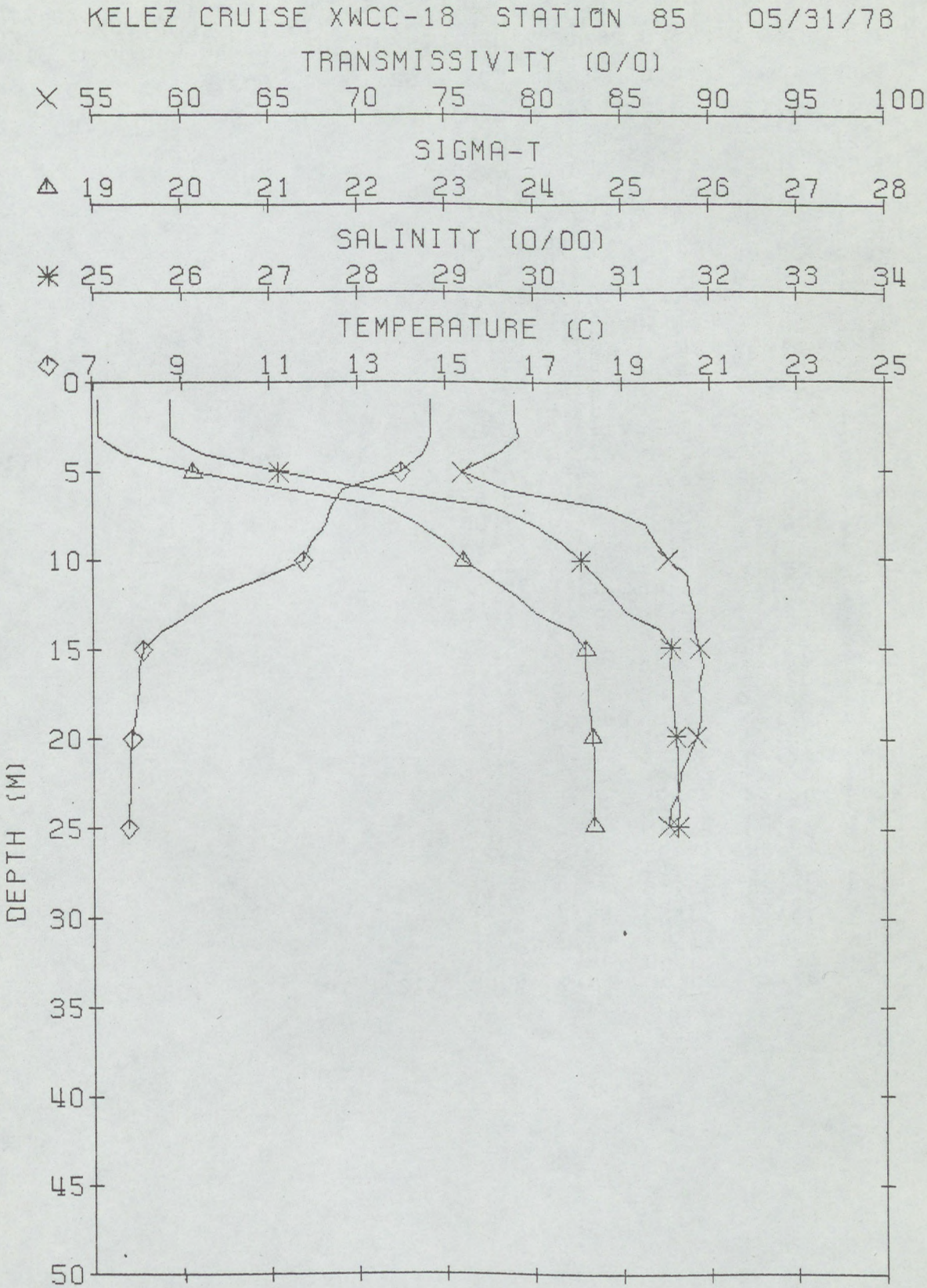
XWCC-10 STA.084 LAT 40 1.5N; LONG 73 41.2W GMT 07.3 05/31/78
DEPTH 38 AIR D/W 16.1/15.6 BARO 10.5 VIS 6 CLD TYP/CVR /0
WEIHR 4 WIND DIR/SPD 25/10 SEA DIR/HT 25/0 SWELL DIR/HT 15/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.87	29.16	21.73	88.3	7.65	7.80		.0	.00	.00	.00
2	13.87	29.16	21.73	88.3	7.65						
3	12.57	30.39	22.94	89.5	7.64						
4	12.59	30.39	22.93	89.5	7.59						
5	12.12	30.86	23.38	89.8	7.50						
6	11.47	31.02	23.62	89.9	7.52						
7	10.65	31.09	23.82	90.0	7.51						
8	10.47	31.11	23.86	90.0	7.55						
9	10.44	31.12	23.87	89.9	7.49						
10	10.40	31.12	23.88	89.9	7.44						
11	10.37	31.12	23.89	89.9	7.41						
12	10.35	31.13	23.90	89.9	7.40						
13	10.31	31.14	23.91	89.9	7.40						
14	10.23	31.15	23.93	89.8	7.41						
15	9.88	31.15	24.00	89.6	7.46						
16	9.13	31.32	24.24	89.3	7.61						
17	8.61	31.50	24.46	88.8	7.81						
18	8.50	31.58	24.54	88.5	7.83						
19	8.48	31.65	24.60	88.4	7.71	7.09		.0	.00	.96	.10
20	8.45	31.69	24.64	87.7	7.64						
21	8.35	31.70	24.66	88.0	7.59						
22	8.28	31.69	24.66	88.3	7.54						
23	8.15	31.71	24.69	88.8	7.49						
24	7.96	31.68	24.70	88.9	7.43						
25	7.69	31.73	24.77	88.8	7.34						
26	7.61	31.74	24.79	88.6	7.11						
27	7.54	31.76	24.82	88.6	6.88	6.92		.0	.00	1.29	.10


KELEZ CRUISE XWCC-18 STATION 84 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

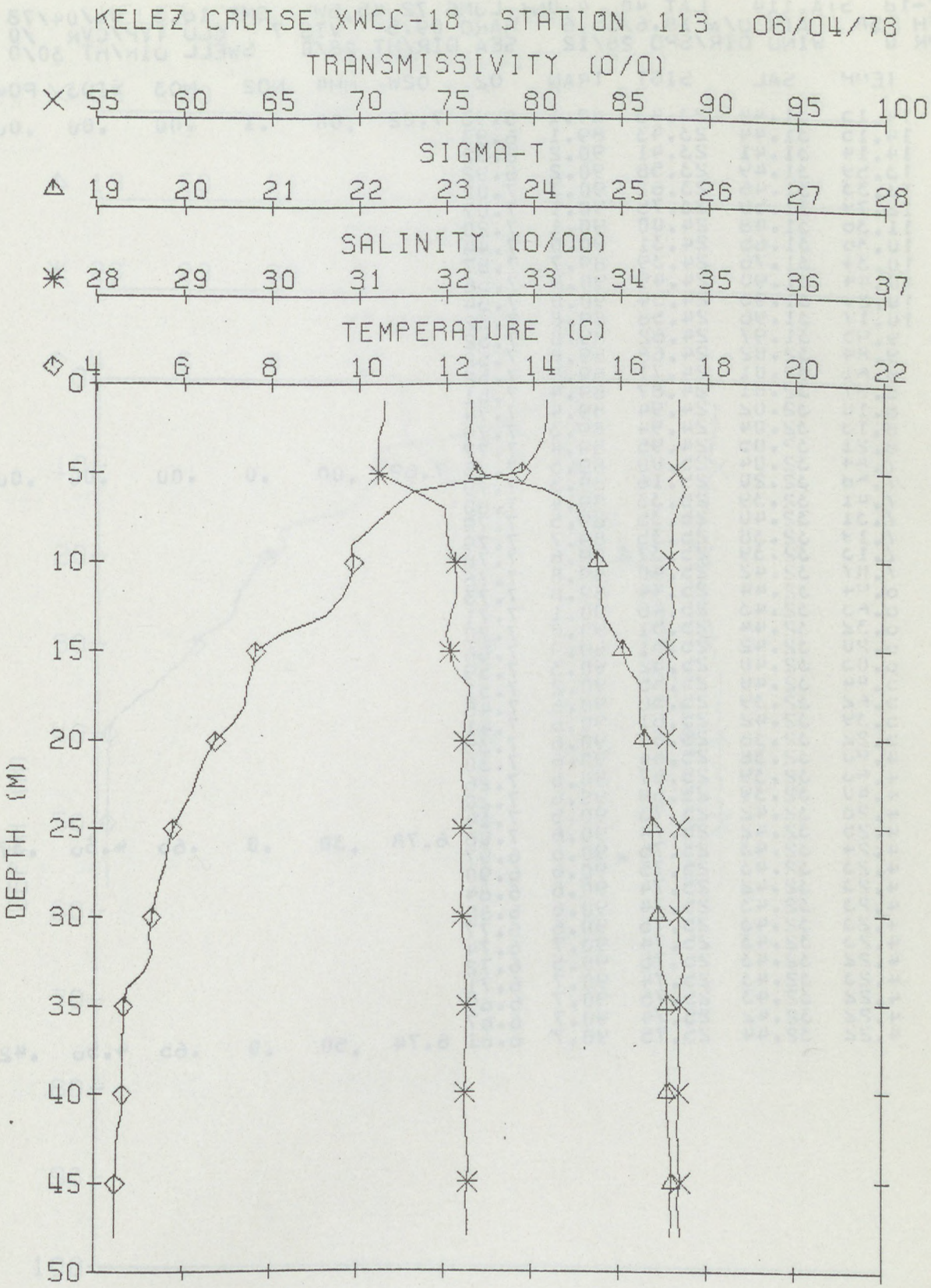
XWCC-18 STA.085 LAT 40 8.0N; LONG 73 51.4W GMT 02.2 05/31/78
DEPTH 26 AIR D/W 15.6/15.0 BARO 10.5 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 21/08 SEA DIR/HT 21/0 SWELL DIR/HT 20/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.68	25.88	19.06	78.9	9.96	10.27		.7	.00	.00	.15
2	14.66	25.88	19.06	78.9	9.96						
3	14.66	25.88	19.06	79.1	9.95						
4	14.47	26.22	19.36	77.9	9.94						
5	13.98	27.10	20.13	75.9	9.89						
6	12.68	28.13	21.18	78.4	9.71						
7	12.40	29.53	22.30	83.9	9.50						
8	12.25	30.01	22.70	86.3	8.83						
9	11.93	30.31	22.99	86.9	8.19						
10	11.75	30.52	23.19	87.6	8.00						
11	10.82	30.71	23.49	88.7	7.73						
12	9.76	30.87	23.80	88.8	7.69						
13	9.15	31.04	24.03	89.1	7.57						
14	8.53	31.43	24.42	89.1	7.46						
15	8.11	31.56	24.58	89.4	7.39						
16	8.05	31.54	24.58	89.6	7.29						
17	8.01	31.57	24.61	89.4	7.21						
18	7.97	31.57	24.61	89.5	7.11						
19	7.90	31.60	24.64	89.5	7.03						
20	7.85	31.61	24.66	89.2	6.94						
21	7.83	31.62	24.67	88.8	6.88						
22	7.82	31.62	24.67	88.3	6.74						
23	7.81	31.62	24.68	88.2	6.60						
24	7.80	31.63	24.69	87.7	6.49						
25	7.78	31.63	24.68	87.6	6.07	6.13		.2	.00	.98	.00


KELEZ CRUISE XWCC-18 STATION 85 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
25 26 27 28 29 30 31 32 33 34
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

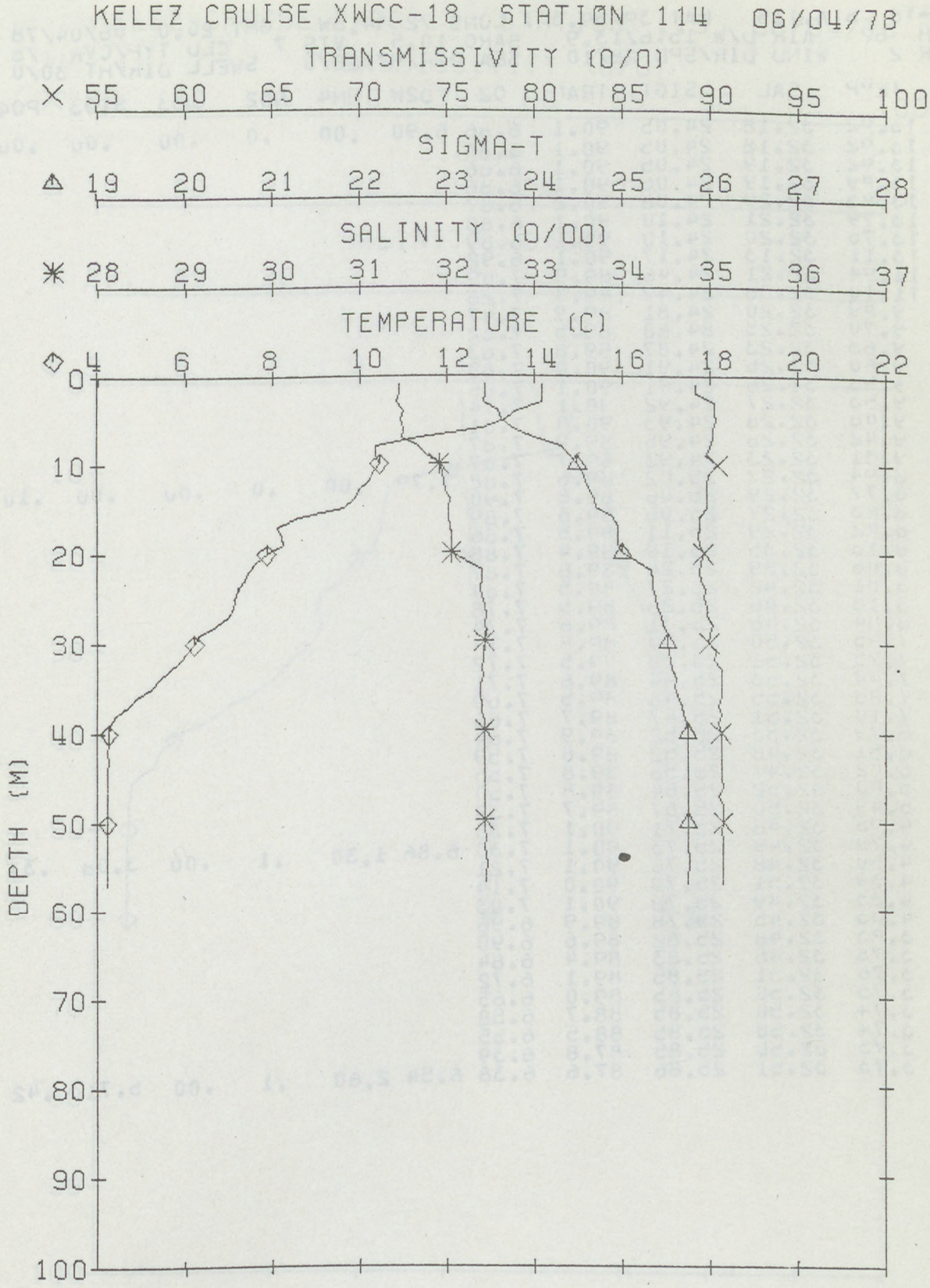
XWCC-18 STA.113 LAT 40 8.4N; LONG 72 55.7W GMT 16.6 06/04/78
DEPTH 49 AIR D/W 18.3/16.1 BARO 09.5 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 28/12 SEA DIR/HT 28/1 SWELL DIR/HT 31/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.29	31.28	23.28	88.3	6.83	6.90	.00	.0	.00	.00	.00
2	14.29	31.28	23.28	88.3	6.82						
3	14.21	31.21	23.24	88.3	6.85						
4	14.00	31.21	23.28	88.2	6.90						
5	13.70	31.21	23.35	88.2	6.93						
6	11.23	31.62	24.13	88.7	6.98						
7	10.71	31.97	24.49	88.3	7.45						
8	10.28	31.99	24.58	88.0	7.56						
9	9.83	32.00	24.67	88.0	7.62						
10	9.87	32.10	24.73	87.8	7.65						
11	9.77	32.11	24.76	87.9	7.62						
12	9.53	32.10	24.78	88.0	7.62						
13	9.22	32.04	24.79	88.1	7.66						
14	8.22	31.99	24.91	87.8	7.74						
15	7.63	32.03	25.02	87.7	7.89						
16	7.54	32.09	25.08	87.8	7.95						
17	7.42	32.25	25.22	87.6	7.96						
18	7.37	32.24	25.22	87.7	7.92						
19	7.13	32.21	25.23	87.6	7.89	7.62	.00	.1	.00	.00	.16
20	6.73	32.20	25.27	87.7	7.87						
21	6.49	32.20	25.30	87.7	7.84						
22	6.32	32.18	25.31	87.6	7.76						
23	6.17	32.20	25.35	87.3	7.66						
24	5.95	32.19	25.36	88.0	7.53						
25	5.75	32.18	25.38	88.4	7.41						
26	5.64	32.17	25.39	88.2	7.28						
27	5.56	32.16	25.40	88.4	7.15						
28	5.45	32.18	25.42	88.3	7.03						
29	5.36	32.17	25.42	88.4	6.93						
30	5.28	32.19	25.44	88.4	6.84						
31	5.22	32.19	25.45	88.4	6.76						
32	5.28	32.25	25.49	88.5	6.71						
33	5.10	32.22	25.49	88.7	6.62						
34	4.73	32.25	25.55	88.5	6.63						
35	4.65	32.24	25.55	88.5	6.62						
36	4.64	32.24	25.55	88.4	6.53						
37	4.63	32.24	25.55	88.4	6.43						
38	4.63	32.22	25.54	88.4	6.35						
39	4.62	32.24	25.55	88.5	6.29						
40	4.61	32.23	25.55	88.4	6.24	6.13	1.80	.1	.50	5.13	.47
41	4.61	32.22	25.54	88.4	6.21						
42	4.51	32.24	25.57	88.3	6.17						
43	4.49	32.25	25.58	88.4	6.16						
44	4.48	32.27	25.59	88.4	6.13						
45	4.46	32.26	25.59	88.5	6.11						
46	4.46	32.25	25.58	88.3	6.10						
47	4.46	32.26	25.59	88.4	6.10						
48	4.45	32.25	25.58	88.5	6.08	6.12	1.10	.1	.00	5.32	.37


KELEZ CRUISE XWCC-18 STATION 113 06/04/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

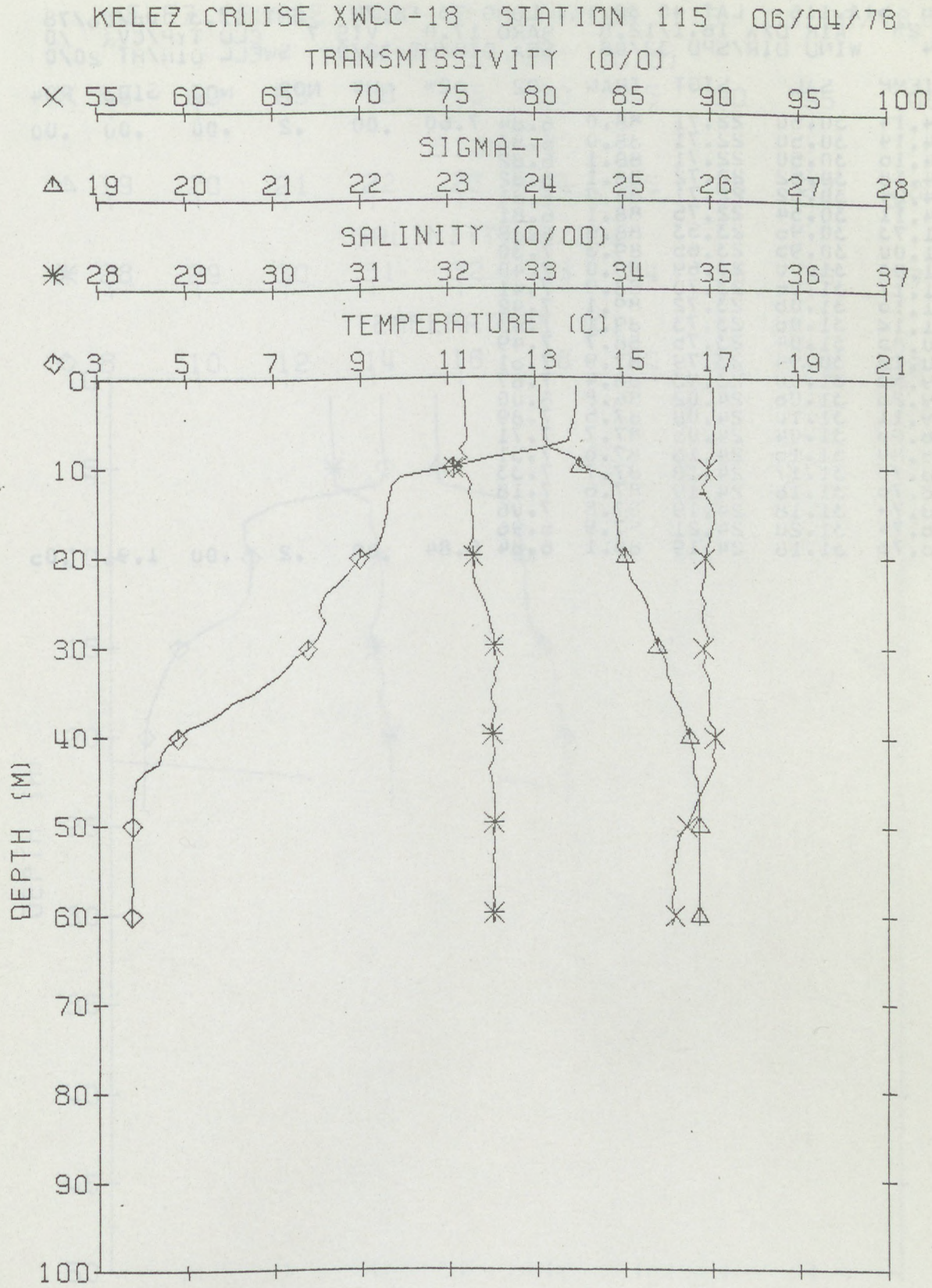
XWCC-18 STA.114 LAT 40 4.0N; LONG 72 45.5W GMT 16.3 06/04/78
DEPTH 58 AIR D/W 18.6/15.6 BARO 09.5 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 28/12 SEA DIR/HT 28/0 SWELL DIR/HT 30/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.15	31.44	23.43	89.1	6.93	7.02	.00	.1	.00	.00	.00
2	14.15	31.44	23.43	89.1	6.93						
3	14.14	31.41	23.41	90.2	6.92						
4	13.59	31.49	23.58	90.2	6.92						
5	13.35	31.46	23.61	90.3	7.02						
6	12.79	31.50	23.75	90.1	7.07						
7	11.36	31.48	24.00	90.1	7.20						
8	10.36	31.65	24.31	90.0	7.44						
9	10.34	31.76	24.39	89.7	7.57						
10	10.44	31.90	24.49	90.4	7.56						
11	10.29	31.95	24.54	90.0	7.54						
12	10.17	31.96	24.58	89.8	7.52						
13	9.95	31.97	24.62	89.8	7.52						
14	9.84	32.02	24.68	89.8	7.52						
15	9.61	32.01	24.71	89.8	7.52						
16	8.57	32.01	24.87	89.4	7.51						
17	8.10	32.02	24.94	89.4	7.74						
18	8.13	32.04	24.94	89.3	7.79						
19	8.21	32.05	24.95	89.4	7.77						
20	7.84	32.04	25.00	89.6	7.75	7.69	.00	.0	.00	.00	.00
21	7.58	32.20	25.16	89.5	7.79						
22	7.41	32.39	25.33	89.4	7.80						
23	7.31	32.40	25.35	89.5	7.79						
24	7.19	32.38	25.35	89.7	7.79						
25	7.13	32.39	25.37	89.6	7.78						
26	7.07	32.42	25.40	89.8	7.76						
27	6.94	32.44	25.44	89.8	7.73						
28	6.63	32.43	25.46	90.1	7.71						
29	6.32	32.44	25.51	90.0	7.70						
30	6.20	32.42	25.51	89.9	7.66						
31	6.03	32.40	25.52	90.3	7.59						
32	5.84	32.40	25.55	90.2	7.51						
33	5.62	32.39	25.56	90.6	7.45						
34	5.39	32.42	25.61	90.6	7.41						
35	5.22	32.38	25.60	90.6	7.35						
36	4.90	32.38	25.64	90.6	7.30						
37	4.66	32.39	25.67	90.5	7.26						
38	4.40	32.39	25.69	90.6	7.20						
39	4.28	32.42	25.73	90.5	7.14						
40	4.25	32.42	25.74	90.6	7.06	6.78	.30	.0	.65	4.56	.37
41	4.24	32.43	25.75	90.6	6.97						
42	4.23	32.43	25.75	90.6	6.90						
43	4.23	32.42	25.74	90.6	6.84						
44	4.23	32.43	25.74	90.6	6.80						
45	4.23	32.43	25.75	90.6	6.77						
46	4.23	32.43	25.74	90.7	6.74						
47	4.22	32.43	25.75	90.5	6.72						
48	4.23	32.43	25.74	90.7	6.71						
49	4.22	32.43	25.75	90.7	6.69						
50	4.22	32.42	25.74	90.7	6.67						
57	4.22	32.44	25.75	90.7	6.61	6.74	.50	.0	.65	4.56	.42


KELEZ CRUISE XWCC-18 STATIØN 114 06/04/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

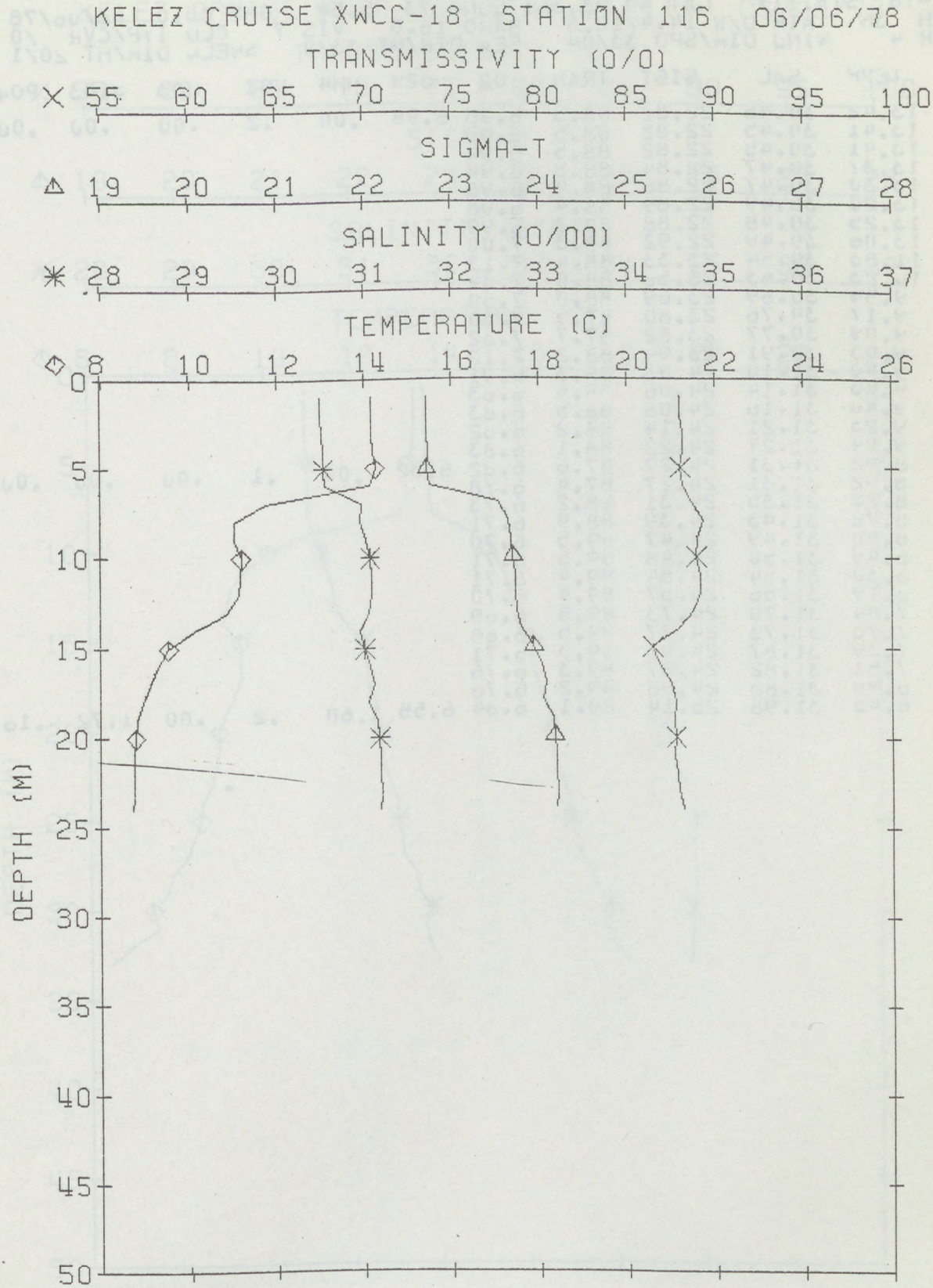
XWCC-18 STA.115 LAT 39 59.3N; LONG 72 34.3W GMT 20.0 06/04/78
DEPTH 62 AIR D/W 15.6/13.9 BARO 10.5 VIS 7 CLD TYP/CVR /8
WETPR 2 WIND DIR/SPD 28/10 SEA DIR/HT 28/0 SWELL DIR/HT 30/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.92	32.18	24.05	90.1	6.86	6.90	.00	.0	.00	.00	.00
2	13.92	32.18	24.05	90.1	6.86						
3	13.92	32.19	24.05	90.1	6.86						
4	13.89	32.19	24.06	90.1	6.86						
5	13.85	32.20	24.08	90.2	6.87						
6	13.79	32.21	24.10	90.1	6.88						
7	13.75	32.20	24.10	90.1	6.89						
8	13.11	32.13	24.17	90.1	6.92						
9	11.94	32.21	24.46	89.9	7.09						
10	11.10	32.06	24.49	89.8	7.26						
11	9.89	32.20	24.81	89.9	7.47						
12	9.70	32.25	24.88	89.5	7.62						
13	9.65	32.23	24.87	89.6	7.63						
14	9.60	32.26	24.91	90.0	7.63						
15	9.58	32.26	24.91	90.1	7.66						
16	9.55	32.27	24.92	90.1	7.74						
17	9.48	32.28	24.93	90.0	7.81						
18	9.42	32.28	24.95	89.9	7.87						
19	9.31	32.23	24.93	89.7	7.87						
20	8.94	32.27	25.02	89.6	7.88	7.79	.00	.0	.00	.00	.10
21	8.77	32.29	25.06	89.6	7.90						
22	8.65	32.27	25.06	89.6	7.89						
23	8.42	32.29	25.11	89.5	7.86						
24	8.16	32.35	25.19	89.4	7.88						
25	8.06	32.39	25.24	89.6	7.87						
26	8.01	32.42	25.27	89.5	7.84						
27	8.15	32.46	25.28	89.5	7.78						
28	8.04	32.48	25.31	89.6	7.74						
29	7.95	32.50	25.34	89.8	7.74						
30	7.75	32.51	25.38	89.5	7.72						
31	7.44	32.53	25.44	89.6	7.71						
32	7.28	32.55	25.48	89.5	7.69						
33	7.10	32.51	25.47	89.7	7.66						
34	6.79	32.53	25.52	89.9	7.64						
35	6.51	32.48	25.52	89.8	7.59						
36	6.02	32.47	25.58	89.8	7.55						
37	5.80	32.52	25.64	89.8	7.50						
38	5.49	32.50	25.67	89.7	7.39						
39	4.98	32.48	25.71	90.1	7.35						
40	4.79	32.49	25.73	90.1	7.30	6.86	1.30	.1	.00	5.08	.37
41	4.50	32.48	25.76	90.1	7.21						
42	4.39	32.51	25.79	90.0	7.14						
43	4.35	32.49	25.78	90.1	7.03						
44	4.03	32.45	25.78	89.9	6.96						
45	3.83	32.48	25.82	89.6	6.90						
46	3.78	32.48	25.83	89.4	6.84						
47	3.76	32.51	25.85	89.1	6.72						
48	3.75	32.50	25.85	89.0	6.65						
49	3.74	32.50	25.85	88.7	6.58						
50	3.74	32.50	25.85	88.5	6.55						
60	3.73	32.50	25.85	87.8	6.39						
61	3.73	32.51	25.86	87.6	6.38	6.54	2.60	.1	.00	5.71	.42


KELEZ CRUISE XWCC-18 STATION 115 06/04/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
3 5 7 9 11 13 15 17 19 21
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

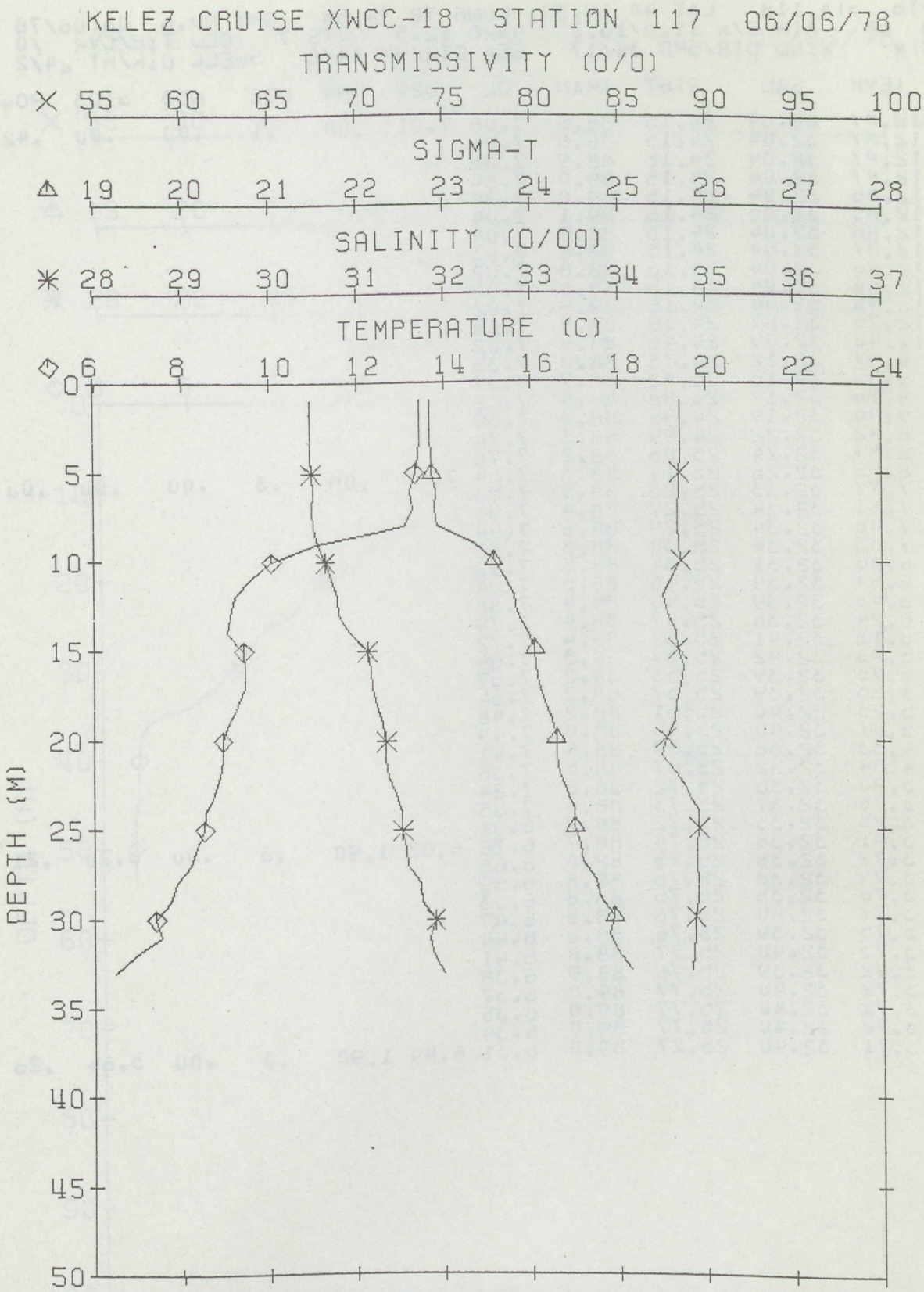
XWCC-16 STA.116 LAT 40 30.1N; LONG 73 18.7W GMT 07.3 06/06/78
DEPTH 25 AIR D/W 16.1/12.8 BARO 17.0 VIS 7 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 32/08 SEA DIR/HT 32/0 SWELL DIR/HT 20/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.14	30.50	22.71	88.0	6.84	7.60	.00	.2	.00	.00	.00
2	14.14	30.50	22.71	88.0	6.83						
3	14.16	30.50	22.71	88.1	6.82						
4	14.18	30.52	22.72	88.1	6.82						
5	14.24	30.52	22.71	88.0	6.81						
6	14.11	30.54	22.75	88.1	6.81						
7	11.73	30.96	23.53	88.6	6.88						
8	11.00	30.95	23.65	89.3	7.30						
9	11.03	31.00	23.69	89.0	7.40						
10	11.17	31.06	23.70	88.9	7.41						
11	11.16	31.08	23.72	89.1	7.42						
12	11.12	31.08	23.73	89.1	7.43						
13	10.85	31.04	23.75	88.7	7.49						
14	10.12	30.94	23.79	87.9	7.61						
15	9.53	31.00	23.93	86.4	7.87						
16	9.28	31.06	24.02	86.8	8.00						
17	9.11	31.10	24.08	87.5	7.89						
18	8.95	31.04	24.05	87.7	7.71						
19	8.80	31.15	24.16	87.6	7.51						
20	8.78	31.17	24.18	87.7	7.33						
21	8.76	31.18	24.19	87.6	7.18						
22	8.74	31.18	24.19	87.8	7.06						
23	8.74	31.20	24.21	87.9	6.96						
24	8.73	31.18	24.19	88.1	6.84	6.84	.00	.2	.00	1.91	.05


KELEZ CRUISE XWCC-18 STATION 116 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

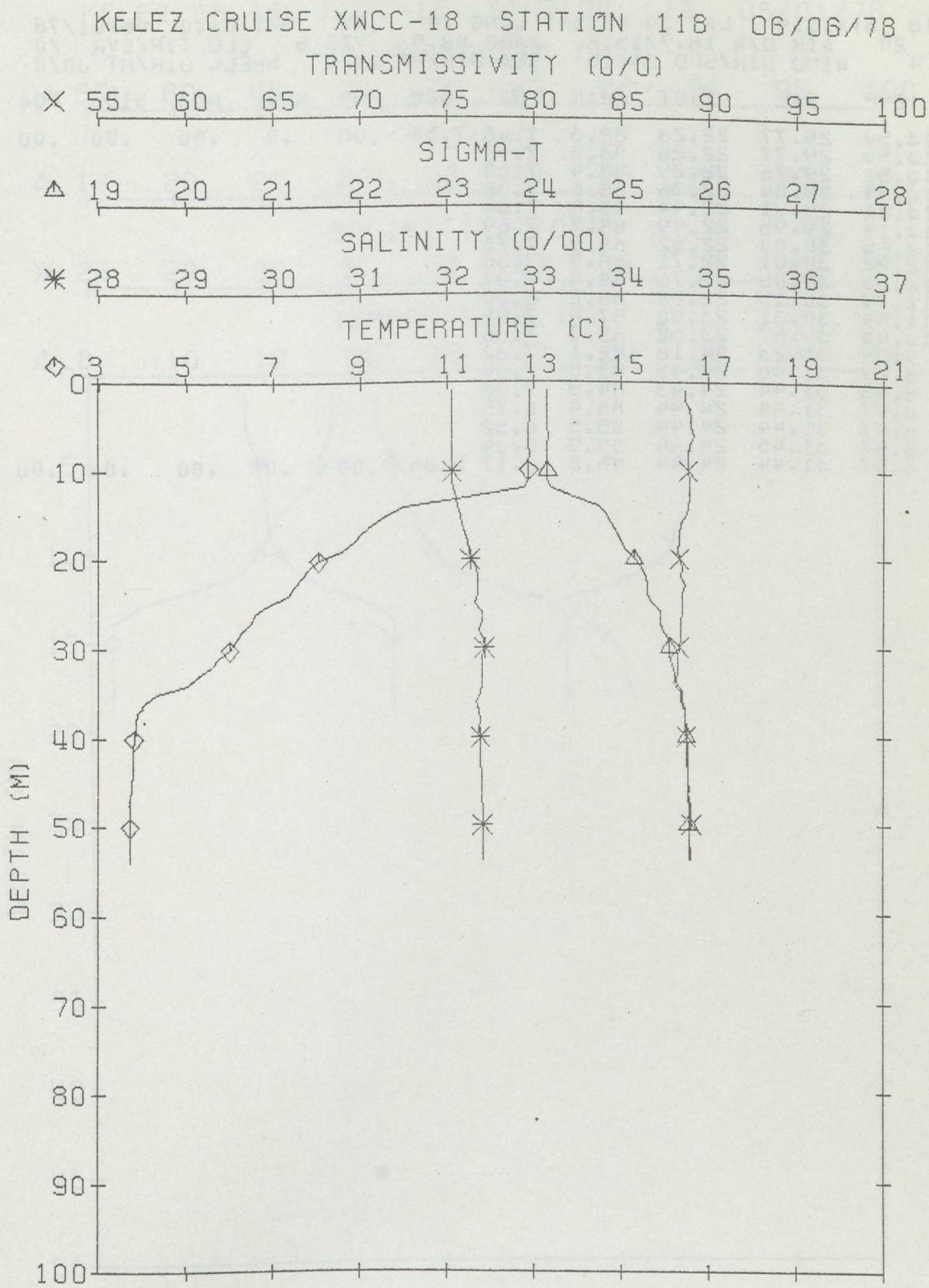
XWCC-18 STA.117 LAT 40 23.3N; LONG 73 5.5W GMT 05.0 06/06/78
DEPTH 36 AIR D/W 14.4/12.8 BARO 16.0 VIS 7 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 33/04 SEA DIR/HT 33/0 SWELL DIR/HT 20/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.42	30.45	22.82	88.5	6.95	6.98	.00	.2	.00	.00	.00
2	13.41	30.45	22.82	88.5	6.95						
3	13.41	30.45	22.82	88.5	6.94						
4	13.37	30.47	22.84	88.5	6.94						
5	13.30	30.47	22.86	88.4	6.96						
6	13.20	30.49	22.89	88.4	6.98						
7	13.25	30.48	22.88	88.3	6.99						
8	13.06	30.49	22.92	88.3	7.00						
9	11.05	30.54	23.33	88.4	7.13						
10	10.03	30.63	23.56	88.5	7.34						
11	9.54	30.69	23.69	88.0	7.50						
12	9.17	30.76	23.80	87.5	7.50						
13	9.09	30.77	23.82	87.7	7.32						
14	9.05	30.91	23.94	88.2	7.12						
15	9.40	31.10	24.03	88.3	6.91						
16	9.45	31.14	24.06	88.6	6.83						
17	9.40	31.16	24.08	88.5	6.83						
18	9.25	31.21	24.14	88.2	6.82						
19	9.04	31.27	24.22	88.1	6.83						
20	8.92	31.31	24.27	87.6	6.82	6.32	.00	.1	.00	.00	.00
21	8.92	31.31	24.27	87.4	6.78						
22	8.85	31.35	24.31	88.2	6.73						
23	8.72	31.43	24.39	88.9	6.71						
24	8.50	31.49	24.47	89.5	6.70						
25	8.49	31.50	24.48	89.5	6.71						
26	8.30	31.54	24.54	89.4	6.71						
27	8.19	31.56	24.57	89.4	6.70						
28	7.84	31.70	24.73	89.5	6.69						
29	7.73	31.73	24.77	89.5	6.68						
30	7.39	31.87	24.95	89.3	6.71						
31	7.51	31.82	24.87	89.3	6.76						
32	6.90	31.86	24.98	89.2	6.76						
33	6.45	31.98	25.14	89.1	6.84	6.55	1.60	.2	.00	1.72	.15


KELEZ CRUISE XWCC-18 STATION 117 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
6 8 10 12 14 16 18 20 22 24
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

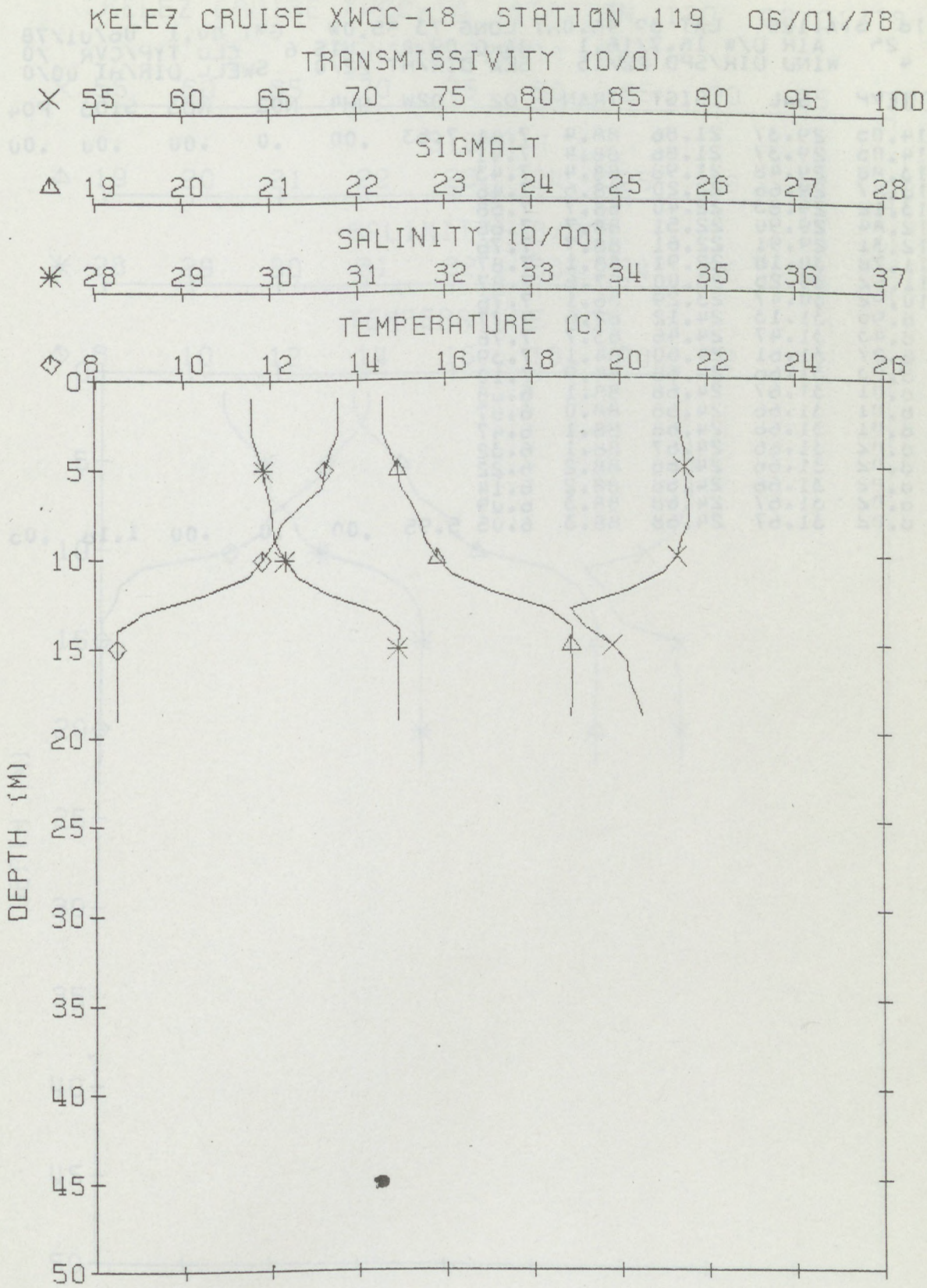
XWCC-18 STA.118 LAT 40 14.3N; LONG 72 34.5W GMT 00.6 06/06/78
DEPTH 56 AIR D/W 15.0/13.3 BARO 12.5 VTS 7 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 34/17 SEA DIR/HT 34/2 SWELL DIR/HT <4/2

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.87	32.04	24.15	88.6	7.06	7.01	.00	.1	.00	.00	.42
2	12.87	32.04	24.15	88.6	7.06						
3	12.87	32.04	24.15	88.9	7.05						
4	12.87	32.04	24.15	89.0	7.04						
5	12.86	32.04	24.15	89.0	7.04						
6	12.85	32.05	24.16	89.1	7.04						
7	12.86	32.04	24.15	88.9	7.04						
8	12.87	32.04	24.15	88.8	7.03						
9	12.86	32.04	24.16	88.8	7.02						
10	12.80	32.04	24.15	88.8	7.02						
11	12.85	32.04	24.16	88.9	7.02						
12	12.76	32.07	24.19	88.9	7.02						
13	11.42	32.09	24.46	88.9	7.02						
14	9.97	32.12	24.73	88.8	7.35						
15	9.55	32.15	24.82	88.7	7.57						
16	9.20	32.17	24.88	88.4	7.62						
17	9.00	32.19	24.95	88.3	7.69						
18	8.82	32.22	24.99	88.3	7.74						
19	8.54	32.24	25.05	88.2	7.78						
20	8.02	32.26	25.14	88.3	7.84	7.69	.00	.3	.00	.00	.00
21	7.77	32.33	25.23	88.5	7.93						
22	7.61	32.34	25.27	88.4	7.94						
23	7.46	32.34	25.29	88.6	7.94						
24	7.35	32.34	25.30	88.5	7.93						
25	6.86	32.31	25.34	88.5	7.92						
26	6.54	32.39	25.45	88.5	7.94						
27	6.46	32.39	25.46	88.4	7.88						
28	6.24	32.36	25.47	88.4	7.79						
29	6.12	32.41	25.52	88.4	7.72						
30	5.98	32.42	25.54	88.3	7.64						
31	5.73	32.39	25.55	88.2	7.57						
32	5.53	32.39	25.57	88.2	7.54						
33	5.25	32.40	25.61	88.2	7.48						
34	5.01	32.40	25.64	88.0	7.44						
35	4.33	32.38	25.69	88.4	7.41						
36	4.04	32.32	25.67	88.5	7.36						
37	3.90	32.36	25.72	88.6	7.24						
38	3.85	32.37	25.73	88.6	7.05						
39	3.85	32.35	25.72	88.7	6.91						
40	3.81	32.38	25.74	88.7	6.78	6.33	1.90	.3	.00	5.20	.21
41	3.79	32.38	25.75	88.8	6.66						
42	3.79	32.38	25.75	88.8	6.59						
43	3.78	32.38	25.75	88.8	6.53						
44	3.77	32.40	25.76	88.8	6.47						
45	3.75	32.39	25.76	88.8	6.44						
46	3.73	32.40	25.77	88.8	6.41						
47	3.72	32.39	25.76	88.9	6.38						
48	3.72	32.40	25.77	89.0	6.37						
49	3.72	32.40	25.77	89.0	6.35						
50	3.72	32.40	25.77	89.0	6.34						
54	3.71	32.40	25.77	89.0	6.31	6.44	1.90	.3	.00	5.64	.26


KELEZ CRUISE XWCC-18 STATION 118 06/06/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
3 5 7 9 11 13 15 17 19 21
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

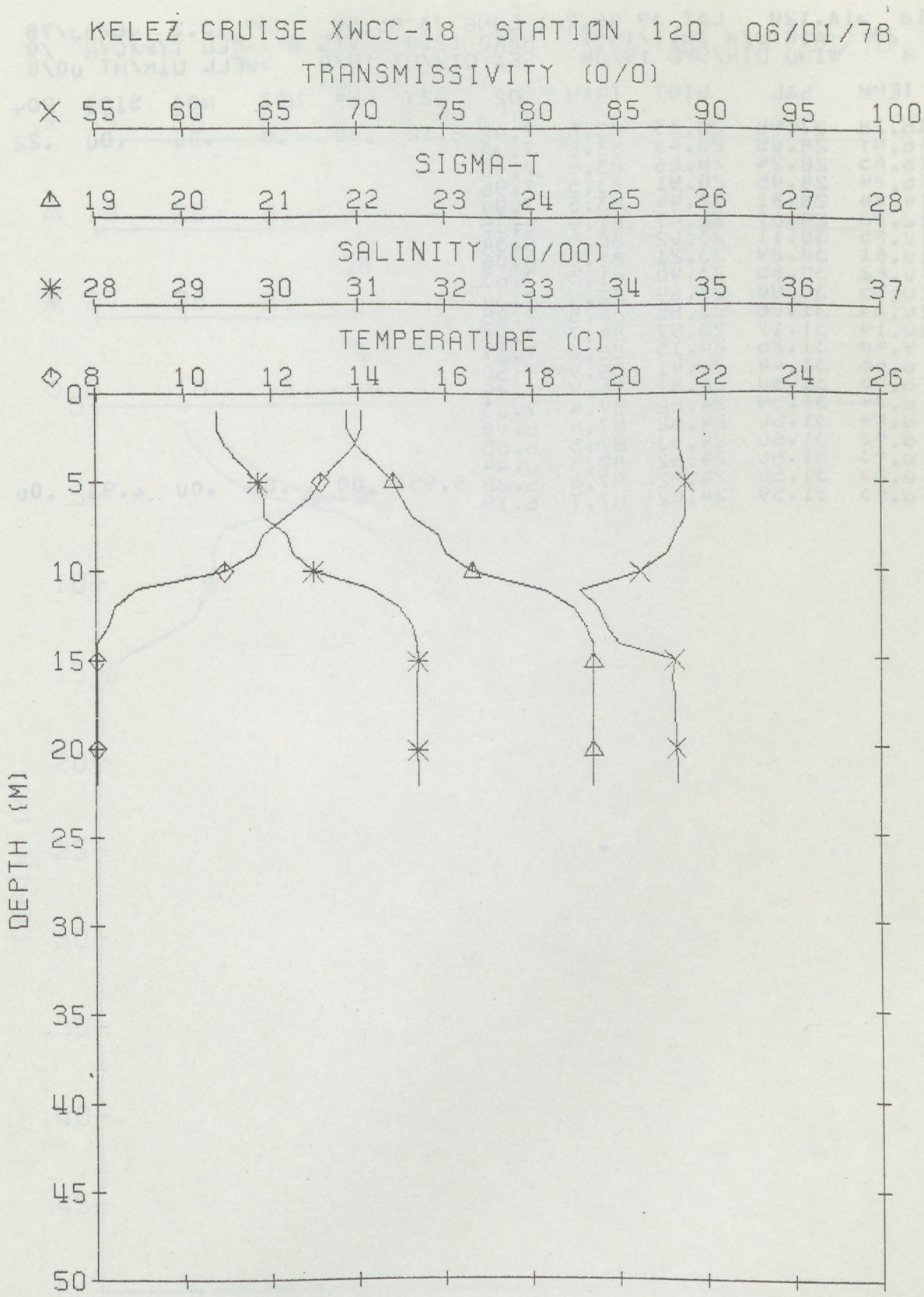
XWCC-18 STA.119 LAT 39 48.5N; LONG 74 .0W GMT 01.0 06/01/78
DEPTH 20 AIR D/W 16.7/15.6 BARO 08.5 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 24/15 SEA DIR/HT 24/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.50	29.77	22.28	88.3	7.48	7.58	.00	.0	.00	.00	.00
2	13.50	29.77	22.28	88.3	7.48						
3	13.51	29.78	22.29	88.4	7.54						
4	13.34	29.84	22.36	88.6	7.56						
5	13.21	29.91	22.44	88.6	7.64						
6	13.14	29.95	22.49	88.7	7.69						
7	12.65	30.00	22.62	88.9	7.73						
8	12.22	30.01	22.71	88.9	7.86						
9	12.05	30.05	22.76	88.5	7.97						
10	11.79	30.15	22.89	88.2	8.00						
11	11.44	30.31	23.08	87.4	7.95						
12	10.45	30.67	23.52	85.3	7.86						
13	9.09	31.23	24.18	82.1	7.82						
14	8.49	31.46	24.45	83.0	7.64						
15	8.48	31.44	24.43	84.5	7.23						
16	8.47	31.44	24.44	85.4	6.75						
17	8.47	31.44	24.44	85.5	6.52						
18	8.47	31.45	24.44	85.9	6.34						
19	8.47	31.44	24.44	86.2	6.17	5.85	.00	.0	.00	.84	.00


KELEZ CRUISE XWCC-18 STATION 119 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

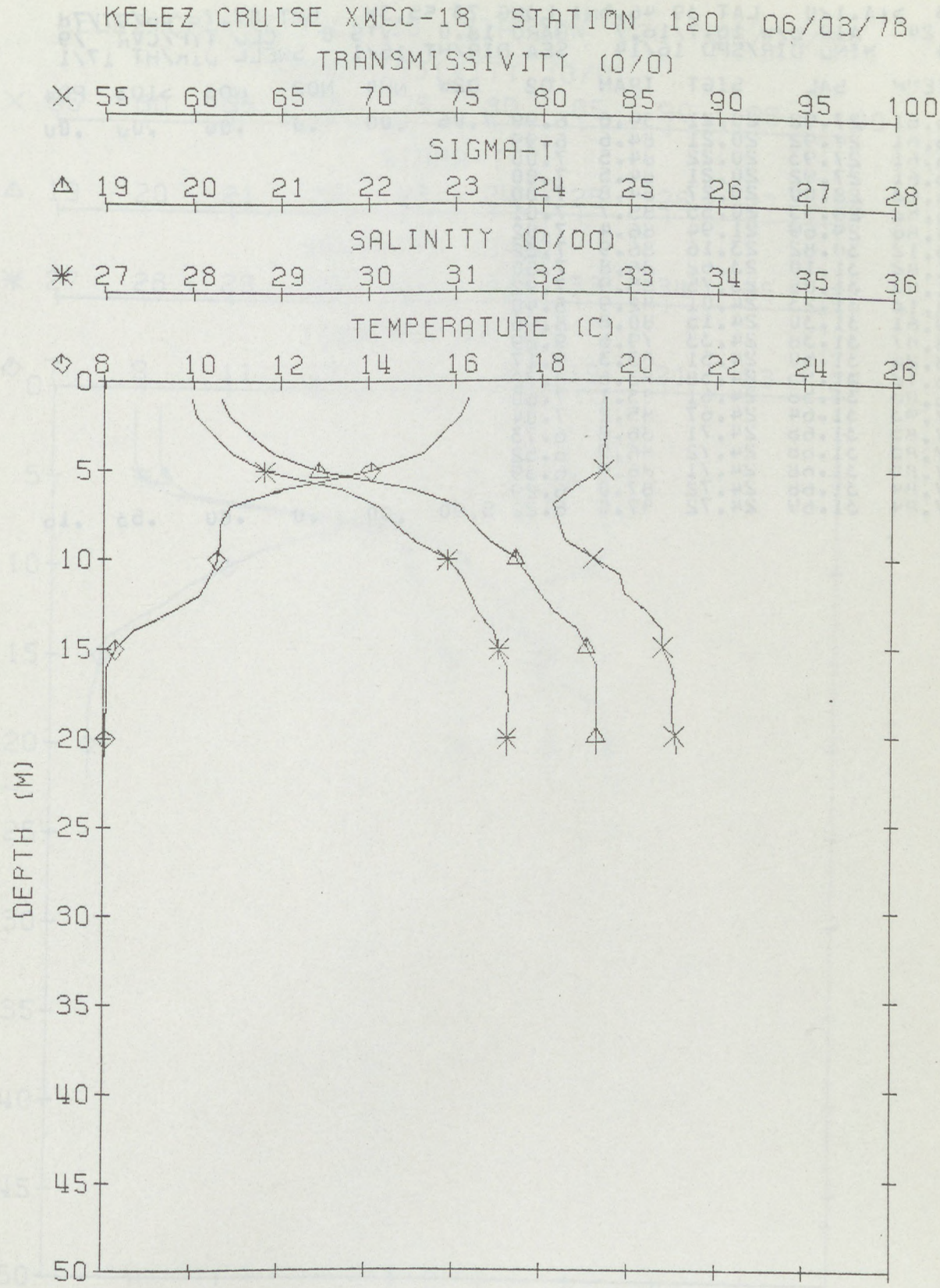
XWCC-18 STA.120 LAT 39 46.0N; LONG 73 55.0W GMT 00.1 06/01/78
DEPTH 25 AIR D/W 16.7/16.1 BARO 09.0 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 22/15 SEA DIR/HT 22/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.05	29.37	21.86	88.4	7.41	7.53	.00	.0	.00	.00	.00
2	14.05	29.37	21.86	88.4	7.41						
3	13.88	29.48	21.98	88.4	7.43						
4	13.47	29.66	22.20	88.6	7.46						
5	13.12	29.83	22.40	88.7	7.58						
6	12.84	29.90	22.51	88.7	7.66						
7	12.31	29.91	22.61	88.7	7.76						
8	11.78	30.18	22.91	88.1	7.87						
9	11.62	30.25	23.00	87.6	7.87						
10	10.92	30.47	23.29	86.1	7.76						
11	8.95	31.13	24.12	82.6	7.77						
12	8.43	31.47	24.46	83.7	7.76						
13	8.27	31.61	24.60	84.1	7.39						
14	8.05	31.66	24.68	84.9	7.10						
15	8.01	31.67	24.68	88.1	6.68						
16	8.01	31.66	24.68	88.0	6.67						
17	8.01	31.66	24.68	88.1	6.47						
18	8.02	31.66	24.67	88.1	6.32						
19	8.02	31.66	24.68	88.2	6.22						
20	8.02	31.66	24.68	88.2	6.14						
21	8.02	31.67	24.68	88.3	6.09						
22	8.02	31.67	24.68	88.3	6.05	5.95	.00	.0	.00	1.18	.05


KELEZ CRUISE XWCC-18 STATION 120 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

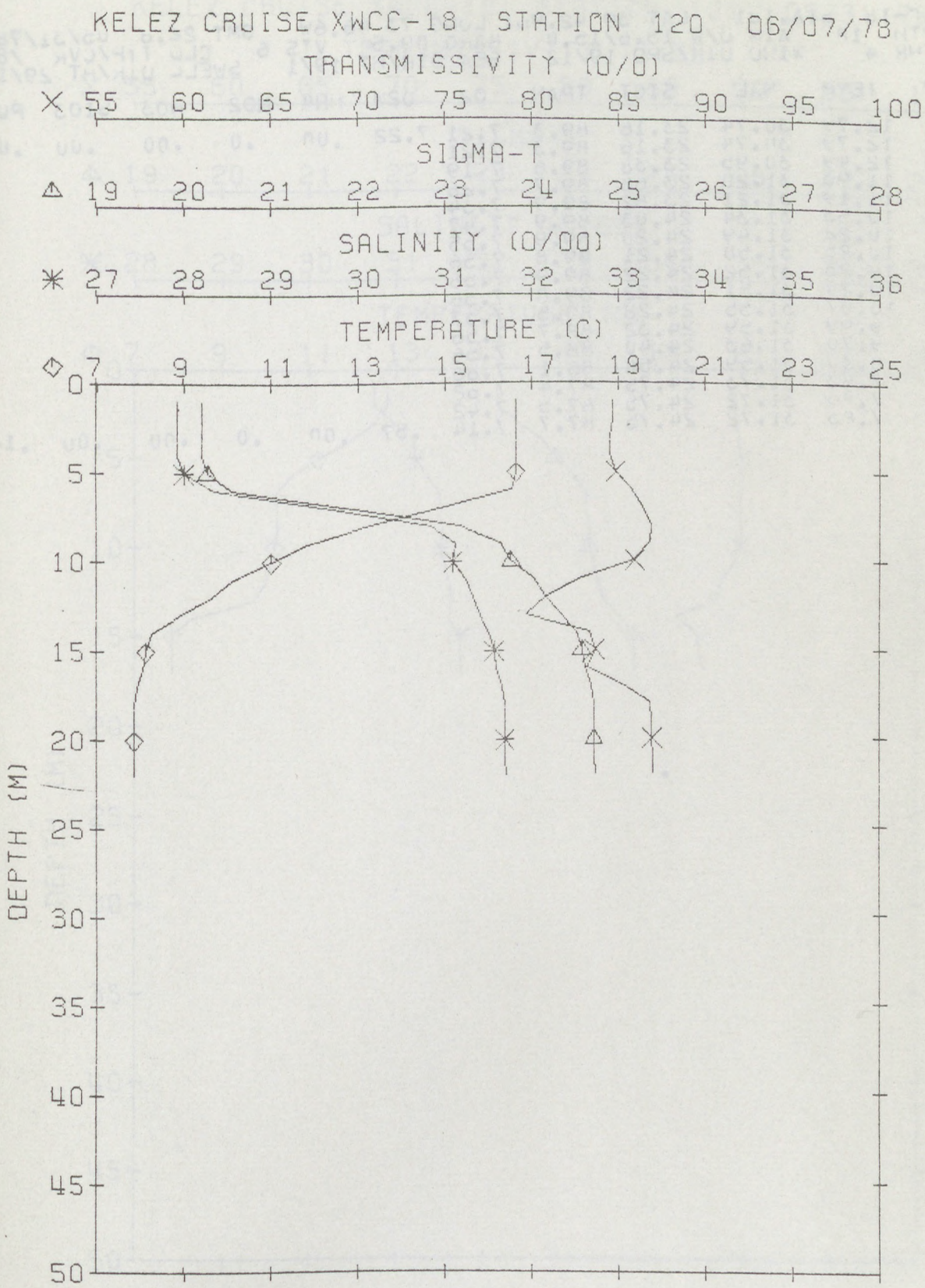
XWCC-16 STA.120 LAT 39 46.2N; LONG 73 55.5W GMT 13.2 06/03/78
DEPTH 23 AIR D/W 16.1/16.1 BARO 12.0 VIS 0 CLD TYP/CVR /9
WETHR 4 WIND DIR/SPD 19/08 SEA DIR/HT 19/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	16.28	27.98	20.33	83.6	7.92	8.12	.00	.0	.00	.00	.22
2	16.07	28.05	20.43	83.6	7.92						
3	15.65	28.24	20.66	83.6	7.93						
4	15.24	28.45	20.91	83.5	7.96						
5	14.04	28.81	21.44	83.5	7.94						
6	12.08	29.67	22.47	81.9	8.35						
7	10.85	30.11	23.02	80.6	8.34						
8	10.61	30.29	23.21	81.0	8.06						
9	10.62	30.55	23.40	81.3	7.63						
10	10.55	30.90	23.69	82.9	7.34						
11	10.39	31.08	23.85	84.5	7.25						
12	10.14	31.17	23.97	84.7	7.28						
13	9.46	31.26	24.15	86.0	7.37						
14	8.66	31.44	24.41	86.9	7.50						
15	8.25	31.50	24.52	86.9	7.49						
16	8.04	31.59	24.62	87.4	7.33						
17	8.04	31.60	24.62	87.6	6.98						
18	8.03	31.60	24.63	87.5	6.65						
19	8.03	31.60	24.62	87.5	6.44						
20	8.03	31.59	24.62	87.6	6.28	5.95	.00	.0	.00	2.93	.00
21	8.03	31.59	24.62	87.7	6.19						


KELEZ CRUISE XWCC-18 STATION 120 06/03/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
27 28 29 30 31 32 33 34 35 36
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

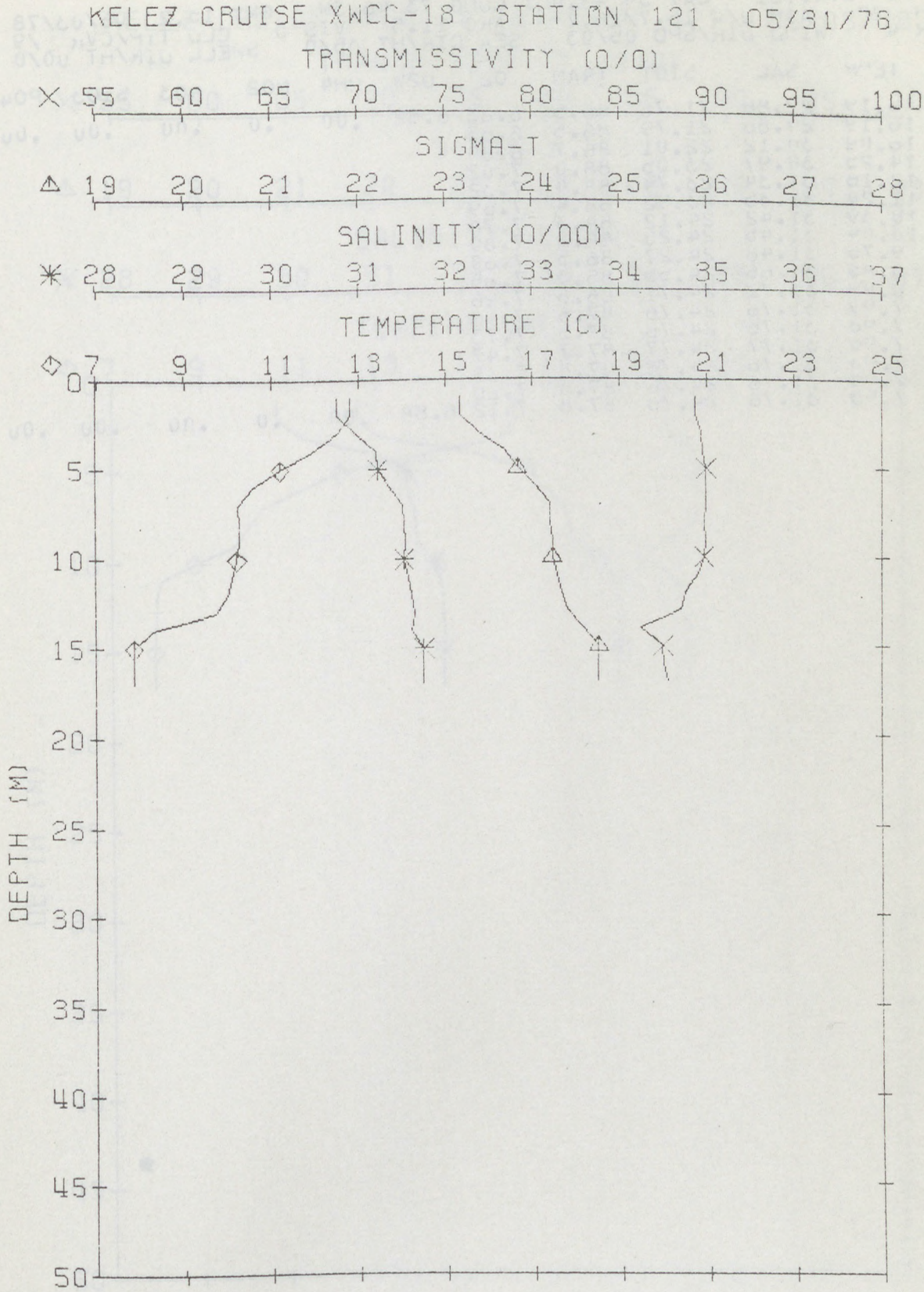
XWCC-18 STA.120 LAT 39 46.5N; LONG 73 55.3W GMT 07.7 06/07/78
DEPTH 24 AIR D/W 16.7/16.7 BARO 18.0 VTS 0 CLD TYP/CVR /9
WETHR 4 WIND DIR/SPD 16/14 SEA DIR/HT 16/1 SWELL DIR/HT 17/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	16.61	27.92	20.21	84.6	6.99	7.06	.00	.0	.00	.00	.00
2	16.61	27.92	20.21	84.6	6.99						
3	16.61	27.93	20.22	84.5	7.00						
4	16.61	27.92	20.21	84.5	7.00						
5	16.62	28.00	20.27	84.8	7.00						
6	16.52	28.33	20.55	85.7	7.01						
7	14.86	29.69	21.94	86.4	7.02						
8	13.12	30.82	23.16	86.9	7.32						
9	11.82	31.10	23.62	86.8	7.60						
10	11.00	31.08	23.75	85.9	7.92						
11	10.12	31.23	24.01	82.9	8.40						
12	9.61	31.30	24.15	80.8	8.96						
13	8.87	31.38	24.33	79.6	9.29						
14	8.26	31.50	24.51	83.3	9.17						
15	8.12	31.55	24.58	83.6	8.72						
16	8.06	31.58	24.61	83.1	7.60						
17	7.93	31.64	24.67	85.2	7.04						
18	7.85	31.68	24.71	86.8	6.73						
19	7.85	31.68	24.72	86.9	6.52						
20	7.85	31.68	24.71	86.9	6.39						
21	7.84	31.68	24.72	87.0	6.29						
22	7.84	31.69	24.72	87.0	6.22	5.90	.00	.0	.00	.53	.16


KELEZ CRUISE XWCC-18 STATION 120 06/07/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
27 28 29 30 31 32 33 34 35 36
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

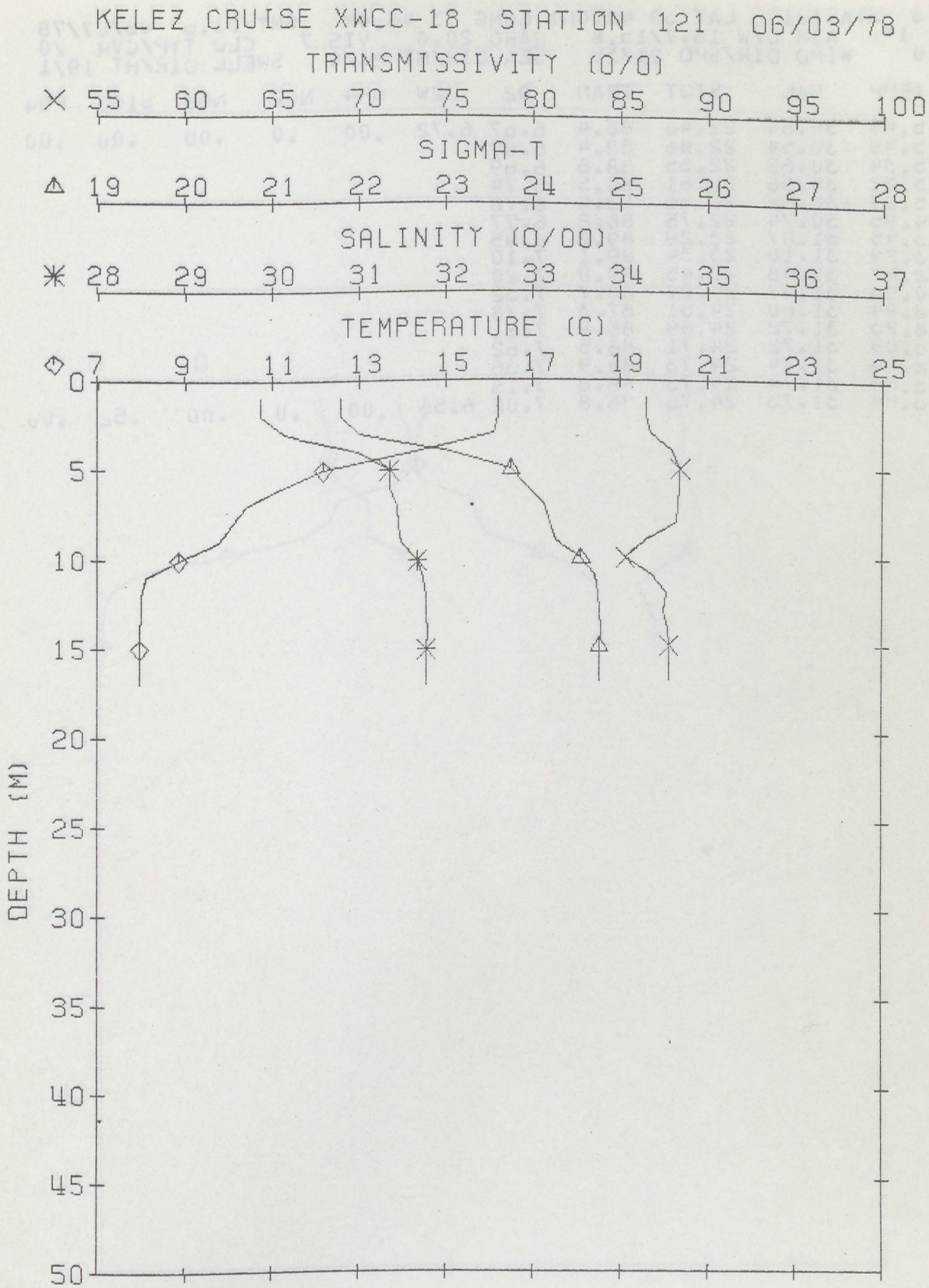
XMCC-18 STA.121 LAT 39 42.9N; LONG 73 46.6W GMT 22.8 05/31/78
DEPTH 18 AIR D/W 15.6/15.0 BARO 09.5 VTS 6 CLD TYP/CVR /8
WETHR 4 WIND DIR/SPD 19/12 SEA DIR/HT 19/1 SWELL DIR/HT 29/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.79	30.74	23.16	89.3	7.21	7.22	.00	.0	.00	.00	.00
2	12.79	30.74	23.16	89.3	7.21						
3	12.49	30.95	23.38	89.6	7.19						
4	11.95	31.20	23.68	89.7	7.26						
5	11.19	31.21	23.82	89.9	7.34						
6	10.55	31.34	24.03	89.9	7.47						
7	10.22	31.49	24.20	89.9	7.55						
8	10.25	31.50	24.21	89.8	7.56						
9	10.25	31.52	24.22	89.9	7.56						
10	10.20	31.51	24.22	89.8	7.56						
11	10.07	31.55	24.28	89.5	7.57						
12	9.99	31.59	24.32	88.7	7.56						
13	9.70	31.63	24.40	88.5	7.56						
14	8.30	31.59	24.58	86.1	7.66						
15	7.85	31.73	24.75	87.4	7.58						
16	7.85	31.72	24.75	87.5	7.42						
17	7.85	31.72	24.75	87.7	7.14	.57	.00	.0	.00	.00	.14


KELEZ CRUISE XWCC-18 STATION 121 05/31/76
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

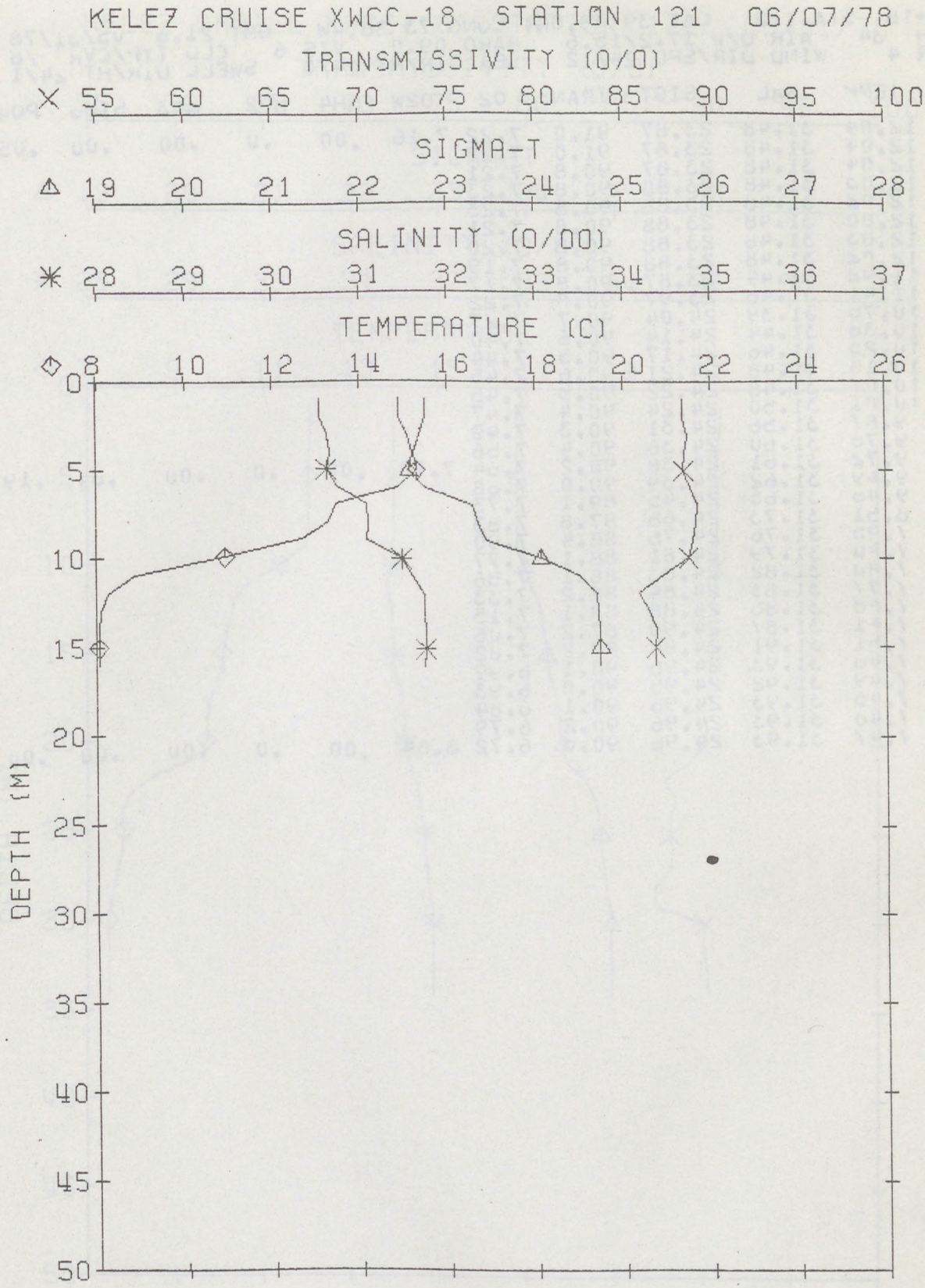
XWCC-16 STA.121 LAT 39 43.0N; LONG 73 46.3W GMT 15.2 06/03/78
DEPTH 20 AIR D/W 16.7/16.7 BARO 11.5 VIS 0 CLD TYP/CVR /9
WETHR 4 WIND DIR/SPD 05/03 SEA DIR/HT 05/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	16.19	29.86	21.78	86.5	6.83	6.82	.00	.0	.00	.00	.00
2	16.19	29.86	21.79	86.5	6.83						
3	16.09	30.12	22.01	86.7	6.89						
4	14.25	30.97	23.05	88.0	7.02						
5	12.16	31.34	23.74	88.4	7.32						
6	11.20	31.35	23.92	88.4	7.69						
7	10.39	31.42	24.12	88.3	7.78						
8	10.04	31.45	24.20	88.2	7.80						
9	9.76	31.48	24.27	86.5	7.80						
10	8.85	31.66	24.55	85.3	7.85						
11	8.09	31.72	24.71	86.8	7.96						
12	7.89	31.76	24.76	87.6	7.96						
13	7.86	31.76	24.76	87.5	7.73						
14	7.80	31.77	24.77	87.7	7.47						
15	7.80	31.76	24.76	87.8	7.31						
16	7.80	31.76	24.76	87.8	7.20						
17	7.80	31.76	24.76	87.8	7.12	6.88	.00	.0	.00	.00	.00


KELEZ CRUISE XWCC-18 STATION 121 06/03/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

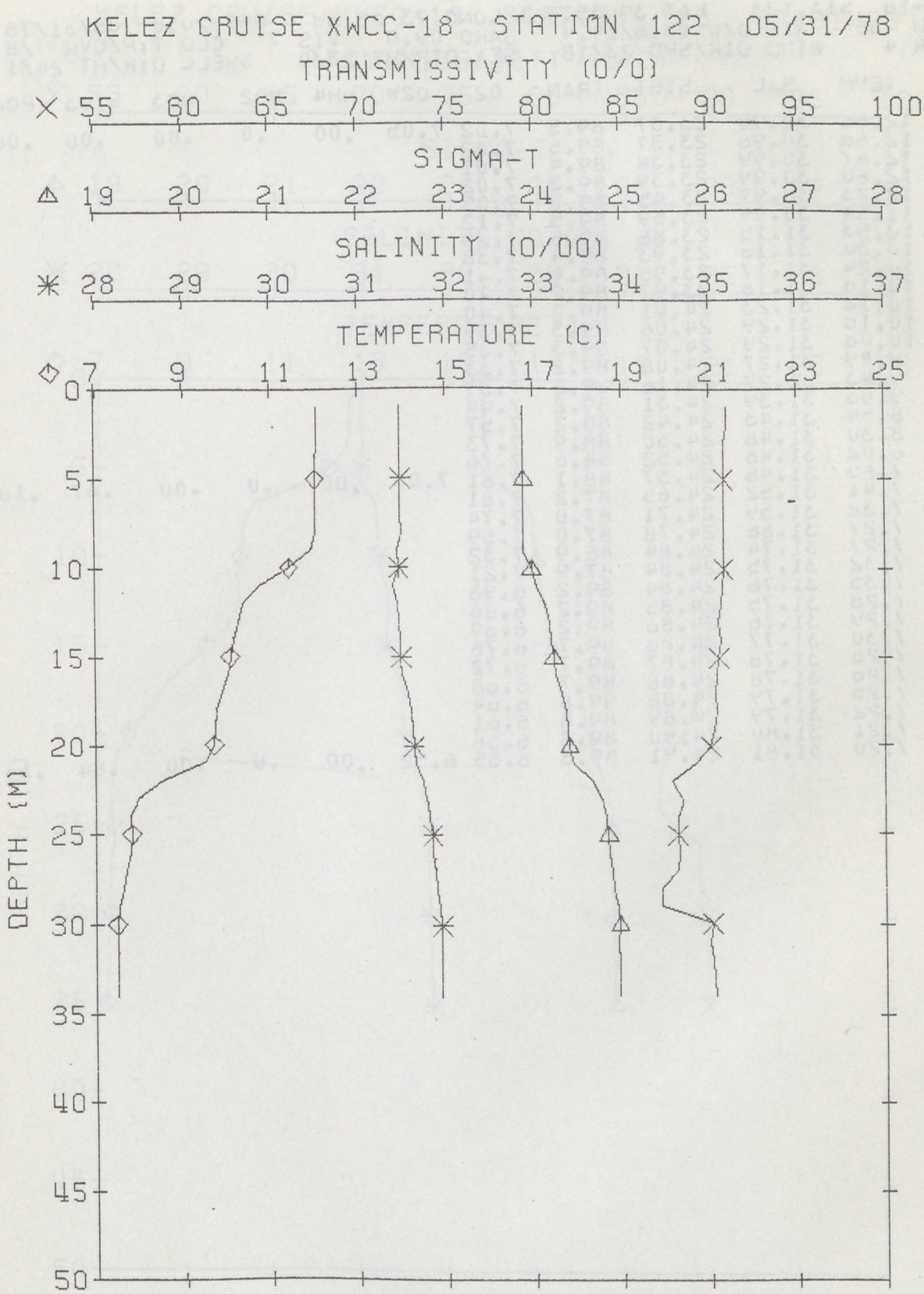
XWCC-13 STA.121 LAT 39 43.0N; LONG 73 46.4W GMT 01.6 06/07/78
DEPTH 1° AIR D/W 16.7/15.6 BARO 20.0 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 21/15 SEA DIR/HT 21/0 SWELL DIR/HT 19/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.49	30.54	22.46	88.4	6.67	6.72	.00	.0	.00	.00	.00
2	15.49	30.54	22.46	88.4	6.67						
3	15.34	30.62	22.55	88.6	6.69						
4	15.22	30.66	22.61	88.5	6.74						
5	15.29	30.62	22.56	88.4	6.76						
6	14.86	30.74	22.75	88.8	6.77						
7	13.45	31.07	23.29	89.2	6.95						
8	13.29	31.10	23.34	89.1	7.10						
9	12.67	31.08	23.45	89.0	7.20						
10	10.93	31.47	24.07	88.7	7.32						
11	8.84	31.60	24.51	87.3	7.78						
12	8.23	31.72	24.69	85.9	7.81						
13	8.09	31.72	24.71	86.5	7.62						
14	8.04	31.74	24.73	86.9	7.36						
15	8.04	31.74	24.73	86.8	7.15						
16	8.04	31.73	24.73	86.8	7.02	6.56	.00	.0	.00	.52	.00


KELEZ CRUISE XWCC-18 STATION 121 06/07/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

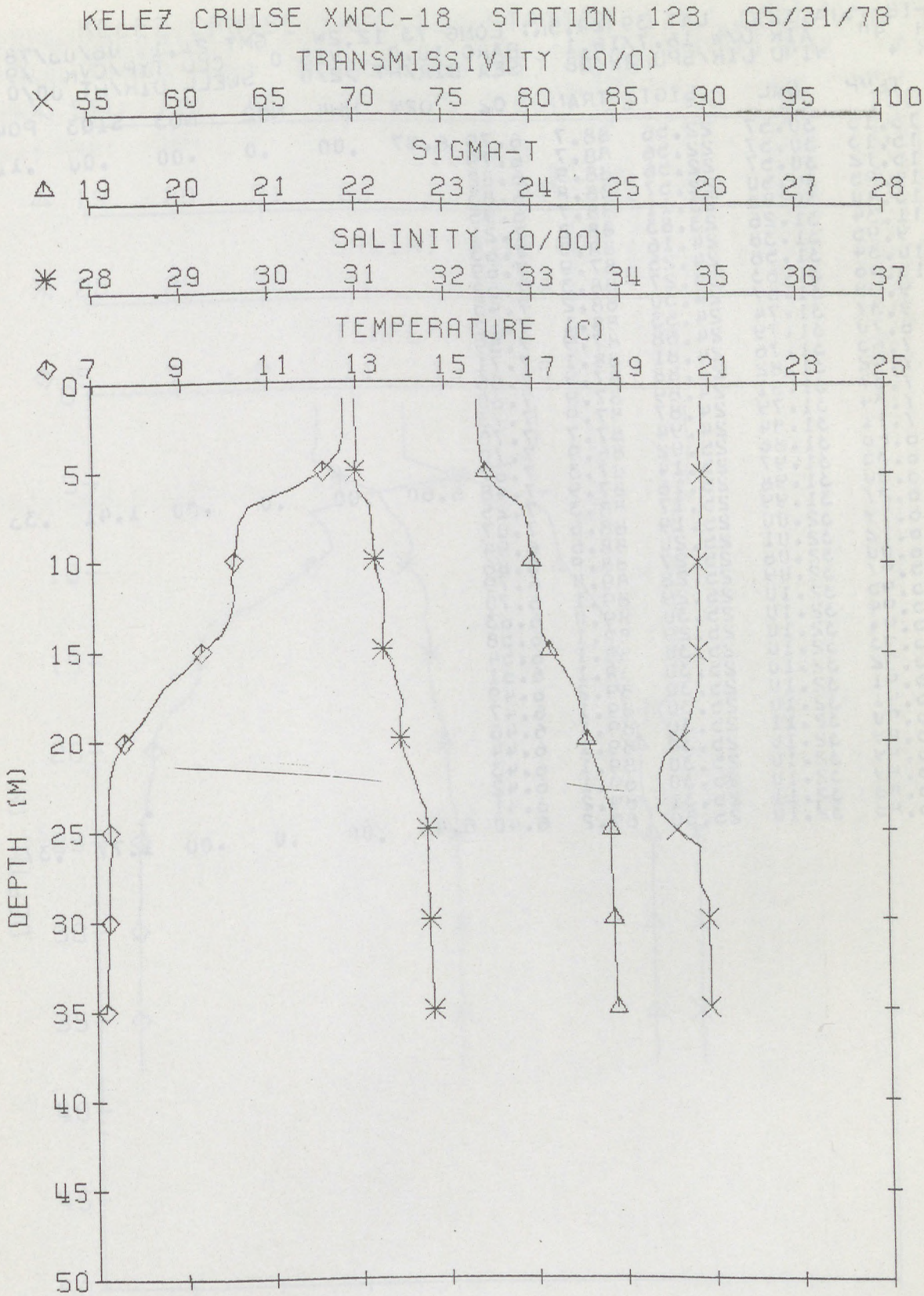
XWCC-18 STA.122 LAT 39 39.0N; LONG 73 36.4W GMT 21.6 05/31/78
DEPTH 34 AIR D/W 17.2/15.6 BARO 09.0 VIS 6 CLD TYP/CVR /8
WETHR 4 WIND DIR/SPD 24/12 SEA DIR/HT 24/0 SWELL DIR/HT 24/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.04	31.48	23.87	91.0	7.22	7.16	.00	.0	.00	.00	.05
2	12.04	31.48	23.87	91.0	7.22						
3	12.04	31.48	23.87	90.8	7.21						
4	12.03	31.48	23.88	90.8	7.23						
5	12.02	31.48	23.88	90.8	7.23						
6	12.00	31.48	23.88	90.8	7.21						
7	12.03	31.48	23.88	90.8	7.20						
8	12.02	31.48	23.88	90.8	7.19						
9	11.92	31.44	23.87	90.8	7.17						
10	11.41	31.46	23.97	90.8	7.22						
11	10.76	31.39	24.04	90.7	7.27						
12	10.36	31.44	24.14	90.6	7.40						
13	10.23	31.46	24.17	90.5	7.44						
14	10.14	31.48	24.21	90.6	7.45						
15	10.07	31.48	24.22	90.5	7.45						
16	10.01	31.50	24.24	90.4	7.47						
17	9.87	31.56	24.31	90.3	7.49						
18	9.76	31.60	24.36	90.4	7.56						
19	9.72	31.61	24.38	90.2	7.64	7.70	.00	.0	.00	.84	.19
20	9.69	31.62	24.39	90.0	7.98						
21	9.48	31.65	24.45	89.1	7.73						
22	8.51	31.73	24.66	87.8	7.83						
23	7.95	31.76	24.76	88.4	7.90						
24	7.80	31.79	24.81	88.1	7.77						
25	7.80	31.82	24.83	88.1	7.56						
26	7.77	31.83	24.84	88.2	7.33						
27	7.68	31.86	24.88	88.1	7.15						
28	7.61	31.87	24.90	87.2	7.06						
29	7.51	31.91	24.94	87.2	7.02						
30	7.48	31.93	24.96	90.1	6.99						
31	7.49	31.92	24.95	90.0	6.93						
32	7.48	31.93	24.96	90.1	6.84						
33	7.48	31.93	24.96	90.2	6.79						
34	7.47	31.93	24.96	90.3	6.72	6.64	.00	.0	.00	.00	.00


KELEZ CRUISE XWCC-18 STATION 122 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

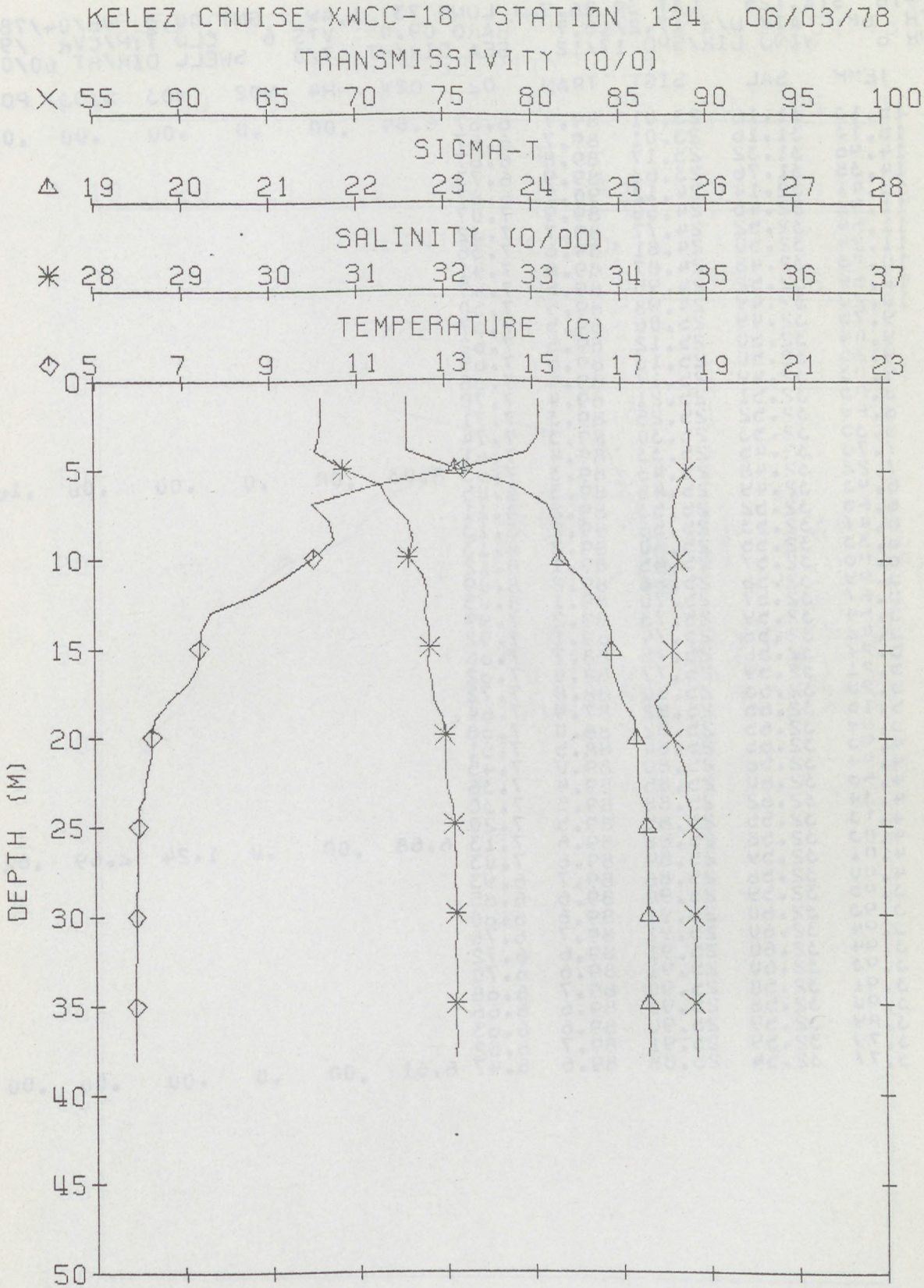
XWCC-18 STA.123 LAT 39 35.8N; LONG 73 25.5W GMT 20.0 05/31/78
DEPTH 36 AIR D/W 15.6/14.4 BARO 09.0 VIS 7 CLD TYP/CVR /8
WETHR 4 WIND DIR/SPD 23/18 SEA DIR/HT 23/0 SWELL DIR/HT 24/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.68	30.98	23.37	89.5	7.02	7.05	.00	.0	.00	.00	.00
2	12.68	30.98	23.37	89.5	7.02						
3	12.67	30.99	23.38	89.4	7.01						
4	12.60	30.99	23.39	89.3	7.02						
5	12.23	30.97	23.45	89.5	7.05						
6	11.54	30.99	23.59	89.5	7.12						
7	10.55	31.15	23.88	89.5	7.29						
8	10.30	31.16	23.93	89.4	7.38						
9	10.24	31.17	23.95	89.4	7.41						
10	10.18	31.18	23.97	89.2	7.40						
11	10.12	31.23	24.01	89.2	7.40						
12	10.18	31.29	24.06	89.3	7.39						
13	10.08	31.29	24.07	89.3	7.35						
14	9.89	31.27	24.08	89.2	7.33						
15	9.45	31.27	24.16	89.2	7.39						
16	9.05	31.39	24.31	89.2	7.44						
17	8.54	31.43	24.42	89.2	7.57						
18	8.30	31.48	24.50	88.9	7.73						
19	8.02	31.46	24.52	88.6	7.76						
20	7.65	31.46	24.57	88.1	7.81	7.05	.00	.0	.00	.67	.10
21	7.41	31.52	24.65	87.2	7.81						
22	7.32	31.59	24.71	87.0	7.74						
23	7.27	31.66	24.78	87.0	7.59						
24	7.27	31.74	24.84	86.9	7.32						
25	7.32	31.75	24.84	87.9	7.21						
26	7.35	31.76	24.84	89.2	6.98						
27	7.28	31.75	24.85	89.2	6.86						
28	7.29	31.76	24.86	89.2	6.80						
29	7.30	31.77	24.86	89.7	6.76						
30	7.28	31.78	24.87	89.7	6.72						
31	7.26	31.78	24.88	89.7	6.68						
32	7.25	31.79	24.88	89.8	6.64						
33	7.22	31.79	24.89	89.8	6.61						
34	7.21	31.80	24.90	89.8	6.58						
35	7.20	31.81	24.91	89.8	6.55	6.52	.00	.0	.00	.84	.14


KELEZ CRUISE XWCC-18 STATION 123 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

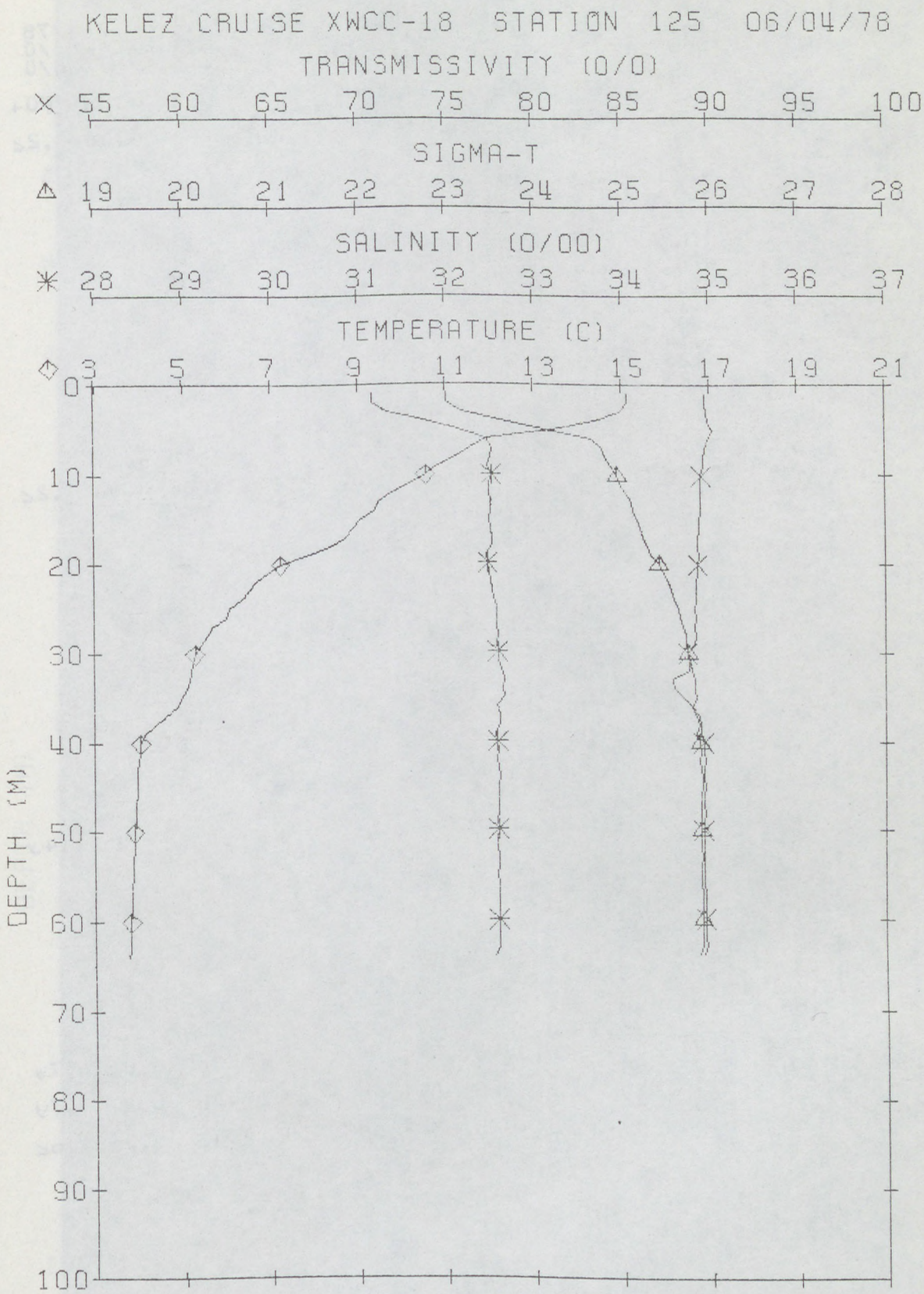
XWCC-18 STA.124 LAT 39 29.5N; LONG 73 12.2W GMT 21.1 06/05/78
DEPTH 40 AIR D/W 16.7/16.1 BARO 10.0 VIS 0 CLD TYP/CVR /9
WETHR 4 WIND DIR/SPD 22/08 SEA DIR/HT 22/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.15	30.57	22.56	88.7	6.79	6.87	.00	.0	.00	.00	.11
2	15.15	30.57	22.56	88.7	6.79						
3	15.12	30.57	22.56	88.9	6.82						
4	14.85	30.50	22.57	88.8	6.83						
5	13.40	30.83	23.11	88.7	6.95						
6	11.34	31.26	23.83	88.2	7.21						
7	9.85	31.38	24.16	88.0	7.63						
8	10.34	31.58	24.25	87.9	7.69						
9	10.46	31.63	24.27	88.3	7.52						
10	9.89	31.57	24.30	88.2	7.45						
11	9.37	31.74	24.53	88.1	7.52						
12	8.70	31.79	24.68	87.9	7.59						
13	7.63	31.76	24.81	88.1	7.71						
14	7.42	31.82	24.88	87.9	7.86						
15	7.37	31.81	24.89	87.9	7.80						
16	7.34	31.79	24.87	87.9	7.73						
17	7.11	31.84	24.94	87.7	7.70						
18	6.63	31.86	25.02	86.9	7.70						
19	6.35	31.97	25.14	87.3	7.67						
20	6.30	31.98	25.16	87.9	7.48	6.60	.00	.0	.00	1.41	.35
21	6.27	31.99	25.17	88.3	7.25						
22	6.19	32.00	25.19	88.6	7.07						
23	6.12	32.01	25.20	88.6	6.94						
24	6.00	32.08	25.27	88.9	6.86						
25	5.97	32.09	25.28	89.0	6.79						
26	5.95	32.10	25.29	89.1	6.70						
27	5.94	32.10	25.30	89.0	6.63						
28	5.94	32.10	25.29	89.1	6.58						
29	5.93	32.10	25.30	89.1	6.54						
30	5.92	32.10	25.30	89.1	6.51						
31	5.91	32.10	25.30	89.2	6.49						
32	5.91	32.10	25.30	89.1	6.47						
33	5.90	32.11	25.30	89.1	6.46						
34	5.89	32.10	25.30	89.1	6.44						
35	5.89	32.10	25.30	89.1	6.43						
36	5.89	32.10	25.30	89.1	6.42						
37	5.88	32.11	25.31	89.2	6.41						
38	5.88	32.10	25.30	89.2	6.40	6.46	.00	.0	.00	1.77	.37


KELEZ CRUISE XWCC-18 STATION 124 06/03/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
5 7 9 11 13 15 17 19 21 23
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

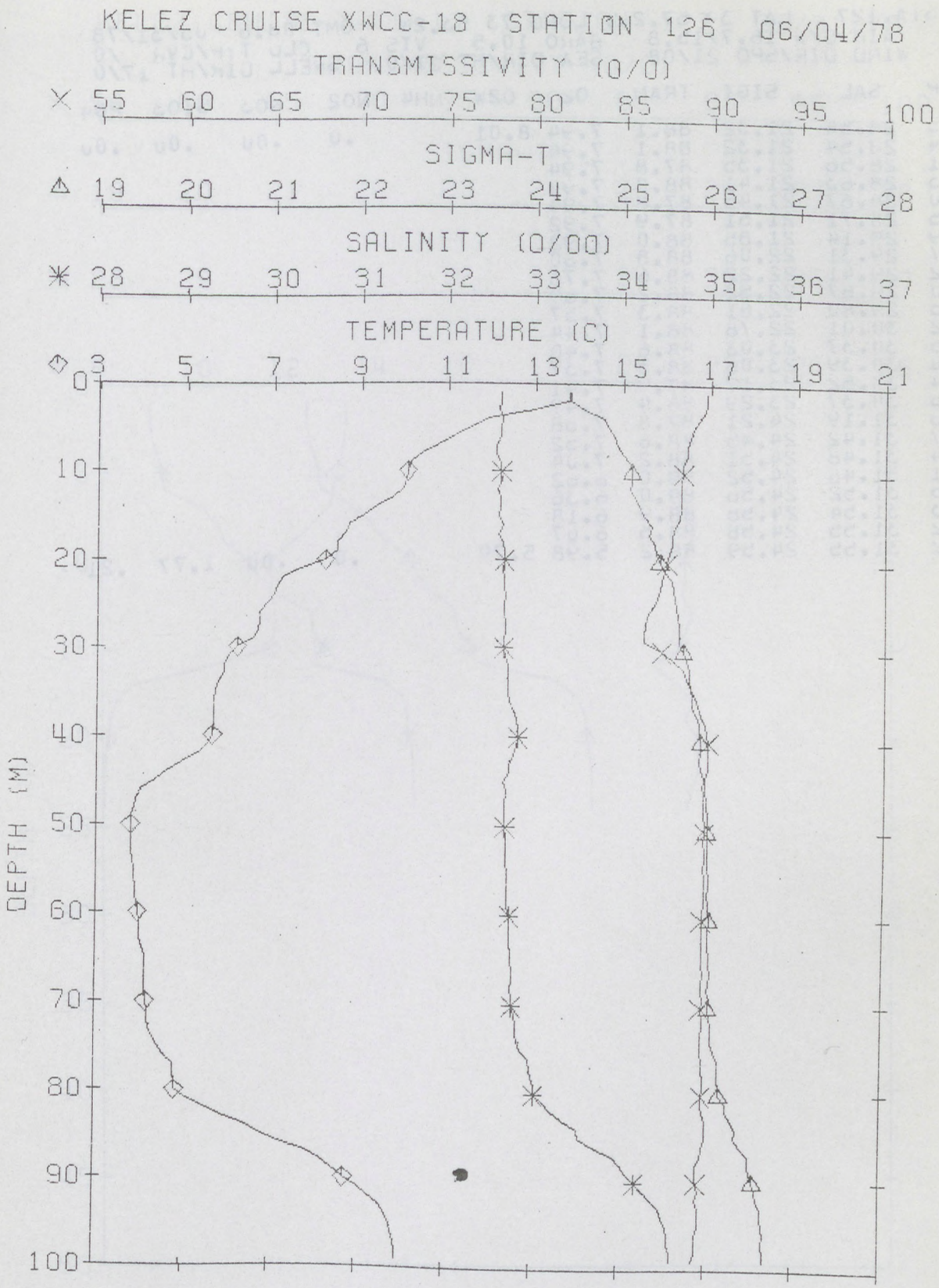
XMCC-18 STA.125 LAT 39 26.9N; LONG 73 1.4W GMT 00.3 06/04/78
DEPTH 68 AIR D/W 17.2/16.7 BARO 09.0 VTS 6 CLD TYP/CVR /9
WETHR 0 WIND DIR/SPD 17/12 SEA DIR/HT 17/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.13	31.16	23.01	89.7	6.67	6.84	.00	.0	.00	.00	.00
2	15.13	31.16	23.01	89.7	6.67						
3	14.96	31.32	23.17	89.8	6.67						
4	14.38	31.76	23.63	89.9	6.73						
5	13.41	32.14	24.12	90.1	6.87						
6	11.92	32.46	24.66	89.9	7.07						
7	11.54	32.52	24.77	89.7	7.32						
8	11.24	32.50	24.81	89.6	7.36						
9	10.83	32.48	24.87	89.6	7.41						
10	10.54	32.52	24.95	89.5	7.47						
11	10.20	32.49	24.98	89.5	7.50						
12	9.75	32.49	25.06	89.5	7.57						
13	9.44	32.50	25.12	89.5	7.62						
14	9.35	32.50	25.13	89.5	7.65						
15	9.03	32.49	25.17	89.4	7.66						
16	8.85	32.51	25.21	89.4	7.70						
17	8.69	32.52	25.25	89.3	7.71						
18	8.35	32.53	25.30	89.3	7.74						
19	7.73	32.45	25.33	89.4	7.81						
20	7.22	32.48	25.43	89.3	7.93	8.03	.00	.0	.00	.00	.10
21	6.93	32.49	25.48	89.3	8.05						
22	6.65	32.52	25.53	89.2	8.11						
23	6.47	32.53	25.56	89.2	8.13						
24	6.35	32.55	25.60	89.2	8.13						
25	6.06	32.57	25.65	89.1	8.12						
26	5.99	32.58	25.66	89.2	8.09						
27	5.67	32.57	25.70	89.1	8.05						
28	5.54	32.59	25.73	89.2	7.99						
29	5.42	32.58	25.74	89.1	7.92						
30	5.27	32.58	25.75	88.7	7.86						
31	5.21	32.59	25.77	88.8	7.82						
32	5.20	32.63	25.80	88.8	7.72						
33	5.16	32.65	25.82	87.9	7.64						
34	5.09	32.65	25.82	88.0	7.58						
35	4.95	32.65	25.84	88.5	7.51						
36	4.84	32.58	25.80	89.0	7.45						
37	4.58	32.60	25.85	89.4	7.36						
38	4.34	32.62	25.88	89.5	7.30						
39	4.13	32.55	25.85	89.5	7.20						
40	4.03	32.58	25.88	89.6	7.13	6.68	.00	.0	1.24	2.69	.62
41	4.01	32.59	25.89	89.6	7.03						
42	4.00	32.58	25.88	89.7	6.93						
43	3.95	32.59	25.90	89.6	6.85						
44	3.93	32.60	25.91	89.6	6.80						
45	3.94	32.60	25.91	89.7	6.76						
46	3.94	32.60	25.91	89.6	6.72						
47	3.93	32.60	25.91	89.6	6.70						
48	3.91	32.58	25.90	89.7	6.68						
49	3.90	32.58	25.90	89.6	6.66						
50	3.89	32.59	25.90	89.6	6.63						
60	3.79	32.59	25.91	89.7	6.52						
64	3.77	32.54	25.88	89.6	6.47	6.61	.00	.0	.00	.00	.00


KELEZ CRUISE XWCC-18 STATION 125 06/04/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
3 5 7 9 11 13 15 17 19 21
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

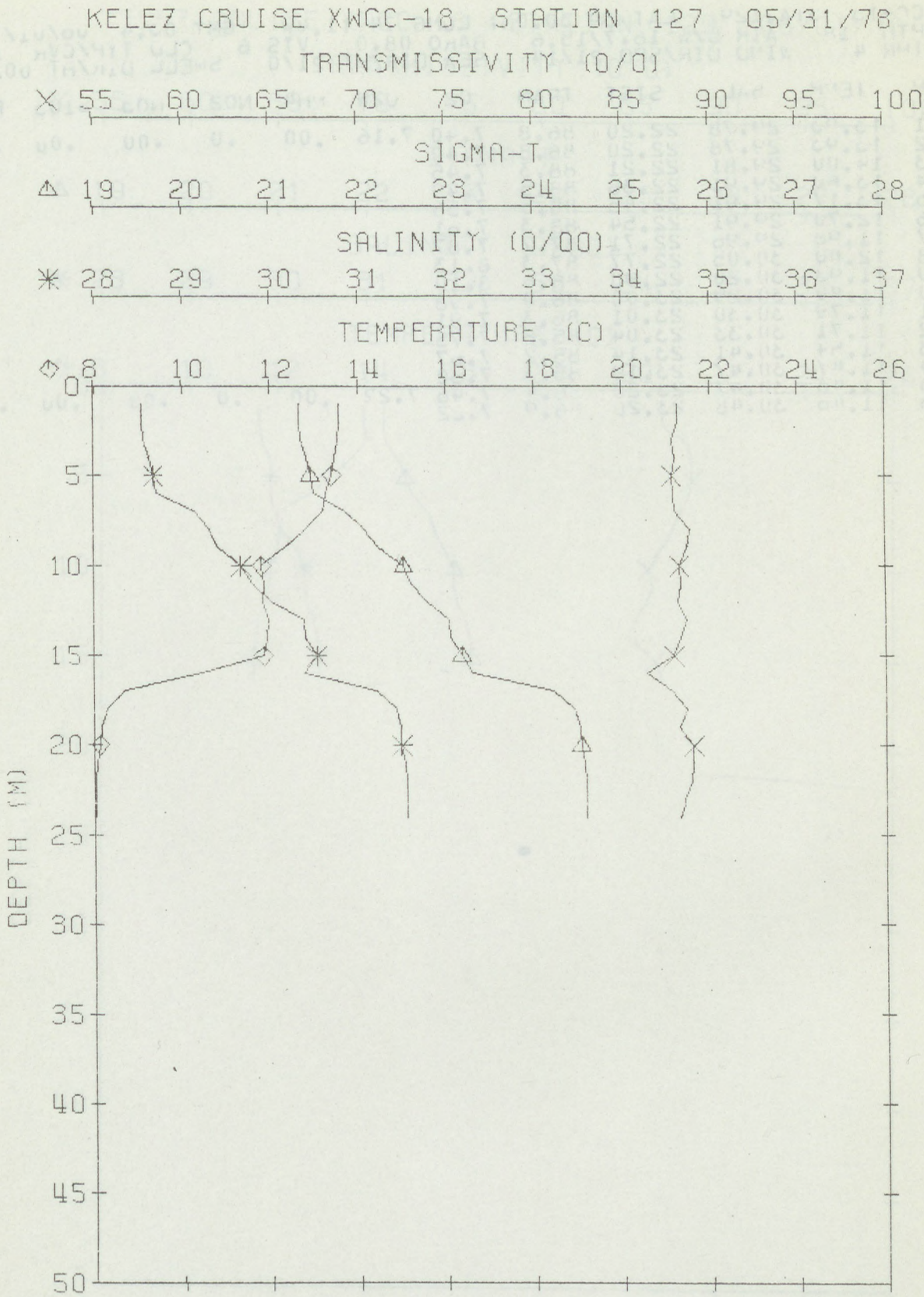
XBCC-10 STA.126 LAT 39 19.2N; LONG 72 42.5W GMT 03.1 06/04/78
DEPTH 102 AIR L/W 16.1/15.6 BARO 07.5 VIS 0 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 24/02 SEA DIR/HT 24/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.70	32.59	24.40	89.7	6.95	6.87	.00	.0	.00	.00	.22
2	13.73	32.59	24.40	89.7	6.95						
3	12.93	32.58	24.55	89.6	7.11						
4	11.87	32.61	24.78	89.3	7.24						
5	11.53	32.59	24.83	89.0	7.41						
6	11.13	32.59	24.90	88.8	7.52						
7	10.70	32.54	24.93	88.6	7.57						
8	10.39	32.55	24.99	88.6	7.62						
9	10.12	32.60	25.08	88.4	7.68						
10	10.05	32.60	25.09	88.4	7.70						
11	10.03	32.61	25.11	88.3	7.71						
12	9.90	32.57	25.08	88.3	7.71						
13	9.71	32.59	25.14	88.3	7.73						
14	9.35	32.59	25.20	88.3	7.77						
15	9.03	32.58	25.24	88.2	7.86						
16	8.71	32.63	25.33	88.0	7.93						
17	8.62	32.57	25.30	87.8	7.95						
18	8.45	32.63	25.36	87.8	7.97						
19	8.45	32.65	25.39	87.6	7.99						
20	8.13	32.64	25.42	87.5	8.00	7.86	.00	.0	.00	.00	.22
21	7.63	32.62	25.48	87.4	8.08						
22	7.21	32.65	25.56	87.2	8.14						
23	7.03	32.65	25.58	87.1	8.19						
24	7.01	32.65	25.59	87.0	8.17						
25	6.83	32.65	25.61	86.7	8.16						
26	6.63	32.65	25.63	86.4	8.16						
27	6.67	32.65	25.64	86.3	8.14						
28	6.67	32.66	25.64	86.2	8.10						
29	6.54	32.64	25.64	86.2	8.07						
30	6.13	32.64	25.69	87.2	8.05						
31	5.89	32.67	25.73	87.9	8.01						
32	5.89	32.69	25.77	88.5	7.86						
33	5.87	32.69	25.77	88.6	7.78						
34	5.74	32.69	25.78	88.9	7.70						
35	5.63	32.69	25.79	89.1	7.63						
36	5.67	32.71	25.81	89.3	7.57						
37	5.60	32.75	25.84	89.5	7.51						
38	5.60	32.79	25.87	89.7	7.46						
39	5.60	32.81	25.88	89.8	7.42	7.33	.00	.0	.00	.00	.45
40	5.63	32.81	25.89	89.9	7.40						
41	5.52	32.79	25.89	89.9	7.38						
42	5.31	32.75	25.88	89.9	7.38						
43	4.92	32.70	25.89	89.9	7.37						
44	4.60	32.71	25.93	89.7	7.33						
45	4.30	32.65	25.91	89.7	7.23						
46	3.97	32.67	25.96	89.6	7.14						
47	3.89	32.67	25.97	89.6	7.02						
48	3.84	32.66	25.97	89.6	6.87						
49	3.79	32.66	25.97	89.7	6.75						
50	3.73	32.66	25.97	89.7	6.66						
60	3.95	32.73	26.01	89.6	6.38	6.44	.00	.0	2.70	5.02	.79
70	4.14	32.76	26.02	89.6	6.39						
80	4.83	33.03	26.16	89.7	6.29	6.48	1.20	.2	3.48	5.21	.79
90	6.73	34.19	26.55	89.5	5.91						
99	9.92	34.60	26.68	89.3	5.49	5.63	.00	.0	6.43	5.21	.62


KELEZ CRUISE XWCC-18 STATION 126 06/04/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
3 5 7 9 11 13 15 17 19 21
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

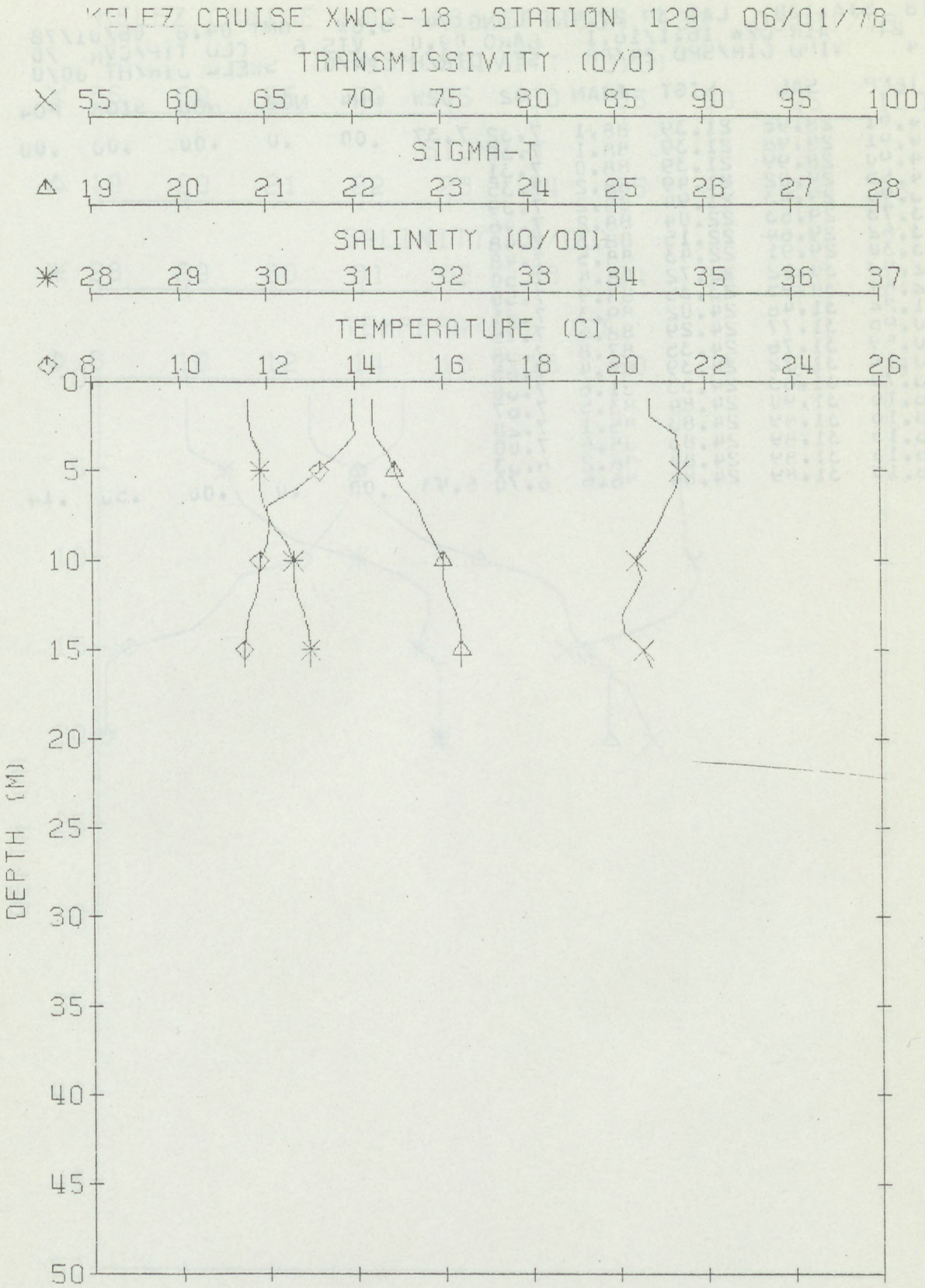
XBCC-18 STA.127 LAT 39 57.2N; LONG 73 53.2W GMT 08.6 05/31/78
DEPTH 25 AIR D/W 16.7/15.8 BARO 10.5 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 21/08 SEA DIR/HT 21/0 SWELL DIR/HT 17/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.55	28.54	21.32	88.1	7.94	8.01		.0	.00	.00	.00
2	13.54	28.54	21.32	88.1	7.94						
3	13.51	28.56	21.35	87.8	7.94						
4	13.45	28.63	21.41	88.0	7.94						
5	13.40	28.67	21.45	87.8	7.94						
6	13.25	28.71	21.51	87.9	7.92						
7	13.19	29.14	21.85	88.0	7.92						
8	12.77	29.31	22.06	88.8	7.80						
9	12.32	29.41	22.22	88.6	7.76						
10	11.80	29.67	22.52	88.2	7.69						
11	11.85	29.80	22.61	88.3	7.57						
12	11.82	30.01	22.78	88.1	7.44						
13	11.95	30.37	23.03	88.6	7.40						
14	11.90	30.39	23.06	88.3	7.37						
15	11.84	30.52	23.17	87.9	7.41						
16	10.45	30.37	23.29	86.4	7.49						
17	8.63	31.19	24.21	87.8	7.58						
18	8.27	31.42	24.45	88.6	7.52						
19	8.14	31.48	24.51	88.2	7.04						
20	8.11	31.48	24.52	89.0	6.62						
21	8.05	31.52	24.56	89.0	6.36						
22	8.03	31.54	24.58	88.9	6.18						
23	8.02	31.55	24.58	88.5	6.07						
24	8.02	31.55	24.59	88.2	5.98	5.79		.0	.00	1.77	.21


KELEZ CRUISE XWCC-18 STATION 127 05/31/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

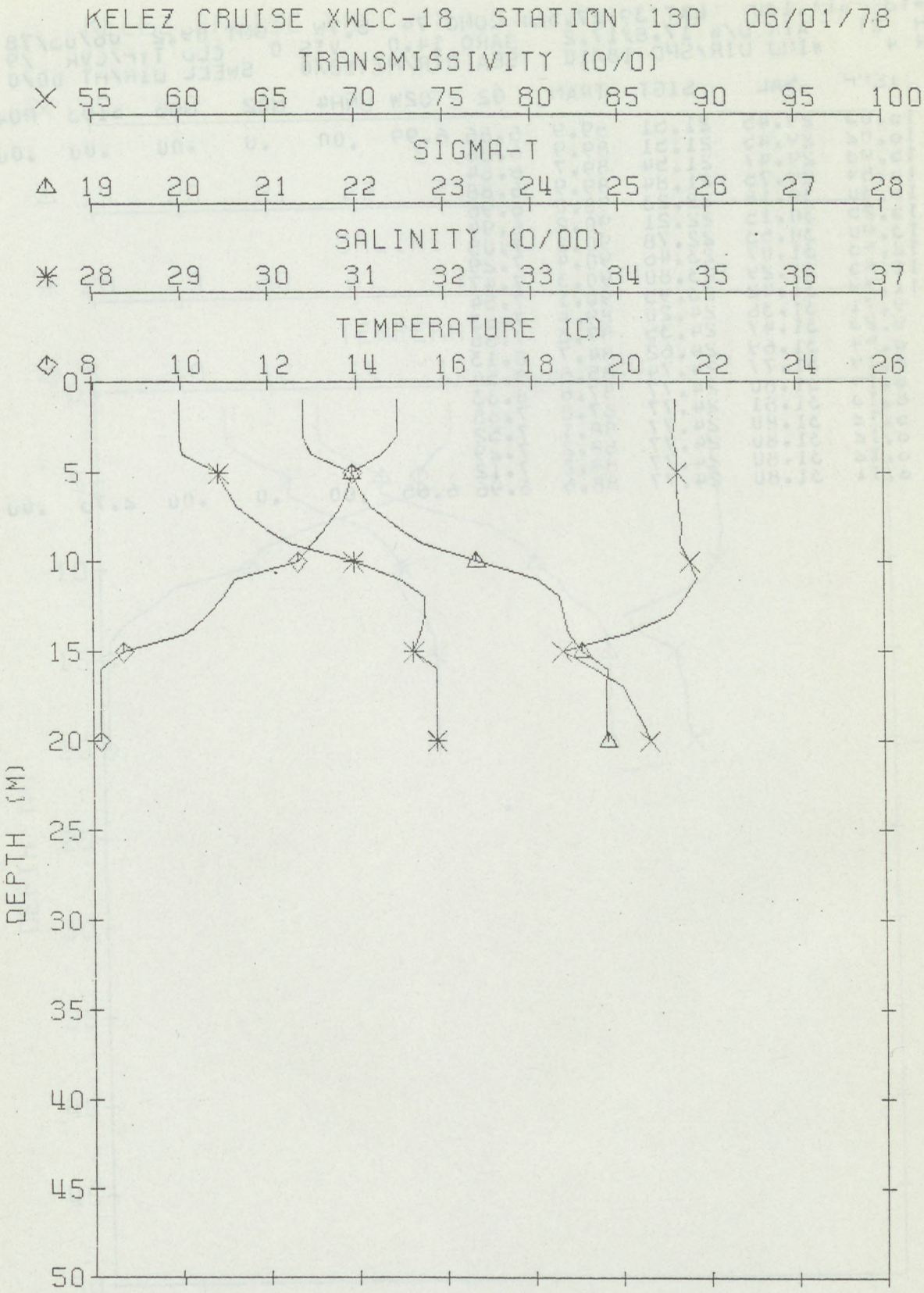
XWCC-18 STA.129 LAT 39 30.0N; LONG 74 11.4W GMT 03.4 06/01/78
DEPTH 18 AIR D/W 16.7/15.6 BARO 08.0 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 21/14 SEA DIR/HT 21/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.93	29.78	22.20	86.8	7.40	7.16	.00	.0	.00	.00	.00
2	13.93	29.78	22.20	86.8	7.40						
3	14.00	29.81	22.21	88.3	7.45						
4	13.60	29.91	22.36	88.5	7.49						
5	13.17	29.91	22.45	88.5	7.56						
6	12.70	29.91	22.54	88.3	7.01						
7	11.98	29.96	22.71	87.7	7.87						
8	12.00	30.05	22.77	87.3	8.13						
9	11.93	30.20	22.90	86.6	8.10						
10	11.80	30.29	23.00	86.0	7.98						
11	11.79	30.30	23.01	86.3	7.91						
12	11.71	30.33	23.04	85.8	7.75						
13	11.54	30.41	23.14	85.2	7.07						
14	11.47	30.47	23.19	85.3	7.00						
15	11.46	30.47	23.20	86.4	7.46	7.22	.00	.0	.00	.00	.00
16	11.46	30.46	23.20	86.9	7.22						


KELEZ CRUISE XWCC-18 STATION 129 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

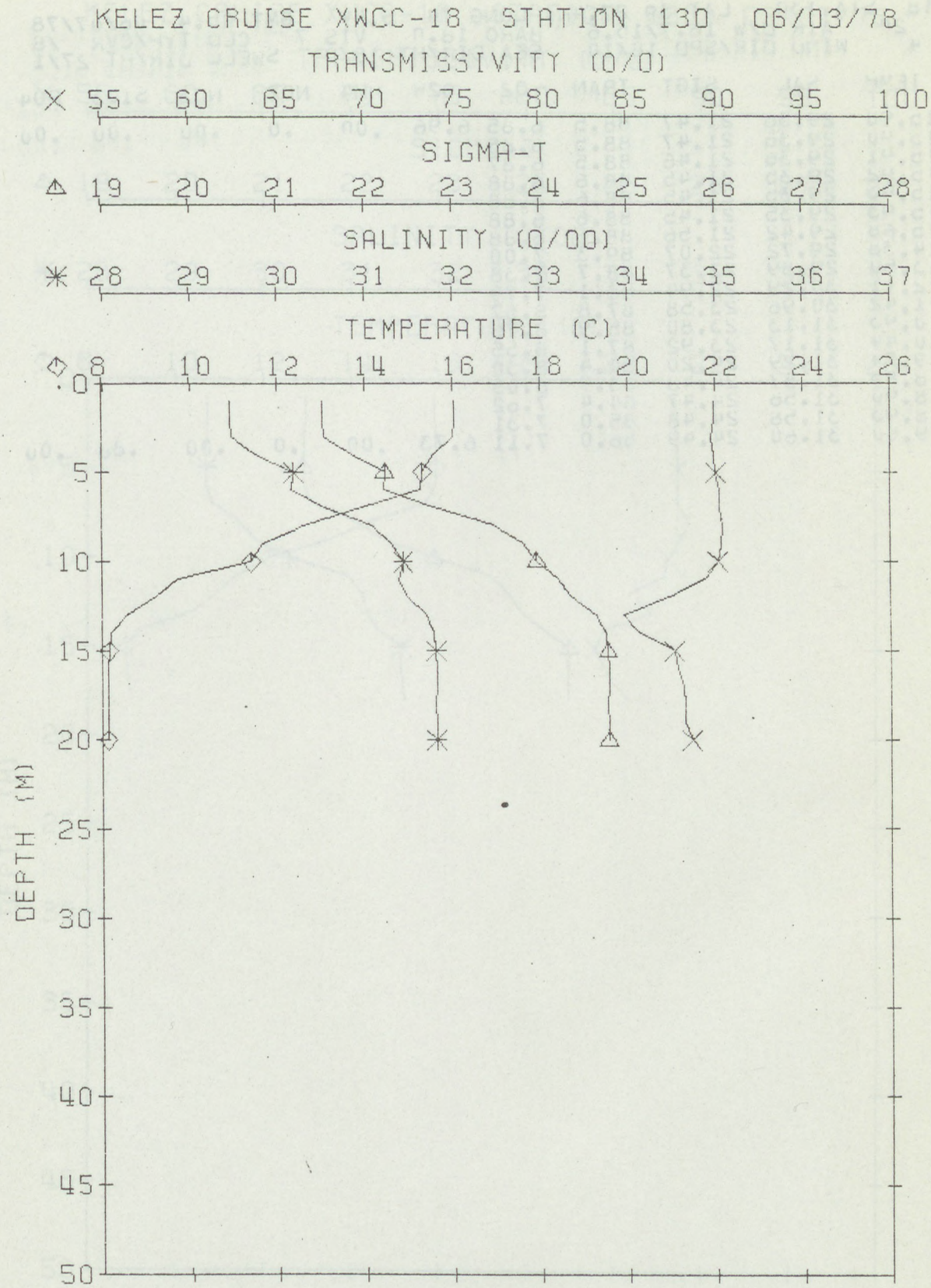
XVCC-18 STA.130 LAT 39 27.4N; LONG 74 5.6W GMT 04.8 06/01/78
DEPTH 21 AIR D/W 16.1/16.1 BARO 09.0 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 24/08 SEA DIR/HT 24/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.91	28.98	21.39	88.1	7.32	7.37	.00	.0	.00	.00	.00
2	14.91	28.98	21.39	88.1	7.32						
3	14.90	28.99	21.39	88.0	7.31						
4	14.55	29.02	21.49	88.2	7.35						
5	13.90	29.43	21.94	88.2	7.39						
6	13.78	29.53	22.04	88.2	7.46						
7	13.62	29.64	22.15	88.3	7.48						
8	13.30	29.91	22.43	88.5	7.48						
9	12.99	30.22	22.72	88.4	7.50						
10	12.64	30.95	23.35	88.9	7.50						
11	11.22	31.48	24.02	89.3	7.51						
12	10.96	31.77	24.29	88.6	7.75						
13	10.59	31.76	24.35	87.8	7.58						
14	10.12	31.72	24.39	85.4	7.65						
15	8.70	31.63	24.55	81.6	7.60						
16	8.16	31.90	24.84	83.5	7.07						
17	8.16	31.89	24.83	85.1	7.28						
18	8.15	31.89	24.83	85.6	7.00						
19	8.15	31.89	24.84	86.2	6.83						
20	8.15	31.89	24.84	86.6	6.70	6.43	.00	.0	.00	.50	.14


KELEZ CRUISE XWCC-18 STATION 130 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

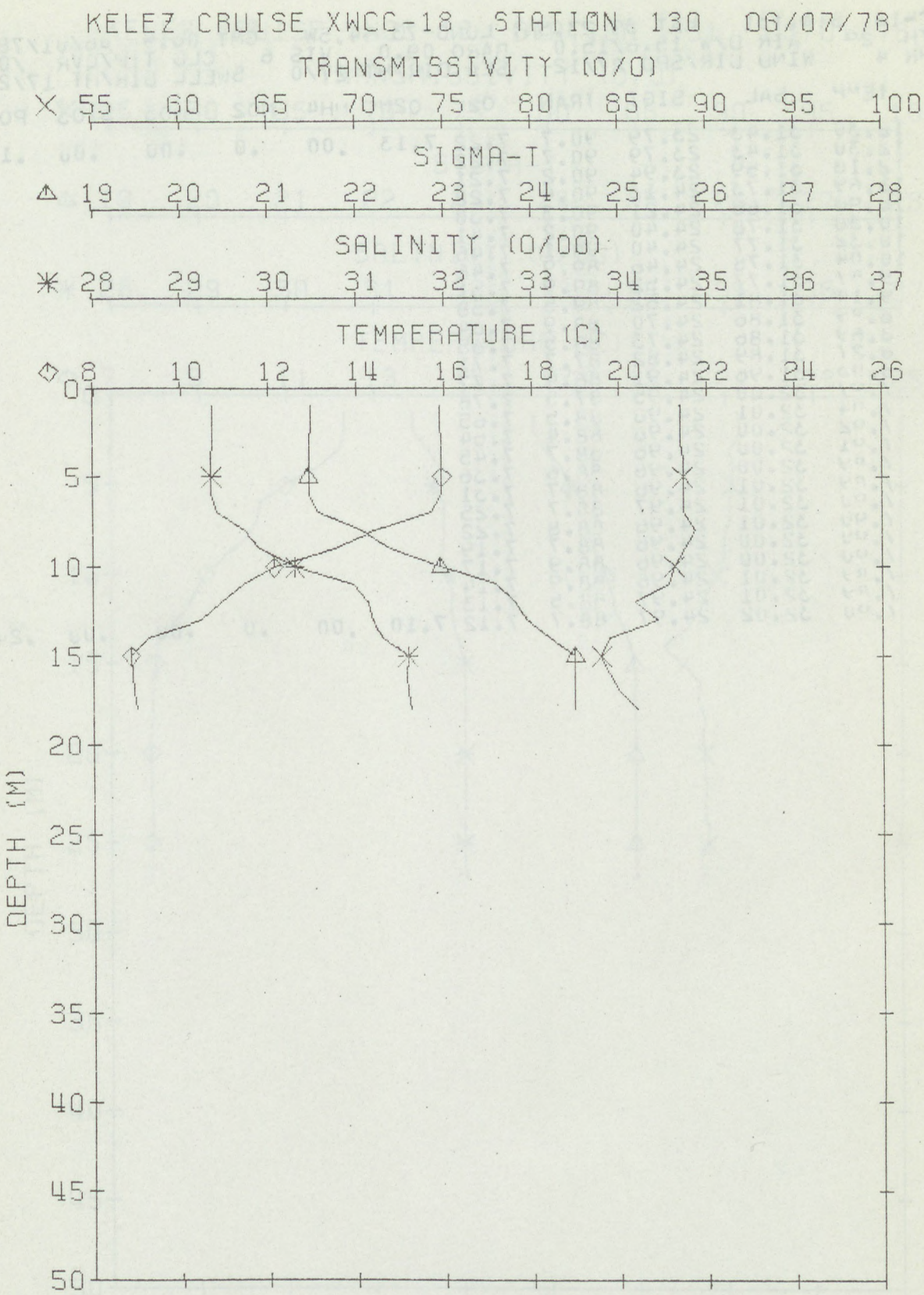
XWCC-16 STA.130 LAT 39 27.5N; LONG 74 5.7W GMT 09.2 06/05/78
DEPTH 21 AIR D/W 17.8/17.2 BARO 14.0 VIS 0 CLD TYP/CVR /9
WETHR 4 WIND DIR/SPD 18/10 SEA DIR/HT 18/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	16.03	29.45	21.51	89.9	6.86	6.99	.00	.0	.00	.00	.00
2	16.02	29.45	21.51	89.9	6.86						
3	15.98	29.47	21.54	89.7	6.84						
4	15.54	29.75	21.84	89.9	6.88						
5	15.30	30.18	22.23	90.0	6.96						
6	15.25	30.15	22.21	90.2	6.94						
7	13.90	30.53	22.78	90.2	7.05						
8	12.58	31.07	23.46	90.4	7.29						
9	11.65	31.29	23.80	90.3	7.47						
10	11.39	31.42	23.95	90.1	7.54						
11	9.71	31.38	24.20	89.4	7.63						
12	9.23	31.47	24.35	87.3	7.86						
13	8.54	31.69	24.62	84.7	8.13						
14	8.19	31.77	24.74	85.6	8.54						
15	8.14	31.80	24.77	87.6	8.33						
16	8.13	31.81	24.77	87.8	7.88						
17	8.12	31.80	24.77	88.1	7.52						
18	8.12	31.80	24.77	88.2	7.29						
19	8.12	31.80	24.77	88.2	7.12						
20	8.11	31.80	24.77	88.6	6.96	6.65	.00	.0	.00	2.73	.00


KELEZ CRUISE XWCC-18 STATION 130 06/03/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

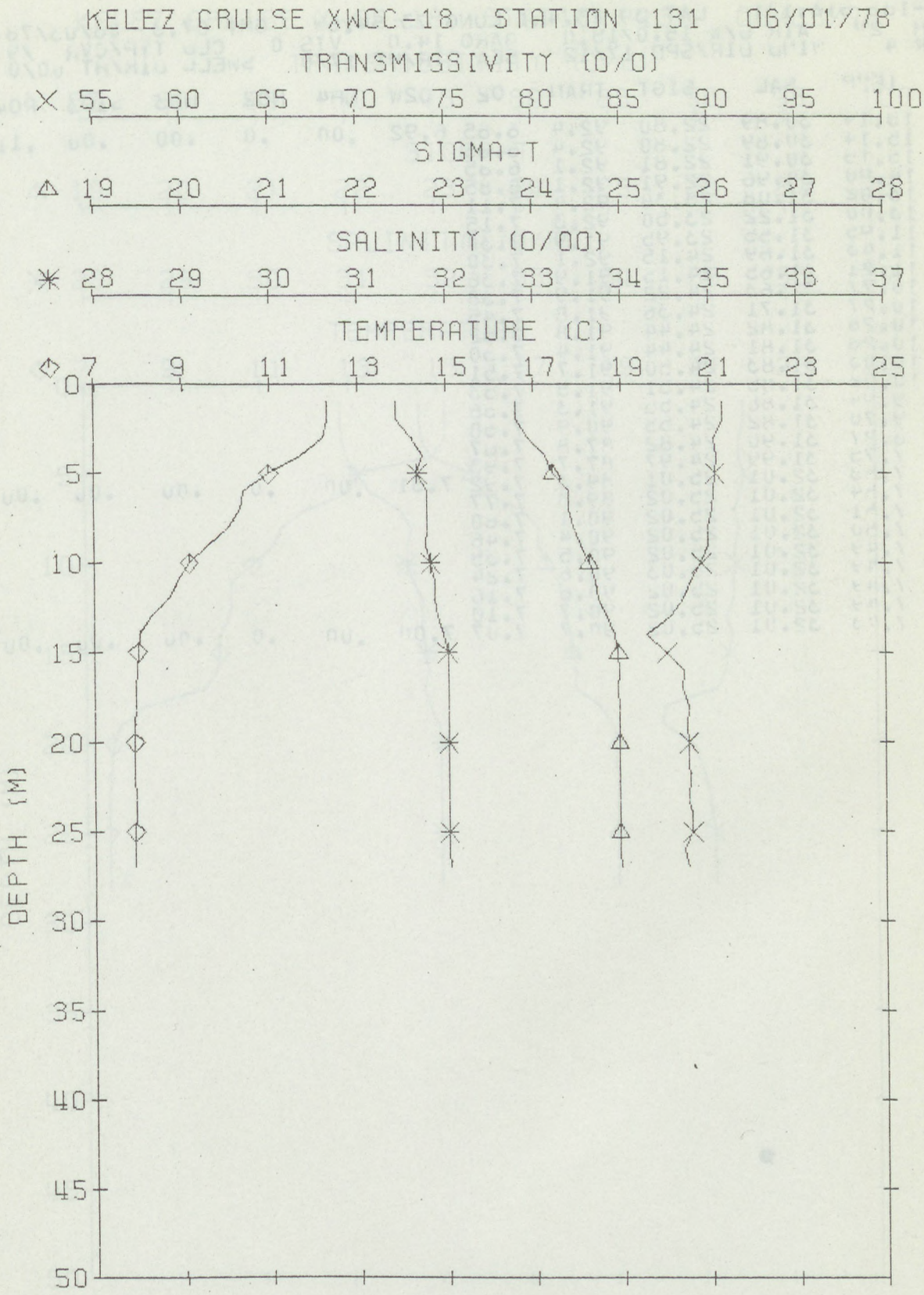
XWCC-18 STA.130 LAT 39 27.4N; LONG 74 5.4W GMT 05.4 06/07/78
DEPTH 20 AIR D/W 16.7/15.6 BARO 18.0 VIS 7 CLD TYP/CVR /8
WEIHR 4 WIND DIR/SPD 18/10 SEA DIR/HT 18/0 SWELL DIR/HT 27/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.90	29.36	21.47	88.5	6.85	6.96	.00	.0	.00	.00	.00
2	15.90	29.36	21.47	88.5	6.85						
3	15.91	29.36	21.46	88.5	6.87						
4	15.92	29.35	21.45	88.6	6.88						
5	15.93	29.35	21.45	88.6	6.88						
6	15.93	29.35	21.45	88.6	6.88						
7	15.68	29.42	21.56	88.6	6.88						
8	14.38	29.72	22.07	89.3	7.00						
9	13.50	29.89	22.37	88.7	7.38						
10	12.11	30.29	22.94	88.1	7.79						
11	11.42	30.96	23.58	87.8	8.57						
12	10.93	31.13	23.80	85.9	8.76						
13	10.44	31.17	23.92	87.1	8.55						
14	9.24	31.29	24.20	84.4	8.30						
15	8.85	31.57	24.48	83.9	8.05						
16	8.90	31.56	24.47	84.4	7.62						
17	8.93	31.58	24.48	85.0	7.31						
18	9.00	31.60	24.49	86.0	7.11	6.73	.00	.0	.00	.88	.00


KELEZ CRUISE XWCC-18 STATION 130 06/07/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

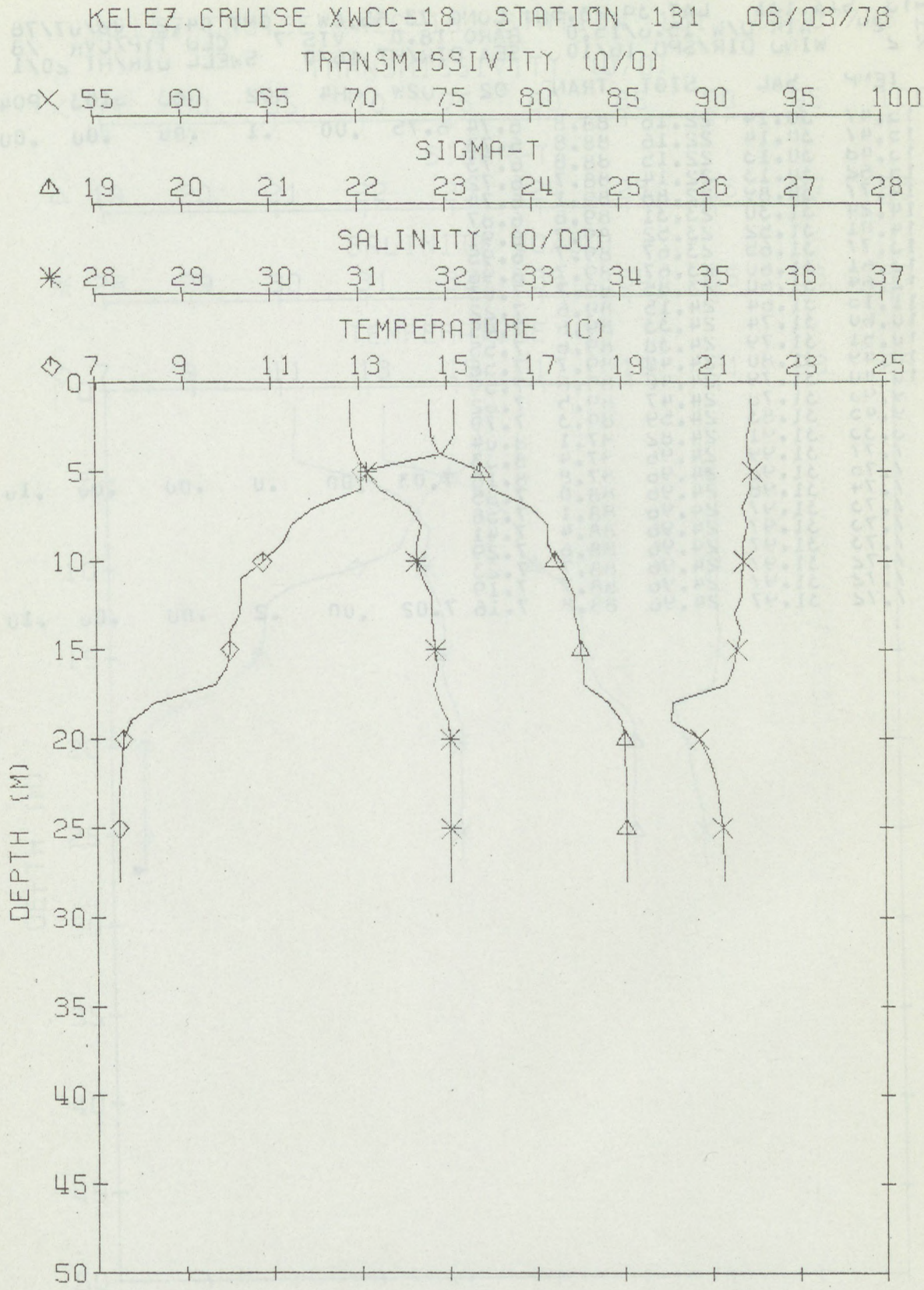
XWCC-18 STA.131 LAT 39 23.5N; LONG 73 54.5W GMT 08.9 06/01/78
DEPTH 29 AIR D/W 15.6/15.0 BARO 09.0 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 27/12 SEA DIR/HT 27/0 SWELL DIR/HT 17/2

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.30	31.43	23.79	90.7	7.22	7.13	.00	.0	.00	.00	.19
2	12.30	31.43	23.79	90.7	7.22						
3	12.18	31.59	23.94	90.2	7.21						
4	11.69	31.73	24.13	90.4	7.22						
5	10.96	31.66	24.21	90.3	7.30						
6	10.38	31.78	24.40	90.2	7.41						
7	10.32	31.77	24.40	90.1	7.46						
8	10.04	31.78	24.46	89.9	7.46						
9	9.57	31.77	24.52	89.9	7.51						
10	9.14	31.81	24.62	89.5	7.58						
11	8.99	31.86	24.70	88.9	7.64						
12	8.69	31.86	24.73	88.5	7.65						
13	8.27	31.89	24.82	87.7	7.71						
14	8.05	31.96	24.91	86.4	7.77						
15	7.97	32.00	24.95	87.5	7.76						
16	7.94	32.01	24.96	88.5	7.65						
17	7.92	32.00	24.96	88.4	7.54						
18	7.91	32.00	24.96	88.7	7.45						
19	7.89	32.00	24.96	88.6	7.36						
20	7.89	32.01	24.96	88.7	7.31						
21	7.90	32.01	24.97	88.7	7.25						
22	7.90	32.01	24.96	88.8	7.22						
23	7.90	32.00	24.96	88.7	7.19						
24	7.90	32.00	24.96	88.9	7.17						
25	7.89	32.01	24.96	88.9	7.14						
26	7.89	32.01	24.97	88.5	7.13						
27	7.90	32.02	24.97	88.7	7.12	7.10	.00	.0	.00	.00	.24


KELEZ CRUISE XWCC-18 STATION 131 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

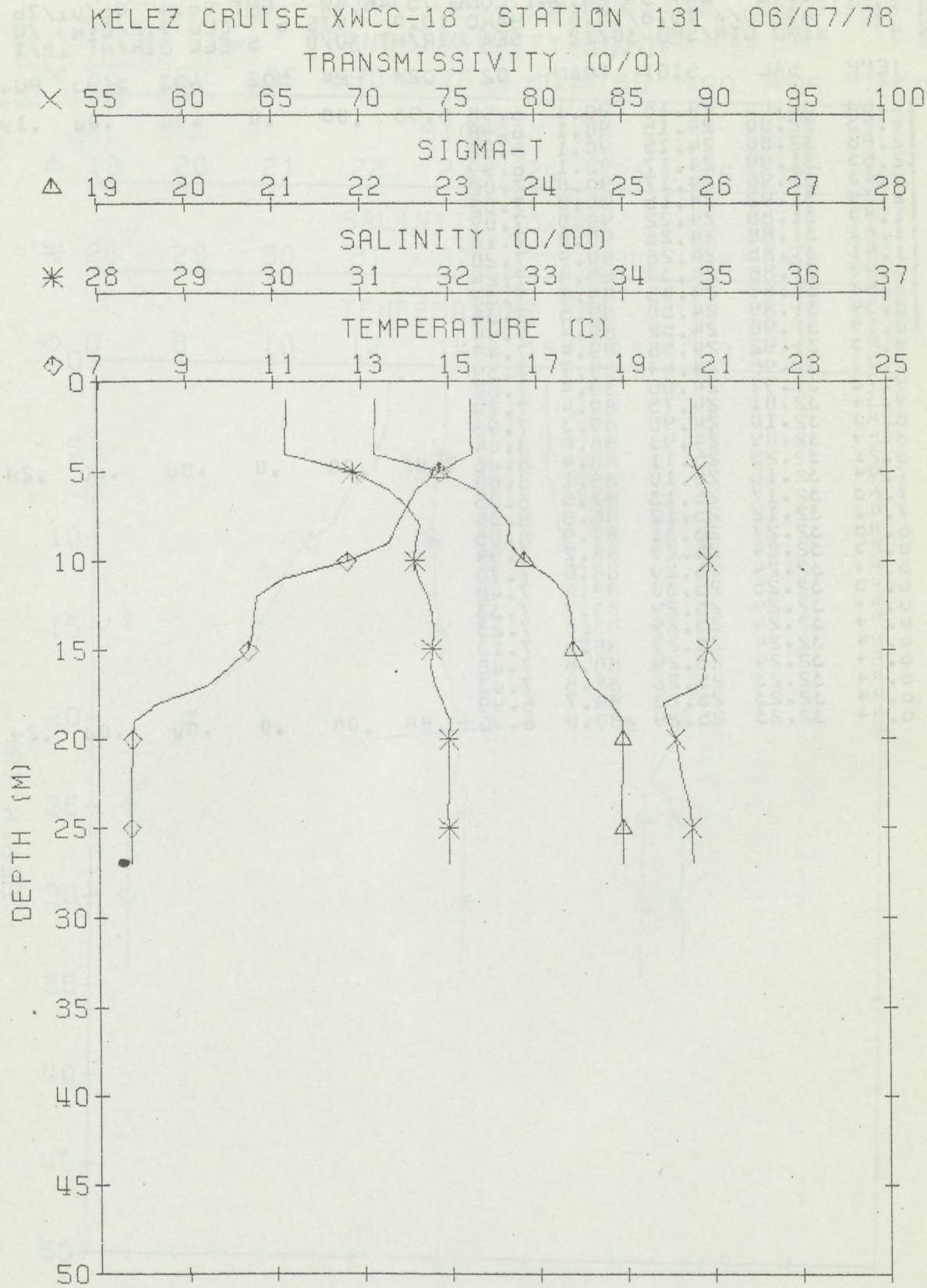
XWCC-16 STA.131 LAT 39 23.4N; LONG 73 54.6W GMT 07.3 06/03/76
DEPTH 29 AIR D/W 15.0/15.0 BARO 14.0 VIS 0 CLD TYP/CVR /9
WETHR 4 WIND DIR/SPD 17/12 SEA DIR/HT 17/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.14	30.89	22.80	92.4	6.85	6.92	.00	.0	.00	.00	.11
2	15.14	30.89	22.80	92.4	6.85						
3	15.15	30.91	22.81	92.1	6.85						
4	14.90	30.96	22.91	92.1	6.85						
5	13.02	31.08	23.38	92.4	7.11						
6	13.00	31.22	23.50	92.3	7.15						
7	11.95	31.55	23.95	91.9	7.30						
8	11.43	31.69	24.15	92.1	7.30						
9	11.21	31.65	24.15	91.9	7.36						
10	10.77	31.63	24.22	91.9	7.38						
11	10.27	31.71	24.36	91.8	7.45						
12	10.28	31.82	24.44	91.8	7.52						
13	10.26	31.81	24.44	91.4	7.50						
14	10.03	31.83	24.50	91.7	7.51						
15	10.02	31.85	24.51	91.5	7.53						
16	9.94	31.88	24.55	91.3	7.56						
17	9.70	31.82	24.55	90.9	7.58						
18	8.27	31.90	24.82	87.8	7.67						
19	7.75	31.99	24.97	87.7	7.93						
20	7.58	32.01	25.01	89.3	7.92	7.31	.00	.0	.00	.00	.00
21	7.54	32.01	25.02	89.8	7.77						
22	7.51	32.01	25.02	90.1	7.60						
23	7.50	32.01	25.02	90.4	7.46						
24	7.49	32.01	25.02	90.5	7.35						
25	7.49	32.01	25.03	90.6	7.24						
26	7.49	32.01	25.02	90.6	7.16						
27	7.49	32.01	25.02	90.7	7.10						
28	7.43	32.01	25.02	90.7	7.07	7.00	.00	.0	.00	.00	.00


KELEZ CRUISE XWCC-18 STATION 131 06/03/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

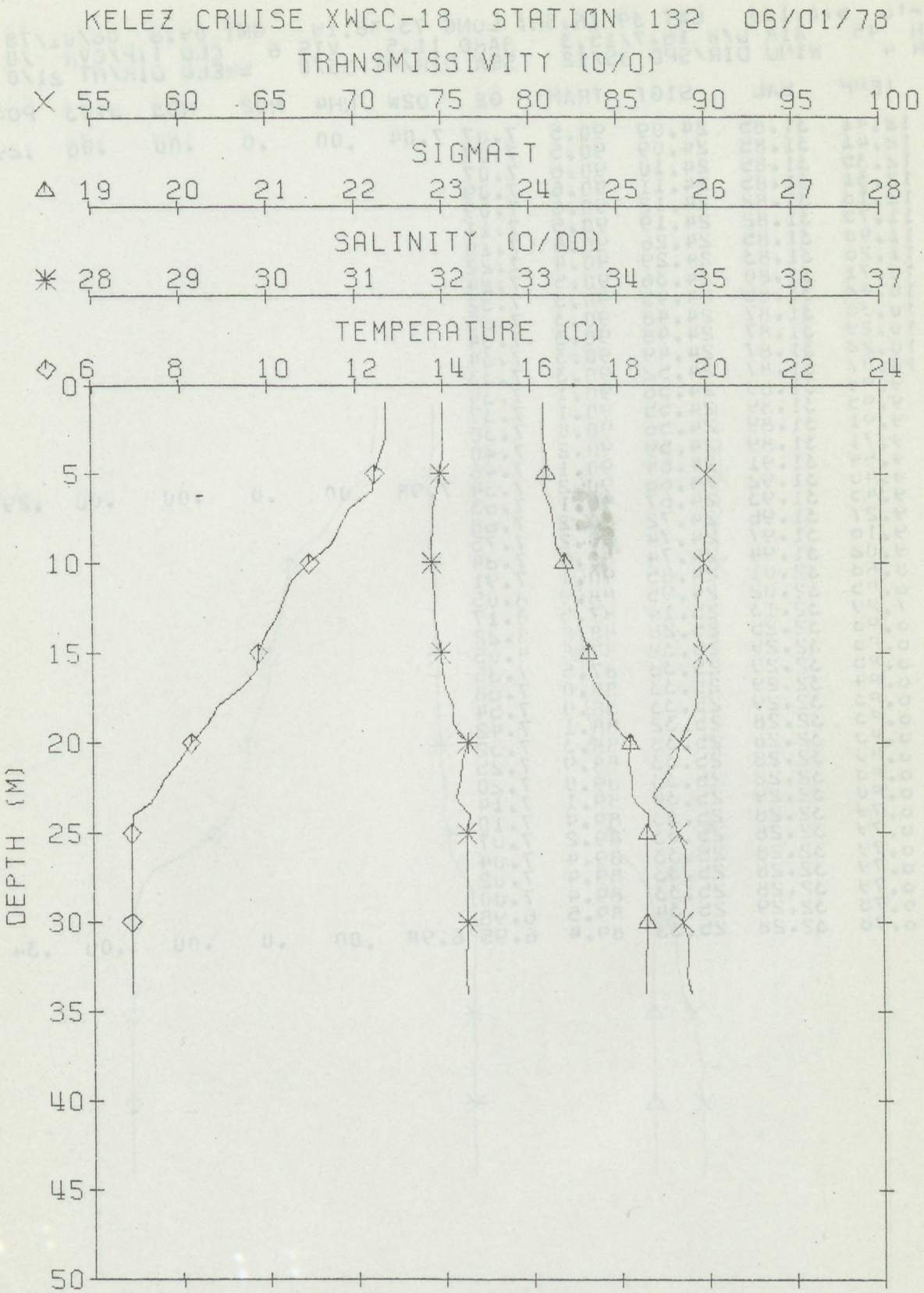
XWCC-13 STA.131 LAT 39 23.5N; LONG 73 55.0W GMT 04.2 06/07/78
DEPTH 29 AIR D/W 15.6/15.0 BARO 18.0 VIS 7 CLD TYP/CVR /8
WEIHR 2 WIND DIR/SPD 16/10 SEA DIR/HT 16/0 SWELL DIR/HT 20/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.47	30.14	22.16	88.8	6.74	6.75	.00	.1	.00	.00	.00
2	15.47	30.14	22.16	88.8	6.73						
3	15.48	30.13	22.15	88.8	6.73						
4	15.52	30.13	22.14	88.7	6.72						
5	14.77	30.89	22.88	89.1	6.74						
6	14.24	31.30	23.31	89.6	6.87						
7	14.01	31.52	23.52	89.7	6.91						
8	13.77	31.65	23.67	89.7	6.95						
9	13.61	31.60	23.67	89.7	6.96						
10	12.64	31.60	23.85	89.7	7.03						
11	11.15	31.64	24.15	89.6	7.22						
12	10.60	31.74	24.33	89.6	7.45						
13	10.51	31.79	24.38	89.6	7.55						
14	10.49	31.80	24.40	89.7	7.58						
15	10.00	31.79	24.40	89.6	7.59						
16	9.05	31.78	24.47	89.5	7.62						
17	9.45	31.83	24.59	89.3	7.79						
18	8.35	31.91	24.82	87.1	8.04						
19	7.77	31.99	24.96	87.4	8.33						
20	7.76	31.98	24.96	87.8	8.18	7.03	.00	.0	.00	.00	.10
21	7.74	31.98	24.96	88.0	7.85						
22	7.73	31.97	24.96	88.1	7.58						
23	7.73	31.97	24.96	88.4	7.41						
24	7.73	31.97	24.96	88.6	7.29						
25	7.72	31.97	24.96	88.7	7.23						
26	7.72	31.97	24.96	88.7	7.19						
27	7.72	31.97	24.96	88.8	7.16	7.02	.00	.2	.00	.00	.10


KELEZ CRUISE XWCC-18 STATION 131 06/07/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

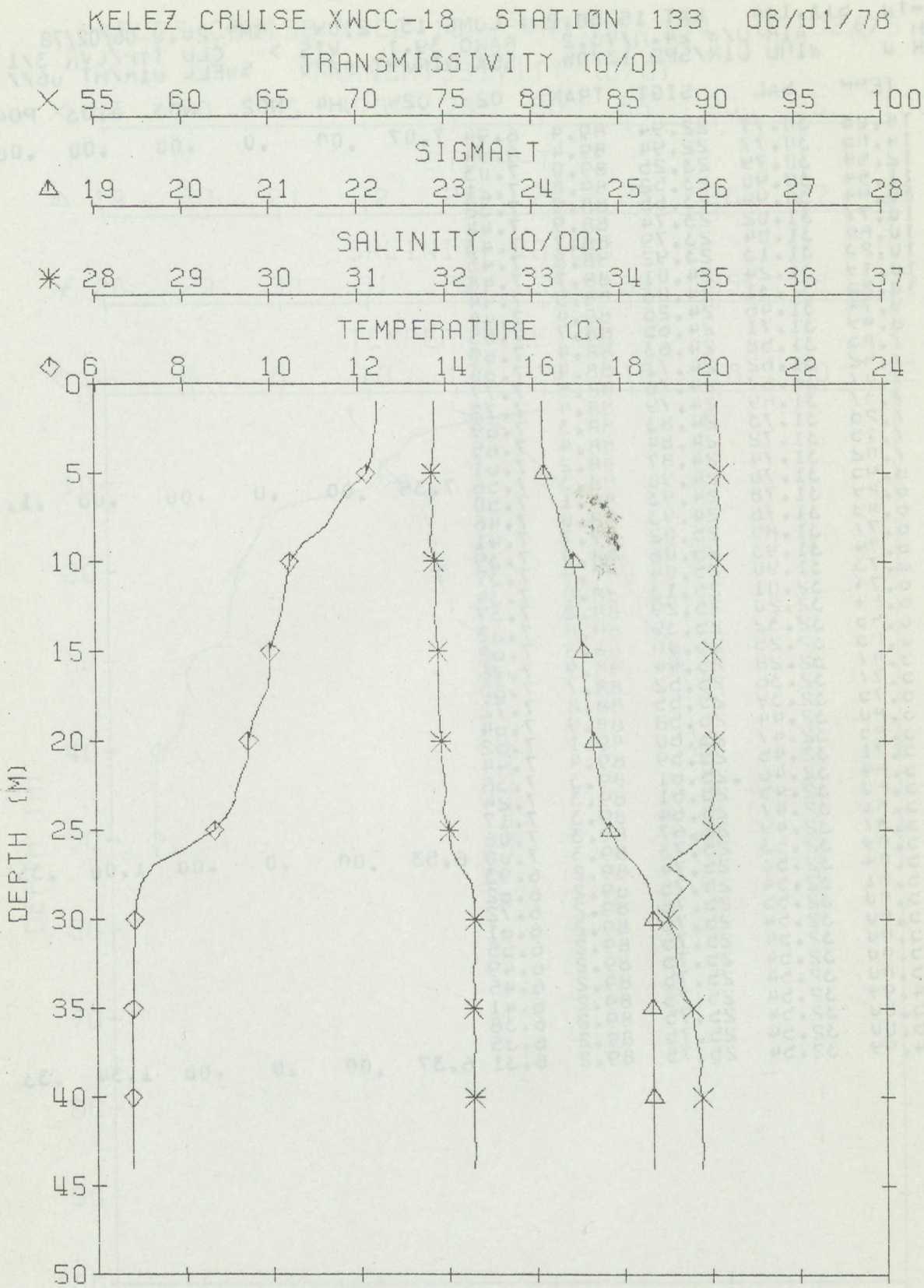
XNCC-18 STA.132 LAT 39 20.3N; LONG 73 46.4W GMT 08.4 06/01/78
DEPTH 35 AIR D/W 15.6/15.6 BARO 10.0 VIS 5 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 30/12 SEA DIR/HT 30/0 SWELL DIR/HT 18/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.68	32.00	24.15	90.1	6.98	6.98	.00	.0	.00	.00	.19
2	12.63	32.00	24.15	90.1	6.98						
3	12.68	32.00	24.15	90.1	6.98						
4	12.55	31.99	24.17	90.1	6.99						
5	12.45	31.96	24.17	90.0	7.02						
6	12.39	31.92	24.15	90.0	7.02						
7	11.85	31.88	24.22	90.0	7.07						
8	11.61	31.88	24.26	90.0	7.16						
9	11.41	31.85	24.28	89.9	7.20						
10	10.95	31.86	24.37	89.8	7.24						
11	10.52	31.87	24.45	89.7	7.32						
12	10.34	31.89	24.50	89.5	7.38						
13	10.19	31.90	24.52	89.4	7.44						
14	9.95	31.92	24.58	89.4	7.49						
15	9.75	31.96	24.64	89.7	7.59						
16	9.72	31.97	24.66	89.4	7.68						
17	9.34	32.01	24.75	89.4	7.79						
18	8.85	32.10	24.90	89.3	7.98						
19	8.59	32.09	24.93	88.8	8.04						
20	8.21	32.25	25.11	88.4	8.06	7.82	.00	.0	.00	.00	.29
21	7.94	32.18	25.10	88.1	8.08						
22	7.65	32.17	25.13	87.5	8.05						
23	7.40	32.12	25.12	86.8	8.04						
24	6.88	32.27	25.31	87.9	8.05						
25	6.85	32.24	25.29	88.2	7.94						
26	6.84	32.24	25.29	88.6	7.70						
27	6.85	32.25	25.30	88.6	7.48						
28	6.84	32.24	25.29	88.7	7.33						
29	6.84	32.24	25.29	88.6	7.23						
30	6.84	32.24	25.29	88.5	7.13						
31	6.84	32.24	25.29	88.8	7.08						
32	6.84	32.23	25.28	88.8	7.03						
33	6.84	32.23	25.28	88.7	6.99						
34	6.84	32.23	25.29	89.0	~~6.96~~	6.88	.00	.0	.00	.00	.29


KELEZ CRUISE XWCC-18 STATION 132 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
6 8 10 12 14 16 18 20 22 24
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

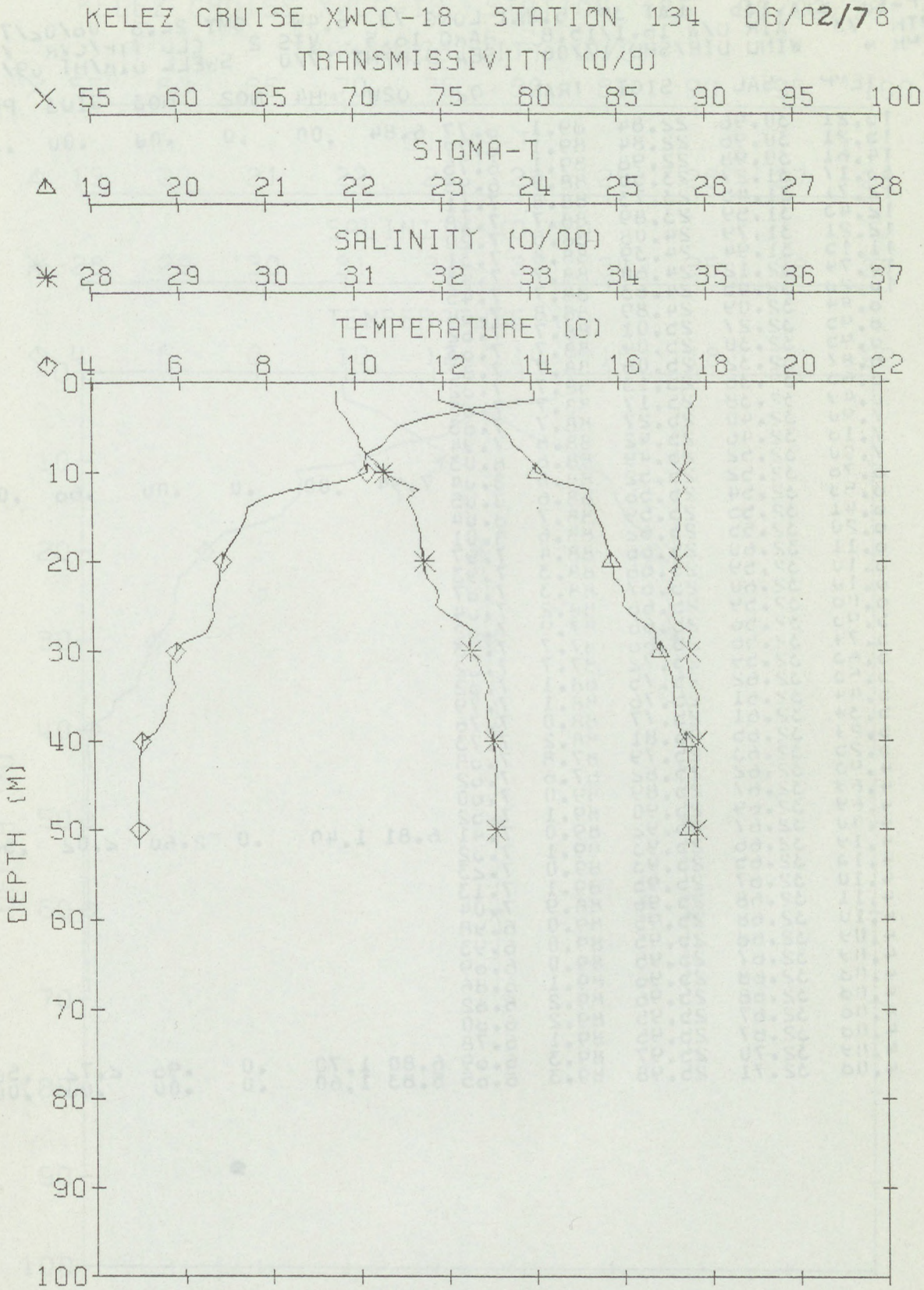
XWCC-16 STA.133 LAT 39 16.5N; LONG 73 36.1W GMT 09.8 06/01/78
DEPTH 45 AIR D/W 16.7/15.3 BARO 11.5 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 35/12 SEA DIR/HT 35/0 SWELL DIR/HT 21/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.41	31.85	24.09	90.5	7.07	7.04	.00	.0	.00	.00	.29
2	12.41	31.85	24.09	90.5	7.07						
3	12.35	31.85	24.10	90.6	7.07						
4	12.31	31.85	24.11	90.6	7.09						
5	12.18	31.82	24.12	90.6	7.09						
6	11.75	31.82	24.19	90.5	7.11						
7	11.48	31.85	24.26	90.6	7.18						
8	11.26	31.83	24.29	90.4	7.22						
9	10.71	31.80	24.36	90.5	7.24						
10	10.42	31.85	24.45	90.5	7.32						
11	10.36	31.87	24.48	90.3	7.35						
12	10.29	31.87	24.48	90.3	7.34						
13	10.22	31.87	24.49	90.3	7.34						
14	10.07	31.87	24.52	90.3	7.33						
15	9.95	31.89	24.56	90.1	7.34						
16	9.95	31.89	24.55	90.1	7.37						
17	9.91	31.89	24.56	90.0	7.38						
18	9.71	31.89	24.59	90.2	7.40						
19	9.54	31.91	24.64	90.1	7.46						
20	9.46	31.92	24.66	90.2	7.54	7.98	.00	.0	.00	.00	.29
21	9.45	31.93	24.67	[illegible].1	7.63						
22	9.27	31.96	24.72	[illegible].2	7.68						
23	9.16	31.97	24.74	[illegible].2	7.75						
24	9.02	31.94	24.74	[illegible].9	7.84						
25	8.68	32.01	24.85	90.1	7.91						
26	8.05	32.02	24.95	88.9	8.05						
27	7.29	32.13	25.14	87.5	8.17						
28	0.96	32.25	25.28	88.8	8.22						
29	0.83	32.29	25.32	87.8	8.05						
30	0.85	32.29	25.33	87.5	7.85						
31	0.84	32.29	25.33	88.0	7.68						
32	0.83	32.29	25.33	88.0	7.54						
33	0.83	32.28	25.32	88.1	7.42						
34	0.83	32.28	25.33	88.3	7.32						
35	0.80	32.28	25.33	88.9	7.25						
36	0.80	32.28	25.33	89.0	7.20						
37	0.80	32.29	25.34	89.1	7.14						
38	0.79	32.28	25.33	89.4	7.10						
39	0.79	32.28	25.33	89.2	7.07						
40	0.79	32.28	25.33	89.4	7.04						
41	0.79	32.28	25.33	89.4	7.02						
42	0.79	32.28	25.33	89.4	7.00						
43	0.78	32.29	25.34	89.5	6.98						
44	0.78	32.28	25.33	89.4	6.95	6.98	.00	.0	.00	.00	.34


KELEZ CRUISE XWCC-18 STATIØN 133 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
6 8 10 12 14 16 18 20 22 24
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

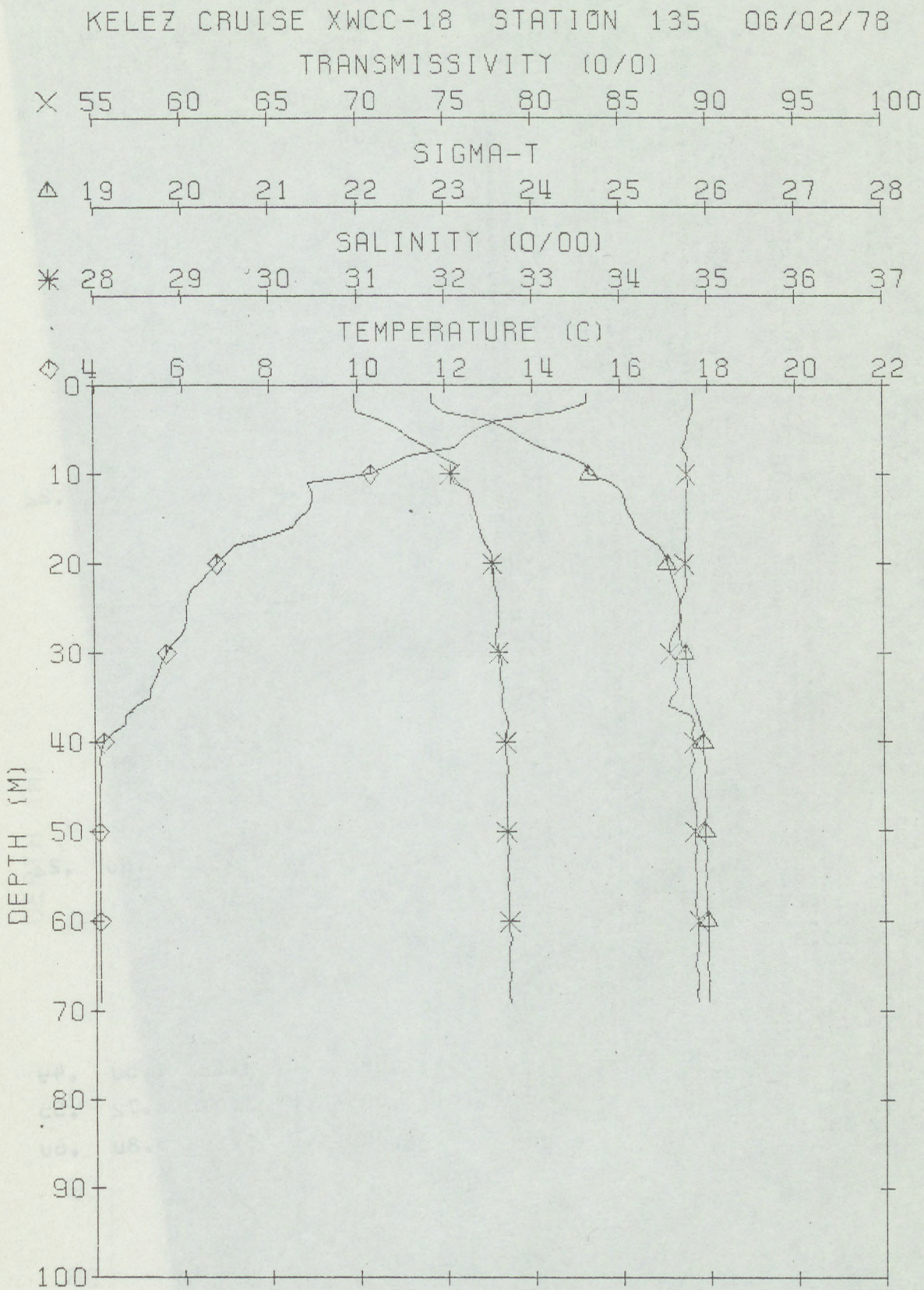
XWCC-18 STA.134 LAT 15 50.2N; LONG 15 2.0W GMT 20.0 06/02/78
DEPTH 2 AIR D/W 24.N/73.2 BARO 39.1 VIS > CLD TYP/CVR 3/1
WETHR 0 WIND DIR/SPD 13/0W SEA DIR/HT 02/0 SWELL DIR/HT 06//

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.08	30.77	22.94	89.4	6.94	7.07	.00	.0	.00	.00	.00
2	14.08	30.77	22.94	89.4	6.94						
3	12.54	30.79	23.25	89.0	7.03						
4	11.54	30.90	23.52	89.0	7.21						
5	10.94	30.94	23.65	88.9	7.38						
6	10.77	31.02	23.74	88.9	7.44						
7	10.60	31.04	23.79	88.7	7.43						
8	10.25	31.13	23.92	88.8	7.45						
9	10.19	31.24	24.01	88.7	7.48						
10	10.25	31.31	24.06	88.5	7.44						
11	9.74	31.46	24.26	88.4	7.40						
12	8.49	31.71	24.65	88.7	7.55						
13	7.85	31.58	24.63	88.4	7.69						
14	7.52	31.62	24.71	88.4	7.80						
15	7.47	31.67	24.76	88.5	7.77						
16	7.37	31.69	24.79	88.4	7.72						
17	7.28	31.73	24.83	88.3	7.69						
18	7.15	31.72	24.84	88.4	7.65						
19	7.02	31.74	24.87	88.2	7.61						
20	6.95	31.76	24.90	88.3	7.56	7.35	.00	.0	.00	.00	.11
21	6.89	31.78	24.93	88.1	7.50						
22	6.83	31.78	24.93	88.0	7.46						
23	6.77	31.89	25.02	87.7	7.41						
24	6.74	31.93	25.06	88.0	7.39						
25	6.75	31.90	25.04	87.9	7.37						
26	6.74	32.01	25.13	88.0	7.34						
27	6.64	32.20	25.29	88.2	7.37						
28	6.55	32.32	25.39	88.0	7.33						
29	6.05	32.25	25.40	88.8	7.02						
30	5.87	32.28	25.44	88.9	7.76						
31	5.77	32.36	25.52	88.7	7.80						
32	5.75	32.39	25.55	88.8	7.72						
33	5.80	32.44	25.58	88.9	7.64						
34	5.85	32.47	25.60	89.1	7.52						
35	5.71	32.45	25.59	89.4	7.44						
36	5.64	32.46	.25.61	89.3	7.36						
37	5.60	32.45	25.61	89.3	7.24						
38	5.51	32.47	25.64	89.3	7.17						
39	5.37	32.49	25.67	89.3	7.06						
40	5.09	32.53	25.73	89.3	7.00	6.53	.00	.0	.00	1.00	.35
41	5.04	32.53	25.74	89.2	6.93						
42	5.01	32.54	25.75	89.2	6.82						
43	5.00	32.55	25.76	89.2	6.72						
44	5.00	32.54	25.75	89.2	6.61						
45	5.00	32.54	25.75	89.2	6.55						
46	5.00	32.54	25.75	89.2	6.49						
47	5.00	32.54	25.75	89.2	6.45						
48	4.99	32.54	25.75	89.2	6.41						
49	5.00	32.54	25.75	89.2	6.38						
50	5.00	32.54	25.75	89.2	6.35						
52	4.99	32.54	25.75	89.2	6.31	6.37	.00	.0	.00	1.34	.33


KELEZ CRUISE XWCC-18 STATION 134 06/02/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

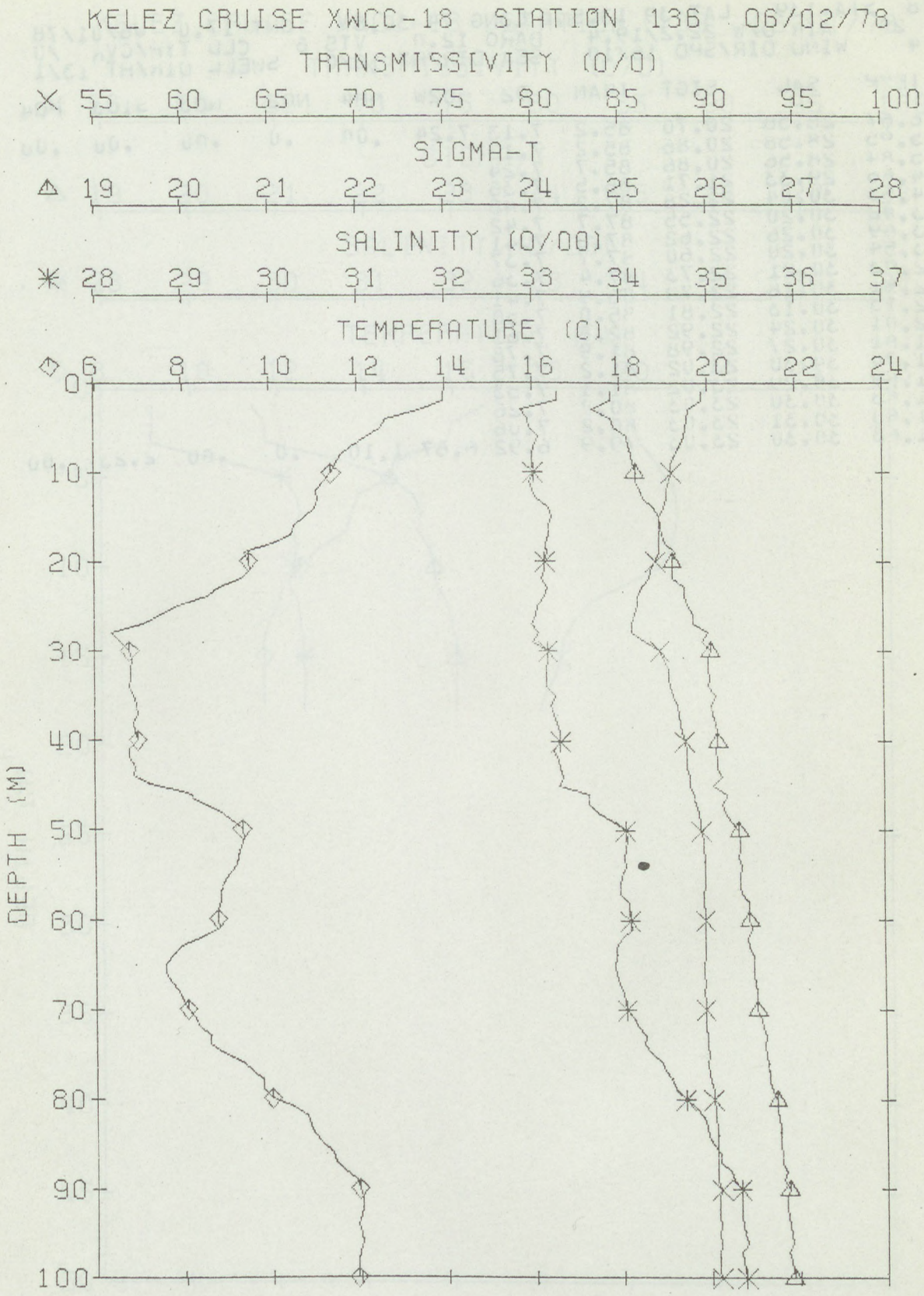
XWCC-18 STA.135 LAT 39 5.2N; LONG 73 6.4W GMT 24.8 06/02/78
DEPTH 73 AIR D/W 16.1/15.8 BARO 16.5 VIS 2 CLD TYP/CVR /9
WETHR 4 WIND DIR/SPD 17/06 SEA DIR/HT 17/0 SWELL DIR/HT 09/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.21	30.96	22.84	89.1	6.77	6.84	.00	.0	.00	.00	.16
2	15.21	30.96	22.84	89.1	6.77						
3	14.61	30.98	22.98	89.1	6.75						
4	13.17	31.27	23.50	88.9	6.95						
5	12.71	31.45	23.73	88.8	7.11						
6	12.43	31.59	23.89	88.7	7.18						
7	12.21	31.79	24.08	88.5	7.20						
8	11.15	31.94	24.39	88.8	7.31						
9	10.74	32.12	24.60	88.7	7.43						
10	10.26	32.05	24.63	88.7	7.45						
11	8.84	32.09	24.89	88.8	7.64						
12	8.95	32.27	25.01	88.7	7.82						
13	8.95	32.30	25.04	88.7	7.83						
14	8.87	32.32	25.06	88.7	7.82						
15	8.65	32.36	25.13	88.7	7.82						
16	8.49	32.38	25.17	88.7	7.83						
17	7.90	32.40	25.27	88.7	7.83						
18	7.18	32.46	25.42	88.6	7.94						
19	7.00	32.52	25.49	88.6	8.03						
20	6.78	32.52	25.52	88.6	8.04	7.94	.00	.0	.00	.60	.00
21	6.53	32.54	25.56	88.6	8.05						
22	6.41	32.55	25.59	88.7	8.04						
23	6.20	32.55	25.62	88.6	8.01						
24	6.11	32.60	25.66	88.4	7.97						
25	6.10	32.59	25.66	88.3	7.93						
26	6.10	32.60	25.67	88.3	7.87						
27	6.06	32.59	25.66	88.2	7.84						
28	5.95	32.56	25.66	87.9	7.82						
29	5.74	32.56	25.68	87.7	7.83						
30	5.63	32.59	25.72	87.7	7.82						
31	5.53	32.62	25.75	88.1	7.82						
32	5.44	32.61	25.76	88.1	7.79						
33	5.34	32.61	25.77	88.0	7.76						
34	5.24	32.65	25.81	88.2	7.73						
35	5.25	32.63	25.79	87.8	7.68						
36	4.83	32.62	25.82	87.6	7.62						
37	4.69	32.67	25.89	89.0	7.60						
38	4.69	32.69	25.90	89.1	7.52						
39	4.40	32.67	25.92	89.0	7.41	6.81	1.40	.0	2.60	2.02	.50
40	4.19	32.66	25.93	89.1	7.32						
41	4.13	32.65	25.93	89.0	7.23						
42	4.10	32.67	25.95	89.1	7.13						
43	4.11	32.68	25.96	88.9	7.04						
44	4.10	32.68	25.95	89.0	6.98						
45	4.09	32.68	25.95	89.0	6.93						
46	4.09	32.67	25.95	89.0	6.89						
47	4.08	32.68	25.96	89.1	6.86						
48	4.08	32.68	25.96	89.2	6.82						
49	4.08	32.67	25.95	89.2	6.80						
50	4.08	32.67	25.95	89.1	6.78						
60	4.09	32.70	25.97	89.3	6.69	6.80	1.70	.0	.98	2.72	.50
69	4.08	32.71	25.98	89.3	6.65	5.83	1.60	.0	.00	.00	.00


KELEZ CRUISE XWCC-18 STATION 135 06/02/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

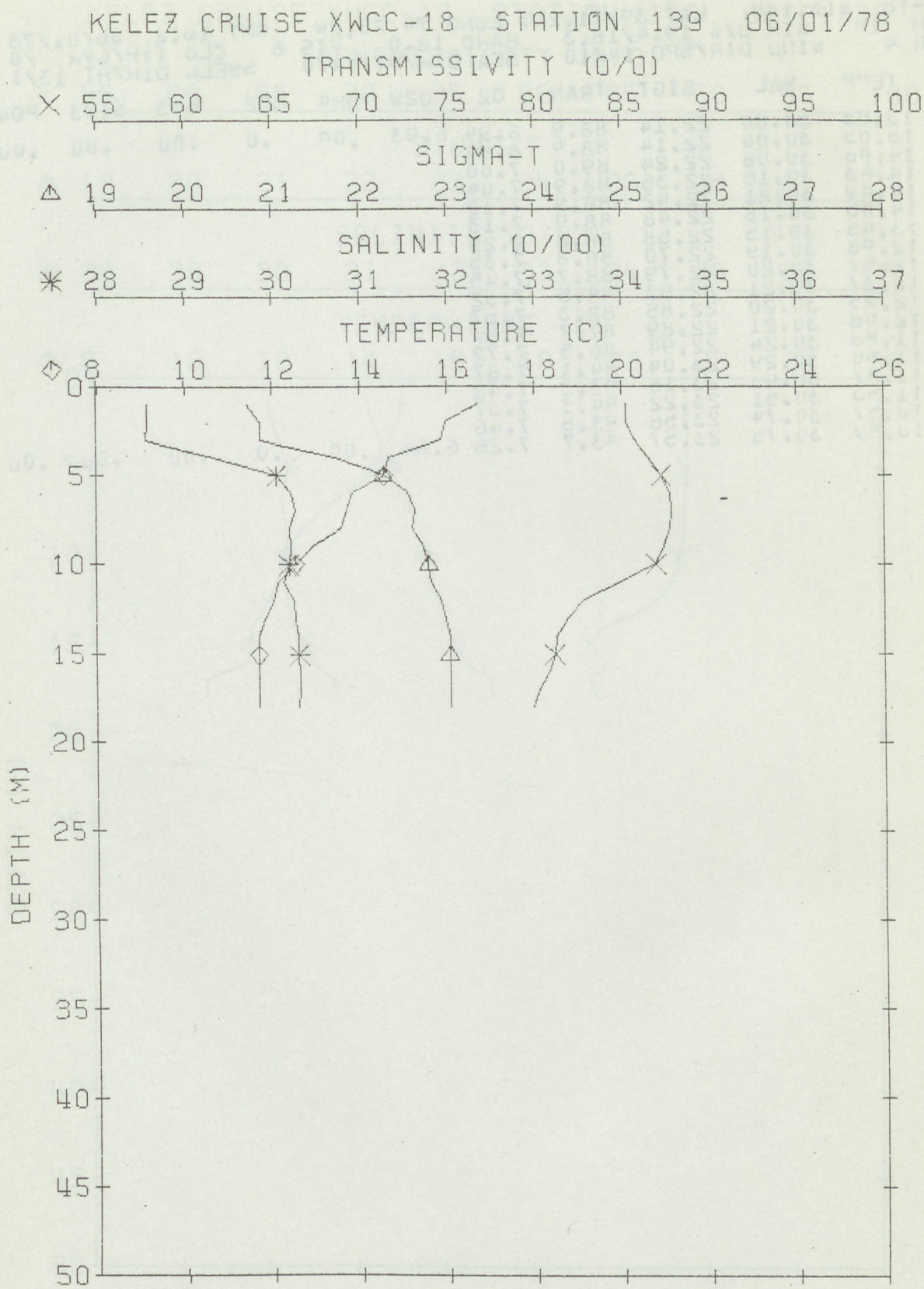
XWCC-18 STA.136 LAT 39 .0N; LONG 72 50.8W GMT 20.0 06/02/78
DEPTH 117 AIR D/W 15.6/15.6 BARO 16.0 VIS 0 CLD TYP/CVR /9
WETHR 4 WIND DIR/SPD 16/08 SEA DIR/HT 16/0 SWELL DIR/HT 09/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.94	33.28	24.89	89.6	6.92	6.92	.00	.0	.00	1.33	.11
2	13.94	33.28	24.89	89.6	6.92						
3	13.38	32.86	24.68	88.9	6.94						
4	12.67	32.95	24.89	88.8	7.10						
5	12.50	32.96	24.94	88.7	7.17						
6	12.17	33.07	25.08	88.6	7.19						
7	11.84	33.00	25.09	88.4	7.22						
8	11.63	33.00	25.13	88.1	7.26						
9	11.49	32.99	25.15	87.9	7.27						
10	11.40	33.00	25.17	87.9	7.27						
11	11.21	32.97	25.18	87.8	7.28						
12	11.05	33.00	25.23	87.6	7.31						
13	11.07	33.05	25.27	87.6	7.33						
14	11.01	33.17	25.37	87.5	7.32						
15	10.79	33.21	25.44	87.2	7.34						
16	10.54	33.18	25.46	87.2	7.40						
17	10.47	33.17	25.47	87.2	7.45						
18	10.08	33.14	25.51	87.2	7.49						
19	9.43	33.16	25.63	87.2	7.56						
20	9.52	33.13	25.59	87.0	7.67	7.54	.00	.0	.00	.00	.22
21	9.54	33.13	25.59	86.7	7.66						
22	9.34	33.09	25.59	86.6	7.69						
23	8.87	33.16	25.72	86.2	7.73						
24	8.57	33.12	25.74	86.0	7.82						
25	7.92	33.04	25.77	86.0	7.92						
26	7.51	33.03	25.82	85.8	8.04						
27	7.09	32.97	25.83	85.6	8.09						
28	6.40	33.06	25.99	85.6	8.12						
29	6.53	33.00	25.92	86.4	8.16						
30	6.79	33.16	26.02	87.2	8.04						
31	6.87	33.15	26.01	87.5	7.84						
32	6.82	33.14	26.00	87.7	7.73						
33	6.82	33.15	26.01	87.7	7.64						
34	6.79	33.14	26.00	87.8	7.55						
35	6.89	33.24	26.07	88.0	7.48						
36	6.94	33.20	26.03	88.2	7.41						
37	7.00	33.23	26.04	88.3	7.36						
38	6.90	33.26	26.09	88.4	7.31						
39	6.90	33.29	26.11	88.5	7.29						
40	6.99	33.30	26.10	88.6	7.24	7.54	.00	.0	.00	.00	.22
41	6.80	33.23	26.08	88.7	7.21						
42	6.80	33.27	26.11	88.7	7.20						
43	6.92	33.29	26.11	88.7	7.15						
44	6.87	33.32	26.14	88.9	7.12						
45	7.20	33.28	26.05	88.9	7.10						
46	8.11	33.63	26.20	89.1	6.98						
47	8.40	33.62	26.15	89.2	6.84						
48	8.81	33.72	26.17	89.4	6.76						
49	9.08	33.88	26.25	89.5	6.69						
50	9.34	34.03	26.33	89.5	6.60						
60	8.79	34.09	26.46	89.7	6.38	6.31	.00	.0	2.18	1.50	.49
70	8.08	34.04	26.53	89.7	6.11						
80	9.99	34.70	26.74	90.1	5.66	5.61	.00	.0	3.01	2.72	.55
90	11.90	35.33	26.87	90.5	5.02						
100	11.91	35.38	26.92	90.5	4.77	4.91	.00	.0	5.19	3.80	.60


KELEZ CRUISE XWCC-18 STATION 136 06/02/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
6 8 10 12 14 16 18 20 22 24
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

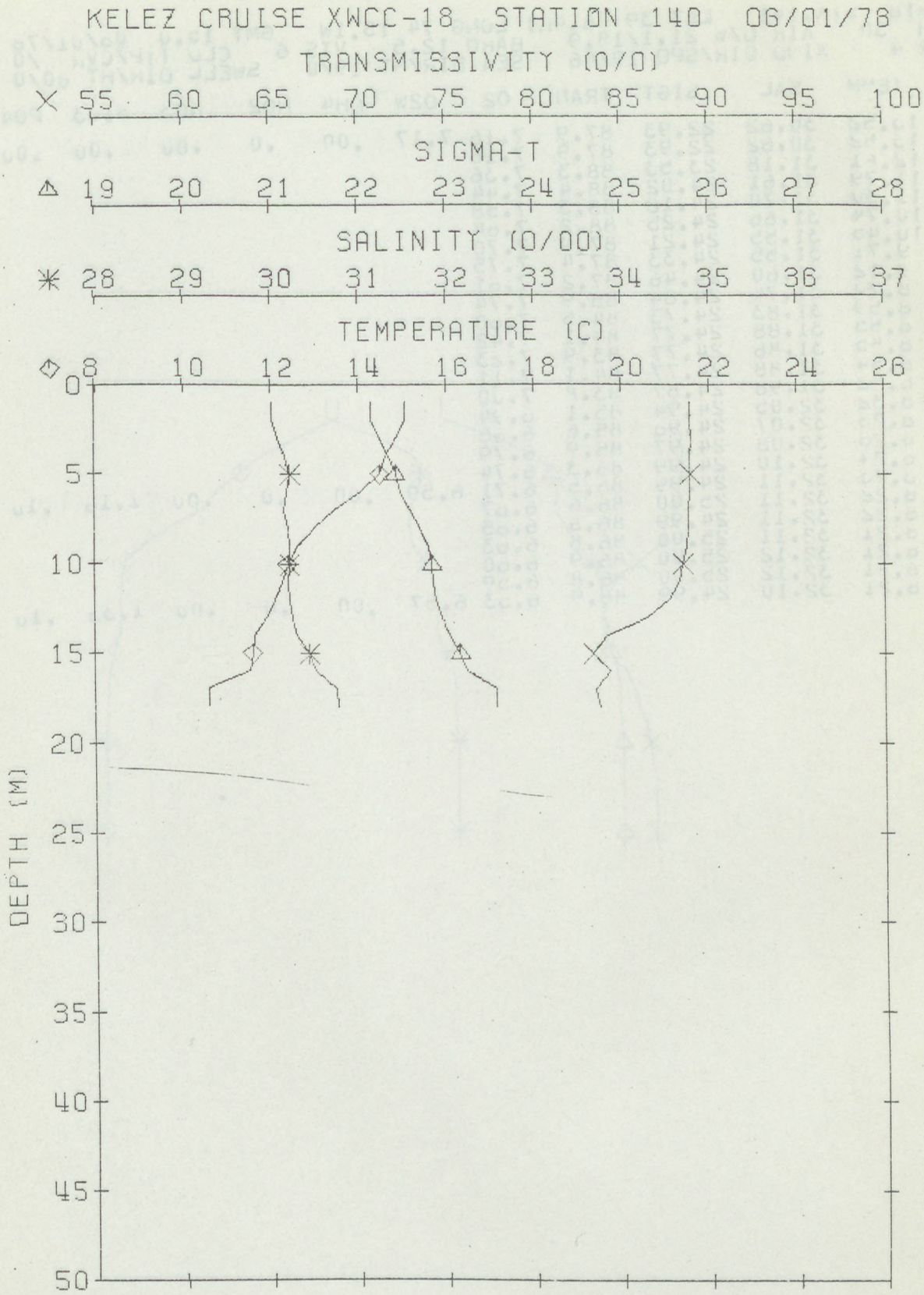
XWCC-18 STA.139 LAT 39 13.5N; LONG 74 30.5W GMT 17.0 06/01/78
DEPTH 20 AIR D/W 22.2/19.4 BARO 12.0 VTS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 16/10 SEA DIR/HT 16/0 SWELL DIR/HT 13/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	16.67	28.58	20.70	85.2	7.13	7.24	.00	.0	.00	.00	.00
2	15.85	28.58	20.86	85.2	7.13						
3	15.84	28.56	20.86	85.7	7.24						
4	14.66	29.33	21.71	86.5	7.36						
5	14.55	30.04	22.28	87.2	7.48						
6	13.82	30.20	22.55	87.7	7.42						
7	13.69	30.26	22.62	87.8	7.41						
8	13.54	30.20	22.60	87.7	7.37						
9	12.85	30.21	22.73	87.4	7.36						
10	12.51	30.18	22.79	86.9	7.41						
11	12.13	30.13	22.81	85.0	7.50						
12	12.01	30.24	22.92	82.8	7.61						
13	11.81	30.27	22.98	81.9	7.78						
14	11.70	30.30	23.02	81.2	7.75						
15	11.69	30.29	23.02	81.1	7.53						
16	11.68	30.30	23.03	80.8	7.26						
17	11.68	30.31	23.03	80.2	7.06						
18	11.68	30.30	23.03	79.9	6.92	6.67	1.10	.0	.00	2.25	.00


KELEZ CRUISE XWCC-18 STATION 139 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

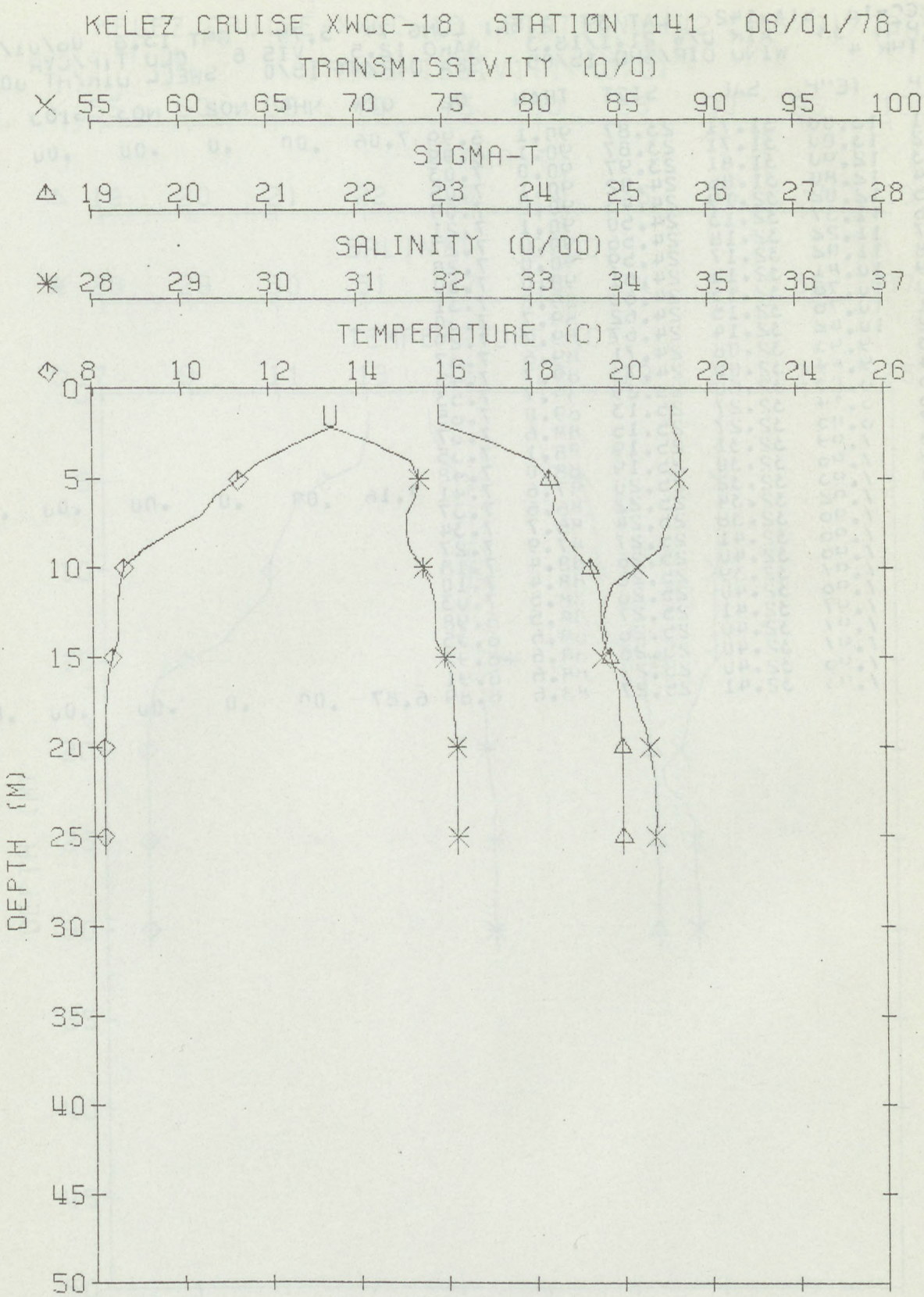
XWCC-18 STA.140 LAT 39 11.2N; LONG 74 25.2W GMT 18.2 06/01/78
DEPTH 19 AIR D/W 19.4/18.3 BARO 12.0 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 14/10 SEA DIR/HT 14/0 SWELL DIR/HT 13/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.05	30.00	22.14	88.9	6.94	6.93	.00	.0	.00	.00	.00
2	15.05	30.00	22.14	88.9	6.94						
3	14.86	30.08	22.24	89.0	7.00						
4	14.63	30.16	22.35	88.9	7.04						
5	14.49	30.21	22.42	88.9	7.10						
6	14.06	30.18	22.48	88.9	7.13						
7	13.45	30.15	22.58	88.8	7.25						
8	12.98	30.19	22.70	88.8	7.35						
9	12.57	30.20	22.79	88.7	7.45						
10	12.37	30.21	22.83	88.5	7.52						
11	12.25	30.20	22.85	88.3	7.57						
12	12.08	30.21	22.89	87.7	7.64						
13	11.88	30.24	22.94	86.5	7.72						
14	11.60	30.29	23.04	84.1	7.67						
15	11.57	30.43	23.15	83.3	7.48						
16	11.55	30.51	23.22	84.3	7.37						
17	10.57	30.74	23.56	83.5	7.46						
18	10.59	30.75	23.57	83.7	7.26	6.66	.00	.0	.00	.00	.00


KELEZ CRUISE XWCC-18 STATION 140 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

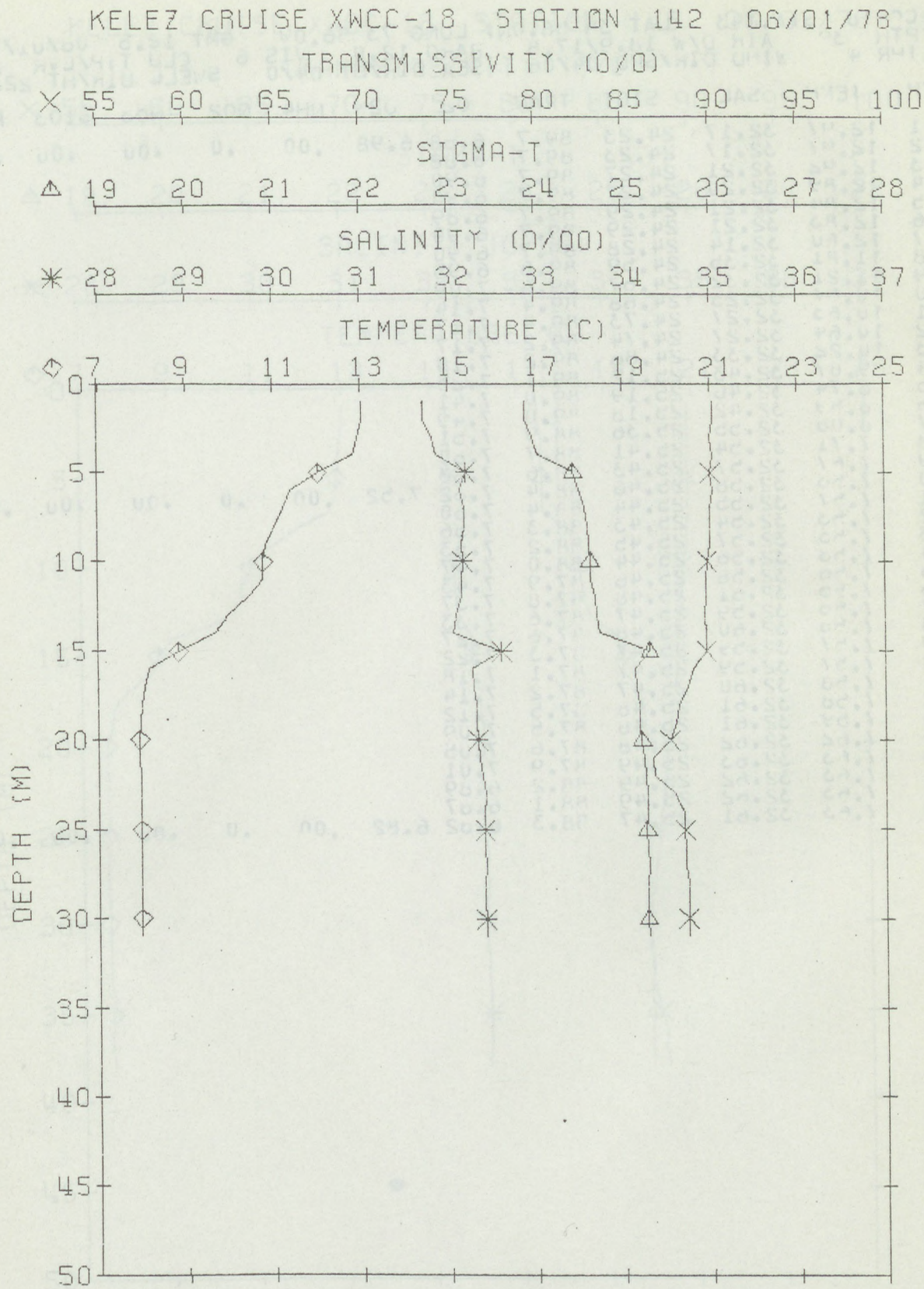
XWCC-18 STA.141 LAT 39 6.4N; LONG 74 15.1W GMT 15.0 06/01/78
DEPTH 30 AIR D/W 21.1/18.9 BARO 12.5 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 19/06 SEA DIR/HT 19/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.52	30.62	22.93	87.9	7.16	7.17	.00	.0	.00	.00	.00
2	13.52	30.62	22.93	87.9	7.16						
3	12.61	31.18	23.53	88.3	7.36						
4	11.79	31.61	24.02	88.4	7.44						
5	11.30	31.70	24.18	88.3	7.58						
6	10.74	31.66	24.25	88.2	7.64						
7	10.45	31.55	24.21	87.9	7.70						
8	9.71	31.55	24.33	87.4	7.75						
9	9.12	31.60	24.46	87.2	7.81						
10	8.70	31.74	24.64	85.9	7.74						
11	8.59	31.83	24.73	84.5	7.60						
12	8.55	31.88	24.77	84.1	7.42						
13	8.55	31.88	24.77	83.9	7.23						
14	8.54	31.88	24.77	84.1	7.11						
15	8.42	31.98	24.87	83.8	7.00						
16	8.32	32.05	24.94	85.1	6.94						
17	8.23	32.07	24.96	85.6	6.86						
18	8.20	32.08	24.97	85.9	6.79						
19	8.24	32.10	24.99	86.3	6.74						
20	8.23	32.11	24.99	86.5	6.71	6.59	.00	.0	.00	1.10	.10
21	8.22	32.11	25.00	86.6	6.67						
22	8.22	32.11	24.99	86.8	6.65						
23	8.21	32.11	25.00	86.8	6.63						
24	8.21	32.12	25.00	86.9	6.60						
25	8.21	32.12	25.00	86.8	6.59						
26	8.21	32.10	24.99	86.9	6.53	6.57	.00	.0	.00	1.35	.10


KELEZ CRUISE XWCC-18 STATION 141 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50
U

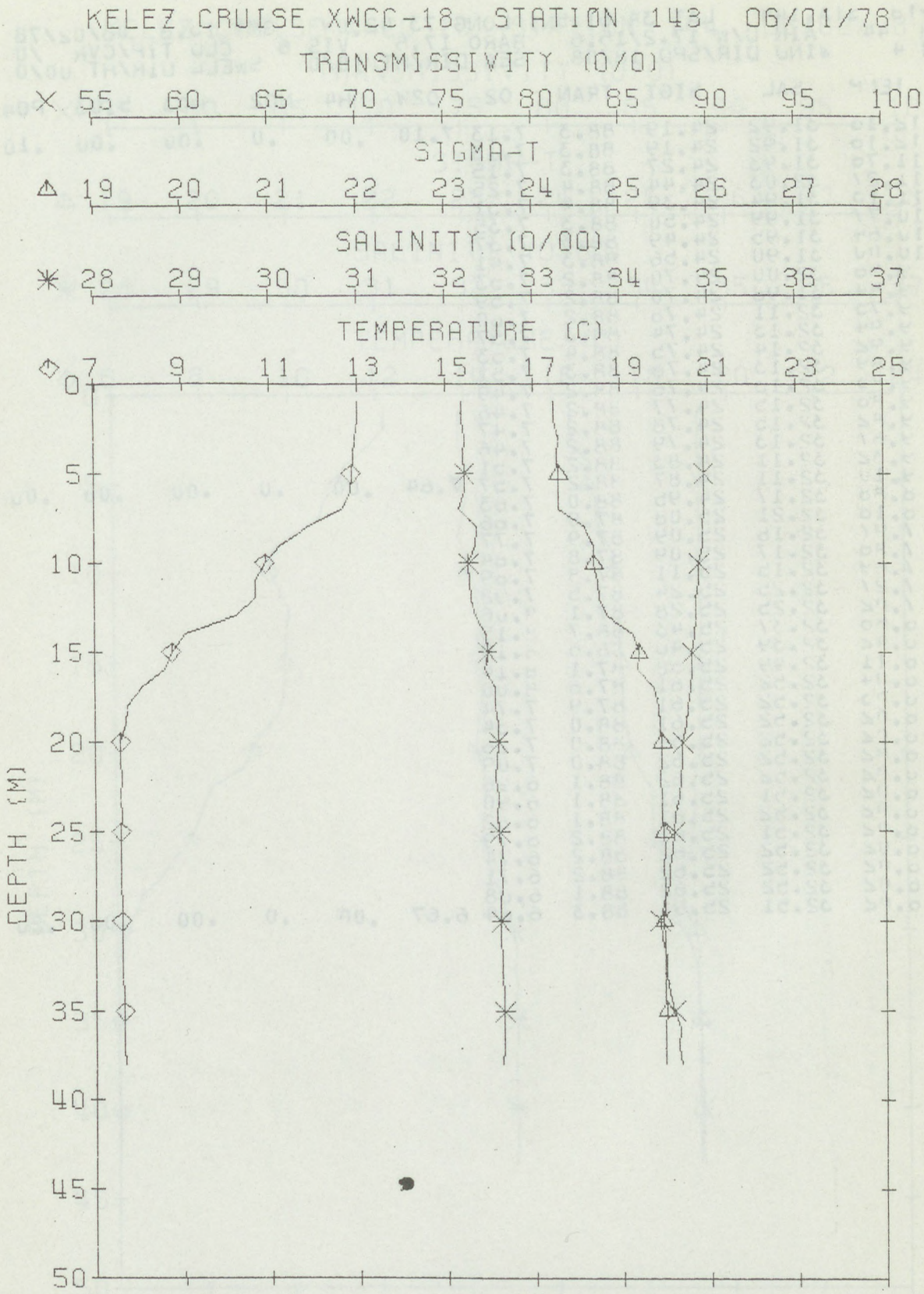
XWCC-16 STA.142 LAT 39 2.5N; LONG 74 5.7W GMT 13.8 06/01/78
DEPTH 33 AIR D/W 21.1/18.3 BARO 12.5 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 15/05 SEA DIR/HT 15/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.00	31.71	23.87	90.1	6.99	7.06	.00	.0	.00	.00	.00
2	13.00	31.71	23.87	90.1	6.99						
3	12.90	31.81	23.97	90.0	7.03						
4	12.80	31.86	24.02	90.1	7.05						
5	12.02	32.19	24.43	90.0	7.09						
6	11.37	32.13	24.50	90.1	7.21						
7	11.22	32.18	24.56	90.0	7.27						
8	11.02	32.17	24.59	90.0	7.28						
9	10.81	32.15	24.61	90.0	7.30						
10	10.76	32.15	24.63	89.8	7.31						
11	10.76	32.15	24.62	89.7	7.30						
12	10.42	32.14	24.67	89.7	7.29						
13	9.95	32.08	24.71	89.6	7.37						
14	9.64	32.05	24.73	89.7	7.45						
15	8.85	32.60	25.29	89.7	7.53						
16	8.14	32.27	25.13	89.0	7.65						
17	8.05	32.27	25.15	88.6	7.67						
18	7.99	32.31	25.19	88.1	7.55						
19	7.96	32.30	25.19	88.0	7.48						
20	7.93	32.32	25.20	87.6	7.41	7.16	.00	.0	.00	.00	.00
21	7.92	32.34	25.22	86.6	7.37						
22	7.90	32.38	25.24	86.7	7.34						
23	7.90	32.41	25.27	87.9	7.27						
24	7.90	32.40	25.26	88.4	7.18						
25	7.97	32.39	25.26	88.4	7.10						
26	7.90	32.40	25.26	88.5	7.03						
27	7.97	32.41	25.27	88.5	6.98						
28	7.97	32.40	25.26	88.6	6.95						
29	7.97	32.40	25.26	88.6	6.93						
30	7.95	32.40	25.27	88.6	6.91						
31	7.95	32.41	25.27	88.6	6.89	6.87	.00	.0	.00	.00	.00


KELEZ CRUISE XWCC-18 STATION 142 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

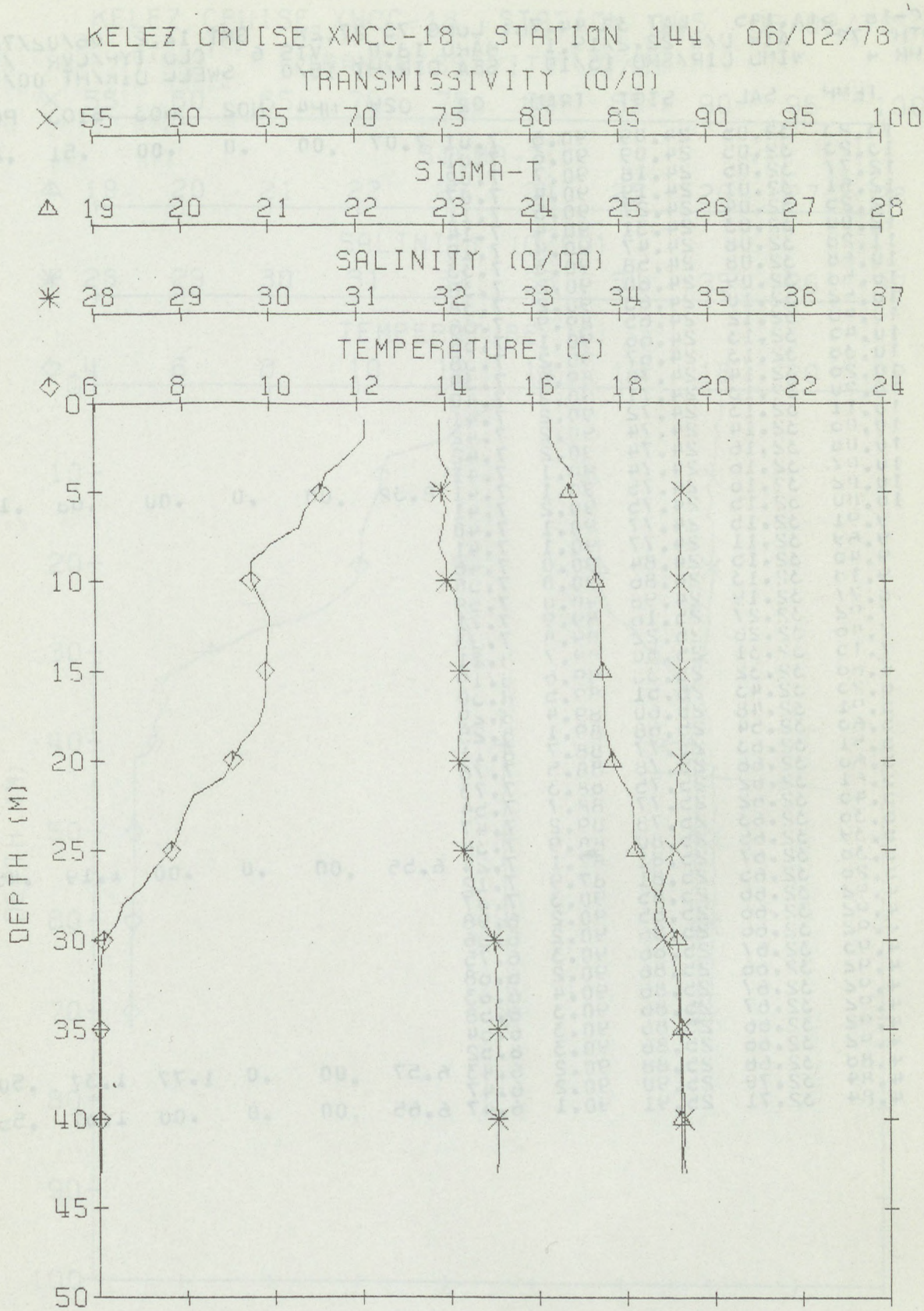
XWCC-18 STA.143 LAT 38 58.0N; LONG 73 56.0W GMT 12.5 06/01/78
DEPTH 39 AIR D/W 18.9/17.8 BARO 12.0 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 04/06 SEA DIR/HT 04/0 SWELL DIR/HT 22/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.97	32.17	24.23	89.7	6.88	6.98	.00	.0	.00	.00	.00
2	12.97	32.17	24.23	89.7	6.88						
3	12.92	32.21	24.27	89.7	6.90						
4	12.89	32.20	24.27	89.7	6.90						
5	12.84	32.21	24.29	89.7	6.89						
6	12.83	32.21	24.29	89.7	6.90						
7	12.60	32.14	24.28	89.7	6.90						
8	11.81	32.35	24.59	89.6	6.95						
9	11.21	32.32	24.67	89.6	7.09						
10	10.87	32.25	24.68	89.4	7.14						
11	10.63	32.27	24.73	89.4	7.17						
12	10.64	32.27	24.74	89.2	7.17						
13	10.22	32.33	24.86	89.2	7.18						
14	9.07	32.43	25.12	89.1	7.25						
15	8.74	32.46	25.19	89.0	7.41						
16	8.59	32.42	25.18	89.0	7.49						
17	8.05	32.55	25.36	88.9	7.51						
18	7.71	32.54	25.41	88.7	7.60						
19	7.67	32.57	25.43	88.6	7.63						
20	7.59	32.58	25.46	88.4	7.62	7.52	.00	.0	.00	.00	.00
21	7.57	32.55	25.44	88.4	7.60						
22	7.53	32.54	25.43	88.3	7.56						
23	7.53	32.57	25.45	88.2	7.53						
24	7.58	32.56	25.44	88.0	7.47						
25	7.58	32.58	25.46	87.9	7.43						
26	7.55	32.61	25.48	87.8	7.37						
27	7.56	32.59	25.47	87.6	7.33						
28	7.56	32.60	25.48	87.6	7.27						
29	7.57	32.59	25.47	87.3	7.22						
30	7.57	32.59	25.47	87.1	7.18						
31	7.58	32.60	25.47	87.2	7.14						
32	7.58	32.61	25.48	87.5	7.12						
33	7.59	32.61	25.48	87.5	7.09						
34	7.62	32.62	25.48	87.6	7.05						
35	7.63	32.63	25.49	87.9	7.01						
36	7.63	32.62	25.49	88.2	6.89						
37	7.63	32.62	25.49	88.1	6.87						
38	7.63	32.61	25.47	88.3	6.82	6.82	.00	.0	.00	.00	.00


KELEZ CRUISE XWCC-18 STATION 143 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

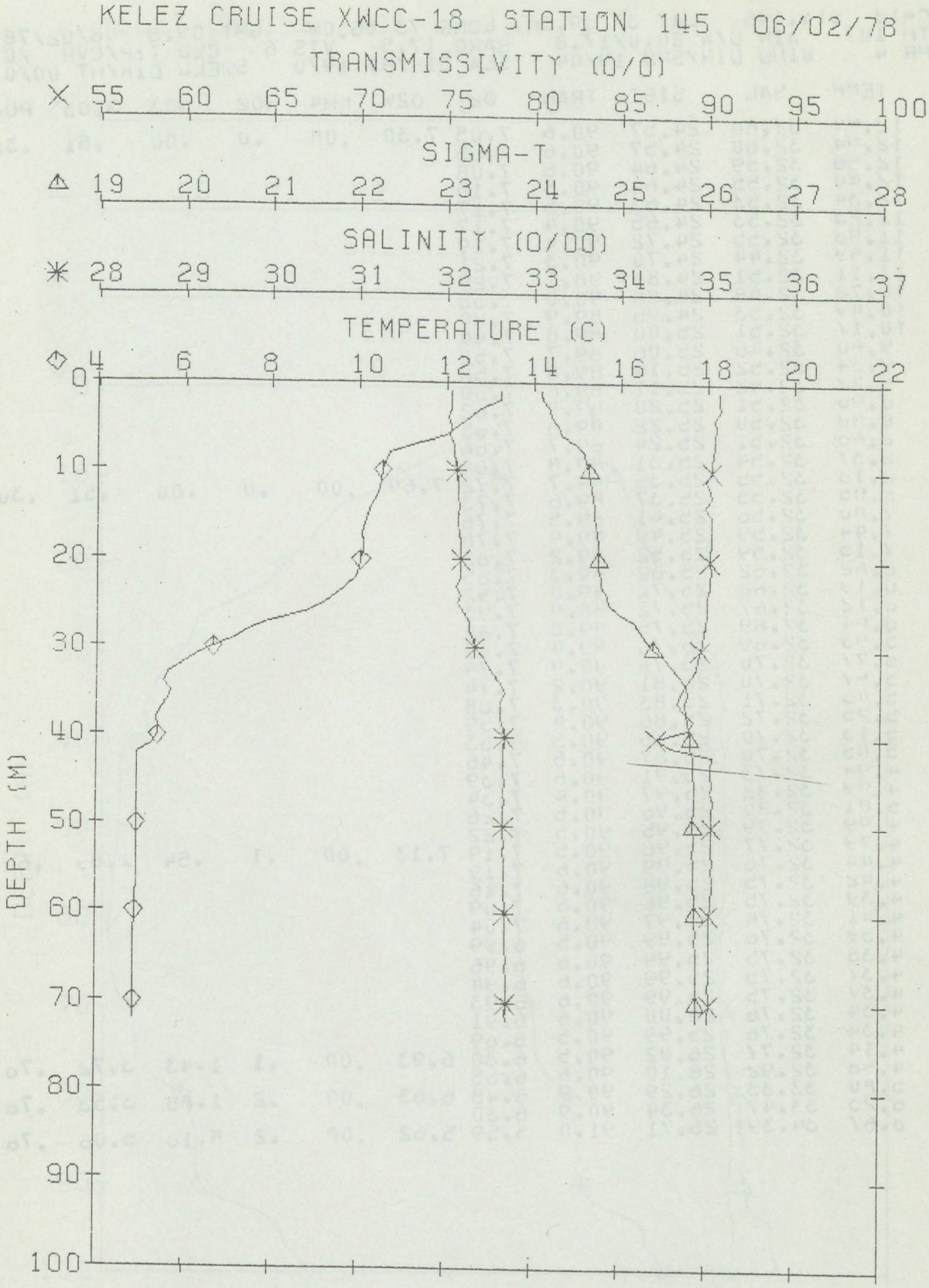
XWCC-16 STA.144 LAT 38 51.5N; LONG 73 42.0W GMT 15.8 06/02/78
DEPTH 44 AIR D/W 17.2/15.6 BARO 17.5 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 18/08 SEA DIR/HT 18/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.16	31.92	24.19	88.3	7.13	7.10	.00	.0	.00	.00	.10
2	12.16	31.92	24.19	88.3	7.13						
3	11.76	31.93	24.27	88.3	7.15						
4	11.27	32.03	24.44	88.4	7.25						
5	11.13	31.94	24.39	88.4	7.31						
6	10.77	31.99	24.50	88.3	7.35						
7	10.64	31.95	24.49	88.3	7.37						
8	10.00	31.90	24.56	88.3	7.41						
9	9.50	32.00	24.70	88.2	7.53						
10	9.54	31.98	24.70	88.2	7.59						
11	9.73	32.11	24.76	88.2	7.60						
12	9.94	32.13	24.74	88.3	7.57						
13	9.92	32.14	24.75	88.4	7.53						
14	9.89	32.13	24.76	88.3	7.51						
15	9.85	32.13	24.76	88.2	7.49						
16	9.86	32.15	24.77	88.2	7.48						
17	9.82	32.15	24.78	88.2	7.47						
18	9.67	32.13	24.79	88.2	7.46						
19	9.32	32.11	24.83	88.2	7.51						
20	9.10	32.11	24.87	88.2	7.57	7.64	.00	.0	.00	.00	.00
21	8.88	32.17	24.95	88.0	7.63						
22	8.16	32.21	25.08	87.9	7.66						
23	7.97	32.16	25.09	87.9	7.77						
24	7.80	32.17	25.09	87.8	7.84						
25	7.69	32.15	25.11	87.8	7.89						
26	7.27	32.25	25.24	87.5	7.98						
27	7.02	32.25	25.28	87.1	8.06						
28	6.50	32.37	25.43	86.7	8.15						
29	6.42	32.39	25.46	86.6	8.19						
30	6.11	32.49	25.58	87.1	8.14						
31	6.04	32.52	25.61	87.6	8.00						
32	6.03	32.52	25.61	87.9	7.74						
33	6.02	32.52	25.61	88.0	7.54						
34	6.02	32.52	25.61	88.0	7.26						
35	6.02	32.52	25.62	88.0	7.09						
36	6.02	32.52	25.62	88.1	6.96						
37	6.02	32.51	25.61	88.1	6.90						
38	6.02	32.52	25.61	88.1	6.82						
39	6.02	32.51	25.61	88.2	6.79						
40	6.02	32.52	25.62	88.2	6.74						
41	6.02	32.52	25.62	88.2	6.71						
42	6.02	32.52	25.62	88.1	6.68						
43	6.02	32.51	25.61	88.3	6.64	6.67	.00	.0	.00	.00	.20


KELEZ CRUISE XWCC-18 STATION 144 06/02/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
6 8 10 12 14 16 18 20 22 24
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

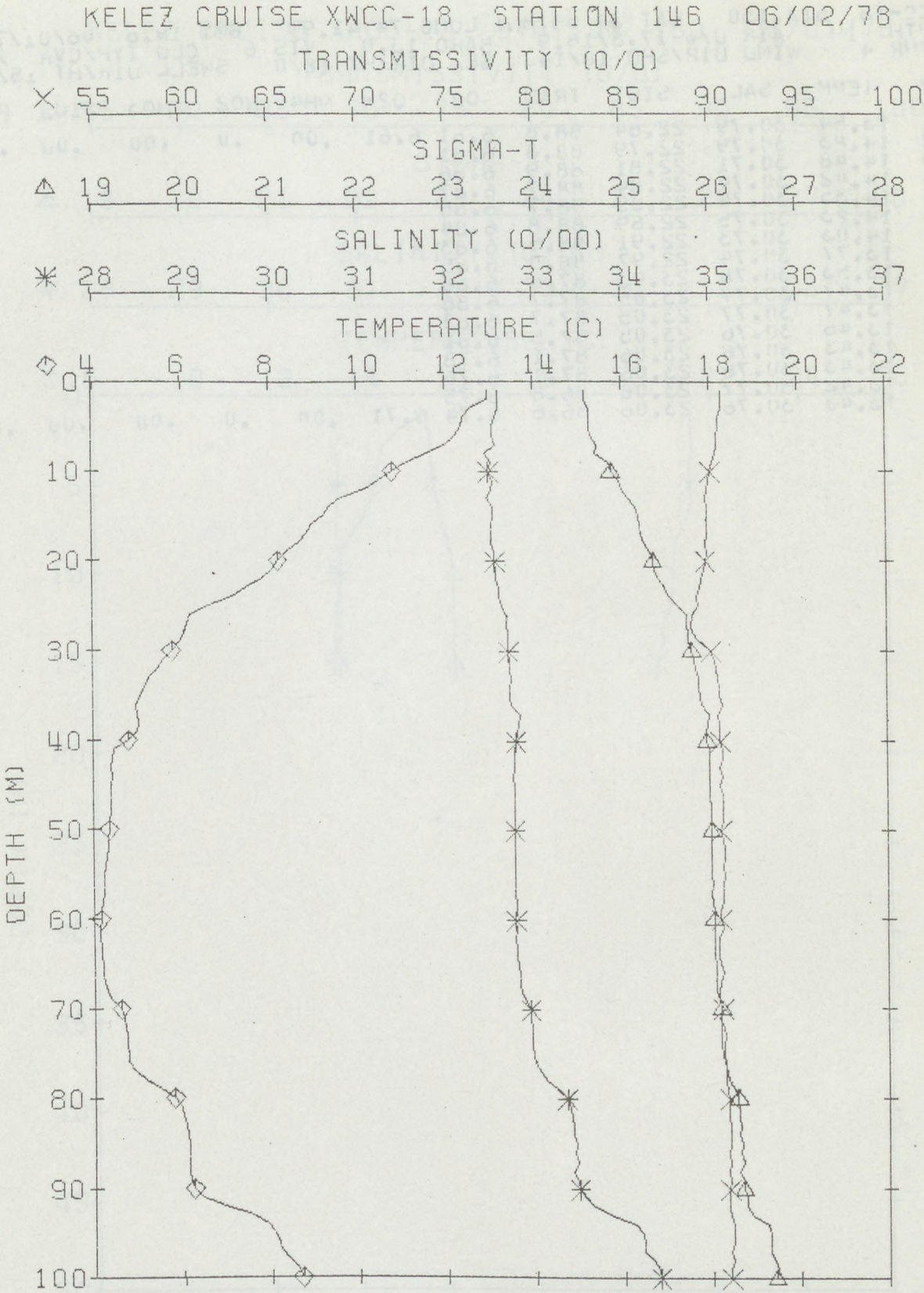
XMCC-18 STA.145 LAT 38 44.7N; LONG 73 27.2W GMT 12.2 06/02/78
DEPTH 72 AIR D/W 22.2/19.1 BARO 18.0 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 15/10 SEA DIR/HT 15/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.23	32.05	24.09	90.6	7.01	7.07	.00	.0	.00	.51	.25
2	13.23	32.05	24.09	90.6	7.01						
3	12.77	32.05	24.18	90.7	7.02						
4	12.51	32.01	24.19	90.4	7.07						
5	12.25	32.04	24.27	90.5	7.11						
6	12.00	32.03	24.31	90.4	7.14						
7	11.28	32.08	24.47	90.4	7.19						
8	10.68	32.08	24.58	90.3	7.33						
9	10.58	32.09	24.60	90.2	7.38						
10	10.52	32.10	24.63	90.2	7.38						
11	10.48	32.12	24.65	89.9	7.38						
12	10.45	32.13	24.66	90.1	7.38						
13	10.38	32.13	24.67	90.2	7.38						
14	10.26	32.14	24.70	89.8	7.39						
15	10.20	32.13	24.71	90.2	7.40						
16	10.11	32.13	24.72	90.2	7.41						
17	10.05	32.14	24.74	90.2	7.42						
18	10.05	32.16	24.74	90.2	7.42						
19	10.07	32.16	24.74	90.1	7.41						
20	10.02	32.16	24.75	90.1	7.41	8.32	.00	.0	.00	.63	.10
21	10.00	32.15	24.75	90.2	7.41						
22	9.91	32.15	24.77	90.1	7.40						
23	9.69	32.11	24.77	90.1	7.41						
24	9.45	32.15	24.84	90.0	7.46						
25	9.18	32.13	24.86	90.0	7.50						
26	8.77	32.19	24.98	90.0	7.59						
27	7.92	32.27	25.16	89.9	7.71						
28	7.46	32.26	25.22	89.8	7.93						
29	7.15	32.31	25.30	89.7	8.11						
30	6.60	32.32	25.30	89.6	8.19						
31	6.25	32.43	25.51	89.5	8.30						
32	5.91	32.48	25.60	89.4	8.29						
33	5.63	32.54	25.68	89.1	8.25						
34	5.51	32.63	25.77	88.7	8.11						
35	5.63	32.68	25.78	88.5	7.76						
36	5.61	32.62	25.75	88.3	7.73						
37	5.45	32.62	25.77	88.7	7.54						
38	5.38	32.63	25.78	89.2	7.47						
39	5.39	32.65	25.80	88.9	7.34						
40	5.38	32.67	25.81	87.1	7.24	6.55	.00	.0	.00	1.19	.45
41	5.28	32.65	25.81	87.9	7.12						
42	4.92	32.66	25.85	90.3	7.07						
43	4.92	32.66	25.85	90.2	6.98						
44	4.92	32.66	25.86	90.2	6.86						
45	4.93	32.67	25.86	90.3	6.75						
46	4.92	32.66	25.86	90.2	6.68						
47	4.92	32.67	25.86	90.4	6.63						
48	4.92	32.67	25.86	90.3	6.58						
49	4.92	32.66	25.86	90.3	6.54						
50	4.92	32.66	25.86	90.3	6.52						
60	4.88	32.68	25.88	90.2	6.43	6.57	.00	.0	1.77	1.37	.50
70	4.84	32.70	25.90	90.2	6.47						
72	4.84	32.71	25.91	90.1	6.47	6.65	.00	.0	.00	1.37	.55


KELEZ CRUISE XWCC-18 STATION 145 06/02/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

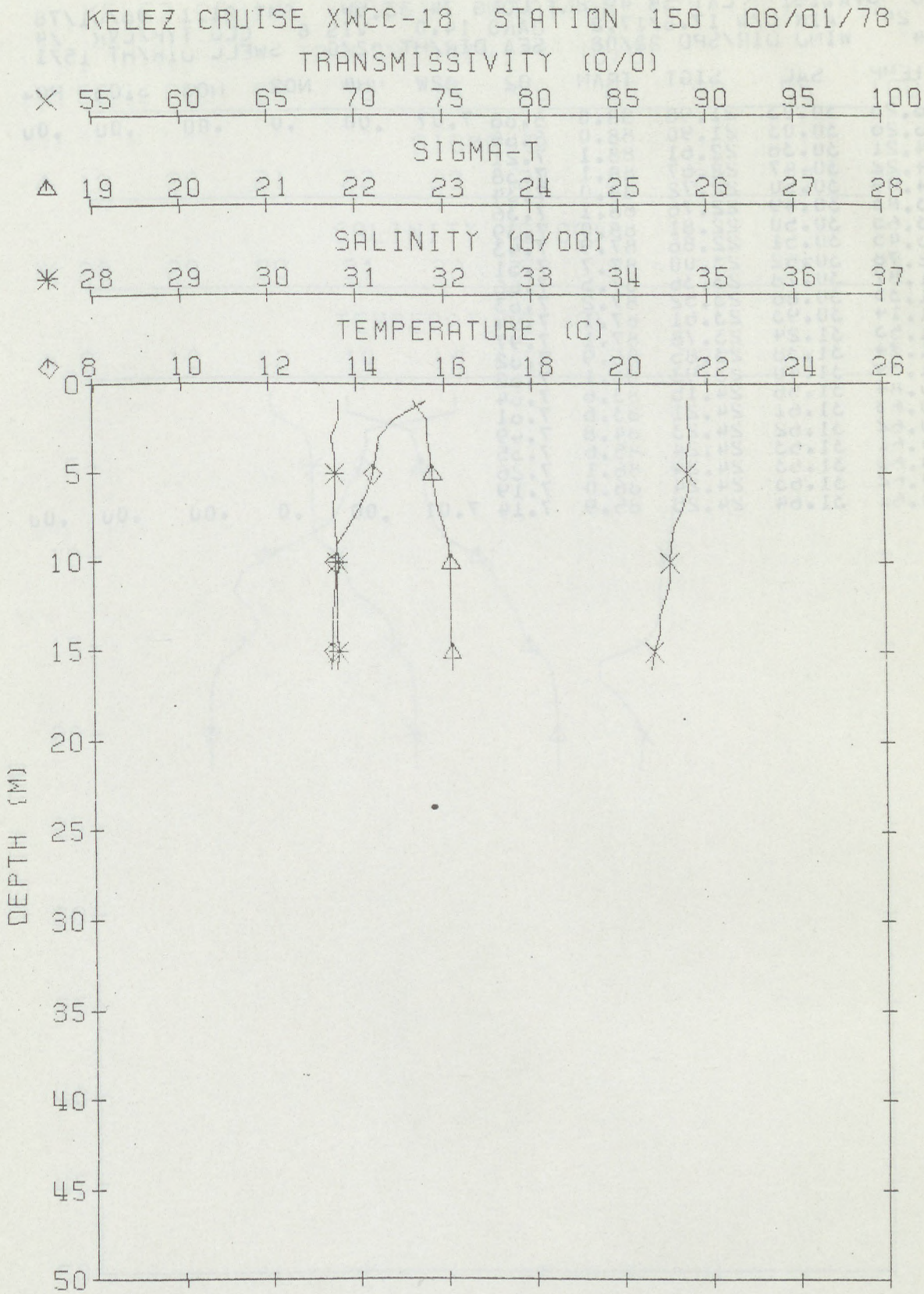
XVCC-18 STA.146 LAT 38 39.1N; LONG 73 16.0W GMT 09.8 06/02/78
DEPTH 107 AIR D/W 20.0/17.8 BARO 17.5 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 19/04 SEA DIR/HT 19/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.94	32.60	24.57	90.6	7.05	7.30	.00	.0	.00	.51	.35
2	12.94	32.60	24.57	90.6	7.05						
3	12.56	32.59	24.64	90.6	7.08						
4	12.40	32.55	24.64	90.5	7.15						
5	12.34	32.53	24.63	90.5	7.17						
6	12.23	32.53	24.65	90.4	7.17						
7	11.98	32.55	24.72	90.4	7.19						
8	11.59	32.44	24.70	90.3	7.21						
9	11.11	32.51	24.84	90.1	7.29						
10	10.76	32.48	24.88	90.0	7.35						
11	10.49	32.53	24.96	89.9	7.40						
12	10.17	32.51	25.00	89.8	7.44						
13	9.60	32.46	25.06	89.7	7.50						
14	9.34	32.52	25.14	89.8	7.58						
15	9.22	32.52	25.17	89.8	7.60						
16	8.98	32.51	25.20	89.8	7.62						
17	8.80	32.50	25.22	89.8	7.65						
18	8.60	32.51	25.24	89.7	7.66						
19	8.37	32.54	25.31	89.8	7.68						
20	8.18	32.55	25.35	89.7	7.72	7.69	.00	.0	.00	.51	.30
21	8.05	32.55	25.37	89.6	7.73						
22	7.80	32.56	25.41	89.5	7.76						
23	7.44	32.59	25.49	89.4	7.78						
24	7.15	32.59	25.52	89.2	7.82						
25	6.62	32.62	25.62	89.3	7.85						
26	6.19	32.68	25.72	89.0	7.92						
27	6.12	32.67	25.72	88.9	7.93						
28	6.04	32.69	25.75	89.0	7.88						
29	5.95	32.69	25.76	89.4	7.83						
30	5.77	32.70	25.78	90.0	7.79						
31	5.57	32.70	25.81	90.2	7.74						
32	5.45	32.71	25.83	90.3	7.68						
33	5.25	32.72	25.86	90.4	7.59						
34	5.15	32.70	25.86	90.5	7.53						
35	5.05	32.70	25.87	90.5	7.46						
36	4.94	32.73	25.91	90.6	7.39						
37	4.99	32.82	25.97	90.4	7.34						
38	5.01	32.80	25.96	90.5	7.26						
39	4.99	32.79	25.95	90.5	7.22						
40	4.79	32.77	25.96	90.5	7.19	7.13	.00	.1	.54	1.89	.60
41	4.44	32.76	25.99	90.6	7.19						
42	4.42	32.75	25.98	90.6	7.16						
43	4.39	32.75	25.98	90.5	7.09						
44	4.41	32.74	25.97	90.6	7.04						
45	4.39	32.76	25.99	90.5	6.99						
46	4.38	32.75	25.99	90.6	6.96						
47	4.37	32.75	25.99	90.6	6.94						
48	4.37	32.75	25.99	90.6	6.93						
49	4.34	32.76	26.00	90.6	6.91						
50	4.34	32.76	25.99	90.5	6.89						
60	4.14	32.77	26.02	90.5	6.80	6.93	.00	.1	1.43	3.72	.76
70	4.58	32.92	26.10	90.6	6.65						
80	5.80	33.33	26.29	90.9	6.48	6.63	.00	.2	1.88	3.53	.76
90	6.23	33.47	26.34	90.9	6.30						
100	8.67	34.39	26.71	91.0	5.59	5.62	.00	.2	5.18	5.06	.76


KELEZ CRUISE XWCC-18 STATION 146 06/02/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
4 6 8 10 12 14 16 18 20 22
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

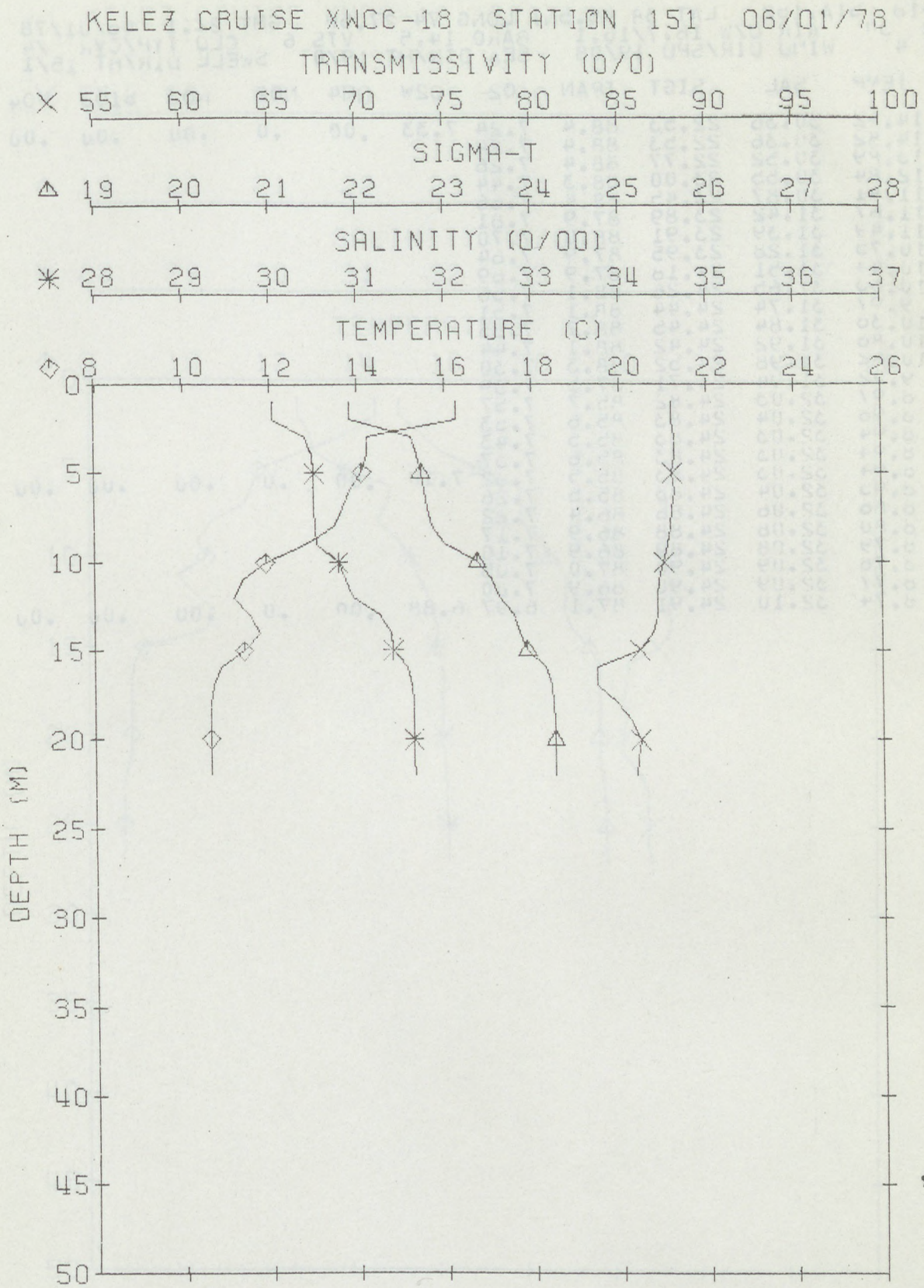
XWCC-18 STA.150 LAT 38 53.8N; LONG 74 41.9W GMT 19.6 06/01/78
DEPTH 19 AIR D/W 17.8/16.9 BARO 15.0 VIS 6 CLD TYP/CVR /4
WETHR 4 WIND DIR/SPD 18/14 SEA DIR/HT 18/0 SWELL DIR/HT 15/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	15.54	30.79	22.64	88.8	6.81	6.61	.00	.0	.00	.00	.00
2	14.85	30.79	22.79	88.8	6.81						
3	14.48	30.71	22.81	88.9	6.86						
4	14.42	30.74	22.84	88.7	6.87						
5	14.35	30.74	22.85	88.7	6.85						
6	14.23	30.75	22.89	88.8	6.84						
7	14.05	30.73	22.91	88.5	6.83						
8	13.77	30.74	22.97	88.0	6.85						
9	13.55	30.76	23.03	87.8	6.86						
10	13.47	30.77	23.05	87.7	6.86						
11	13.47	30.77	23.05	87.7	6.83						
12	13.46	30.76	23.05	87.5	6.81						
13	13.45	30.76	23.06	87.1	6.78						
14	13.43	30.76	23.06	87.1	6.76						
15	13.42	30.77	23.06	86.8	6.75						
16	13.40	30.76	23.06	86.6	6.74	6.71	.00	.0	.00	.00	.00


KELEZ CRUISE XWCC-18 STATION 150 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

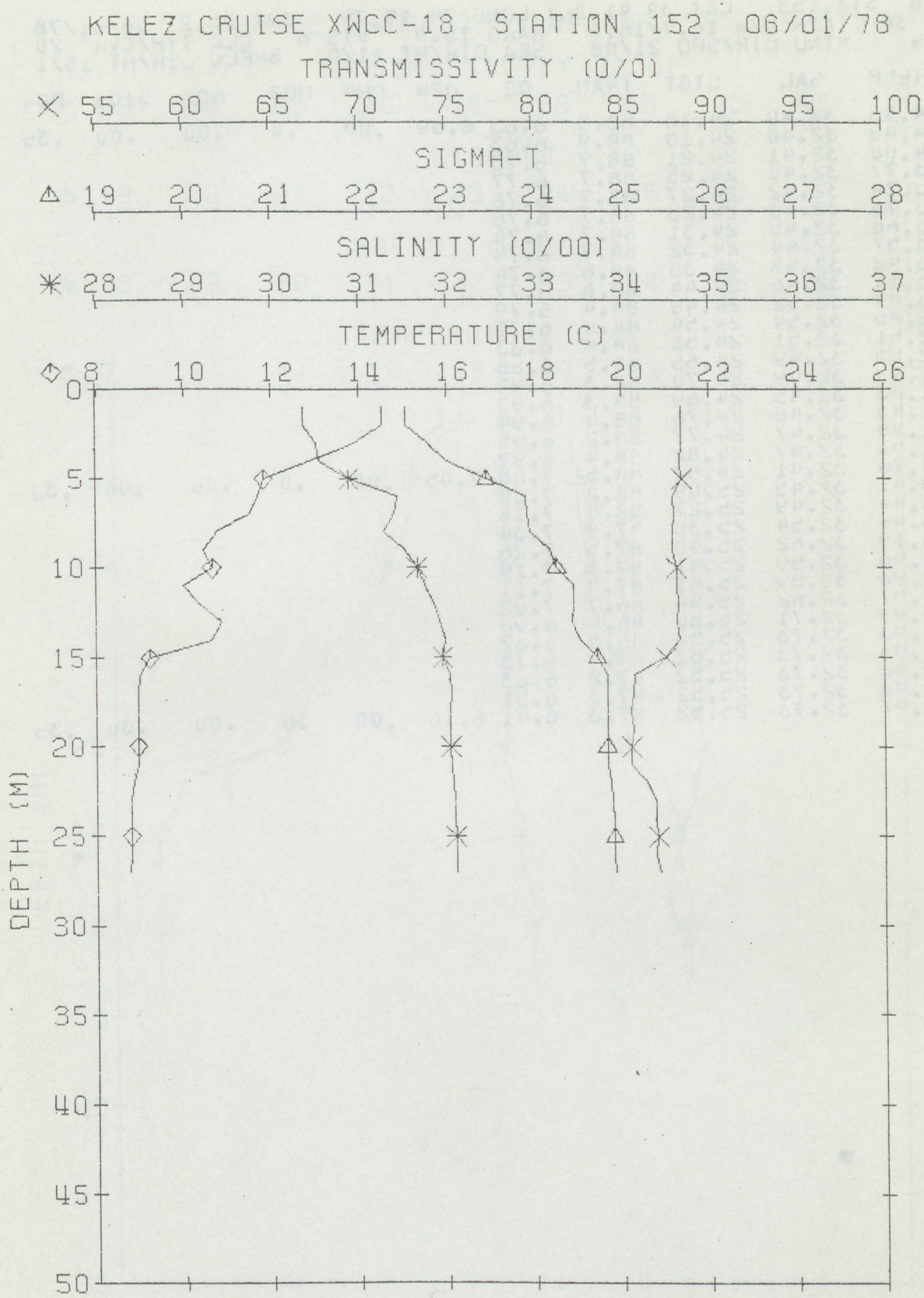
XWCC-18 STA.151 LAT 38 49.8N; LONG 74 33.5W GMT 21.1 06/01/78
DEPTH 24 AIR D/W 17.8/17.2 BARO 14.0 VIS 6 CLD TYP/CVR /4
WETHR 4 WIND DIR/SPD 22/08 SEA DIR/HT 22/0 SWELL DIR/HT 15/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	16.26	30.03	21.90	88.0	6.86	7.07	.00	.0	.00	.00	.00
2	16.26	30.03	21.90	88.0	6.86						
3	14.21	30.38	22.61	88.1	7.21						
4	14.22	30.47	22.67	88.1	7.38						
5	14.09	30.50	22.72	88.0	7.34						
6	13.83	30.49	22.76	88.1	7.36						
7	13.65	30.50	22.81	88.0	7.39						
8	13.45	30.51	22.86	87.9	7.43						
9	12.78	30.52	23.00	87.7	7.51						
10	11.87	30.78	23.36	87.5	7.66						
11	11.35	30.86	23.52	87.2	7.83						
12	11.14	30.93	23.61	87.1	7.94						
13	11.53	31.24	23.78	87.1	7.97						
14	11.74	31.38	23.85	86.9	7.82						
15	11.39	31.40	23.93	86.1	7.68						
16	10.84	31.56	24.15	83.6	7.64						
17	10.63	31.61	24.21	83.6	7.01						
18	10.62	31.62	24.23	84.8	7.49						
19	10.61	31.63	24.24	85.6	7.35						
20	10.61	31.63	24.24	86.1	7.26						
21	10.62	31.63	24.24	86.0	7.19						
22	10.61	31.64	24.25	85.9	7.14	7.01	.00	.0	.00	.00	.00


KELEZ CRUISE XWCC-18 STATION 151 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

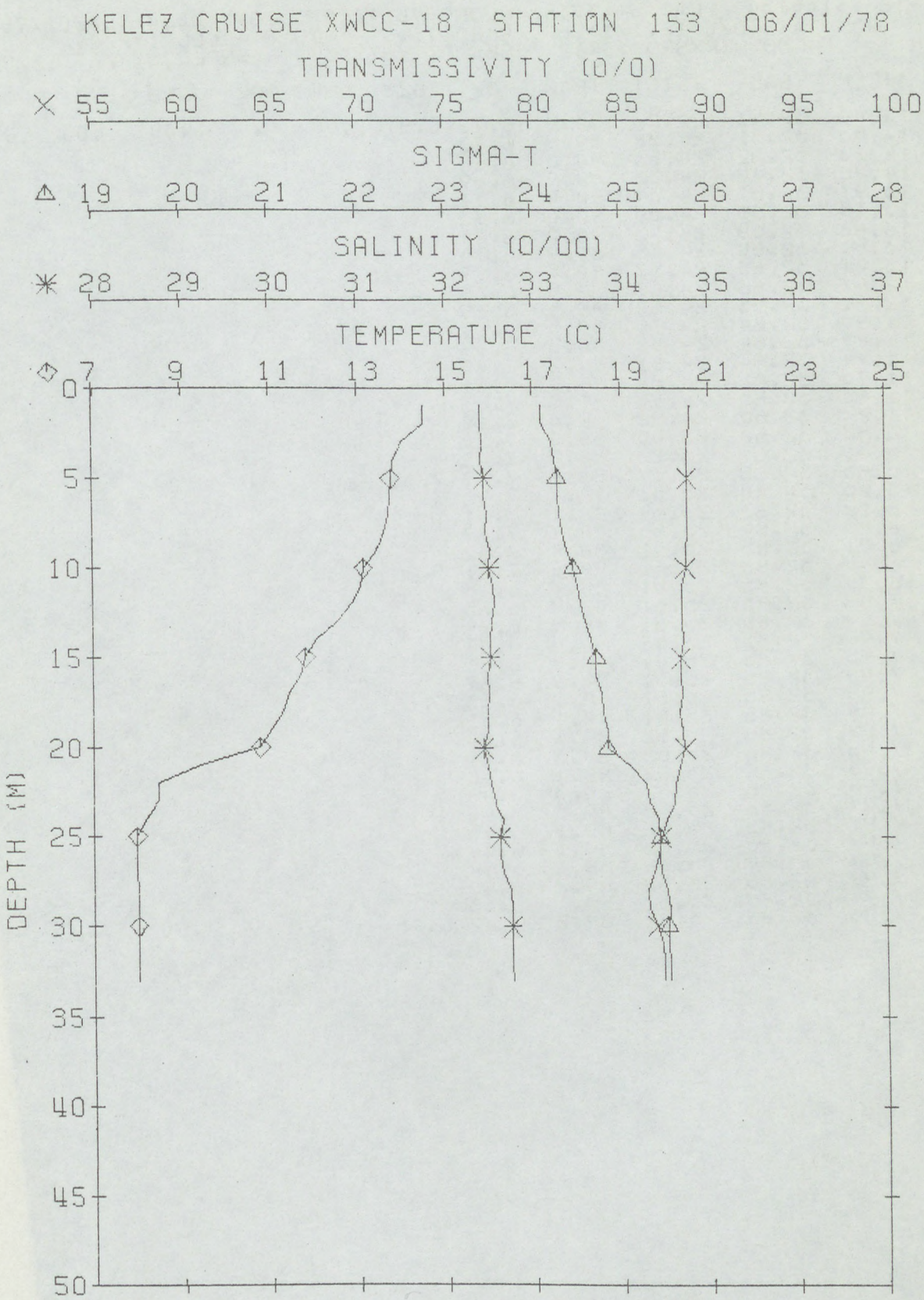
XWCC-18 STA.152 LAT 38 45.5N; LONG 74 27.5W GMT 22.1 06/01/78
DEPTH 30 AIR D/W 16.7/16.1 BARO 14.5 VIS 6 CLD TYP/CVR /4
WETHR 4 WIND DIR/SPD 19/08 SEA DIR/HT 19/0 SWELL DIR/HT 15/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.52	30.36	22.53	88.4	7.24	7.33	.00	.0	.00	.00	.00
2	14.52	30.36	22.53	88.4	7.24						
3	13.89	30.52	22.77	88.4	7.26						
4	12.84	30.55	23.00	88.3	7.44						
5	11.81	30.87	23.45	88.4	7.66						
6	11.67	31.42	23.89	87.9	7.81						
7	11.49	31.39	23.91	88.0	7.70						
8	10.75	31.28	23.95	87.9	7.64						
9	10.44	31.51	24.18	87.9	7.69						
10	10.65	31.65	24.26	88.1	7.56						
11	9.97	31.74	24.44	88.1	7.51						
12	10.36	31.84	24.45	88.2	7.55						
13	10.86	31.92	24.42	88.1	7.44						
14	10.62	31.98	24.52	88.3	7.30						
15	9.22	31.94	24.71	87.5	7.39						
16	8.97	32.03	24.82	85.7	7.57						
17	8.96	32.04	24.83	85.6	7.53						
18	8.94	32.03	24.83	85.5	7.43						
19	8.94	32.03	24.83	85.6	7.37						
20	8.94	32.03	24.83	85.5	7.32	7.10	.00	.0	.00	.00	.00
21	8.95	32.04	24.83	85.5	7.26						
22	8.80	32.06	24.86	86.4	7.22						
23	8.80	32.08	24.88	86.9	7.17						
24	8.79	32.08	24.89	86.9	7.10						
25	8.78	32.09	24.90	87.0	7.05						
26	8.77	32.09	24.90	86.9	7.00						
27	8.74	32.10	24.91	87.1	6.97	6.88	.00	.0	.00	.00	.00


KELEZ CRUISE XWCC-18 STATION 152 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
8 10 12 14 16 18 20 22 24 26
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

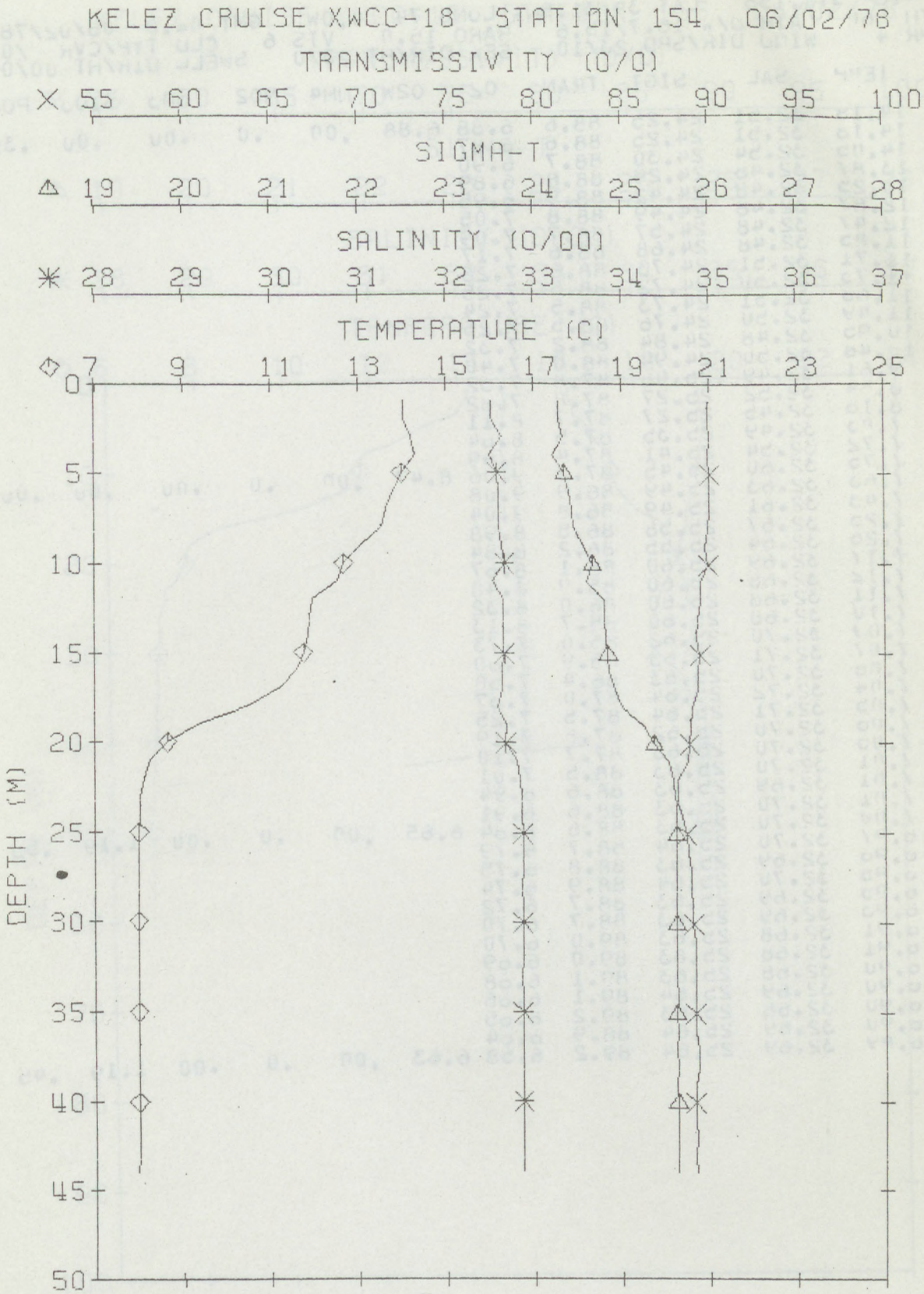
XNCC-18 STA.153 LAT 38 41.2N; LONG 74 19.7W GMT 23.2 08/01/78
DEPTH 36 AIR D/W 16.7/16.1 BARO 15.0 VTS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 21/08 SEA DIR/HT 21/0 SWELL DIR/HT 15/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.48	32.40	24.10	88.9	6.63	6.69	.00	.0	.00	.00	.35
2	14.48	32.40	24.10	88.9	6.63						
3	14.00	32.41	24.21	88.7	6.73						
4	13.77	32.40	24.25	88.7	6.77						
5	13.74	32.42	24.27	88.7	6.78						
6	13.73	32.43	24.28	88.7	6.76						
7	13.68	32.45	24.31	88.7	6.74						
8	13.57	32.44	24.32	88.7	6.74						
9	13.42	32.48	24.38	88.6	6.74						
10	13.11	32.48	24.44	88.6	6.77						
11	13.04	32.52	24.49	88.4	6.79						
12	12.86	32.54	24.54	88.4	6.79						
13	12.51	32.51	24.58	88.4	6.83						
14	12.05	32.49	24.65	88.5	6.86						
15	11.79	32.49	24.70	88.3	6.92						
16	11.63	32.45	24.69	88.3	6.92						
17	11.45	32.48	24.76	88.4	6.94						
18	11.29	32.47	24.77	88.2	6.95						
19	11.03	32.47	24.82	88.4	6.97						
20	10.76	32.41	24.82	88.5	7.00	7.05	.00	.0	.00	.00	.30
21	9.41	32.45	25.09	88.2	7.00						
22	8.44	32.49	25.27	88.0	7.18						
23	8.44	32.54	25.30	87.9	7.34						
24	8.19	32.62	25.40	87.5	7.26						
25	7.98	32.59	25.41	87.1	7.19						
26	7.98	32.59	25.41	87.0	7.11						
27	7.97	32.62	25.44	86.7	7.02						
28	7.99	32.71	25.50	86.4	6.96						
29	7.93	32.73	25.52	86.5	6.87						
30	7.98	32.73	25.51	86.9	6.73						
31	7.98	32.73	25.52	87.2	6.63						
32	7.98	32.73	25.52	87.3	6.51						
33	7.97	32.73	25.52	87.3	6.41	6.16	.00	.0	.00	.00	.35


KELEZ CRUISE XWCC-18 STATION 153 06/01/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

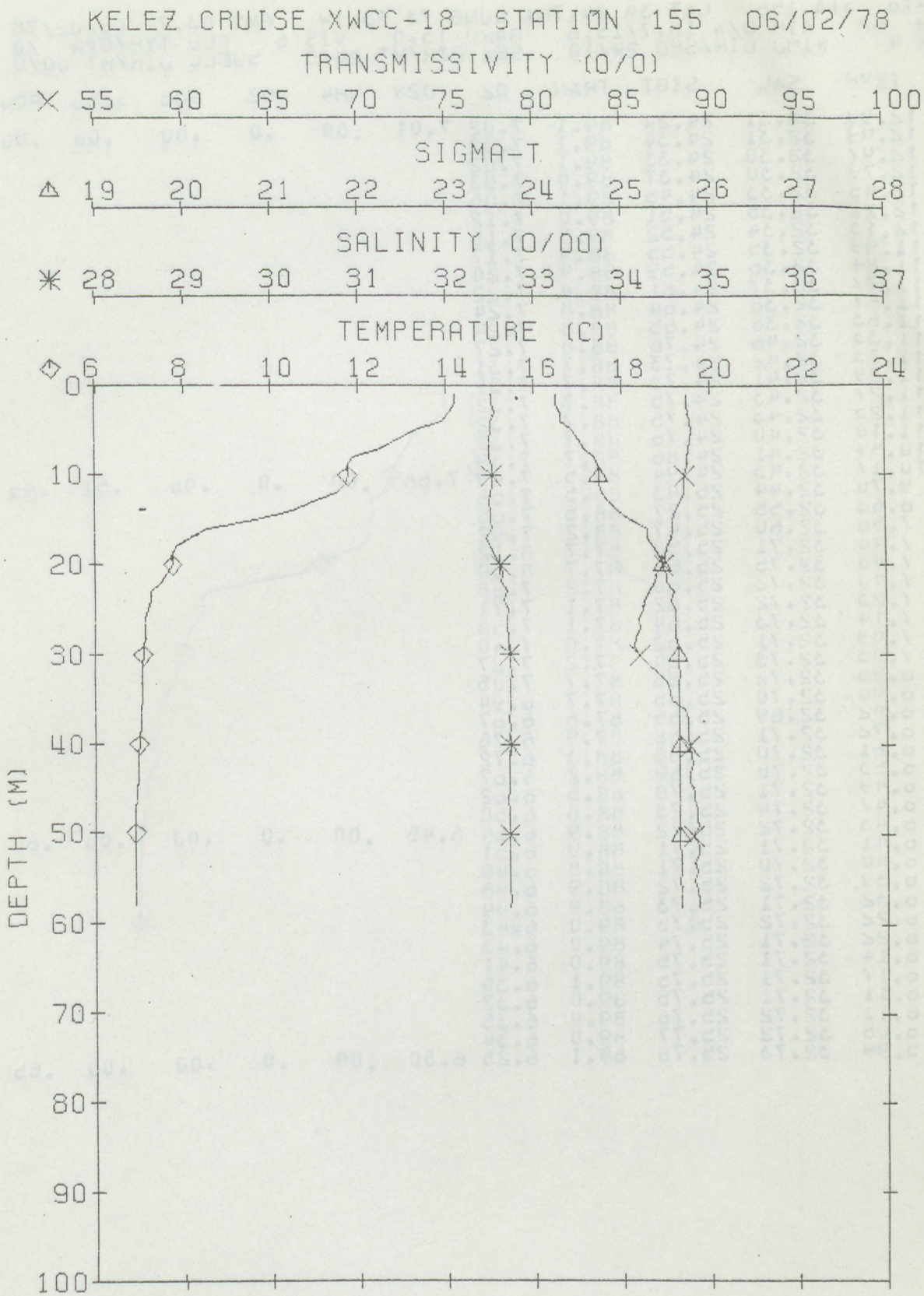
XWCC-18 STA.154 LAT 38 37.4N; LONG 74 12.9W GMT 00.4 06/02/78
DEPTH 45 AIR D/W 16.1/15.6 BARO 15.0 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 23/12 SEA DIR/HT 23/0 SWELL DIR/HT 15/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.03	32.51	24.28	89.9	6.72	6.81	.00	.0	.00	.00	.00
2	14.03	32.51	24.28	89.9	6.72						
3	14.20	32.62	24.33	90.0	6.68						
4	14.28	32.49	24.22	89.9	6.69						
5	13.97	32.57	24.34	90.0	6.71						
6	13.78	32.59	24.39	90.0	6.73						
7	13.62	32.59	24.43	90.0	6.74						
8	13.51	32.60	24.45	89.9	6.74						
9	13.07	32.63	24.57	89.7	6.77						
10	12.67	32.66	24.67	89.9	6.85						
11	12.51	32.53	24.60	89.5	6.89						
12	11.95	32.64	24.79	89.5	6.94						
13	11.89	32.64	24.80	89.3	6.99						
14	11.84	32.64	24.81	89.2	7.00						
15	11.73	32.65	24.84	89.4	7.01						
16	11.60	32.63	24.84	89.3	7.03						
17	11.22	32.63	24.92	89.3	7.10						
18	10.52	32.58	25.00	89.0	7.20						
19	9.39	32.67	25.25	88.9	7.45						
20	8.65	32.66	25.37	88.8	7.77	7.66	.00	.0	.00	.00	.35
21	8.25	32.80	25.53	88.7	7.92						
22	8.12	32.83	25.57	88.1	7.91						
23	8.03	32.84	25.60	88.1	7.77						
24	8.01	32.85	25.61	88.4	7.52						
25	8.00	32.85	25.61	88.6	7.21						
26	8.00	32.85	25.61	88.7	6.98						
27	7.99	32.85	25.61	88.9	6.83						
28	7.99	32.85	25.61	88.9	6.74						
29	7.99	32.85	25.61	89.0	6.67						
30	7.98	32.85	25.61	89.0	6.61						
31	7.99	32.85	25.61	89.1	6.57						
32	7.99	32.85	25.61	89.1	6.53						
33	7.99	32.85	25.61	89.1	6.51						
34	7.99	32.86	25.62	89.1	6.50						
35	7.98	32.85	25.62	89.1	6.49						
36	7.98	32.86	25.62	89.1	6.48						
37	7.98	32.85	25.62	89.3	6.46						
38	7.97	32.86	25.62	89.3	6.46						
39	7.97	32.85	25.62	89.1	6.45						
40	7.97	32.86	25.62	89.1	6.44						
41	7.97	32.86	25.62	89.1	6.44						
42	7.97	32.86	25.62	89.2	6.43						
43	7.97	32.86	25.62	89.1	6.43						
44	7.96	32.85	25.62	89.2	6.42	6.45	.00	.0	.00	.00	.45


KELEZ CRUISE XWCC-18 STATION 154 06/02/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
7 9 11 13 15 17 19 21 23 25
DEPTH (M)
0 5 10 15 20 25 30 35 40 45 50

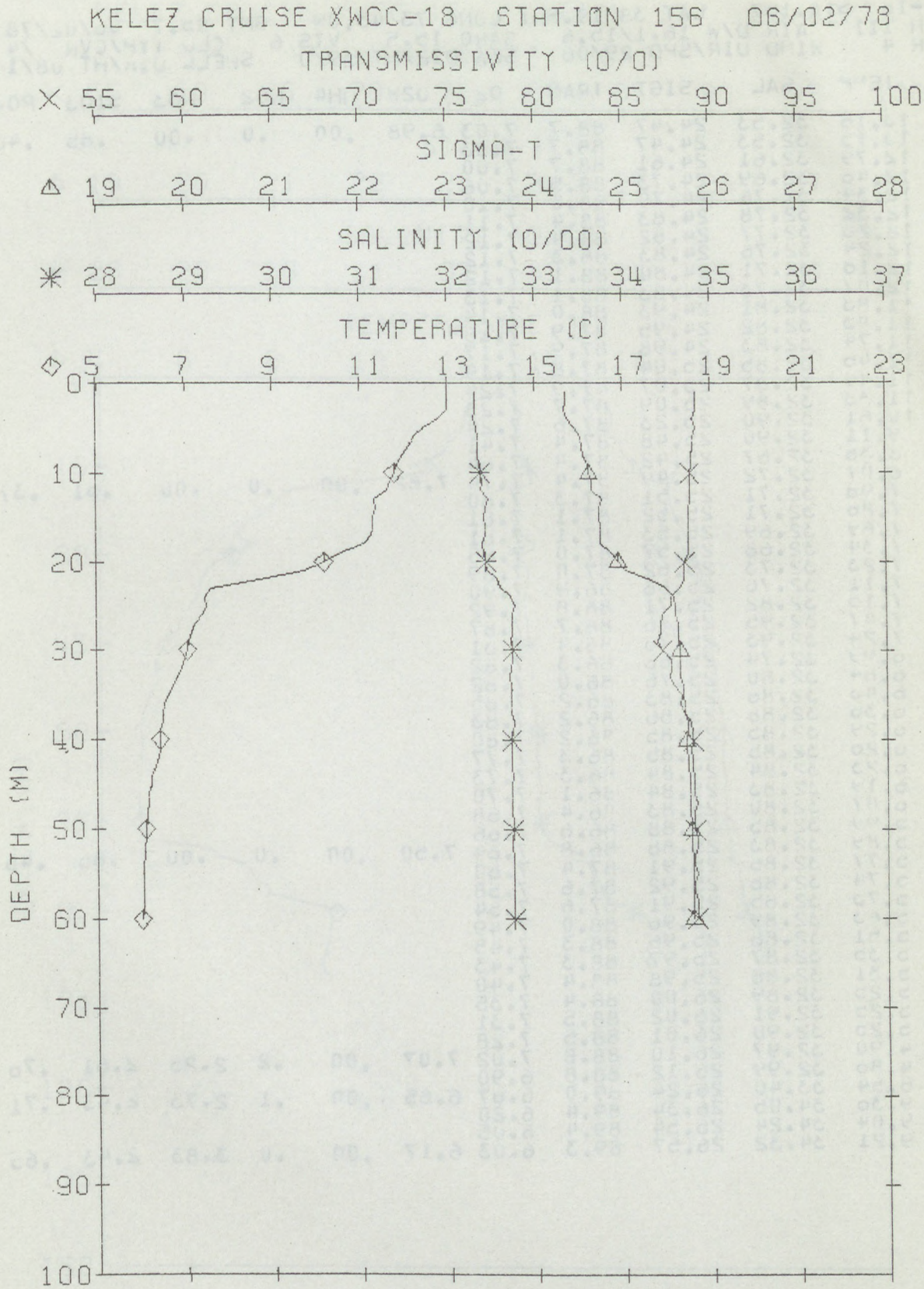
XWCC-18 STA.155 LAT 39 31.5N; LONG 74 4.0W GMT 02.0 06/02/78
DEPTH 60 AIR D/W 16.7/15.6 BARO 15.0 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 23/10 SEA DIR/HT 23/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	14.18	32.51	24.25	88.6	6.88	6.88	.00	.0	.00	.00	.35
2	14.18	32.51	24.25	88.6	6.87						
3	14.05	32.54	24.30	88.7	6.90						
4	13.87	32.48	24.29	88.8	6.89						
5	13.25	32.48	24.42	88.9	6.95						
6	12.87	32.48	24.49	88.8	7.05						
7	12.47	32.48	24.57	88.7	7.09						
8	11.85	32.48	24.68	88.6	7.17						
9	11.71	32.51	24.73	88.6	7.26						
10	11.75	32.50	24.72	88.5	7.25						
11	11.68	32.51	24.73	88.5	7.24						
12	11.49	32.50	24.76	88.5	7.25						
13	10.95	32.48	24.84	88.2	7.32						
14	10.48	32.50	24.94	88.0	7.40						
15	9.61	32.49	25.08	87.8	7.52						
16	8.54	32.52	25.27	87.8	7.82						
17	8.10	32.45	25.27	87.7	8.11						
18	7.85	32.49	25.35	87.5	8.64						
19	7.72	32.54	25.41	87.4	8.99						
20	7.75	32.60	25.45	87.3	9.06	8.47	.00	.0	.00	.00	.00
21	7.65	32.63	25.49	86.9	9.08						
22	7.43	32.61	25.49	86.8	9.04						
23	7.25	32.67	25.58	86.5	8.98						
24	7.20	32.64	25.55	86.2	8.84						
25	7.17	32.69	25.60	86.1	8.67						
26	7.12	32.68	25.60	85.9	8.48						
27	7.11	32.68	25.60	86.0	8.32						
28	7.10	32.68	25.60	85.7	8.13						
29	7.09	32.70	25.62	85.6	7.73						
30	7.07	32.71	25.63	85.9	7.60						
31	7.06	32.70	25.63	86.4	7.50						
32	7.04	32.72	25.64	87.0	7.37						
33	7.05	32.71	25.64	87.5	7.25						
34	7.06	32.70	25.62	87.6	7.19						
35	7.05	32.70	25.63	87.7	7.10						
36	7.01	32.70	25.63	88.5	7.01						
37	7.01	32.69	25.63	88.6	6.94						
38	7.01	32.70	25.63	88.6	6.91						
39	7.00	32.70	25.63	88.6	6.84	6.65	.00	.0	.00	1.19	.55
40	6.97	32.70	25.64	88.7	6.79						
41	6.96	32.69	25.63	88.8	6.75						
42	6.95	32.70	25.64	88.9	6.74						
43	6.95	32.69	25.63	88.7	6.72						
44	6.93	32.69	25.63	88.7	6.70						
45	6.91	32.68	25.63	89.0	6.70						
46	6.91	32.68	25.63	89.0	6.69						
47	6.90	32.68	25.63	89.1	6.68						
48	6.90	32.69	25.64	89.1	6.66						
49	6.90	32.68	25.63	89.2	6.65						
50	6.90	32.69	25.64	88.9	6.64						
58	6.89	32.69	25.64	89.2	6.58	6.63	.00	.0	.00	1.19	.45


KELEZ CRUISE XWCC-18 STATION 155 06/02/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
6 8 10 12 14 16 18 20 22 24
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

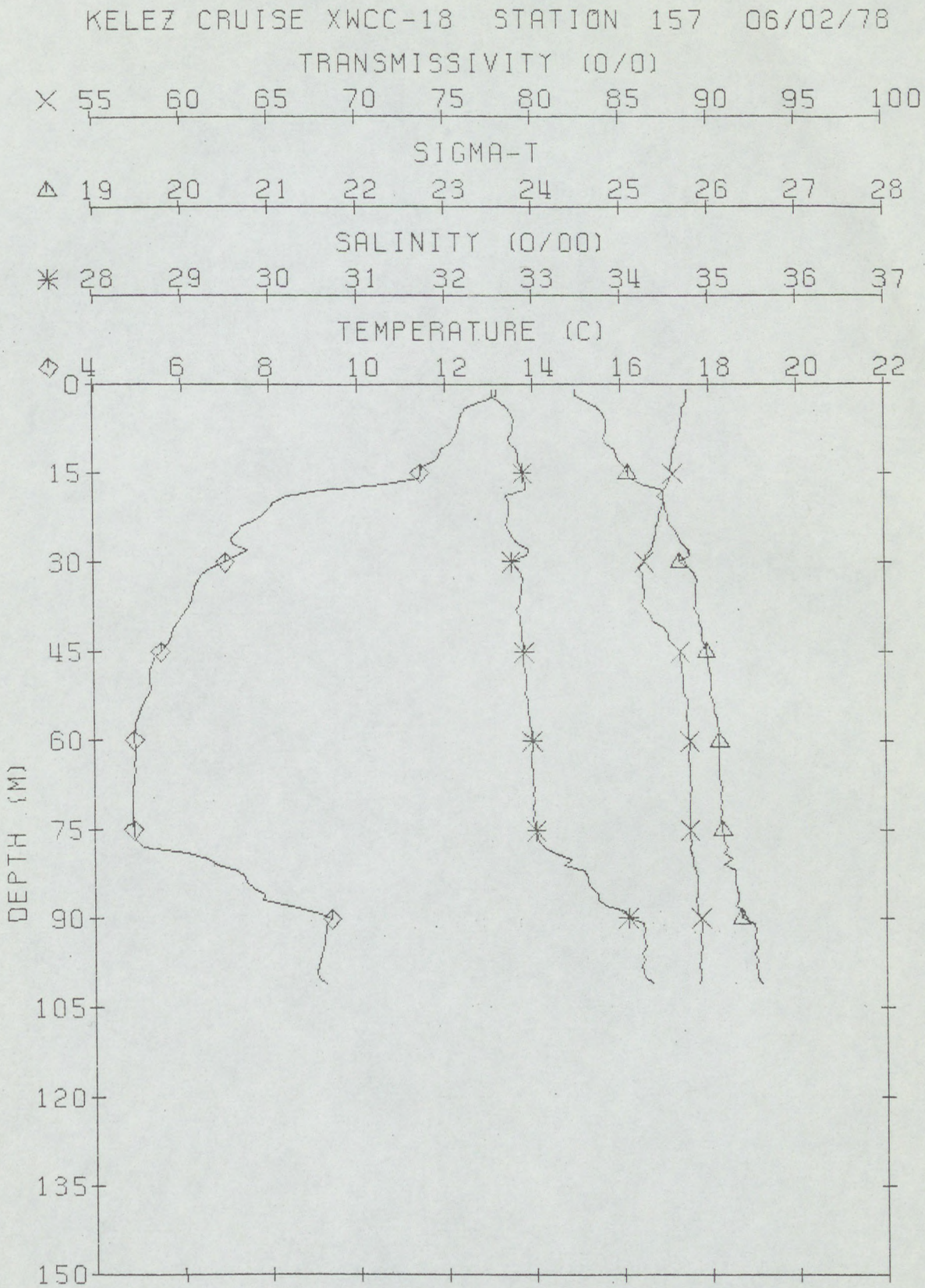
XWCC-10 STA.156 LAT 38 24.7N; LONG 73 53.1W GMT 03.7 06/02/78
DEPTH 62 AIR D/W 16.7/15.6 BARO 15.0 VIS 6 CLD TYP/CVR /0
WETHR 4 WIND DIR/SPD 24/10 SEA DIR/HT 24/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	12.99	32.31	24.34	89.1	7.02	7.01	.00	.0	.00	.00	.50
2	12.99	32.31	24.34	89.1	7.02						
3	12.97	32.30	24.33	89.1	7.02						
4	12.79	32.30	24.37	89.0	7.03						
5	12.45	32.33	24.45	89.1	7.06						
6	12.21	32.35	24.51	89.0	7.12						
7	12.13	32.34	24.52	89.0	7.15						
8	11.99	32.35	24.55	88.9	7.17						
9	11.84	32.36	24.59	88.9	7.20						
10	11.77	32.37	24.61	88.8	7.22						
11	11.67	32.38	24.64	88.8	7.24						
12	11.63	32.38	24.65	88.8	7.24						
13	11.33	32.46	24.76	88.8	7.27						
14	11.33	32.42	24.73	88.7	7.31						
15	11.29	32.41	24.73	88.7	7.31						
16	11.27	32.43	24.75	88.7	7.32						
17	11.25	32.43	24.75	88.7	7.32						
18	11.10	32.40	24.76	88.7	7.32						
19	10.54	32.41	24.86	88.7	7.39						
20	10.17	32.43	24.94	88.5	7.49	7.66	.00	.0	.00	.51	.45
21	9.70	32.44	25.03	88.5	7.58						
22	8.68	32.55	25.27	88.5	7.85						
23	7.58	32.60	25.47	88.2	7.92						
24	7.45	32.71	25.58	87.7	8.12						
25	7.48	32.75	25.61	87.7	8.09						
26	7.40	32.73	25.60	87.2	7.88						
27	7.23	32.72	25.62	87.1	7.71						
28	7.14	32.73	25.64	87.1	7.56						
29	7.09	32.71	25.62	87.0	7.40						
30	7.03	32.73	25.64	87.2	7.27						
31	6.88	32.72	25.65	87.7	7.05						
32	6.80	32.70	25.65	87.7	6.94						
33	6.82	32.69	25.65	87.6	6.87						
34	6.72	32.71	25.68	87.9	6.76						
35	6.61	32.70	25.68	88.3	6.72						
36	6.53	32.70	25.69	88.2	6.67						
37	6.49	32.71	25.70	88.5	6.62						
38	6.47	32.74	25.73	88.8	6.58						
39	6.43	32.72	25.72	88.9	6.54	6.45	.00	.0	.00	.00	.60
40	6.41	32.71	25.71	88.9	6.51						
41	6.40	32.70	25.71	88.8	6.48						
42	6.39	32.72	25.72	88.9	6.46						
43	6.32	32.71	25.73	88.9	6.44						
44	6.22	32.72	25.75	89.0	6.43						
45	6.22	32.71	25.74	89.0	6.43						
46	6.14	32.71	25.75	89.0	6.41						
47	6.17	32.71	25.75	89.1	6.39						
48	6.11	32.71	25.75	89.0	6.37						
49	6.11	32.72	25.76	89.0	6.35						
50	6.08	32.72	25.77	89.0	6.34						
60	5.99	32.73	25.78	89.1	6.25	6.30	.00	.0	.00	.00	.65


KELEZ CRUISE XWCC-18 STATION 156 06/02/78
TRANSMISSIVITY (0/0)
55 60 65 70 75 80 85 90 95 100
SIGMA-T
19 20 21 22 23 24 25 26 27 28
SALINITY (0/00)
28 29 30 31 32 33 34 35 36 37
TEMPERATURE (C)
5 7 9 11 13 15 17 19 21 23
DEPTH (M)
0 10 20 30 40 50 60 70 80 90 100

XWCC-16 STA.157 LAT 38 19.5N; LONG 73 43.0W GMT 05.7 06/02/78
DEPTH 111 AIR D/W 16.1/15.6 BARO 15.5 VIS 6 CLD TYP/CVR /4
WEIHR 4 WIND DIR/SPD 29/06 SEA DIR/HT 29/0 SWELL DIR/HT 08/1

DEP	TEMP	SAL	SIGT	TRAN	O2	O2W	NH4	NO2	NO3	SIO3	PO4
1	13.16	32.53	24.47	88.7	7.03	6.98	.00	.0	.00	.85	.40
2	13.15	32.53	24.47	88.7	7.03						
3	12.79	32.61	24.61	88.7	7.00						
4	12.46	32.69	24.73	88.5	7.06						
5	12.34	32.74	24.79	88.5	7.10						
6	12.32	32.78	24.83	88.4	7.11						
7	12.28	32.77	24.82	88.4	7.12						
8	12.24	32.76	24.83	88.3	7.12						
9	12.18	32.71	24.80	88.1	7.12						
10	12.07	32.73	24.83	88.1	7.13						
11	11.88	32.81	24.93	88.0	7.14						
12	11.83	32.82	24.95	87.9	7.16						
13	11.74	32.83	24.98	87.9	7.17						
14	11.46	32.85	25.04	87.8	7.19						
15	11.40	32.87	25.07	87.9	7.24						
16	11.38	32.89	25.09	87.7	7.23						
17	10.61	32.90	25.23	87.6	7.24						
18	9.11	32.90	25.48	87.4	7.41						
19	8.38	32.67	25.42	87.4	7.64						
20	8.07	32.72	25.49	87.4	7.74	7.82	.00	.0	.00	.51	.37
21	7.98	32.71	25.51	87.3	7.80						
22	7.80	32.71	25.52	87.1	7.81						
23	7.69	32.69	25.53	87.1	7.81						
24	7.34	32.68	25.57	87.0	7.85						
25	7.23	32.73	25.62	87.0	7.89						
26	7.11	32.76	25.66	86.9	7.90						
27	7.15	32.82	25.71	86.8	7.92						
28	7.47	32.95	25.76	86.7	7.87						
29	7.24	32.93	25.78	86.4	7.81						
30	6.99	32.74	25.66	86.3	7.82						
31	6.64	32.80	25.76	86.0	7.82						
32	6.45	32.86	25.83	86.2	7.85						
33	6.36	32.88	25.86	86.2	7.83						
34	6.29	32.85	25.85	86.2	7.80						
35	6.26	32.85	25.85	86.3	7.77						
36	6.23	32.84	25.84	86.3	7.73						
37	6.19	32.83	25.84	86.1	7.70						
38	6.07	32.80	25.83	86.4	7.68						
39	5.99	32.85	25.88	86.6	7.66						
40	5.89	32.83	25.88	86.8	7.64	7.50	.00	.0	.00	.85	.45
41	5.77	32.86	25.91	87.4	7.60						
42	5.74	32.86	25.92	87.6	7.58						
43	5.73	32.85	25.91	87.6	7.54						
44	5.63	32.89	25.96	88.0	7.49						
45	5.51	32.88	25.96	88.3	7.45						
46	5.35	32.87	25.97	88.3	7.43						
47	5.31	32.88	25.98	88.4	7.40						
48	5.23	32.89	26.00	88.4	7.35						
49	5.23	32.91	26.02	88.5	7.31						
50	5.23	32.90	26.01	88.5	7.28						
60	4.90	32.97	26.10	88.8	7.02	7.07	.00	.2	2.25	2.61	.76
70	4.80	32.99	26.12	88.8	6.90						
80	6.54	33.40	26.24	89.0	6.67	6.65	.00	.1	2.73	2.43	.71
90	9.36	34.05	26.34	89.4	6.20						
100	9.04	34.24	26.54	89.4	6.05						
101	9.21	34.32	26.57	89.3	6.03	6.17	.00	.0	3.83	2.43	.63



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