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MESA New York Bight Project, Expanded Water Column Characterization Cruise (XWCC-6), NOAA Ship GEORGE B. KELEZ 29 September - 4 October 1975

National Oceanic and Atmospheric Administration, Boulder, Colo

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During September - October 1975, an oceanographic cruise denoted XWCC-6 was made by the NOAA ship GEORGE B. KELEZ in the New York Bight. The objective of this cruise was to supply data to be incorporated into an analysis of the water characteristics and movements in the highly impacted ecosystem. This report presents the physical and chemical data from this cruise and describes the measurement methods and procedures for reducing the data. (Author)

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Atlantic Oceanographic and Meteorological Laboratories
Miami, Florida

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Boulder, Colorado
December 1976

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MESA New York Bight Project, Expanded Water Column Characterization Cruise (XWCC-6), NOAA Ship George B. Kelez, 29 September - 4 October 1975

Robert B. Starr
John B. Hazelworth
George A. Berberian

During September - October 1975, an oceanographic Cruise denoted XWCC-6 was made by the NOAA ship George B. Kelez in the New York Bight. The objective of this cruise was to supply data to be incorporated into an analysis of the water characteristics and movements in the highly impacted ecosystem. This report presents the physical and chemical data from this cruise and describes the measurement methods and procedures for reducing the data.

Key words: MESA, New York Bight, Physical Oceanographic 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 1973, the National Oceanic and Atmospheric Administration (NOAA) began an intensive investigation of the marine ecosystem of New York Bight. Since 1974, the area of investigation has been expanded from the apex into the entire New York Bight region, and beginning in May 1975, the George B. Kelez has been the designated NOAA ship for accomplishing a major part of the oceanographic program.

From 29 September through 4 October 1975, the stations listed in Table 1 and shown in Figure 1 were sampled

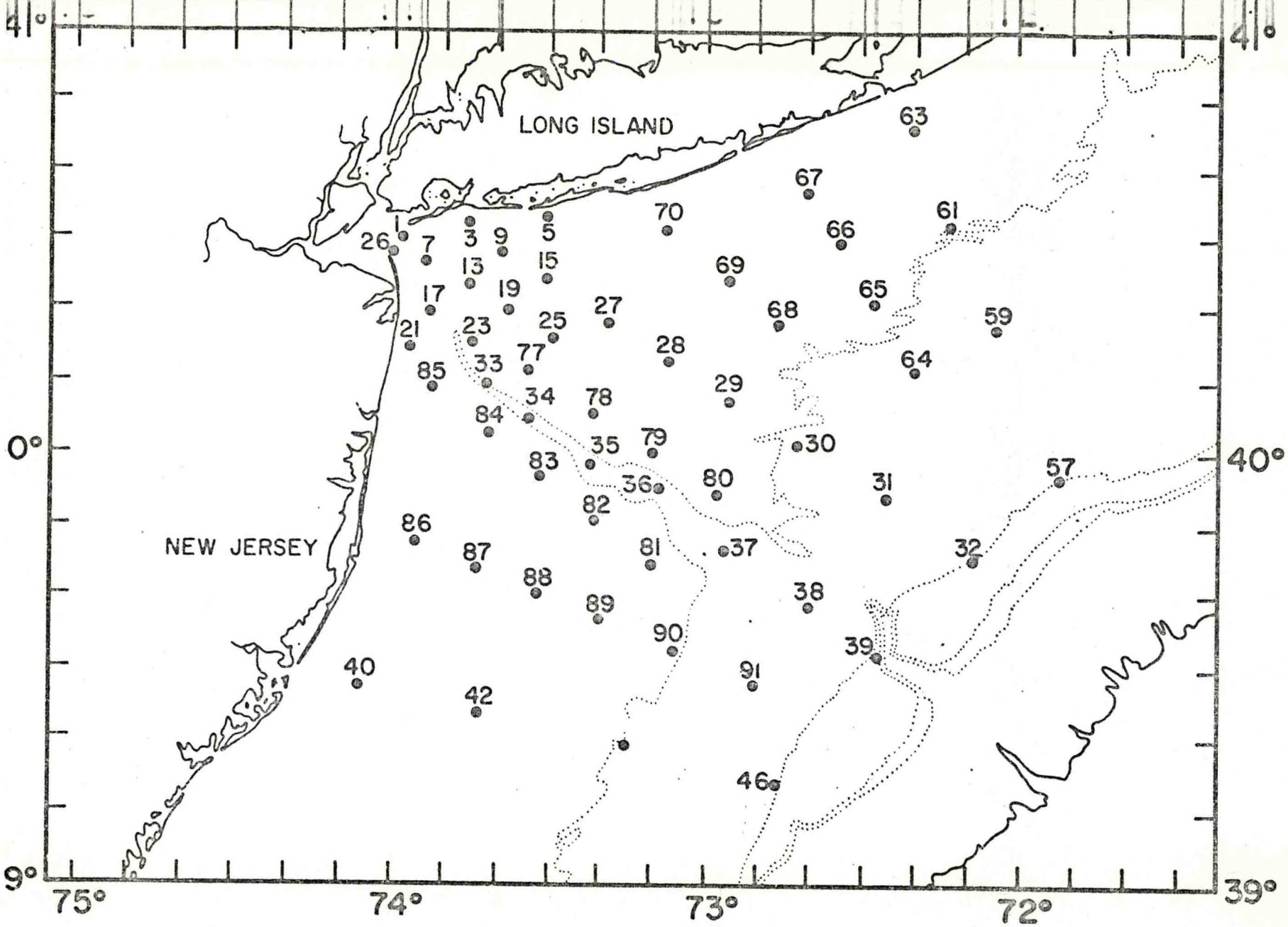

Figure 1. Locations of stations in the New York Bight area.

TABLE 1.

OCEANOGRAPHIC STATION LOCATIONS

Designation	Latitude (N)	Longitude (W)	Designation	Latitude (N)	Longitude (W)
1	40°30.2'	73°57.3'	*44	39°19.0'	73°14.0'
3	40°31.5'	73°48.4'	46	39°14.0'	72°45.0'
5	40°33.3'	73°32.5'	57	39°57.0'	71°52.0'
7	40°26.9'	73°53.0'	59	40°18.0'	72°04.0'
9	40°28.3'	73°39.6'	61	40°33.0'	72°13.0'
13	40°23.3'	73°47.0'	63	40°47.0'	72°20.0'
15	40°25.2'	73°30.4'	64	40°12.0'	72°20.0'
17	40°18.5'	73°51.8'	65	40°21.0'	72°28.0'
19	40°20.2'	73°37.9'	66	40°30.0'	72°34.0'
21	40°13.5'	73°56.1'	67	40°38.0'	72°40.0'
23	40°14.8'	73°45.6'	68	40°19.0'	72°46.0'
25	40°16.9'	73°28.3'	69	40°25.0'	72°55.0'
26	40°29.0'	73°59.5'	70	40°32.0'	73°07.0'
27	40°18.0'	73°17.5'	77	40°10.5'	73°34.0'
28	40°13.5'	73°07.0'	78	40°05.0'	73°21.5'
29	40°07.0'	72°54.5'	79	40°00.0'	73°09.5'
30	40°02.0'	72°41.5'	80	39°54.5'	72°57.0'
31	39°54.0'	72°25.0'	81	39°44.5'	73°10.0'
32	39°46.0'	72°07.0'	82	39°50.5'	73°20.5'
33	40°10.0'	73°41.5'	83	39°56.5'	73°30.5'
34	40°05.5'	73°31.5'	84	40°02.0'	73°41.0'
35	39°59.0'	73°21.5'	85	40°08.0'	73°51.5'
36	39°55.0'	73°06.5'	86	39°47.5'	73°57.0'
37	39°46.0'	72°57.0'	87	39°44.0'	73°43.5'
38	39°39.0'	72°39.5'	88	39°40.0'	73°30.0'
39	39°32.0'	72°26.0'	89	39°36.0'	73°16.5'
40	39°28.0'	74°06.0'	90	39°32.5'	73°03.0'
42	39°24.0'	73°43.0'	91	39°28.0'	72°50.0'

*Note Station No. 44 was not occupied due to high seas.

from the Kelez . The participating AOML staff members were Robert B. Starr, Chief Scientist; John B. Hazelworth Steven Newcombe, and Walter Manning. All the physical and nutrient data obtained from the water column measurements on this cruise are presented in this report. Prior reports, listed in the references, elaborate on the work to date.

2. INSTRUMENTATION

Due to the unavailability of the Inter Ocean CSTD normally used for occupying the stations, a Plessey 9400 CTD system was borrowed from the Ocean Remote Sensing Laboratory of the Atlantic Oceanographic and Meteorological Laboratories (AOML) and used. The manufacturers specifications on the sensors are as follows:

(a) Depth, 0 to 600 m $\pm$ 0.25% of full scale, time constant 0.1 sec.

(b) Temperature, -2° to 35°C, $\pm$ 0.02°C, time constant 0.35 sec.

(c) Conductivity, 0 to 60 mmho/cm, $\pm$ 0.03 mmho/cm, time constant 0.1 sec.

The deck unit which supplied power to the CTD also demultiplexed the frequency signals, drove an Easterline Angus XYY' analog recorder, and provided depth, temperature, and conductivity output to a Hewlett-Packard 5326-A Timer Counter so that frequencies for these parameters could be manually logged for every 10-meter depth increment.

Except at the very deepest stations, water samples were collected at every 10-meter depth with eight 1.7-liter Niskin Bottles. Five of these were equipped with reversing thermometer frames which held three thermometers each including unprotected thermometers on the deeper bottles.

3. DATA COLLECTION

The station occupation procedures employed on this cruise consisted of hanging Niskin Bottles on the CTD wire at 10-meter intervals until the CTD was close to the bottom. After a wait of six minutes for the thermometers to come to temperature equilibrium, a messenger was sent down to close the bottles and reverse the thermometers. At each 10-meter depth interval on the way down, frequency readings of the depth, temperature, and conductivity were recorded on a log sheet and the depth was marked on the analog record.

As the CTD was brought up, the bottles were stripped from the wire and racked up in the starboard passageway outside the laboratory. Water samples for dissolved oxygen determination were drawn immediately and preserved for analysis ashore by the Winkler titration. Salinity samples were then drawn and stored for analysis ashore, and finally a water sample for nutrient determination was drawn into an aged 125 ml plastic bottle which was closed with a polyseal cap and immediately frozen.

After the thermometers equilibrated with their surroundings, they were read and checked.

4. DATA PROCESSING

4.1 Physical Data

The processing of the physical data acquired with the Plessey 9400 CTD system required a completely different approach than that with the Inter Ocean CSTD system. The frequency values recorded at every 10 meters were punched on cards and run through the computer with the conversion formulas supplied by Plessey. At the same time, the salinities derived from laboratory salinometer analyses of the water samples, the temperatures computed from the reversing thermometers, and the wire depths were also entered and the differences computed. The wire depths had previously been compared with the thermometric depths and found to be much more consistent with the thermometric depths than one could expect of thermometric depth determinations at these shallow depths.

A plot of the depth differences suggested a possible + 0.5 meter correction to the CTD depth readings; but since this was well within the error of the wire depth readings and because no allowance could be made for the depth variation introduced by the very considerable roll of the ship on station, no correction has been applied. Both temperature and salinity differences

exhibited normal distributions. The thermometers indicate a +0.03°C correction to the CTD temperatures and this has been applied. The standard deviation was 0.07°C. The salinity differences came out 0.00 °/oo with a standard deviation of 0.04 °/oo. Considering the gradients of water properties and the time lapse between the CTD reading and the water bottle sampling, these values indicate reliable operation of the CTD.

In order to present temperature and salinity values at 5-meter intervals, it was necessary to scale the analog records at the 5, 15, 25, etc. depths for temperature and conductivity using selected known 10-meter values for each station where small vertical change was occuring and which looked consistent on the down and up casts. However, only the down cast was used for scaling the values.

4.2 Oxygen and Nutrient Data

The dissolved oxygen samples were analyzed ashore immediately after the cruise using a modified Winkler method. Replicate titrations were run on all samples until two titrants agreed within 0.03 ml. At the 8 ml/l level, the precision of this determination is ± .02 ml/l.

Water samples were analyzed for dissolved nitrates (NO_3-N), nitrites (NO_2-N), orthophosphates (PO_4-P), and silicates (SiO_3-Si) with a four-channel Technicon Auto-analyzer, generally within a period of six weeks after their collection.

The analytical procedures used in the analyses for nitrate and nitrite are described by Armstrong et al., (1967). The orthophosphate procedure is described by Grasshoff (1965), and the silicate procedure is described by Strickland and Parsons (1968). The water used for standardization, blank determination, and wash between samples is filtered Gulf Stream water obtained from the surface in the Straits of Florida.

The detection limits and accuracies of analysis for the four nutrients are listed in Table 2.

Table 2.

Operational characteristics of the nutrient-analyses system.

Parameter	Range µg-at/ℓ	Detection Limit µg-at/ℓ	Coefficient of Variation (95% confidence level) % at µg-at/ℓ
NO_3-N/ℓ	0.0-50.0	0.4	0.17 at 15.0
NO_2-N/ℓ	0.0-20.0	0.1	1.2 at 3.2
PO_4-P/ℓ	0.0-20.0	0.05	1.6 at 0.64
SiO_3-Si/ℓ	0.0-50.0	0.5	2.3 at 33.0

5. DATA PRESENTATION

The observed data and corresponding profiles of temperature, salinity, and sigma-t are presented in Section 9, station data. The codes used in the table headings are from the National Oceanographic Data Center Manual Series (1964). Profiles were made from the corrected data, with identifying symbols located at each

numbered depth increment.

In section 8, figures 2 through 8 are presented. These display the distribution of temperature and salinity on the surface and contours of density, dissolved oxygen, phosphate, nitrate, and silicate at 30 meters depth.

6. ACKNOWLEDGMENTS

The authors express their thanks to the officers and crew of the NOAA ship George B. Kelez, under LCDR. John D. Stachelhous, for the long and diligent hours they devoted to supporting the collection of these data and samples. This program was sponsored by NOAA and funded in part by the NOAA Environmental Research Laboratories and the MESA New York Bight Project.

7. REFERENCES

Armstrong, F.A.J., C.R. Stearns, and J.D.H. Strickland (1967): The measurement of upwelling and subsequent biological processes by means of the Technicon Autoanalyzer and associated equipment, Deep-Sea Res. Oceanog. Abstr. 14 (3): 381-389.

Charnell, R.L. and D.V. Hansen (1974). Summary and Analysis of Physical Oceanography Data collected in the New York Bight Apex during 1969-70, MESA Report No. 74-3, U.S. Govt. Print. Off., Washington, D.C.

Charnell, R.L., M.E. Darnell, G.A. Berberian, B.L. Kolitz, and J.B. Hazelworth (1976): New York Bight Project, Water Column Characterization Cruises 1 and 2 of the NOAA Ship Researcher, 4-15 March and 5-14 May, 1974, NOAA Data Report MESA-18, U.S. Govt. Print., Washington, D.C., (Microfiche).

Grasshoff, K. (1965): Automatic Determination of Fluoride, Phosphate, and Silicate in Sea Water, Technicon Fifth International Symposium, London, pp. 304-307.

Hazelworth, J.B., B.L. Kolitz, R.B. Starr, R.L. Charnell, and G.A. Berberian (1974): New York Bight project, water column sampling cruises #1-5 of the NOAA ship Ferrel, August-November, 1973, MESA Report No. 74-2, U.S. Govt. Print. Off., Washington, D.C., 191 pp.

Hazelworth, J.B., B.L. Kolitz, R.B. Starr, R.L. Charnell, G.A. Berberian, and M.A. Weiselberg (1975): New York Bight Project, Water Column Sampling Cruises #6-8 of the NOAA ship Ferrel, April - June 1974, NOAA Data Report MESA-1, U.S. Govt/Print. Off., Washington, D.C., 177 pp.

Hazelworth, J.B., B.L. Kolitz, R.B. Starr, R.L. Charnell, G.A. Berberian, and M.A. Weiselberg (1975): New York Bight Project, Water Column Sampling Cruises #9-12 of the NOAA ship Ferrel, July - November 1974, NOAA Data Report MESA-3 U.S. Govt. Print. Off., Washington, D.C. , 233 pp. (Microfiche).

Hazelworth, J.B. and M.E. Darnell (1977): MESA New York Bight Project, Expanded Water Column Characterization Cruises (XWCC- 2 and 3), NOAA Ship Researcher, 22 February - 5 March, 9-12 April 1975, NOAA DR ERL MESA - pp , (microfiche). In press.

Kolitz, B.L., J.B. Hazelworth, R.B. Starr, and S.R. Cummings (1976): MESA New York Bight Project, Expanded Water Column Characterization Cruises (XWCC-4 and5), NOAA Ship Kelez, May-June 1975, NOAA DR ERL MESA- pp. , (microfiche). In press.

National Oceanographic Data Center Manual Series (1964): Processing Physical and Chemical Data from Oceanographic Stations, Part 1. Coding and Keypunching, Publication M-2, revised, U.S. Naval Oceanographic Office, Washington, D.C., 117 pp.

Starr, R.B., G.A. Berberian, and M.A. Weiselberg (1976): New York Bight Project, Water Column Characterization Cruise of the R/V Advance II, January 1975, NOAA Data Report MESA-22, U.S. Govt. Print. Off., Washington, D.C. (Microfiche).

Strickland, J.D.H., and T.R. Parsons (1968): A practical handbook of seawater analysis, Bulletin 167, Fisheries Research Board of Canada, Ottawa, Ont., Canada, 311 pp.

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8. AREAL DISTRIBUTIONS OF SURFACE TEMPERATURE AND SALINITY, AND 30 METERS DEPTH DISTRIBUTIONS OF SIGMA-T, OXYGEN, PHOSPHATE, NITRATE, AND SILICATE

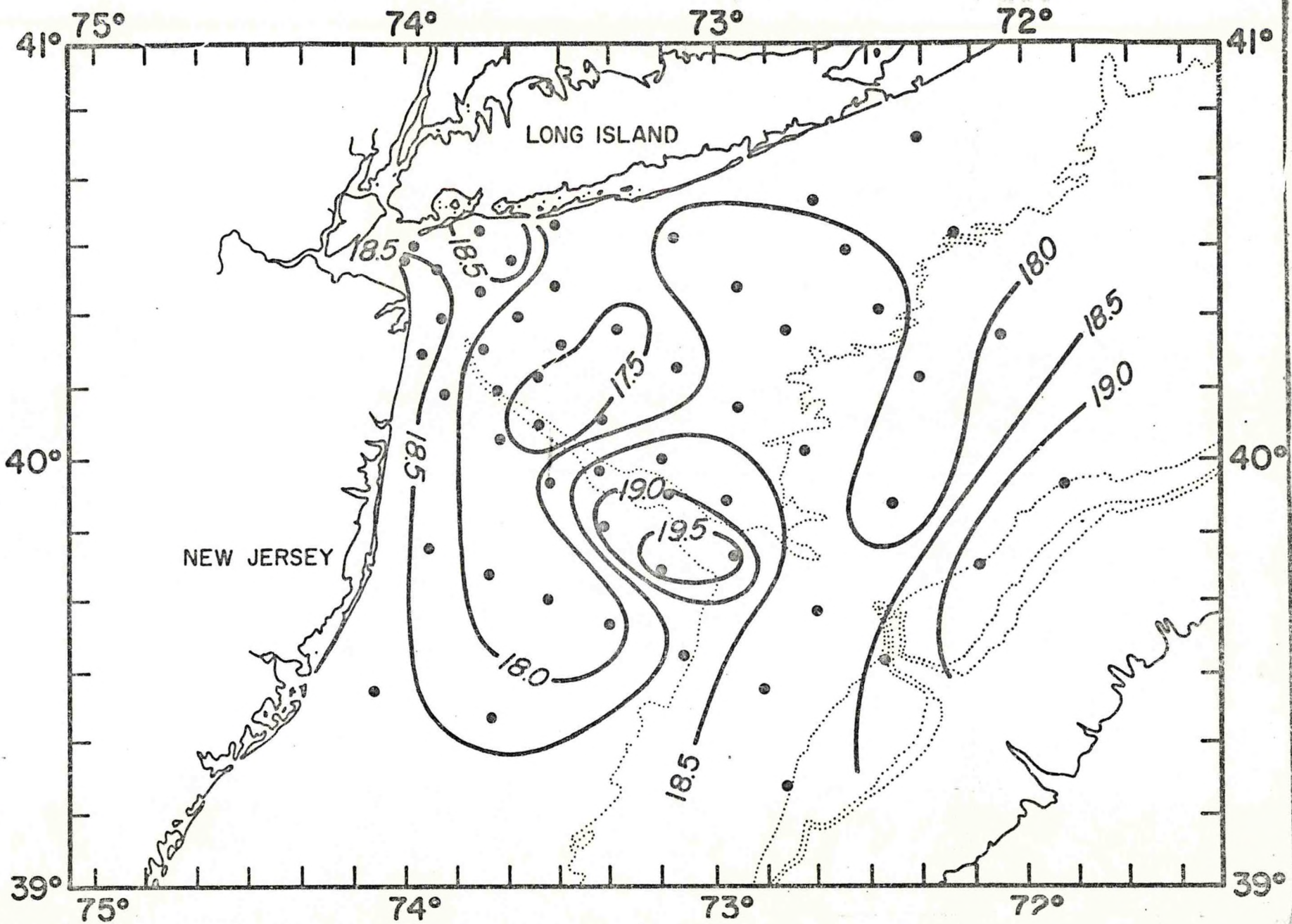


Figure 2. Temperature (°C) contours at surface, September 29 - October 4, 1975.

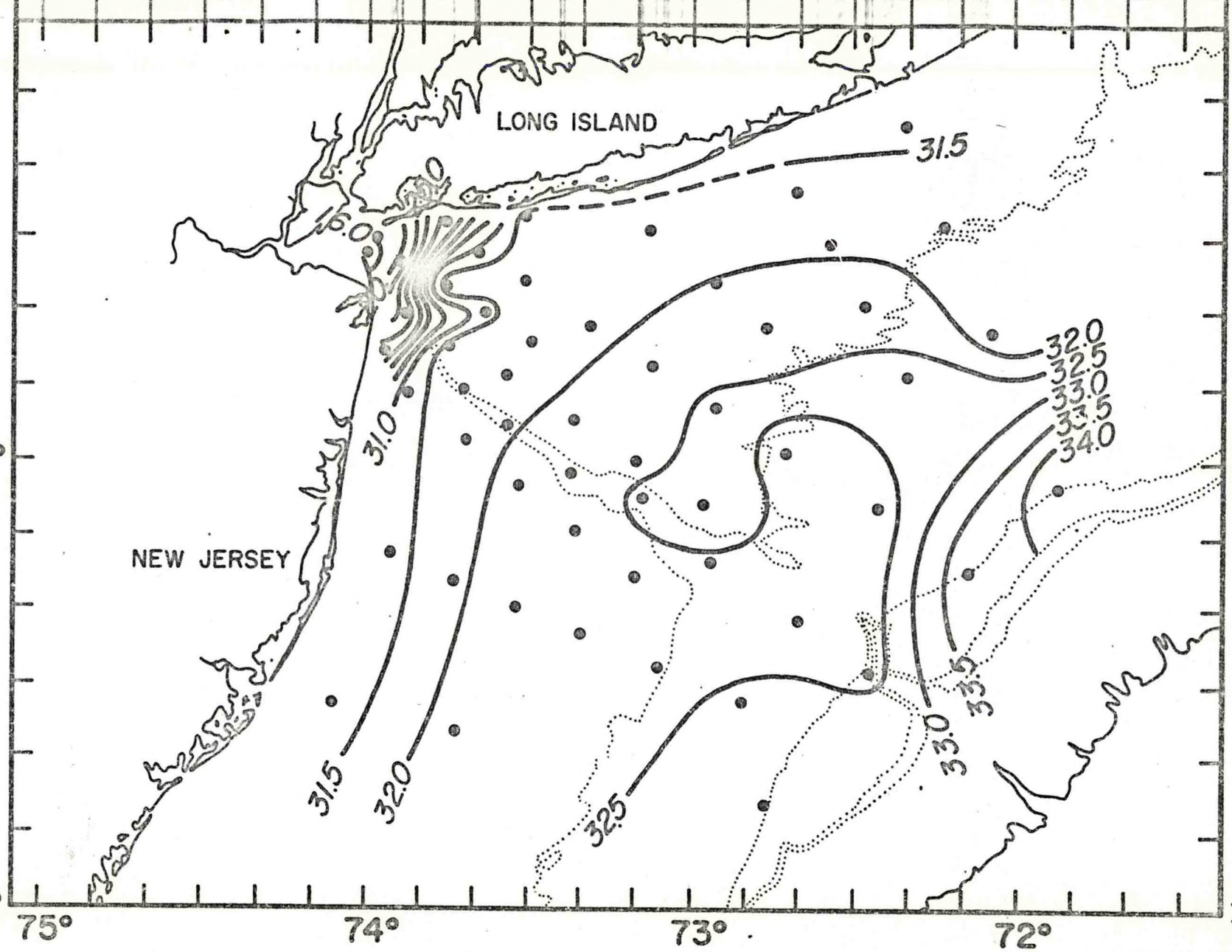


Figure 3. Salinity (°/oo) contours at surface, September 29 - October 4, 1975.

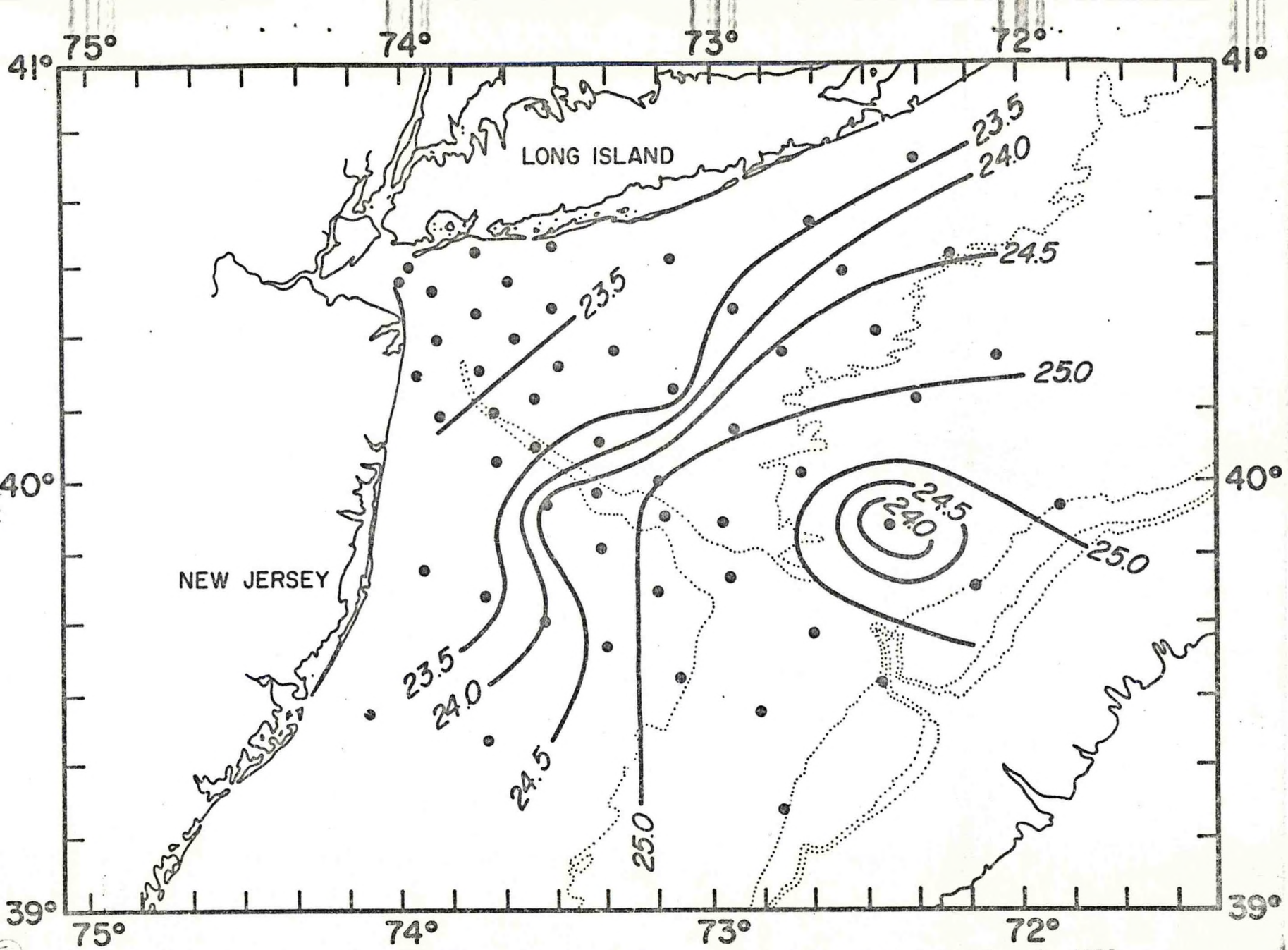


Figure 4. Density (σ_t) contours at 30 meters depth, September 29 - October 4, 1975.

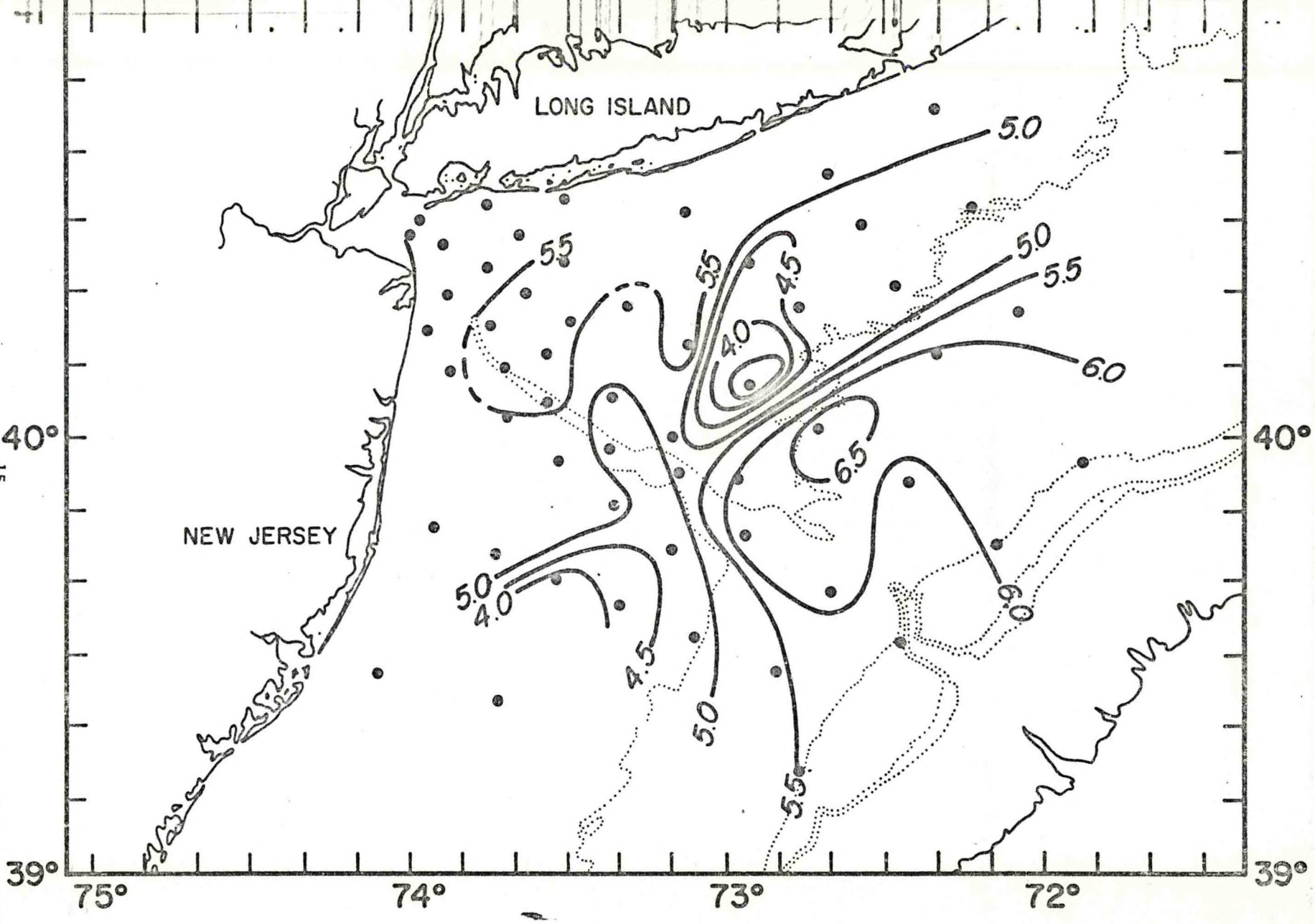


Figure 5. Oxygen (ml/l) contours at 30 meters depth, September 29 - October 4, 1975.

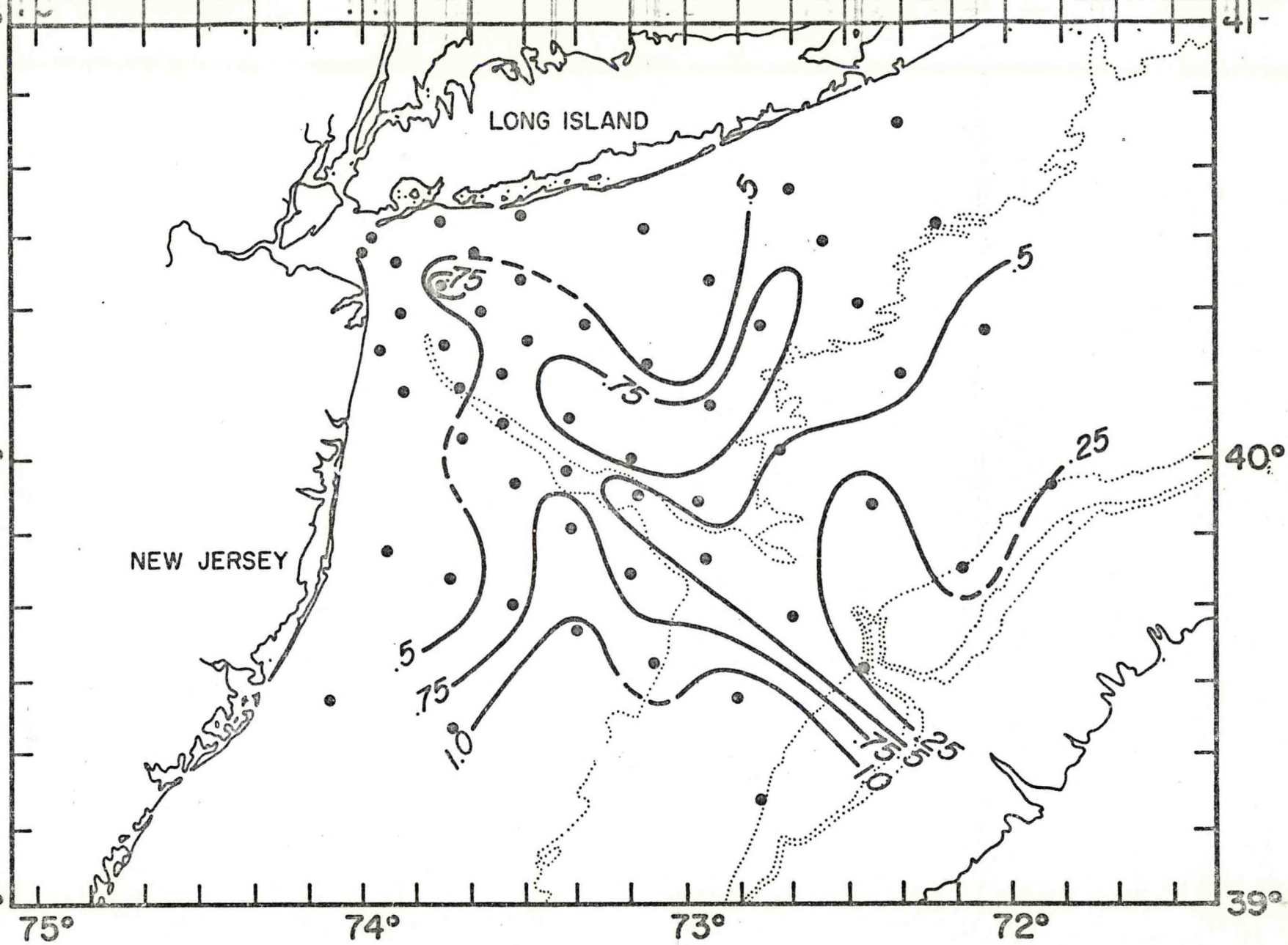


Figure 6. Phosphate (µg-at/l) contours at 30 meters depth, September 29 - October 4, 1975.

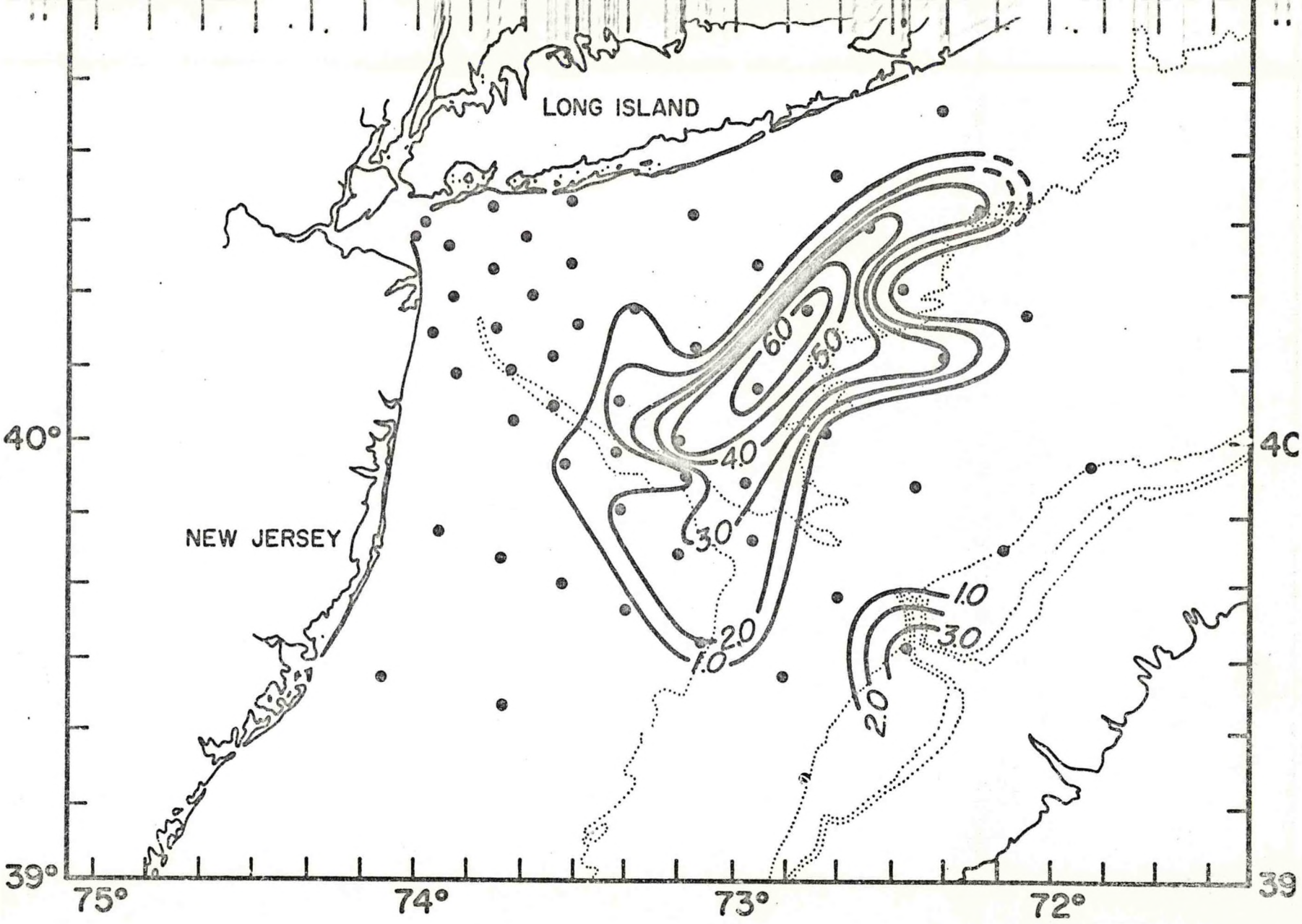


Figure 7. Nitrate (μg-at/l) contours at 30 meters depth, September 29 - October 4, 1975.

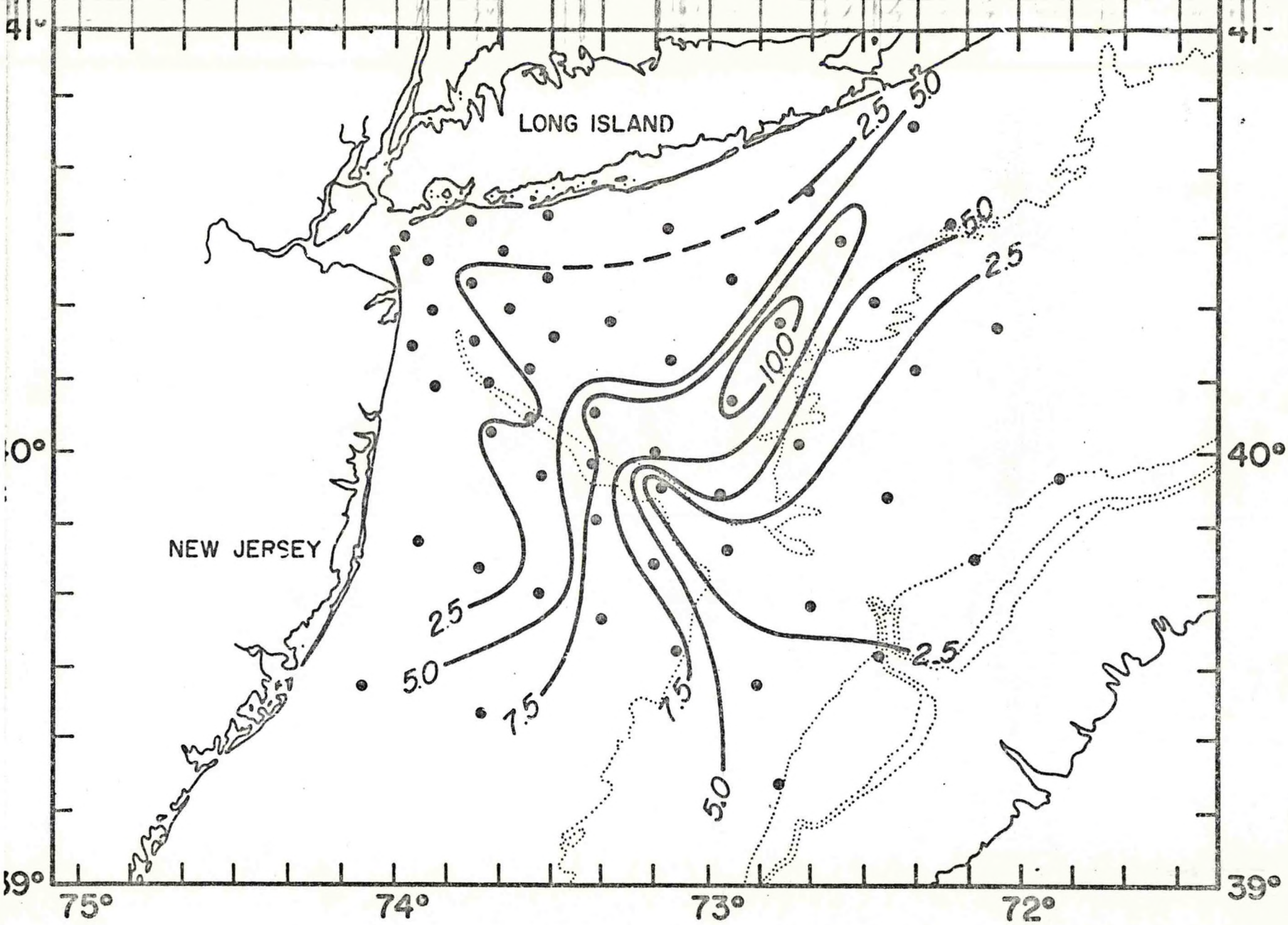


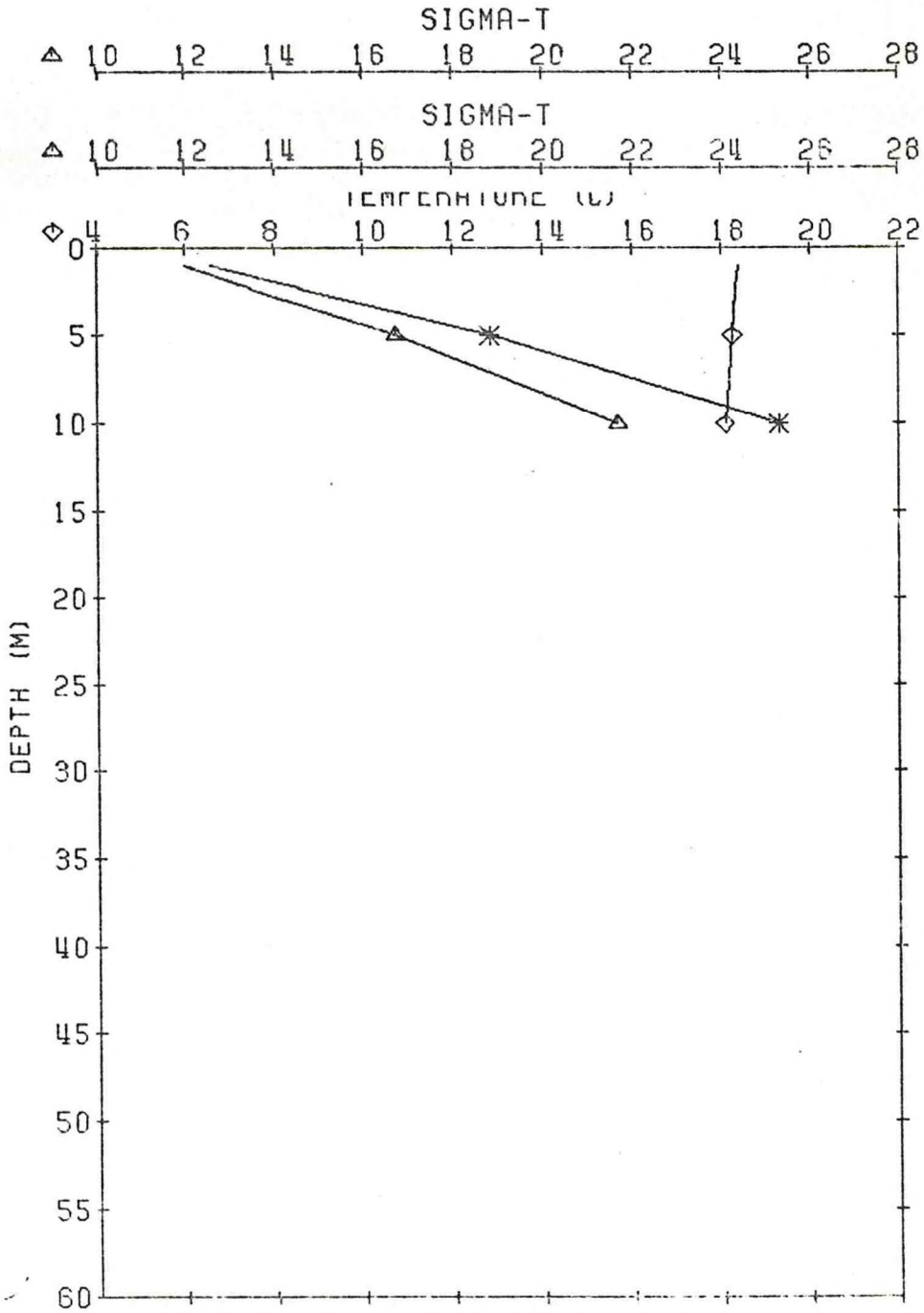
Figure 8. Silicate (µg-at/l) contours at 30 meters depth, September 29 - October 4, 1975.

9. STATION DATA

KE CRS/STA 06/ 1 LAT 40 29.7N; LONG 73 57.0W GMT 13.8 9/29/75
DEPTH 11 AIR D/W 16.1/ . BARO 24.5 VIS 8 CLD TYP/CVR 0/0
WETHR 0 WIND DIR/SPD 21/01 SEA DIR/HT 21/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.37	17.59	11.98			4.48	3.96	38.29	20.21	3.38
5	18.23	23.80	16.72							
10	18.08	30.27	21.67			4.85	1.23	8.49	5.69	1.85

KELEZ CRUISE XWCC-6 STATIØN 1 SEPT. 29, 1975



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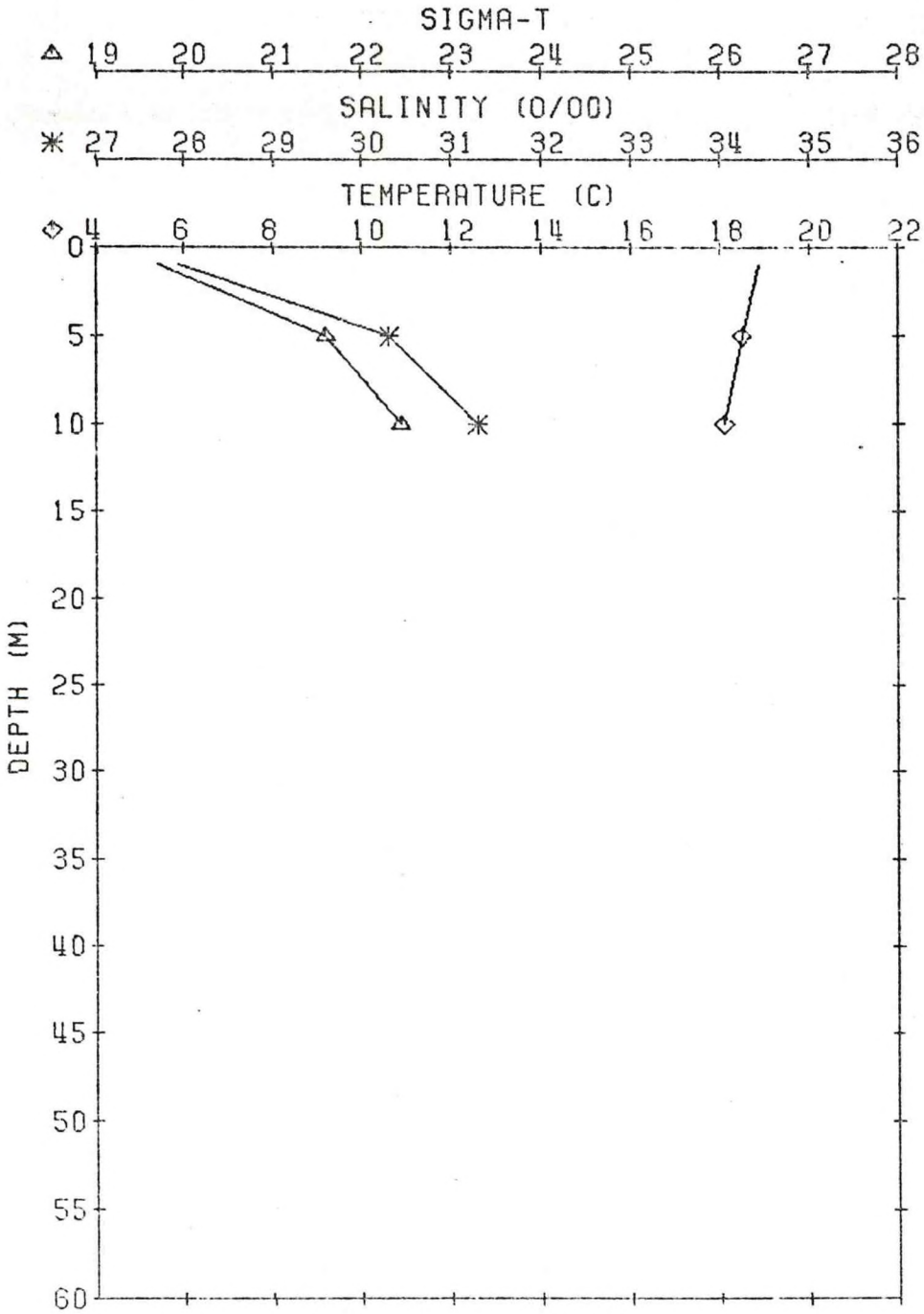
WETHR 0 WIND DIR/SPD 15/08 SEA DIR/HT 14/0 SWELL DIR/HT 14/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.87	27.94	19.70			4.88	1.29	7.80	3.83	1.75
5	18.48	30.31	21.60							
10	18.10	31.29	22.44			5.47	.16	.13	.00	1.19

KELEZ CRUISE XWCC-3 STATION 3 SEPT. 29, 1975



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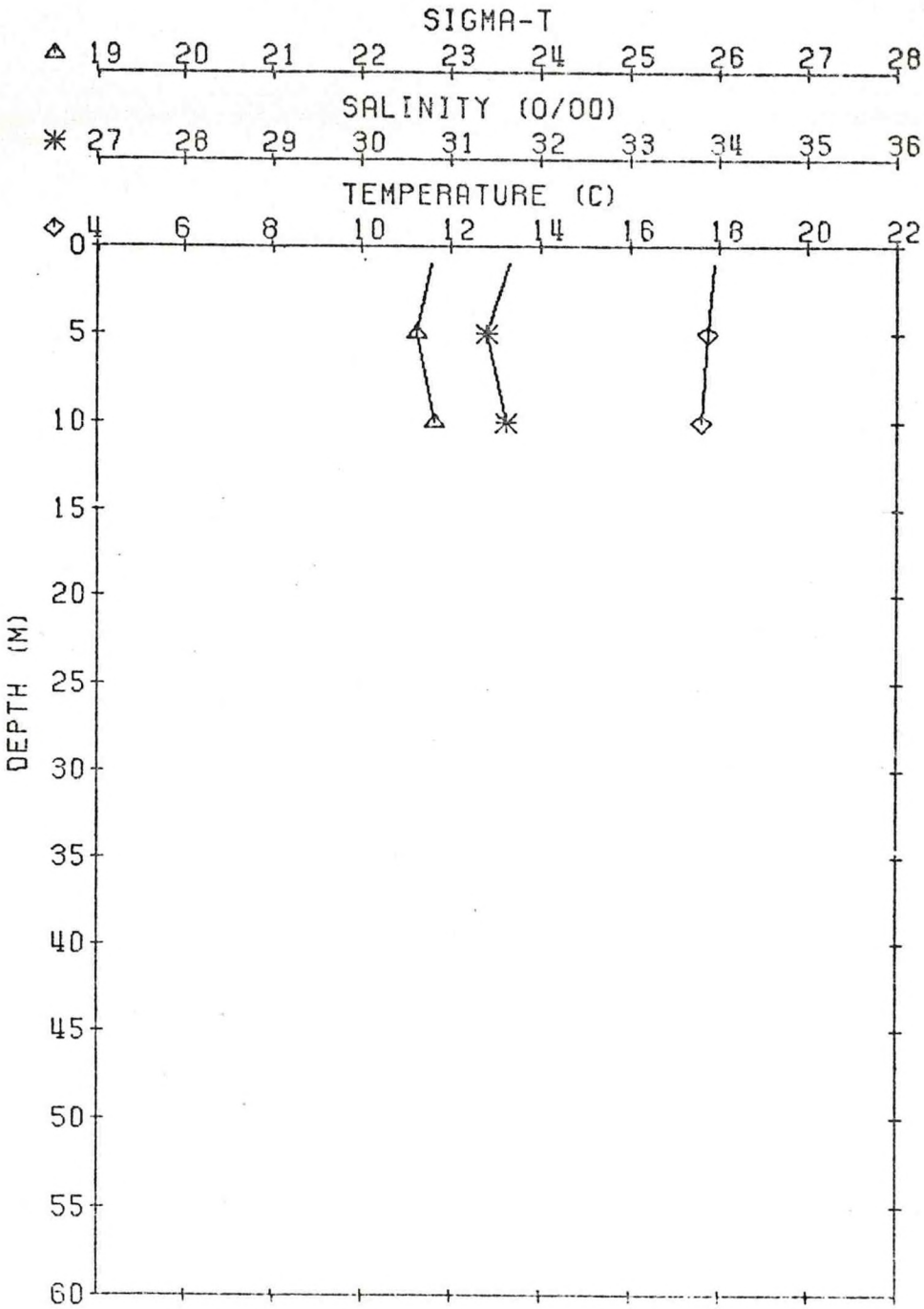
WETHR 0 WIND DIR/SPD 14/08 SEA DIR/HT 14/0 SWELL DIR/HT 14/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.87	31.65	22.76			3.71	.21	.32	1.72	.91
5	17.73	31.39	22.60							
10	17.58	31.61	22.81			5.28	.22	.31	2.09	.92

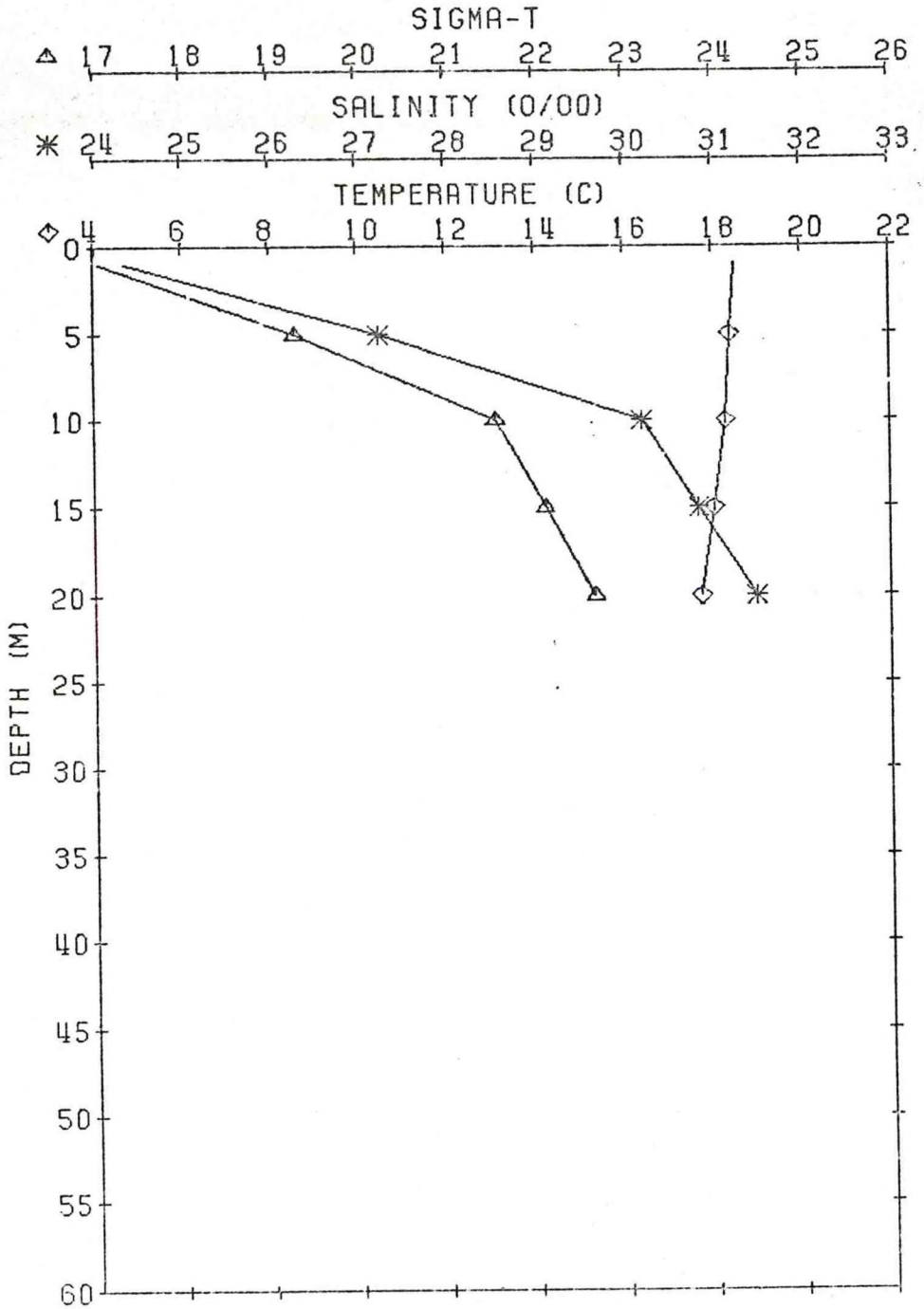
KELEZ CRUISE XWCC-6 STATION 5 SEPT. 29, 1975



KE CRS/STA 06/ 7 LAT 40 26.8N; LONG 73 52.9W GMT 15.8 9/29/75
DEPTH 21 AIR D/W 21.1/ . BARO 24.5 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 00/00 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.50	24.35	17.07			5.33	2.61	21.58	10.34	2.55
5	18.39	27.25	19.30							
10	18.29	30.19	21.56			6.43	.40	1.74	.25	.94
15	18.01	30.83	22.11							
20	17.73	31.48	22.67			5.15	.27	.33	1.93	1.12

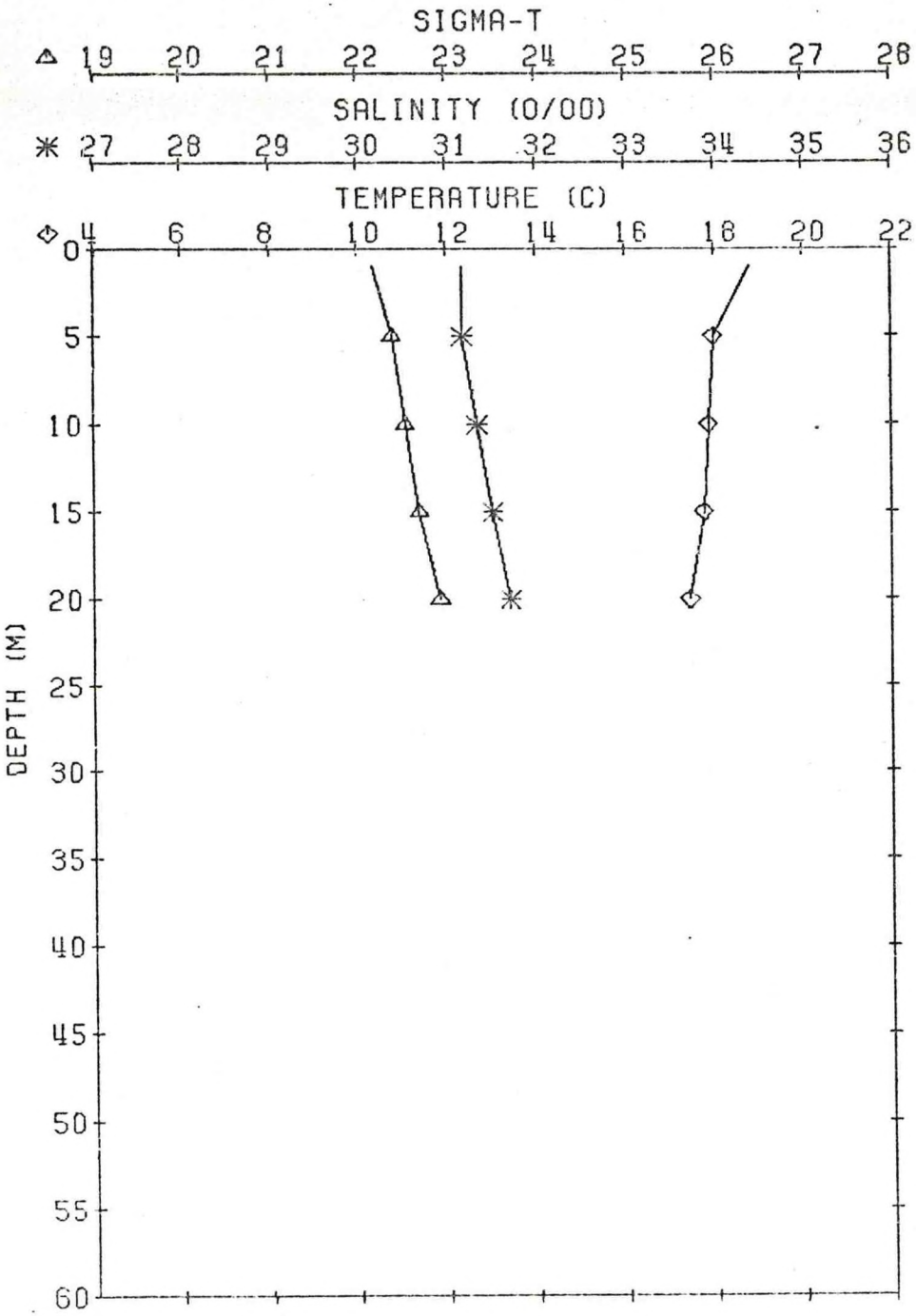
KELEZ CRUISE XWCC-6 STATION 7 SEPT. 29, 1975



KE CRS/STA 06/ 9 LAT 40 28.3N; LONG 73 39.7W GMT 20.7 9/29/75
DEPTH 20 AIR D/W 20.0/ . BARO 23. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 15/06 SEA DIR/HT 15/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.77	31.17	22.18			6.65	.19	.14	.35	.74
5	17.97	31.18	22.38							
10	17.86	31.33	22.53			6.39	.14	.00	.00	.53
15	17.75	31.51	22.69							
20	17.43	31.71	22.91			4.97	.25	.32	2.72	1.01

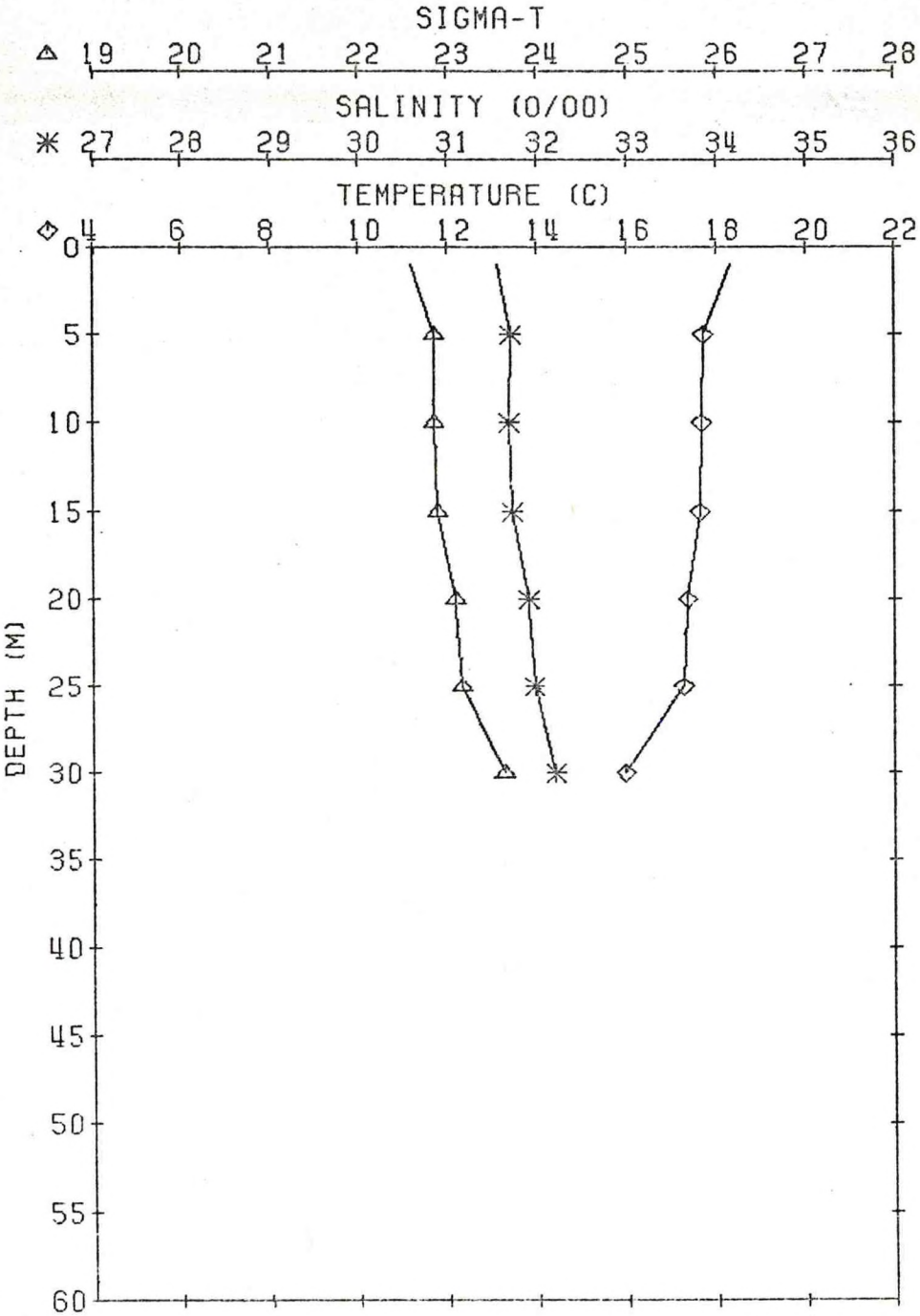
KELEZ CRUISE XWCC-6 STATION 9 SEPT. 29, 1975



KE CRS/STA 06/ 13 LAT 40 23.4N; LONG 73 47.1W GMT 21.9 9/29/75
DEPTH 35 AIR D/W 18.9/ . BARO 20.2 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 15/06 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.30	31.56	22.60				.13	.00	.00	.57
5	17.69	31.70	22.85							
10	17.65	31.69	22.85			5.78	.10	.00	.00	.55
15	17.61	31.72	22.88							
20	17.34	31.90	23.08			5.64	.15	.12	.86	.57
25	17.25	31.97	23.16							
30	15.96	32.20	23.63			5.24	.32	.61	4.12	.77

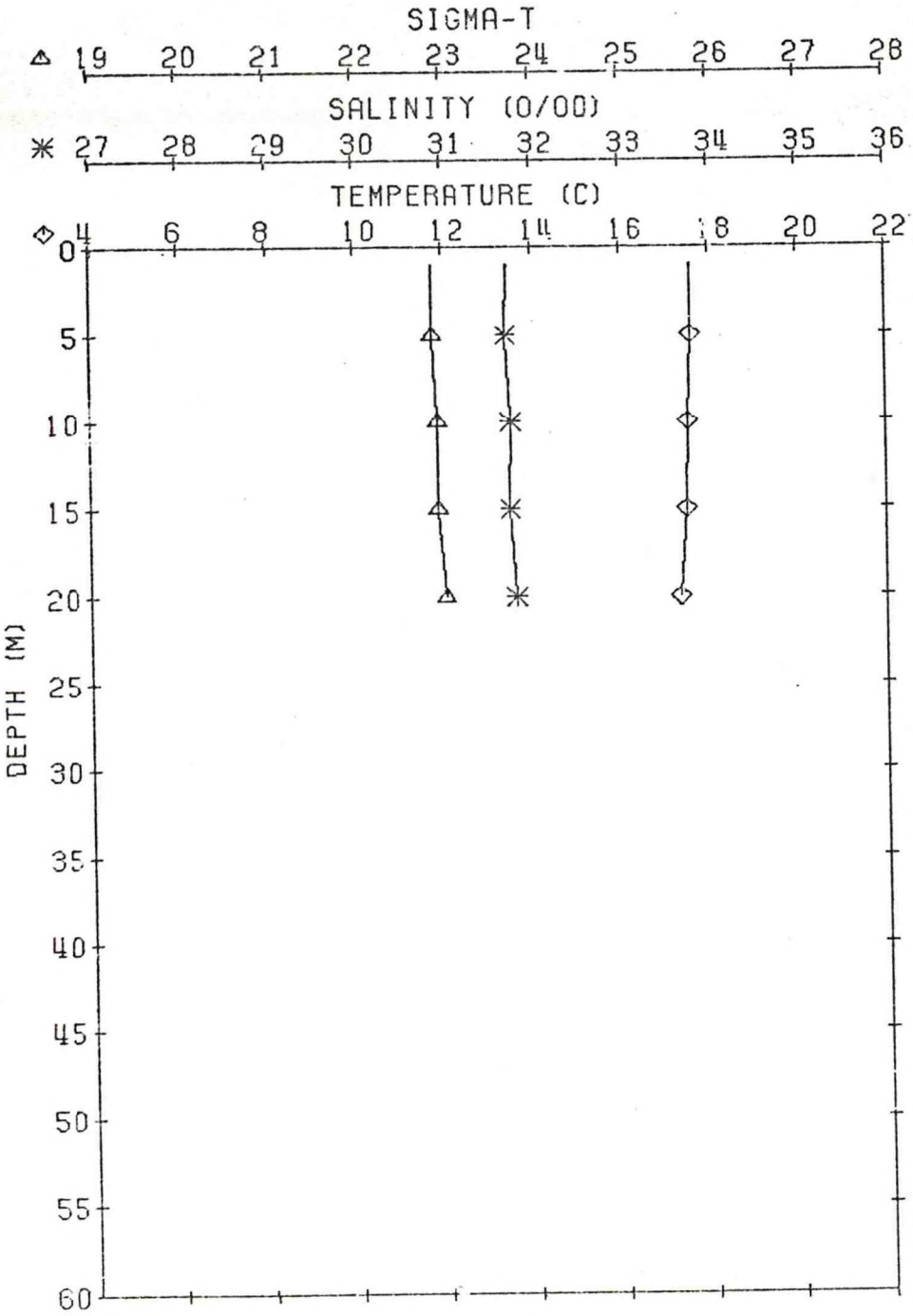
KELEZ CRUISE XWCC-6 STATIØN 13 SEPT. 29, 1975



KE CRS/STA 06/ 15 LAT 40 25.0N; LONG 73 30.5W GMT 6.8 9/30/75
DEPTH 21 AIR D/W 15.6/ . BARO 23. VIS 7 CLD TYP/CVR X/2
WETHR 1 WIND DIR/SPD 19/06 SEA DIR/HT 00/0 SWELL DIR/HT 18/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.58	31.72	22.89			5.54	.00	.00	.00	.48
5	17.59	31.71	22.88							
10	17.50	31.75	22.93			5.57	.03	.00	.00	.32
15	17.48	31.74	22.93							
20	17.33	31.81	23.02			5.58	.10	1.61	.61	.47

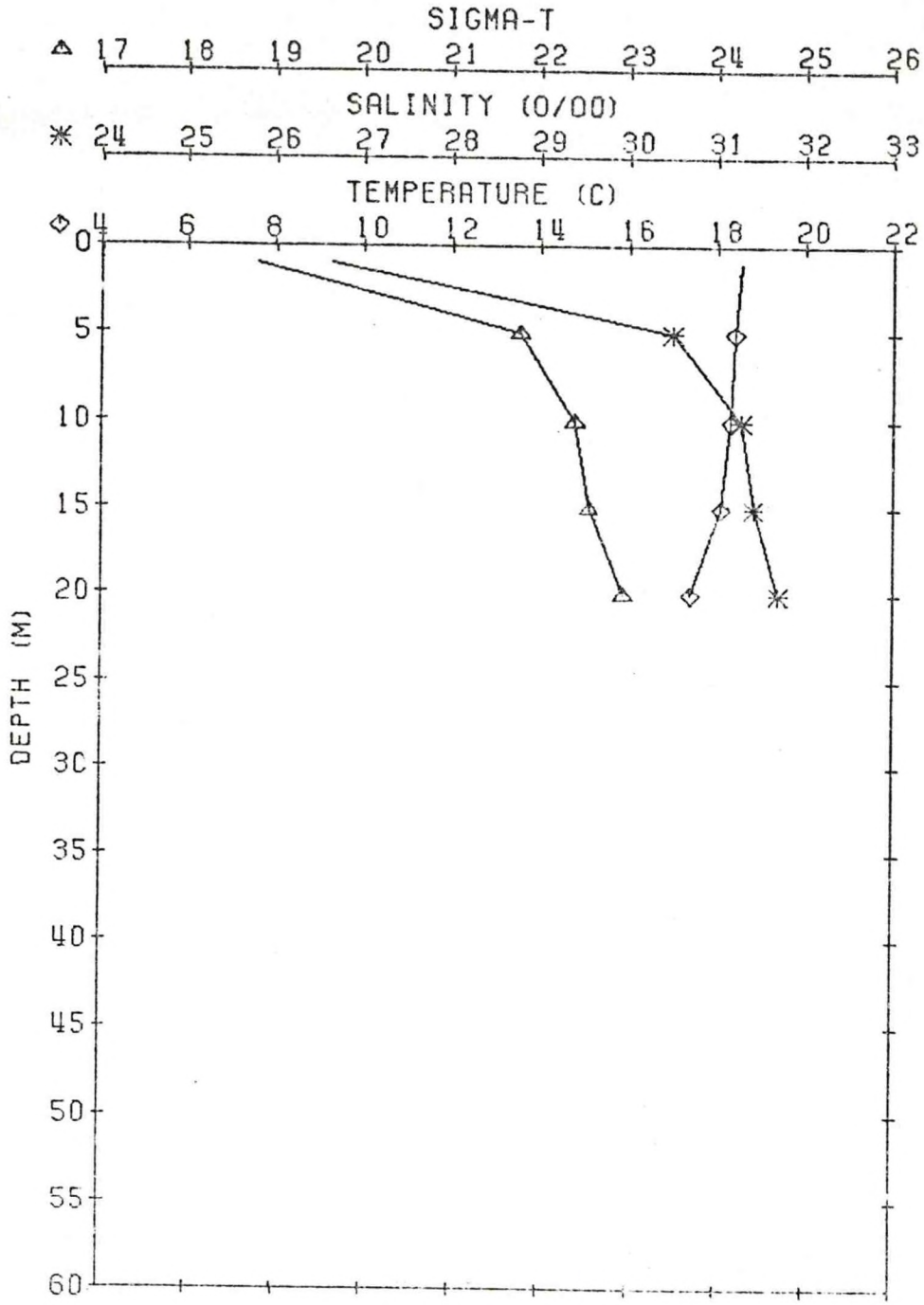
KELEZ CRUISE XWCC-6 STATION 15 SEPT. 30, 1975



KE CRS/STA 06/ 17 LAT 40 18.3N; LONG 73 51.9W GMT 23.0 9/29/75
DEPTH 20 AIR D/W 17.8/ . BARO 20.2 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 14/10 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.54	26.62	18.79			6.21	1.45	11.68	3.74	1.67
5	18.39	30.49	21.76							
10	18.29	31.26	22.37			5.62	.13	.64	.00	.76
15	18.07	31.40	22.53							
20	17.38	31.69	22.91			5.55	.19	1.11	2.78	.87

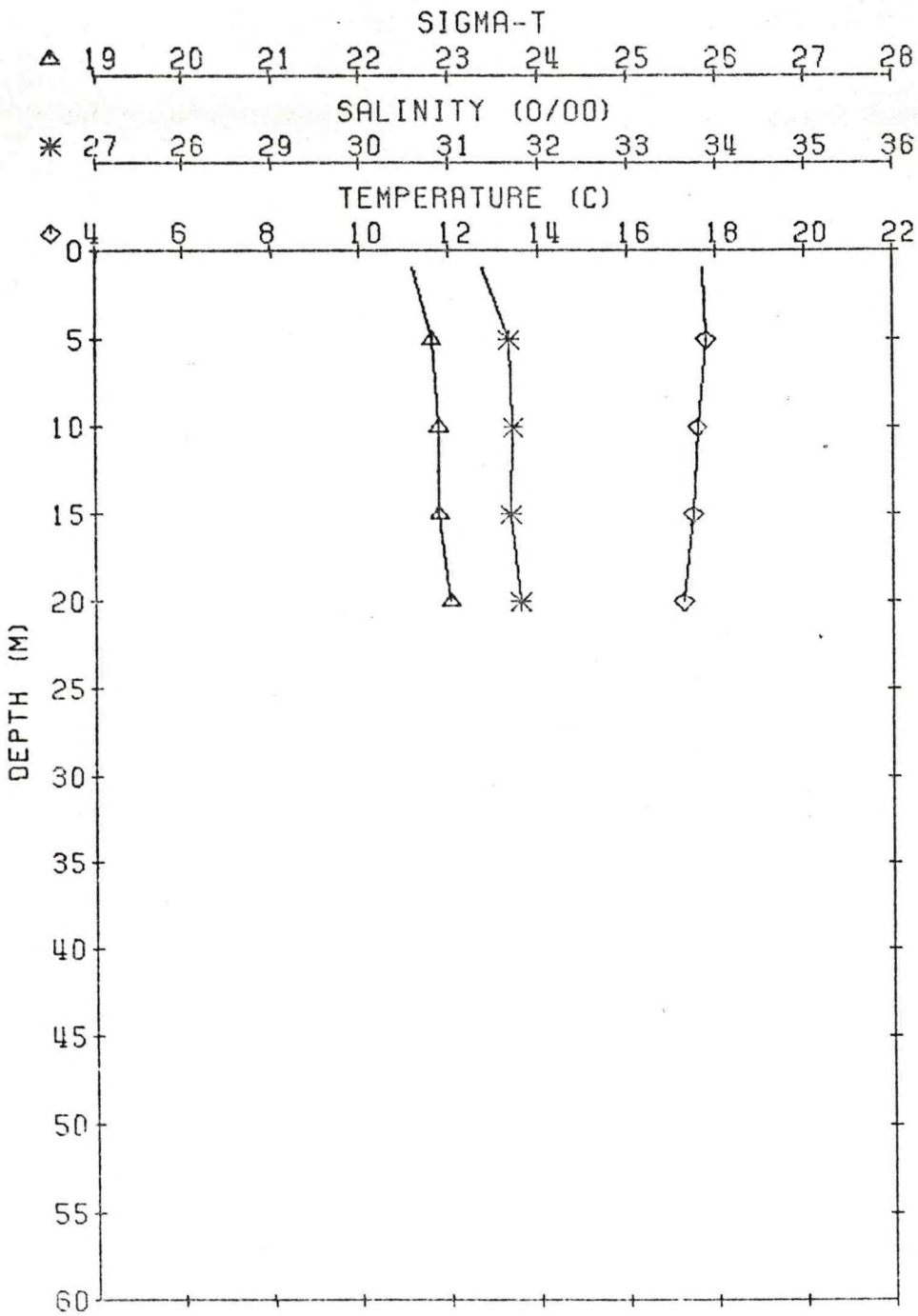
KELEZ CRUISE XWCC-6 STATIØN 17 SEPT. 29, 1975



KE CRS/STA 06/ 19 LAT 40 20.2N; LONG 73 37.9W GMT 5.6 9/30/75
DEPTH 24 AIR D/W 16.7/ . BARO 23. VIS 7 CLD TYP/CVR X/2
WETHR 1 WIND DIR/SPD 18/08 SEA DIR/HT 18/0 SWELL DIR/HT 18/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.70	31.37	22.60			6.67	.16	.62	2.74	.80
5	17.76	31.66	22.80							
10	17.57	31.71	22.88			6.30	.02	.00	.00	.26
15	17.47	31.68	22.89							
20	17.26	31.79	23.02			5.20	.04	.28	.00	.44

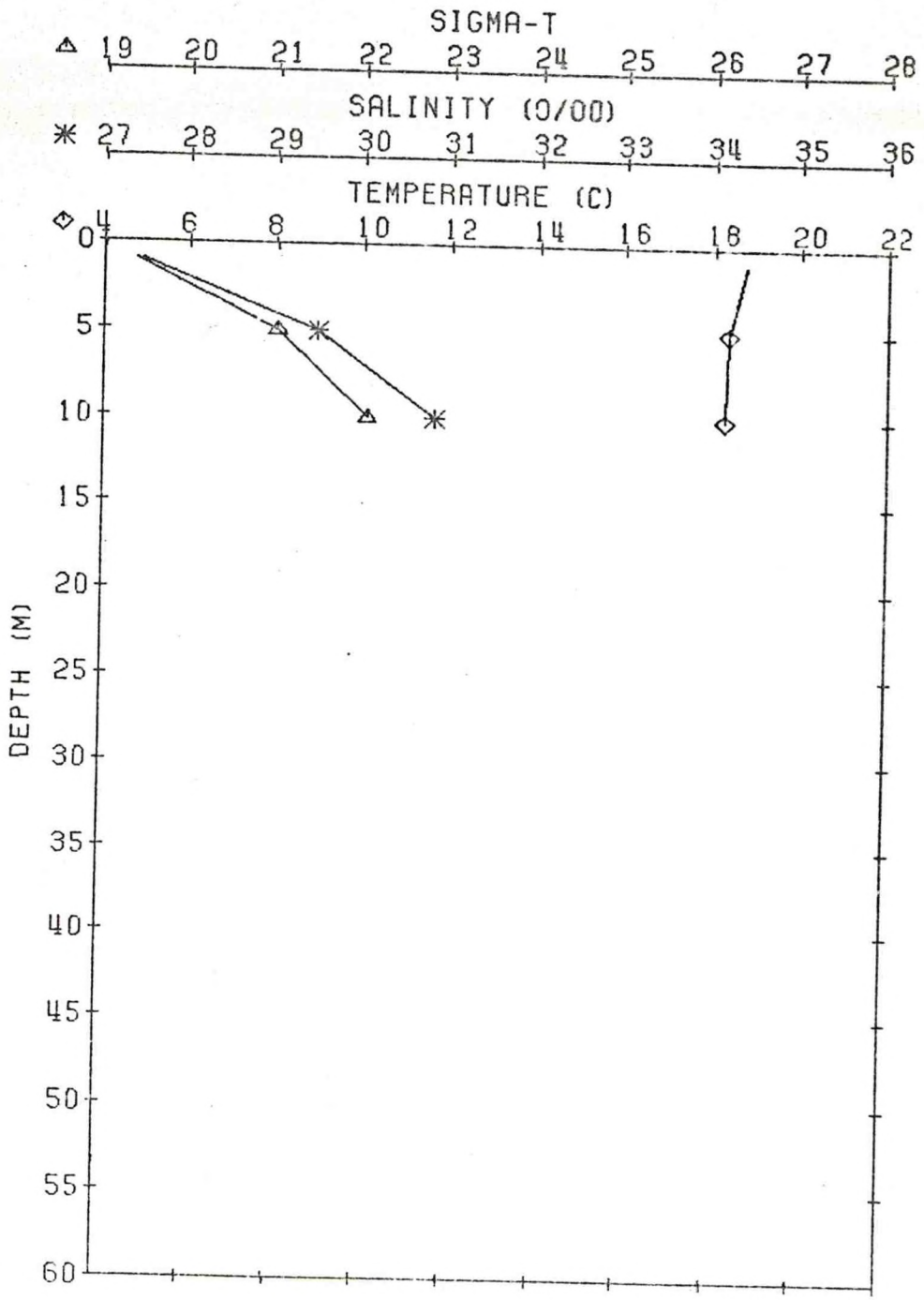
KELEZ CRUISE XWCC-6 STATION 19 SEPT. 30, 1975



KE CRS/STA 06/ 21 LAT 40 13.6N; LONG 73 56.2W GMT 23.9 9/29/75
DEPTH 15 AIR D/W 16.1/ . BARO 23. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 16/08 SEA DIR/HT 15/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.70	27.45	19.38			6.21	1.30	10.63	2.46	1.56
5	18.30	29.47	21.01							
10	18.24	30.81	22.04			5.76	.65	4.09	.20	1.01

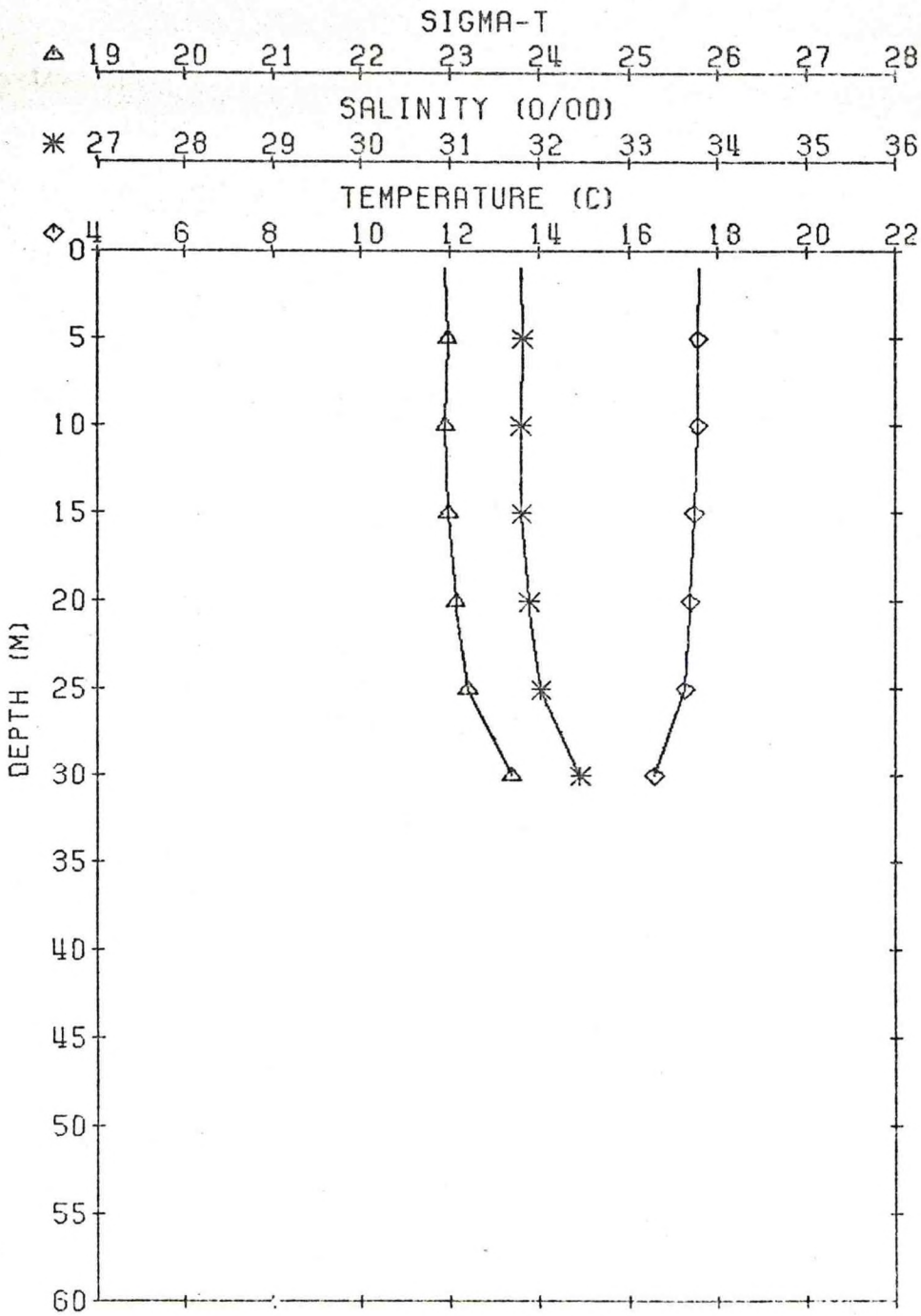
KELEZ CRUISE XWCC-6 STATIØN 21 SEPT. 29, 1975



KE CRS/STA 06/ 23 LAT 40 14.9N; LONG 73 45.5W GMT 4.5 9/30/75
DEPTH 40 AIR D/W 16.7/ . BARO 23. VIS 7 CLD TYP/CVR X/2
WETHR 1 WIND DIR/SPD 18/08 SEA DIR/HT 00/0 SWELL DIR/HT 18/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.57	31.78	22.94			6.17	.06	.51	.00	.21
5	17.56	31.81	22.97							
10	17.56	31.79	22.95			6.16	.03	.00	.00	.51
15	17.48	31.80	22.97							
20	17.38	31.88	23.06			5.84	.07	.62	.00	.35
25	17.27	32.02	23.19							
30	16.57	32.45	23.68			5.63	.11	.10	.71	.31

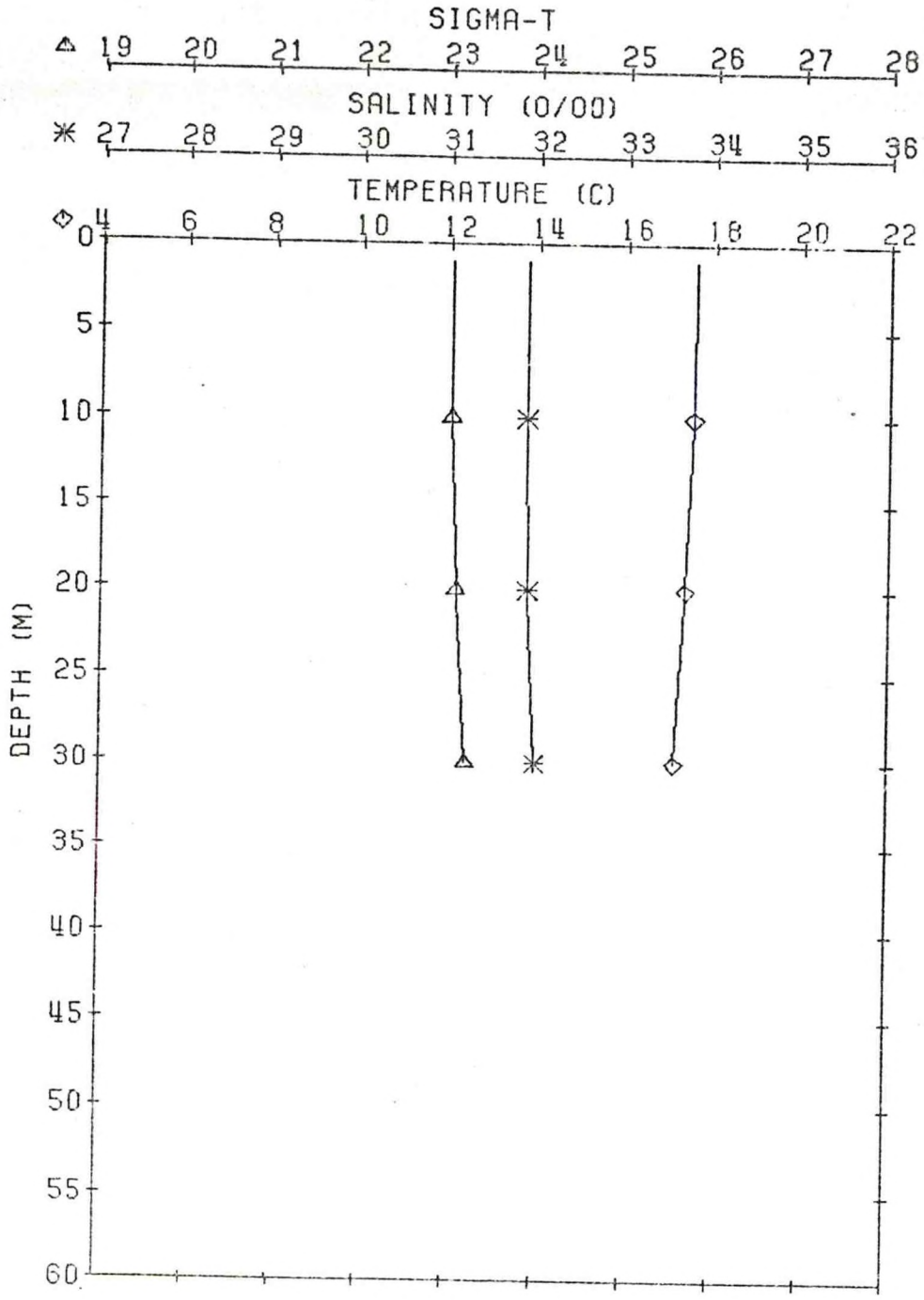
KELEZ CRUISE XWCC-6 STATION 23 SEPT. 30, 1975



KE CRS/STA 06/ 25 LAT 40 16.9N; LONG 73 28.2W GMT 9.0 9/30/75
DEPTH 30 AIR D/W 16.1/ . BARO 23. VIS 7 CLD TYP/CVR X/0
WETHR 1 WIND DIR/SPD 00/01 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.54	31.86	23.01			5.99	.02	.00	.00	.23
10	17.51	31.86	23.01			6.24	.01	.00	.00	.23
20	17.34	31.89	23.07			6.16	.04	.74	.00	.24
30	17.12	31.98	23.20			5.55	.18	.20	3.72	.70

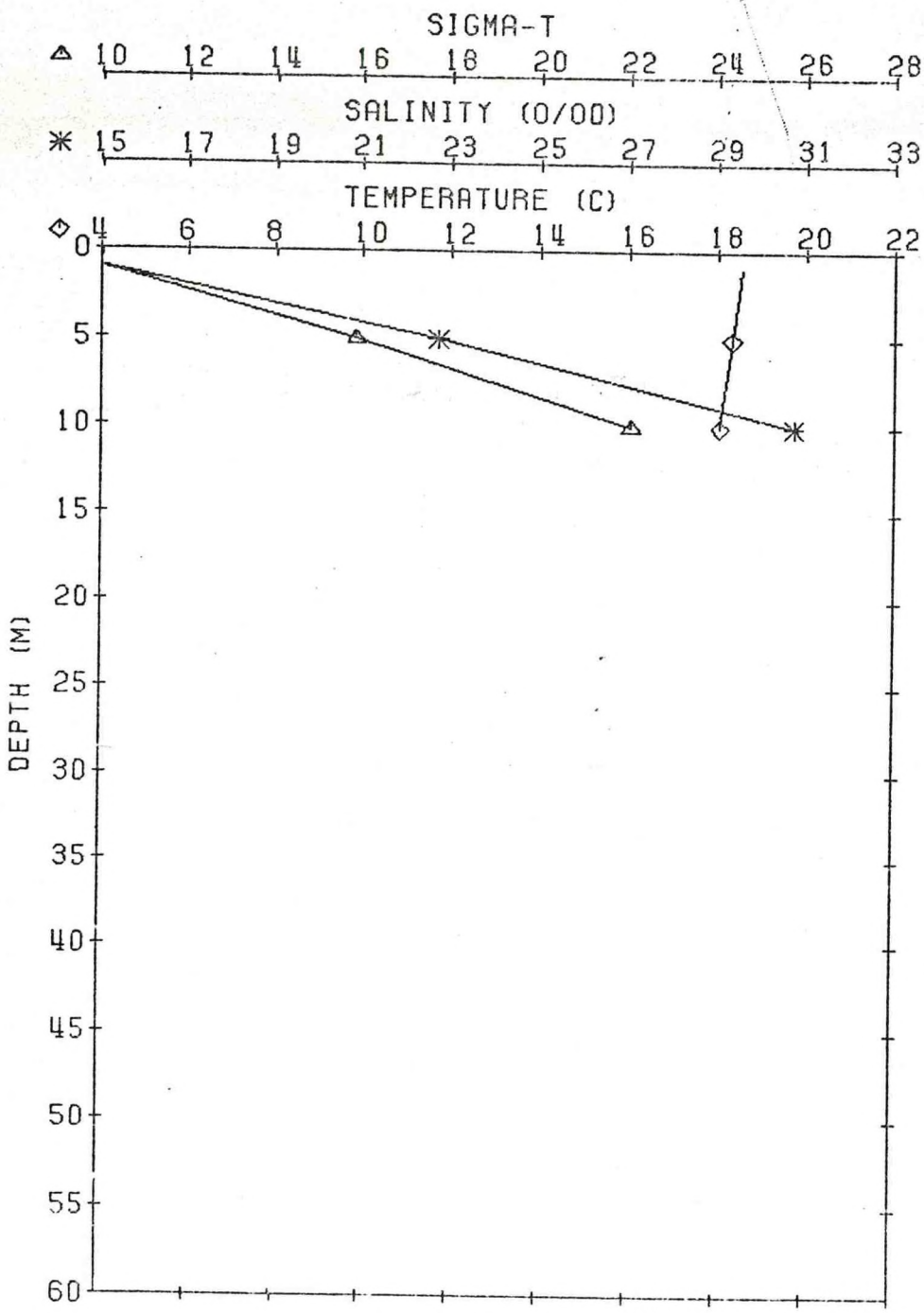
KELEZ CRUISE XWCC-6 STATION 25 SEPT. 30, 1975



KE CRS/STA 06/ 26 LAT 40 29.4N; LONG 73 59.2W GMT 14.7 9/29/75
DEPTH 11 AIR D/W 17.8/ . BARO 24.5 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 28/01 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.52	15.10	10.06			4.13	2.11	22.81	11.89	2.36
5	18.31	22.68	15.85							
10	18.03	30.71	22.01			4.42	.75	3.19	3.88	1.69

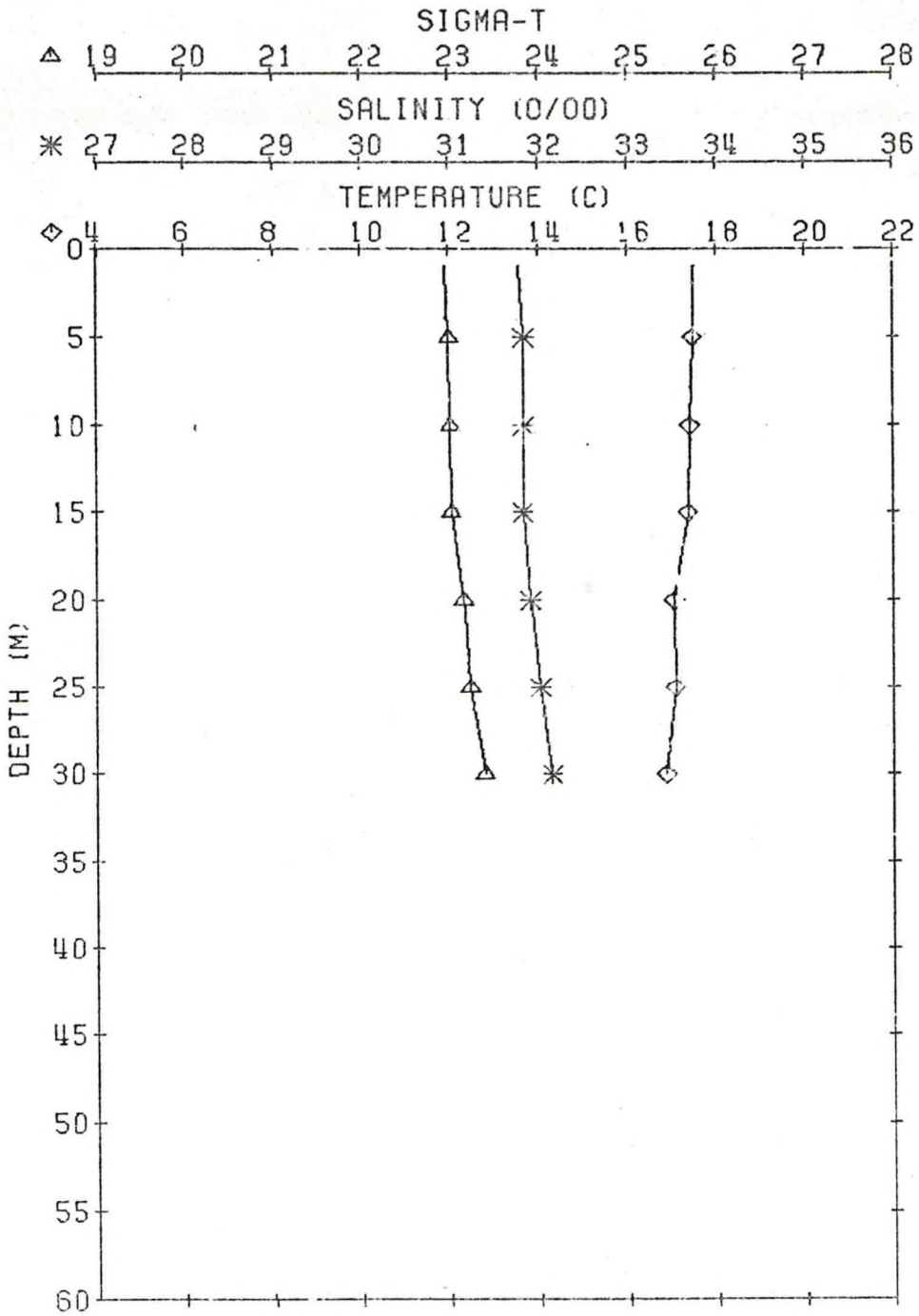
KELEZ CRUISE XWCC-6 STATION 26 SEPT. 29, 1975



KE CRS/STA 06/ 27 LAT 40 17.9N; LONG 73 17.5W GMT 8.3 9/30/75
DEPTH 32 AIR D/W 16.1/ . BARO 23. VIS 7 CLD TYP/CVR X/2
WETHR 1 WIND DIR/SPD 23/02 SEA DIR/HT 19/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.46	31.78	22.96			6.31	.04	.14	.00	.15
5	17.46	31.82	23.00							
10	17.41	31.83	23.02			6.03	.00	.06	.56	.47
15	17.35	31.82	23.02							
20	17.03	31.90	23.16			5.48	.11	1.57	.30	.25
25	17.06	32.01	23.23							
30	16.85	32.15	23.39			5.22	.21	1.00	3.34	.52

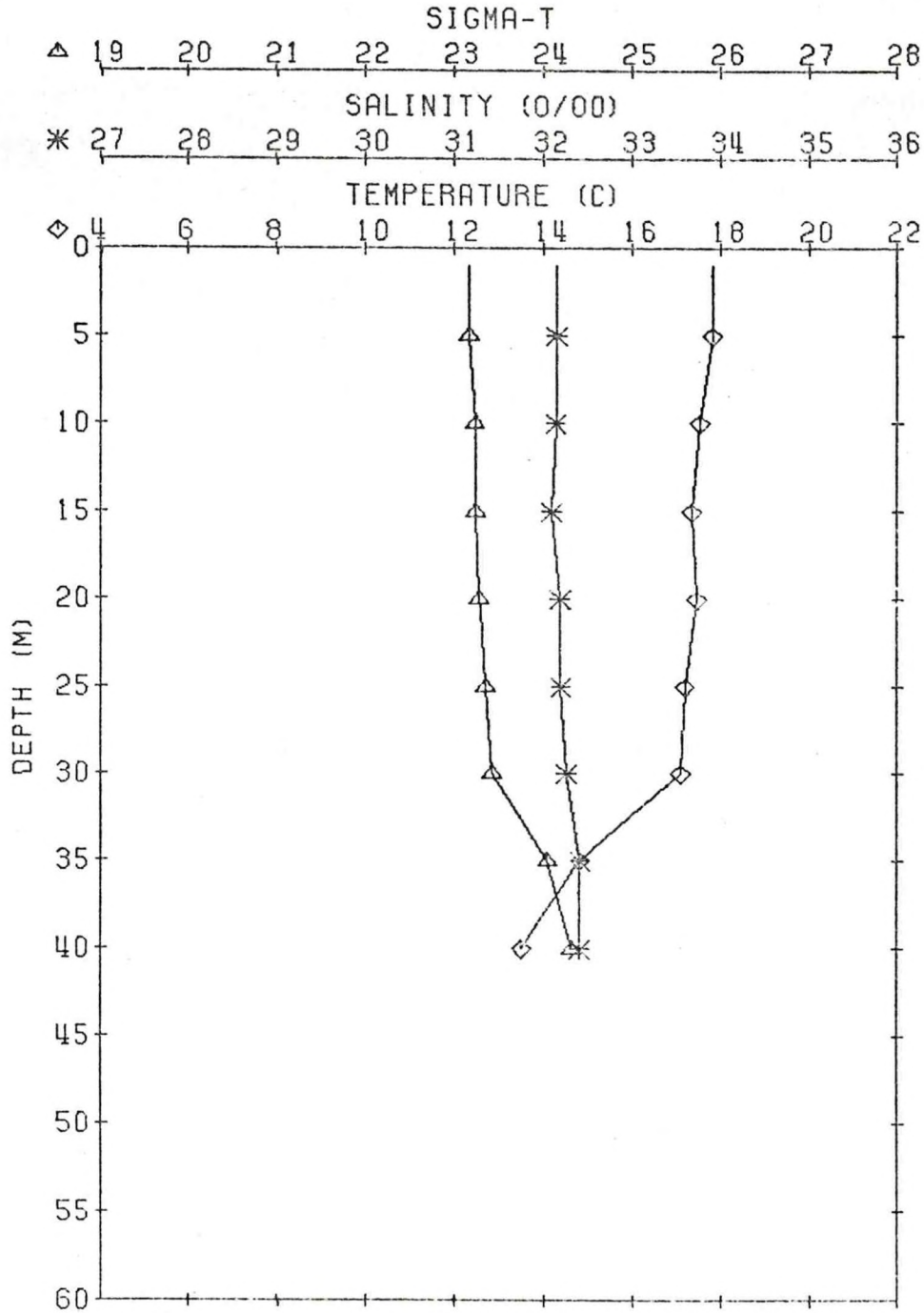
KELEZ CRUISE XWCC-6 STATION 27 SEPT. 30, 1975



KE CRS/STA 06/ 28 LAT 40 13.3N; LONG 73 7.0W GMT 5.3 10/ 1/75
DEPTH 42 AIR D/W 17.2/ . BARO 22.5 VIS 7 CLD TYP/CVR /J
WETHR 0 WIND DIR/SPD 19/06 SEA DIR/HT 00/0 SWELL DIR/HT 12/1

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.79	32.14	23.16			5.20	.01	.03	.22	.27
5	17.80	32.14	23.16							
10	17.51	32.13	23.22			6.14	.00	.00	.15	.39
15	17.32	32.09	23.23							
20	17.44	32.17	23.27			5.97	.01	.03	.00	.25
25	17.17	32.18	23.34							
30	17.07	32.25	23.41			5.93	.12	.18	1.43	.35
35	14.80	32.40	24.05							
40	13.49	32.39	24.30			4.45	.62	3.64	12.36	1.08

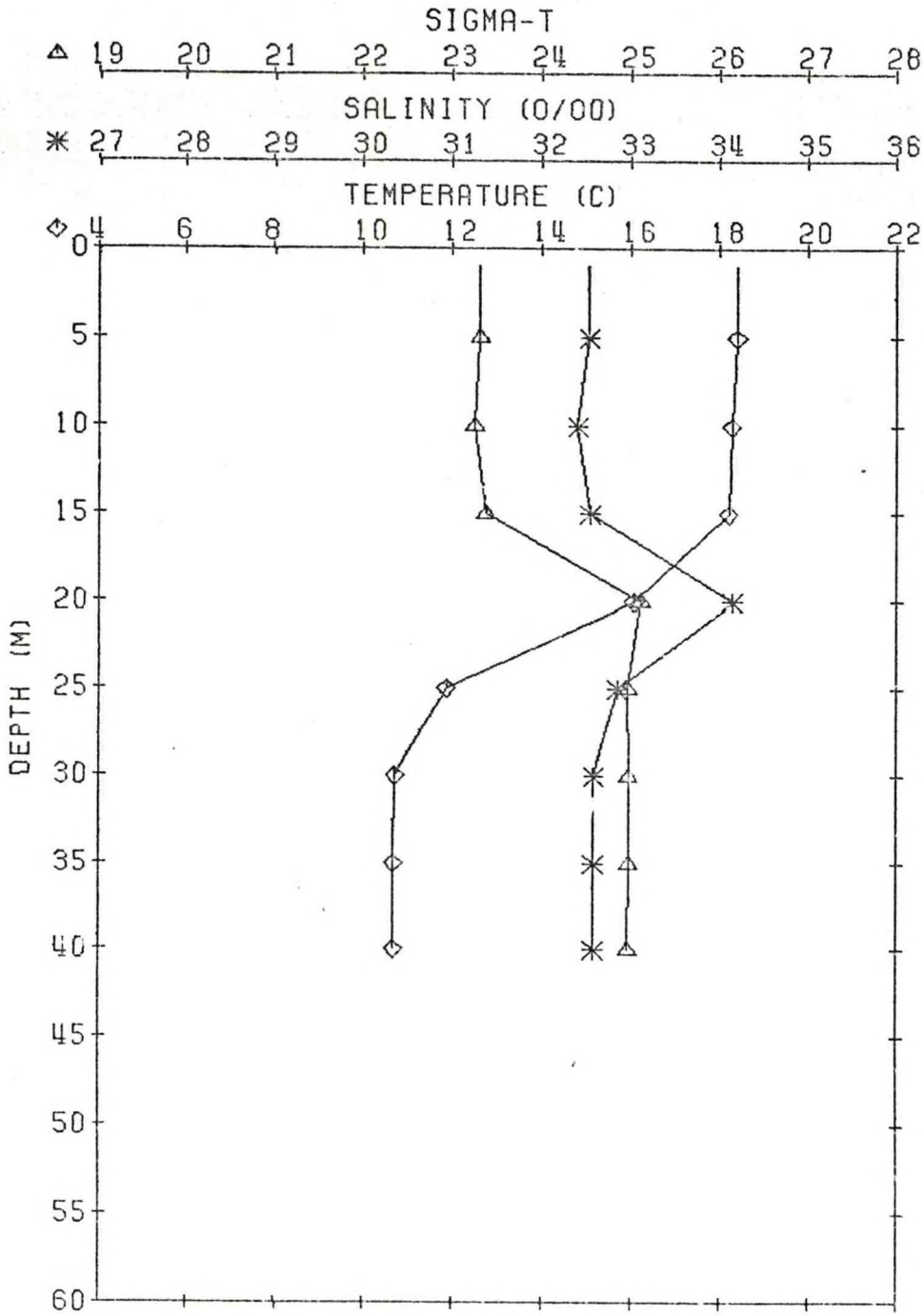
KELEZ CRUISE XWCC-6 STATION 28 OCT. 1, 1975



KE CRS/STA 06/ 29 LAT 40 7.1N; LONG 72 55.0W GMT 6.9 10/ 1/75
DEPTH 47 AIR D/W 17.8/ . BARO 22. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 18/04 SEA DIR/HT 00/0 SWELL DIR/HT 13/1

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.39	32.52	23.30			5.49	.02	.00	.15	.15
5	18.38	32.52	23.31							
10	18.26	32.40	23.24			5.11	.02	.00	.56	.16
15	18.19	32.54	23.37							
20	16.05	34.14	25.10			5.39	.13	2.08	3.52	.49
25	11.86	32.84	24.96							
30	10.72	32.58	24.97			3.42	.12	6.56	10.83	.88
35	10.69	32.57	24.96							
40	10.69	32.57	24.96			4.66	.14	4.50	8.65	.69

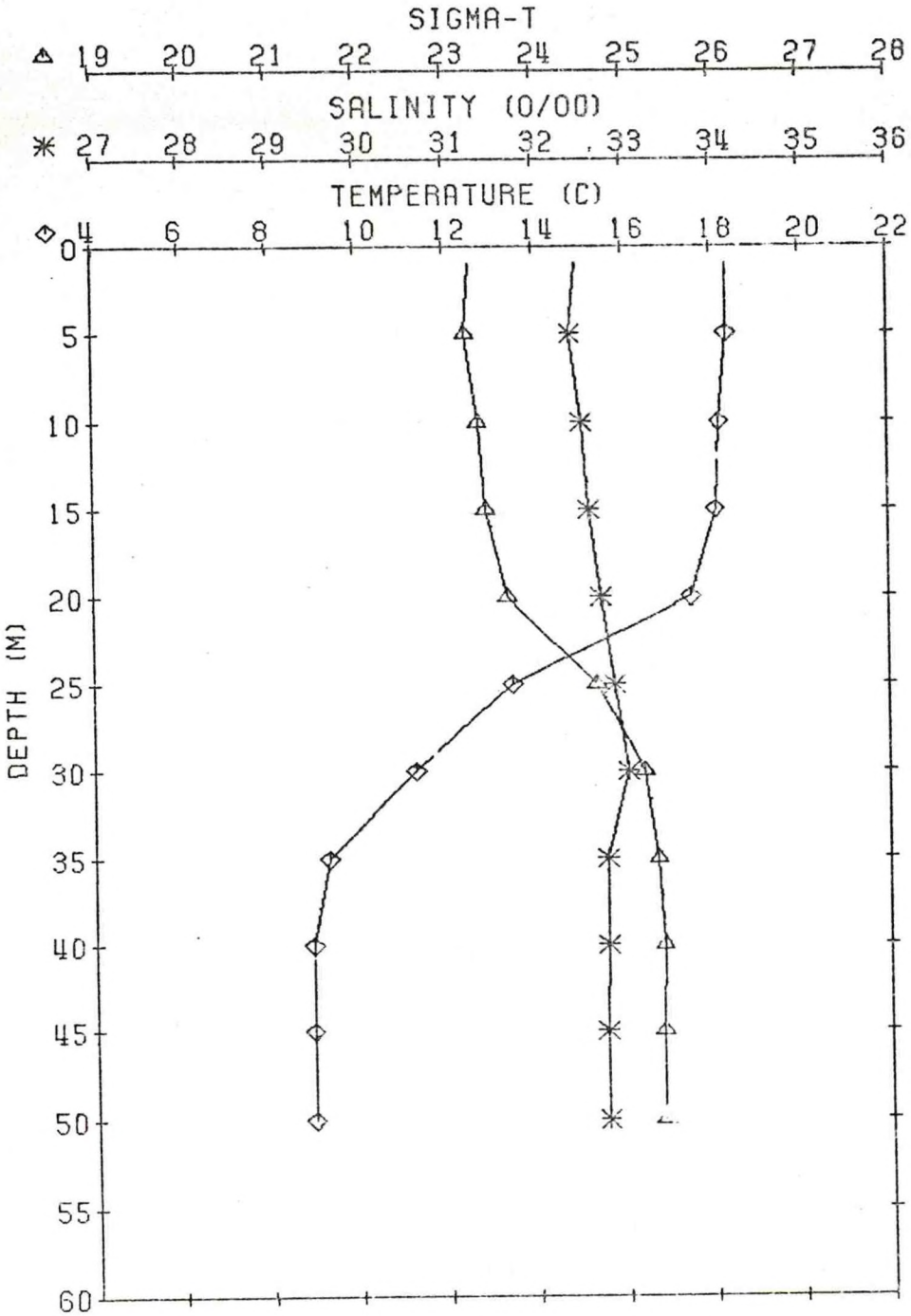
KELEZ CRUISE XWCC-6 STATION 29 OCT. 1, 1975



KE CRS/STA 06/ 30 LAT 40 1.9N; LONG 72 41.3W GMT 10.1 10/ 1/75
DEPTH 58 AIR D/W 17.2/ . BARO 21.5 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 17/02 SEA DIR/HT 00/0 SWELL DIR/HT 12/1

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.35	32.48	23.28			5.97	.02	.00	.00	.09
5	18.35	32.42	23.23							
10	18.18	32.54	23.37			5.96	.00	.02	.00	.13
15	18.08	32.61	23.45							
20	17.50	32.73	23.68			5.85	.00	.00	.00	.12
25	13.47	32.88	24.68							
30	11.30	33.03	25.21			6.56	.26	.91	3.94	.50
35	9.32	32.79	25.36							
40	8.96	32.79	25.42							
45	8.95	32.78	25.41							
50	8.95	32.78	25.41			5.03	.07	2.37	5.42	.49

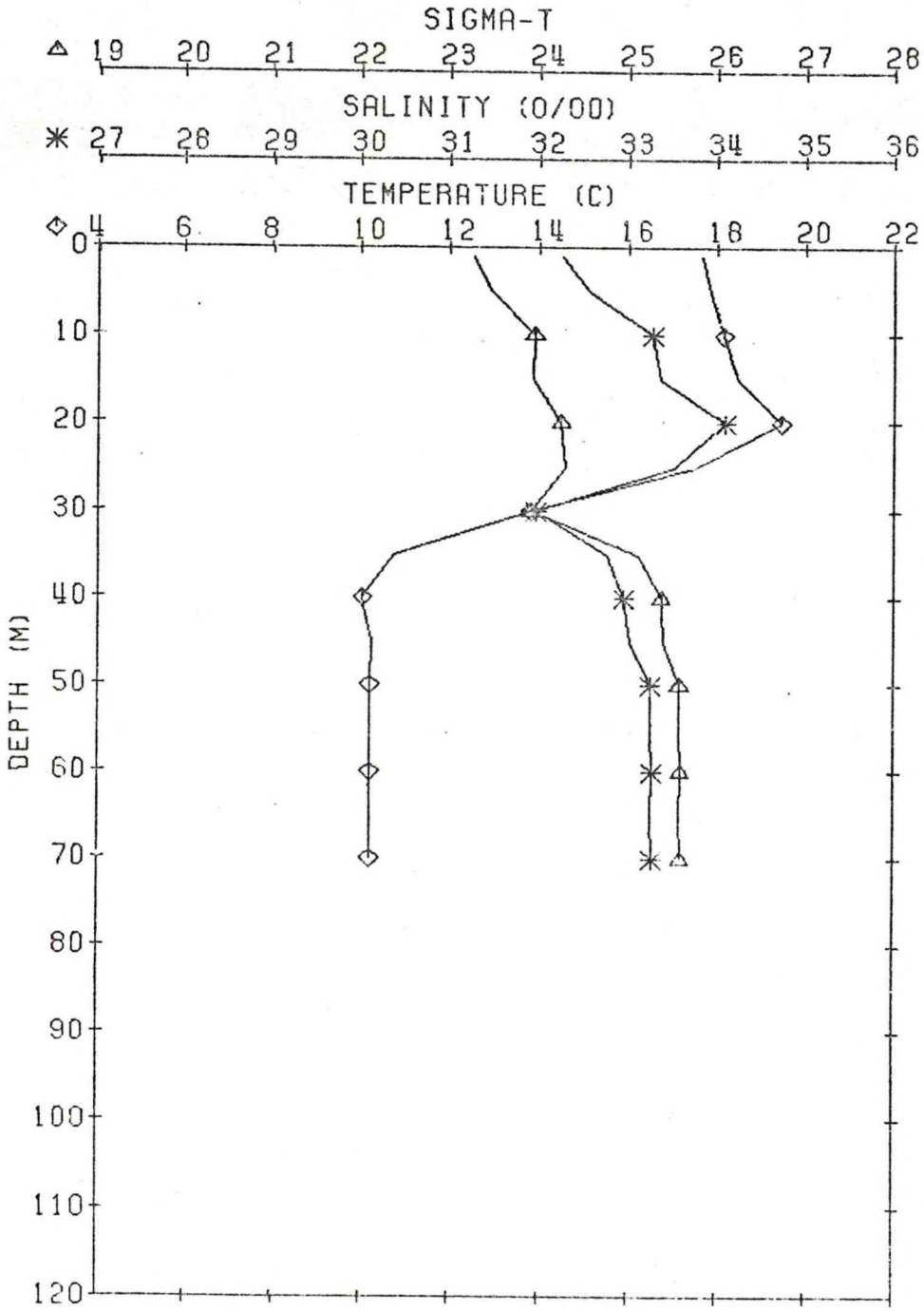
KELEZ CRUISE XWCC-6 STATION 30 OCT. 1, 1975



KE CRS/STA 06/ 31 LAT 39 53.7N; LONG 72 24.3W GMT 12.1 10/ 1/75
DEPTH 71 AIR D/W 17.8/ . BARO 22. VIS 7 CLD TYP/CVR 2/1
WETHR 0 WIND DIR/SPD 12/04 SEA DIR/HT 00/0 SWELL DIR/HT 12/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.67	32.24	23.27			6.18	.00	.11	.00	.12
5	17.85	32.56	23.46							
10	18.14	33.27	23.94			6.00	.00	.00	.00	.21
15	18.46	33.35	23.92							
20	19.44	34.09	24.23			5.70	.00	.00	.00	.04
25	17.51	33.52	24.28							
30	13.81	31.95	23.90			5.66	.02	.00	.00	.11
35	10.76	32.75	25.09							
40	10.03	32.94	25.37			5.80	.02	8.13	10.64	.78
45	10.22	33.01	25.38							
50	10.21	33.25	25.57			5.25	.05	8.24	13.14	.89
60	10.21	33.26	25.58			5.08	.06	8.19	15.60	.87
70	10.21	33.26	25.58			4.96	.03	5.19	3.59	.60

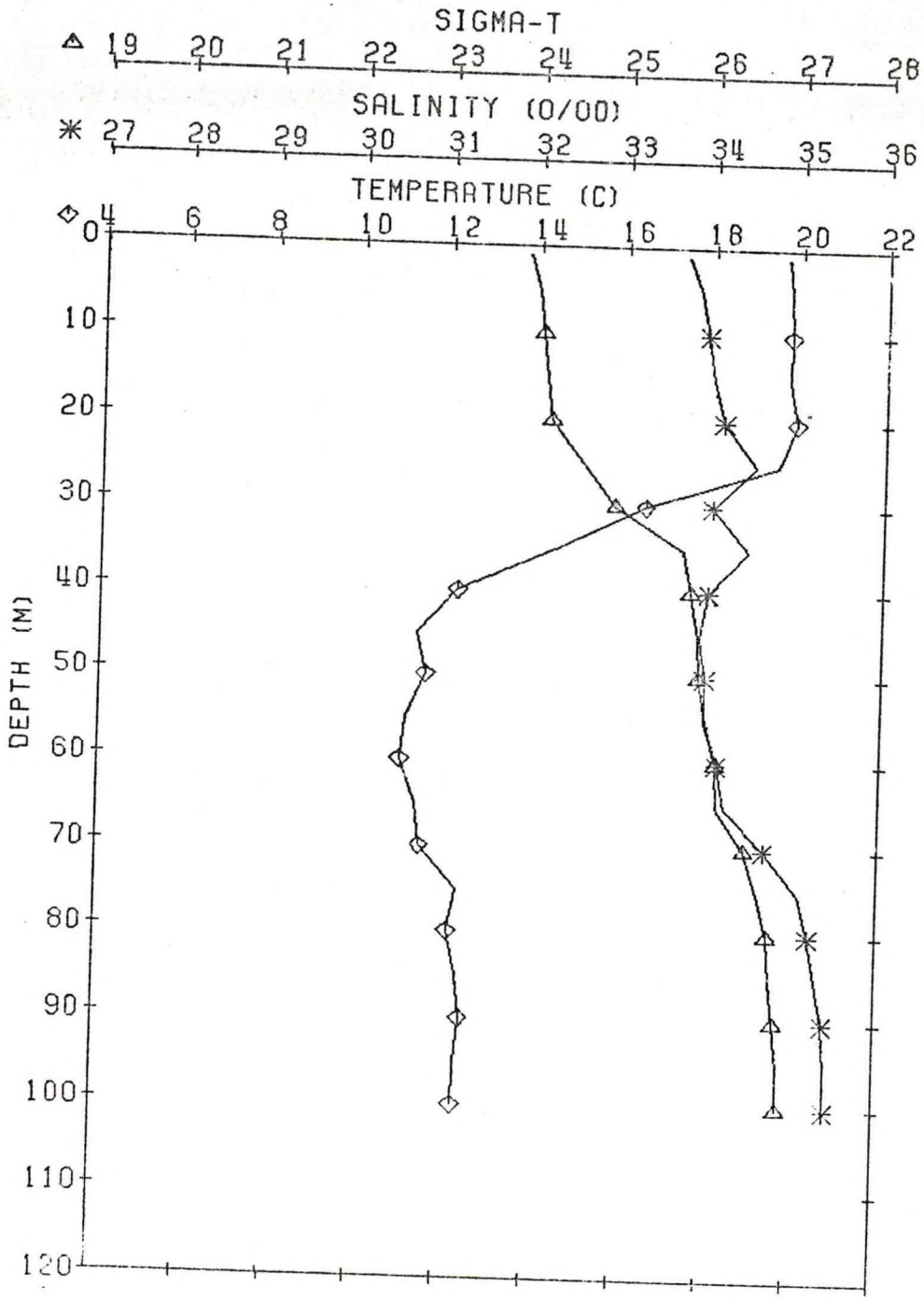
KELEZ CRUISE XWCC-6 STATIØN 31 ØCT. 1, 1975



KE CRS/STA 06/ 32 LAT 39 45.5N; LONG 72 7.2W GMT 16.0 10/ 2/75
DEPTH 111 AIR D/W 18.3/ . BARO 10. VIS 5 CLD TYP/CVR 7/8
WETHR 2 WIND DIR/SPD 33/14 SEA DIR/HT 33/0 SWELL DIR/HT 15/2

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	19.65	33.68	23.87			5.66	.07	.00	.00	.25
5	19.72	33.83	23.97							
10	19.77	33.93	24.02			6.08	.07	.00	.00	.21
15	19.74	33.98	24.07							
20	19.90	34.11	24.13			6.00	.09	.00	.00	.25
25	19.52	34.50	24.53							
30	16.48	34.00	24.89			6.04	.08	.00	.64	.38
35	14.41	34.42	25.67							
40	12.23	33.98	25.77			5.50	.13	3.19	3.74	.68
45	11.32	33.88	25.87							
50	11.55	33.95	25.88							
60	11.01	34.11	26.10			5.09	.00	7.18	7.24	.25
70	11.49	34.67	26.45							
80	12.16	35.21	26.74			4.57	.00	9.76	5.59	.47
90	12.48	35.40	26.82							
100	12.34	35.44	26.88			4.99	.02	15.16	7.14	.59

KELEZ CRUISE XWCC-6 STATION 32 OCT. 1, 1975

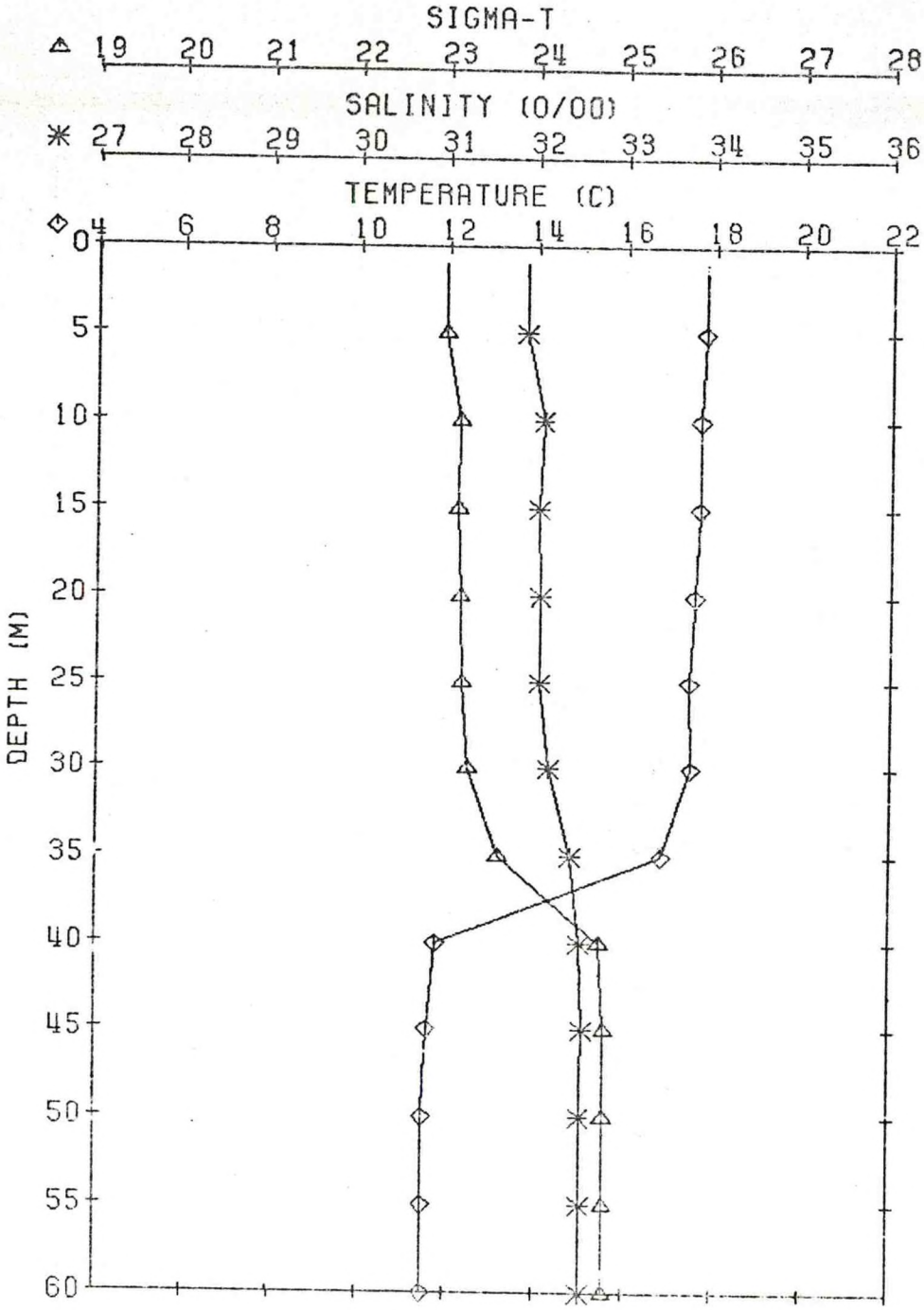


KE CRS/STA 06/ 33 LAT 40 10.0N; LONG 73 41.5W GMT 3.3 9/30/75
DEPTH 61 AIR D/W 13.9/ . BARO 28. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 25/16 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.75	31.87	22.96			6.22	.04	.00	.00	.29
5	17.75	31.87	22.96							
10	17.66	32.06	23.13			6.35	.00	.00	.00	.30
15	17.64	32.01	23.10							
20	17.55	32.02	23.13			6.07	.06	.57	.71	.46
25	17.44	32.02	23.15							
30	17.49	32.14	23.23			5.90	.04	.22	.30	.39
35	16.83	32.39	23.58							
40	11.77	32.50	24.72							
45	11.57	32.54	24.78							
50	11.49	32.51	24.78			5.04	.12	2.41	4.25	.50
60	11.49	32.52	24.78			5.08	.11	2.04	2.95	.35

(12)

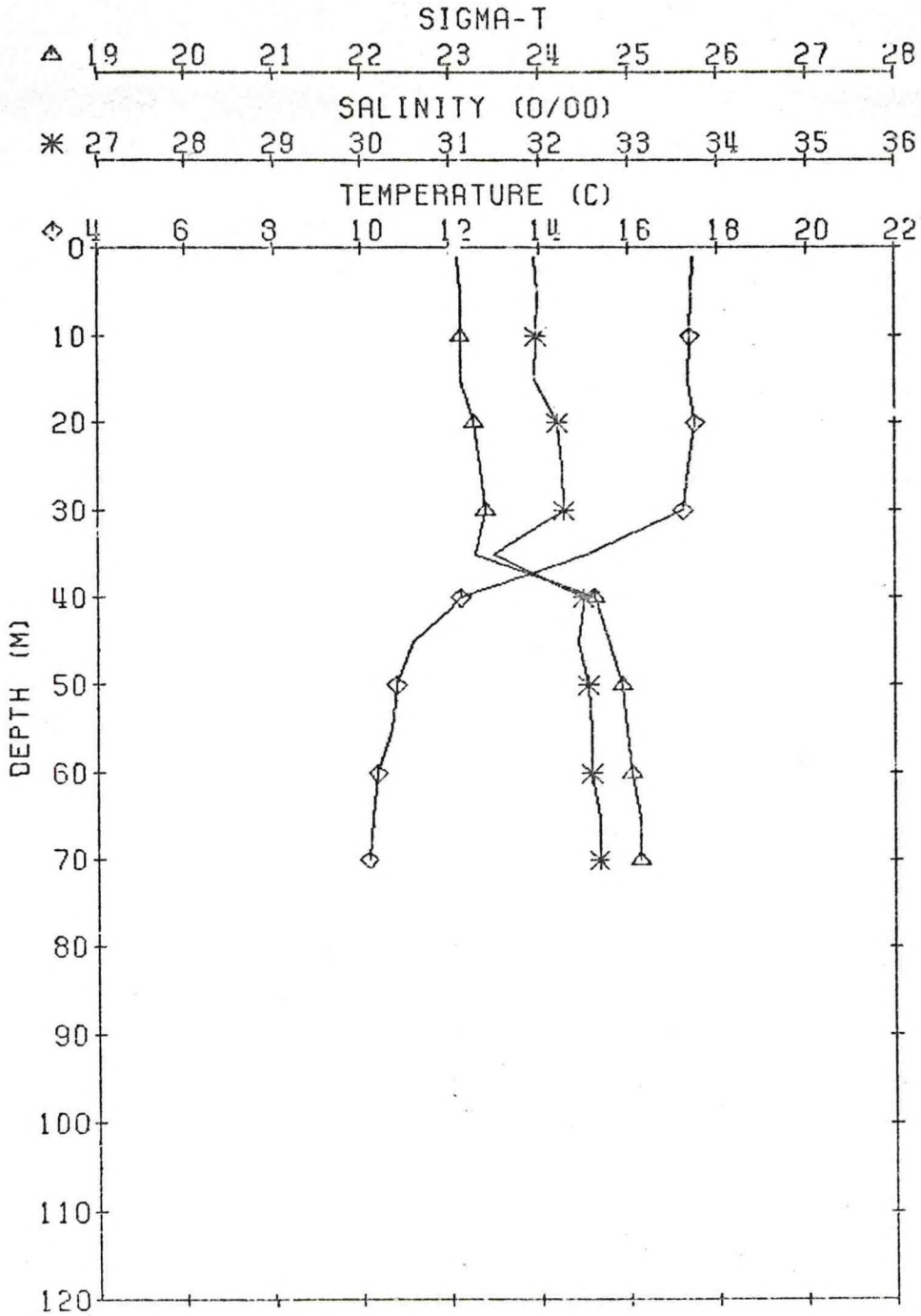
KELEZ CRUISE XWCC-6 STATION 33 SEPT. 30, 1975



KE CRS/STA 06/ 34 LAT 40 5.1N; LONG 73 31.9W GMT 14.3 9/30/75
DEPTH 71 AIR D/W 19.4/ . BARO 24. VIS 7 CLD TYP/CVR /
WETHR 0 WIND DIR/SPD 14/04 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.44	31.93	23.08			6.32	.01	.00	.06	.46
5	17.39	31.97	23.12							
10	17.38	31.95	23.11			6.37	.02	.00	.17	.41
15	17.31	31.94	23.12							
20	17.49	32.19	23.27			5.70	.10	.00	.86	.54
25	17.34	32.24	23.34							
30	17.21	32.26	23.39			5.58	.15	.04	2.44	.54
35	15.02	31.48	23.28							
40	12.24	32.48	24.61							
45	11.15	32.43	24.78							
50	10.79	32.54	24.92			4.97	.12	3.69	9.69	.90
60	10.36	32.57	25.02							
70	10.15	32.66	25.12			4.93	.08	5.33	11.70	.95

KELEZ CRUISE XWCC-6 STATION 34 SEPT. 30, 1975

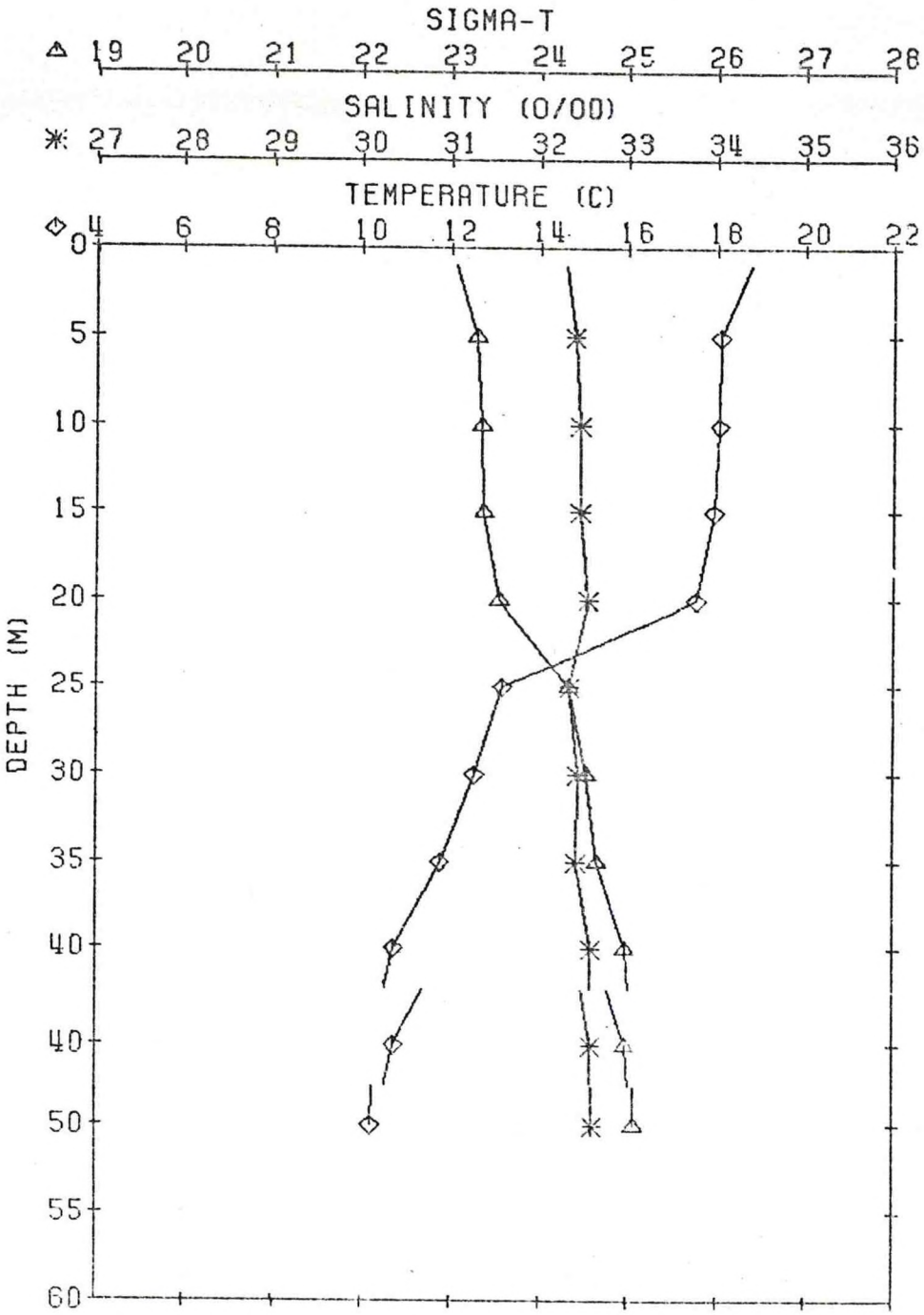


(15)

KE CRS/STA 06/ 35 LAT 40 .6N; LONG 73 21.8W GMT 17.0 9/30/75
DEPTH 51 AIR D/W 21.1/ . BARO 24. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 19/04 SEA DIR/HT 00/0 SWELL DIR/HT 12/1

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.75	32.29	23.04			6.13	.02	.00	.00	.20
5	18.06	32.38	23.28							
10	18.05	32.45	23.34			4.33	.00	.01	.00	.26
15	17.91	32.45	23.36							
20	17.50	32.54	23.54			5.87	.00	.02	.04	.28
25	13.16	32.32	24.31							
30	12.53	32.43	24.52			4.60	.29	1.97	7.41	.68
35	11.75	32.41	24.65							
40	10.72	32.58	24.97			4.54	.17	3.01	9.27	.95
45	10.29	32.59	25.05							
50	10.20	32.60	25.07			4.58	.08	4.74	10.28	.92

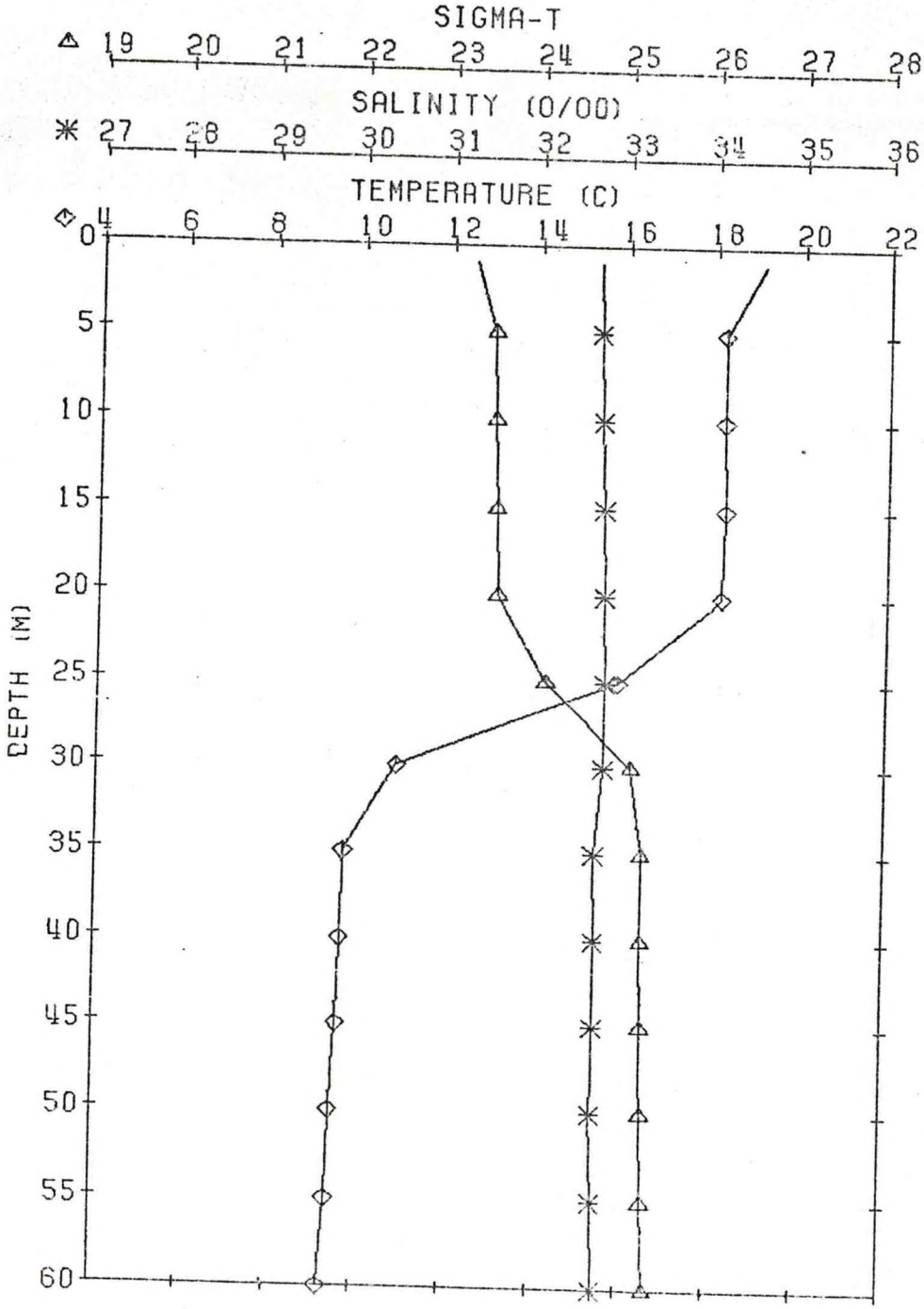
KELEZ CRUISE XWCC-6 STATION 35 SEPT. 30, 1975



KE CRS/STA 06/ 36 LAT 39 55.2N; LONG 73 5.9W GMT 20.1 9/30/75
DEPTH 64 AIR D/W 23.9/ . BARO 23. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 20/04 SEA DIR/HT 00/0 SWELL DIR/HT 12/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	19.07	32.66	23.24			6.04	.01	.11	.00	.17
5	18.19	32.67	23.47							
10	18.21	32.71	23.49			5.90	.01	.07	.00	.11
15	18.23	32.74	23.51							
20	18.18	32.76	23.53			5.90	.01	.03	.00	.07
25	15.85	32.77	24.10							
30	10.87	32.77	25.09			5.01	.00	1.03	2.46	.29
35	9.69	32.68	25.22							
40	9.64	32.69	25.23							
45	9.60	32.70	25.24							
50	9.46	32.69	25.26			4.93	.00	6.59	12.70	.92
60	9.26	32.73	25.32			4.81	.00	6.27	14.04	.96

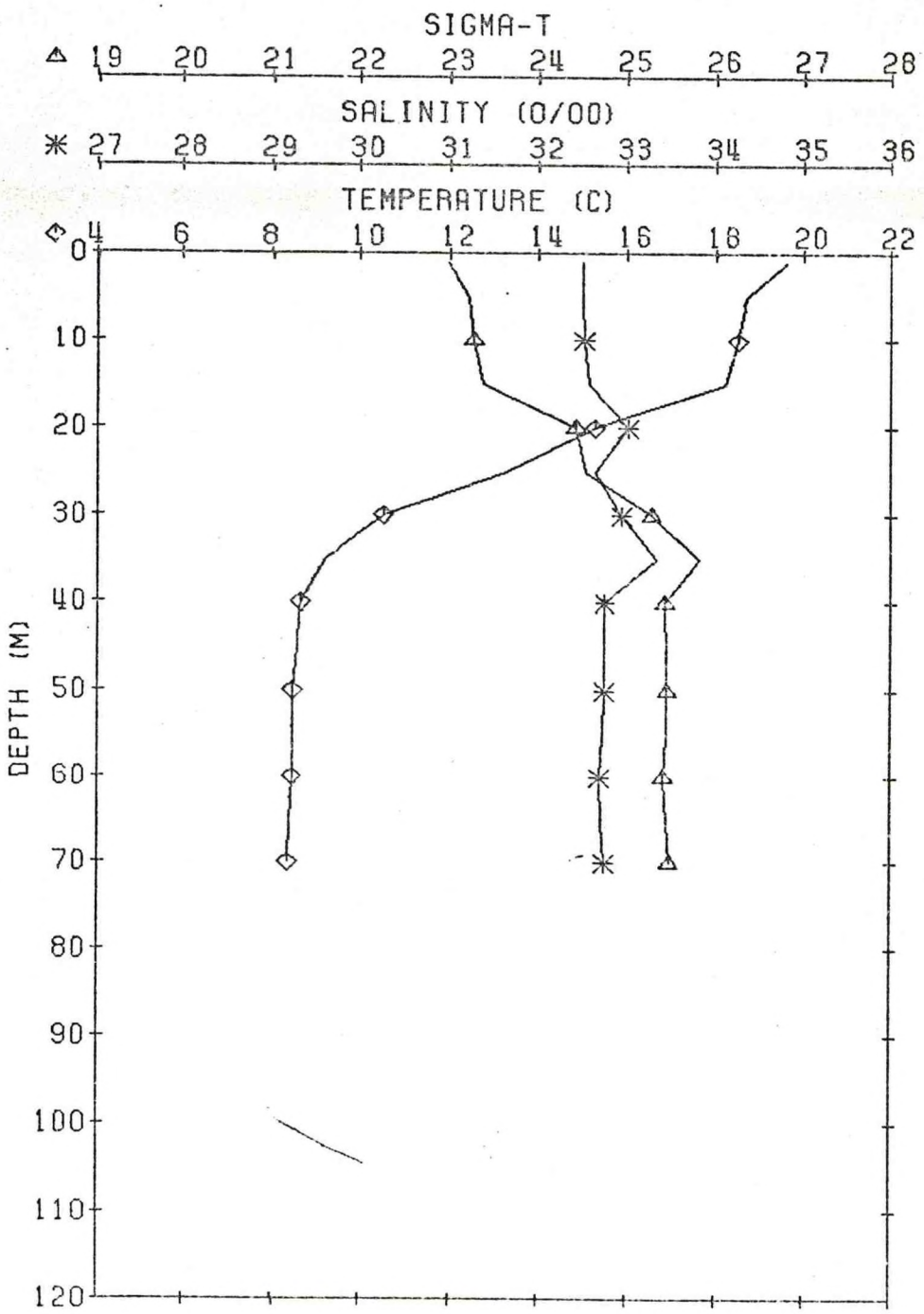
KELEZ CRUISE XWCC-6 STATION 36 SEPT. 30, 1975



KE CRS/STA 06/ 37 LAT 39 45.9N; LONG 72 56.6W GMT 23.1 9/30/75
DEPTH 73 AIR D/W 18.3/ . BARO 23. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 18/03 SEA DIR/HT 00/0 SWELL DIR/HT 12/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	19.59	32.49	22.98			5.84	.02	1.97	.00	.12
5	18.66	32.48	23.21							
10	18.50	32.50	23.26			6.04	.00	1.99	.11	.14
15	18.20	32.55	23.37							
20	15.26	33.01	24.41			6.22	.00	.34	.00	.10
25	13.30	32.62	24.52							
30	10.51	32.93	25.28			6.16	.13	2.18	2.27	.49
35	9.22	33.34	25.80							
40	8.63	32.74	25.43							
45	8.56	32.74	25.44							
50	8.45	32.73	25.45			5.16	.00	8.89	13.80	.95
60	8.44	32.68	25.41			5.07	.05	8.84	13.80	1.08
70	8.35	32.74	25.47			5.04	.01	8.84	13.08	.95

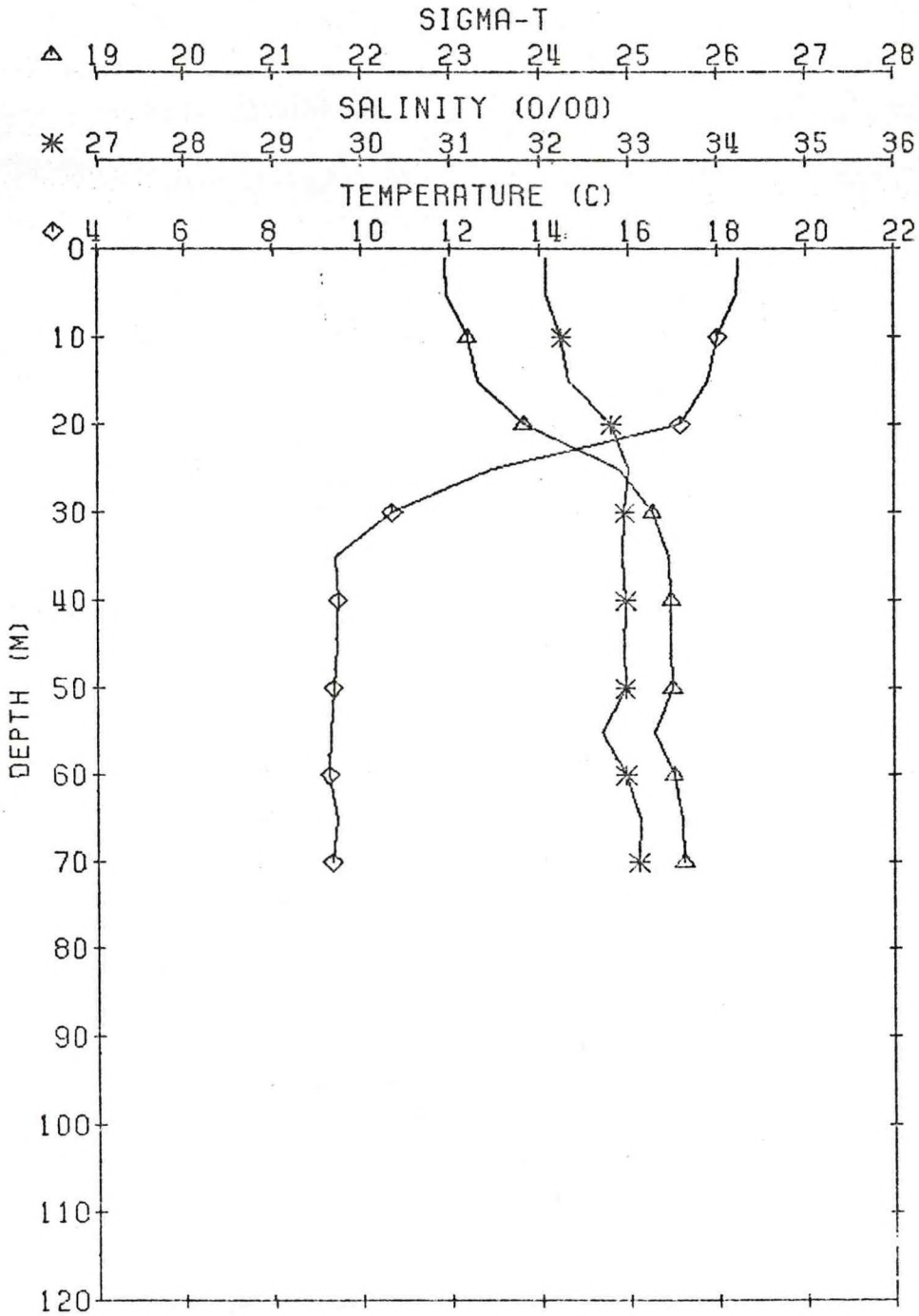
KELEZ CRUISE XWCC-6 STATIØN 37 SEPT. 30, 1975



KE CRS/STA 06/ 38 LAT 39 38.6N; LONG 72 39.3W GMT 20.5 10/ 2/75
DEPTH 76 AIR D/W 17.2/ . BARO 13. VIS 7 CLD TYP/CVR 4/
WETHR X . WIND DIR/SPD 33/24 SEA DIR/HT 34/2 SWELL DIR/HT 15/4

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.45	32.06	22.94			5.91	.00	.48	.00	.06
5	18.42	32.07	22.95							
10	18.00	32.24	23.18			5.94	.00	.10	.00	.13
15	17.78	32.31	23.29							
20	17.14	32.79	23.81				.00	.07	.00	.19
25	12.92	32.99	24.87							
30	10.67	32.94	25.26			6.13	.00	.10	.12	.38
35	9.41	32.91	25.44							
40	9.46	32.96	25.47			4.96	.07	.60	10.43	1.59
45	9.43	32.93	25.45							
50	9.35	32.95	25.48			5.07	.00	5.84	7.50	1.16
60	9.27	32.95	25.49			4.84	.00	3.67	8.83	1.27
70	9.33	33.10	25.60			5.21	.00	4.17	13.38	2.09

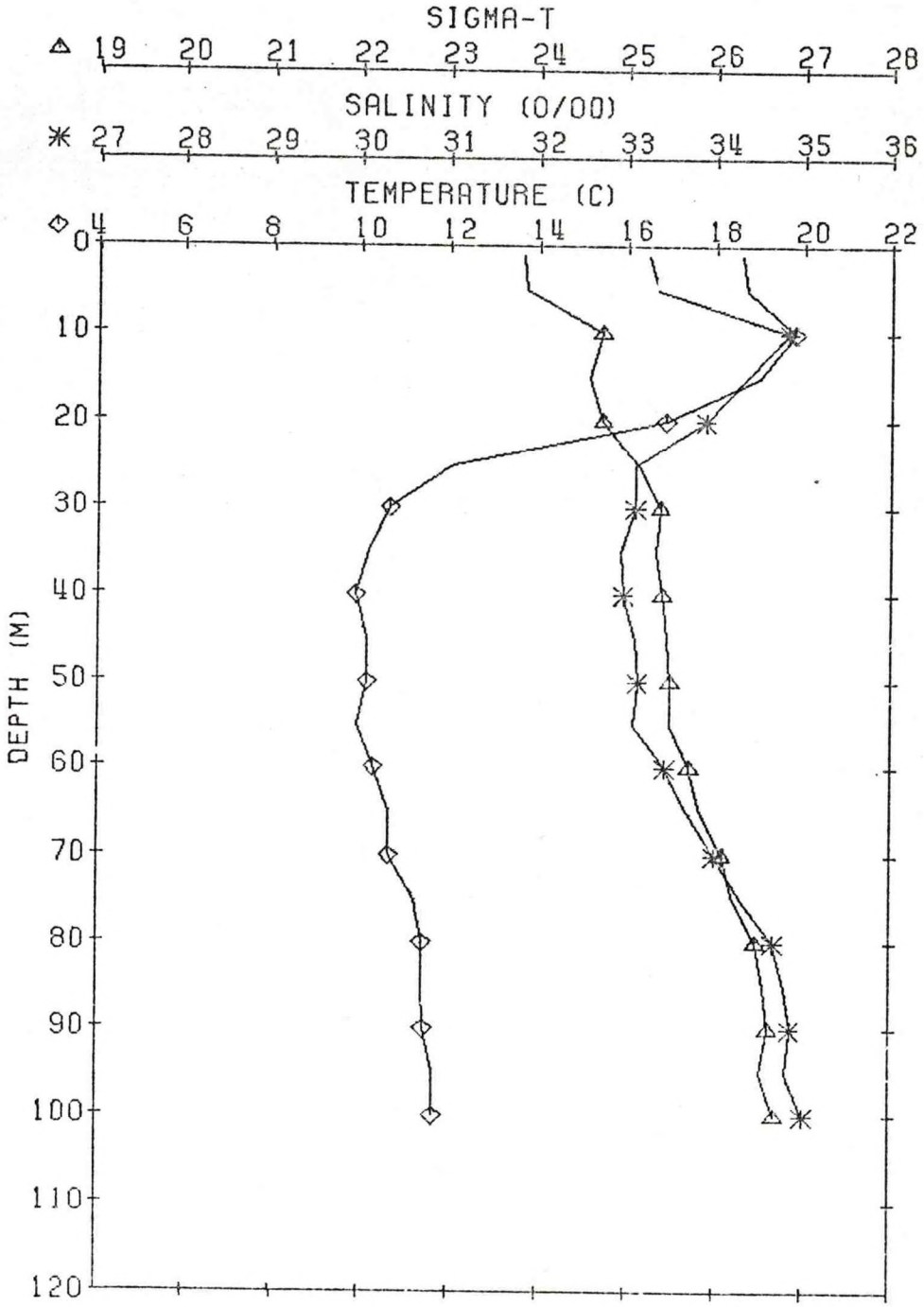
KELEZ CRUISE XWCC-6 STATION 38 OCT. 2, 1975



KE CRS/STA 06/ 39 LAT 39 31.9N; LONG 72 25.7W GMT 18.5 10/ 2/75
DEPTH 210 AIR D/W 20.0/ . BARO 10.5 VIS 7 CLD TYP/CVR 4/
WETHR X WIND DIR/SPD 34/18 SEA DIR/HT 34/1 SWELL DIR/HT 15/4

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.57	33.23	23.80			5.95	.00	.22	.00	.00
5	18.68	33.34	23.85							
10	19.78	34.82	24.70			5.80	.00	.48	.00	.00
15	18.95	34.33	24.55							
20	16.86	33.88	24.71			5.61	.35	.24	.52	.00
25	12.04	33.08	25.11							
30	10.65	33.08	25.36			5.61	.04	3.96	2.76	.19
35	10.15	32.92	25.33							
40	9.89	32.95	25.39			5.58	.04	3.55	2.71	.15
45	10.13	33.08	25.45							
50	10.14	33.11	25.48							
60	10.29	33.43	25.70			5.43	.00	8.28	8.02	.49
70	10.65	33.99	26.08							
80	11.40	34.67	26.46			4.70	.02	9.07	9.07	.51
90	11.43	34.86	26.61							
100	11.65	35.01	26.68			4.66	.01	14.38	8.27	.81

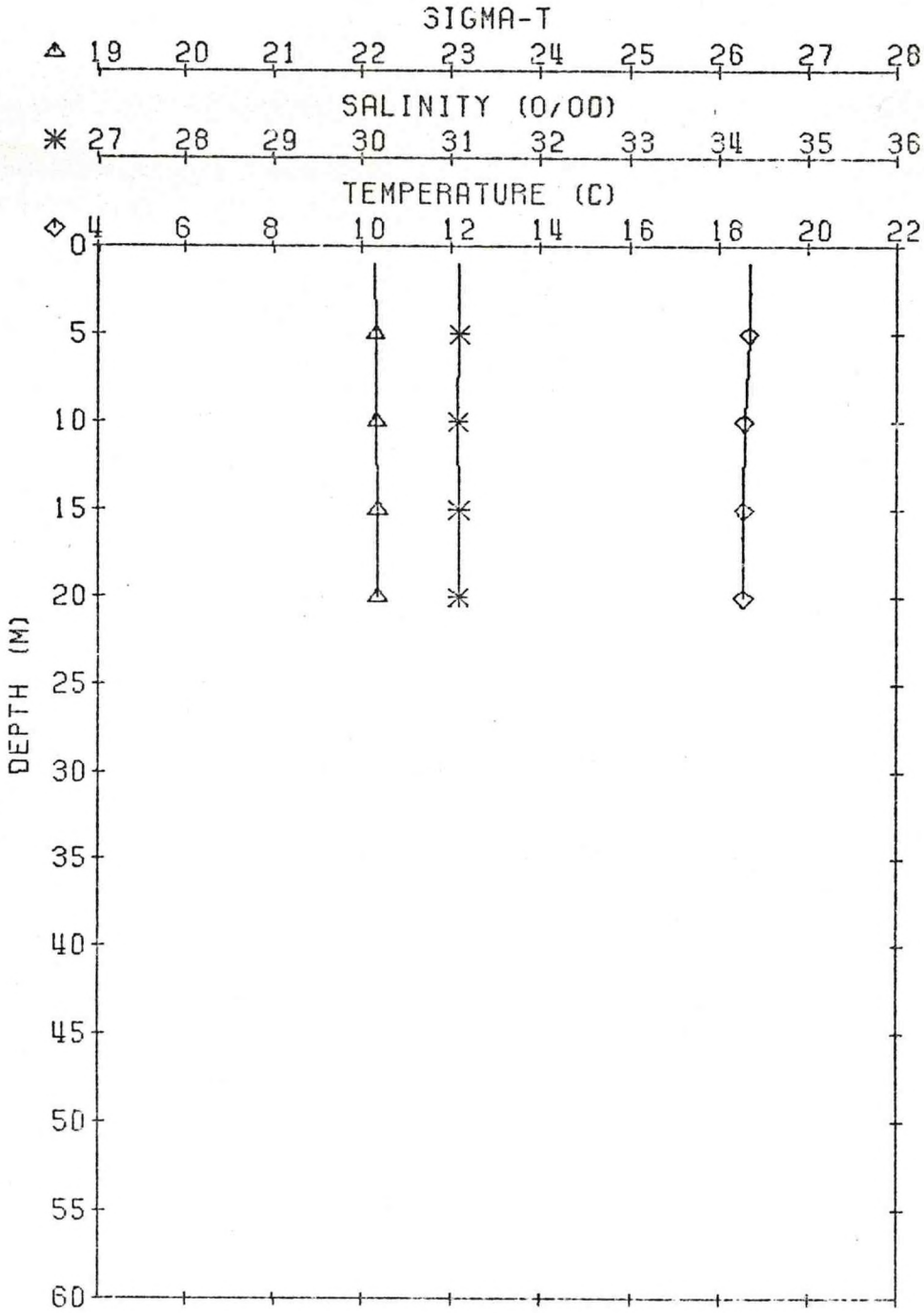
KELEZ CRUISE XWCC-6 STATIØN 39 ØCT. 2, 1975



KE CRS/STA 06/ 40 LAT 39 27.2N; LONG 74 5.2W GMT 18.8 10/ 3/75
DEPTH 21 AIR D/W 13.3/ . BARO 30. VIS 7 CLD TYP/CVR X/4
WETHR 2 WIND DIR/SPD 24/05 SEA DIR/HT 00/0 SWELL DIR/HT 36/2

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.67	31.08	22.14			5.21	.00	.00	.00	.42
5	18.66	31.09	22.15							
10	18.55	31.07	22.16			5.15	.00	.00	.00	.64
15	18.54	31.08	22.17							
20	18.53	31.08	22.17			4.99	.00	.00	.00	.48

KELEZ CRUISE XWCC-6 STATION 40 OCT. 3, 1975



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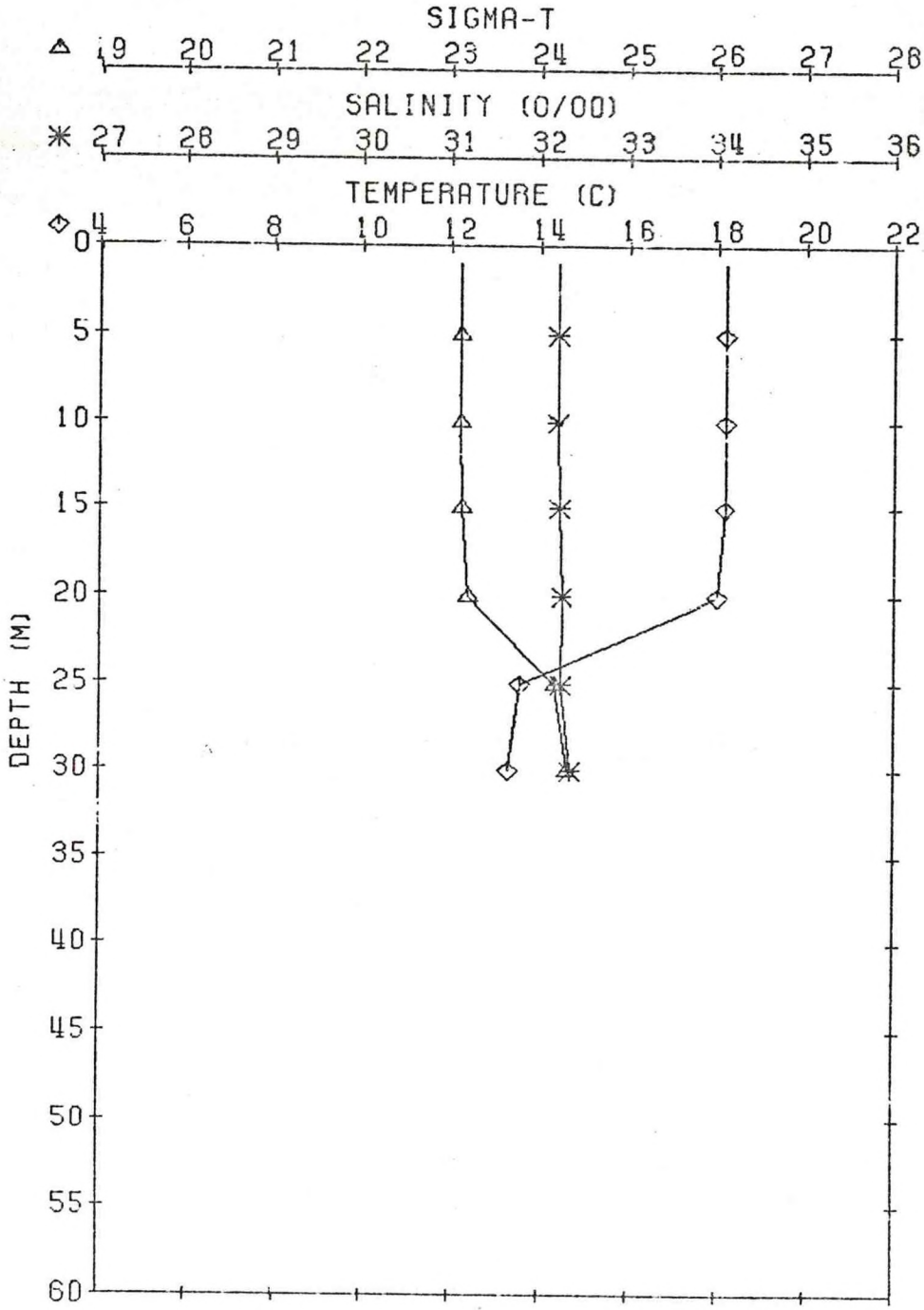
KE CRS/STA 06/ 42 LAT 39 23.9N; LONG 73 43.4W GMT 16.0 10/ 3/75
DEPTH 32 AIR D/W 10.0/ . BARO 31. VIS 7 CLD TYP/CVR X/4
WETHR 1 WIND DIR/SPD 33/10 SEA DIR/HT 00/0 SWELL DIR/HT 33/3

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.17	32.19	23.11			5.24	.00	.00	.00	.00
5	18.17	32.19	23.11							
10	18.17	32.19	23.11			5.22	.00	.00	.00	.00
15	18.15	32.21	23.12							
20	17.98	32.24	23.19			5.42	.00	.00	.00	.00
25	13.55	32.23	24.16							
30	13.30	32.33	24.29				.64	.39	7.31	.99

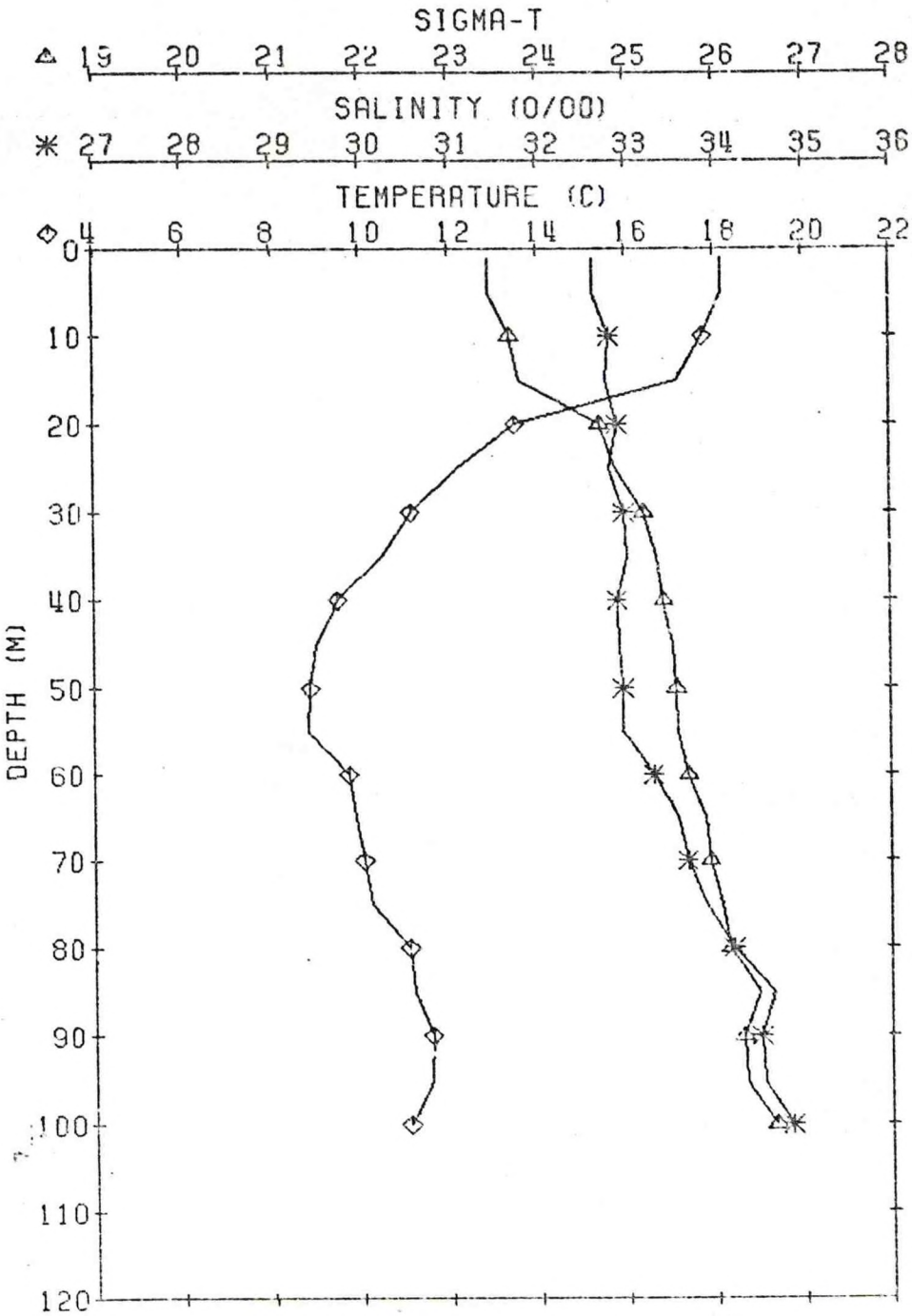
KELEZ CRUISE XWCC-6 STATION 42 OCT. 3, 1975



KE CRS/STA 06/ 46 LAT 39 13.4N; LONG 72 44.5W GMT .5 10/ 3/75
DEPTH 111 AIR D/W 15.6/ . BARO 18. VIS 7 CLD TYP/CVR 7/8
WETHR 4 WIND DIR/SPD 31/30 SEA DIR/HT 31/3 SWELL DIR/HT 15/5

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.15	32.64	23.45			5.99	.02	5.18	.00	.21
5	18.15	32.64	23.45							
10	17.74	32.81	23.68			6.00	.00	.02	.00	.32
15	17.15	32.77	23.79							
20	13.49	32.90	24.70			6.00	.00	.01	.00	.42
25	12.18	32.80	24.87							
30	11.13	32.97	25.19			5.50	.00	.01	3.37	1.36
35	10.49	33.00	25.33							
40	9.49	32.89	25.42			5.35	.00	5.63	7.95	.81
45	9.01	32.92	25.51							
50	8.87	32.95	25.56							
60	9.71	33.29	25.69			5.21	.00	5.14	10.09	.91
70	10.05	33.67	25.93							
80	11.07	34.19	26.15			5.87	.00	.00	.00	.28
90	11.57	34.50	26.30							
100	11.07	34.85	26.66			5.66	.00	3.40	4.40	.67

KELEZ CRUISE XWCC-6 STATION 46 OCT. 3, 1975



(5)

KE CRS/STA 06/ 57 LAT 39 56.2N; LONG 71 52.5W GMT 13.8 10/ 2/75
DEPTH 109 AIR D/W 17.8/ . BARO 10. VIS 7 CLD TYP/CVR 4/4
WETHR 1 WIND DIR/SPD 31/06 SEA DIR/HT 00/0 SWELL DIR/HT 14/2

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	19.88	34.15	24.17			5.75	.03	.01	.00	.21
5	19.85	34.20	24.21							
10	19.60	34.12	24.22			5.71	.03	.00	.00	.17
15	19.21	34.14	24.33							
20	18.80	34.14	24.44			5.80	.03	.00	.00	.19
25	16.01	33.82	24.86							
30	14.68	33.82	25.15			6.19	.06	.00	.20	.25
35	12.64	33.60	25.40							
40	12.17	33.80	25.65			5.70	.13	2.75	3.91	.68
45	12.14	33.75	25.61							
50	11.51	33.77	25.75							
60	11.42	34.32	26.19			5.58	.07	5.96	5.07	.77
70	11.70	34.78	26.49							
80	11.69	34.78	26.49			4.86	.11	7.47	6.46	.86
90	11.82	34.86	26.53							
100	12.30	35.14	26.66			5.20	.12	8.12	6.33	.86

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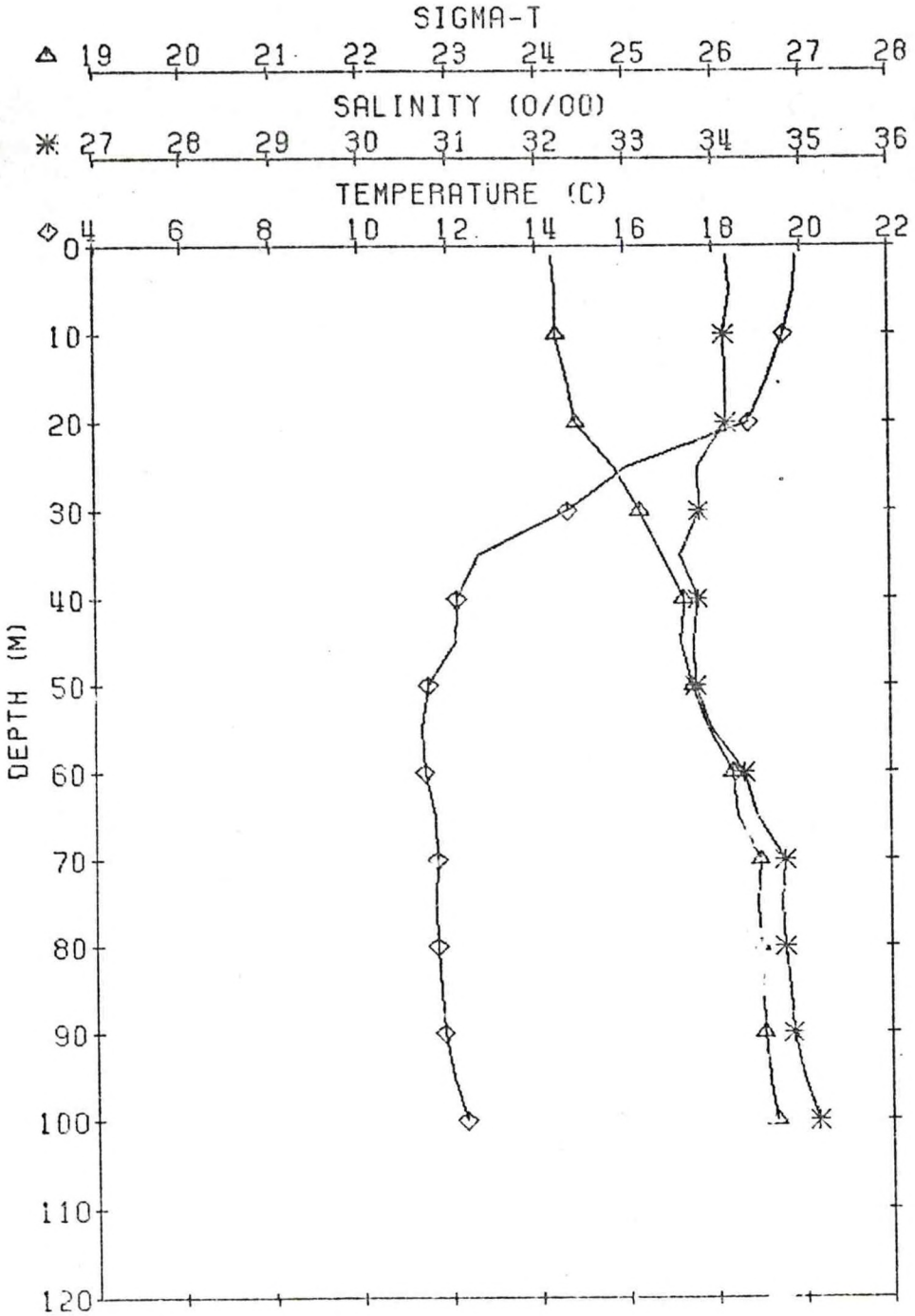
KELEZ CRUISE XWCC-6 STATION 57 OCT. 2, 1975



KE CRS/STA 06/ 59 LAT 40 18.0N; LONG 72 3.8W GMT 10.5 10/ 2/75
DEPTH 60 AIR D/W 17.8/ . BARO 10. VIS 7 CLD TYP/CVR 6/7
WETHR 2 WIND DIR/SPD 27/06 SEA DIR/HT 00/0 SWFLL DIR/HT 14/2

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.06	31.84	22.87			6.04	.00	.13	.00	.25
5	17.41	32.33	23.39							
10	17.24	32.44	23.52			6.04	.00	.00	.00	.32
15	16.89	32.97	24.00							
20	16.75	33.02	24.08			5.95	.00	.00	.00	.25
25	16.34	33.28	24.37							
30	13.57	32.89	24.67			5.69	.10	.19	.80	.42
35	11.59	32.72	24.92							
40	10.99	32.91	25.17			5.52	.05	2.59	2.70	.88
45	10.32	33.00	25.36							
50	10.21	33.06	25.42			5.16	.05	6.79	12.51	1.03
60	10.20	33.05	25.42			5.06	.12	5.80	12.90	1.05

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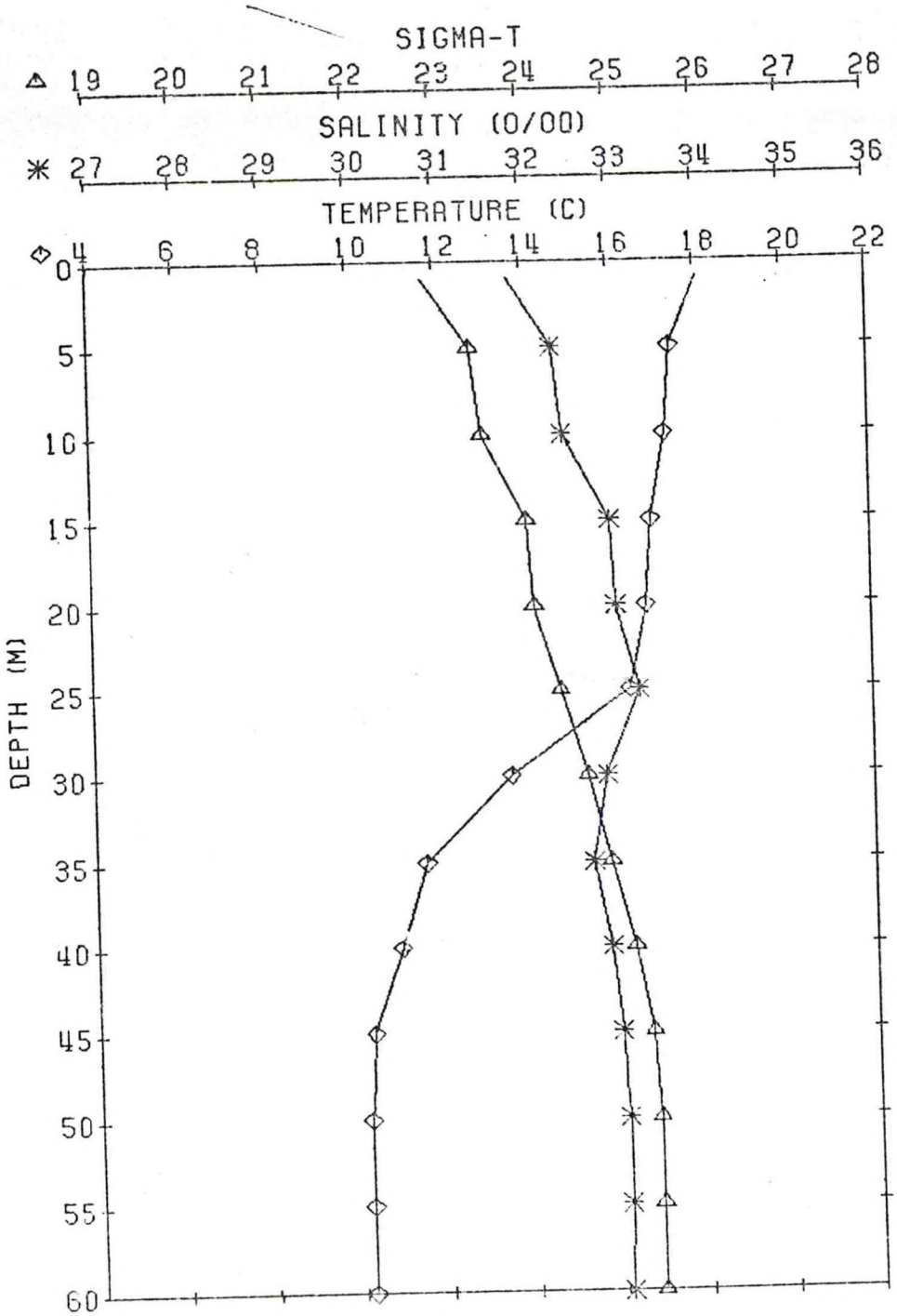
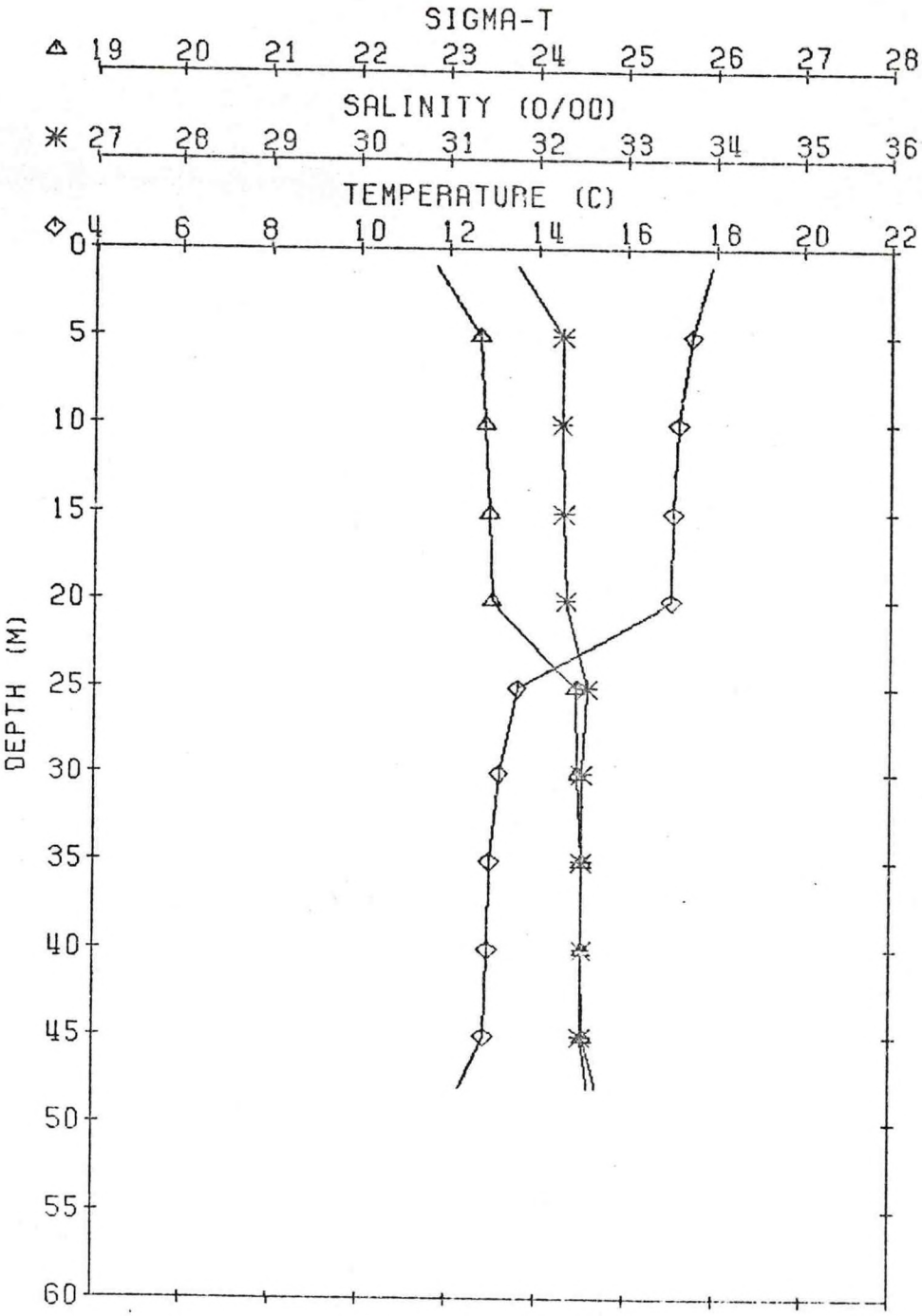
KELEZ CRUISE XWCC-6 STATION 59 OCT. 2, 1975



KE CRS/STA 06/ 61 LAT 40 33.3N; LONG 72 14.2W GMT 8.3 10/ 2/75
DEPTH 53 AIR D/W 17.8/ . BARO 09.5 VIS 7 CLD TYP/CVR X/4
WETHR 1 WIND DIR/SPD 00/00 SEA DIR/HT 00/0 SWELL DIR/HT 13/1

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.86	31.76	22.85			6.01	.01	.00	.00	.21
5	17.45	32.26	23.33							
10	17.15	32.26	23.40			5.87	.04	.17	.00	.25
15	17.03	32.28	23.44							
20	17.01	32.31	23.48			5.84	.00	.21	.00	.30
25	13.53	32.56	24.42							
30	13.13	32.50	24.45			4.75	.04	3.32	6.44	.75
35	12.93	32.50	24.50							
40	12.90	32.51	24.51			4.72	.01	6.33	10.40	.99
45	12.81	32.50	24.52							
48	12.29	32.57	24.67			4.57	.24	6.34	11.67	1.08

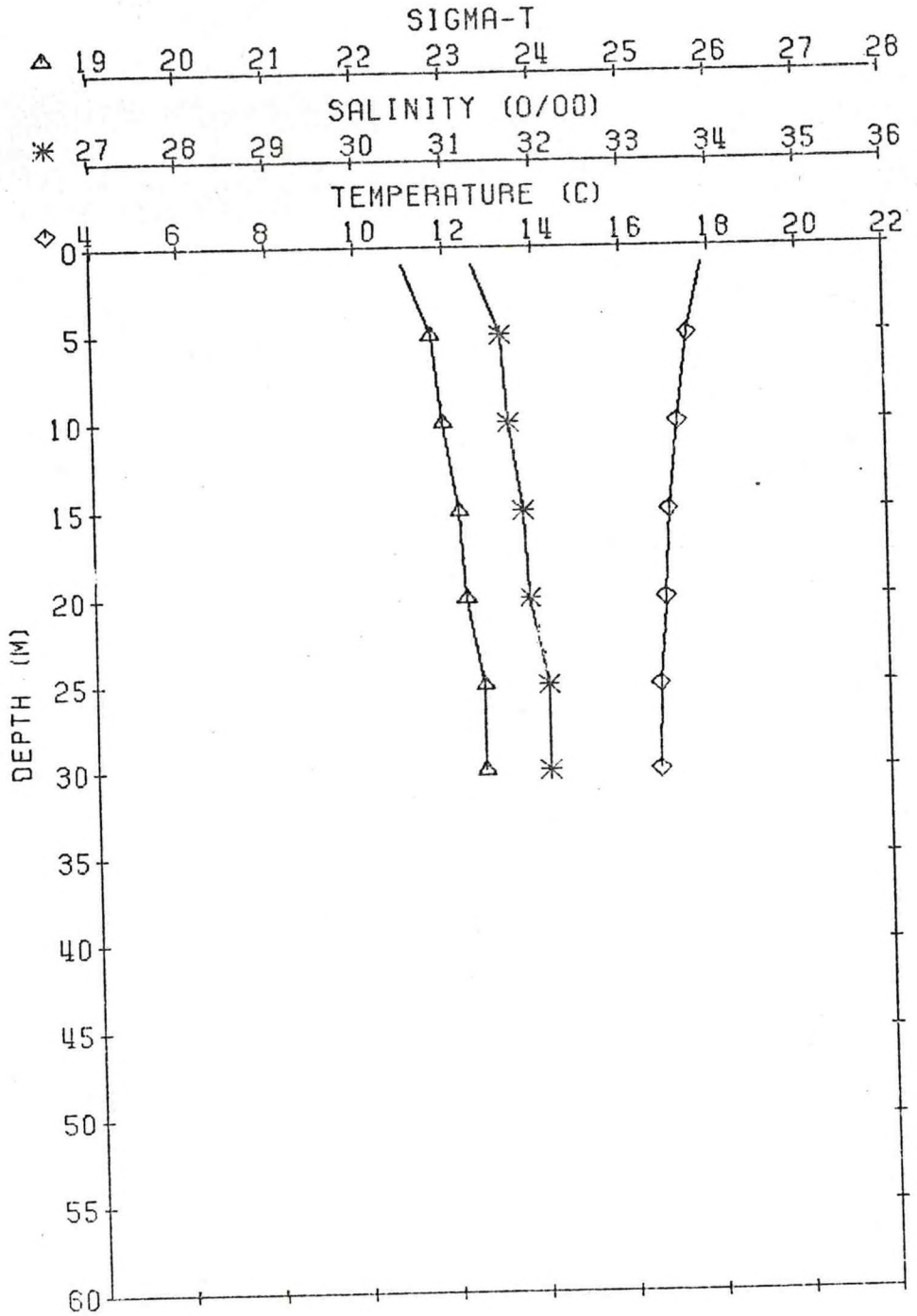
KELEZ CRUISE XWCC-6 STATIØN 61 ØCT. 2, 1975



KE CRS/STA 06/ 63 LAT 40 48.5N; LONG 72 19.8W GMT 4.3 10/ 2/75
DEPTH 34 AIR D/W 17.8/ . BARO 13. VIS 5 CLD TYP/CVR 7/8
WETHR 6 WIND DIR/SPD 06/05 SEA DIR/HT 00/0 SWELL DIR/HT 18/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.83	31.32	22.53			6.26	.00	.00	.00	.51
5	17.49	31.63	22.84							
10	17.22	31.70	22.96			5.99	.00	.00	.40	.51
15	16.99	31.84	23.12							
20	16.90	31.91	23.19			5.67	.02	.00	.32	.58
25	16.73	32.10	23.38							
30	16.71	32.10	23.38			5.28	.19	.44	5.89	.64

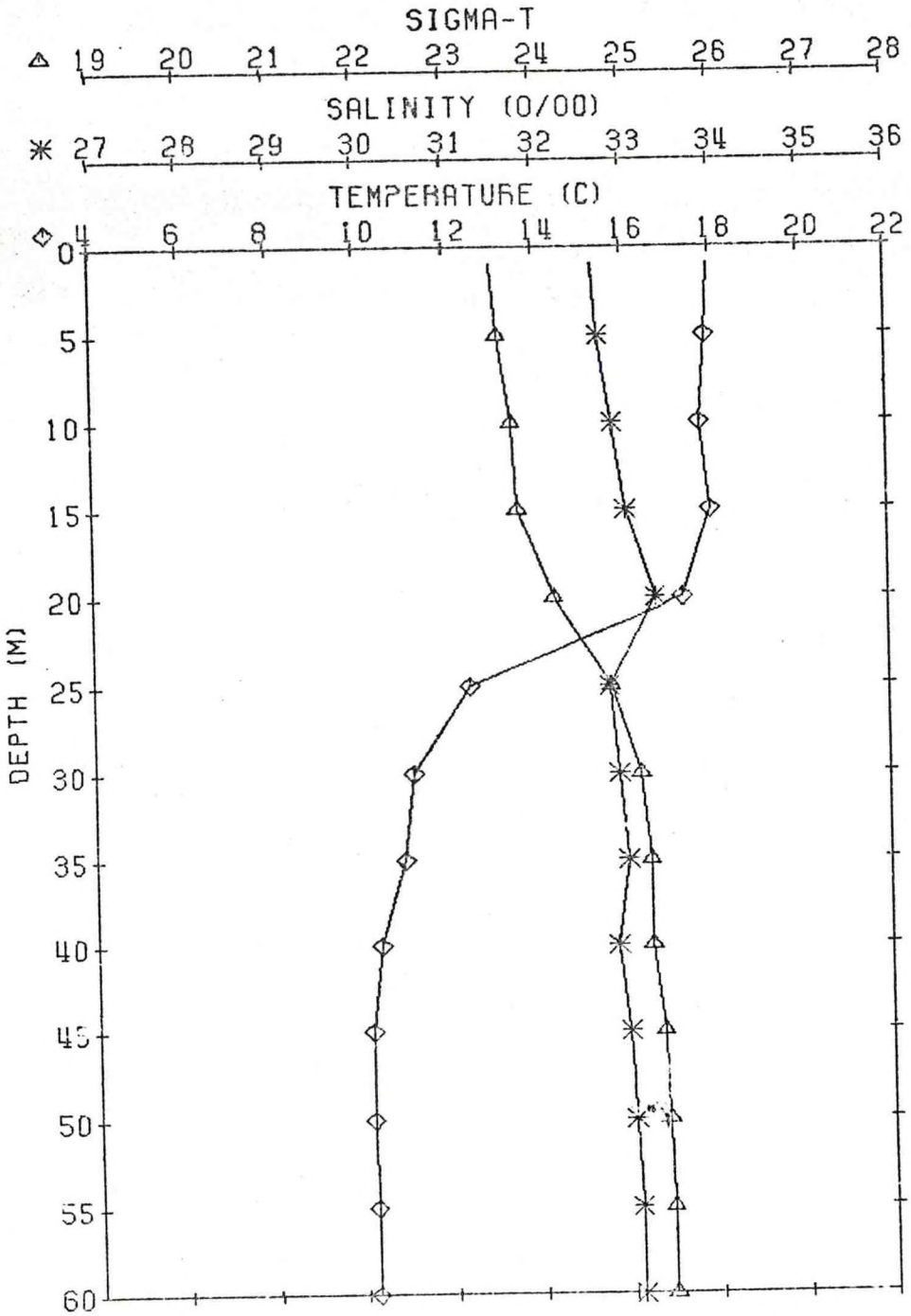
KELEZ CRUISE XWCC-6 STATION 63 OCT. 2, 1975



KE CRS/STA 06/ 64 LAT 40 11.9N; LONG 72 20.1W GMT 14.9 10/ 1/75
DEPTH 64 AIR D/W 21.1/ . BARO 22. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 12/03 SEA DIR/HT 00/0 SWELL DIR/HT 18/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.95	32.66	23.52			5.99	.01	.00	.00	.18
5	17.88	32.73	23.58							
10	17.73	32.87	23.73			6.10	.01	.00	.56	.11
15	17.95	33.01	23.79							
20	17.30	33.33	24.19			5.95	.04	.00	.15	.21
25	12.45	32.80	24.82							
30	11.18	32.90	25.14			6.03	.15	3.57	2.34	.54
35	10.98	32.99	25.24							
40	10.41	32.87	25.24			5.82	.06	2.69	1.75	.35
45	10.20	32.98	25.37							
50	10.19	33.03	25.41			5.29	.06	4.40	7.28	.52
60	10.22	33.09	25.45			5.10	.10	5.04	8.69	.58

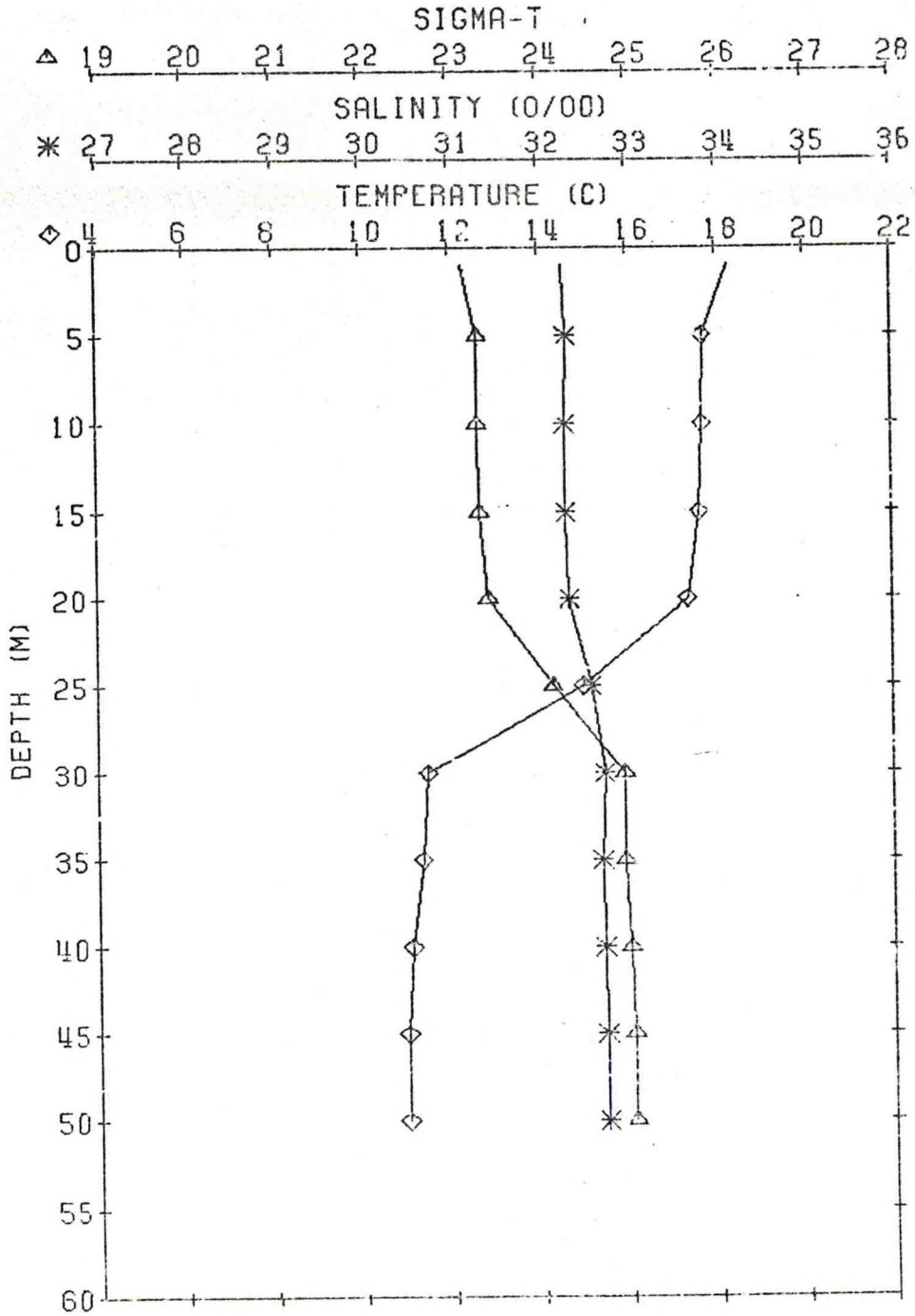
KELEZ CRUISE XWCC-6 STATION 64 OCT. 1, 1975



KE CRS/STA 06/ 65 LAT 40 21.1N; LONG 72 28.2W GMT 16.3 10/ 1/75
DEPTH 50 AIR D/W 20.6/ . BARO 21.6 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 12/02 SEA DIR/HT 00/0 SWELL DIR/HT 18/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.26	32.27	23.14			5.28	.06	.00	.00	.06
5	17.68	32.30	23.31							
10	17.67	32.28	23.30			5.58	.05	.00	.00	.08
15	17.60	32.29	23.32							
20	17.31	32.32	23.41			5.69	.04	.00	.00	.10
25	14.96	32.56	24.13							
30	11.45	32.71	24.94			4.63	.04	.00	3.44	.33
35	11.31	32.68	24.94							
40	11.07	32.70	24.99			4.55	.10	2.25	11.22	.86
45	10.97	32.72	25.03							
50	10.96	32.72	25.03			4.80	.06	8.14	10.33	.80

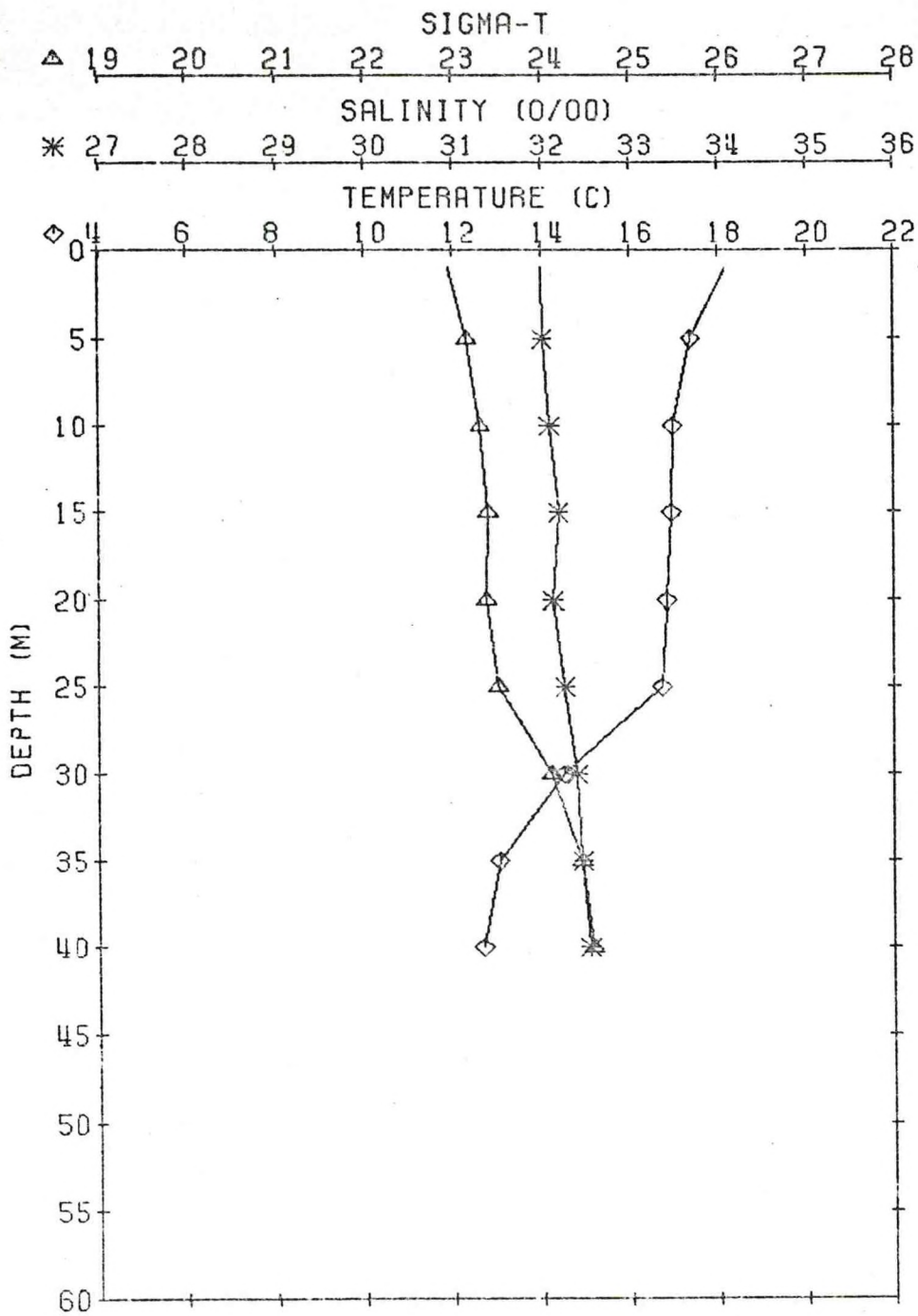
KELEZ CRUISE XWCC-6 STATION 65 OCT. 1, 1975



KE CRS/STA 06/ 66 LAT 40 30.0N; LONG 72 34.1W GMT 19.9 10/ 1/75
DEPTH 43 AIR D/W 23.3/ . BARO 19.0 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 12/03 SEA DIR/HT 00/0 SWELL DIR/HT 13/2

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.17	31.99	22.95			6.01	.00	.04	.91	.27
5	17.38	32.00	23.15							
10	16.97	32.08	23.31			5.00	.00	.02	.97	.25
15	16.93	32.18	23.40							
20	16.82	32.12	23.37			5.44	.09	.18	2.61	.36
25	16.71	32.25	23.50							
30	14.50	32.39	24.10			4.63	.54	4.02	7.52	.71
35	13.02	32.45	24.44							
40	12.67	32.54	24.57			4.25	.88	6.62	13.41	1.14

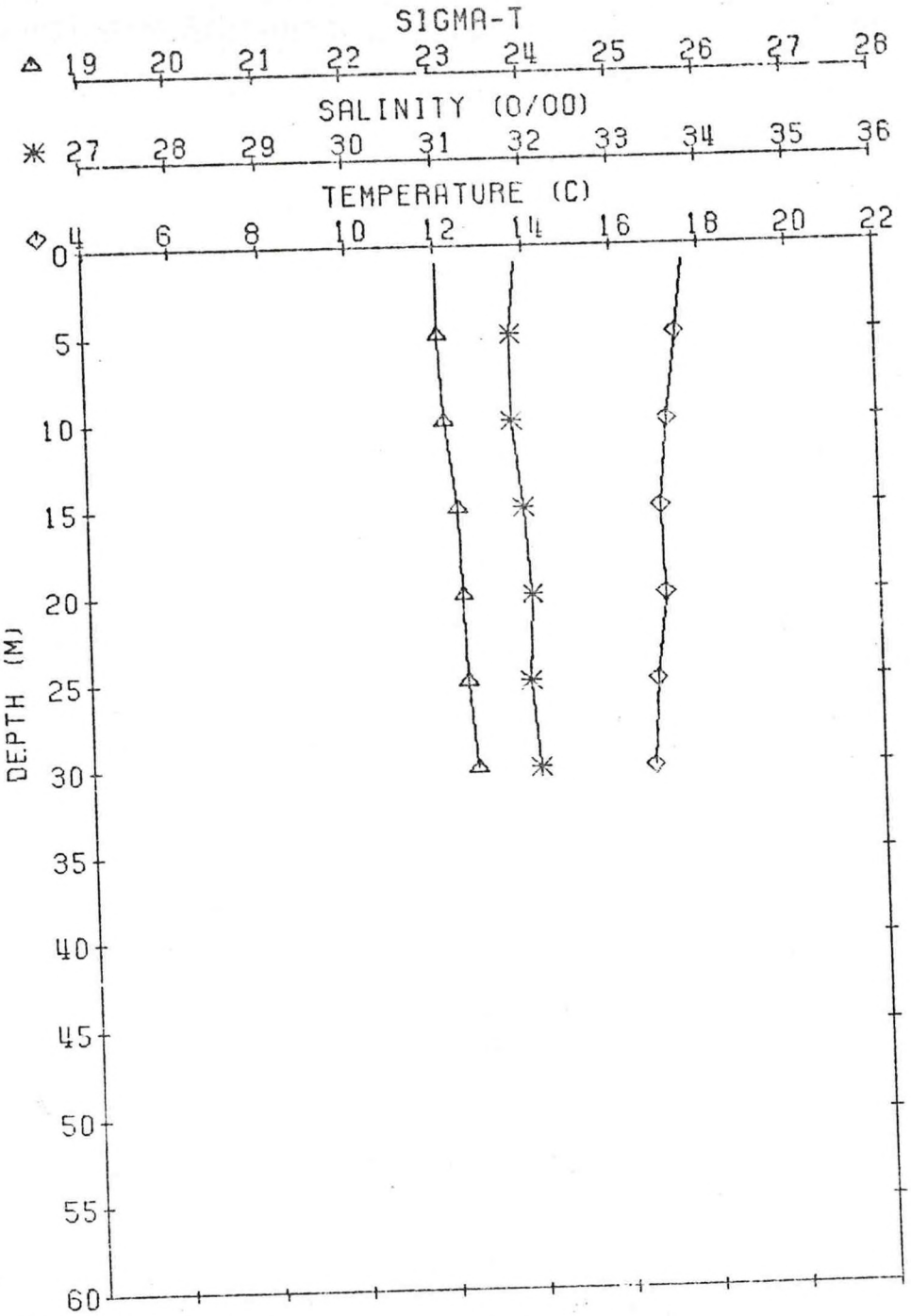
KELEZ CRUISE XWCC-6 STATION 66 OCT. 1, 1975



KE CRS/STA 06/ 67 LAT 40 38.3N; LONG 72 39.8W GMT 1.9 10/ 2/75
DEPTH 33 AIR D/W 17.8/ . BARO 16. VIS 7 CLD TYP/CVR 7/8
WETHR 6 WIND DIR/SPD 06/09 SEA DIR/HT 00/0 SWELL DIR/HT 13/1

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.62	31.90	23.01			6.19	.10	.00	.08	.38
5	17.42	31.84	23.02							
10	17.19	31.83	23.06			6.22	.09	.00	.12	.45
15	17.01	31.94	23.19							
20	17.08	32.02	23.23			5.87	.08	.00	.12	.45
25	16.84	31.98	23.26							
30	16.73	32.06	23.35			5.26	.15	.57	.80	.66

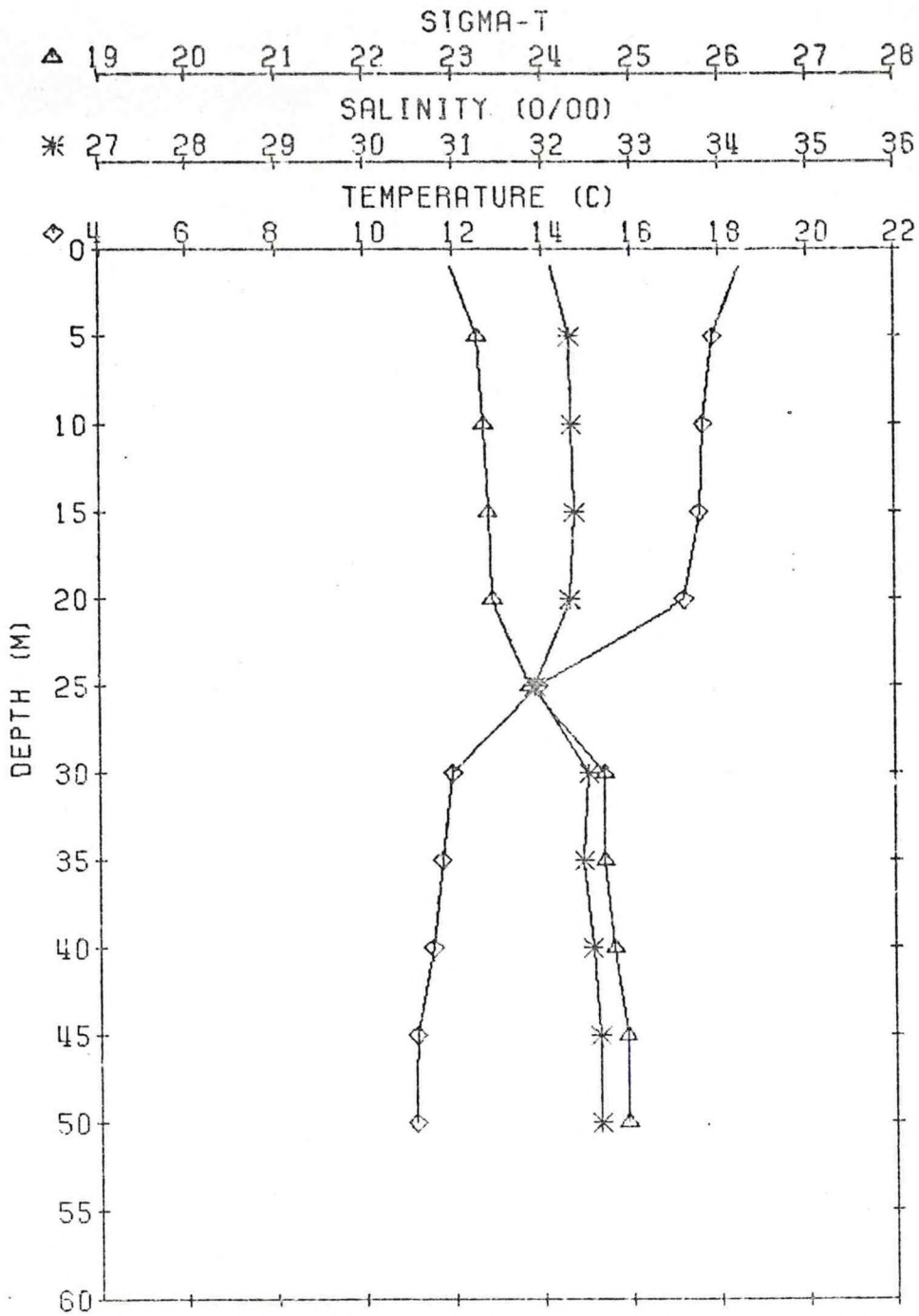
KELEZ CRUISE XWCC-6 STATION 67 OCT. 2, 1975



KE CRS/STA 06/ 68 LAT 40 19.0N; LONG 72 46.3W GMT 18.1 10/ 1/75
DEPTH 48 AIR D/W 21.// . BARO 20. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 12/05 SEA DIR/HT 00/0 SWELL DIR/HT 49/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.45	32.10	22.97			6.12	.16	7.17	.00	.07
5	17.85	32.30	23.27							
10	17.63	32.32	23.34			6.13	.07	.00	.00	.06
15	17.53	32.35	23.39							
20	17.18	32.30	23.43			5.89	.09	.00	.00	.06
25	13.89	31.90	23.84							
30	11.96	32.51	24.69			4.56	.34	6.26	10.33	.86
35	11.71	32.45	24.69							
40	11.51	32.55	24.80			4.49	.21	7.40	10.67	.85
45	11.13	32.63	24.93							
50	11.12	32.63	24.94			4.08	.30	9.87	15.34	1.17

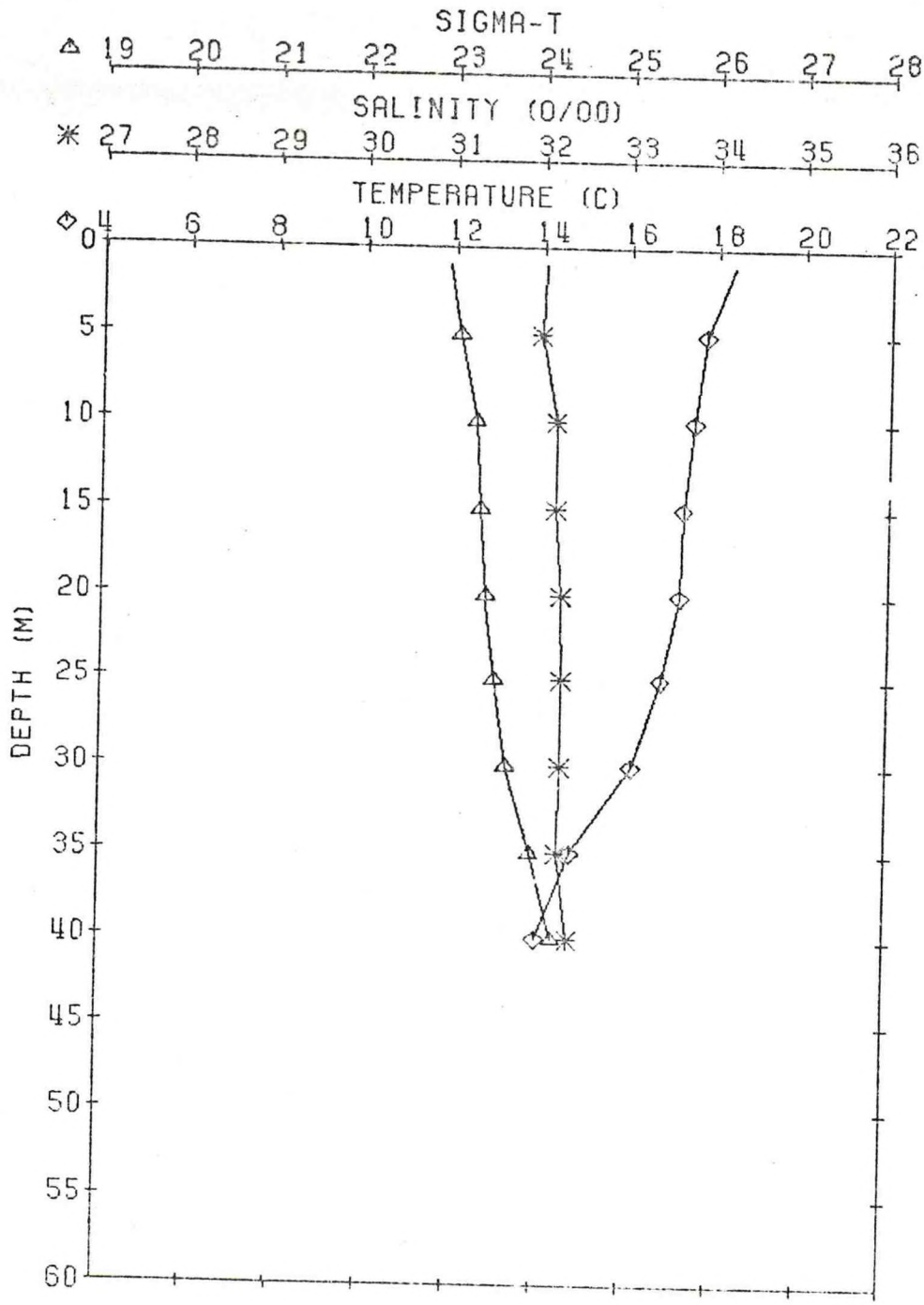
KELEZ CRUISE XWCC-6 STATION 68 OCT. 1, 1975



KE CRS/STA 06/ 69 LAT 40 24.8N; LONG 72 55.0W GMT 21.9 10/ 1/75
DEPTH 41 AIR D/W 18.3/ . BARO 17.5 VIS 7 CLD TYP/CVR 6/7
WETHR 1 WIND DIR/SPD 06/04 SEA DIR/HT 00/0 SWELL DIR/HT 17/1

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.35	32.01	22.93			4.08	.00	.00	.22	.33
5	17.73	31.97	23.04							
10	17.47	32.15	23.24			3.99	.00	.01	.18	.34
15	17.24	32.15	23.30							
20	17.18	32.23	23.37			4.56	.00	.01	.00	.26
25	16.77	32.24	23.48							
30	16.12	32.25	23.63			4.20	.20	.37	3.03	.37
35	14.74	32.22	23.91							
40	13.98	32.36	24.18			3.18	.80	7.37	17.07	.94

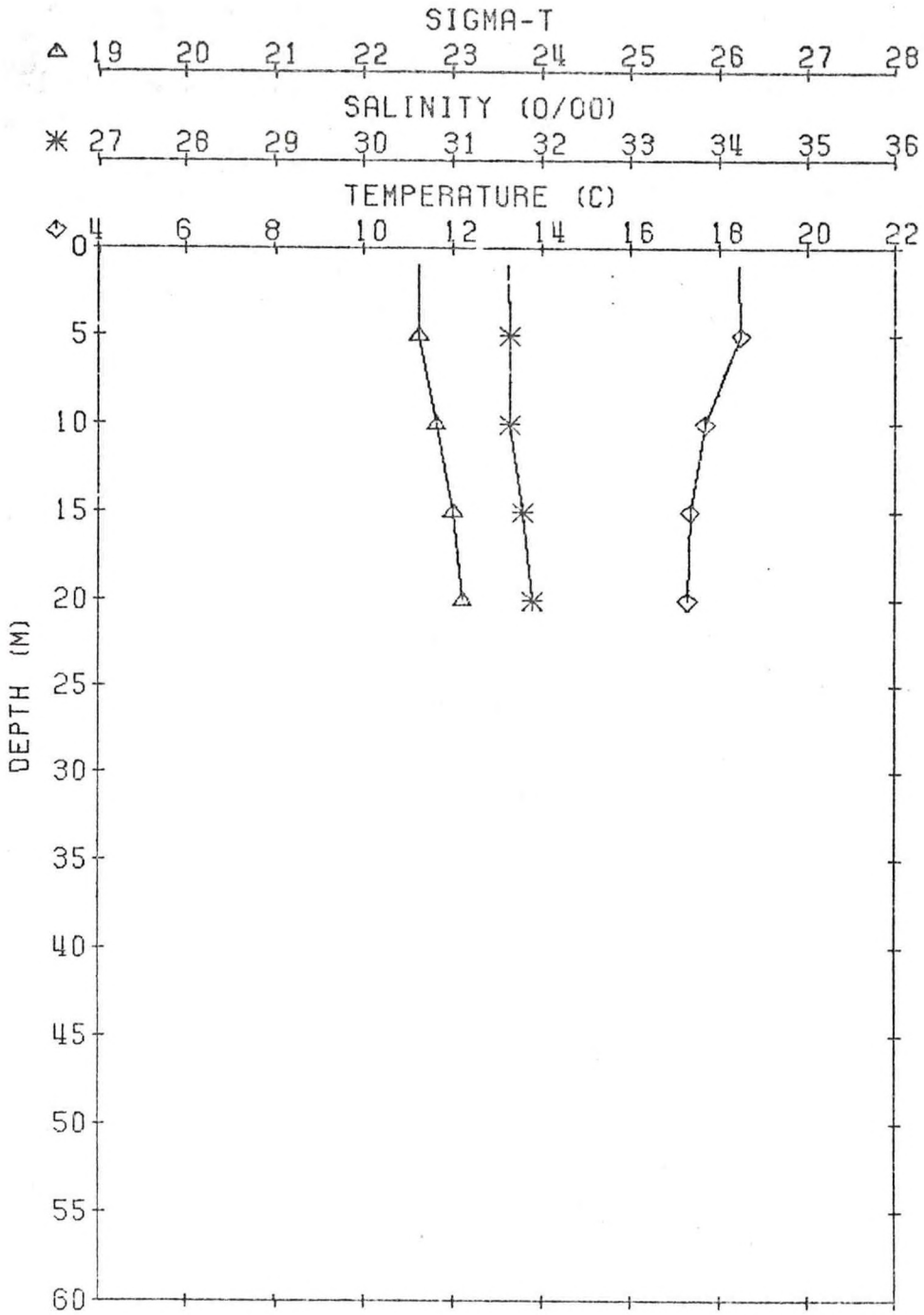
KELEZ CRUISE XWCC-6 STATION 09 OCT. 1, 1975



KE CRS/STA 06/ 70 LAT 40 31.8N; LONG 73 7.2W GMT 23.3 10/ 1/75
DEPTH 27 AIR D/W 17.7/ . BARO 17. VIS 7 CLD TYP/CVR 6/8
WETHR 2 WIND DIR/SPD 05/04 SEA DIR/HT 00/0 SWELL DIR/HT 13/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.41	31.61	22.61			6.51	.01	.45	1.26	.56
5	18.47	31.63	22.61							
10	17.66	31.63	22.80			6.42	.00	.00	.00	.55
15	17.31	31.77	22.99							
20	17.25	31.89	23.09			5.36	.10	.00	.20	.55

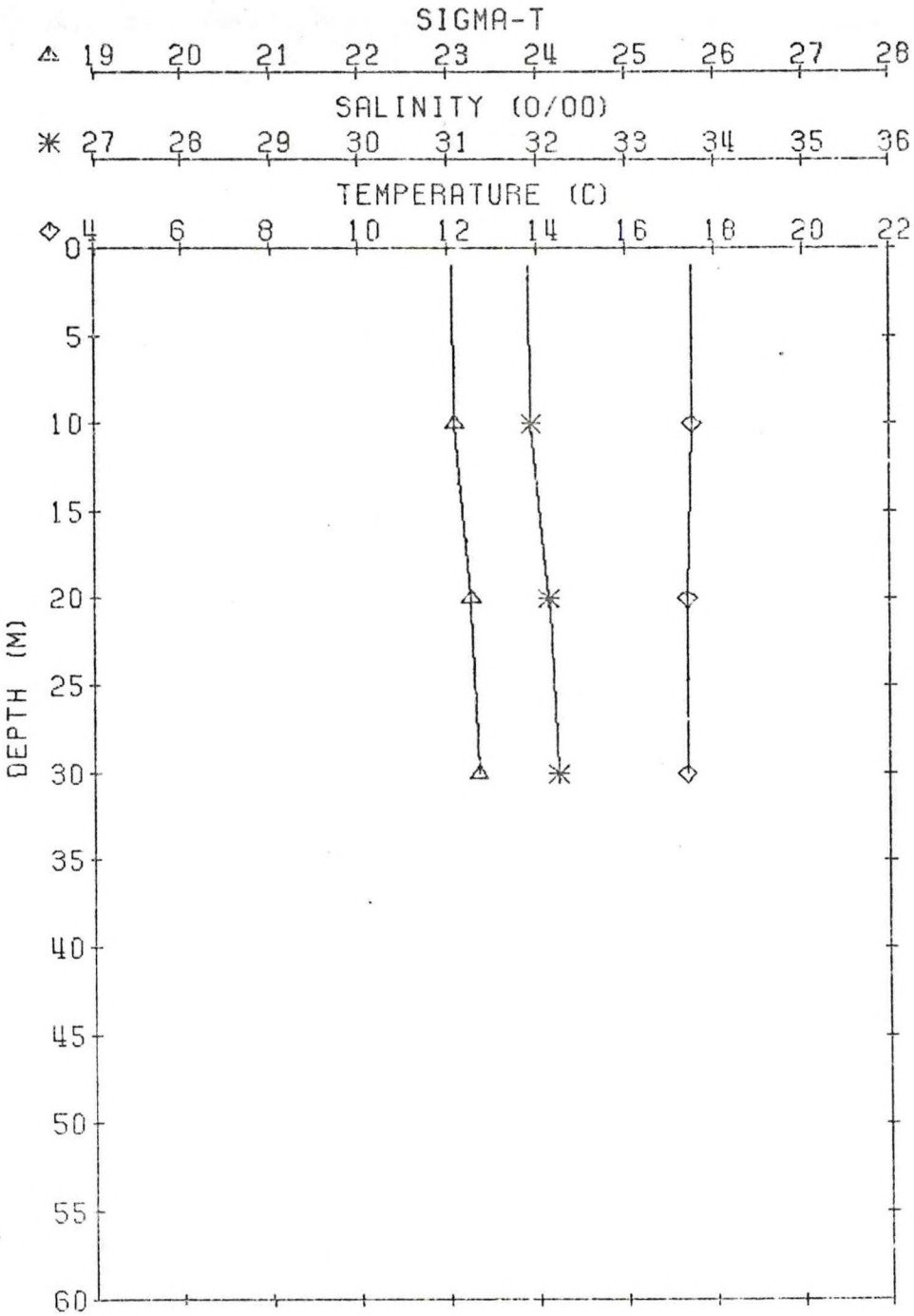
KELEZ CRUISE XWCC-6 STATION 70 OCT. 1, 1975



KE CRS/STA 06/ 77 LAT 40 10.5N; LONG 73 34.0W GMT 11.0 9/30/75
DEPTH 32 AIR D/W 16.7/ . BARO 23. VIS 7 CLD TYP/CVR 8/2
WETHR 0 WIND DIR/SPD 00/00 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.48	31.90	23.05			6.03	.03	.00	.00	.47
10	17.48	31.93	23.07			6.19	.03	.00	.00	.49
20	17.36	32.12	23.25			5.75	.12	.07	1.86	.49
30	17.35	32.23	23.35			5.85	.18	.08	2.99	.59

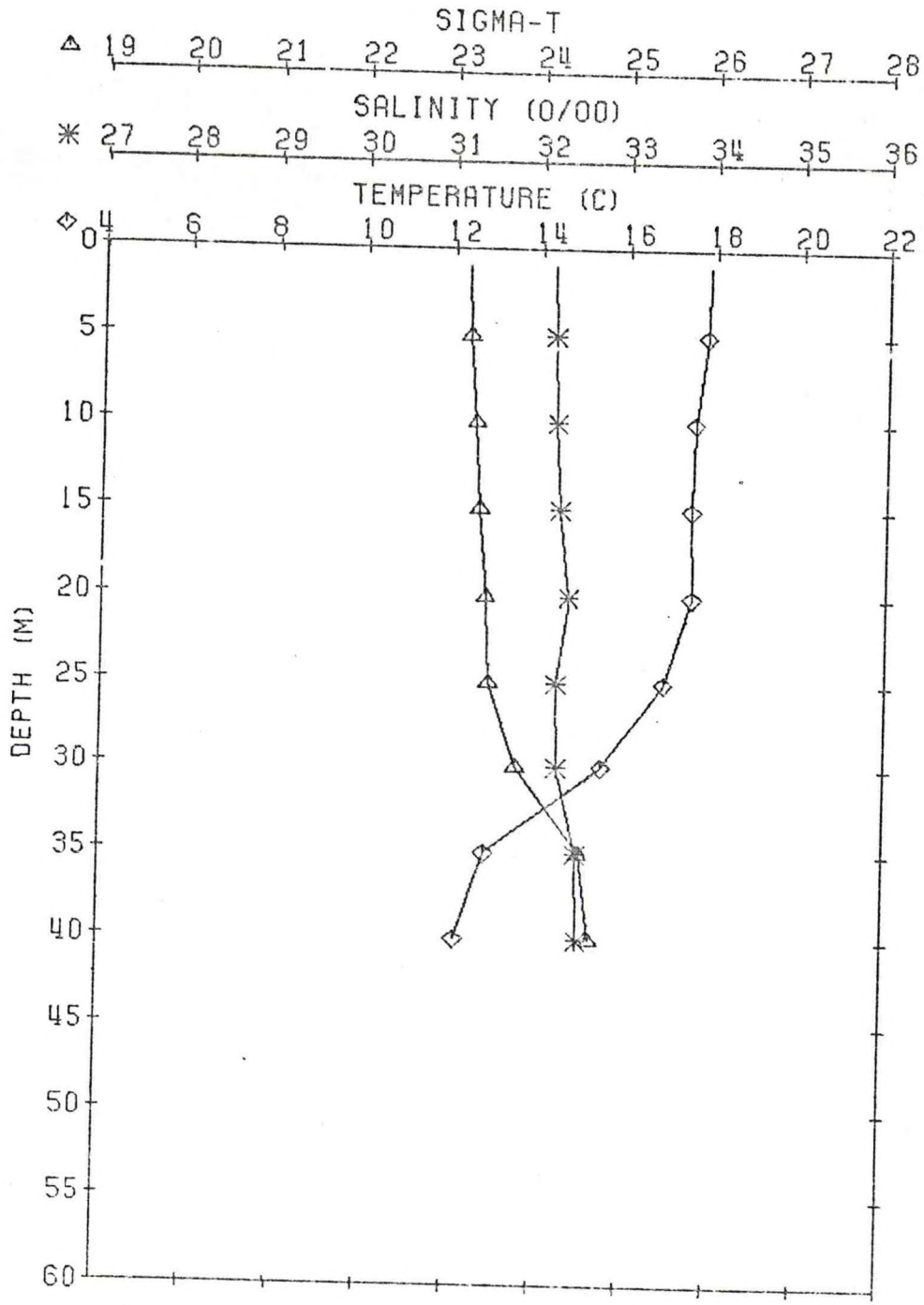
KELEZ CRUISE XWCC-6 STATION 77 SEPT. 30, 1975



KE CRS/STA 06/ 78 LAT 40 4.9N; LONG 73 21.5W GMT 3.8 10/ 1/75
DEPTH 43 AIR D/W 17.2/ . BARO 23. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 19/08 SEA DIR/HT 00/0 SWELL DIR/HT 12/

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.82	32.14	23.16			6.21	.01	.00	.00	.26
5	17.79	32.16	23.17							
10	17.53	32.18	23.25			6.24	.00	.00	.00	.22
15	17.47	32.23	23.30							
20	17.50	32.34	23.38			6.09	.00	.00	.00	.21
25	16.88	32.21	23.43							
30	15.49	32.23	23.76			4.62	.72	2.11	8.89	.93
35	12.82	32.47	24.49							
40	12.16	32.49	24.64			4.48	.52	2.43	11.60	1.15

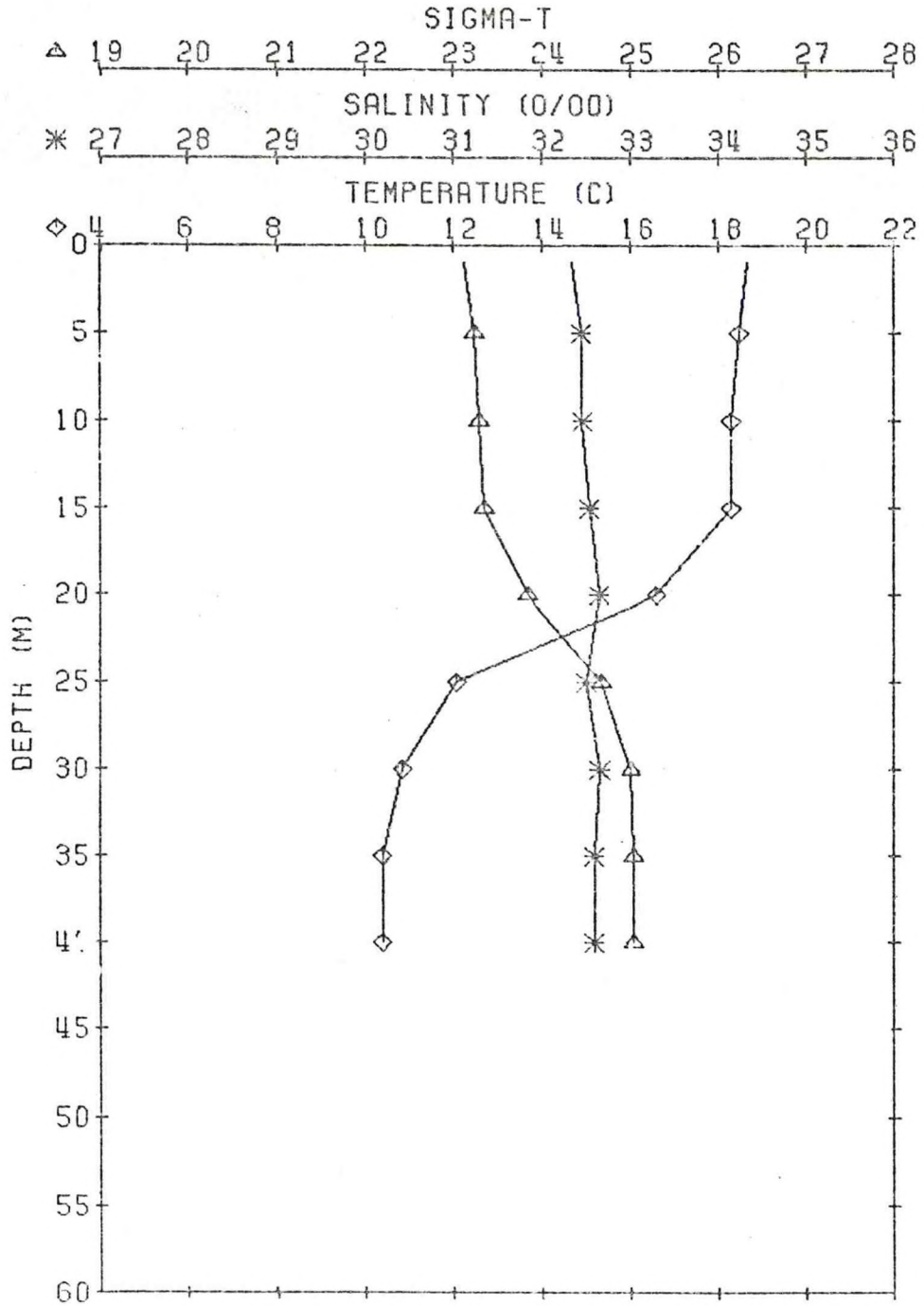
KELEZ CRUISE XWCC-6 STATION 78 OCT. 1, 1975



KE CRS/STA 06/ 79 LAT 39 59.7N; LONG 73 8.6W GMT 2.1 10/ 1/75
DEPTH 46 AIR D/W 17.8/ . BARO 23. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 18/04 SEA DIR/HT 00/0 SWELL DIR/HT 12/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.63	32.34	23.11			6.09	.00	.15	.00	.19
5	18.45	32.44	23.23							
10	18.27	32.45	23.28			6.02	.00	.08	.00	.17
15	18.27	32.53	23.34							
20	16.58	32.64	23.82			6.07	.00	.00	.00	.16
25	12.07	32.50	24.66							
30	10.83	32.65	25.00			5.12	.11	5.88	8.58	.83
35	10.37	32.58	25.03							
40	10.37	32.58	25.03			4.93	.09	5.73	10.77	.90

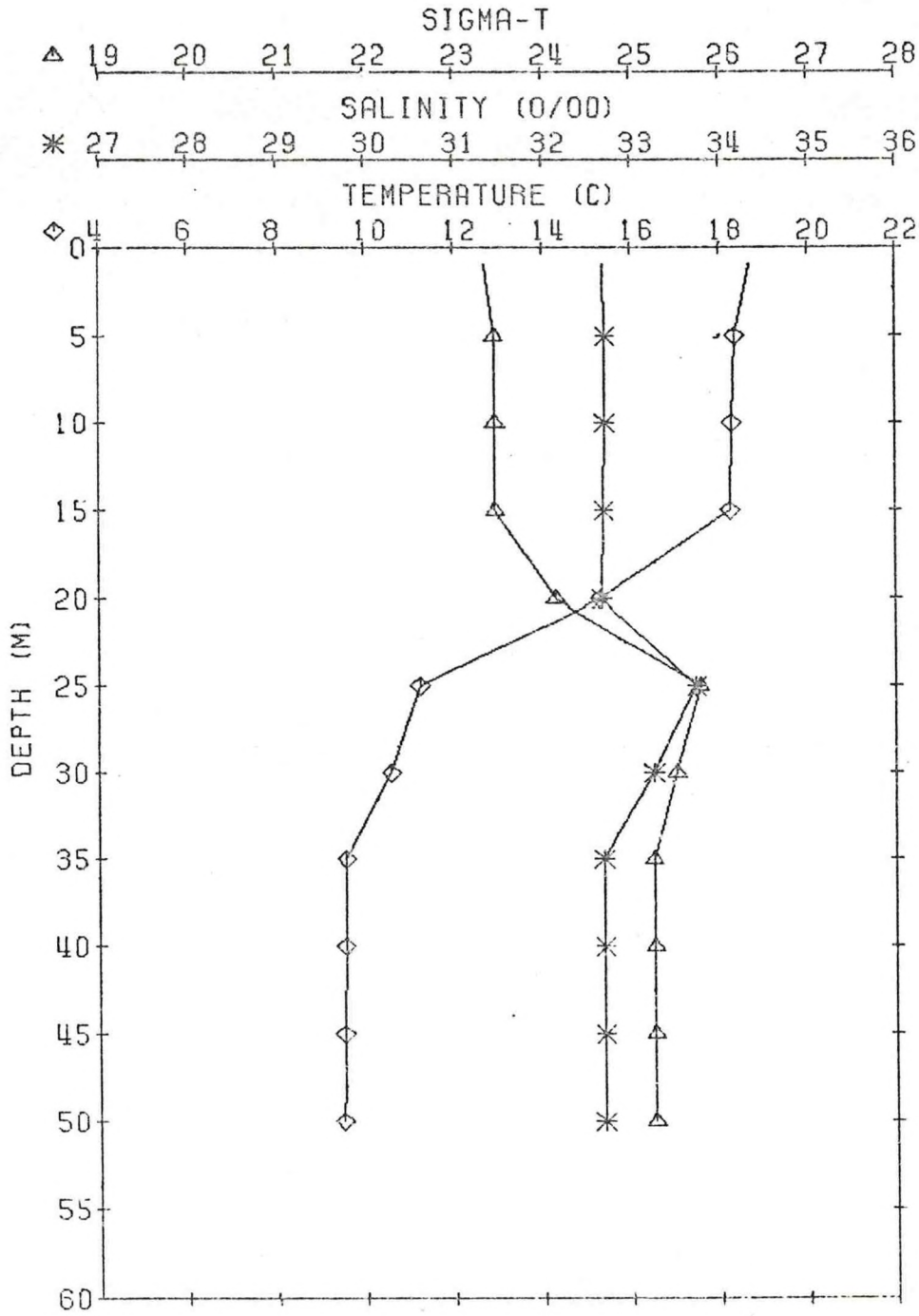
KELEZ CRUISE XWCC-6 STATION 79 OCT. 1, 1975



KE CRS/STA 06/ 80 LAT 39 54.4N; LONG 72 56.9W GMT .4 10/ 1/75
DEPTH 52 AIR D/W 18.3/ . BARO 23. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 18/04 SEA DIR/HT 00/0 SWELL DIR/HT 12/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.68	32.68	23.36			5.96	.00	.15	.28	.19
5	18.35	32.71	23.45							
10	18.27	32.70	23.47			6.18	.01	.16	.11	.12
15	18.23	32.69	23.47							
20	15.28	32.66	24.13			6.09	.00	.18	.63	.18
25	11.22	33.72	25.76							
30	10.58	33.24	25.50			6.02	.16	3.17	6.37	.63
35	9.56	32.68	25.24							
40	9.53	32.69	25.25			4.98	.02	8.94	13.86	1.00
45	9.50	32.69	25.25							
50	9.49	32.68	25.25			4.94	.02	5.52	10.84	.80

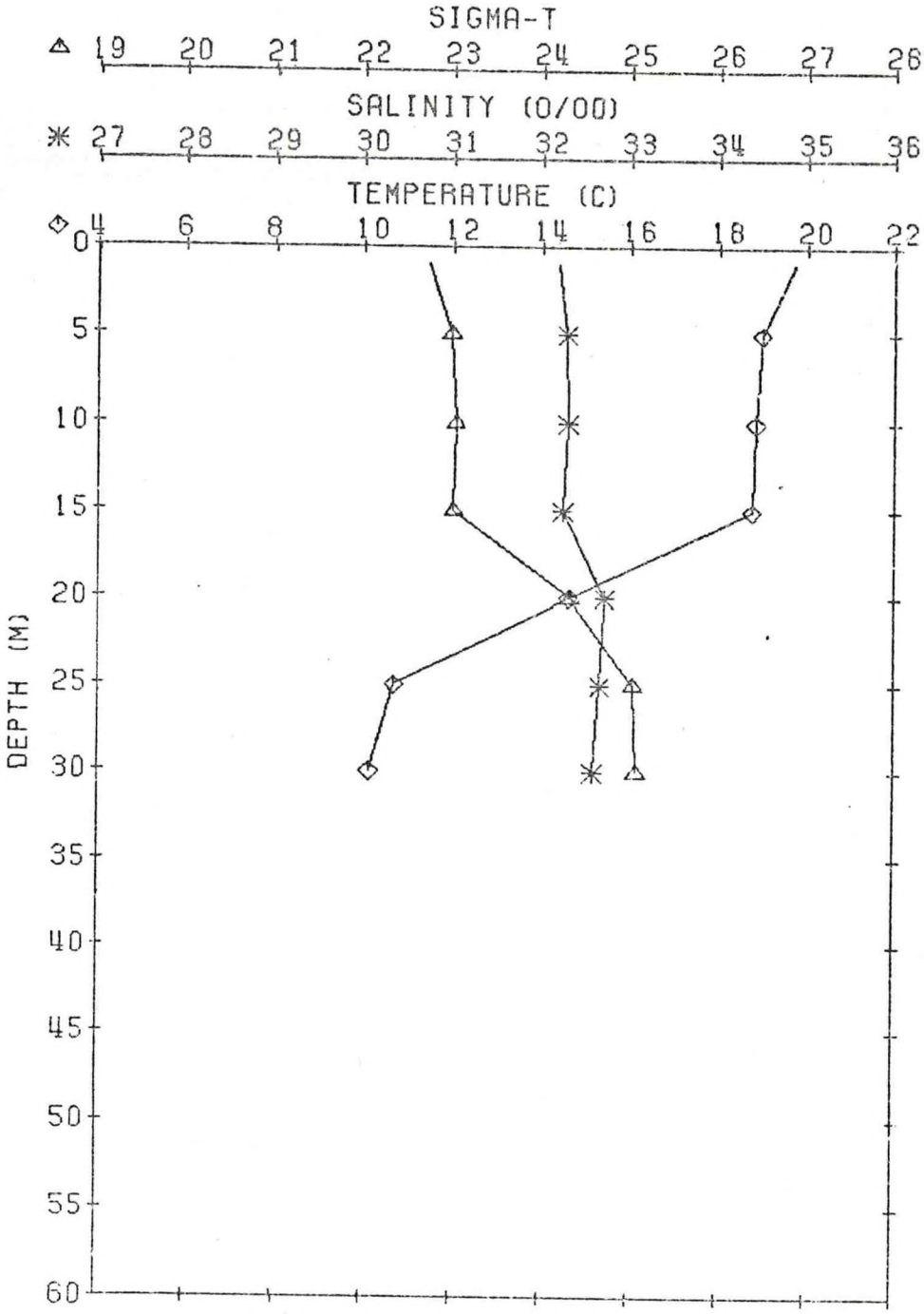
KELEZ CRUISE XWCC-6 STATION 80 OCT. 1, 1975



KE CRS/STA 06/ 81 LAT 39 40.2N; LONG 73 9.8W GMT 21.8 9/30/75
DEPTH 40 AIR D/W 23.9/ . BARO 22.5 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 19/04 SEA DIR/HT 00/0 SWELL DIR/HT 12/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	19.68	32.18	22.72			5.83	.00	.04	.00	.06
5	18.95	32.27	22.97							
10	18.81	32.28	23.02				.00	.04	.00	.11
15	18.73	32.23	23.00							
20	14.59	32.71	24.32			6.27	.04	.15	.00	.26
25	10.69	32.65	25.03							
30	10.13	32.58	25.06			4.72	.07	2.99	6.51	.72

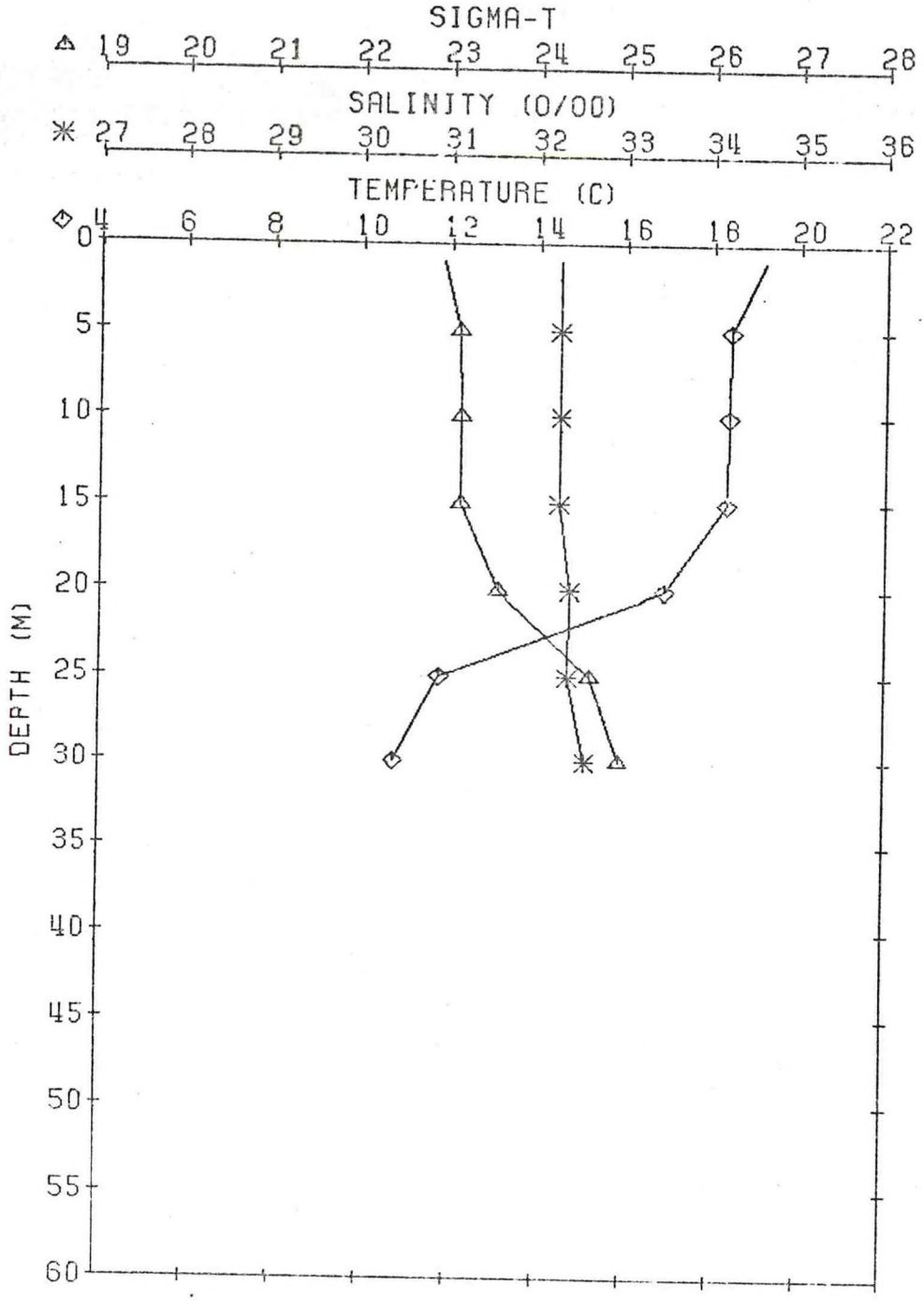
KELEZ CRUISE XWCC-6 STATION 81 SEPT. 30, 1975



KE CRS/STA 06/ 82 LAT 39 50.2N; LONG 73 20.4W GMT 18.5 9/30/75
DEPTH 42 AIR D/W 21.1/ . BARO 23. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 18/04 SEA DIR/HT 00/0 SWELL DIR/HT 12/1

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	19.15	32.23	22.89			4.24	.00	.11	.00	.28
5	18.39	32.22	23.08							
10	18.34	32.23	23.10			5.31	.00	.08	.00	.19
15	18.31	32.23	23.10							
20	16.90	32.36	23.54			5.95	.00	.04	.00	.41
25	11.76	32.34	24.59							
30	10.76	32.54	24.93			5.20	.13	2.20	8.53	.84

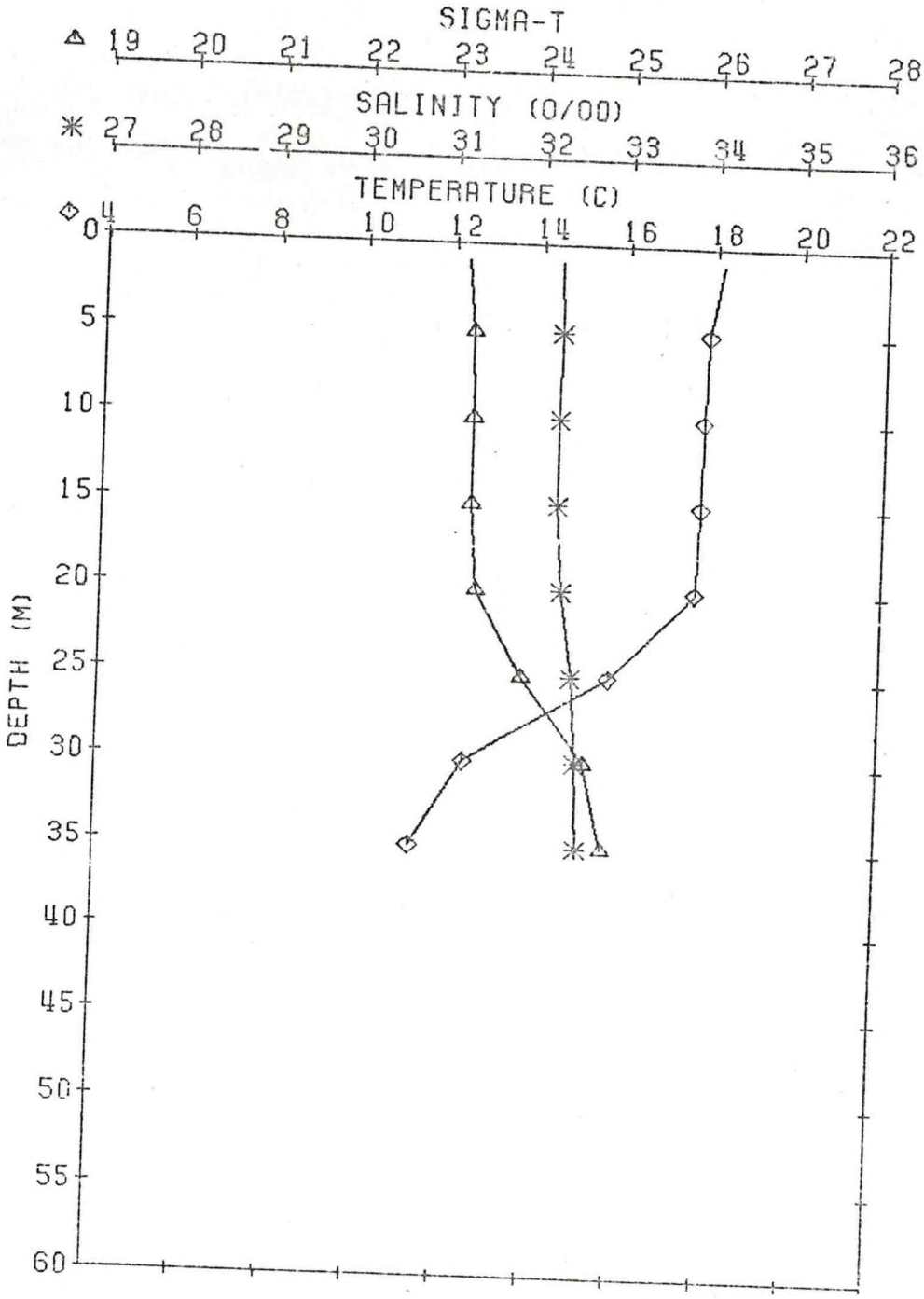
KELEZ CRUISE XWCC-6 STATION 82 SEPT. 30, 1975



KE CRS/STA 06/ 83 LAT 39 56.0N; LONG 73 30.6W GMT 15.8 9/30/75
DEPTH 38 AIR D/W 21.7/ . BARO 24. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 15/04 SEA DIR/HT 00/0 SWELL DIR/HT 12/1

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.11	32.21	23.14			6.02	.02	.17	.46	.40
5	17.83	32.23	23.22							
10	17.75	32.22	23.23			6.08	.02	.17	.40	.35
15	17.73	32.21	23.23							
20	17.64	32.29	23.31			6.58	.00	.19	.46	.38
25	15.71	32.42	23.85							
30	12.43	32.49	24.59			5.36	.23	1.25	4.63	.66
35	11.26	32.53	24.83							

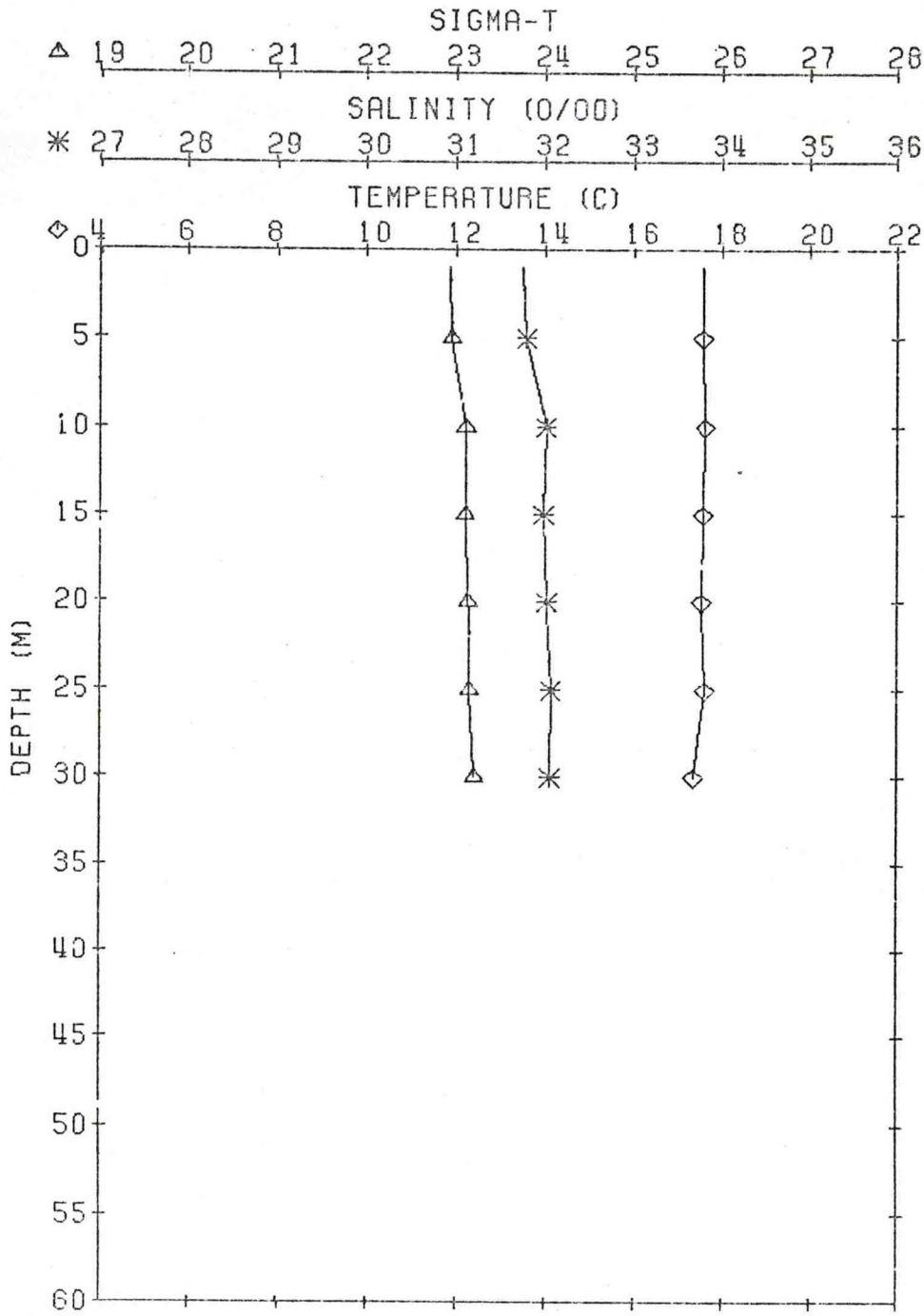
KELEZ CRUISE XWCC-6 STATION 83 SEPT. 30, 1975



KE CRS/STA 06/ 84 LAT 40 1.6N; LONG 73 40.5W GMT 12.3 9/30/75
DEPTH 39 AIR D/W 19.4/ . BARO 24. VIS 7 CLD TYP/CVP 8/2
WETHR 0 WIND DIR/SPD 14/04 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.53	31.74	22.91				.08	.00	.00	.64
5	17.55	31.78	22.94							
10	17.60	32.00	23.10			5.80	.08	.00	.00	.52
15	17.55	31.98	23.09							
20	17.50	32.01	23.13			5.68	.08	.00	.00	.40
25	17.58	32.05	23.14							
30	17.33	32.05	23.20			5.39	.12	.07	2.51	.58

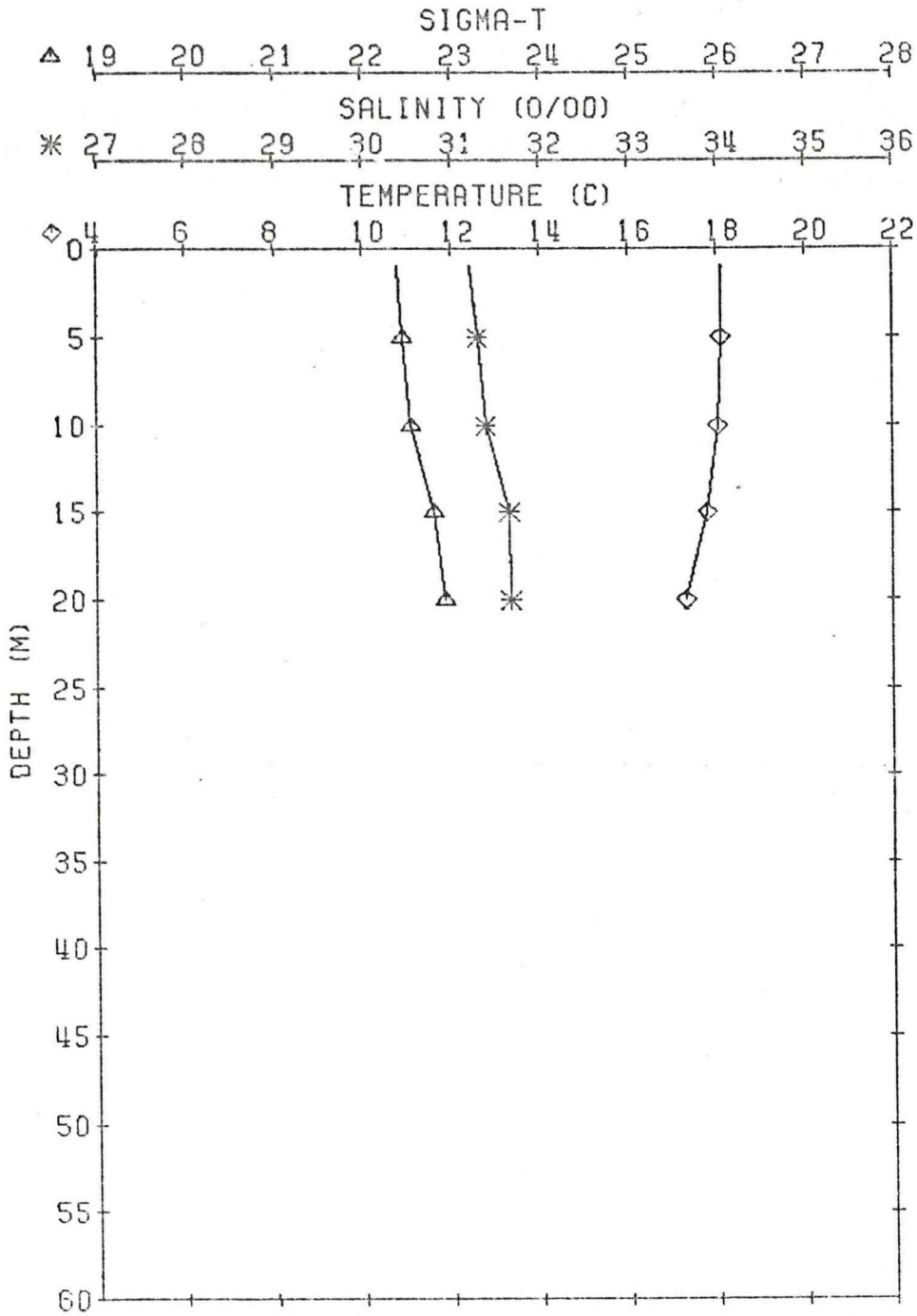
KELEZ CRUISE XWCC-6 STATIØN 84 SEPT. 30, 1975



KE CRS/STA 06/ 85 LAT 40 8.1N; LONG 73 51.5W GMT 1.4 9/30/75
DEPTH 25 AIR D/W 17.2/ . BARO 23.5 VIS 7 CLD TYP/CVR 0/2
WETHR 1 WIND DIR/SPD 16/12 SEA DIR/HT 00/0 SWELL DIR/HT 00/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.09	31.22	22.38			6.13	.12	.45	.00	.65
5	18.09	31.29	22.44							
10	18.01	31.39	22.53			6.31	.10	.77	.00	1.12
15	17.78	31.65	22.79							
20	17.29	31.67	22.92			5.62	.09	.32	.71	.70

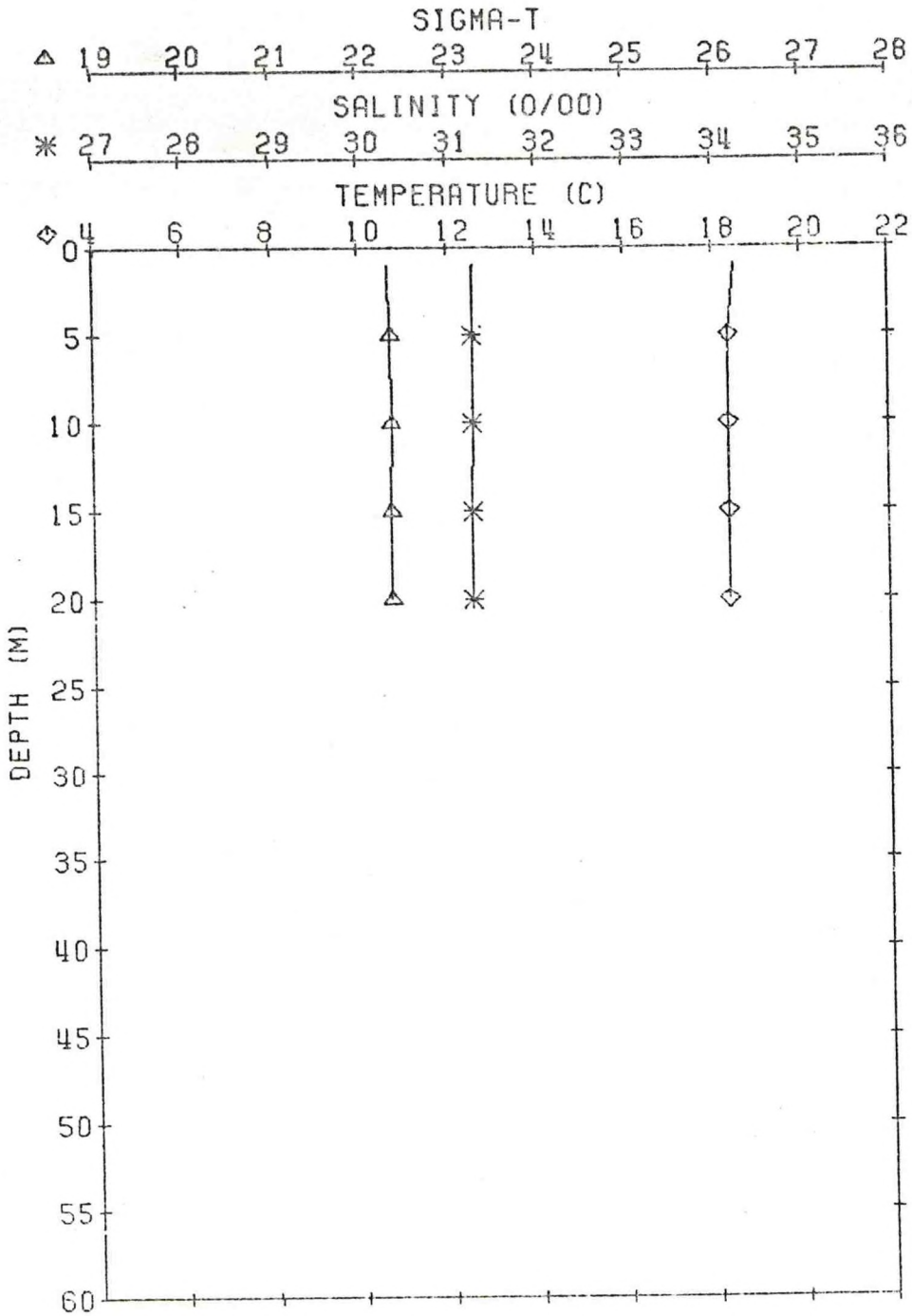
KELEZ CRUISE XWCC-6 STATION 85 SEPT. 30, 1975



KE CRS/STA 06/ 86 LAT 39 46.9N: LONG 73 57.1W GMT 20.9 10/ 3/75
DEPTH 22 AIR D/W 14.4/ . BARO 27.8 VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 20/16 SEA DIR/HT 20/1 SWELL DIR/HT 36/2

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.49	31.28	22.33			5.45	.00	.00	.00	.35
5	18.36	31.27	22.36							
10	18.35	31.27	22.36			5.34	.00	.00	.00	.31
15	18.35	31.27	22.36							
20	18.35	31.27	22.36			5.10	.00	.00	.00	.27

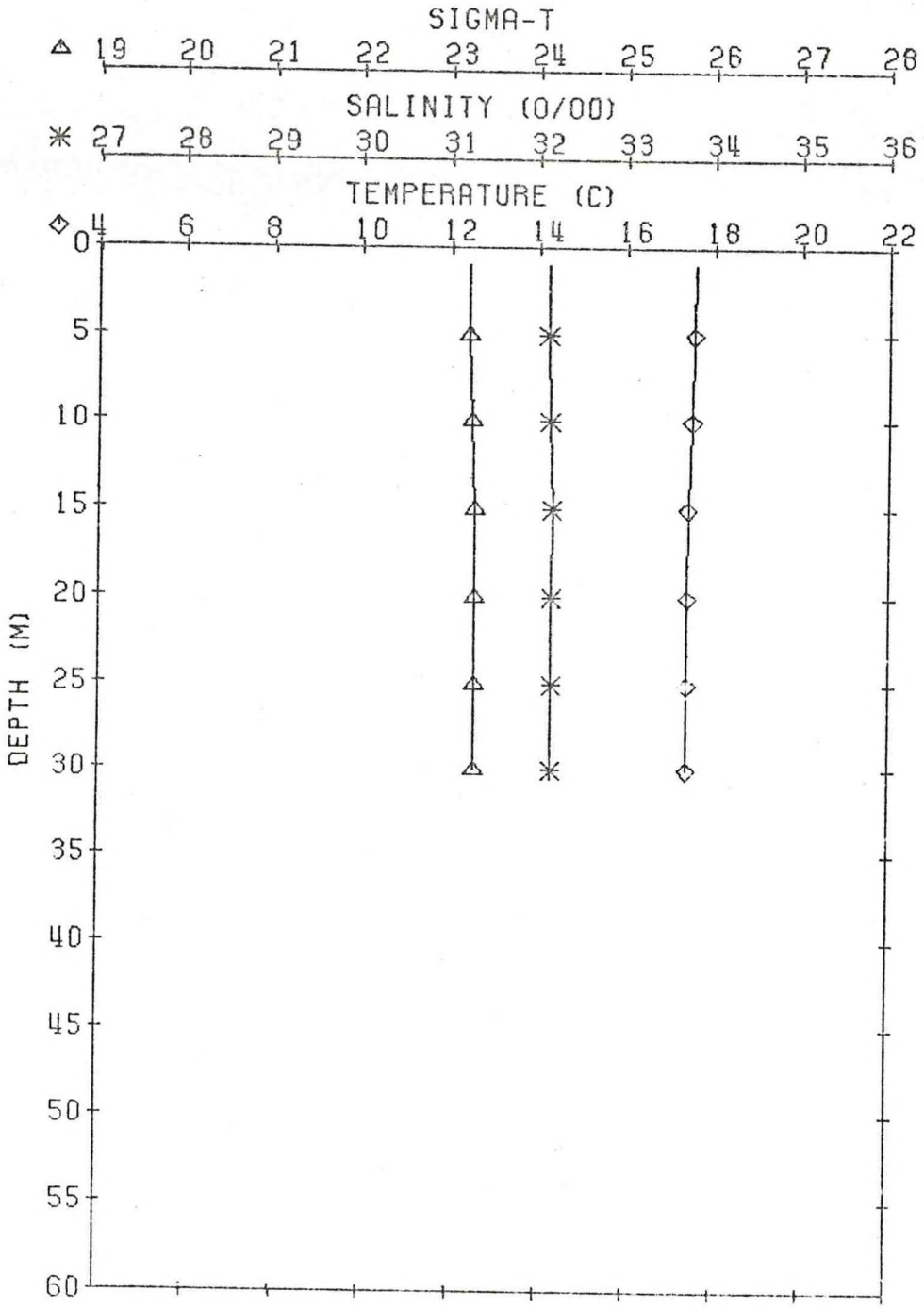
KELEZ CRUISE XWCC-6 STATION 86 OCT. 3, 1975



KE CRS/STA 06/ 87 LAT 39 43.8N; LONG 73 43.1W GMT 22.5 10/ 3/75
DEPTH 31 AIR D/W 13.5/ . BARO 28. VIS 7 CLD TYP/CVR /0
WETHR 0 WIND DIR/SPD 23/20 SEA DIR/HT 23/0 SWELL DIR/HT 23/0

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.53	32.09	23.19			5.72	.00	.00	.00	.40
5	17.52	32.10	23.19							
10	17.47	32.12	23.22			5.57	.00	.00	.00	.25
15	17.39	32.15	23.26							
20	17.38	32.14	23.26			5.59	.00	.00	.00	.31
25	17.38	32.14	23.26							
30	17.38	32.14	23.26			5.61	.00	.00	.00	.44

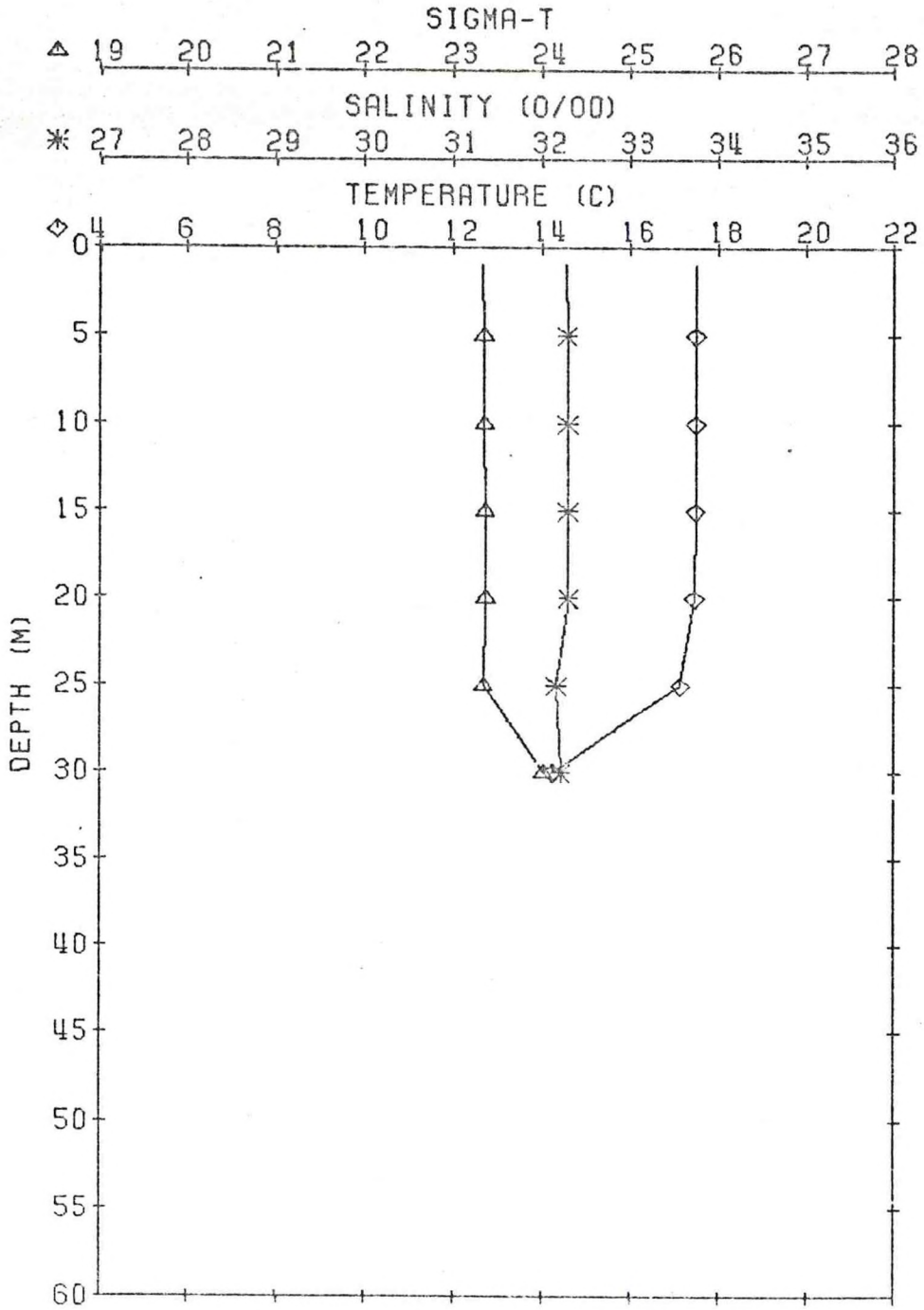
KELEZ CRUISE XWCC-6 STATION 87 OCT. 3, 1975



KE CRS/STA 06/ 88 LAT 49 30.7N; LONG 73 29.8W GMT 14.5 10/ 3/75
DEPTH 34 AIR D/W 10.0/ . BARO 31. VIS 7 CLD TYP/CVR 8/1
WETHR 1 WIND DIR/SPD 33/12 SEA DIR/HT 33/3 SWELL DIR/HT 15/3

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.48	32.26	23.33			5.58	.08	.00	.00	.21
5	17.47	32.27	23.34							
10	17.47	32.28	23.34			5.51	.02	.00	.00	.31
15	17.46	32.28	23.35							
20	17.44	32.29	23.36			5.47	.02	.00	.00	.21
25	17.12	32.15	23.33							
30	14.24	32.20	24.00			3.53	.28	.03	2.81	.55

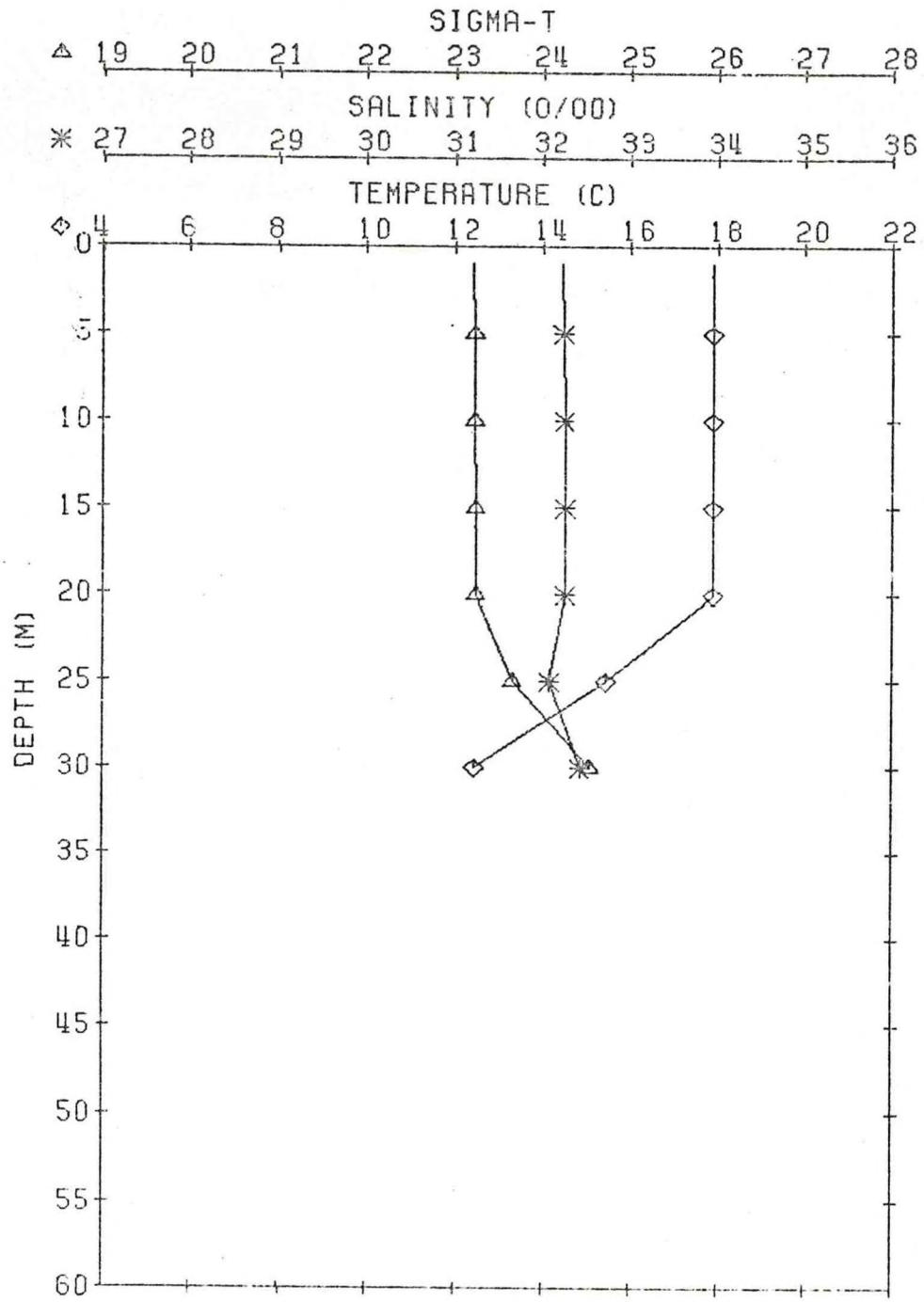
KELEZ CRUISE XWCC-6 STATION 88 OCT. 3, 1975



KE CRS/STA 06/ 89 LAT 39 35.9N; LONG 73 16.3W GMT 12.9 10/ 3/75
DEPTH 36 AIR D/W 10.0/ . BARO 29.5 VIS 7 CLD TYP/CVR 6/6
WETHR 1 WIND DIR/SPD 33/20 SEA DIR/HT 41/3 SWELL DIR/HT 15/3

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	17.87	32.21	23.19			5.66	.02	.00	.00	.31
5	17.87	32.23	23.21							
10	17.88	32.24	23.21			5.57	.04	.00	.00	.23
15	17.87	32.24	23.22							
20	17.87	32.24	23.22			5.42	.05	.53	.00	.27
25	15.43	32.06	23.64							
30	12.41	32.42	24.53			4.08	.80	.74	9.02	1.02

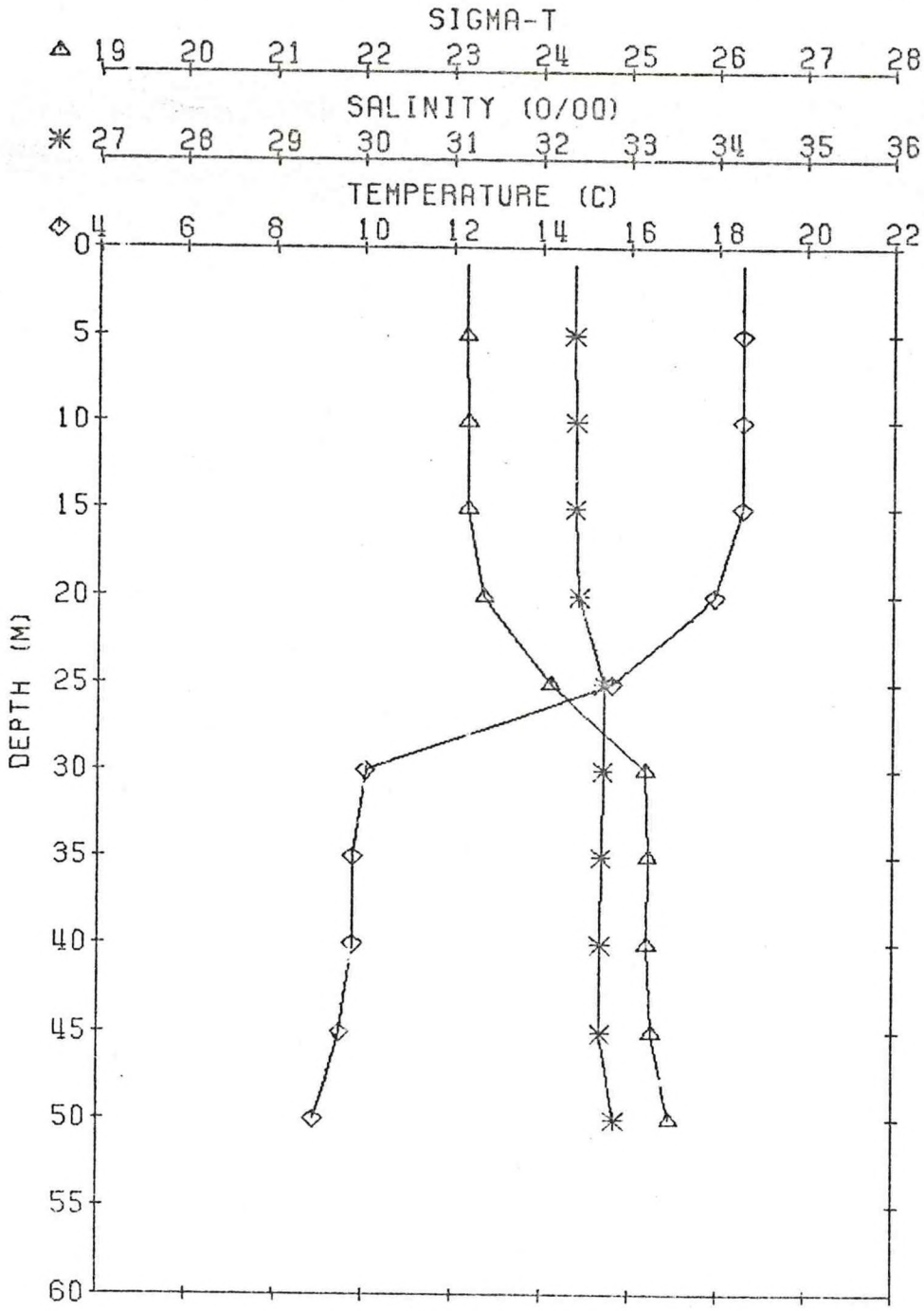
KELEZ CRUISE XWCC-6 STATION 89 OCT. 3, 1975



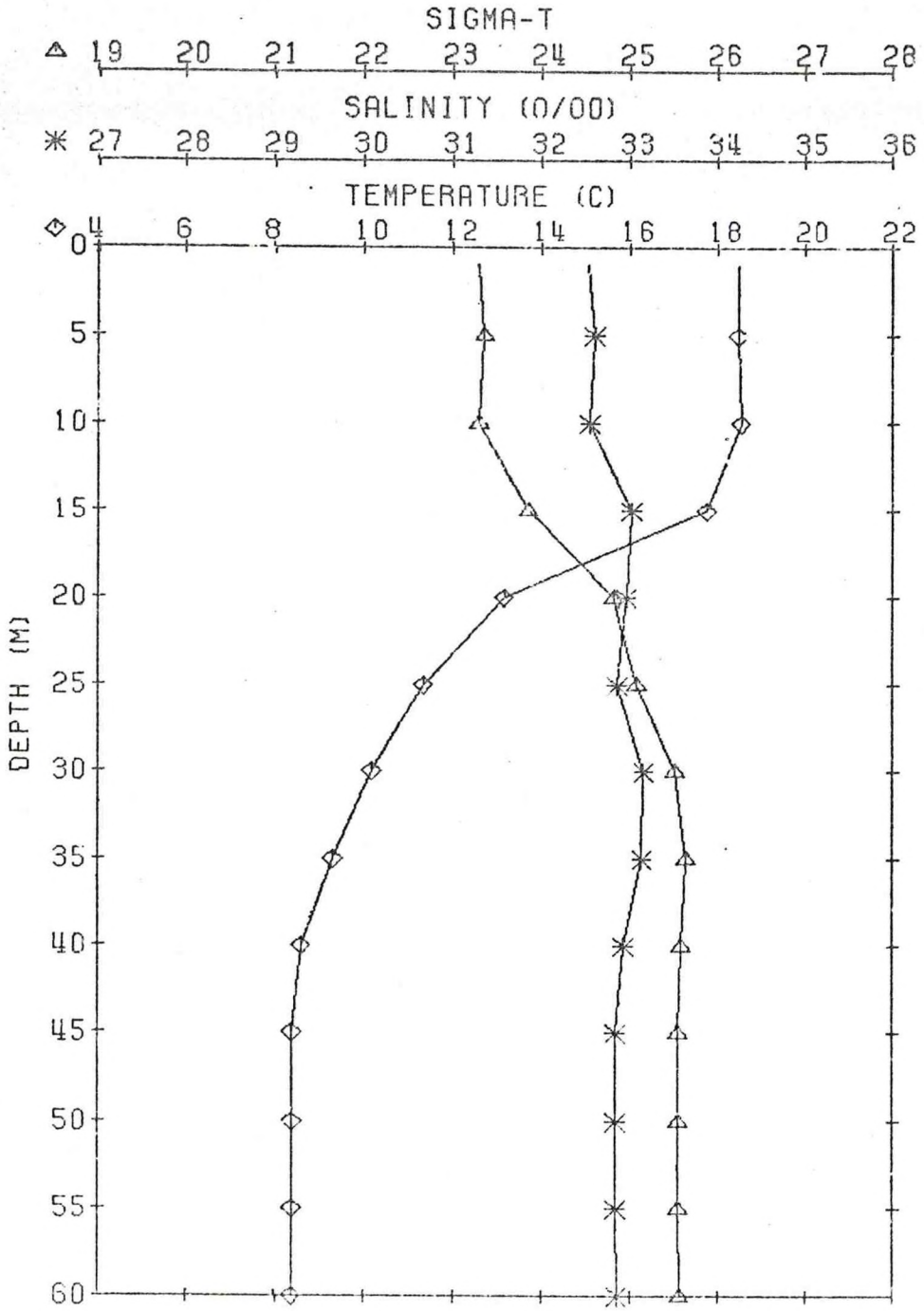
KE CRS/STA 06/ 90 LAT 39 32.8N; LONG 73 2.9W GMT 11.1 10/ 3/75
DEPTH 65 AIR D/W 10.6/ . BARO 27.5 VIS 7 CLD TYP/CVR 6/7
WETHR 1 WIND DIR/SPD 34/17 SEA DIR/HT 31/3 SWELL DIR/HT 15/3

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.53	32.36	23.14			5.75	.00	.04	.00	.00
5	18.53	32.35	23.14							
10	18.53	32.37	23.15				.00	.04	.00	.00
15	18.52	32.37	23.16							
20	17.90	32.41	23.34			6.12	.00	.04	.00	.21
25	15.58	32.69	24.09							
30	10.04	32.69	25.17			4.88	.07	2.00	8.93	.80
35	9.77	32.68	25.20							
40	9.76	32.66	25.19			4.84	.11	3.25	11.39	.97
45	9.49	32.67	25.24							
50	8.90	32.82	25.45			4.86	.12	3.50	11.77	.93

KELEZ CRUISE XWCC-6 STATION 90 OCT. 3, 1975



KE CRS/STA 06/ 91 LAT 39 27.4N; LONG 72 49.7W GMT 22.9 10/ 2/75
DEPTH 61 AIR D/W 15.6/ . BARO 15.0 VIS 7 CLD TYP/CVR 6/8
WETHR 2 WIND DIR/SPD 31/30 SEA DIR/HT 33/3 SWELL DIR/HT 18/2

DEP	TEMP	SAL	SIGT	TRAN	PH	O2	NO2	NO3	SIO3	PO4
1	18.46	32.52	23.29			5.88	.01	8.55	.00	.15
5	18.46	32.59	23.34							
10	18.51	32.53	23.29			5.95	.01	.00	.00	.25
15	17.73	33.01	23.84							
20	13.13	32.95	24.80			6.39	.00	.00	.00	.42
25	11.31	32.84	25.07							
30	10.16	33.14	25.50			5.47	.01	.00	3.98	1.27
35	9.30	33.12	25.63							
40	8.59	32.91	25.57			5.08	.04	3.95	6.26	1.56
45	8.39	32.83	25.54							
50	8.38	32.83	25.54			5.10	.02	4.33	5.56	1.12
60	8.37	32.84	25.55			5.15	.03	3.18	8.19	1.58

KELEZ CRUISE XWCC-6 STATION 91 OCT. 2, 1975