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49

Oceanographic data: Prydz Bay region - FIBEX, MV Nella Dan, January-March 1981

K.R. Kerry, E.J. Woehler, S. Wright, Z. Dong

ANTARCTIC DIVISION
DEPARTMENT OF SCIENCE

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Since the summer season of 1980-81, six cruises have been undertaken by Australia to obtain data to contribute to the international BIOMASS (Biological Investigation of Marine Antarctic System and Stocks) program.

Cruise	Dates in study area	Principal objectives
FIBEX	20 Jan 1981 - 15 Mar 1981	Acoustic survey for krill
GEOSCIENCE	20 Jan 1982 - 3 Mar 1982	Seismic survey
ADBEX I	19 Nov 1982 - 17 Dec 1982	Krill biology, oceanography
ADBEX II (= SIBEX I)	7 Jan 1984 - 12 Feb 1984	Krill biology
SIBEX II	3 Jan 1985 - 26 Jan 1985	Krill distribution, phytoplankton
ADBEX III	21 Sep 1985 - 13 Dec 1985	Seal survey

This issue is one of a number of reports dealing with oceanographic data from these cruises that will appear in the ANARE Research Notes series.

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OCEANOGRAPHIC DATA: PRYDZ BAY REGION -
FIBEX, MV NELLA DAN, JANUARY-MARCH 1981

by

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ABSTRACT

Fifty-two CTD stations were taken during the FIBEX cruise to Prydz Bay, January-March 1981 as a supplement to the krill research program. Two stations were taken daily close to solar noon and solar midnight. Casts were made to 2000 m or to near bottom if shallower. In situ salinity, temperature and sigma-t are tabulated for standard depths, and shown graphically. T/S plots for each station are given.

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1. INTRODUCTION

Oceanographic data were obtained during the First International BIOMASS Experiment (FIBEX) cruise on MV Nella Dan (Figure 1), January-March 1981. The cruise covered the Southern Ocean south of 60°S to the Antarctic coast and between 60°E and 90°E. The cruise track is given in Figure 3 and CTD stations are shown in Figure 4. The cruise track was established for the primary task of an acoustic survey for krill and to enable visits to the Australian Antarctic stations, Mawson and Davis. The only variation to the cruise track permitted was that dictated by weather and the presence of ice.

This Research Note is the first of a series presenting oceanographic data collected on an annual basis since 1980-81. An analysis of the data has been published by Smith et al. (1984).

The oceanographic program was usually subordinate to other programs and so the location, timing and depth of stations was not always ideal for oceanographic purposes.

2. METHODS

The cruise was undertaken on MV Nella Dan which is a 73 m long ice strengthened ship, modified in 1980 to allow research-scale trawling from the stern and the deployment of a CTD and rosette water sampling system. Laboratories include a wet laboratory aft and an electronics and computer laboratory forward. Container laboratories for phytoplankton research and chemical analysis are used as required. Although Nella Dan is not fitted with bow or stern thrusters, deployment and recovery of the rosette system is possible in sea state 6. Work amongst the pack-ice was possible and deployment was sometimes carried out with the ship almost completely surrounded by ice.

2.1 INSTRUMENTATION AND SAMPLING PROCEDURES/COLLECTION OF DATA

Continuous vertical profiles of conductivity and temperature were obtained using a Neil Brown Mark III CTD (conductivity, temperature, depth probe #2568) system (Figure 2) attached to a rosette water sampler (InterOcean). The level of each variable was displayed in real time on deck and recorded on audio cassette.

Two stations were occupied per day, one close to solar noon and the other at solar midnight.

Measurements were made on the downcast and water samples taken on the upcast. An attempt was made to lower the CTD as close as possible to 1 m/sec. Depending on the readings obtained on the downcast, depths were chosen for water sampling on the upcast. Between sampling the CTD was raised at variable speeds between 1 and 2 m/sec. At each water sampling station readings of conductivity and temperature were made. Water samples were analysed on board for salinity and oxygen. Other samples were taken for later analysis of nitrate, nitrite, silicate, chlorophyll a and other pigments. These data are reported elsewhere in this series (Humphries 1987). Hydrographic stations are listed in Table 1. The depth



Figure 1. MV Nella Dan. (Antarctic Division photograph).



Figure 2. CTD operations. (Antarctic Division photograph).

of each cast was usually to 2000 m or to near bottom if shallower. Deeper stations were not possible due to time constraints.

2.2 TEMPERATURE

The Neil Brown Mark III CTD measured temperature with a platinum resistance thermometer which had a resolution of 0.0005°C and an accuracy of + 0.005°C over the temperature range of -3 to +32°C.

After three months use the instrument was recalibrated by the manufacturer and was demonstrated at that time to have an error of +0.006°C. An attempt was made to use reversing thermometers to check the accuracy. This proved difficult since the rubber used on the thermometer frames lost its elasticity at the sub-zero temperatures encountered and the equipment on many occasions failed to reverse when triggered.

2.3 CONDUCTIVITY

The conductivity sensor measured conductivity over the range of 1-65 mmhos with an accuracy of + 0.005 mmho and a resolution of 0.001 mmho. The stability of the sensor was 0.003 mmho/month. Water samples were taken at selected depths for use in calibration. However due to problems with the calibration of the inductively coupled salinometer, results were not used and no corrections were applied to the CTD data.

2.4 PRESSURE

The pressure sensor had a depth range of 0-3200 dbar with an accuracy of + 3.2 dbars and a resolution of 0.05 dbar. The stability of this system was approximately 0.1% per month. For the purpose of graphical representation the depth in metres was taken to equal the pressure in dbar.

2.5 PROCESSING OF DATA

The outputs from each of the temperature, conductivity and pressure depth sensors were transmitted as a data set to the deck unit at the rate of thirty data sets per second. Data were initially recorded on audio cassette then subsequently replayed to produce digital, nine track magnetic tapes by a PDP 11/23. The data tapes were then processed as described below on a VAX 11/750 at the Antarctic Division and the CSIRO Division of Oceanography.

For each CTD downcast, an uncalibrated, de-spiked file was generated. A recursive filter was used to compensate for sensor mismatch and all rising data during a down cast were eliminated.

The data files were then used to generate 2 dbar averages for in situ temperature, salinity, sigma-t, specific volume anomaly and geopotential anomaly (Millard 1982, Perkins and Lewis 1980, Fofonoff and Millard 1983, White and Church in prep.). These averages were centred on even, integral depths. Averages were only calculated for intervals with eight or more valid data points. The means for temperature and conductivity were calculated for the interval and salinity calculated for the mid-point of the pressure interval from the means of temperature and conductivity. Software used in the processing of data was supplied by CSIRO Division of Oceanography. See White and Church (in prep.) for a mathematical description of the methodology.

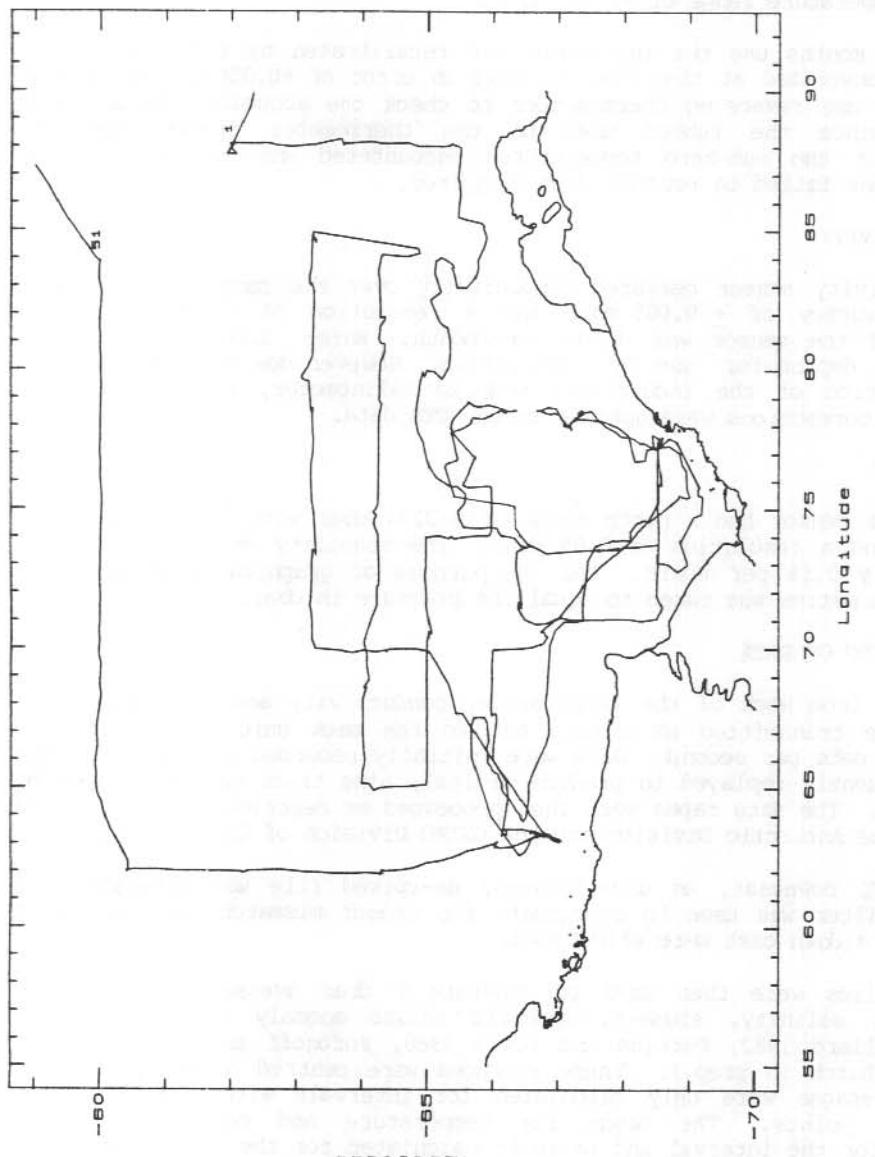


Figure 3. FIBEX cruise track.

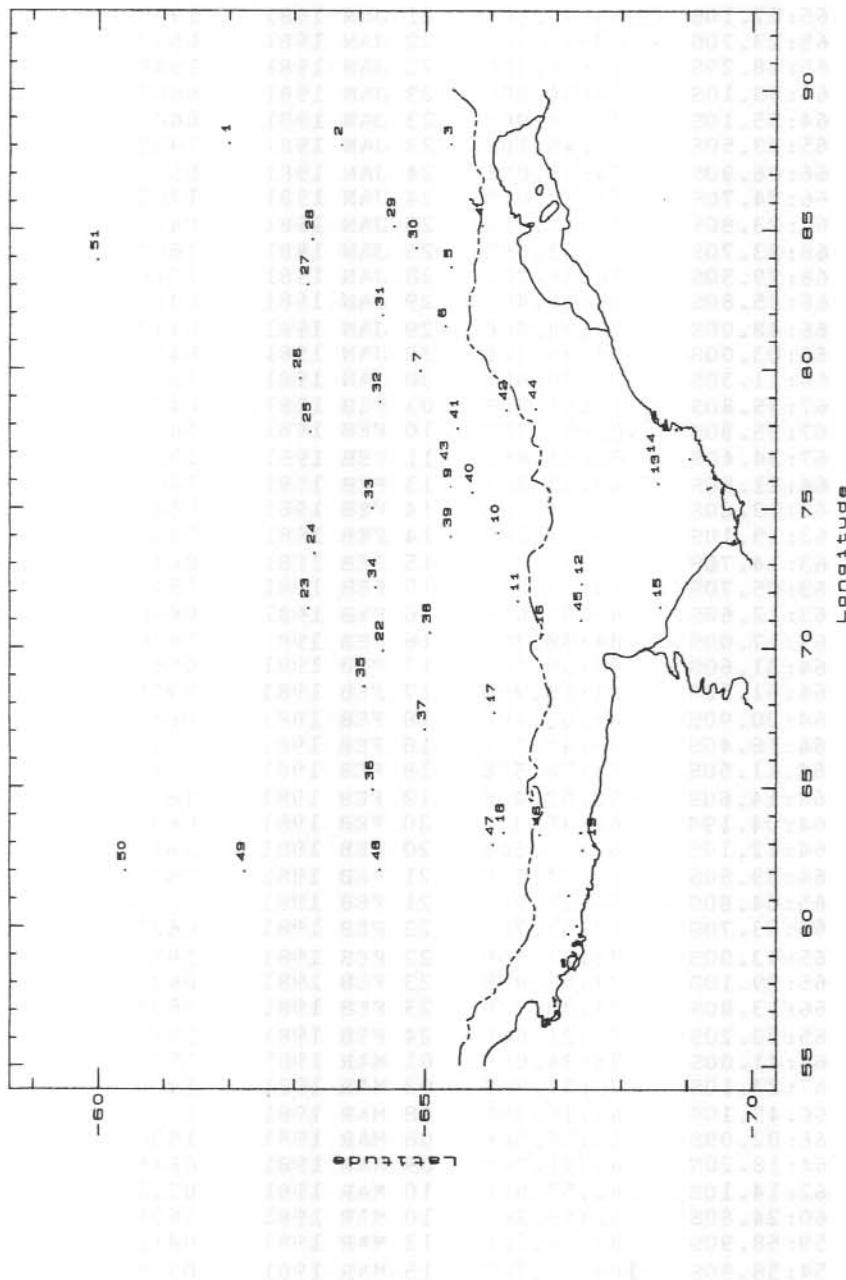


Figure 4. Location of CTD stations. Due to the proximity of some stations to each other, it was not possible to map all of the stations, but their exact locations are given in Table 1. The station numbers of those excluded are listed here, in brackets, following the number of the proximate mapped station: 19(20,21); 7(8). The dotted line marks the 1000 m contour.

Table 1. Hydrographic stations, giving position, GMT date and time.

CTD Station	Position	Date	Time (GMT)
1	61:59.60S	88:04.60E	20 JAN 1981 0600
2	63:43.00S	88:00.00E	20 JAN 1981 1800
3	65:23.60S	88:03.00E	21 JAN 1981 0500
4	65:52.10S	85:07.30E	21 JAN 1981 1750
5	65:23.70S	83:37.90E	22 JAN 1981 0625
6	65:18.29S	81:29.80E	22 JAN 1981 1945
7	64:55.10S	79:54.80E	23 JAN 1981 0600
8	64:55.10S	79:54.80E	23 JAN 1981 0600
9	65:23.50S	75:45.10E	23 JAN 1981 1935
10	66:06.90S	74:05.00E	24 JAN 1981 0515
11	66:24.70S	71:38.09E	24 JAN 1981 1700
12	67:23.80S	72:15.40E	25 JAN 1981 0415
13	68:33.70S	75:53.00E	25 JAN 1981 1600
14	68:29.50S	76:38.20E	28 JAN 1981 1716
15	68:35.80S	71:26.40E	29 JAN 1981 0419
16	66:48.00S	70:28.00E	29 JAN 1981 0417
17	66:03.00S	67:39.30E	30 JAN 1981 0417
18	66:11.30S	63:20.60E	30 JAN 1981 1615
19	67:35.80S	62:51.20E	03 FEB 1981 0400
20	67:35.80S	62:51.30E	10 FEB 1981 1800
21	67:34.40S	62:53.80E	11 FEB 1981 1900
22	64:21.50S	69:53.20E	13 FEB 1981 1900
23	63:13.20S	71:24.20E	14 FEB 1981 0640
24	63:19.10S	73:21.50E	14 FEB 1981 1850
25	63:14.70S	77:43.80E	15 FEB 1981 0640
26	63:05.70S	79:39.40E	15 FEB 1981 1845
27	63:12.60S	83:00.60E	16 FEB 1981 0650
28	63:17.00S	84:38.30E	16 FEB 1981 1836
29	64:31.60S	85:05.00E	17 FEB 1981 0655
30	64:51.50S	84:19.29E	17 FEB 1981 1905
31	64:20.90S	81:53.70E	18 FEB 1981 0643
32	64:18.40S	78:48.10E	18 FEB 1981 1923
33	64:11.50S	74:58.50E	19 FEB 1981 0644
34	64:14.60S	72:07.40E	19 FEB 1981 1852
35	64:04.19S	68:35.09E	20 FEB 1981 0636
36	64:12.10S	64:52.60E	20 FEB 1981 1857
37	64:59.80S	67:04.19E	21 FEB 1981 0635
38	65:04.80S	70:31.50E	21 FEB 1981 1830
39	65:23.70S	73:57.70E	22 FEB 1981 0627
40	65:43.00S	75:33.50E	22 FEB 1981 1835
41	65:29.10S	77:51.80E	23 FEB 1981 0627
42	66:13.80S	78:30.70E	23 FEB 1981 1905
43	65:20.20S	76:21.50E	24 FEB 1981 1844
44	66:41.00S	78:34.09E	01 MAR 1981 1503
45	67:23.10S	70:57.70E	03 MAR 1981 1900
46	66:45.10S	63:16.29E	08 MAR 1981 1159
47	66:02.09S	62:54.50E	08 MAR 1981 1908
48	64:18.20S	62:01.00E	09 MAR 1981 0845
49	62:14.10S	61:57.80E	10 MAR 1981 0230
50	60:24.80S	61:59.20E	10 MAR 1981 1608
51	59:58.90S	83:54.00E	13 MAR 1981 0412
52	54:58.90S	100:01.70E	15 MAR 1981 0555

3. PRESENTATION OF RESULTS

The header information for all profile and data listings consists of cruise and station number, GMT date and time, position, CTD depth and bottom depth. The data listing for each station presents values for temperature, salinity and sigma-t at NODC standard depths and shallowest observed depth. A t/s profile for all stations is given in Figure 5, as well as individual stations. CTD profiles are presented in two sections, 0-600 m and 600 m - bottom.

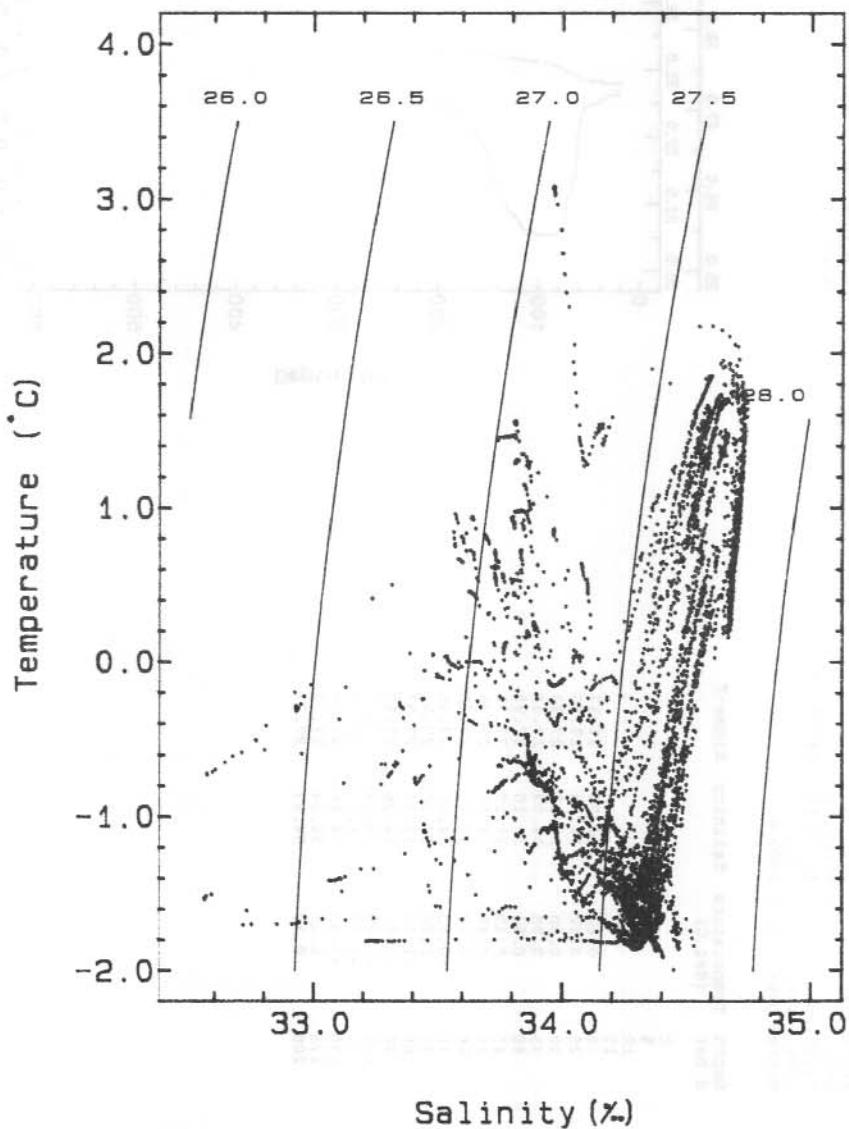
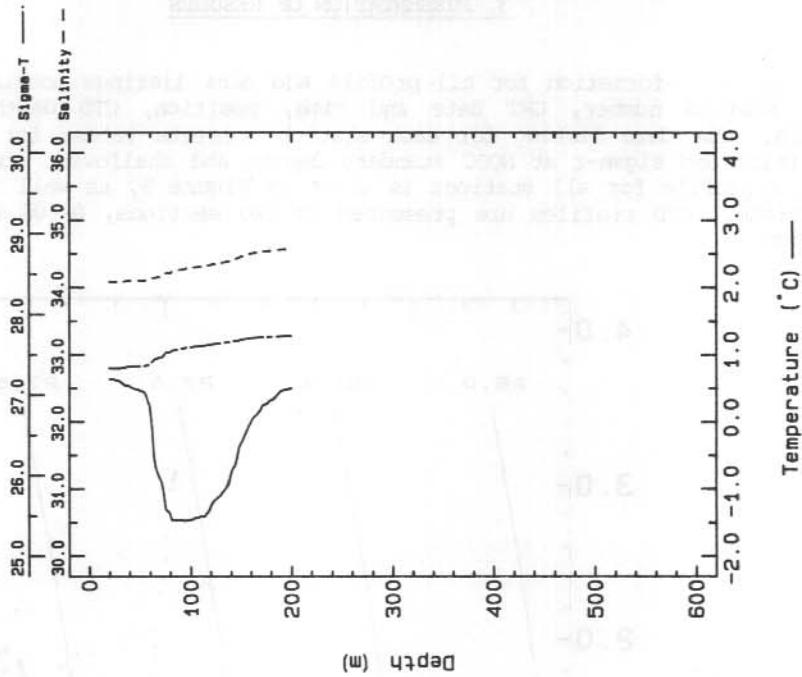


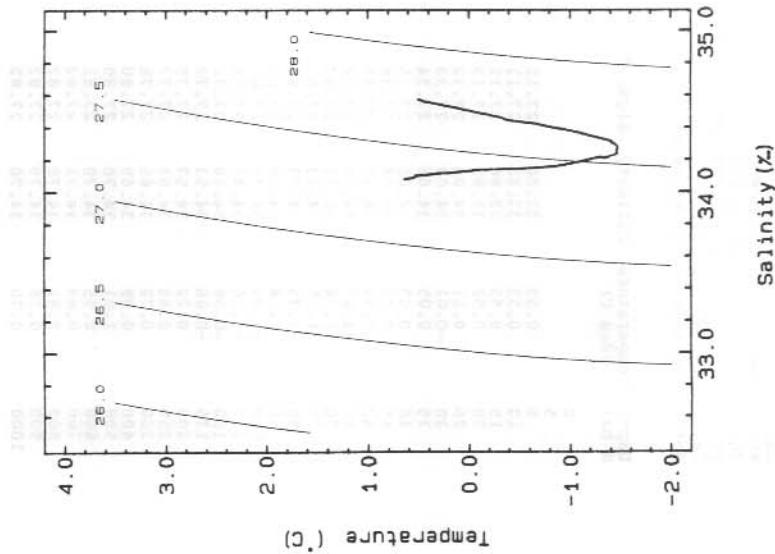
Figure 5. T/S data from all stations.

Cruise : FIBEX Station : 1
 Station number : 1
 Date : 20 JAN 1981
 Start Time : 0600 GMT
 Ship : NELLA DAN
 Position : 61:59.60S 88:04.60E
 Cast Depth (m) : 202
 Bottom Depth (m) : 2000 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0			
5			
10			
15	0.63	34.08	27.33
20	0.62	34.08	27.33
25	0.60	34.08	27.33
30	0.60	34.08	27.33
35	0.55	34.09	27.34
40	0.53	34.10	27.35
45	0.49	34.10	27.36
50	0.46	34.10	27.36
60	0.22	34.11	27.38
70	-0.85	34.16	27.46
75	-1.20	34.20	27.51
80	-1.37	34.21	27.53
90	-1.47	34.26	27.57
100	-1.46	34.29	27.59
125	-1.16	34.35	27.64
150	-0.32	34.46	27.69
175	0.27	34.54	27.72
200	0.50	34.57	27.73

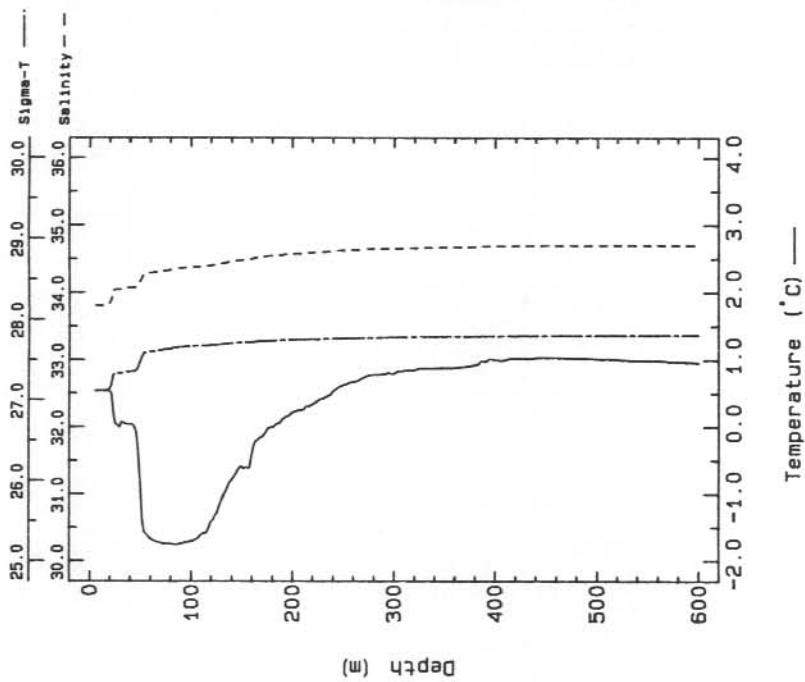


Cruise: FIBEX Station: 1
20 JAN 1981 0600 GMT
Latitude : 61:59:60S
Longitude: 88:04:50E
Depth: CTD 202 m Bottom 2000 m



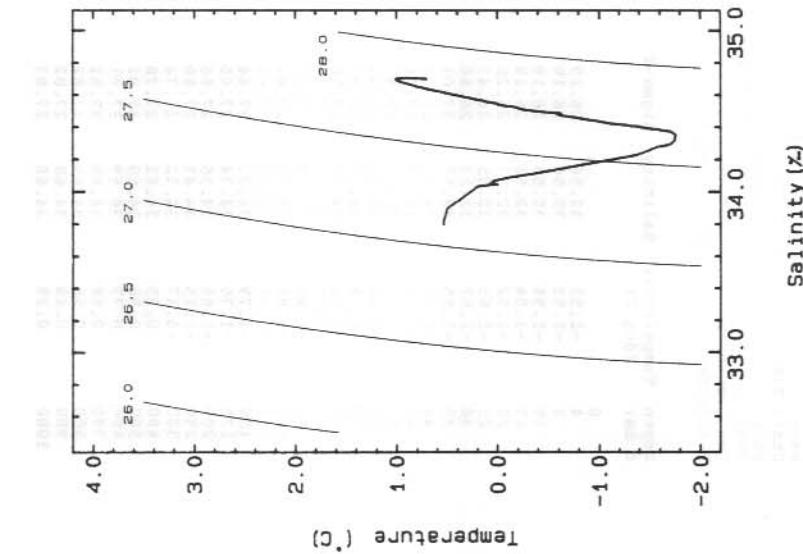
Cruise : FIBEX Station 2
 Station number : 2
 Date : 20 JAN 1981 1800 GMT
 Start Time : 1800 GRT
 Ship : NEELA DAN
 Position : 63°43.00S 88°00.00E
 Cast Depth (m) : 1002 m Bottom NR
 Bottom Depth (m) : Not Recorded

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0		
5	0.53	33.80	27.11
6	0.53	33.80	27.11
10	0.53	33.80	27.11
15	0.53	33.80	27.11
20	0.52	33.83	27.13
25	0.11	34.04	27.32
30	-0.01	34.04	27.33
35	0.05	34.06	27.34
40	0.03	34.06	27.35
45	-0.03	34.08	27.36
50	-0.85	34.17	27.47
60	-1.67	34.29	27.60
70	-1.74	34.31	27.62
75	-1.75	34.33	27.63
80	-1.75	34.33	27.64
90	-1.74	34.36	27.66
100	-1.70	34.37	27.67
125	-1.30	34.41	27.69
150	-0.58	34.48	27.72
175	-0.06	34.53	27.73
200	0.22	34.57	27.75
250	0.62	34.63	27.77
300	0.79	34.65	27.78
400	0.99	34.69	27.80
500	1.01	34.70	27.80
600	0.95	34.70	27.81
700	0.89	34.71	27.82
800	0.82	34.70	27.82
900	0.76	34.70	27.82
1000	0.70	34.70	27.82



Cruise: FIBEX Station: 2
20 JAN 1981 1800 GMT
Latitude : 63: 43.00S
Longitude: 88: 00.00E
Depth: CTD 10002 m Bottom NR

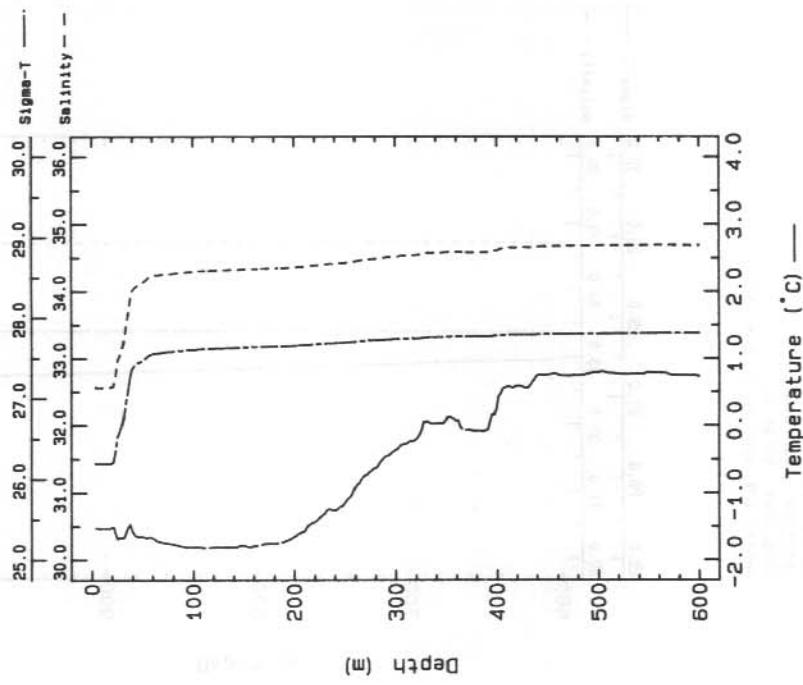
Cruise : FIBEX Station 2
20 JAN 1981 1800 GMT
Latitude 63: 43.00S
Longitude 88: 00.00E
Depth: CTD 10002 m Bottom NR



Cruise : FIBEX Station 3
 Station number : 3 Date : 21 JAN 1981
 Start Time : 0500 GMT Latitude : 65° 23' 60S
 Ship : NELIA DAN Longitude : 88° 03' 00E
 Position : 65°23.60S 88°03.00E
 Cast Depth (m) : 1002
 Bottom Depth (m) : Not Recorded

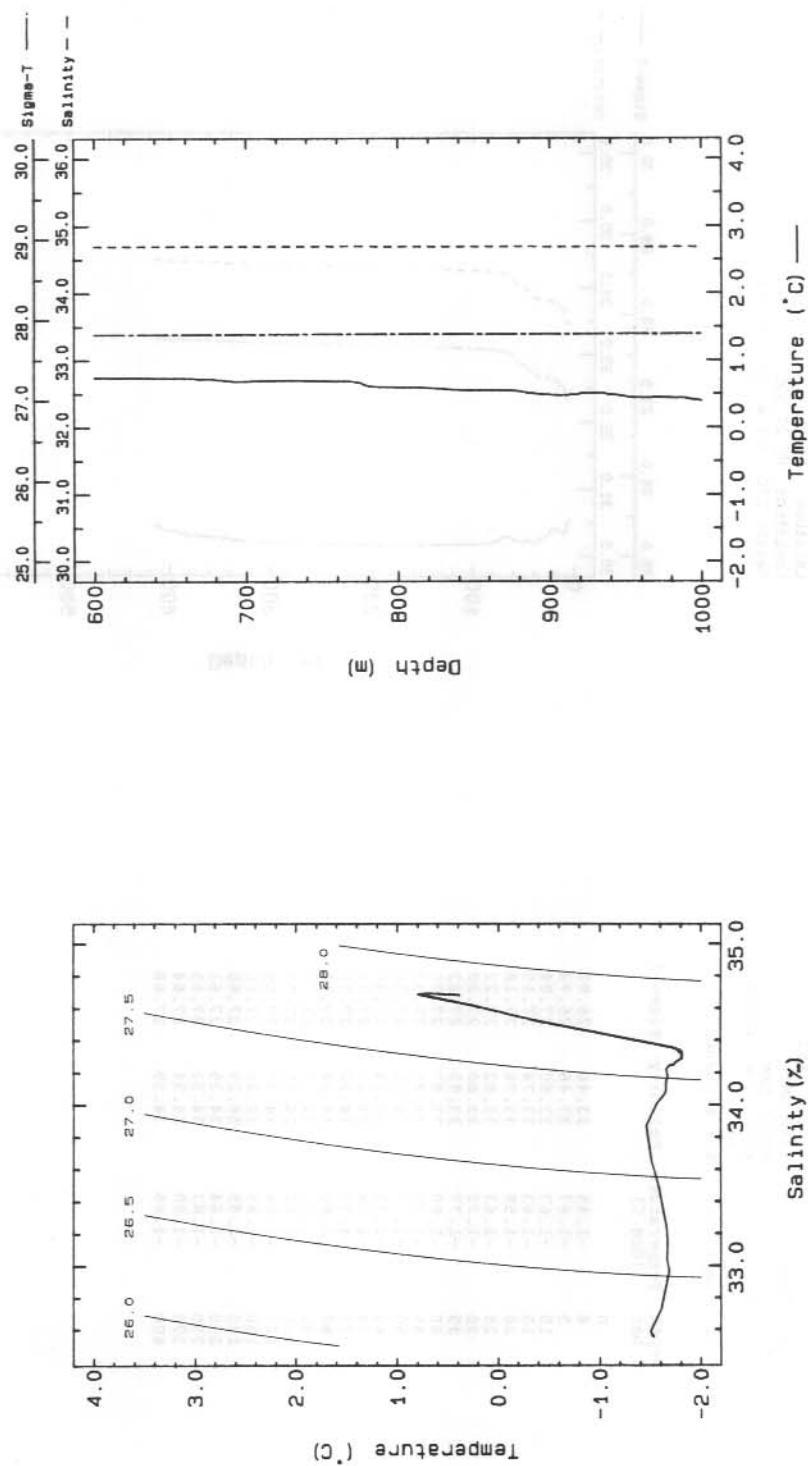
Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	-1.53	32.56	26.19
4	-1.53	32.56	26.19
5	-1.53	32.56	26.19
10	-1.54	32.56	26.19
15	-1.54	32.56	26.19
20	-1.52	32.57	26.20
25	-1.65	32.85	26.43
30	-1.67	33.13	26.66
35	-1.55	33.57	27.01
40	-1.57	34.01	27.37
45	-1.66	34.09	27.44
50	-1.66	34.13	27.47
60	-1.68	34.24	27.56
70	-1.75	34.25	27.57
75	-1.76	34.26	27.58
80	-1.77	34.27	27.58
90	-1.80	34.28	27.60
100	-1.81	34.30	27.61
125	-1.81	34.32	27.63
150	-1.79	34.33	27.64
175	-1.76	34.34	27.65
200	-1.65	34.36	27.66
250	-1.15	34.43	27.69
300	-0.37	34.52	27.74
400	0.25	34.62	27.78
500	0.80	34.69	27.81
600	0.73	34.69	27.81
700	0.68	34.69	27.82
800	0.58	34.69	27.82
900	0.48	34.68	27.82
1000	0.39	34.68	27.83

Cruise : FIBEX Station 3
 21 JAN 1981 0500 GMT
 Latitude 65° 23' 60S
 Longitude 88° 03' 00E
 Depth: CTD 1002 m Bottom NR



Cruise: FIBEX Station: 3
21 JAN 1981 0500 GMT
Latitude: 65° 23' 60S
Longitude: 88° 03' 00E
Depth: CTD 1002 m Bottom NR

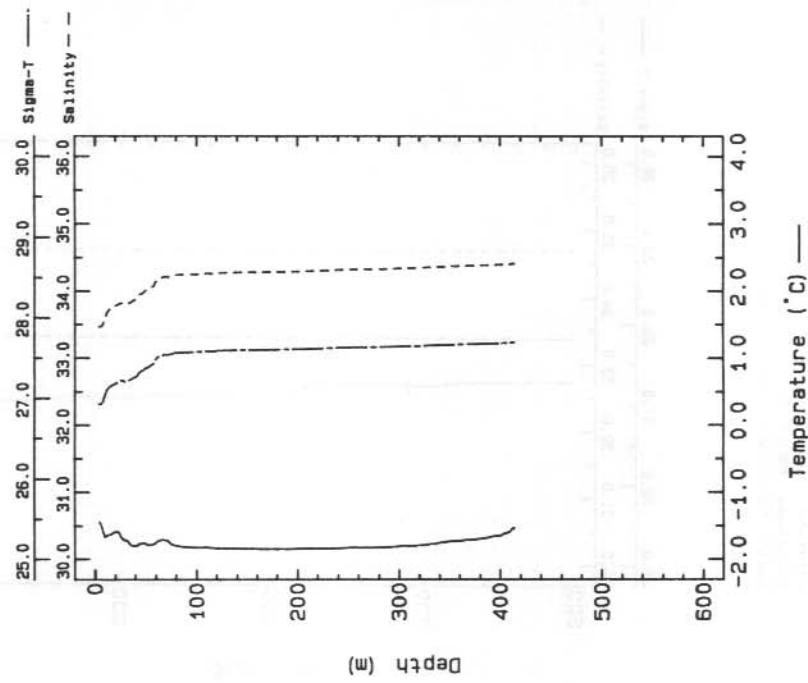
Cruise : FIBEX Station 3
21 JAN 1981 0500 GMT
Latitude 65° 23' 60S
Longitude 88° 03' 00E
Depth: CTD 1002 m Bottom NR



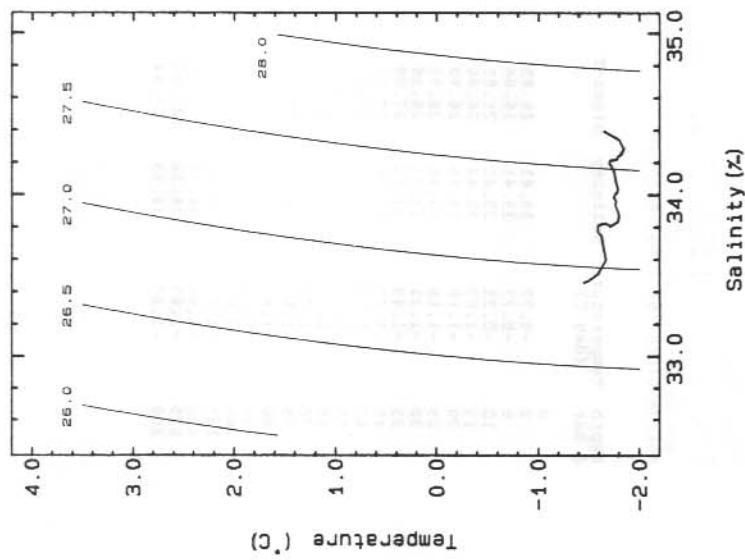
Cruise : FIBEX Station 4
 Date : 21 JAN 1981 1750 GMT
 Start Time : 1750 GMT
 Ship : NELLA DAN
 Position : 65°52'.10S 85°07'.30E
 Cast Depth (m) : 416
 Bottom Depth (m) : Not Recorded

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	-1.15	33.46	26.92
5	-1.47	33.46	26.92
10	-1.67	33.60	27.04
15	-1.53	33.74	27.15
20	-1.59	33.78	27.18
25	-1.63	33.82	27.22
30	-1.72	33.80	27.20
35	-1.77	33.83	27.23
40	-1.80	33.87	27.26
45	-1.77	33.95	27.33
50	-1.77	34.01	27.38
60	-1.75	34.14	27.48
70	-1.71	34.22	27.54
75	-1.77	34.22	27.55
80	-1.80	34.24	27.57
90	-1.82	34.25	27.57
100	-1.83	34.25	27.57
125	-1.84	34.27	27.59
150	-1.85	34.28	27.60
175	-1.85	34.29	27.60
200	-1.84	34.29	27.61
250	-1.83	34.32	27.63
300	-1.80	34.34	27.64
400	-1.65	34.39	27.68

Cruise : FIBEX Station 4
 Date : 21 JAN 1981 1750 GMT
 Latitude 65°52'.10S
 Longitude 85°07'.30E
 Depth: CTD 416 m Bottom NR



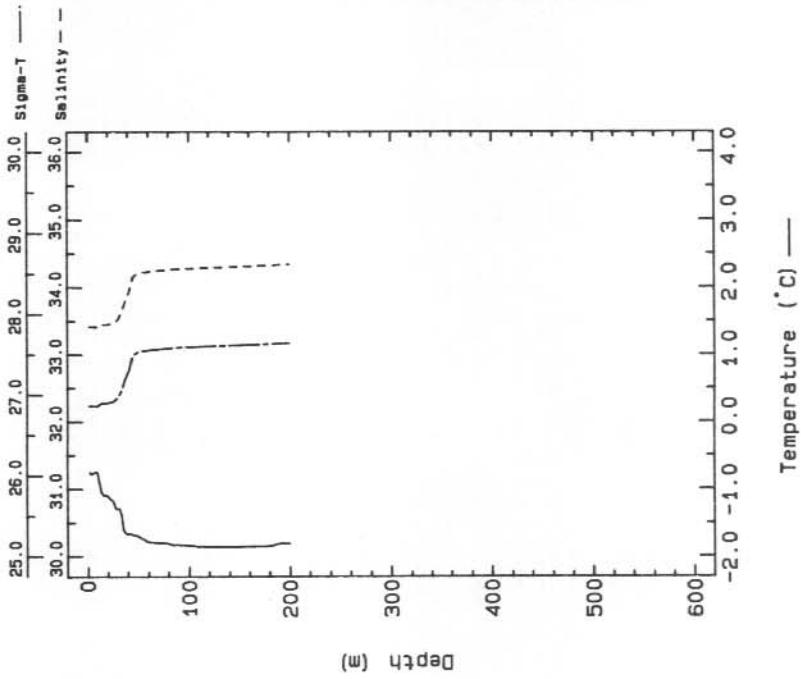
Cruise: FIBEX Station: 4
21 JAN 1981 1750 GMT
Latitude : 65° 52.10S
Longitude: 85° 07.30E
Depth: CTD 416 m Bottom NR



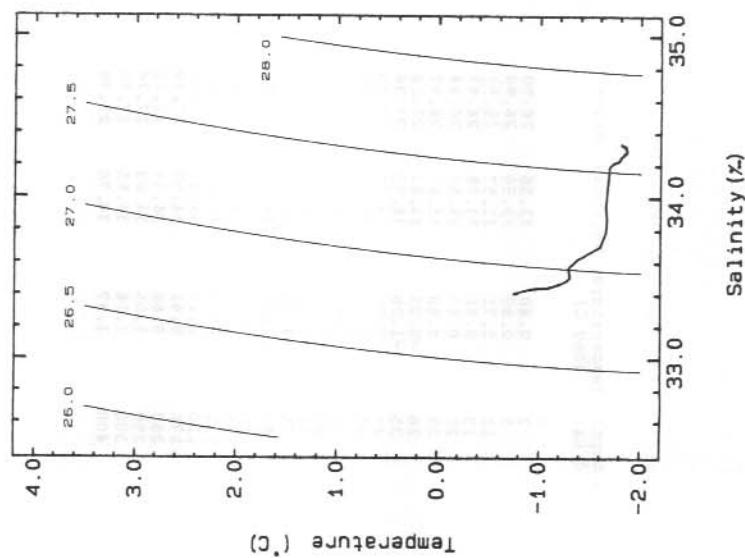
Cruise : FIBEX Station 5
 Station number : 5
 Date : 22 JAN 1981
 Start Time : 06:55 GMT
 Ship : NEELA DAN
 Position : 65°23.7' S 83°37.9' E
 Cast Depth (m) : 202 m
 Bottom Depth (m) : Not Recorded

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	-0.77	33.41	26.85
5	-0.77	33.41	26.86
10	-0.75	33.41	26.85
15	-1.07	33.44	26.90
20	-1.10	33.45	26.90
25	-1.18	33.46	26.91
30	-1.31	33.51	26.96
35	-1.49	33.66	27.09
40	-1.67	33.86	27.25
45	-1.69	34.13	27.47
50	-1.71	34.21	27.53
60	-1.79	34.23	27.56
70	-1.81	34.25	27.57
75	-1.81	34.25	27.57
80	-1.82	34.26	27.58
90	-1.84	34.27	27.59
100	-1.85	34.28	27.59
125	-1.86	34.29	27.61
150	-1.86	34.30	27.62
175	-1.85	34.32	27.63
200	-1.82	34.33	27.64

Cruise : FIBEX Station 5
 22 JAN 1981 0625 GMT
 Latitude 65°23.7' S
 Longitude 83°37.9' E
 Depth: CTD 202 m Bottom NR



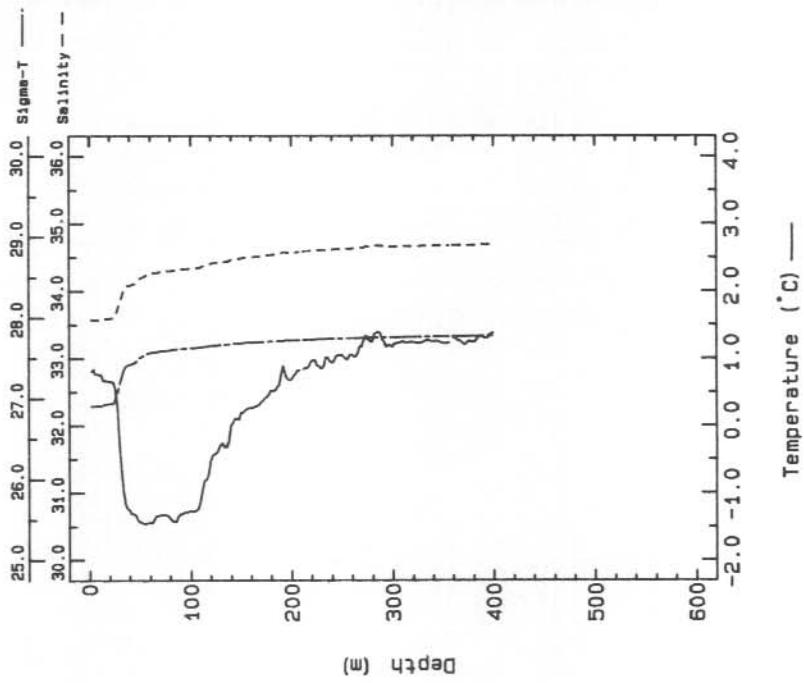
Cruise: FIBEX Station: 5
22 JAN 1981 0625 GMT
Latitude : 65° 23.7' S
Longitude: 83° 37.9' E
Depth: CTD 202 m Bottom NR



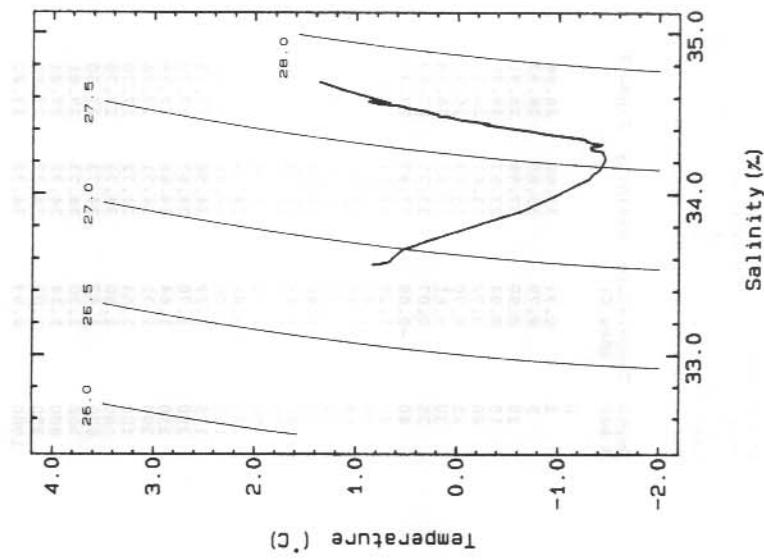
Cruise : FIBEX Station 6
 Station number : 6
 Date : 22 JAN 1981
 Start Time : 1945 GMT
 Ship : NELLA DAN
 Position : 65:18.29S 81:29.80E
 Cast Depth (m) : 402
 Bottom Depth (m) : Not Recorded

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.80	33.56	26.90
2	0.80	33.56	26.90
5	0.80	33.56	26.90
10	0.75	33.57	26.91
15	0.66	33.58	26.93
20	0.65	33.59	26.94
25	0.60	33.63	26.97
30	-0.23	33.82	27.16
35	-1.06	34.02	27.36
40	-1.26	34.08	27.42
45	-1.33	34.11	27.45
50	-1.44	34.19	27.51
60	-1.44	34.26	27.57
70	-1.32	34.29	27.59
75	-1.32	34.29	27.59
80	-1.38	34.30	27.60
90	-1.31	34.33	27.62
100	-0.27	34.34	27.63
125	-0.41	34.42	27.66
150	0.19	34.49	27.68
175	0.42	34.53	27.70
200	0.68	34.57	27.72
250	1.05	34.63	27.74
300	1.16	34.65	27.75
400	1.37	34.70	27.78

Cruise : FIBEX Station 6
 22 JAN 1981 1945 GMT
 Latitude 65:18.29S
 Longitude 81:29.80E
 Depth: CTD 402 m Bottom NR

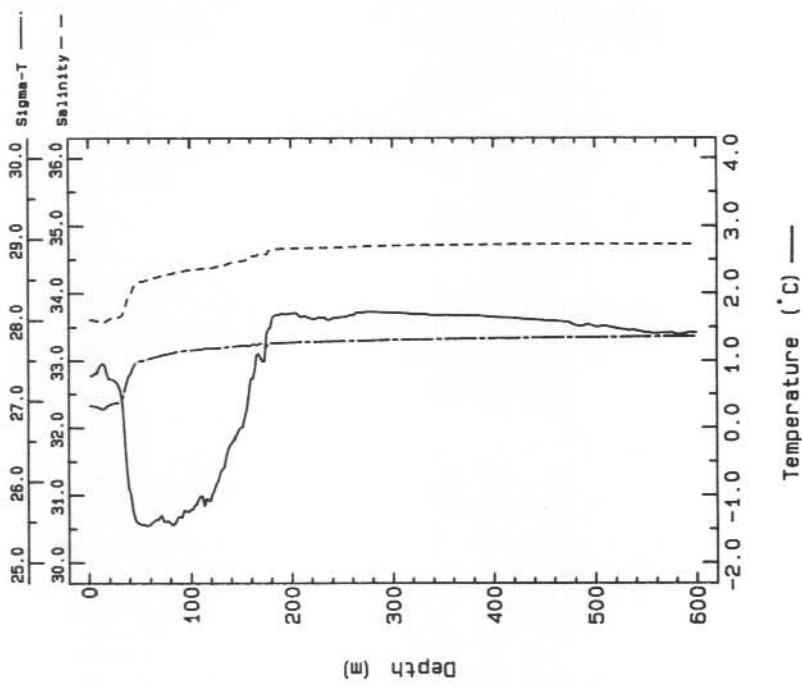


Cruise: FIBEX Station: 6
22 JAN 1981 1945 GMT
Latitude : 65.18.29S
Longitude: 81.29.80E
Depth: CTD 402 m Bottom NR



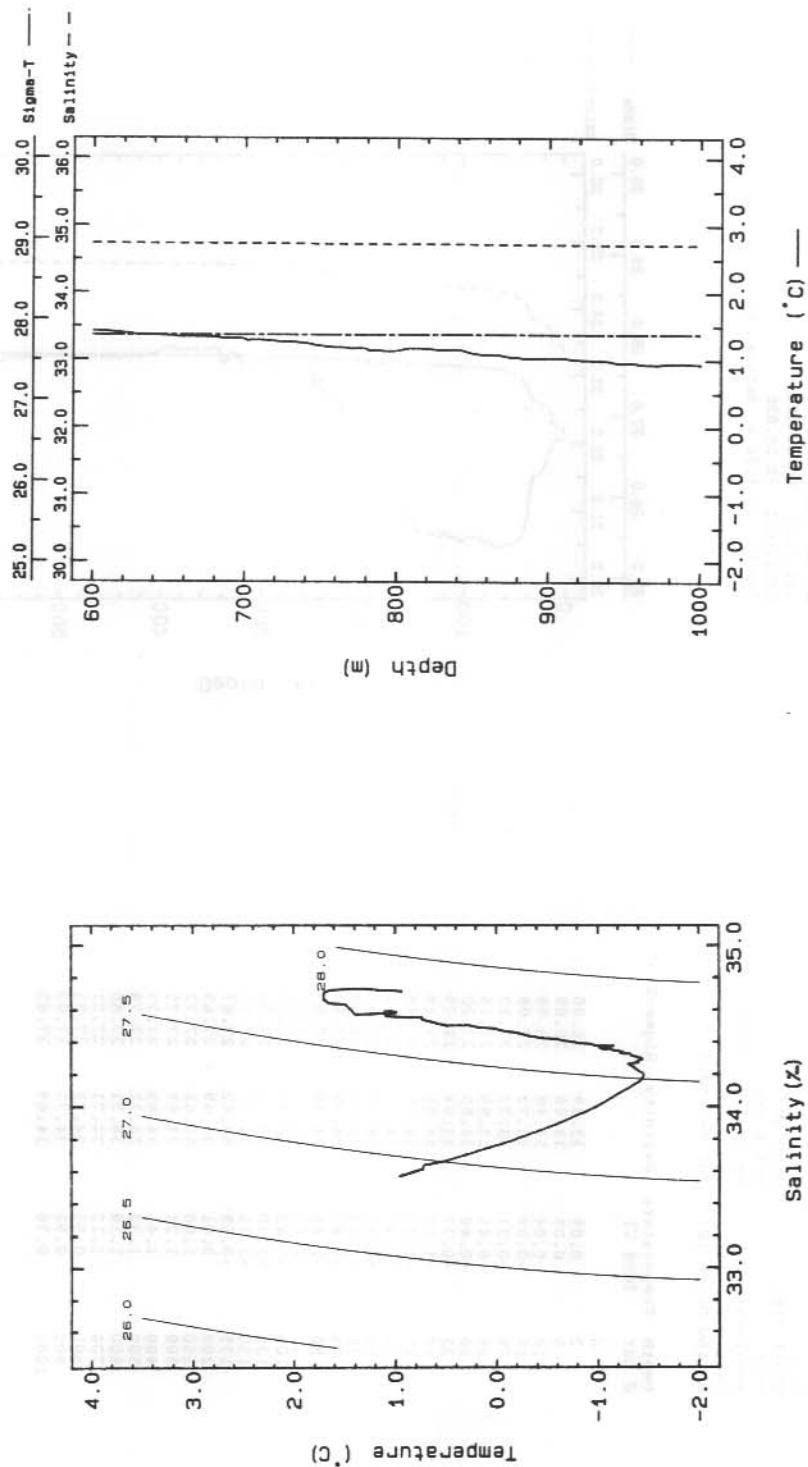
Cruise	Station number	Temperature d bar (deg C)	Salinity	Sigma-T
FIBEX	7	0.77	33.60	26.94
Station	23 JAN 1981	0.79	33.60	26.93
Date	0600 GMT	0.90	33.58	26.91
Start Time	NELIA DAN	0.94	33.57	26.90
Ship	64:55.10S	0.72	33.61	26.95
Position	79:54.80E	0.70	33.64	26.97
Cast Depth (m)	1004	0.61	33.65	26.98
Bottom Depth (m)	Not Recorded	0.07	33.75	27.09
		-0.89	33.97	27.32
		-1.28	34.11	27.44
		-1.43	34.17	27.49
		-1.45	34.21	27.53
		-0.32	34.26	27.56
		-1.40	34.27	27.58
		-1.41	34.29	27.59
		-0.33	34.32	27.62
		-1.22	34.34	27.63
		-0.88	34.39	27.66
		0.00	34.48	27.69
		1.19	34.58	27.69
		1.70	34.67	27.73
		1.64	34.68	27.75
		1.71	34.71	27.76
		1.64	34.72	27.78
		1.50	34.73	27.79
		1.42	34.73	27.80
		1.30	34.73	27.81
		1.14	34.72	27.81
		1.03	34.72	27.82
		0.93	34.72	27.82

Cruise : FIBEX Station 7
 23 JAN 1981 0600 GMT
 Latitude 64:55.10S
 Longitude 79:54.80E
 Depth: CTD 1004 m Bottom NR



Cruise: FIBEX Station: 7
23 JAN 1981 0600 GMT
Latitude : 64° 55.10S
Longitude: 79° 54.80E
Depth: CTD 1004 m Bottom NR

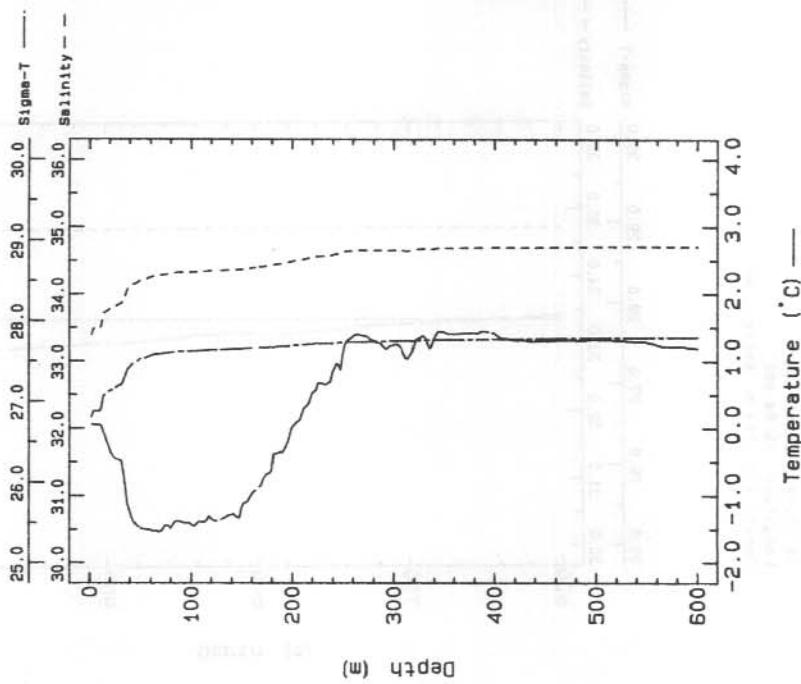
Cruise : FIBEX Station 7
23 JAN 1981 0600 GMT
Latitude 64: 55.10S
Longitude 79: 54.80E
Depth: CTD 1004 m Bottom NR



Cruise : FIBEX Station 8
 Station number : 8
 Date : 23 JAN 1981
 Start Time : 0600 GMT
 Ship : NELLA DAN
 Position : 64°55.10S 79°54.80E
 Cast Depth (m) : 1002
 Bottom Depth (m) : Not Recorded

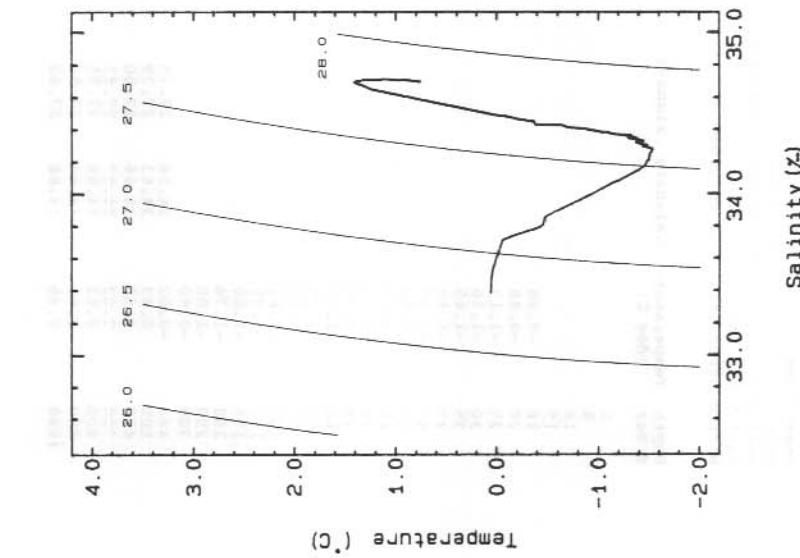
Cruise : FIBEX Station 8
 Station number : 8
 Date : 23 JAN 1981
 Start Time : 0600 GMT
 Ship : NELLA DAN
 Position : 64°55.10S 79°54.80E
 Depth: CTD 1002 m Bottom NR

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.05	33.39	26.80
2	0.05	33.48	26.88
5	0.04	33.48	26.88
10	-0.09	33.72	27.08
15	-0.31	33.77	27.13
20	-0.45	33.80	27.16
25	-0.48	33.85	27.20
30	-0.77	33.94	27.29
35	-1.22	34.08	27.42
40	-1.42	34.16	27.48
45	-1.49	34.21	27.53
50	-1.51	34.25	27.57
60	-1.53	34.28	27.60
70	-1.45	34.29	27.60
75	-1.49	34.30	27.60
80	-1.39	34.33	27.62
90	-1.43	34.33	27.62
100	-1.38	34.35	27.64
125	-1.18	34.37	27.65
150	-0.69	34.42	27.67
175	0.01	34.49	27.69
200	1.08	34.61	27.73
250	1.24	34.65	27.75
300	1.41	34.69	27.77
400	1.32	34.71	27.79
500	1.18	34.71	27.80
600	1.12	34.71	27.81
700	0.95	34.70	27.81
800	0.90	34.71	27.82
900	0.76	34.69	27.82
1000			



Cruise: FIBEX Station: 8
23 JAN 1981 0600 GMT
Latitude : 64.55.10S
Longitude: 79.54.80E
Depth: CTD 1002 m Bottom NR

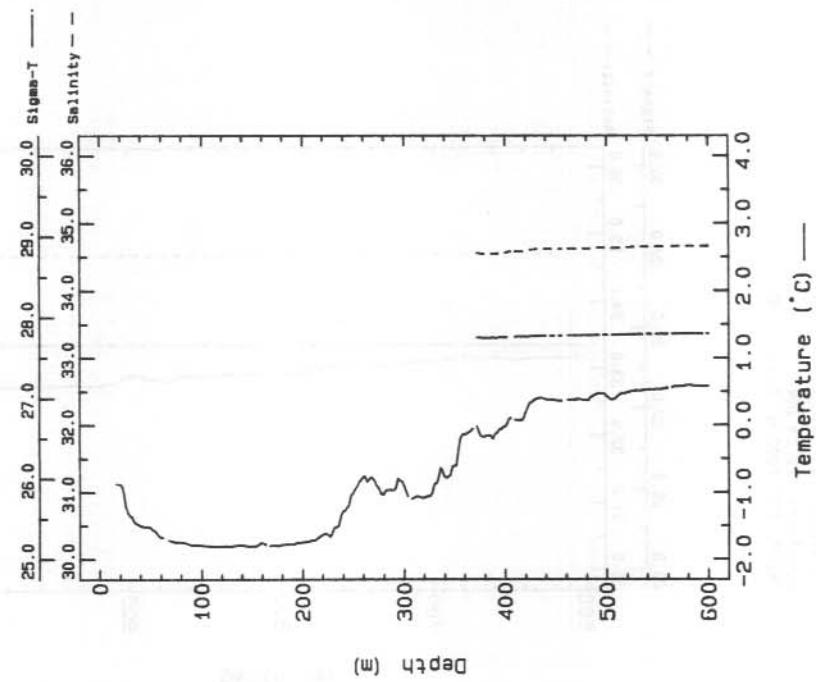
Cruise : FIBEX Station 8
23 JAN 1981 0600 GMT
Latitude 64.55.10S
Longitude 79.54.80E
Depth: CTD 1002 m Bottom NR



Cruise : FIBEX Station 9
 Station number : 9
 Date : 23 JAN 1981 1935 GMT
 Start Time : 1935 GMT
 Ship : NELDA DAN
 Position : 65°3'.50S 75°45'.10E
 Cast Depth (m) : 1002
 Bottom Depth (m) : Not Recorded

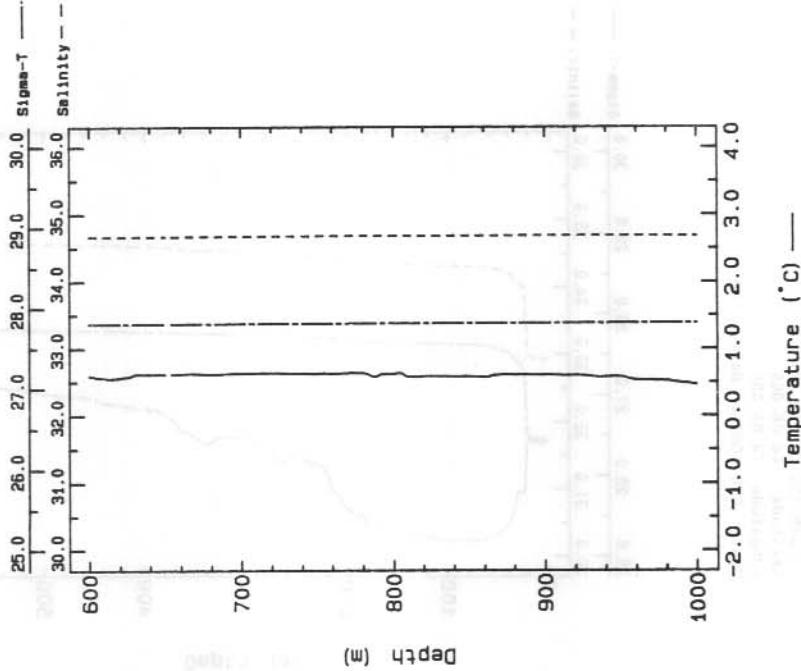
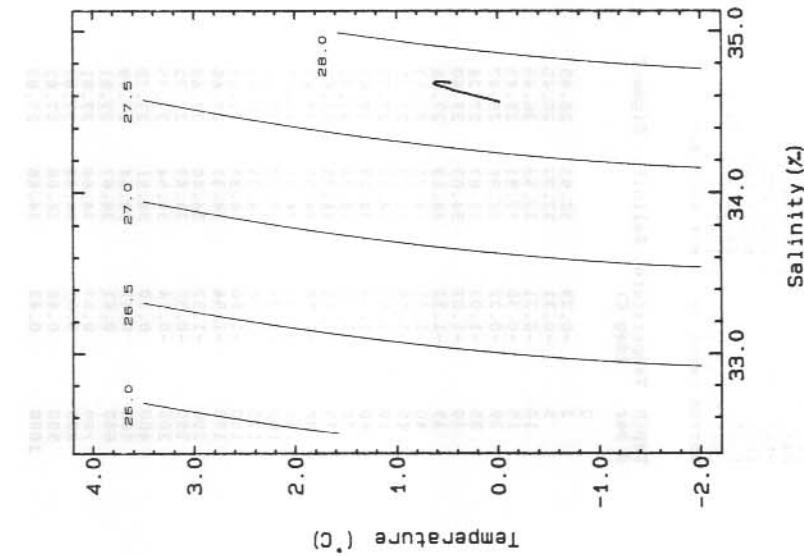
Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0	36.0	—
5	-0.88	35.0	—
10	-0.89	34.0	—
15	-1.13	33.0	—
16	-1.36	32.0	—
20	-1.45	31.0	—
25	-1.50	30.0	—
30	-1.52	29.0	—
35	-1.53	28.0	—
40	-1.67	27.0	—
45	-1.73	26.0	—
50	-1.75	25.0	—
60	-1.75	24.0	—
70	-1.75	23.0	—
75	-1.75	22.0	—
80	-1.75	21.0	—
90	-1.79	20.0	—
100	-1.80	19.0	—
125	-1.81	17.0	—
150	-1.81	15.0	—
175	-1.80	13.0	—
200	-1.74	11.0	—
250	-1.00	9.0	—
300	-0.90	7.0	—
400	-0.02	4.0	—
500	0.43	2.0	—
600	0.58	1.0	—
700	0.63	0.0	—
800	0.62	0.0	—
900	0.61	0.0	—
1000	0.46	0.0	—

Cruise : FIBEX Station 9
 23 JAN 1981 1935 GMT
 Latitude 65°23'.50S
 Longitude 75°45'.10E
 Depth: CTD 1002 m Bottom NR



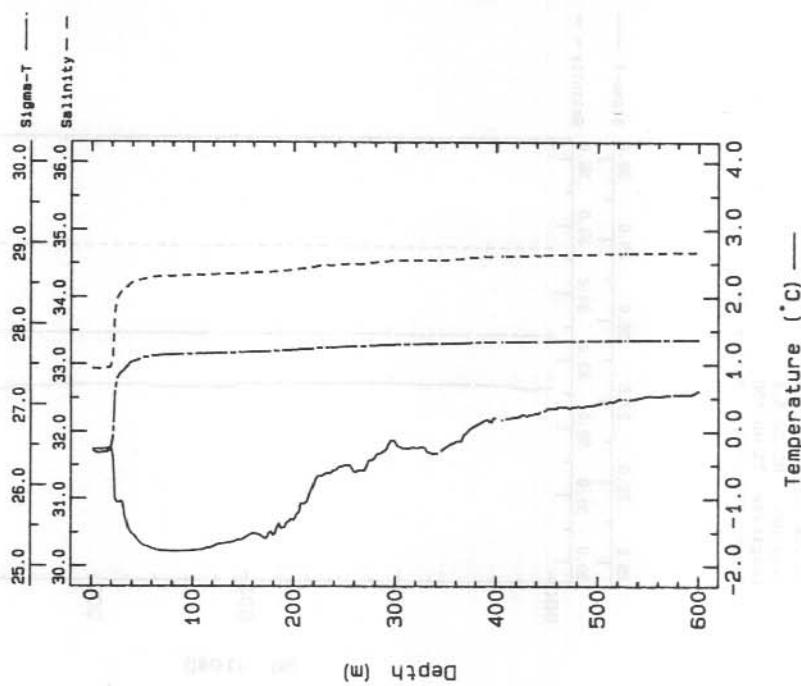
Cruise: FIBEX Station: 9
23 JAN 1981 1935 GMT
Latitude : 65° 23.50S
Longitude: 75° 45.10E
Depth: CTD 1002 m Bottom NR

Cruise : FIBEX Station 9
23 JAN 1981 1935 GMT
Latitude 65° 23.50S
Longitude 75° 45.10E
Depth: CTD 1002 m Bottom NR



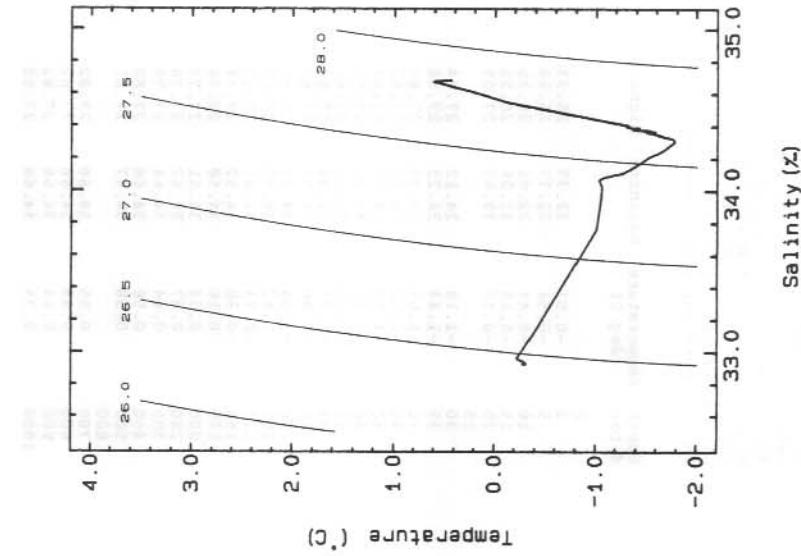
Cruise : FIBEX Station 10
 Station number : 10
 Date : 24 JAN 1981
 Start Time : 0515 GMT
 Ship : NELLA DAN
 Position : 66:06.90S 74:05.00E
 Cast Depth (m) : 1002
 Bottom Depth (m) : Not Recorded

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	32.93	32.45	26.45
2	-0.29	32.93	26.45
5	-0.31	32.93	26.45
10	-0.31	32.93	26.45
15	-0.30	32.94	26.45
20	-0.22	32.96	26.47
25	-1.03	33.87	27.24
30	-1.03	34.07	27.40
35	-1.32	34.13	27.46
40	-1.51	34.21	27.53
45	-1.59	34.23	27.55
50	-1.67	34.25	27.57
60	-1.74	34.29	27.60
70	-1.78	34.30	27.61
75	-1.78	34.30	27.62
80	-1.78	34.31	27.62
90	-1.77	34.31	27.62
100	-1.77	34.32	27.63
125	-1.68	34.34	27.64
150	-1.60	34.35	27.65
175	-1.54	34.37	27.66
200	-1.32	34.40	27.68
250	-0.50	34.49	27.72
300	-0.14	34.54	27.75
400	0.20	34.61	27.78
500	0.42	34.64	27.79
600	0.61	34.67	27.81
700	0.57	34.68	27.81
800	0.51	34.68	27.82
900	0.48	34.68	27.82
1000	0.43	34.68	27.82



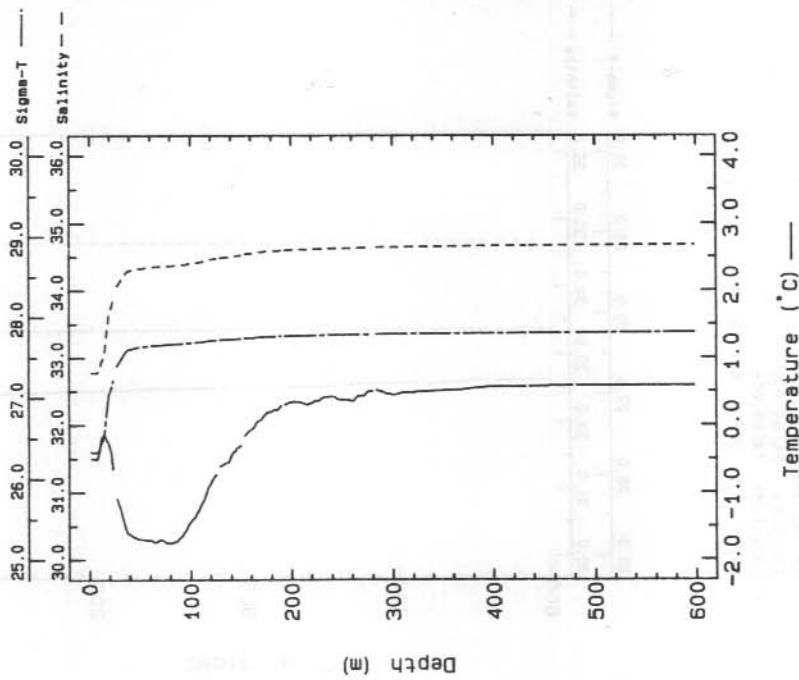
Cruise: FIBEX Station: 10
24 JAN 1981 0515 GMT
Latitude : 66° 06. 90S
Longitude: 74° 05. 00E
Depth: CTD 10002 m Bottom NR

Cruise: FIBEX Station: 10
24 JAN 1981 0515 GMT
Latitude 66° 06. 90S
Longitude 74° 05. 00E
Depth: CTD 10002 m Bottom NR



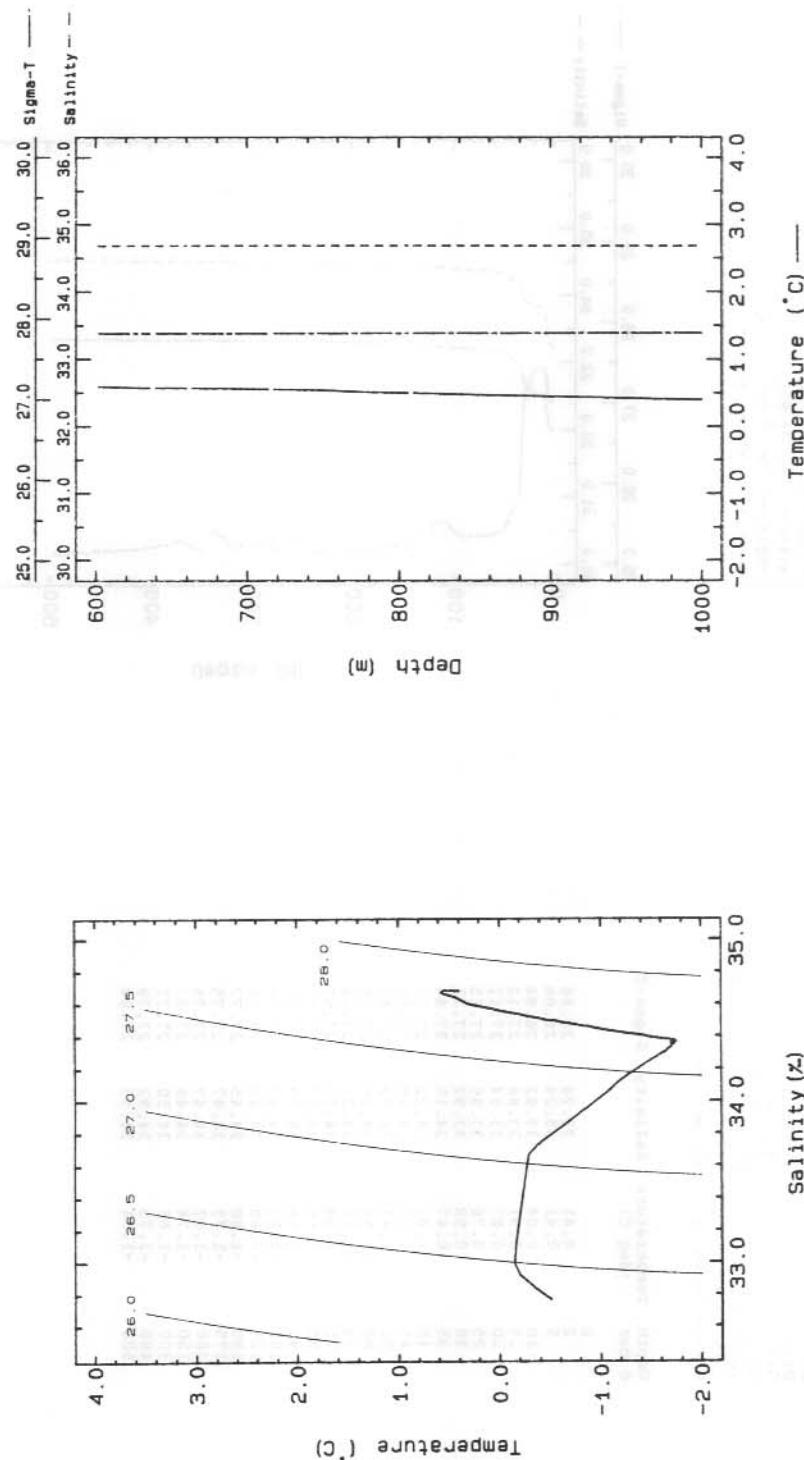
Cruise	Sta	Temperature (deg C)	Salinity	Sigma-T
Station number	: 11			
Date	: 24 JAN 1981			
Start Time	: 1700 GMT			
Ship	: NEELA DAN			
Position	: 66°24' S 71°38.09'E			
Cast Depth (m)	: 1002			
Bottom Depth (m)	: Not Recorded			
0	-0.51	32.77	26.33	
5	-0.51	32.77	26.33	
10	-0.41	32.81	26.35	
15	-0.16	33.06	26.55	
20	-0.30	33.67	27.05	
25				
30	-1.18	34.12	27.44	
35	-1.44	34.23	27.54	
40	-1.63	34.30	27.60	
45	-1.67	34.32	27.62	
50	-1.70	34.33	27.63	
60	-1.71	34.35	27.65	
70	-1.70	34.36	27.66	
75	-1.73	34.36	27.66	
80	-1.76	34.37	27.67	
90	-1.66	34.38	27.67	
100	-1.43	34.40	27.68	
125	-0.75	34.47	27.72	
150	-0.30	34.52	27.74	
175	0.16	34.58	27.76	
200	0.34	34.61	27.77	
250	0.37	34.62	27.78	
300	0.44	34.64	27.79	
400	0.56	34.66	27.80	
500	0.58	34.67	27.81	
600				
700	0.55	34.68	27.82	
800	0.49	34.68	27.82	
900	0.44	34.68	27.82	
10000	0.39	34.68	27.82	

Cruise : FIBEX Station 11
 24 JAN 1981 1700 GMT
 Latitude 66°24.70S
 Longitude 71°38.09E
 Depth: CTD 1002 m Bottom NR



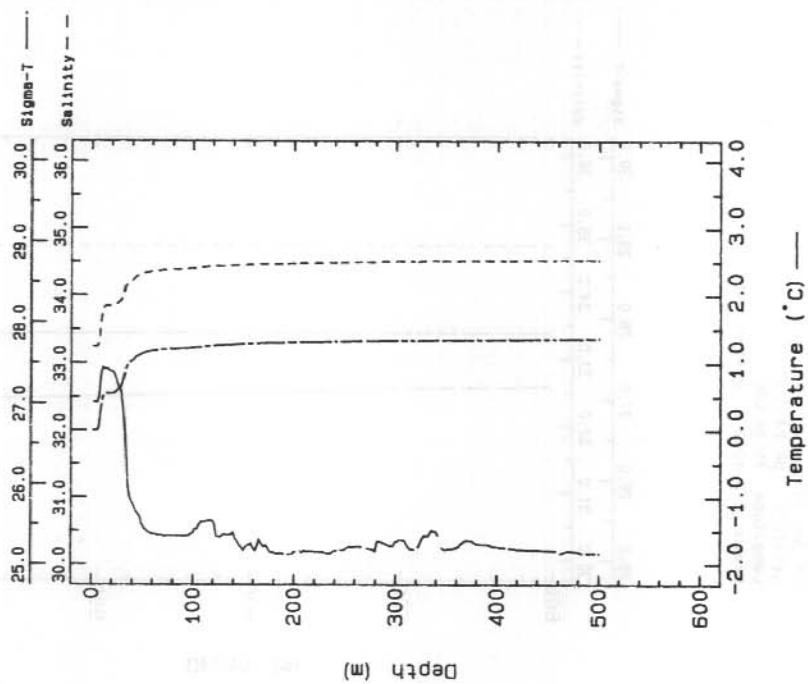
Cruise: FIBEX Station: 11
24 JAN 1981 1700 GMT
Latitude : 66°24.70S
Longitude: 71°38.09E
Depth: CTD 1002 m Bottom NR

Cruise : FIBEX Station 11
24 JAN 1981 1700 GMT
Latitude 66°24.70S
Longitude 71°38.09E
Depth: CTD 1002 m Bottom NR

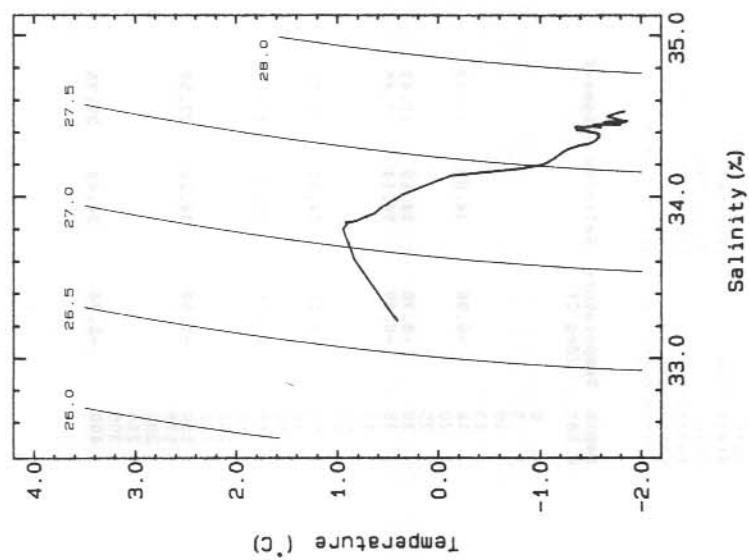


Cruise : FIBEX Station 12
 Station number : 12
 Date : 25 JAN 1981
 Start Time : 0415 GMT
 Ship : NELLA DAN
 Position : 67°23.80S 72°15.40E
 Cast Depth (m) : 502
 Bottom Depth (m) : Not Recorded

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.41	33.24	26.66
5	0.41	33.24	26.66
10	0.84	33.62	26.94
15	0.91	33.84	27.12
20	0.87	33.84	27.12
25	0.76	33.86	27.15
30	0.58	33.92	27.21
35	-0.47	34.15	27.44
40	-1.08	34.22	27.52
45	-1.24	34.28	27.58
50	-1.41	34.32	27.62
60	-1.56	34.35	27.65
70	-1.58	34.37	27.66
75	-1.58	34.37	27.67
80	-1.59	34.38	27.67
90	-1.59	34.39	27.68
100	-1.53	34.40	27.69
125	-1.60	34.43	27.71
150	-1.80	34.45	27.73
175	-1.79	34.47	27.75
200	-1.82	34.47	27.75
250	-1.78	34.49	27.77
300	-1.66	34.50	27.77
400	-1.75	34.52	27.79
500	-1.84	34.53	27.80



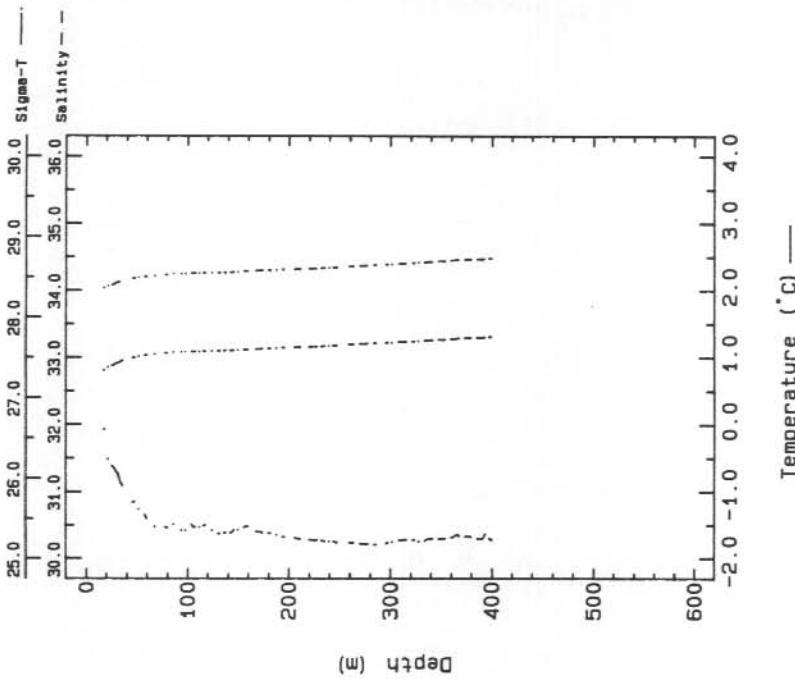
Cruise: FIBEX Station: 12
25 JAN 1981 0415 GMT
Latitude : 67° 23'.8S
Longitude: 72° 15'.40E
Depth: CTD 502 m Bottom NR



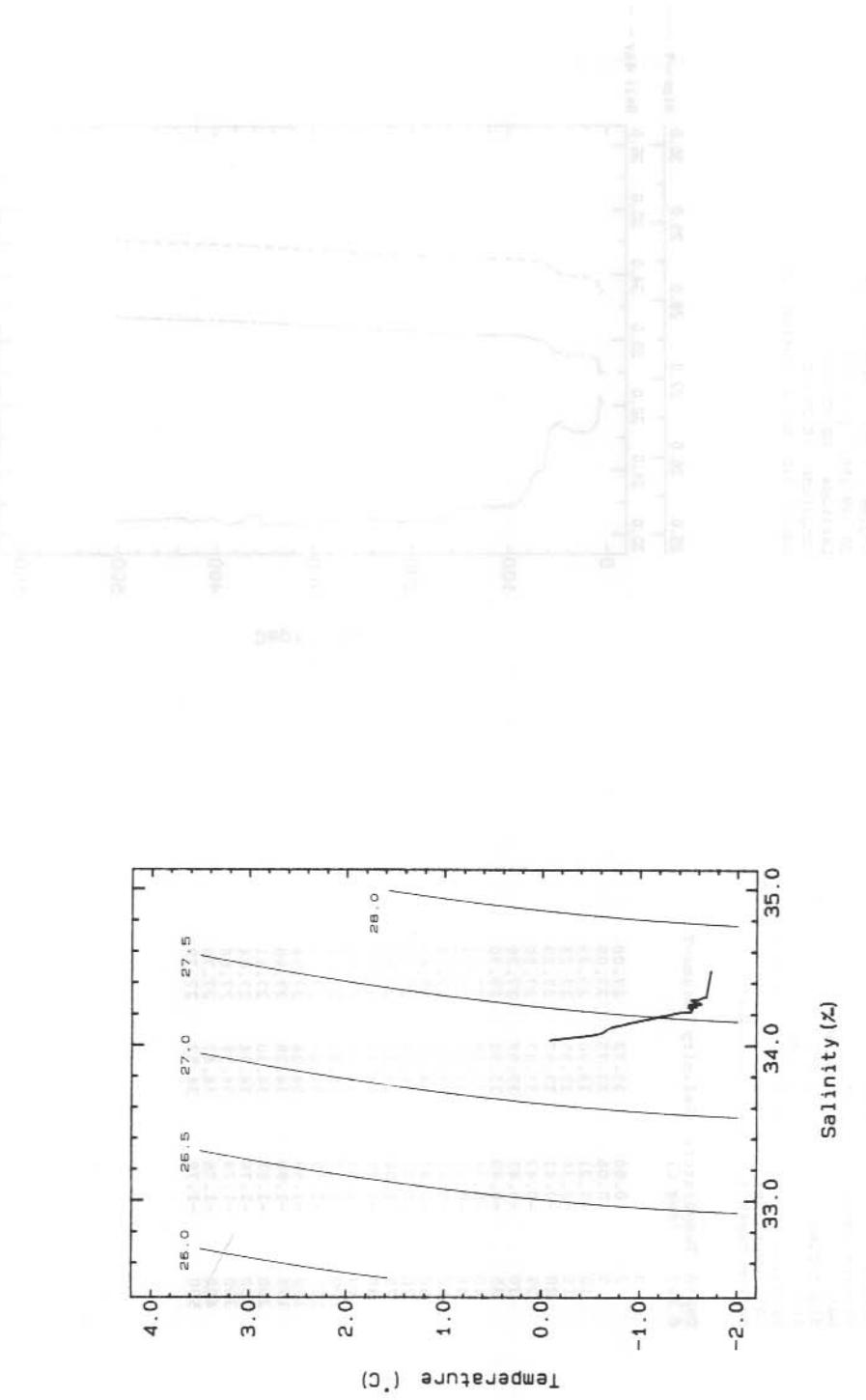
Cruise : FIBEX
 Station 13
 Station number : 13
 Date : 25 JAN 1981
 Start Time : 1600 GMT
 Ship : NELLA DAN
 Position : 68°33'.70S 75°53'.00E
 Cast Depth (m) : 402
 Bottom Depth (m) : Not Recorded

Depth Temperature (deg C)
 d bar Salinity Sigma-T

0			
5			
10			
15			
18	-0.08	34.03	27.33
20			
25			
30	-0.70	34.12	27.42
35	-0.89	34.14	27.45
40			
45			
50			
60	-1.41	34.21	27.53
70			
75			
80	-1.55	34.24	27.55
90			
100			
125			
150	-1.58	34.28	27.59
175			
200			
250			
300			
400	-1.74	34.48	27.75

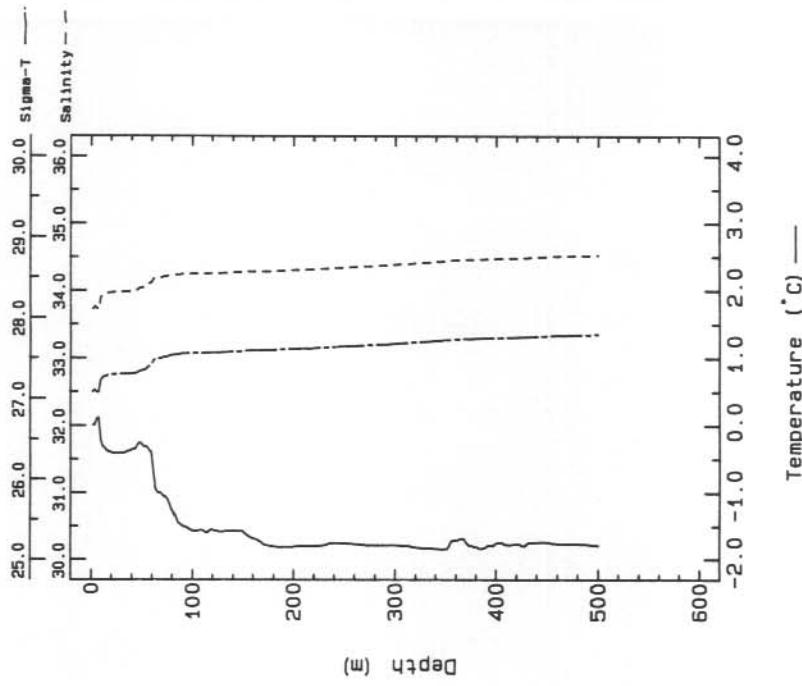


Cruise: FIBEX Station: 13
25 JAN 1981 1600 GMT
Latitude : 68° 33.7' S
Longitude: 75° 53.0' E
Depth: CTD 402 m Bottom NR

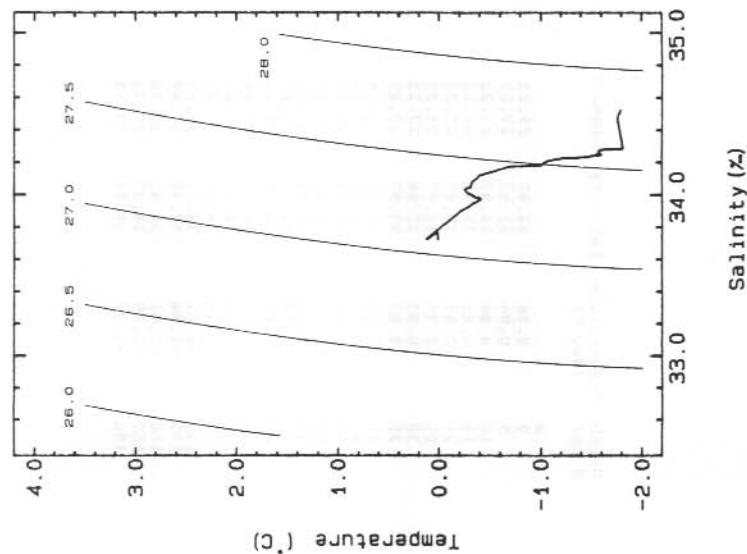


Cruise : FIBEX Station 14
 Station number : 14
 Date : 28 JAN 1981
 Start Time : 1716 GMT
 Ship : NELLA DAN
 Position : 68°29'.50S 76°38'.20E
 Cast Depth (m) : 502
 Bottom Depth (m) : Not Recorded

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.00	33.72	27.08
2	0.06	33.75	27.09
5	-0.21	33.90	27.23
10	-0.36	33.95	27.28
15	-0.41	33.97	27.29
20	-0.42	33.97	27.29
25	-0.41	33.97	27.30
30	-0.41	33.98	27.30
35	-0.40	33.98	27.30
40	-0.36	33.99	27.31
45	-0.31	34.00	27.32
50	-0.27	34.04	27.34
60	-0.40	34.12	27.42
70	-1.02	34.19	27.50
75	-1.08	34.21	27.52
80	-1.25	34.23	27.54
90	-1.50	34.24	27.56
100	-1.57	34.24	27.56
125	-1.58	34.25	27.57
150	-1.58	34.28	27.58
175	-1.80	34.28	27.60
200	-1.81	34.30	27.61
250	-1.76	34.34	27.64
300	-1.79	34.38	27.68
400	-1.76	34.47	27.75
500	-1.79	34.52	27.79



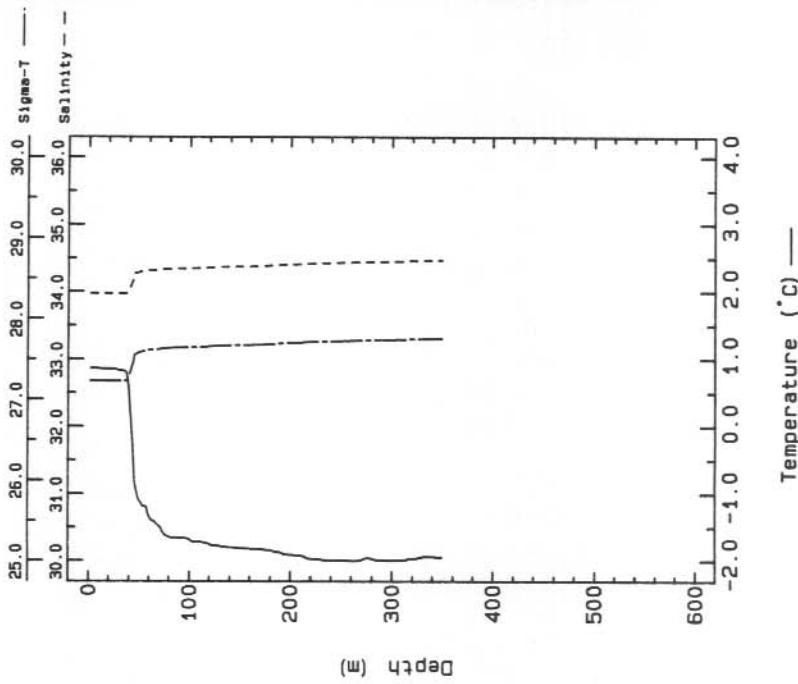
Cruise: FIBEX Station: 14
28 JAN 1981 1716 GMT
Latitude : 68° 29.50S
Longitude: 76° 36.20E
Depth: CTD 502 m Bottom NR



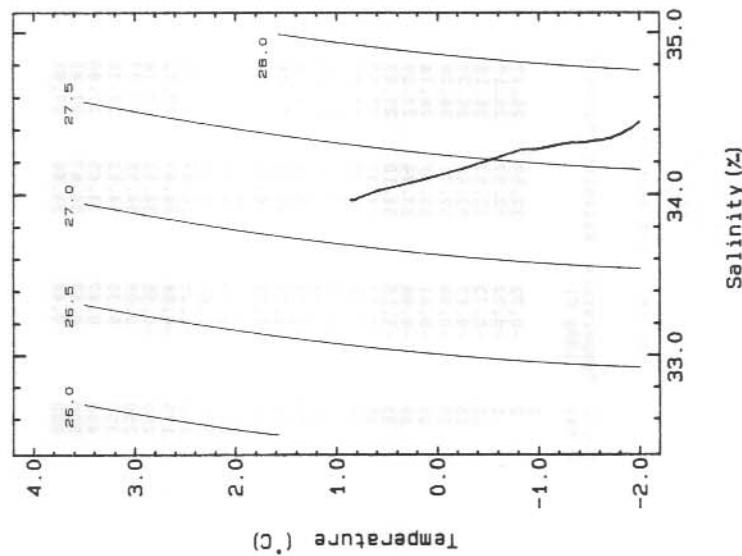
Cruise : FIBEX Station 15
 Station number : 15
 Date : 29 JAN 1981
 Start Time : 0419 GMT
 Ship : NEELA DAN
 Position : 68°55' S 80°57' E
 Cast Depth (m) : 352
 Bottom Depth (m) : Not Recorded

Depth d bar	Temperature (deg C)	Salinity	Sigma-T (σ)
0	0.86	33.97	27.22
2	0.86	33.97	27.22
5	0.86	33.97	27.22
10	0.86	33.97	27.22
15	0.85	33.97	27.22
20	0.85	33.97	27.22
25	0.85	33.97	27.22
30	0.83	33.96	27.22
35	0.82	33.97	27.23
40	0.59	34.02	27.28
45	-0.55	34.22	27.50
50	-1.09	34.29	27.58
60	-1.33	34.32	27.61
70	-1.49	34.32	27.62
75	-1.59	34.33	27.63
80	-1.65	34.34	27.64
90	-1.66	34.34	27.64
100	-1.68	34.35	27.65
125	-1.78	34.36	27.66
150	-1.81	34.37	27.67
175	-1.84	34.38	27.68
200	-1.91	34.41	27.70
250	-1.99	34.43	27.73
300	-2.00	34.45	27.74

Cruise : FIBEX Station 15
 Date : 29 JAN 1981 0419 GMT
 Latitude : 68°35'.80S
 Longitude : 71°26'.40E
 Depth: CTD 352 m Bottom NR

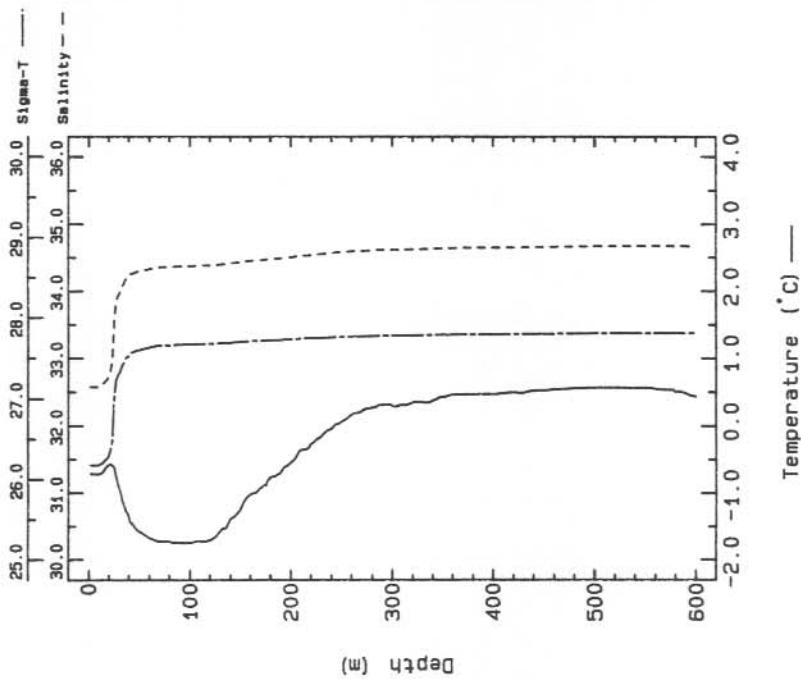


Cruise: FIBEX Station: 15
29 JAN 1981 0419 GMT
Latitude : 68° 35.80S
Longitude: 71° 26.40E
Depth: CTD 352 m Bottom NR

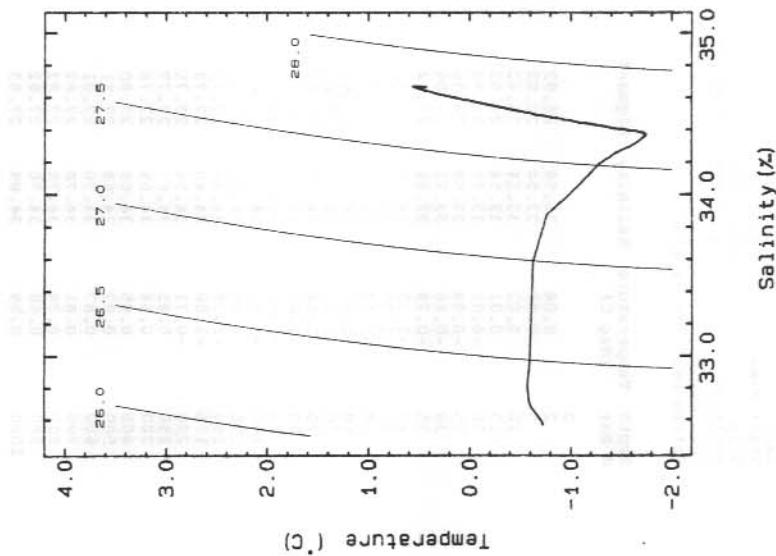


Cruise : FIBEX Station : 16
 Station number : 16
 Date : 29 JAN 1981
 Start Time : 0417 GMT
 Ship : NELIA DAN
 Position : 66°48'.00S 70°28'.00E
 Cast Depth (m) : 602
 Bottom Depth (m) : Not Recorded

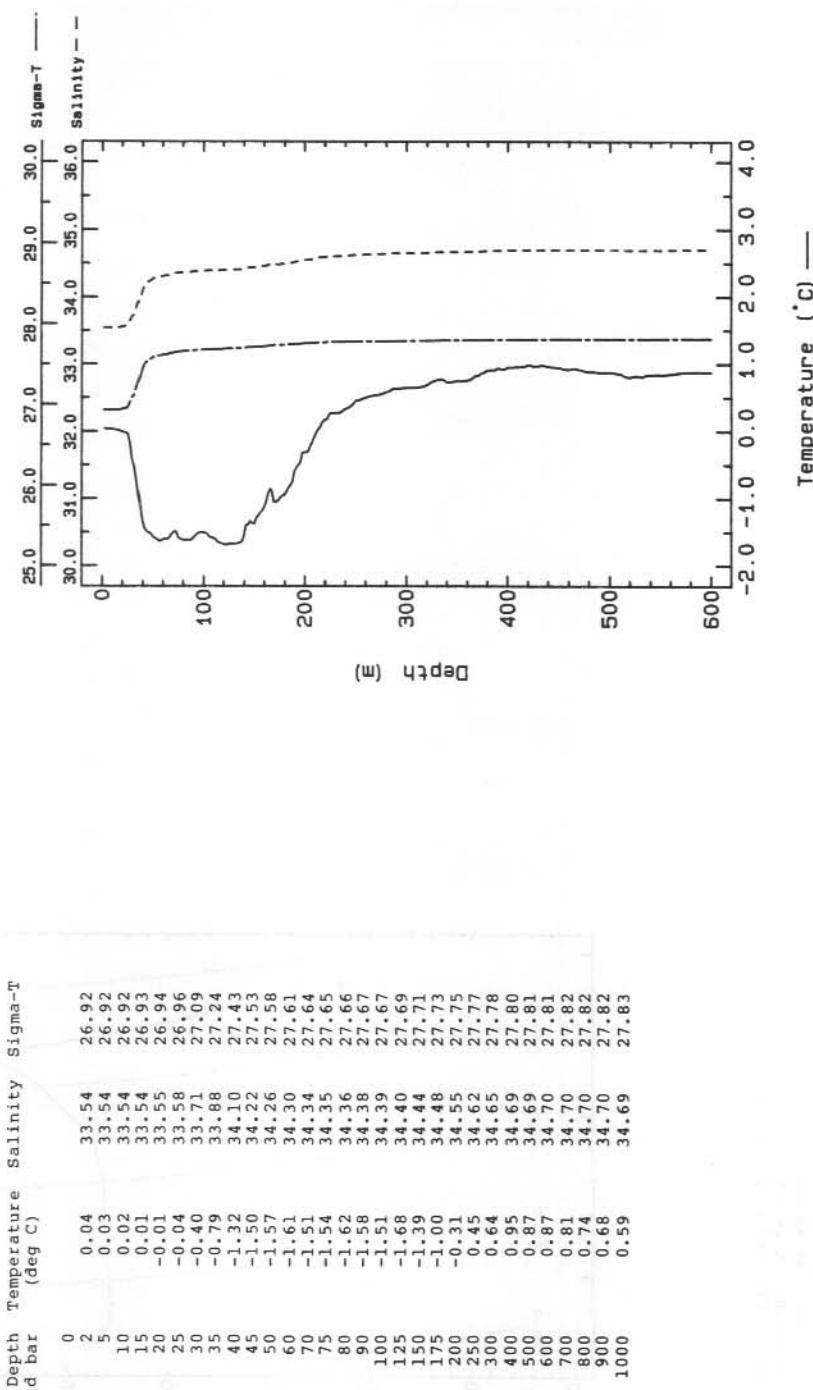
Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	-0.72	32.57	26.17
5	-0.72	32.57	26.17
10	-0.73	32.57	26.18
15	-0.67	32.62	26.22
20	-0.58	32.71	26.28
25	-0.61	33.27	26.74
30	-0.89	33.94	27.29
35	-1.15	34.10	27.43
40	-1.33	34.21	27.52
45	-1.40	34.27	27.58
50	-1.58	34.30	27.60
60	-1.67	34.33	27.63
70	-1.73	34.36	27.66
75	-1.73	34.36	27.66
80	-1.73	34.36	27.66
90	-1.75	34.37	27.67
100	-1.75	34.38	27.67
125	-1.66	34.39	27.68
150	-1.25	34.43	27.70
175	-0.88	34.47	27.72
200	-0.55	34.51	27.74
250	0.06	34.58	27.77
300	0.30	34.62	27.78
400	0.47	34.65	27.80
500	0.57	34.67	27.81
600	0.44	34.66	27.81



Cruise: FIBEX Station: 16
29 JAN 1981 0417 GMT
Latitude : 66° 48' 00S
Longitude: 70° 28' 00E
Depth: CTD 602 m Bottom NR

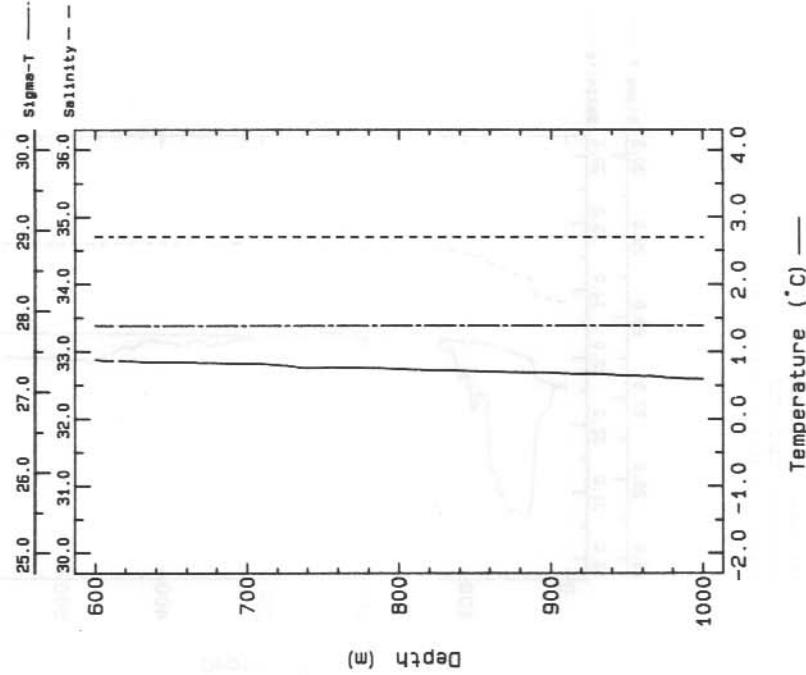
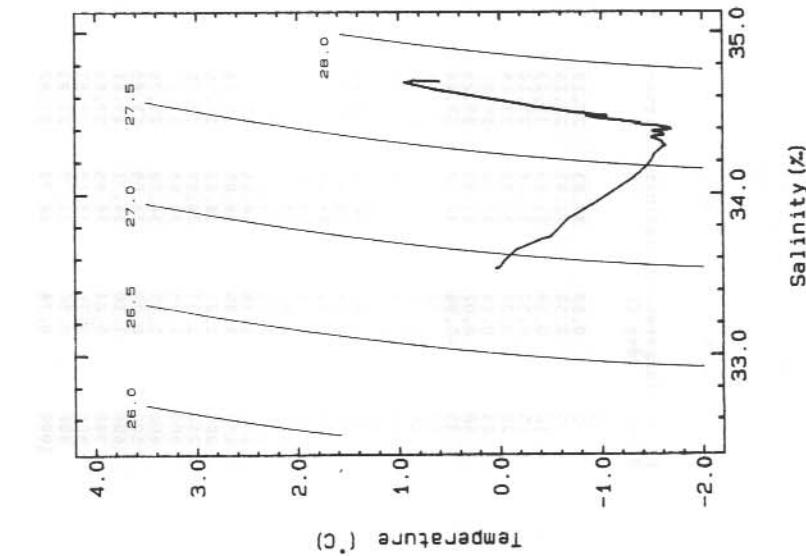


Cruise number : FIBEX
 Date : 30 JAN 1981
 Start Time : 0417 GMT
 Ship : NEELA DAN
 Position : 65°03.00S 67°39.30E
 Cast Depth (m) : 1004
 Bottom Depth (m) : 2900 m



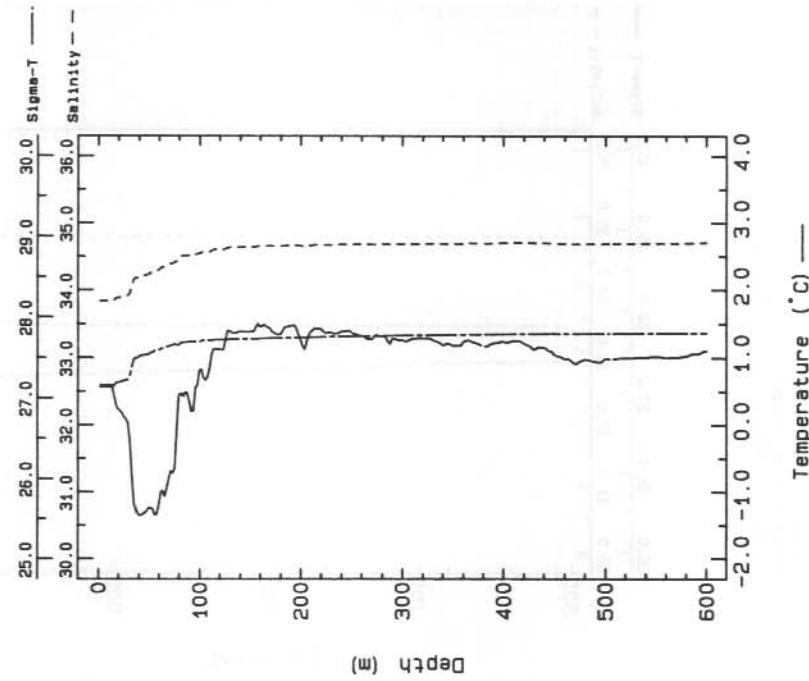
Cruise: FIBEX Station: 17
30 JAN 1981 0417 GMT
Latitude : 66:03.00S
Longitude: 67:39.30E
Depth: CTD 1004 m Bottom 2900 m

Cruise : FIBEX Station 17
30 JAN 1981 0447 GMT
Latitude 66:03.00S
Longitude 67:39.30E
Depth: CTD 1004 m Bottom 2900 m



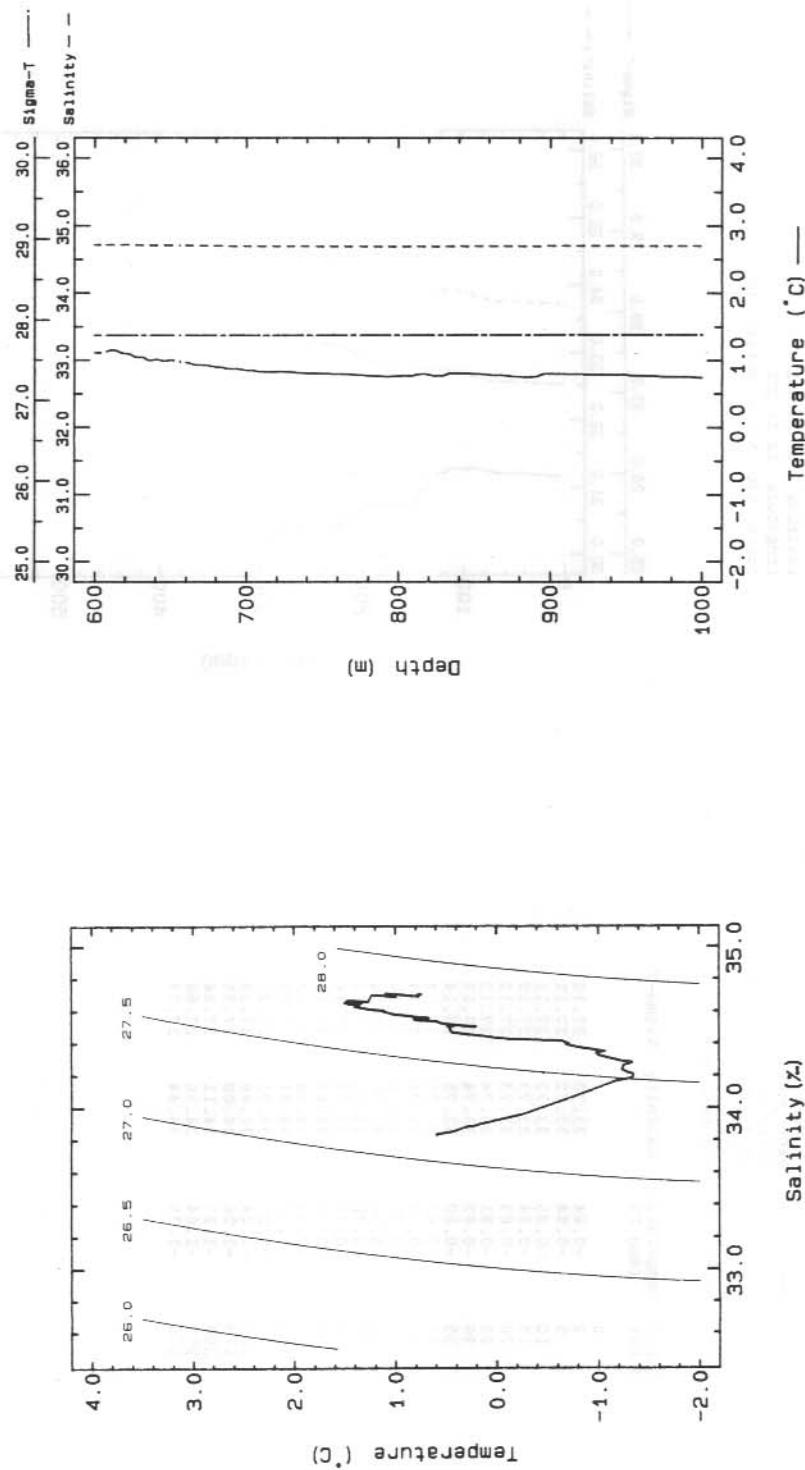
Cruise : FIBEX Station 18
 Date : 30 JAN 1981
 Start Time : 1615 GMT
 Ship : NELLA DAN
 Position : 66:11.30S 63:20.60E
 Cast Depth (m) : 1004
 Bottom Depth (m) : Not Recorded

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.59	33.83	27.13
2	0.59	33.83	27.13
5	0.59	33.83	27.13
10	0.59	33.83	27.13
15	0.52	33.84	27.14
20	0.23	33.88	27.19
25	0.14	33.90	27.21
30	0.02	33.92	27.23
35	-0.98	34.12	27.44
40	-1.36	34.19	27.51
45	-1.32	34.22	27.53
50	-1.24	34.24	27.55
60	-1.21	34.29	27.59
70	-0.80	34.38	27.64
75	-0.69	34.41	27.66
80	-0.44	34.47	27.65
90	0.34	34.51	27.69
100	0.81	34.55	27.69
125	1.19	34.61	27.72
150	1.38	34.64	27.73
175	1.35	34.65	27.74
200	1.27	34.65	27.75
250	1.37	34.68	27.76
300	1.25	34.68	27.77
400	1.23	34.70	27.79
500	0.99	34.69	27.80
600	1.10	34.71	27.81
700	0.84	34.69	27.81
800	0.76	34.69	27.81
900	0.80	34.70	27.82
1000	0.74	34.70	27.82



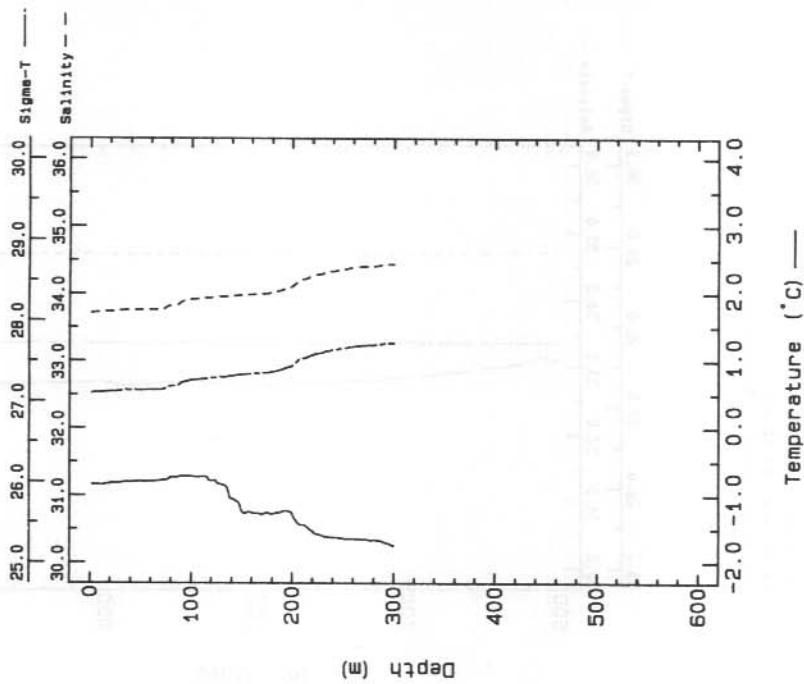
Cruise: FIBEX Station: 18
30 JAN 1981 1615 GMT
Latitude : 66: 11.30S
Longitude: 63: 20.60E
Depth: CTD 1004 m Bottom NR

Cruise : FIBEX Station 18
30 JAN 1981 1615 GMT
Latitude 66: 11.30S
Longitude 63: 20.60E
Depth: CTD 1004 m Bottom NR

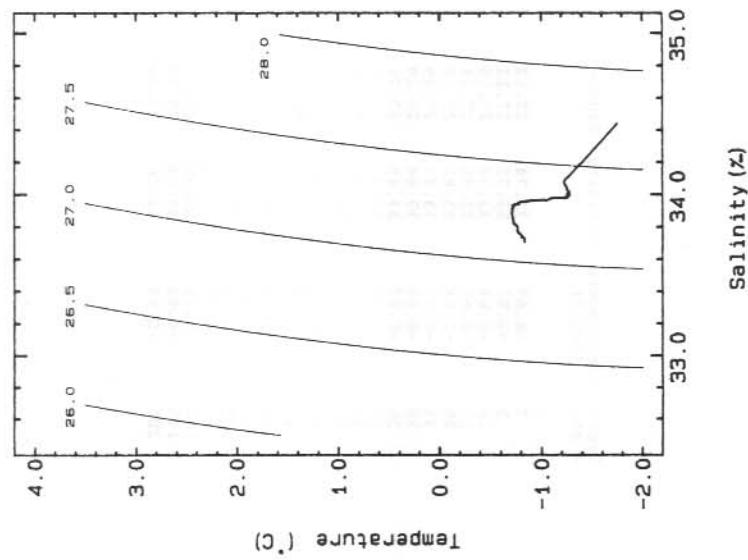


Cruise : FIBEX Station 19
 Station number : 19
 Date : 3 FEB 1981
 Start Time : 0400 GMT
 Ship : NELLIE DAN
 Position : 67°35'.80S 62°51'.20E
 Cast Depth (m) : 302
 Bottom Depth (m) : Not Recorded

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0			
2	-0.84	33.70	27.10
5	-0.84	33.72	27.11
10	-0.85	33.72	27.11
15	-0.84	33.73	27.12
20	-0.83	33.73	27.12
25	-0.81	33.74	27.12
30	-0.82	33.74	27.13
35	-0.80	33.75	27.14
40	-0.80	33.75	27.14
45	-0.79	33.76	27.14
50	-0.79	33.76	27.14
60	-0.79	33.76	27.14
70	-0.78	33.76	27.14
75	-0.77	33.79	27.16
80	-0.73	33.82	27.19
90	-0.71	33.88	27.23
100	-0.72	33.91	27.26
125	-0.80	33.95	27.30
150	-1.24	33.98	27.33
175	-1.26	34.00	27.35
200	-1.27	34.11	27.44
250	-1.64	34.36	27.66
300	-1.75	34.44	27.73

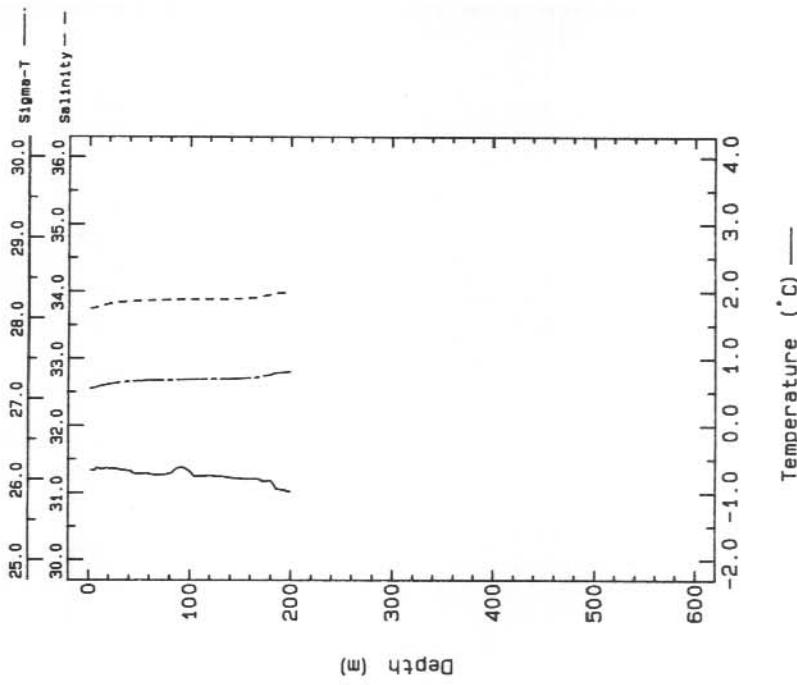


Cruise: FIBEX Station: 19
03 FEB 1981 0400 GMT
Latitude : 67° 35.80S
Longitude: 62° 51.20E
Depth: CTD 302 m Bottom NR

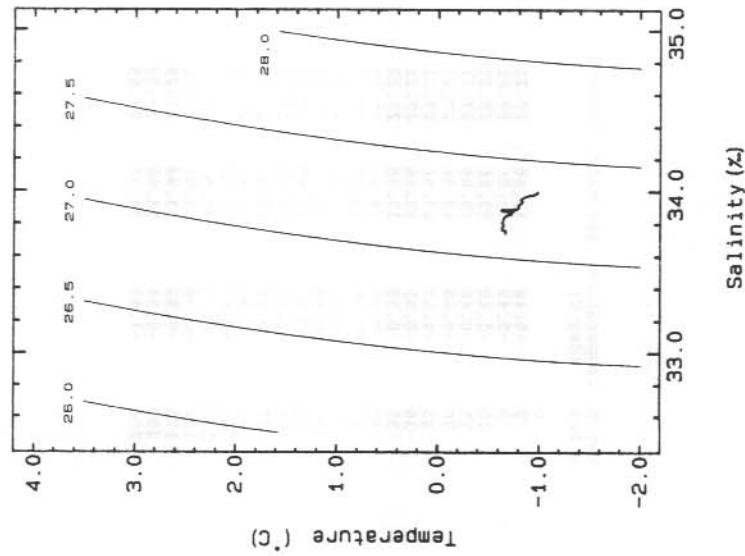


Cruise : FIBEX Station : 20
 Station number : 20
 Date : 10 FEB 1981
 Start Time : 1800 GMT
 Ship : NELIA DAN
 Position : 67°15'.80S 62°51'.30E
 Cast Depth (m) : 254
 Bottom Depth (m) : 390

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	-0.67	33.74	27.12
5	-0.67	33.75	27.13
10	-0.64	33.78	27.15
15	-0.65	33.80	27.16
20	-0.64	33.82	27.18
25	-0.65	33.83	27.19
30	-0.66	33.84	27.20
35	-0.67	33.85	27.21
40	-0.68	33.85	27.21
45	-0.72	33.86	27.22
50	-0.72	33.86	27.22
60	-0.72	33.87	27.23
70	-0.74	33.87	27.23
75	-0.73	33.87	27.23
80	-0.72	33.88	27.23
90	-0.63	33.88	27.23
100	-0.69	33.88	27.24
125	-0.76	33.89	27.24
150	-0.79	33.89	27.25
175	-0.83	33.94	27.29
200	-0.99	34.00	27.34



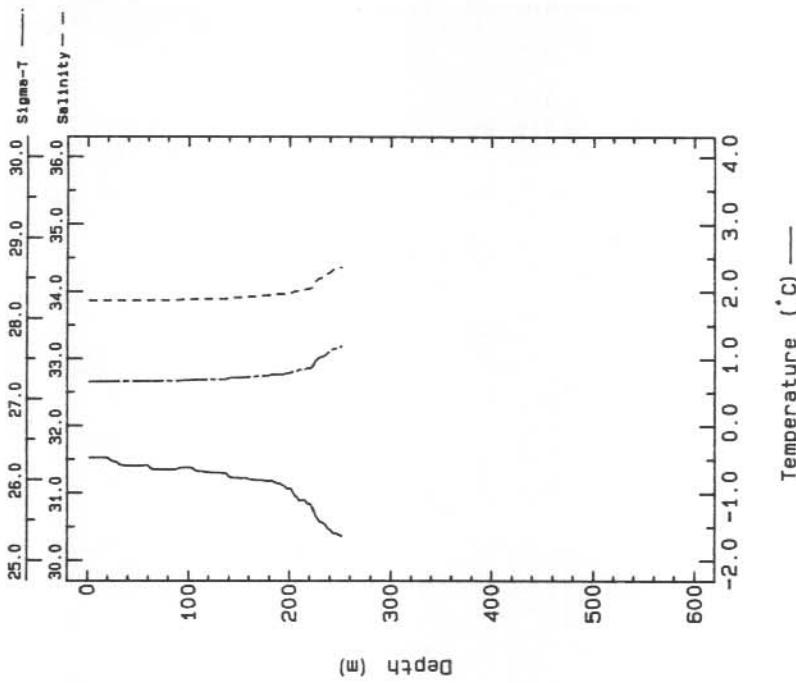
Cruise: FIBEX Station: 20
10 FEB 1981 1800 GMT
Latitude : 67° 35.80S
Longitude: 62° 51.30E
Depth: CTD 254 m Bottom 390 m



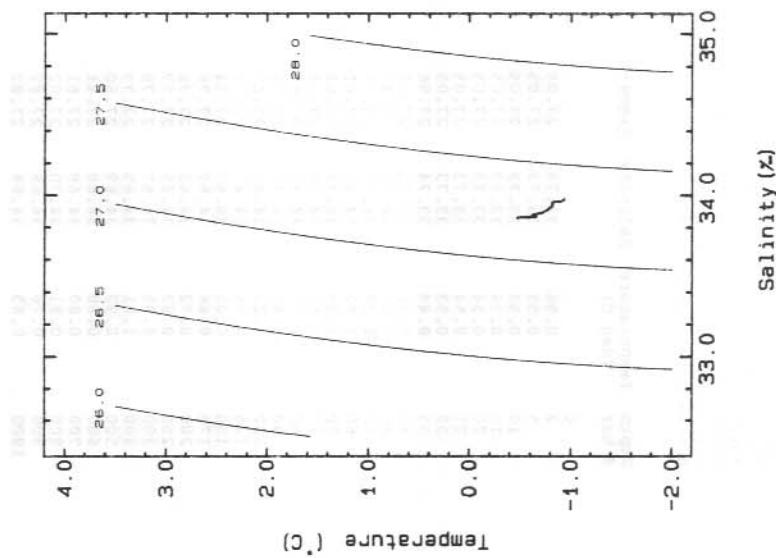
Cruise : FIBEX
 Station : 21
 Date : 11 FEB 1981
 Start Time : 1900 GMT
 Ship : NELLA DAN
 Position : 67°34'.40S 62°53'.80E
 Cast Depth (m) : 254
 Bottom Depth (m) : 370 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	-0.48	33.86	27.21
5	-0.48	33.86	27.21
10	-0.48	33.86	27.21
15	-0.48	33.86	27.21
20	-0.48	33.86	27.21
25	-0.53	33.86	27.21
30	-0.55	33.86	27.21
35	-0.59	33.86	27.22
40	-0.60	33.87	27.22
45	-0.60	33.87	27.22
50	-0.60	33.87	27.22
60	-0.59	33.87	27.22
70	-0.65	33.87	27.22
75	-0.66	33.87	27.22
80	-0.66	33.87	27.22
90	-0.63	33.87	27.23
100	-0.62	33.88	27.23
125	-0.70	33.89	27.24
150	-0.78	33.91	27.26
175	-0.82	33.94	27.29
200	-0.94	33.98	27.32
250	-1.63	34.35	27.65

Cruise : FIBEX Station 21
 Date : 11 FEB 1981 1900 GMT
 Latitude 67°34'.40S
 Longitude 62°53'.80E
 Depth: CTD 254 m Bottom 370 m

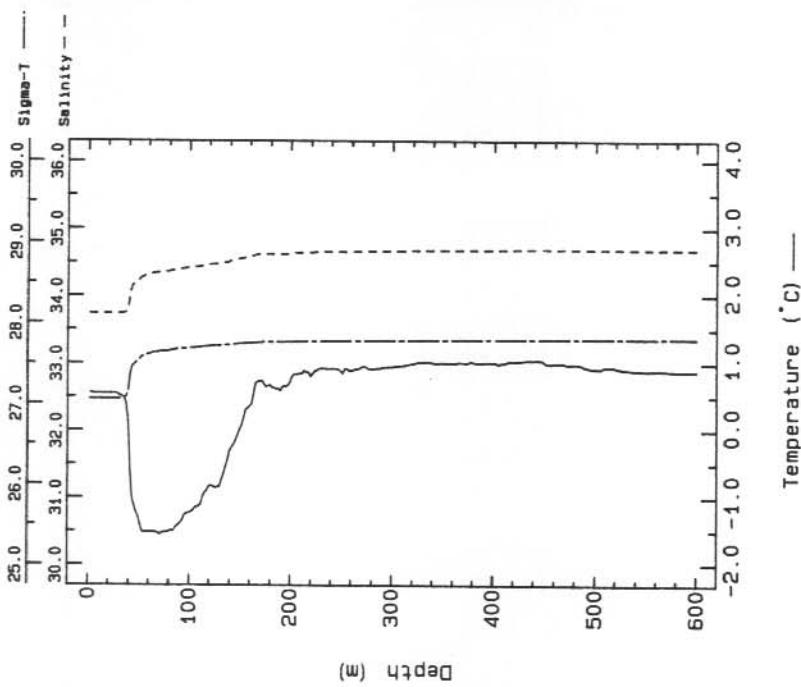


Cruise: FIBEX Station: 21
11 FEB 1981 1900 GMT
Latitude : 67° 34.405'
Longitude: 62° 53.800'
Depth: CTD 254 m Bottom 370 m



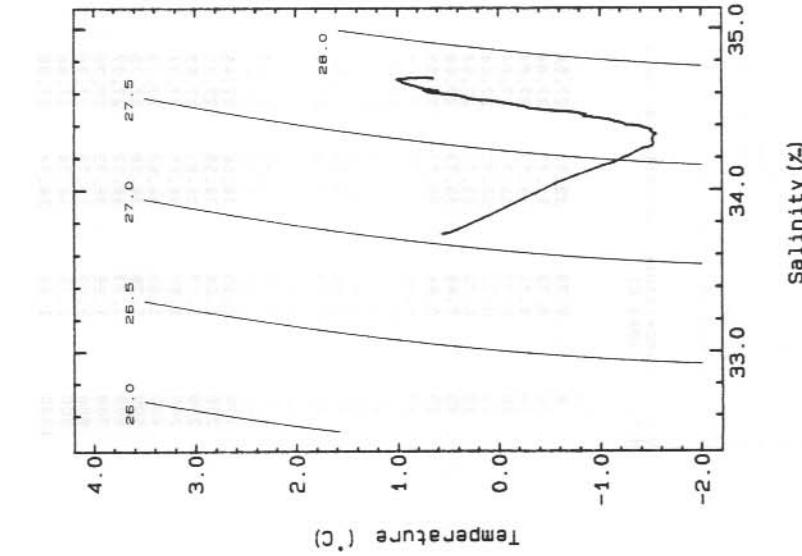
Cruise	Number	FIBEX	Temperature (deg C)	Salinity	Sigma-T
Station	: 22				
Date	: 13 FEB 1981				
Start Time	: 1900 GMT				
Ship	: NEELA DAN				
Position	: 64°21'.50S 69°53'.20E				
Cast Depth (m)	: 1006				
Bottom Depth (m)	: 3300 m				
Depth d bar					
0	0.56	33.73	27.05		
5	0.55	33.73	27.05		
10	0.54	33.73	27.05		
15	0.54	33.73	27.05		
20	0.54	33.73	27.05		
25	0.54	33.73	27.05		
30	0.53	33.73	27.05		
35	0.48	33.74	27.06		
40	0.16	33.82	27.15		
45	-1.07	34.16	27.47		
50	-1.29	34.22	27.53		
60	-1.52	34.31	27.61		
70	-1.54	34.34	27.64		
75	-1.52	34.35	27.65		
80	-1.51	34.36	27.65		
90	-1.40	34.39	27.68		
100	-1.23	34.41	27.69		
125	-0.85	34.47	27.72		
150	0.01	34.55	27.74		
175	0.66	34.62	27.76		
200	0.72	34.63	27.76		
250	0.87	34.65	27.77		
300	0.95	34.67	27.78		
400	1.01	34.69	27.79		
500	0.92	34.69	27.80		
600	0.88	34.69	27.81		
700	0.80	34.69	27.81		
800	0.81	34.70	27.82		
900	0.70	34.69	27.82		
1000	0.63	34.69	27.82		

Cruise : FIBEX Station 22
 13 FEB 1981 1900 GMT
 Latitude 64° 21'.50S
 Longitude 69° 53'.20E
 Depth: CTD 1006 m Bottom 3300 m



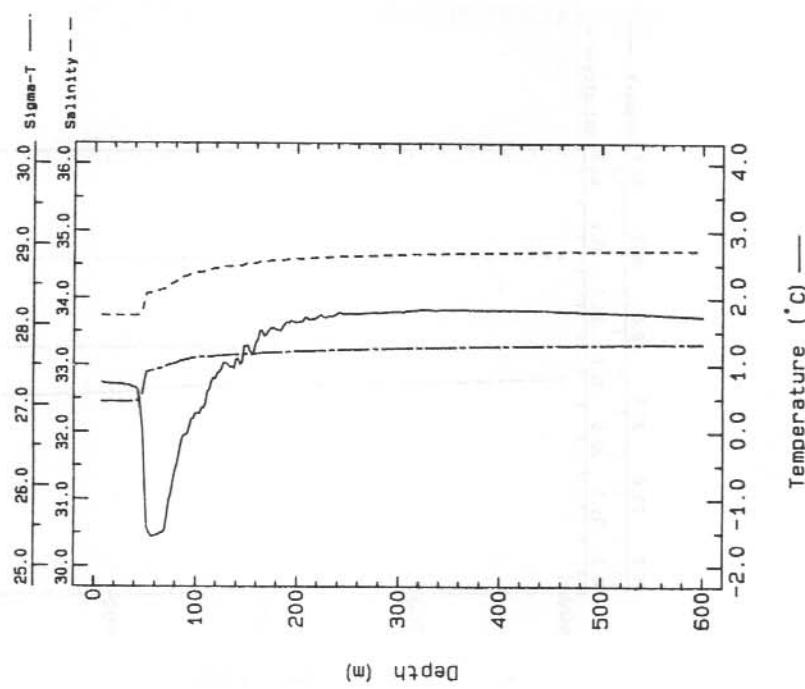
Cruise: FIBEX Station: 22
13 FEB 1981 1900 GMT
Latitude : 64° 21'.50S
Longitude: 69° 53'.20E
Depth: CTD 1006 m Bottom 3300 m

Cruise : FIBEX Station 22
13 FEB 1981 1900 GMT
Latitude 64° 21'.50S
Longitude 69° 53'.20E
Depth: CTD 1006 m Bottom 3300 m



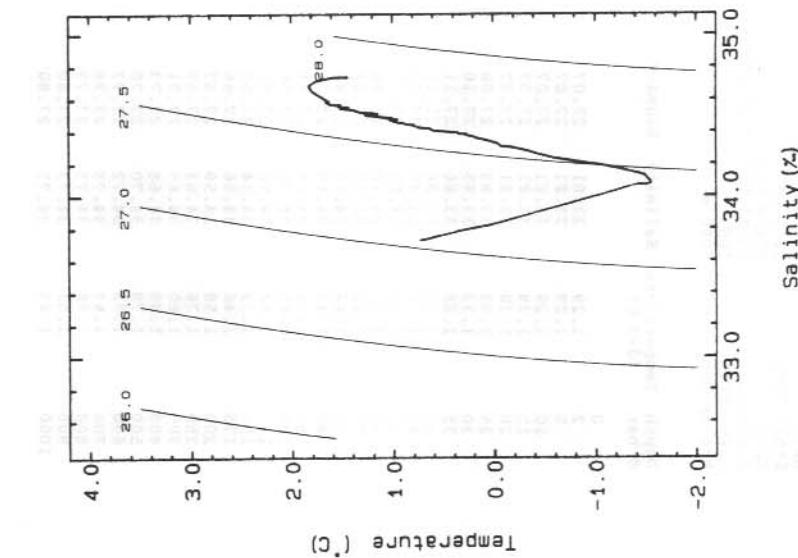
Cruise	Station number	Temperature (deg C)	Salinity	Sigma-T
FIBEX	23			
Station number	: 23			
Date	: 14 FEB 1981			
Start Time	: 0640 GMT			
Ship	: NELLA DAN			
Position	: 63:13.20S 71:24.20E			
Cast Depth (m)	: 1004			
Bottom Depth (m)	: 4000 m			
Depth d bar	0	0.73	33.73	27.04
	5	0.72	33.73	27.04
	10	0.71	33.73	27.04
	15	0.71	33.73	27.04
	20	0.71	33.73	27.04
	25	0.71	33.73	27.04
	30	0.70	33.73	27.04
	35	0.69	33.73	27.04
	40	0.66	33.76	27.05
	45	0.48	33.76	27.08
	50	-0.77	33.96	27.30
	60	-1.54	34.09	27.44
	70	-1.45	34.14	27.47
	75	-0.98	34.20	27.50
	80	-0.59	34.24	27.52
	90	-0.04	34.32	27.56
	100	0.28	34.38	27.59
	125	0.92	34.45	27.61
	150	1.28	34.51	27.64
	175	1.55	34.56	27.65
	200	1.64	34.59	27.67
	250	1.77	34.63	27.69
	300	1.80	34.65	27.71
	400	1.83	34.68	27.73
	500	1.79	34.70	27.75
	600	1.73	34.72	27.77
	700	1.66	34.72	27.78
	800	1.60	34.73	27.79
	900	1.52	34.74	27.80
	1000	1.44	34.74	27.80

Cruise : FIBEX Station 23
 14 FEB 1981 0640 GMT
 Latitude 63:13.20S
 Longitude 71:24.20E
 Position CTD 10004 m Bottom 4000 m



Cruise: FIBEX Station: 23
14 FEB 1981 0640 GMT
Latitude : 63:13.20S
Longitude: 71:24.20E
Depth: CTD 1004 m Bottom 4000 m

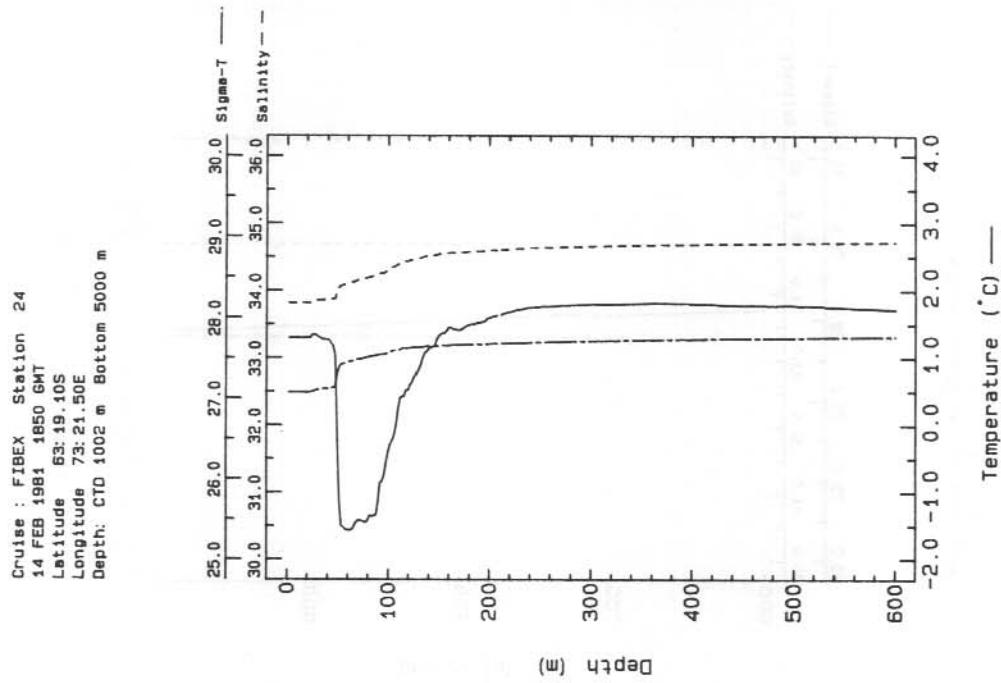
Cruise : FIBEX Station 23
14 FEB 1981 0640 GMT
Latitude 63:13.20S
Longitude 71:24.20E
Depth: CTD 1004 m Bottom 4000 m



Temperature ($^{\circ}\text{C}$) —
Salinity (‰)

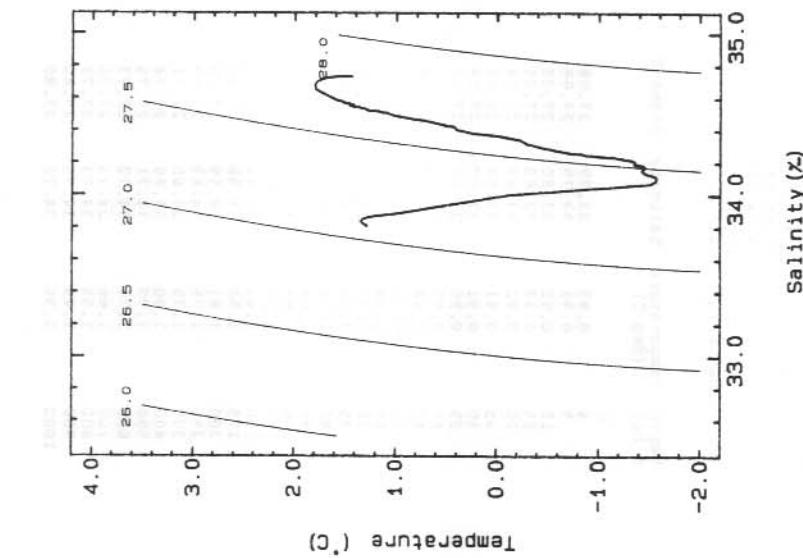
Cruise : FIBEX Station 24
 Station number : 24
 Date : 14 FEB 1981
 Start Time : 1850 GMT
 Ship : NELIA DAN
 Position : 63:19.10S 73:21.50E
 Cast Depth (m) : 1002
 Bottom Depth (m) : 5000 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	1.29	33.81	27.07
5	1.29	33.81	27.07
10	1.29	33.81	27.07
15	1.29	33.81	27.07
20	1.30	33.81	27.07
25	1.33	33.83	27.08
30	1.33	33.85	27.10
35	1.28	33.86	27.11
40	1.26	33.86	27.11
45	1.19	33.87	27.13
50	-0.12	34.00	27.31
60	-1.57	34.10	27.44
70	-1.42	34.15	27.48
75	-1.44	34.16	27.49
80	-1.43	34.19	27.51
90	-1.44	34.24	27.54
100	-0.41	34.30	27.56
125	0.68	34.46	27.63
150	.33	34.54	27.65
175	1.46	34.56	27.66
200	1.59	34.59	27.67
250	1.76	34.63	27.69
300	1.80	34.65	27.71
400	1.80	34.68	27.73
500	1.78	34.70	27.75
600	1.73	34.72	27.77
700	1.65	34.73	27.78
800	1.58	34.73	27.79
900	1.51	34.73	27.80
1000	1.43	34.73	27.80



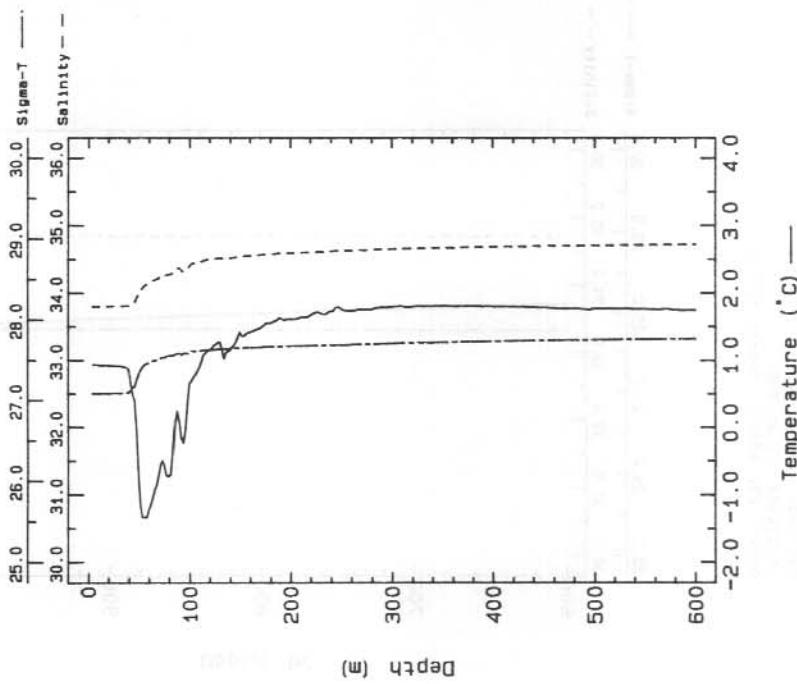
Cruise: FIBEX Station: 24
14 FEB 1981 1850 GMT
Latitude : 63:19.10S
Longitude: 73:21.50E
Depth: CTD 1002 m Bottom 5000 m

Cruise : FIBEX Station 24
14 FEB 1981 1850 GMT
Latitude 63: 19.10S
Longitude 73: 21.50E
Depth: CTD 1002 m Bottom 5000 m



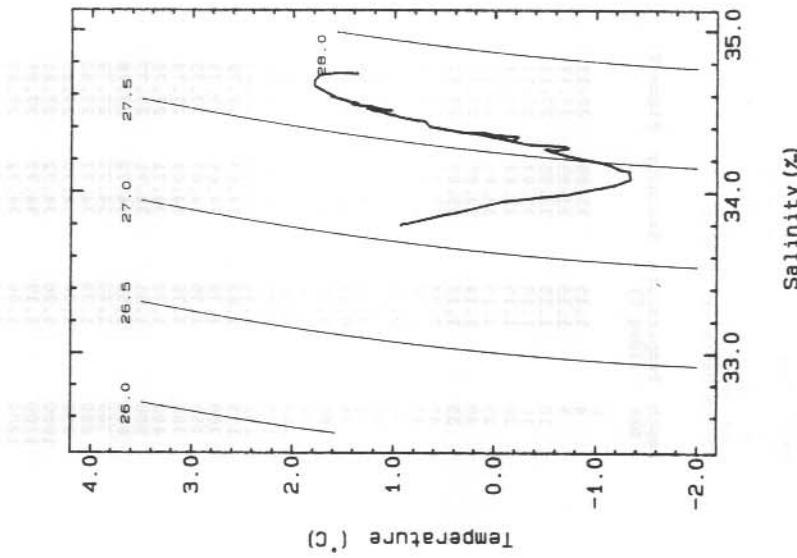
Cruise : FIBEX Station 25
 Station number : 25
 Date : 15 FEB 1981 *
 Start Time : 0640 GMT
 Ship : NELIA DAN
 Position : 63°14.70S 77°43.80E
 Cast Depth (m) : 1002
 Bottom Depth (m) : 3840 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.93	33.79	27.08
4	0.93	33.79	27.08
5	0.92	33.80	27.08
10	0.92	33.80	27.08
15	0.93	33.80	27.08
20	0.92	33.80	27.09
25	0.91	33.80	27.09
30	0.91	33.80	27.09
35	0.90	33.81	27.09
40	0.87	33.81	27.09
45	0.44	33.87	27.17
50	-0.75	33.99	27.33
60	-1.24	34.14	27.47
70	-0.71	34.22	27.51
75	-0.54	34.26	27.54
80	-0.73	34.28	27.56
90	-0.08	34.36	27.59
100	0.65	34.40	27.59
125	1.23	34.51	27.63
150	1.42	34.54	27.65
175	1.53	34.58	27.67
200	1.61	34.59	27.68
250	1.76	34.63	27.69
300	1.79	34.65	27.71
400	1.80	34.69	27.74
500	1.77	34.71	27.75
600	1.74	34.72	27.77
700	1.66	34.73	27.78
800	1.59	34.73	27.79
900	1.49	34.73	27.80
1000	1.36	34.73	27.80



Cruise: FIBEX Station: 25
15 FEB 1981 0640 GMT
Latitude : 63: 14.70S
Longitude: 77: 43.80E
Depth: CTD 1002 m Bottom 3840 m

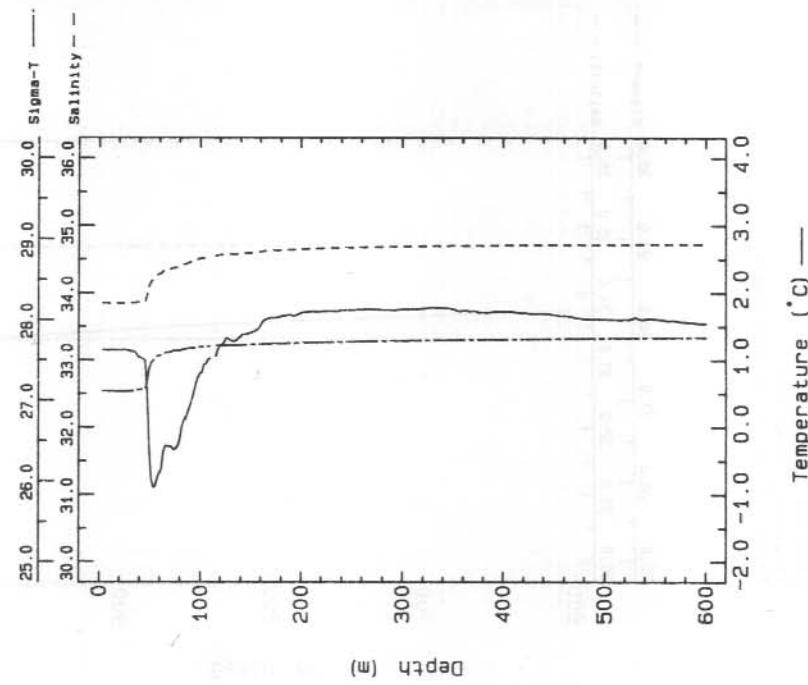
Cruise : FIBEX Station 25
15 FEB 1981 0640 GMT
Latitude 63: 14.70S
Longitude 77: 43.80E
Depth: CTD 1002 m Bottom 3840 m



Temperature ($^{\circ}\text{C}$) —
Salinity (\textperthousand) —

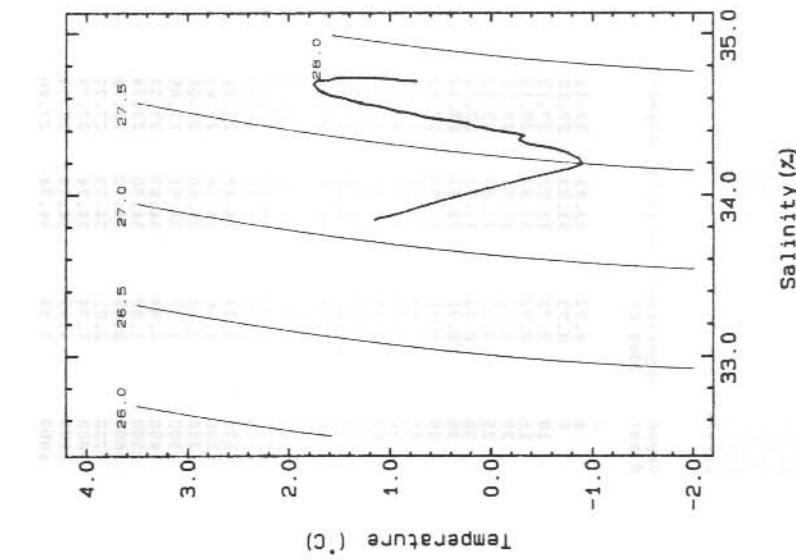
Cruise : FIBEX Station : 26
 Station number : 26
 Date : 15 FEB 1981
 Start Time : 1845 GMT
 Ship : NEELA DAN
 Position : 63°05'.70S 79°39'.40E
 Cast Depth (m) : 1640
 Bottom Depth (m) : 3800 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	1.15	33.85	27.11
4	1.15	33.85	27.11
5	1.15	33.85	27.11
10	1.15	33.85	27.11
15	1.15	33.84	27.11
20	1.15	33.84	27.11
25	1.15	33.85	27.11
30	1.14	33.85	27.11
35	1.12	33.85	27.12
40	1.04	33.87	27.13
45	1.00	33.87	27.14
50	-0.30	34.10	27.39
60	-0.68	34.28	27.56
70	-0.29	34.35	27.59
75	-0.33	34.37	27.61
80	-0.22	34.38	27.62
90	0.32	34.45	27.65
100	0.80	34.51	27.66
125	1.29	34.57	27.68
150	1.40	34.59	27.69
175	1.63	34.63	27.70
200	1.70	34.65	27.71
250	1.75	34.67	27.73
300	1.76	34.69	27.74
400	1.72	34.71	27.76
500	1.61	34.71	27.77
600	1.55	34.72	27.78
700	1.48	34.73	27.79
800	1.39	34.73	27.80
900	1.28	34.73	27.81
1000	1.20	34.72	27.81
1100	1.13	34.72	27.81
1200	1.06	34.72	27.82
1300	0.97	34.72	27.82
1400	0.83	34.70	27.82
1500	0.77	34.70	27.82



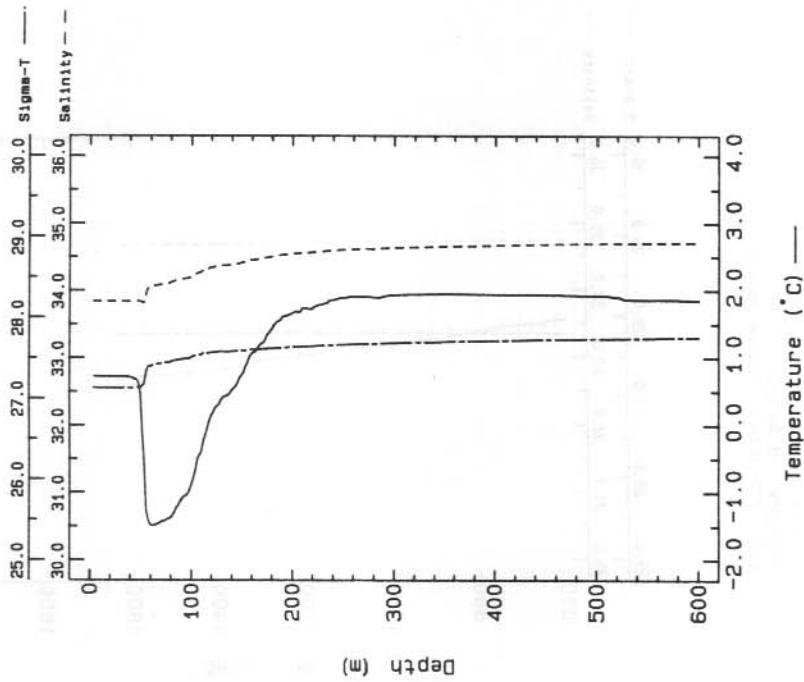
Cruise: FIBEX Station: 26
15 FEB 1981 1845 GMT
Latitude: 63° 05.70S
Longitude: 79° 39.40E
Depth: CTD 1640 m Bottom 3800 m

Cruise : FIBEX Station 26
15 FEB 1981 1845 GMT
Latitude 63° 05.70S
Longitude 79° 39.40E
Depth: CTD 1640 m Bottom 3800 m



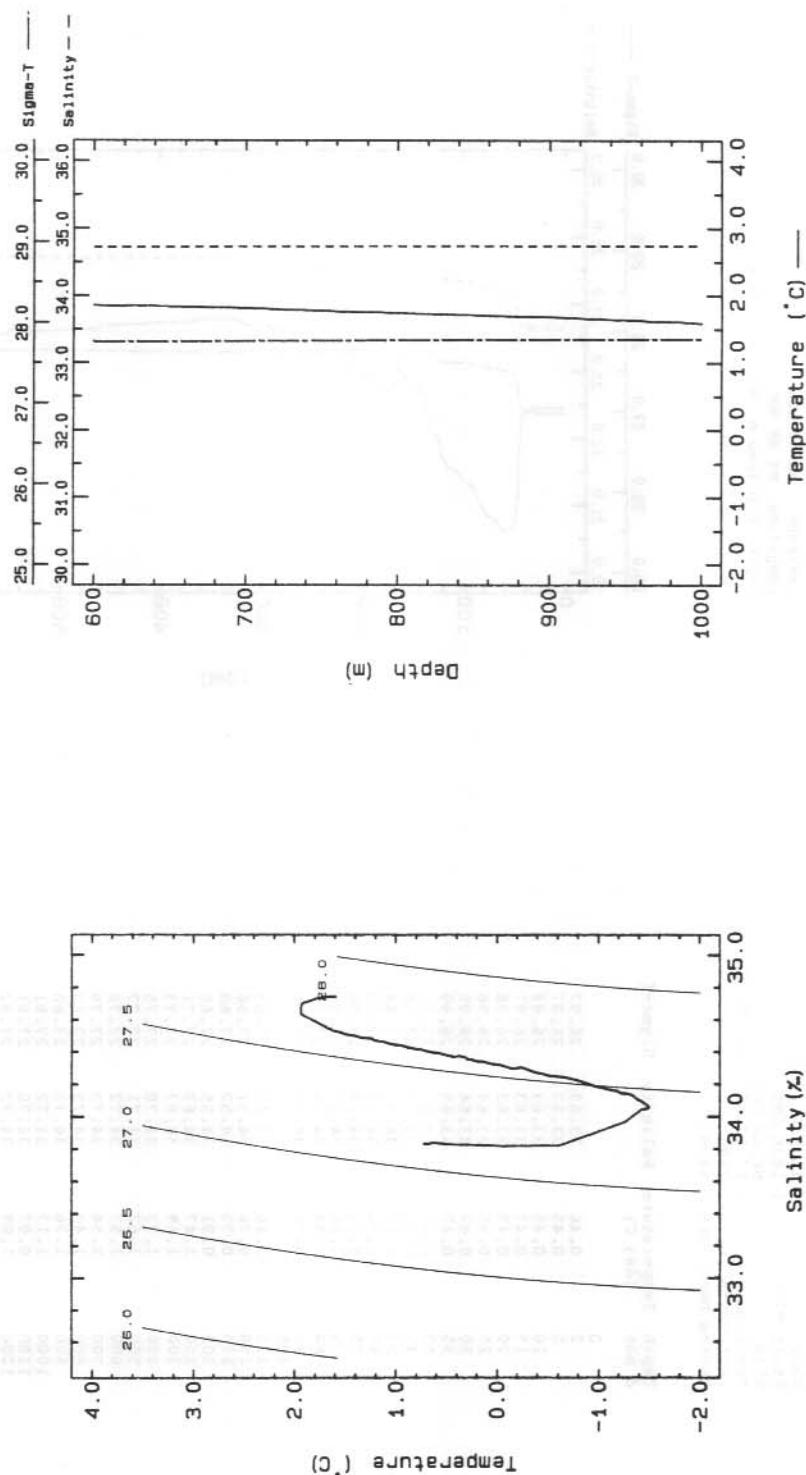
Cruise : FIBEX
 Station 27
 16 FEB 1981 0650 GMT
 Latitude 63°12.60S
 Longitude 83°00.60E
 Depth: CTD 1030 m Bottom 2587 m
 Cast Depth (m) : 1030
 Bottom Depth (m) : 2587 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.72	33.83	27.12
4	0.72	33.83	27.12
5	0.72	33.83	27.12
10	0.72	33.83	27.12
15	0.72	33.83	27.12
20	0.72	33.83	27.12
25	0.72	33.83	27.12
30	0.72	33.83	27.12
35	0.71	33.83	27.12
40	0.71	33.83	27.12
45	0.68	33.83	27.13
50	0.48	33.83	27.13
60	-1.49	34.05	27.40
70	-1.45	34.08	27.43
75	-1.42	34.10	27.44
80	-1.38	34.11	27.45
90	-1.12	34.17	27.48
100	-0.89	34.20	27.50
125	0.27	34.35	27.57
150	0.75	34.41	27.59
175	1.32	34.49	27.61
200	1.66	34.54	27.63
250	1.89	34.60	27.66
300	1.93	34.64	27.68
400	1.94	34.67	27.72
500	1.92	34.70	27.74
600	1.85	34.72	27.76
700	1.81	34.73	27.77
800	1.74	34.74	27.78
900	1.68	34.74	27.79
1000	1.59	34.74	27.80

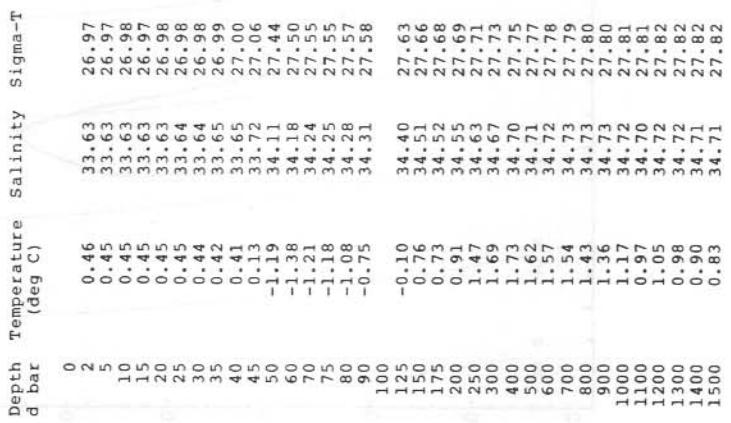


Cruise: FIBEX Station: 27
16 FEB 1981 0650 GMT
Latitude : 63: 12. 60S
Longitude: 83: 00. 60E
Depth: CTD 1030 m Bottom 2587 m

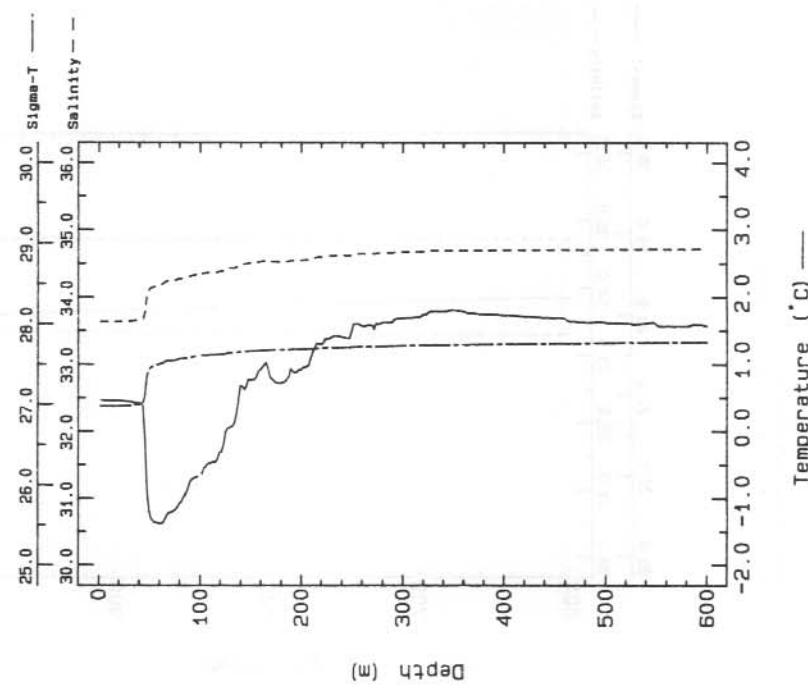
Cruise : FIBEX Station 27
16 FEB 1981 0850 GMT
Latitude 63: 12. 60S
Longitude 83: 00. 60E
Depth: CTD 1030 m Bottom 2587 m



Cruise : FIBEX
 Station : 28
 Date : 16 FEB 1981
 Start Time : 1836 GMT
 Ship : NELIA DAN
 Position : 63°17.00S 84°38.30E
 Cast Depth (m) : 1640
 Bottom Depth (m) : 3408 m

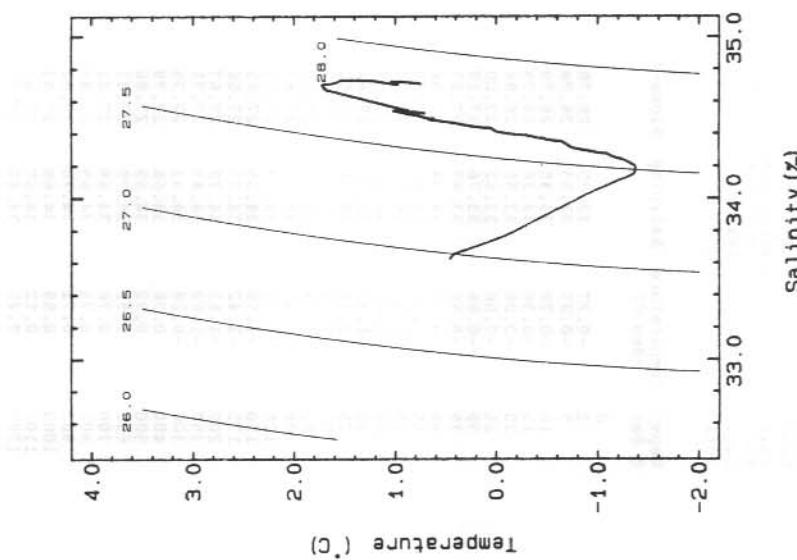


Cruise : FIBEX Station 28
 16 FEB 1981 1836 GMT
 Latitude 63°17.00S
 Longitude 84°38.30E
 Depth: CTD 1640 m Bottom 3408 m



Cruise: FIBEX Station: 28
16 FEB 1981 1836 GMT
Latitude : 63:17.00S
Longitude: 84:38.30E
Depth: CTD 1640 m Bottom 3408 m

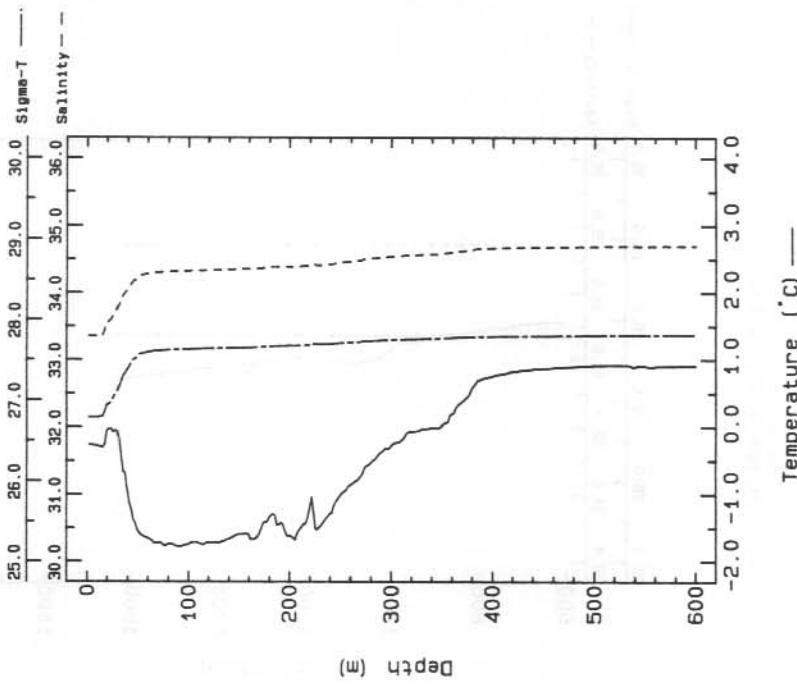
Cruise : FIBEX Station 28
16 FEB 1981 1836 GMT
Latitude 63:17.00S
Longitude 84:38.30E
Depth: CTD 1640 m Bottom 3408 m



Cruise : FIBEX Station 29
 Station number : 29
 Date : 17 FEB 1981
 Start Time : 0655 GMT
 Ship : NELIA DAN
 Position : 64°31'.60S 85°05'.00E
 Cast Depth (m) : 1640
 Bottom Depth (m) : 3500 m

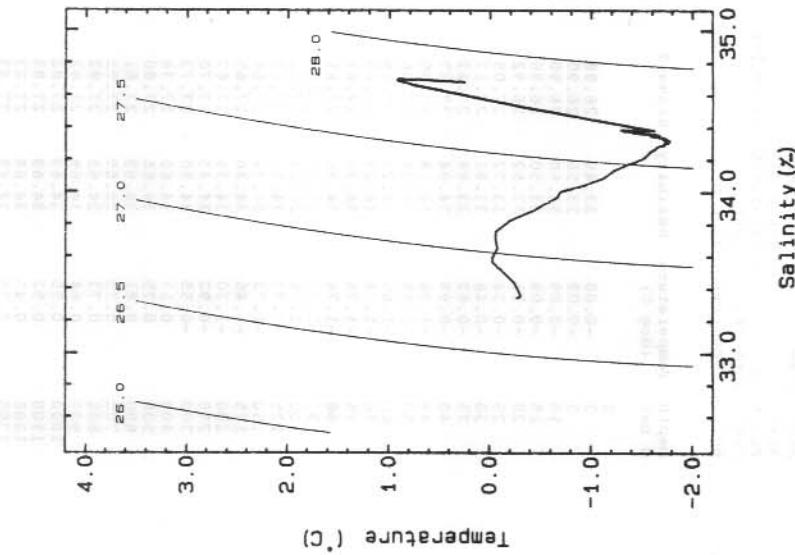
Depth Temperature (deg C) Salinity Sigma-T
 d bar

0	-0.27	33.35	26.78
2	-0.27	33.35	26.78
5	-0.27	33.35	26.78
10	-0.28	33.35	26.79
15	-0.30	33.36	26.79
20	-0.06	33.55	26.94
25	-0.06	33.62	27.00
30	-0.06	33.76	27.10
35	-0.56	33.93	27.27
40	-0.93	34.04	27.38
45	-1.30	34.16	27.48
50	-1.53	34.22	27.54
60	-1.65	34.28	27.59
70	-1.72	34.30	27.61
75	-1.74	34.31	27.62
80	-1.74	34.31	27.62
90	-1.78	34.32	27.63
100	-1.75	34.32	27.63
125	-1.72	34.33	27.64
150	-1.59	34.35	27.65
175	-1.42	34.37	27.66
200	-1.63	34.38	27.67
250	-1.02	34.45	27.71
300	-0.28	34.53	27.75
400	0.76	34.66	27.79
500	0.92	34.69	27.80
600	0.91	34.70	27.81
700	0.78	34.69	27.81
800	0.73	34.69	27.82
900	0.71	34.70	27.82
1000	0.59	34.69	27.82
1100	0.52	34.69	27.83
1200	0.46	34.69	27.83
1300	0.42	34.69	27.83
1400	0.36	34.68	27.83
1500	0.31	34.68	27.83



Cruise: FIBEX Station: 29
17 FEB 1981 0655 GMT
Latitude: 64° 31' 60S
Longitude: 85° 05'.00E
Depth: CTD 1640 m Bottom 3500 m

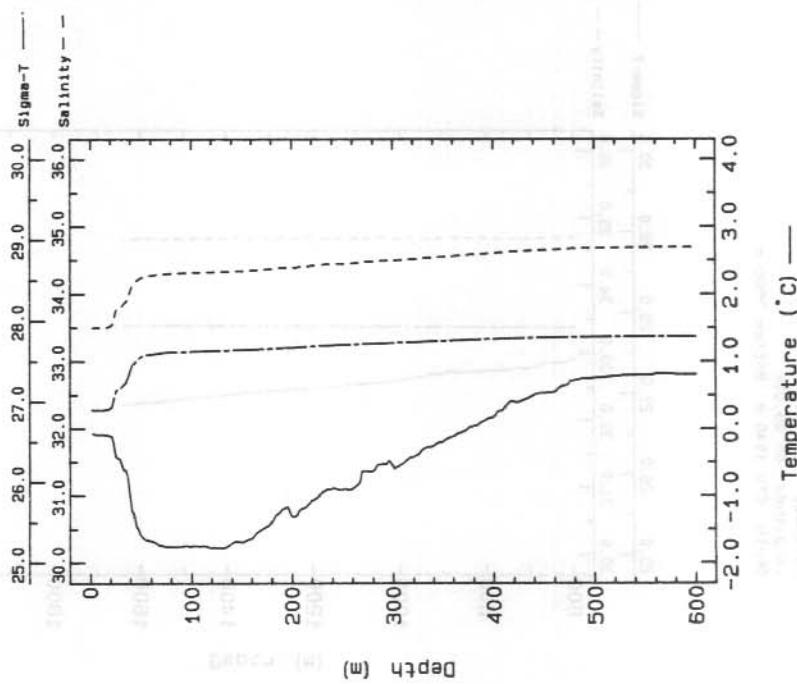
Cruise : FIBEX Station 29
17 FEB 1981 0655 GMT
Latitude 64: 31.60S
Longitude 85: 05.00E
Depth: CTD 1640 m Bottom 3500 m



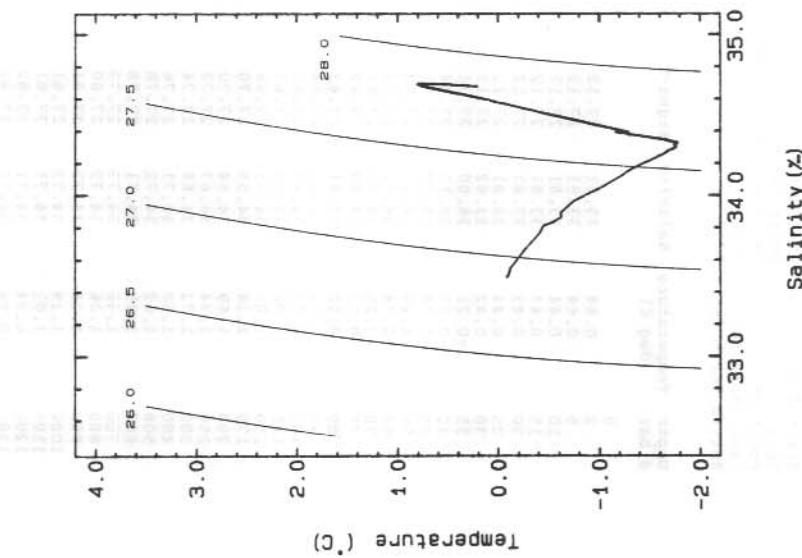
Cruise : FIBEX
 Station 30
 Date : 17 FEB 1981
 Start Time : 1905 GMT
 Ship : NELLA DAN
 Position : 64° 51'.50S 84° 19'.29E
 Cast Depth (m) : 1640
 Bottom Depth (m) : 3520 m



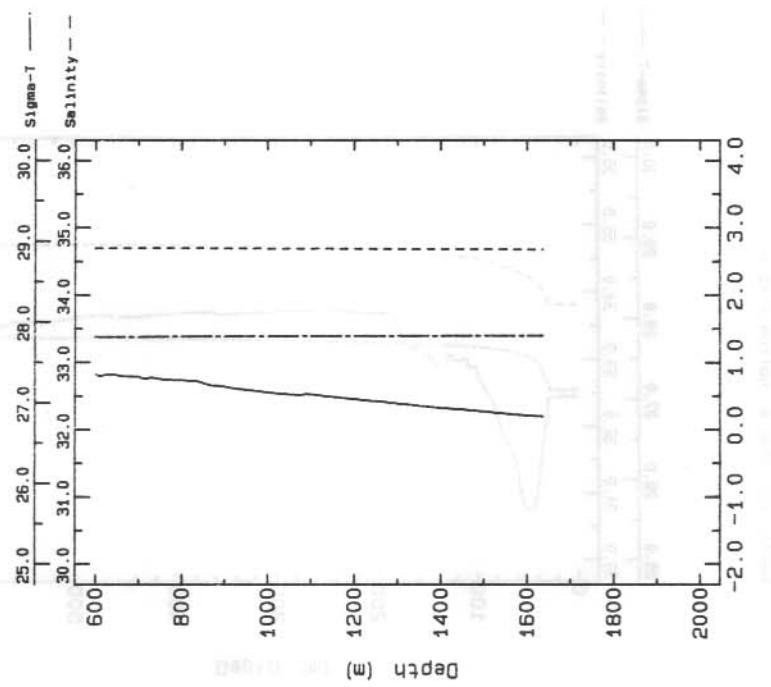
Cruise : FIBEX
 Station 30
 Date : 17 FEB 1981 1905 GMT
 Latitude 64° 51'.50S
 Longitude 84° 19'.29E
 Depth: CTD 1640 m Bottom 3520 m



Cruise: FIBEX Station: 30
17 FEB 1981 1905 GMT
Latitude : 64° 51.50S
Longitude: 84° 19.29E
Depth: CTD 1640 m Bottom 3520 m

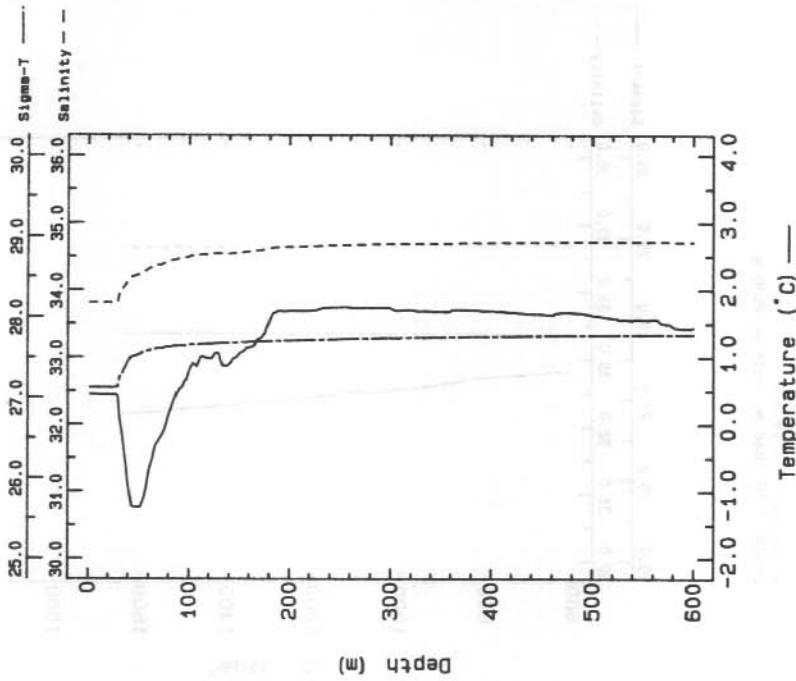


Cruise : FIBEX Station: 30
17 FEB 1981 1905 GMT
Latitude 64° 51.50S
Longitude 84° 19.29E
Depth: CTD 1640 m Bottom 3520 m



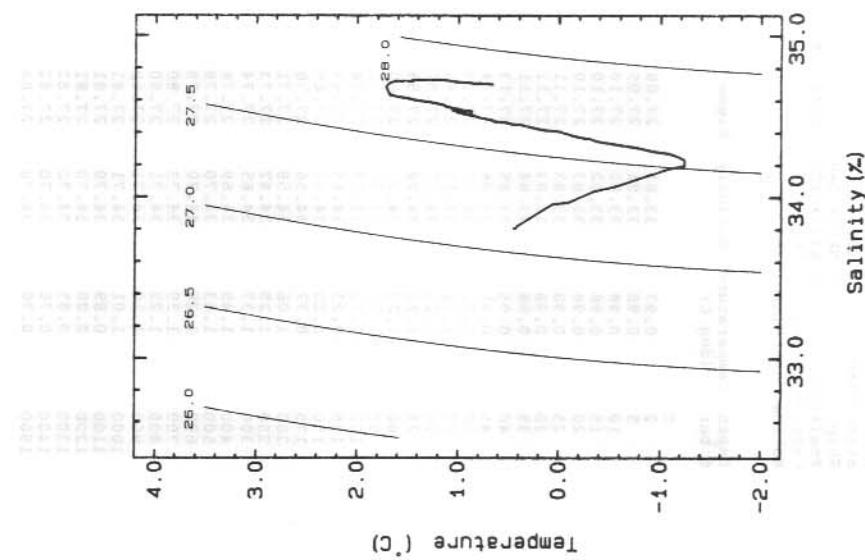
Cruise : FIBEX Station 31
 Station number : 31
 Date : 18 FEB 1981
 Start Time : 0643 GMT
 Ship : NELLA DAN
 Position : 64°20.90S 81°53.70E
 Cast Depth (m) : 1640
 Bottom Depth (m) : 3713 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.44	33.81	27.12
2	0.44	33.81	27.12
5	0.44	33.81	27.12
10	0.44	33.81	27.12
15	0.43	33.81	27.12
20	0.43	33.81	27.12
25	0.44	33.81	27.12
30	0.42	33.82	27.13
35	-0.21	34.00	27.31
40	-0.85	34.13	27.44
45	-1.24	34.20	27.51
50	-1.24	34.22	27.53
60	-0.74	34.31	27.58
70	-0.25	34.37	27.61
75	-0.12	34.39	27.62
80	0.12	34.41	27.63
90	0.51	34.46	27.64
100	0.78	34.49	27.65
125	1.02	34.53	27.67
150	1.05	34.55	27.68
175	1.34	34.59	27.70
200	1.69	34.64	27.72
250	1.74	34.67	27.72
300	1.72	34.68	27.74
400	1.68	34.71	27.76
500	1.62	34.72	27.78
600	1.45	34.71	27.78
700	1.46	34.73	27.79
800	1.36	34.72	27.80
900	1.25	34.72	27.81
1000	1.19	34.73	27.81
1100	1.01	34.71	27.81
1200	0.94	34.71	27.82
1300	0.84	34.70	27.82
1400	0.79	34.71	27.82
1500	0.71	34.70	27.82

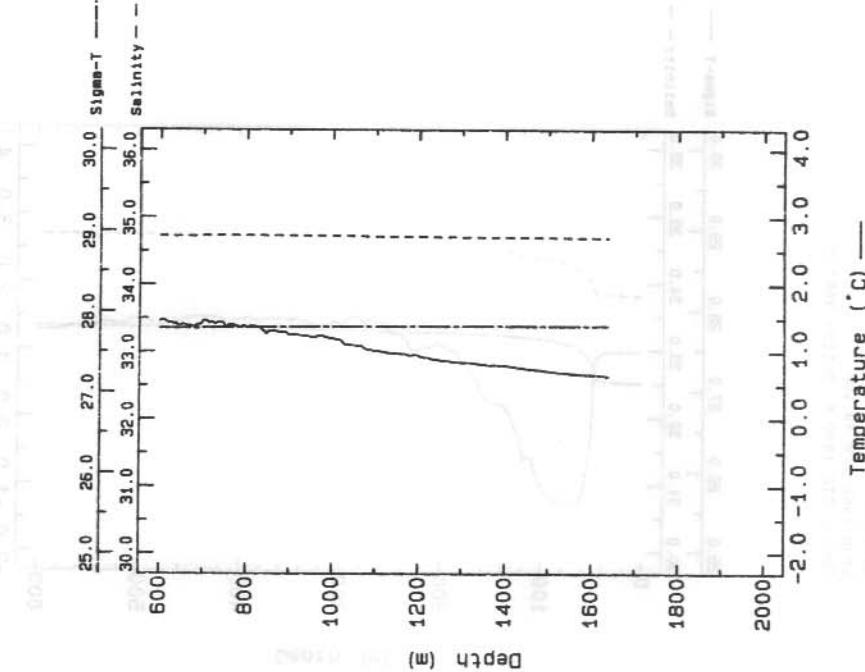


Cruise: FIBEX Station: 31
18 FEB 1981 0643 GMT
Latitude : 64° 20.90S
Longitude: 81° 53.70E
Depth: CTD 1640 m Bottom 3713 m

Cruise : FIBEX Station 31
18 FEB 1981 0643 GMT
Latitude 64° 20.90S
Longitude 81° 53.70E
Depth: CTD 1640 m Bottom 3713 m



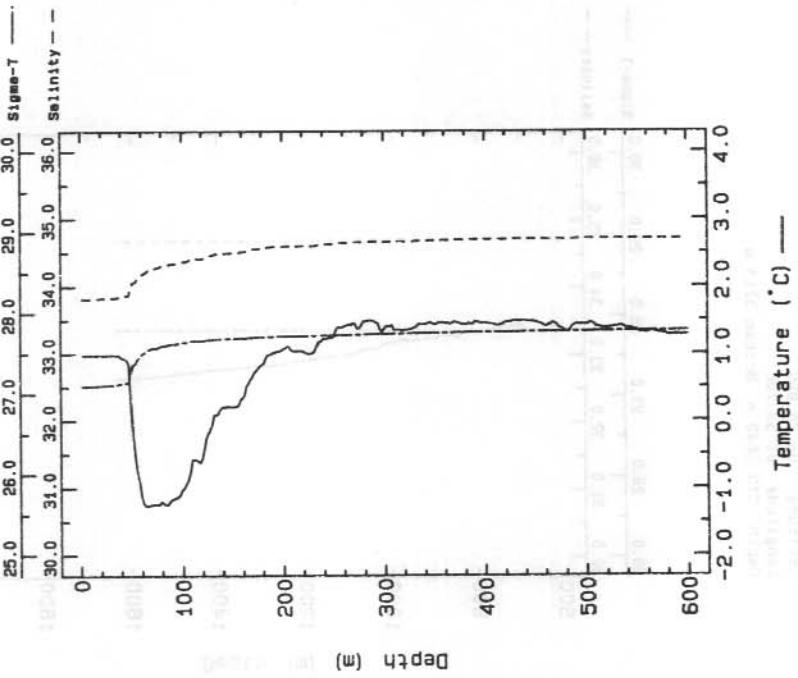
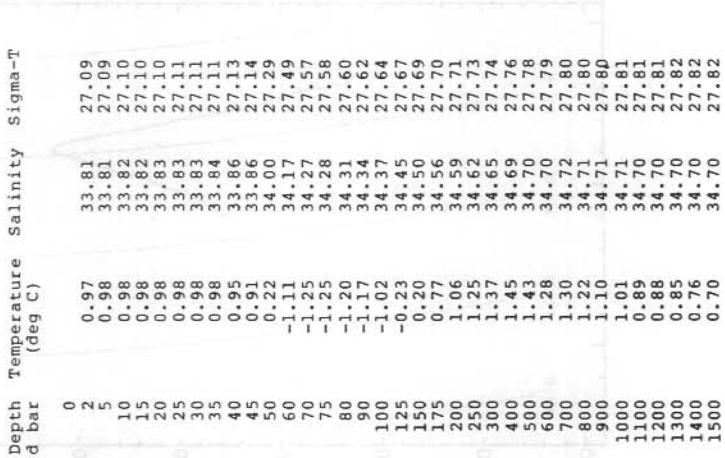
Temperature ($^{\circ}\text{C}$)
Salinity (\textperthousand)



Temperature ($^{\circ}\text{C}$)
Salinity (\textperthousand)

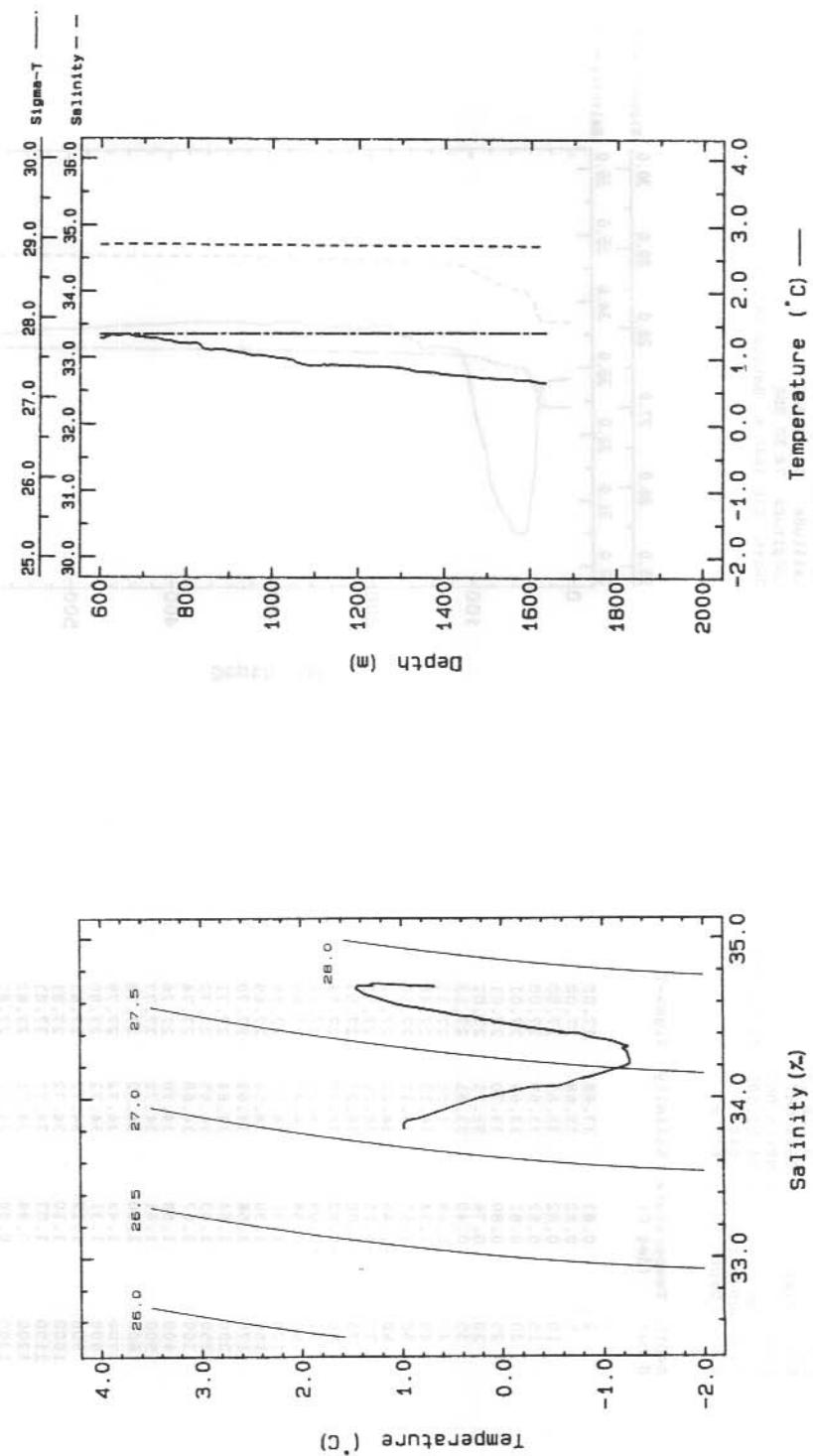
Cruise : FIBEX Station 32
 Station number : 32
 Date : 18 FEB 1981
 Start Time : 1923 GMT
 Ship : NEELA DAN
 Position : 64°18.4'N 78°48.1'OE
 Cast Depth (m) : 1640
 Bottom Depth (m) : 3667 m

Cruise : FIBEX Station 32
 18 FEB 1981 1923 GMT
 Latitude 64°18.4'N
 Longitude 78°48.1'OE
 Depth: CTD 1640 m Bottom 3667 m



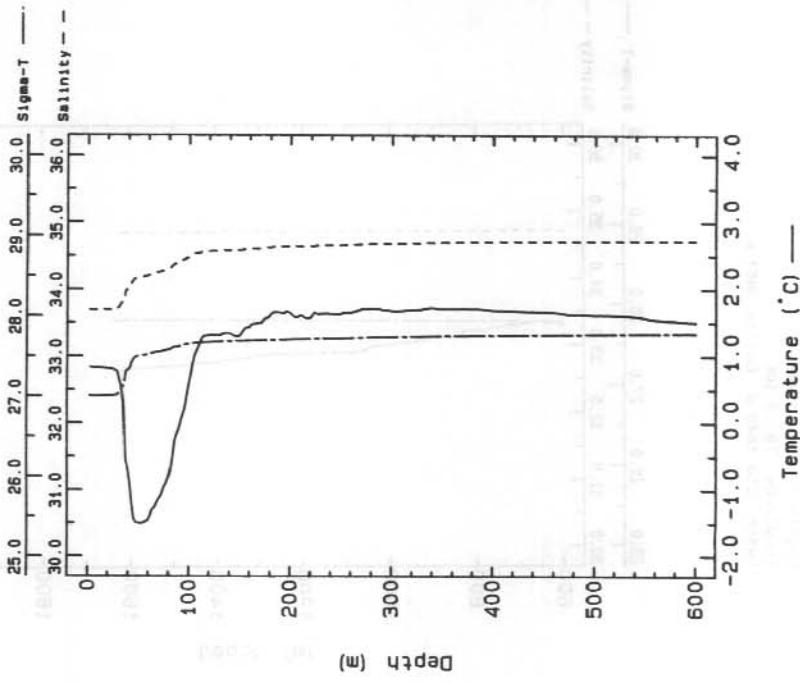
Cruise: FIBEX Station: 32
18 FEB 1981 1923 GMT
Latitude: 64° 18' 40"S
Longitude: 78° 48' 10"E
Depth: CTD 1640 m Bottom 3667 m

Cruise : FIBEX Station 32
18 FEB 1981 1923 GMT
Latitude 64: 18.40S
Longitude 78: 48.10E
Depth: CTD 1640 m Bottom 3667 m



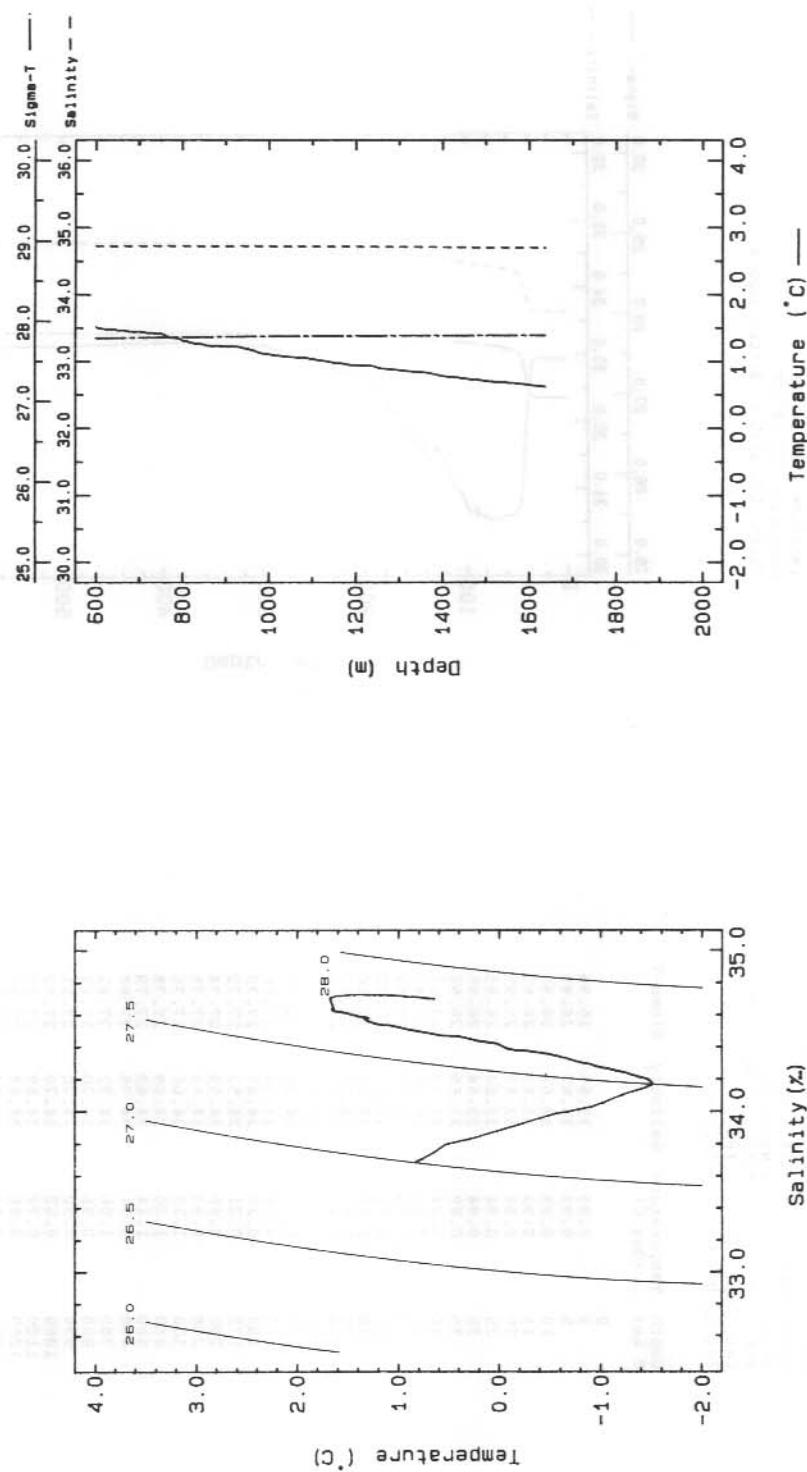
Cruise : FIBEX Station 33
 Date : 19 FEB 1981
 Start Time : 0644 GMT
 Ship : NELIA DAN
 Position : 64:11.50S 74:58.50E
 Cast Depth (m) : 1640
 Bottom Depth (m) : 3670 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.83	33.68	27.00
5	0.82	33.68	27.00
10	0.82	33.69	27.00
15	0.82	33.69	27.00
20	0.81	33.69	27.01
25	0.80	33.70	27.01
30	0.76	33.71	27.02
35	0.40	33.81	27.13
40	-0.69	34.00	27.33
45	-1.34	34.13	27.46
50	-1.51	34.17	27.50
60	-1.46	34.20	27.52
70	-1.15	34.25	27.55
75	-1.00	34.27	27.57
80	-0.82	34.30	27.58
90	-0.09	34.39	27.62
100	0.58	34.47	27.65
125	1.31	34.57	27.68
150	1.30	34.58	27.69
175	1.56	34.62	27.70
200	1.64	34.64	27.71
250	1.63	34.65	27.72
300	1.67	34.68	27.74
400	1.68	34.70	27.76
500	1.61	34.72	27.77
600	1.50	34.72	27.78
700	1.43	34.72	27.79
800	1.31	34.72	27.80
900	1.22	34.72	27.81
1000	1.10	34.72	27.81
1100	1.03	34.71	27.81
1200	0.94	34.71	27.82
1300	0.86	34.71	27.82
1400	0.78	34.70	27.82
1500	0.70	34.70	27.82



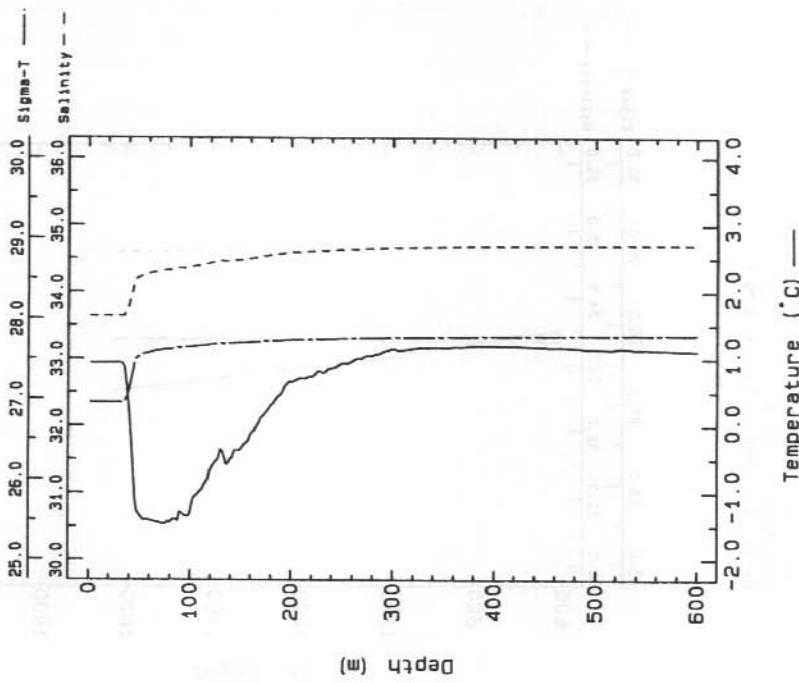
Cruise: FIBEX Station: 33
19 FEB 1981 0644 GMT
Latitude : 64:11.50S
Longitude: 74:58.50E
Depth: CTD 1640 m Bottom 3670 m

Cruise : FIBEX Station 33
19 FEB 1981 0644 GMT
Latitude 64: 11.50S
Longitude 74: 58.50E
Depth: CTD 1640 m Bottom 3670 m



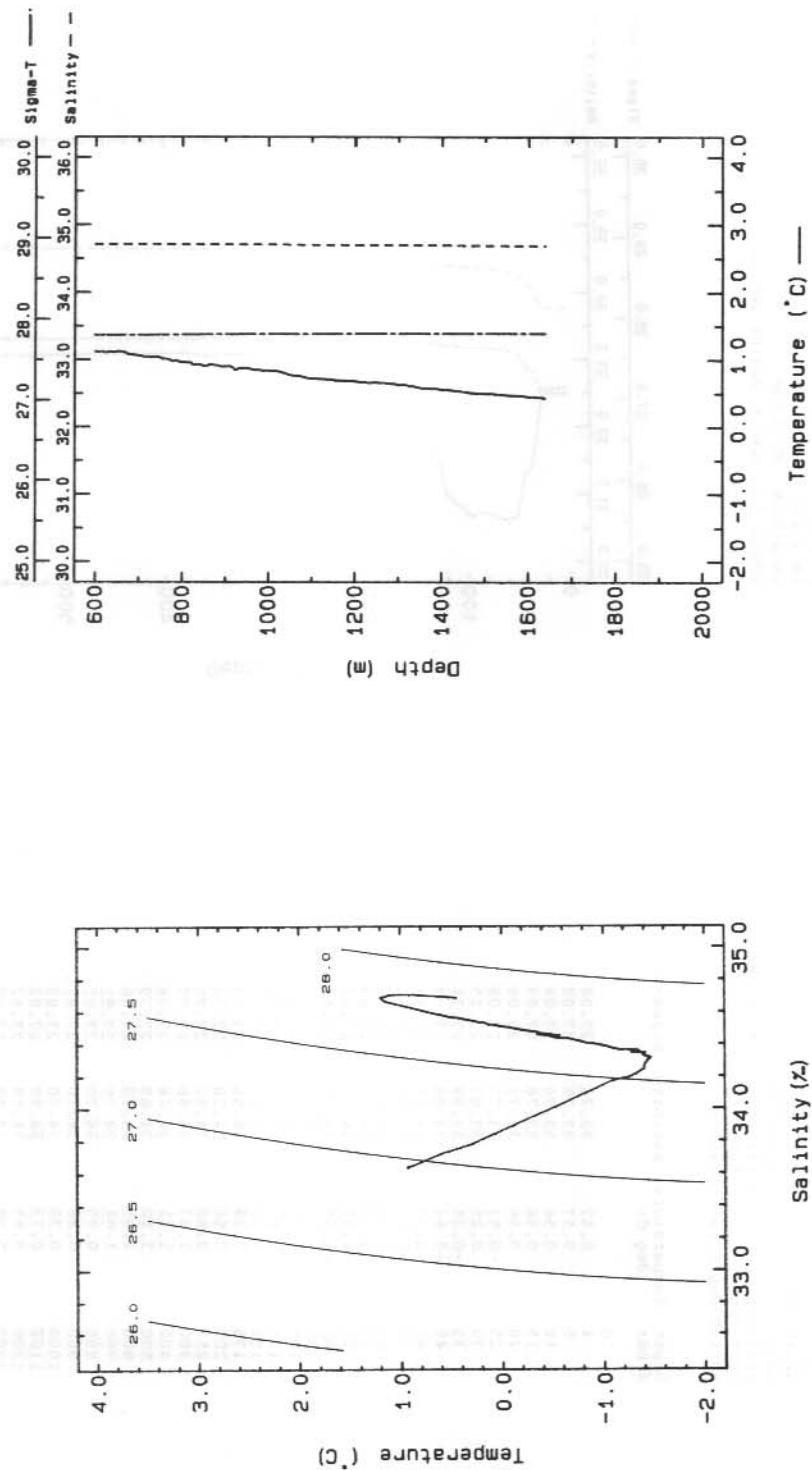
Cruise		FIBEX	Station number	:	34
Date	:	19 FEB 1981	Start Time	:	1852 GMT
Start Time	:	1852 GMT	Ship	:	NELIA DAN
Position	:	64°14'.60S	Cast Depth (m)	:	72:07.40E
Cast Depth (m)	:	1640	Bottom Depth (m)	:	3620 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.93	33.63	26.95
2	0.93	33.63	26.95
5	0.93	33.63	26.95
10	0.93	33.63	26.95
15	0.93	33.63	26.95
20	0.94	33.63	26.95
25	0.94	33.64	26.95
30	0.94	33.64	26.95
35	0.89	33.65	26.96
40	0.29	33.78	27.11
45	-0.83	34.09	27.41
50	-1.33	34.21	27.53
60	-1.41	34.27	27.58
70	-1.44	34.30	27.60
75	-1.47	34.32	27.61
80	-1.44	34.32	27.62
90	-1.28	34.35	27.63
100	-1.32	34.36	27.65
125	-0.54	34.44	27.68
150	-0.35	34.47	27.70
175	0.21	34.53	27.72
200	0.66	34.59	27.74
250	0.93	34.63	27.75
300	1.15	34.66	27.76
400	1.20	34.69	27.78
500	1.14	34.69	27.79
600	1.11	34.70	27.80
700	1.06	34.71	27.81
800	0.96	34.70	27.81
900	0.90	34.70	27.81
1000	0.83	34.70	27.82
1100	0.72	34.69	27.82
1200	0.68	34.69	27.82
1300	0.62	34.69	27.82
1400	0.55	34.69	27.82
1500	0.49	34.69	27.83



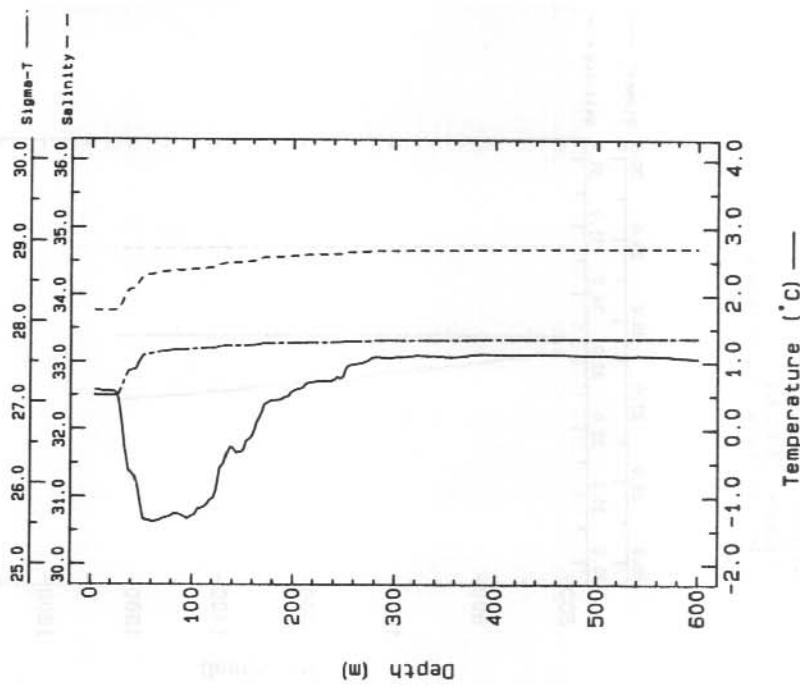
Cruise: FIBEX Station: 34
19 FEB 1981 1852 GMT
Latitude : 64° 14.60S
Longitude: 72° 07.40E
Depth: CTD 1640 m Bottom 3620 m

Cruise : FIBEX Station 34
19 FEB 1981 1852 GMT
Latitude 64: 14.60S
Longitude 72: 07.40E
Depth: CTD 1640 m Bottom 3620 m



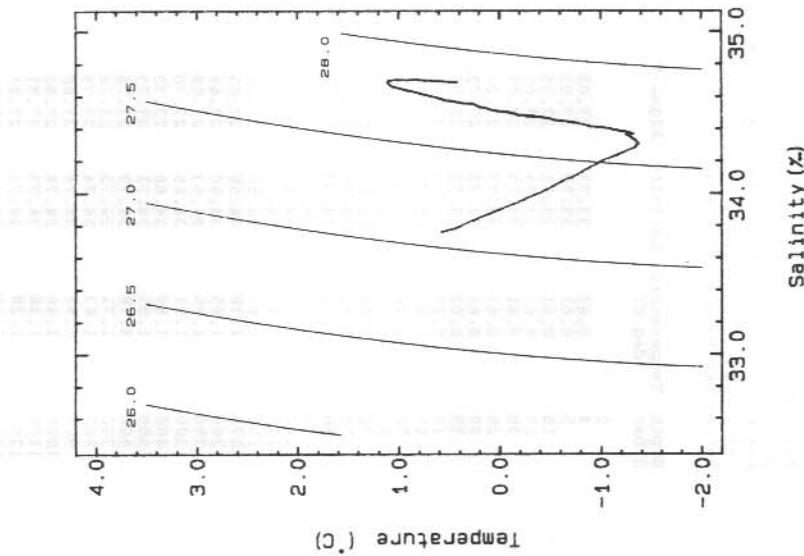
Cruise : FIBEX Station 35
 Date : 20 FEB 1981 0636 GMT
 Start Time : 0636 GMT
 Ship : NELLA DAN
 Position : 64:04.19S 68:35.09E
 Cast Depth (m) : 1640 68:35.09E
 Bottom Depth (m) : 3466 m

Depth bar bar	Temperature (deg C)	Salinity	Sigma-T
0	0.57	33.76	27.08
4	0.57	33.76	27.08
10	0.56	33.76	27.08
15	0.56	33.76	27.08
20	0.56	33.76	27.08
25	0.53	33.77	27.08
30	0.25	33.83	27.15
35	-0.35	33.99	27.31
40	-0.64	34.08	27.39
45	-0.77	34.11	27.43
50	-1.17	34.24	27.54
60	-1.38	34.30	27.60
70	-1.33	34.34	27.63
75	-1.31	34.35	27.63
80	-1.28	34.35	27.64
90	-1.29	34.36	27.65
100	-1.28	34.38	27.66
125	-0.83	34.42	27.68
150	-0.32	34.48	27.70
175	0.39	34.56	27.73
200	0.56	34.58	27.74
250	0.80	34.62	27.75
300	1.07	34.66	27.77
400	1.11	34.68	27.78
500	1.10	34.69	27.78
600	1.05	34.70	27.80
700	1.01	34.70	27.81
800	0.90	34.70	27.81
900	0.88	34.70	27.81
1000	0.79	34.70	27.82
1100	0.73	34.69	27.82
1200	0.65	34.69	27.82
1300	0.58	34.69	27.82
1400	0.53	34.69	27.83
1500	0.47	34.69	27.83



Cruise: FIBEX Station: 35
20 FEB 1981 0636 GMT
Latitude: 64° 04.195
Longitude: 68° 35.095
Depth: CTD 1640 m Bottom 3466 m

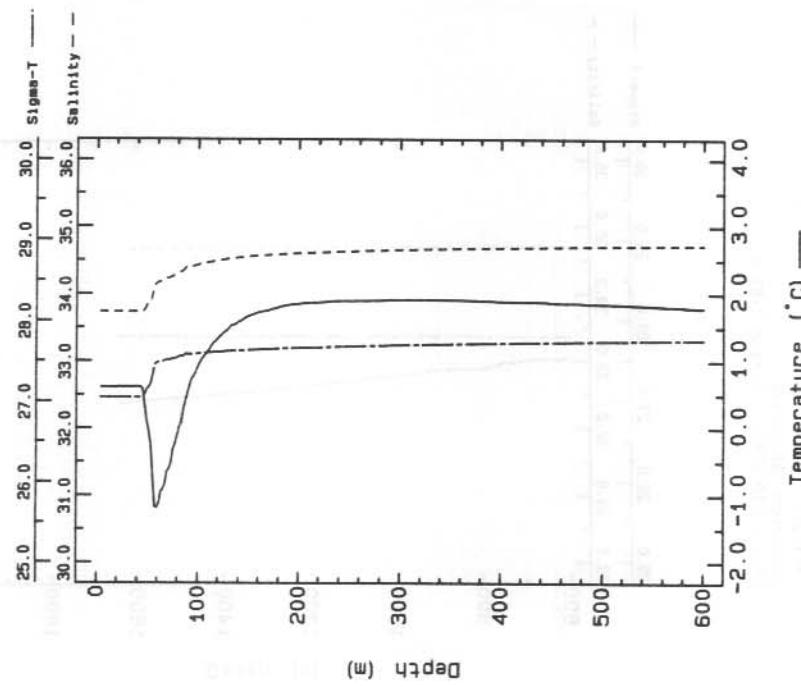
Cruise : FIBEX Station 35
20 FEB 1981 0636 GMT
Latitude 64° 04.195
Longitude 68° 35.095
Depth: CTD 1640 m Bottom 3466 m



Cruise : FIBEX Station : 36
 Station number : 36
 Date : 20 FEB 1981
 Start Time : 1857 GMT
 Ship : NELIA DAN
 Position : 64°12.10S 64°52.60E
 Cast Depth (m) : 1640
 Bottom Depth (m) : 4021 m

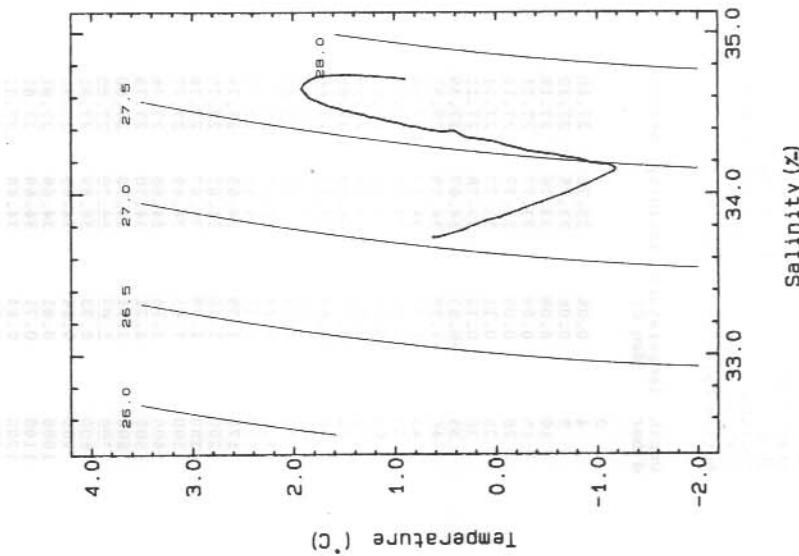
Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.61	33.73	27.05
4	0.61	33.73	27.05
5	0.61	33.73	27.05
10	0.61	33.73	27.05
15	0.61	33.73	27.05
20	0.61	33.73	27.05
25	0.62	33.73	27.05
30	0.61	33.73	27.05
35	0.62	33.73	27.05
40	0.62	33.73	27.05
45	0.59	33.73	27.05
50	0.10	33.83	27.16
60	-1.19	34.16	27.48
70	-0.64	34.23	27.52
75	-0.42	34.25	27.52
80	-0.13	34.30	27.55
90	0.53	34.38	27.58
100	0.90	34.43	27.59
125	1.40	34.50	27.62
150	1.67	34.55	27.64
175	1.78	34.58	27.65
200	1.85	34.60	27.66
250	1.90	34.63	27.68
300	1.91	34.65	27.70
400	1.89	34.68	27.73
500	1.85	34.71	27.75
600	1.78	34.72	27.76
700	1.71	34.73	27.78
800	1.63	34.74	27.79
900	1.53	34.74	27.80
1000	1.46	34.74	27.80
1100	1.36	34.73	27.81
1200	1.28	34.73	27.81
1300	1.18	34.72	27.81
1400	1.07	34.72	27.82
1500	0.99	34.72	27.82

Cruise : FIBEX Station : 36
 Date : 20 FEB 1981 1857 GMT
 Latitude : 64°12.10S
 Longitude : 64°52.60E
 Depth: CTD 1640 m Bottom 4021 m



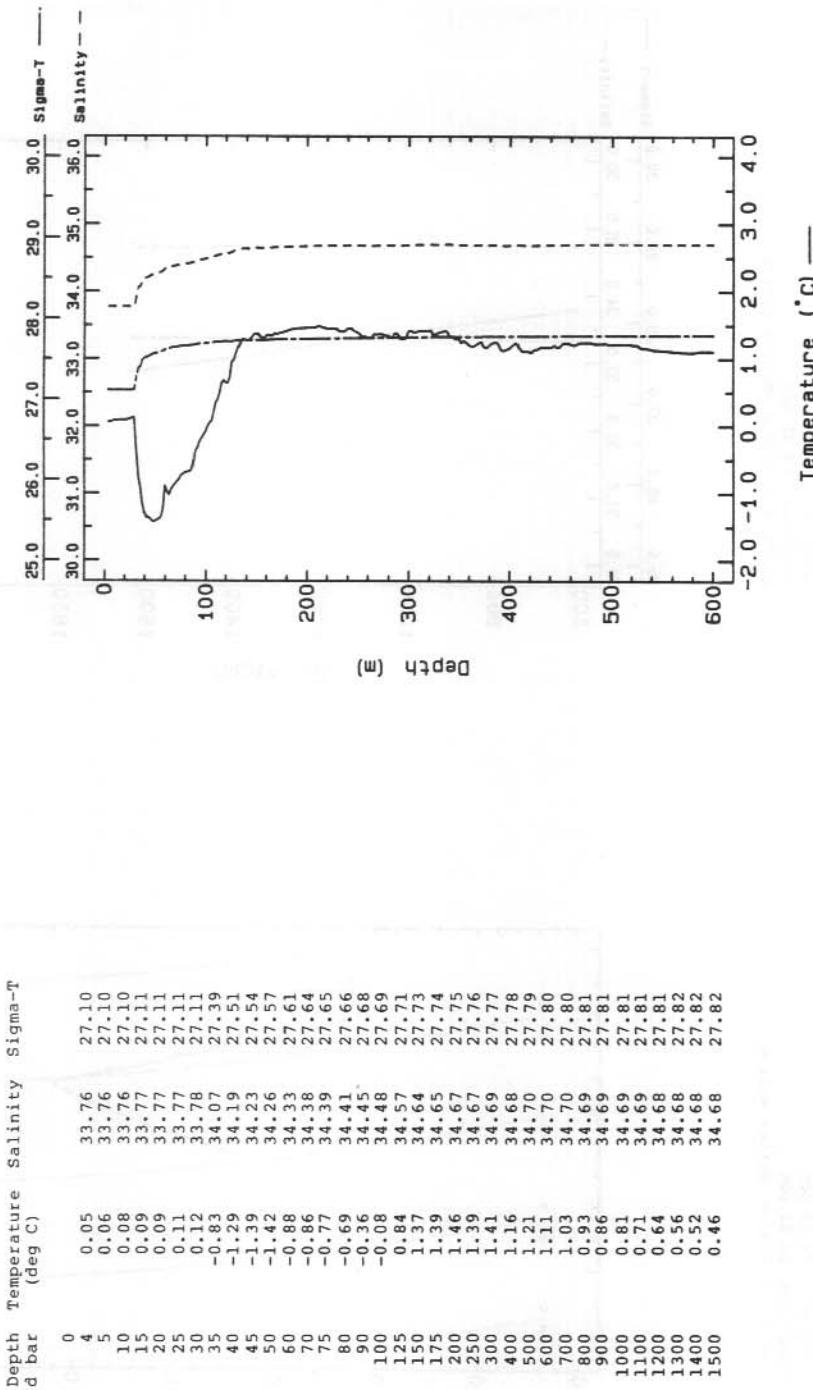
Cruise: FIBEX Station: 36
20 FEB 1981 1857 GMT
Latitude : 64: 12. 10S
Longitude: 64: 52. 60E
Depth: CTD 1640 m Bottom 4021 m

Cruise : FIBEX Station 36
20 FEB 1981 1857 GMT
Latitude 64: 12. 10S
Longitude 64: 52. 60E
Depth: CTD 1640 m Bottom 4021 m



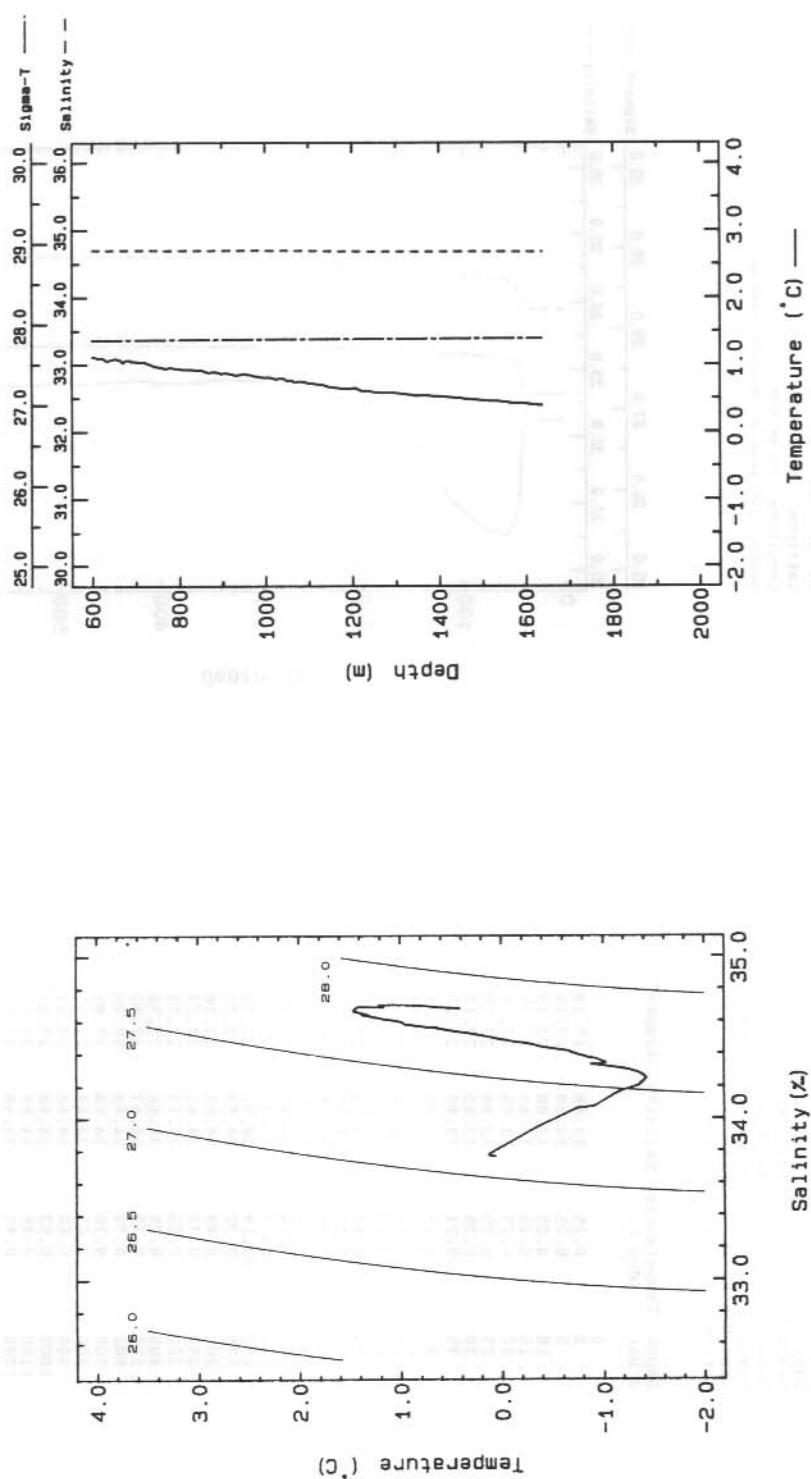
Cruise : FIBEX
 Station 37
 Date : 21 FEB 1981
 Start Time : 0635 GMT
 Ship : NELLA DAN
 Position : 64°59.80S 67°04.19E
 Cast Depth (m) : 1640
 Bottom Depth (m) : 3360 m

cruise : FIBEX Station 37
 21 FEB 1981 0635 GMT
 Latitude 64°59.80S
 Longitude 67°04.19E
 Depth: CTD 1640 m Bottom 3360 m



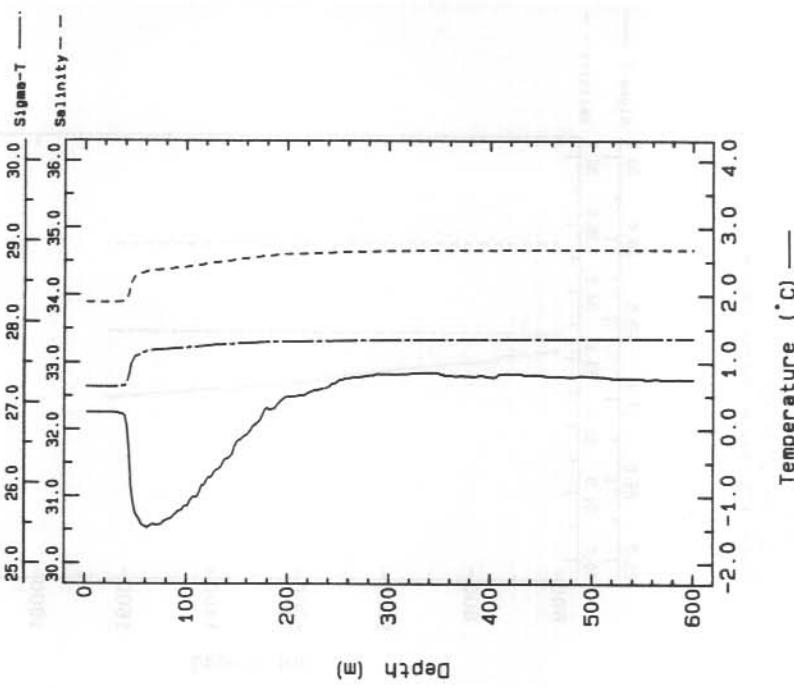
Cruise: FIBEX Station: 37
21 FEB 1981 0635 GMT
Latitude : 64° 59.80S
Longitude: 57° 04.19E
Depth: CTD 1640 m Bottom 3360 m

Cruise : FIBEX Station 37
21 FEB 1981 0635 GMT
Latitude 64: 59.80S
Longitude 67: 04.19E
Depth: CTD 1640 m Bottom 3360 m



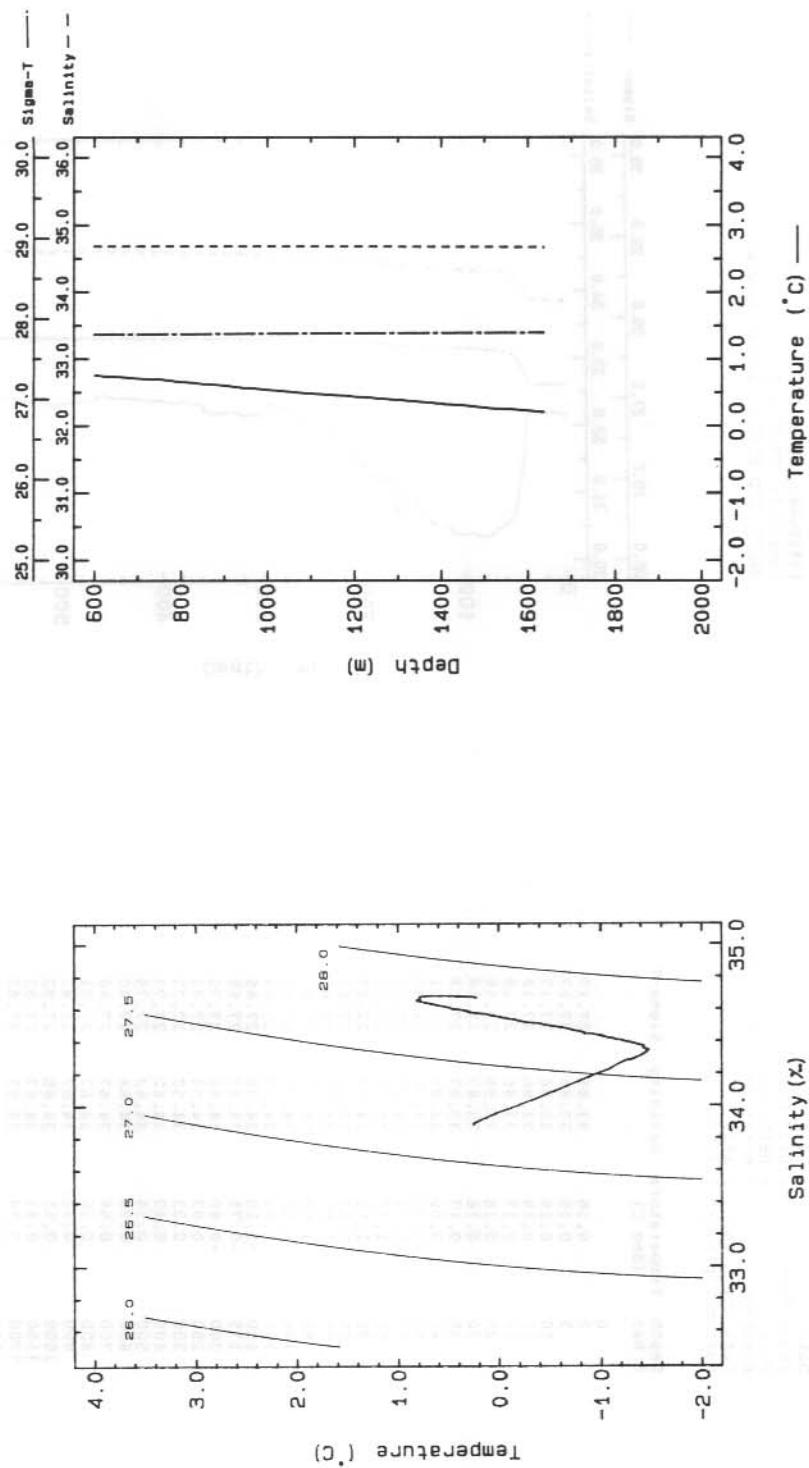
Cruise : FIBEX
 Station : 38
 Date : 21 FEB 1981
 Start Time : 1830 GMT
 Ship : NELIA DAN
 Position : 65°44' 80S 70°31' 50E
 Cast Depth (m) : 1640
 Bottom Depth (m) : 3216 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.25	33.88	27.19
2	0.25	33.88	27.19
5	0.25	33.88	27.19
10	0.25	33.88	27.19
15	0.25	33.89	27.19
20	0.25	33.89	27.19
25	0.25	33.89	27.19
30	0.25	33.89	27.19
35	0.23	33.89	27.20
40	0.19	33.90	27.21
45	-0.60	34.10	27.41
50	-1.24	34.28	27.58
60	-1.46	34.33	27.63
70	-1.43	34.37	27.65
75	-1.42	34.37	27.66
80	-1.36	34.38	27.66
90	-1.26	34.40	27.67
100	-1.14	34.41	27.68
125	-0.70	34.47	27.71
150	-0.19	34.53	27.73
175	0.20	34.57	27.75
200	0.49	34.61	27.76
250	0.72	34.63	27.77
300	0.83	34.65	27.78
400	0.78	34.66	27.79
500	0.79	34.67	27.80
600	0.75	34.68	27.80
700	0.70	34.68	27.81
800	0.65	34.68	27.81
900	0.60	34.68	27.81
1000	0.53	34.68	27.82
1100	0.48	34.68	27.82
1200	0.43	34.68	27.82
1300	0.38	34.67	27.82
1400	0.33	34.67	27.83
1500	0.27	34.67	27.83



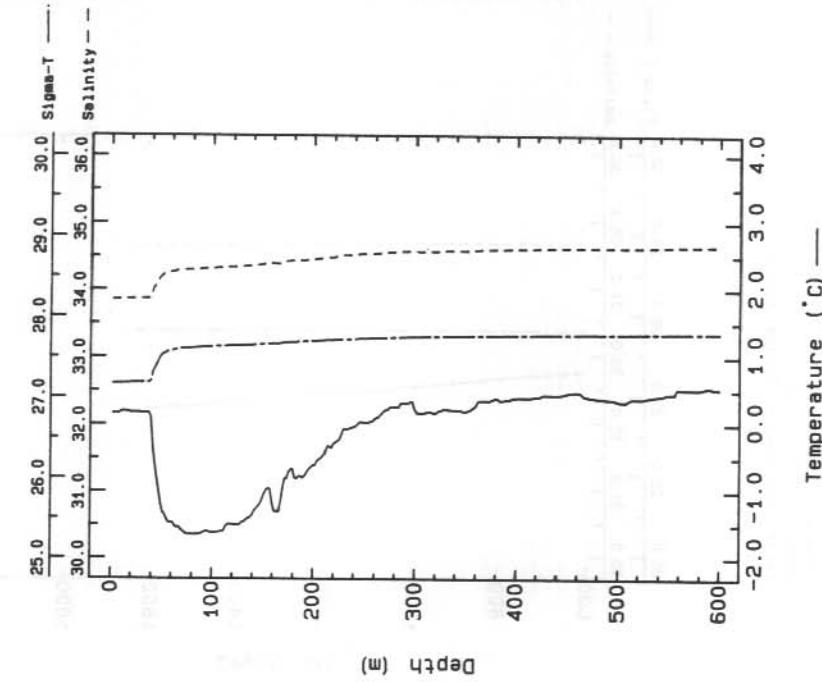
Cruise: FIBEX Station: 38
21 FEB 1981 1830 GMT
Latitude: 65° 04.805
Longitude: 70° 31.50E
Depth: CTD 1640 m Bottom 3216 m

Cruise : FIBEX Station 38
21 FEB 1981 1830 GMT
Latitude 65° 04.805
Longitude 70° 31.50E
Depth: CTD 1640 m Bottom 3216 m



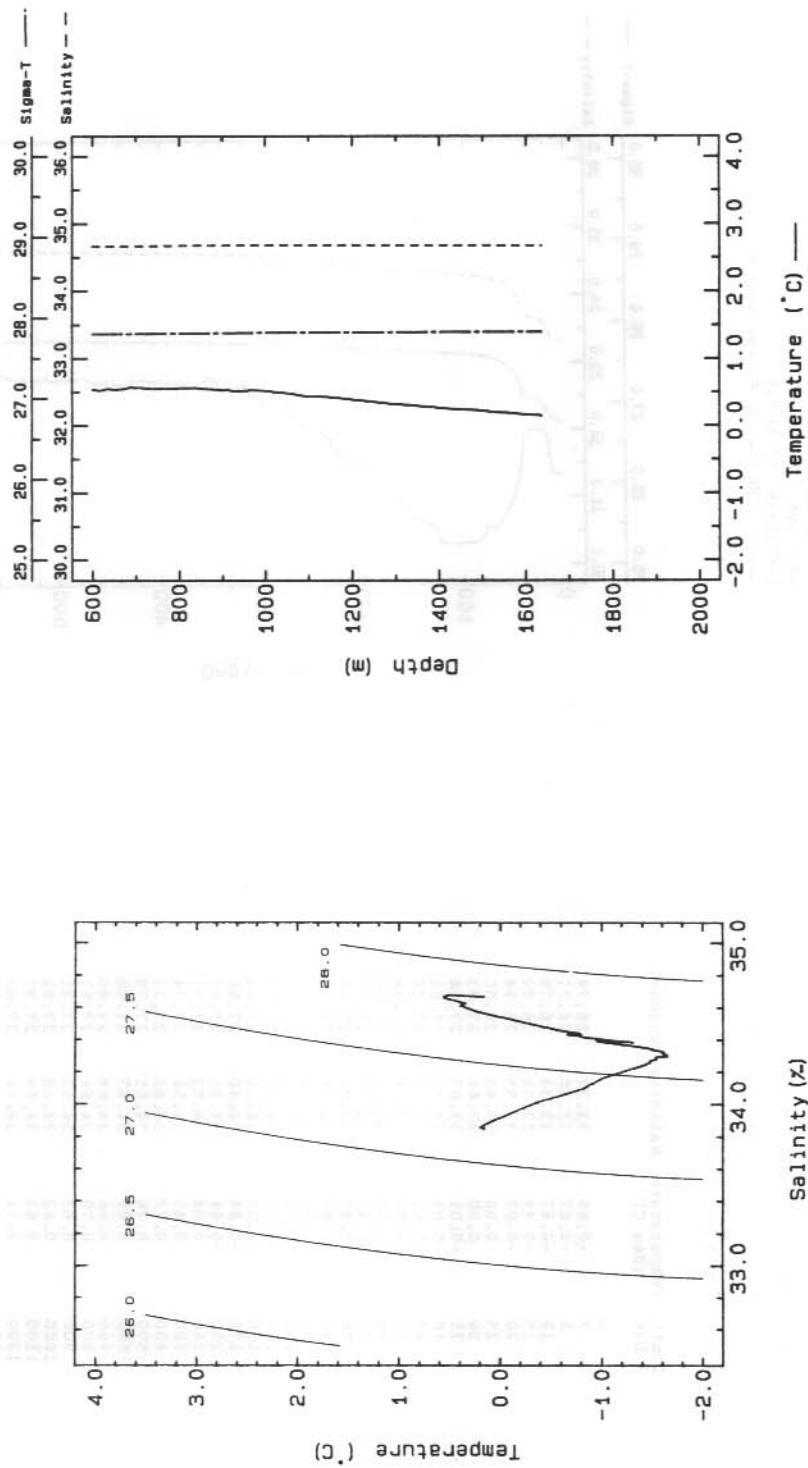
Cruise	Station number	Date	Start Time	Ship	Position	Cast Depth (m)	Bottom Depth (m)	Depth bar	Temperature (deg C)	Salinity	Sigma-T
FIBEX	39	22 FEB 1981	0627 GMT	NELIA DAN	65°23.7'N 73°57.7'W	1640	3156	0	0.16	33.85	27.17
								5	0.15	33.85	27.17
								10	0.19	33.86	27.17
								15	0.19	33.86	27.18
								20	0.17	33.86	27.18
								25	0.18	33.86	27.18
								30	0.16	33.87	27.18
								35	0.17	33.87	27.18
								40	0.09	33.89	27.21
								45	-0.72	34.08	27.40
								50	-1.21	34.20	27.51
								60	-1.47	34.26	27.57
								70	-1.58	34.30	27.60
								75	-1.64	34.30	27.61
								80	-1.65	34.30	27.61
								90	-1.63	34.31	27.62
								100	-1.62	34.32	27.62
								125	-1.51	34.34	27.64
								150	-1.10	34.38	27.66
								175	-0.75	34.43	27.68
								200	-0.60	34.46	27.70
								250	0.03	34.54	27.73
								300	0.23	34.58	27.75
								400	0.40	34.62	27.77
								500	0.34	34.63	27.79
								600	0.52	34.66	27.80
								700	0.56	34.67	27.80
								800	0.56	34.67	27.81
								900	0.52	34.67	27.81
								1000	0.51	34.68	27.82
								1100	0.42	34.67	27.82
								1200	0.38	34.67	27.82
								1300	0.31	34.67	27.82
								1400	0.25	34.67	27.83
								1500	0.21	34.67	27.83

Cruise : FIBEX Station : 39
 Start number : 22 FEB 1981 Station : 39
 Date : 22 FEB 1981 Date : 22 FEB 1981
 Start Time : 0627 GMT Start Time : 0627 GMT
 Ship : NELIA DAN Ship : NELIA DAN
 Position : 65°23.7'N 73°57.7'W Position : 65°23.7'N 73°57.7'W
 Cast Depth (m) : 1640 Cast Depth (m) : 1640
 Bottom Depth (m) : 3156 m Bottom Depth (m) : 3156 m



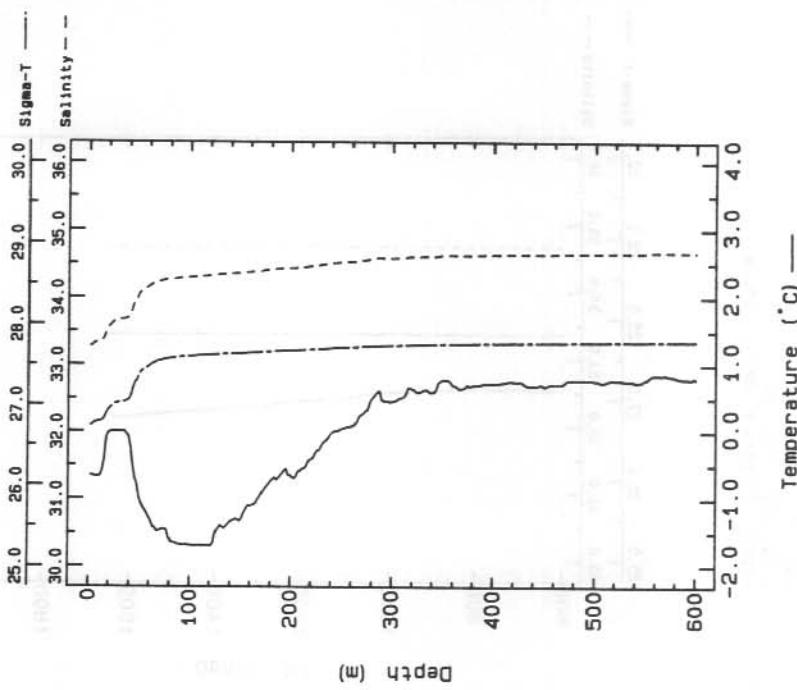
Cruise: FIBEX Station: 39
22 FEB 1981 0627 GMT
Latitude: 65° 23.7' S
Longitude: 73° 57.7' E
Depth: CTD 1640 m Bottom 3150 m

Cruise : FIBEX Station 39
22 FEB 1981 0627 GMT
Latitude 65° 23.7' S
Longitude 73° 57.7' E
Depth: CTD 1640 m Bottom 3150 m



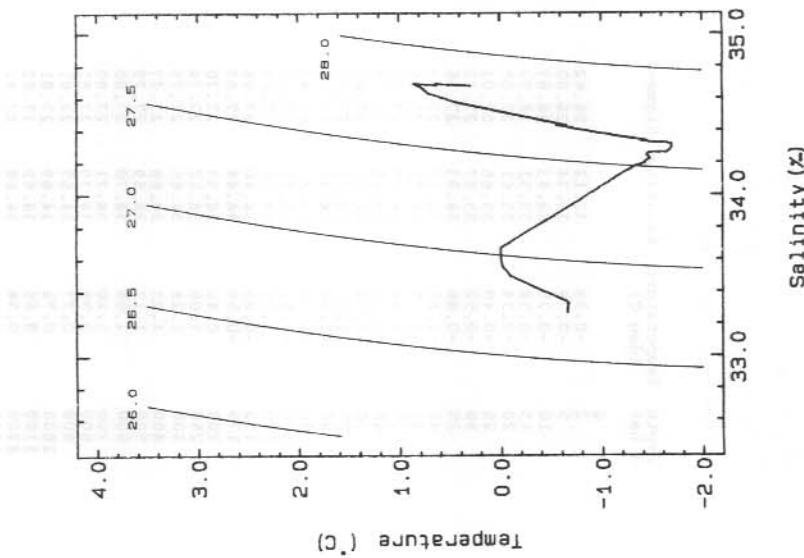
Cruise : FIBEX Station 40
 Date : 22 FEB 1981
 Start Time : 1835 GMT
 Ship : NELLA DAN
 Position : 65:43.00S 75:33.50E
 Cast Depth (m) : 1640
 Bottom Depth (m) : 3247 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.00	33.66	27.03
2	-0.66	33.27	26.74
5	-0.67	33.30	26.77
10	-0.67	33.33	26.79
15	-0.49	33.38	26.82
20	-0.02	33.55	26.94
25	0.00	33.63	27.00
30	0.01	33.66	27.04
35	-0.09	33.67	27.04
40	-0.61	33.70	27.06
45	-0.61	33.90	27.24
50	-0.98	34.04	27.38
60	-1.29	34.16	27.48
70	-1.47	34.23	27.55
75	-1.45	34.25	27.56
80	-1.59	34.26	27.58
90	-1.68	34.28	27.59
100	-1.70	34.29	27.60
125	-1.57	34.32	27.62
150	-1.33	34.35	27.64
175	-0.84	34.40	27.66
200	-0.66	34.43	27.67
250	0.04	34.52	27.71
300	0.45	34.58	27.74
400	0.72	34.63	27.77
500	0.76	34.65	27.78
600	0.80	34.67	27.80
700	0.86	34.69	27.80
800	0.70	34.68	27.81
900	0.63	34.67	27.81
1000	0.63	34.68	27.81
1100	0.62	34.69	27.82
1200	0.51	34.68	27.82
1300	0.47	34.68	27.82
1400	0.41	34.68	27.82
1500	0.35	34.67	27.82



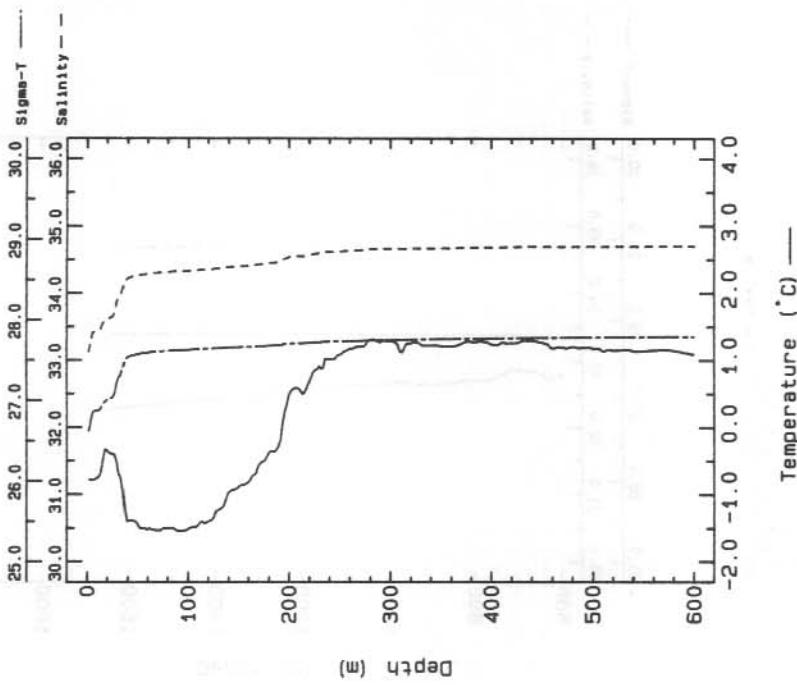
Cruise: FIBEX Station: 40
22 FEB 1981 1835 GMT
Latitude: 65° 43.00S
Longitude: 75° 33.50E
Depth: CTD 1640 m Bottom 3247 m

Cruise : FIBEX Station 40
22 FEB 1981 1835 GMT
Latitude 65: 43.00S
Longitude 75: 33.50E
Depth: CTD 1640 m Bottom 3247 m



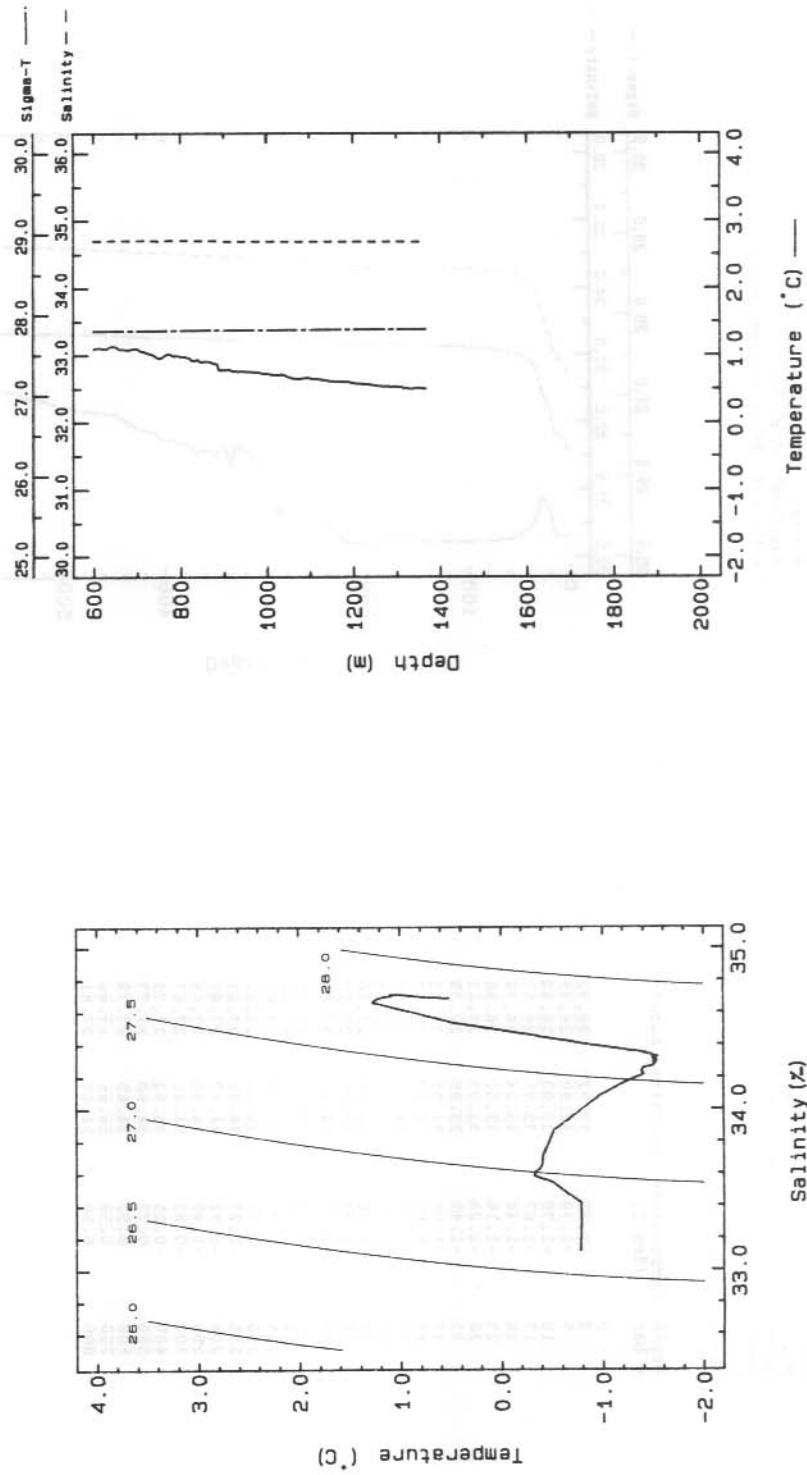
Cruise : FIBEX Station : 41
 Station number : 41
 Date : 23 FEB 1981
 Start Time : 0627 GMT
 Ship : NELIA DAN
 Position : 65°59.1'N 77°51.8' E
 Cast Depth (m) : 1370 m
 Bottom Depth (m) : 3225 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0	33.12	26.62
2	-0.79	33.34	26.80
5	-0.79	33.43	26.87
10	-0.75	33.51	26.93
15	-0.58	33.61	27.00
20	-0.34	33.65	27.03
25	-0.40	33.65	27.03
30	-0.52	33.87	27.22
35	-0.86	34.03	27.36
40	-1.41	34.22	27.53
45	-1.39	34.25	27.56
50	-1.44	34.26	27.57
60	-1.53	34.29	27.59
70	-1.54	34.31	27.61
75	-1.51	34.31	27.61
80	-1.50	34.32	27.62
90	-1.55	34.33	27.63
100	-1.51	34.33	27.63
125	-1.36	34.36	27.65
150	-0.89	34.40	27.66
175	-0.50	34.44	27.67
200	0.46	34.53	27.70
250	1.08	34.62	27.74
300	1.28	34.66	27.75
400	1.23	34.68	27.77
500	1.17	34.69	27.79
600	1.09	34.70	27.80
700	1.10	34.71	27.80
800	0.98	34.70	27.81
900	0.77	34.69	27.81
1000	0.71	34.69	27.81
1100	0.66	34.69	27.82
1200	0.58	34.68	27.82
1300	0.53	34.68	27.82



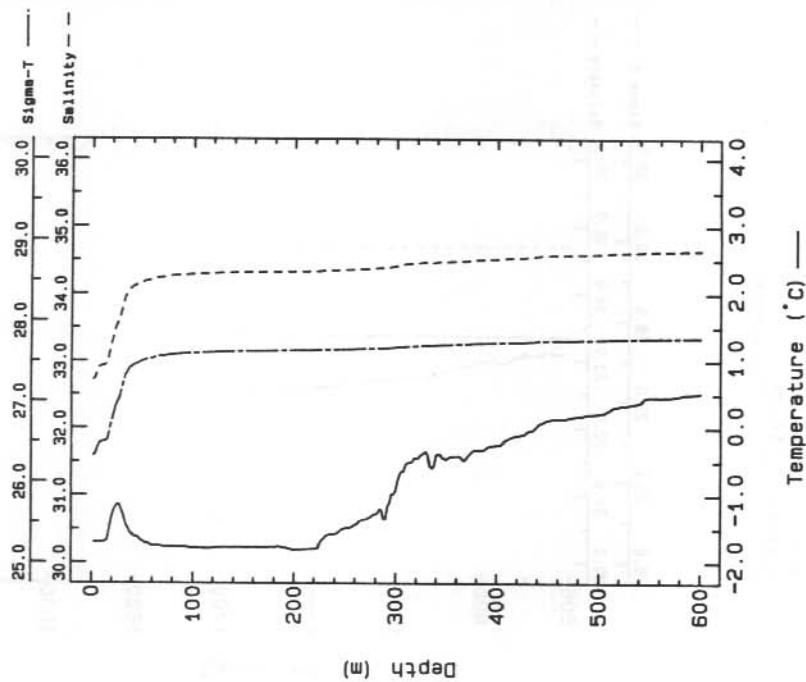
Cruise: FIBEX Station: 41
23 FEB 1981 0627 GMT
Latitude: 65° 29.10S
Longitude: 77° 51.80E
Depth: CTD 1370 m Bottom 3295 m

Cruise: FIBEX Station: 41
23 FEB 1981 0627 GMT
Latitude: 65° 29.10S
Longitude: 77° 51.80E
Depth: CTD 1370 m Bottom 3295 m



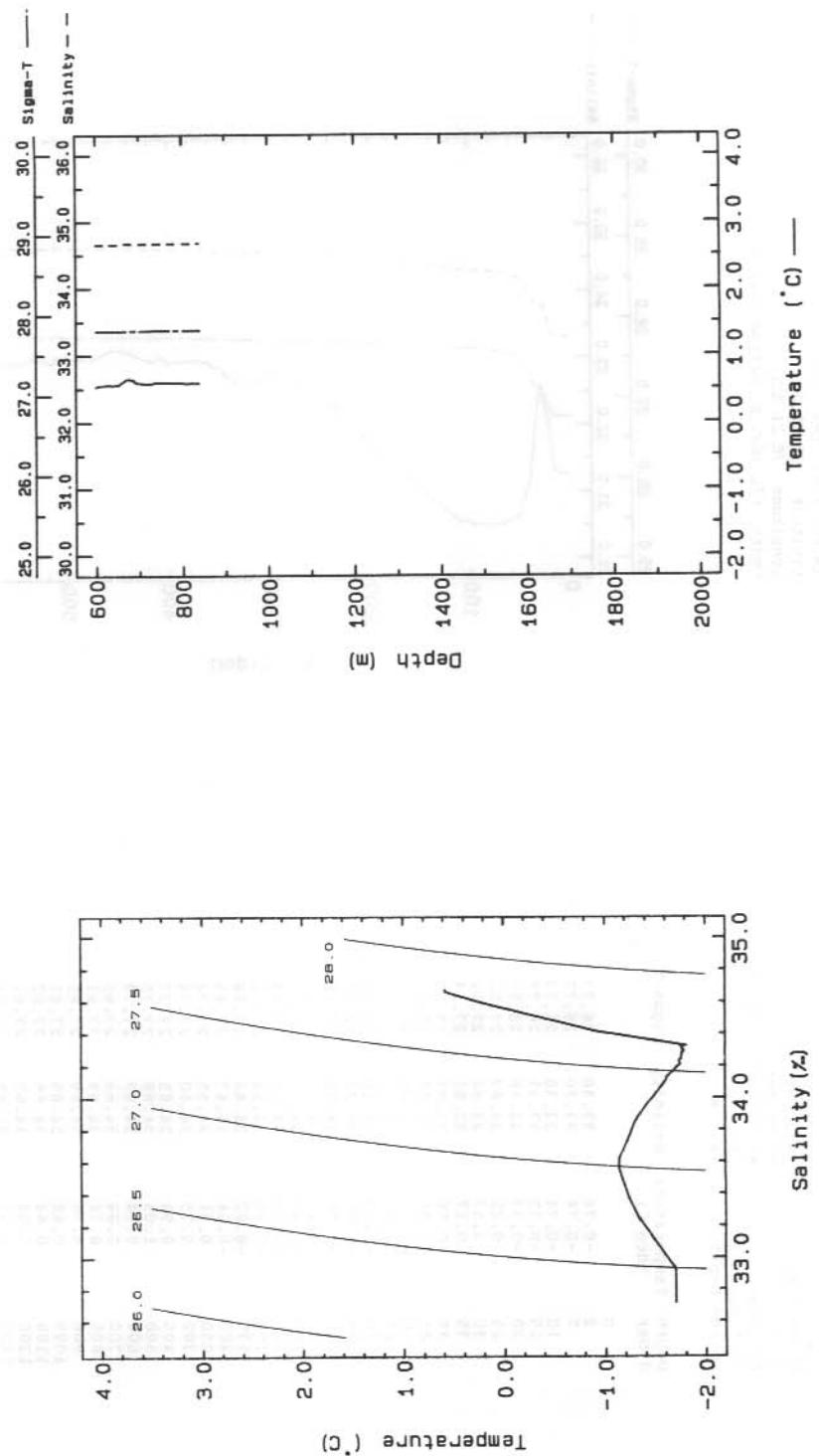
Cruise : FIBEX
 Station 42
 23 FEB 1981 1905 GMT
 Latitude 66° 13.80S
 Longitude 78° 30.70E
 Position : NELLA DAN
 Cast Depth (m) : 842
 Bottom Depth (m) : 2500 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0			
2	-1.70	32.72	26.32
5	-1.70	32.80	26.39
10	-1.70	32.93	26.49
15	-1.67	32.95	26.51
20	-1.34	33.24	26.74
25	-1.16	33.52	26.96
30	-1.23	33.73	27.13
35	-1.45	33.98	27.35
40	-1.59	34.09	27.43
45	-1.62	34.13	27.47
50	-1.68	34.17	27.50
60	-1.76	34.21	27.53
70	-1.76	34.24	27.56
75	-1.77	34.25	27.57
80	-1.77	34.26	27.58
90	-1.77	34.28	27.59
100	-1.78	34.28	27.60
125	-1.77	34.30	27.61
150	-1.77	34.31	27.62
175	-1.77	34.32	27.63
200	-1.81	34.32	27.63
250	-1.49	34.36	27.65
300	-0.93	34.41	27.67
400	-0.25	34.52	27.73
500	0.22	34.60	27.77
600	0.52	34.65	27.79
700	0.58	34.66	27.80
800	0.58	34.67	27.81



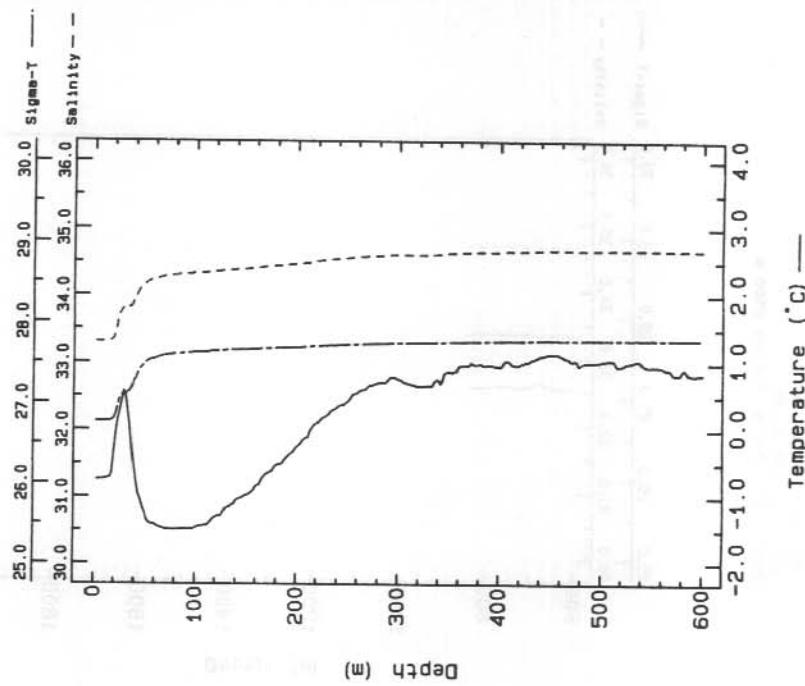
Cruise: FIBEX Station: 42
23 FEB 1981 1905 GMT
Latitude : 66:13.80S
Longitude: 78:30.70E
Depth: CTD 842 m Bottom 2500 m

Cruise : FIBEX Station 42
23 FEB 1981 1905 GMT
Latitude 66:13.80S
Longitude 78:30.70E
Depth: CTD 842 m Bottom 2500 m



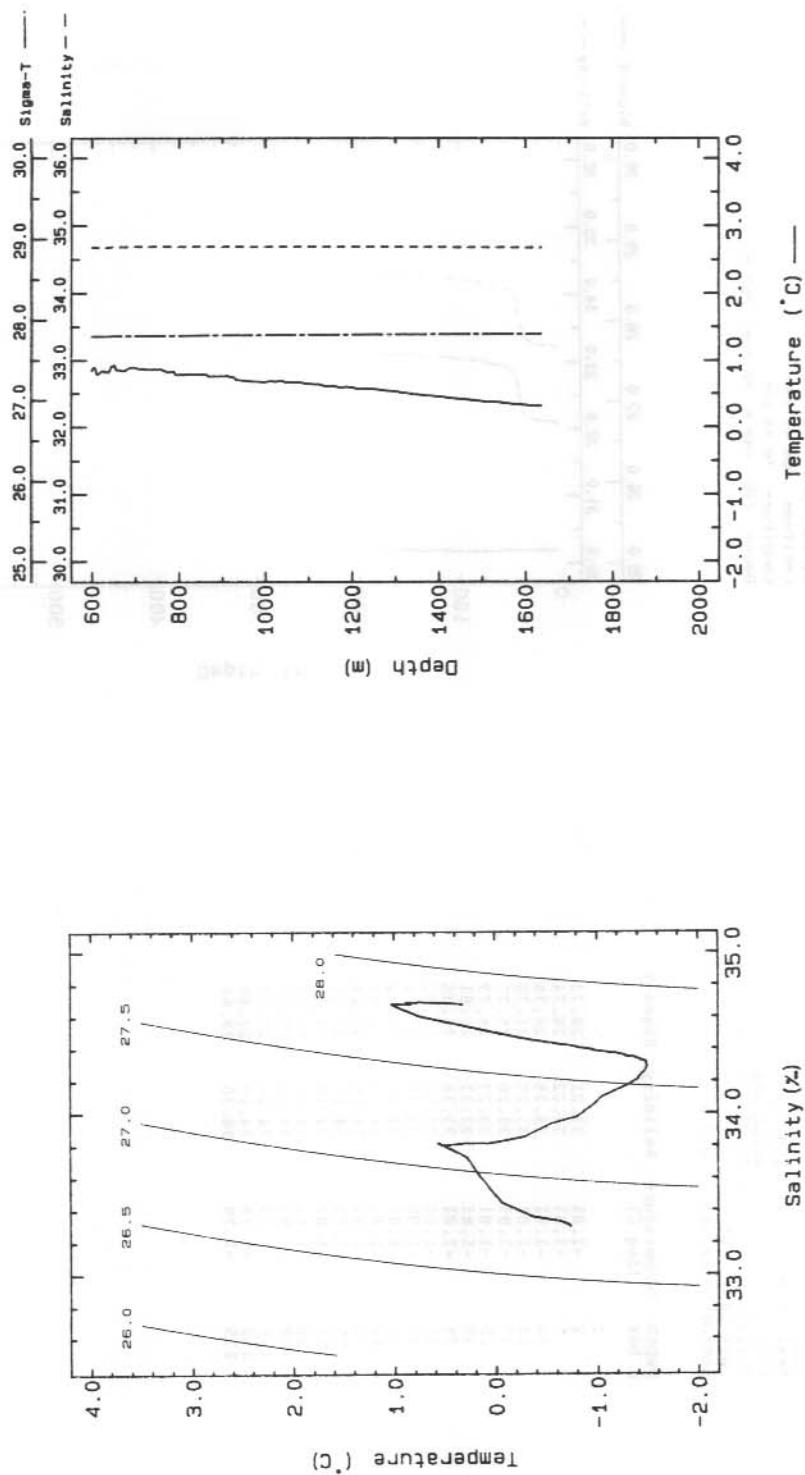
Cruise : FIBEX
 Station 43
 Date : 24 FEB 1981
 Start Time : 1844 GMT
 Ship : NELLA DAN
 Position : 65°20'20S 76°21'50E
 Cast Depth (m) : 1640
 Bottom Depth (m) : 3461 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	0.2	-0.74	33.30
5	-0.74	33.30	26.77
10	-0.74	33.30	26.77
15	-0.12	33.31	26.78
20	-0.37	33.36	26.80
25	0.22	33.67	27.02
30	0.57	33.82	27.12
35	0.17	33.81	27.14
40	-0.56	33.94	27.27
45	-1.01	34.08	27.41
50	-1.23	34.15	27.47
60	-1.42	34.23	27.54
70	-1.49	34.28	27.58
75	-1.50	34.29	27.59
80	-1.50	34.29	27.60
90	-1.49	34.31	27.61
100	-1.47	34.33	27.62
125	-1.29	34.36	27.64
150	-0.98	34.39	27.66
175	-0.62	34.43	27.68
200	-0.26	34.47	27.69
250	0.41	34.55	27.72
300	0.75	34.60	27.74
400	0.94	34.65	27.77
500	1.03	34.68	27.79
600	0.84	34.67	27.79
700	0.89	34.69	27.80
800	0.78	34.69	27.81
900	0.76	34.69	27.81
1000	0.68	34.69	27.81
1100	0.64	34.69	27.82
1200	0.58	34.69	27.82
1300	0.53	34.69	27.82
1400	0.45	34.68	27.82
1500	0.38	34.68	27.82



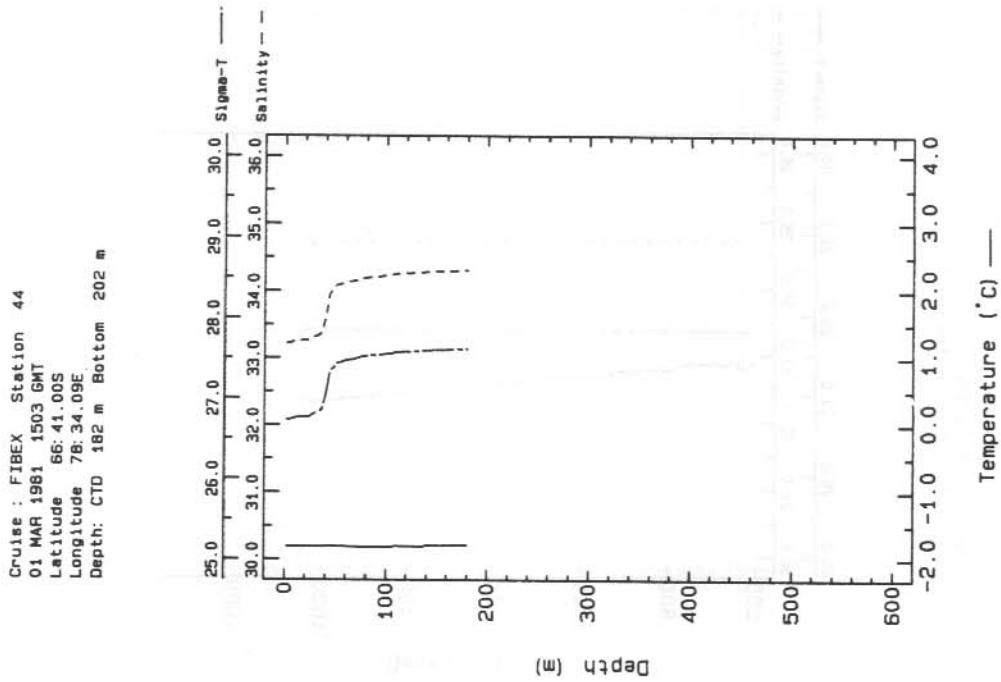
Cruise: FIBEX Station: 43
24 FEB 1981 1844 GMT
Latitude : 65° 20' 20S
Longitude: 76° 21' 50E
Depth: CTD 1640 m Bottom 3461 m

Cruise : FIBEX Station 43
24 FEB 1981 1844 GMT
Latitude 65° 20.20S
Longitude 76.21.50E
Depth: CTD 1640 m Bottom 3461 m

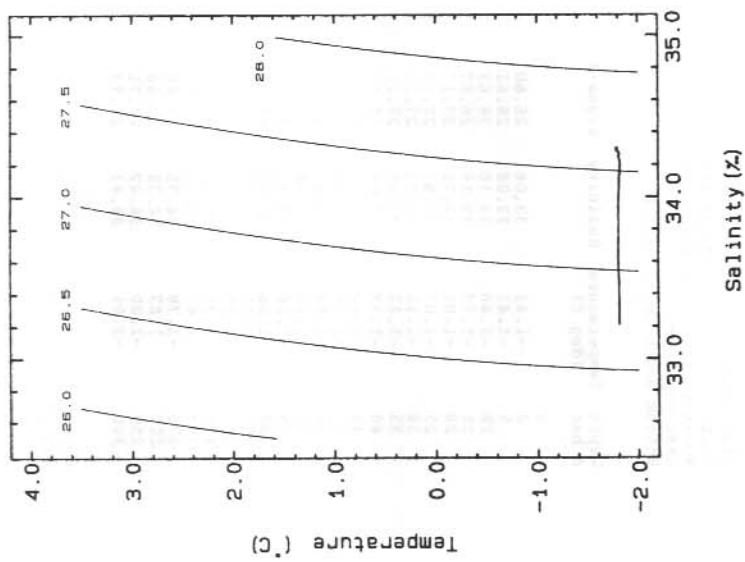


Cruise : FIBEX Station : 44
 Station number : 44
 Date : 1 MAR 1981
 Start Time : 1503 GMT
 Ship : NEELA DAN
 Position : 66°41.00S 78°34.09E
 Cast Depth (m) : 182
 Rotfrom Depth (m) : 202 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	-1.81	33.21	26.73
2	-1.81	33.22	26.74
5	-1.81	33.25	26.76
10	-1.81	33.25	26.76
15	-1.81	33.25	26.76
20	-1.81	33.26	26.77
25	-1.81	33.27	26.77
30	-1.81	33.31	26.81
35	-1.81	33.36	26.85
40	-1.80	33.58	27.02
45	-1.80	33.96	27.34
50	-1.81	34.06	27.42
60	-1.81	34.12	27.47
70	-1.82	34.15	27.49
75	-1.82	34.17	27.51
80	-1.82	34.19	27.53
90	-1.82	34.20	27.53
100	-1.82	34.22	27.55
125	-1.81	34.26	27.58
150	-1.79	34.29	27.60
175	-1.79	34.30	27.61

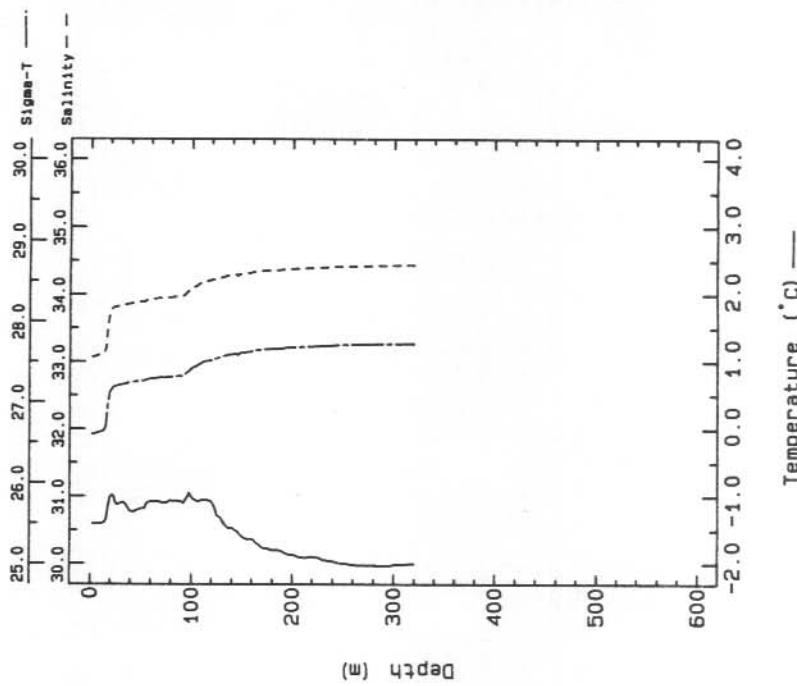


Cruise: FIBEX Station: 44
01 MAR 1981 1503 GMT
Latitude : 66° 41.00S
Longitude: 78° 34.09E
Depth: CTD 182 m Bottom 202 m

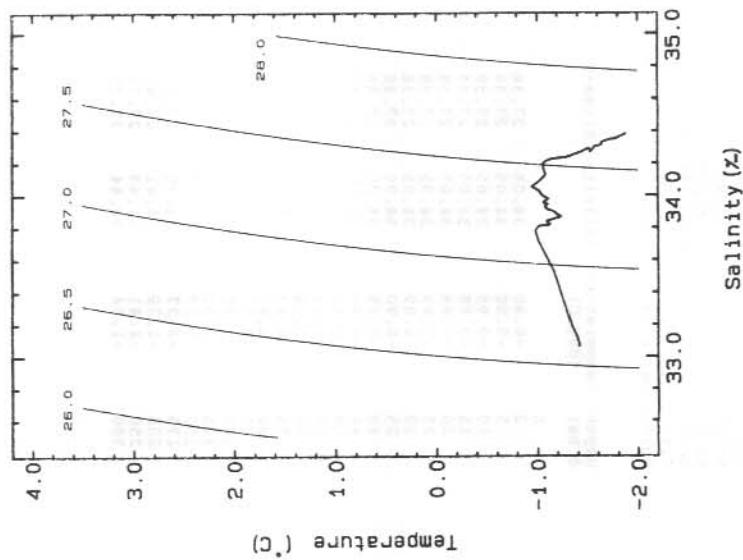


Cruise	Station number	: FIBEX	Staion	45
Date	: 3 MAR 1981			
Start Time	: 1900 GMT			
Ship	: NELLA DAN			
Position	: 67°23'.10S			
Cast Depth (m)	: 322			
Bottom Depth (m)	: 350 m			
Depth d bar	Temperature (deg C)	Salinity	Sigma-T	
0	-1.41	33.06	26.60	
2	-1.41	33.08	26.61	
5	-1.40	33.10	26.63	
10	-1.37	33.16	26.67	
15	-1.01	33.72	27.12	
20	-1.01	33.72	27.12	
25	-1.07	33.81	27.19	
30	-1.11	33.83	27.21	
35	-1.11	33.85	27.22	
40	-1.23	33.86	27.24	
45	-1.22	33.88	27.25	
50	-1.18	33.89	27.26	
60	-1.08	33.92	27.28	
70	-1.10	33.94	27.30	
75	-1.10	33.95	27.30	
80	-1.06	33.96	27.31	
90	-1.08	33.97	27.32	
100	-1.01	34.08	27.41	
125	-1.25	34.13	27.54	
150	-1.60	34.31	27.61	
175	-1.78	34.35	27.65	
200	-1.87	34.38	27.68	
250	-2.00	34.42	27.71	
300	-2.01	34.43	27.73	

Cruise : FIBEX Station 45
 03 MAR 1981 1900 GMT
 Latitude 67°23'.10S
 Longitude 70°57'.70E
 Depth: CTD 322 m Bottom 350 m

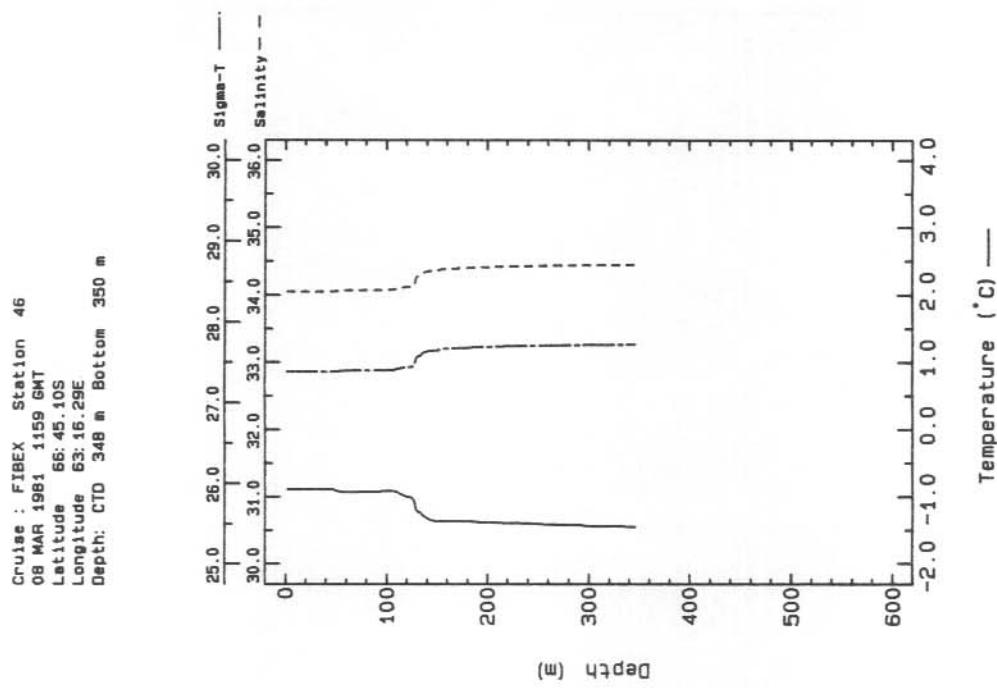


Cruise: FIBEX Station: 45
03 MAR 1981 1900 GMT
Latitude : 67° 23'.10S
Longitude: 70° 57'.70E
Depth: CTD 322 m Bottom 350 m

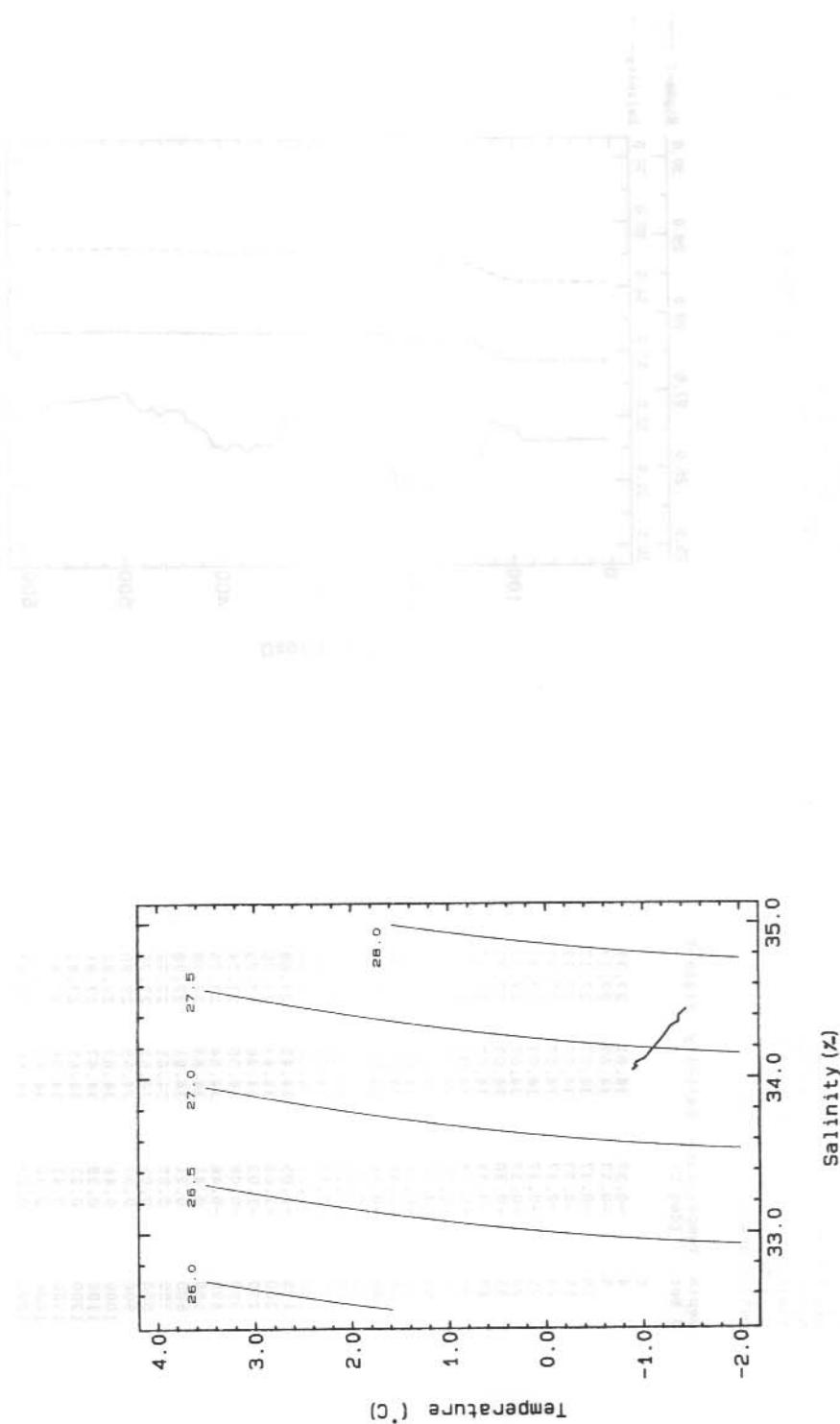


Cruise : FIBEX Station : 46
 Station number : 46
 Date : 8 MAR 1981 1159 GMT
 Start Time : 1159 GMT
 Ship : NELLA DAN
 Position : 66:45.10S 63:16.29E
 Cast Depth (m) : 348
 Bottom Depth (m) : 350 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	-0.90	34.05	27.38
5	-0.90	34.05	27.38
10	-0.89	34.05	27.38
15	-0.89	34.05	27.38
20	-0.89	34.05	27.38
25	-0.89	34.05	27.38
30	-0.89	34.05	27.38
35	-0.90	34.05	27.38
40	-0.89	34.05	27.38
45	-0.90	34.05	27.38
50	-0.92	34.06	27.39
60	-0.94	34.07	27.40
70	-0.94	34.07	27.40
75	-0.93	34.07	27.40
80	-0.93	34.07	27.40
90	-0.93	34.07	27.40
100	-0.91	34.07	27.40
112.5	-1.02	34.12	27.44
125	-1.37	34.36	27.65
150	-1.37	34.39	27.67
175	-1.39	34.41	27.68
200	-1.41	34.43	27.70
250	-1.44	34.44	27.71
300			

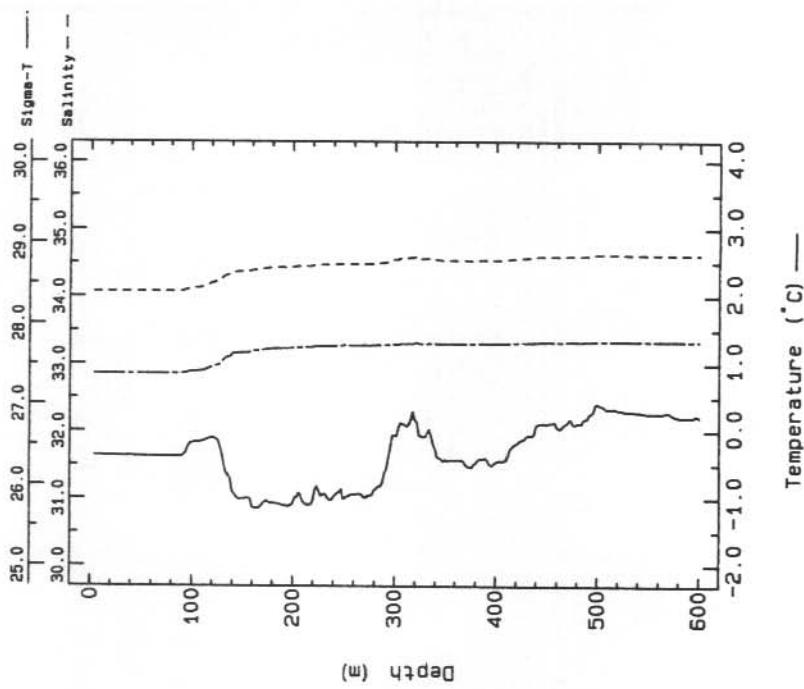


Cruise: FIBEX Station: 46
08 MAR 1981 159 GMT
Latitude : 66.45.10S
Longitude: 63.16.29E
Depth: CTD 348 m Bottom 350 m



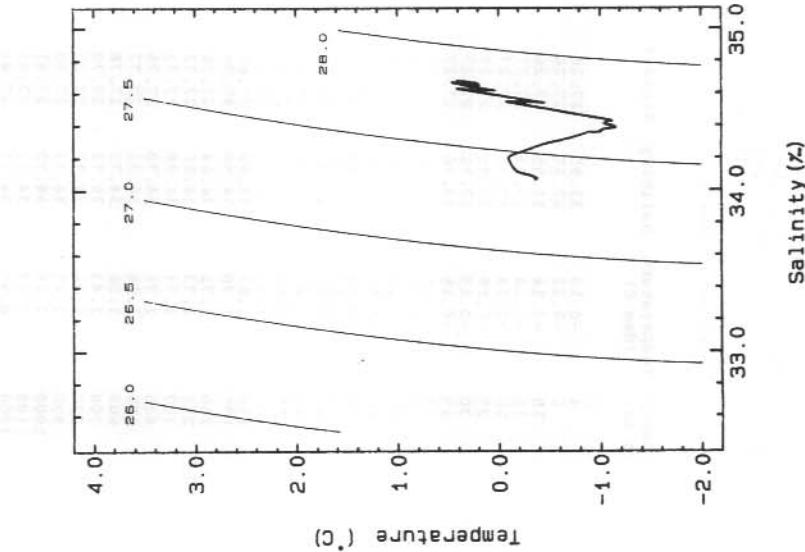
Cruise : FIBEX
 Station 47
 Date : 8 MAR 1981 1908 GMT
 Start Time : 1908 GMT
 Ship : NELLA DAN
 Position : 66°02.09S 62°54.50E
 Cast Depth (m) : 1640
 Bottom Depth (m) : 3320 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	34.07	27.37	
4	-0.37	34.07	27.37
5	-0.37	34.07	27.37
10	-0.37	34.07	27.37
15	-0.37	34.07	27.37
20	-0.37	34.07	27.37
25	-0.37	34.07	27.37
30	-0.37	34.07	27.37
35	-0.38	34.07	27.37
40	-0.38	34.07	27.37
45	-0.38	34.07	27.37
50	-0.38	34.07	27.37
60	-0.38	34.07	27.37
70	-0.38	34.07	27.37
75	-0.38	34.07	27.38
80	-0.38	34.07	27.38
90	-0.38	34.08	27.38
100	-0.17	34.12	27.41
125	-0.13	34.22	27.48
150	-1.01	34.36	27.64
175	-1.05	34.42	27.68
200	-1.08	34.43	27.70
250	-1.02	34.48	27.73
300	-0.08	34.55	27.74
400	-0.46	34.54	27.75
500	0.41	34.63	27.78
600	0.21	34.61	27.78
700	0.09	34.61	27.79
800	0.02	34.61	27.79
900	0.33	34.65	27.80
1000	0.46	34.67	27.81
1100	0.39	34.67	27.81
1200	0.21	34.65	27.81
1300	0.41	34.68	27.82
1400	0.36	34.67	27.82
1500	0.23	34.66	27.82



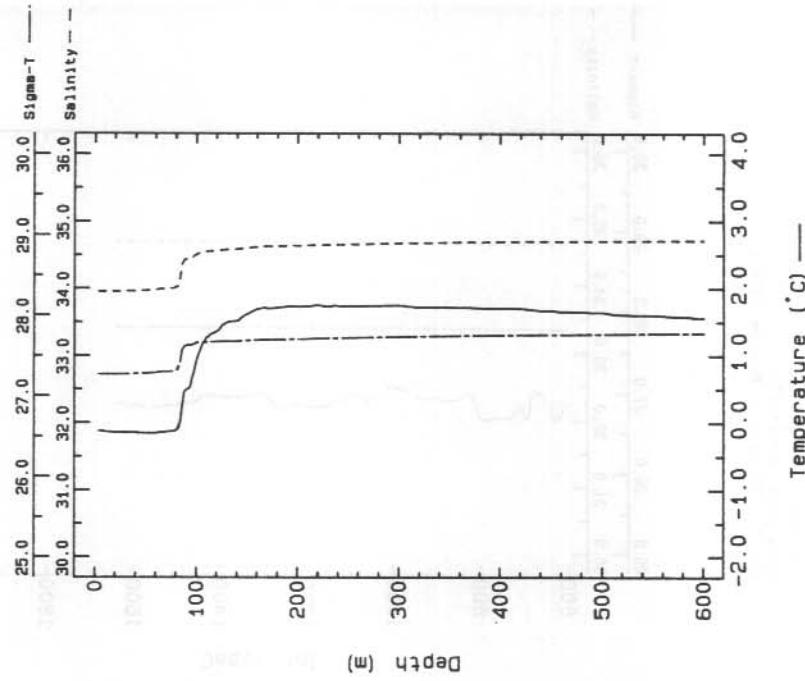
Cruise: FIBEX Station: 47
08 MAR 1981 1908 GMT
Latitude : 66:02.09S
Longitude: 62:54.50E
Depth: CTD 1640 m Bottom 3320 m

Cruise : FIBEX Station 47
08 MAR 1981 1908 GMT
Latitude 66: 02.09S
Longitude 62: 54.50E
Depth: CTD 1640 m Bottom 3320 m



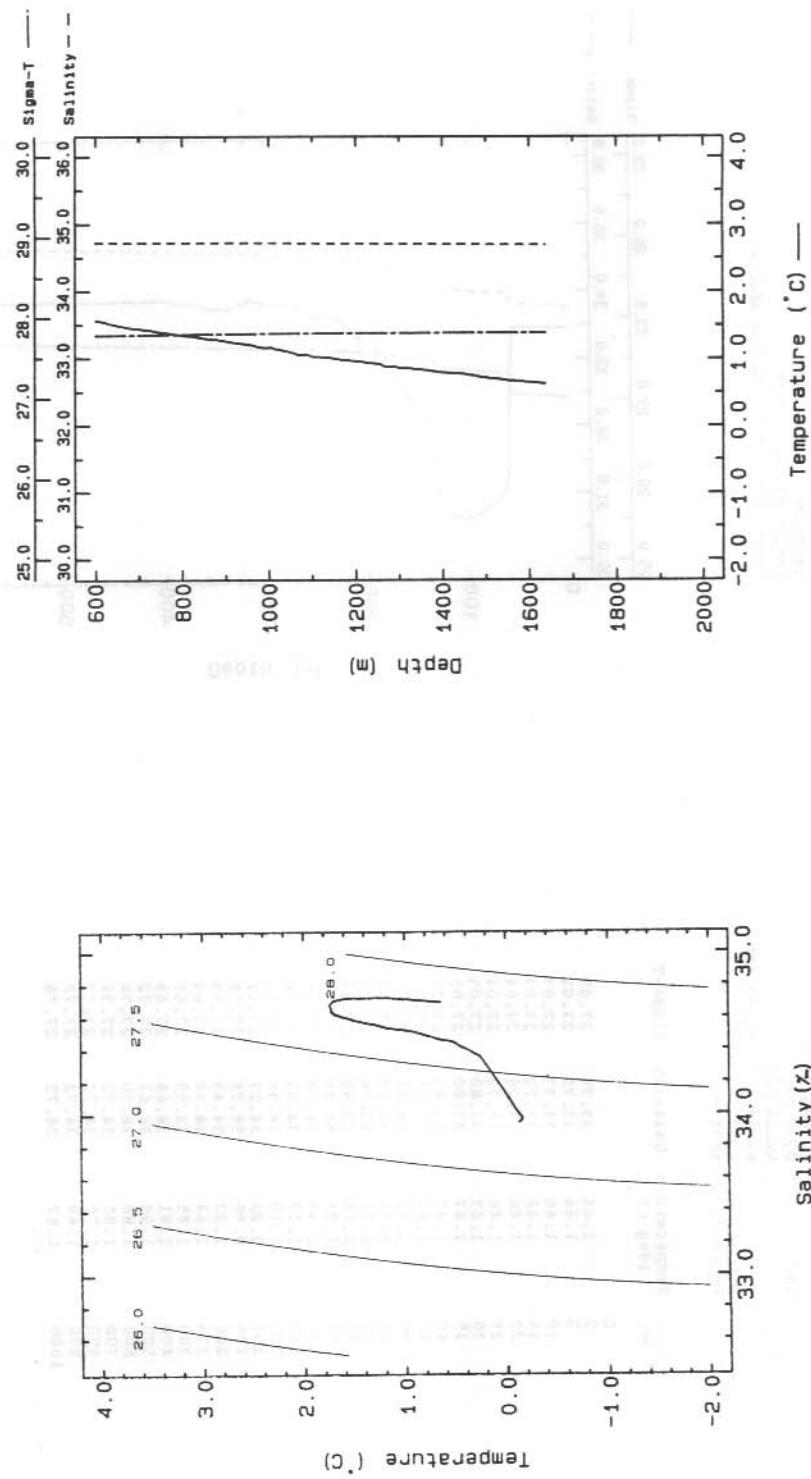
Cruise	Staion number	Temperature d bar (deg C)	Salinity	Sigma-T
FIBEX	48	0	33.95	27.26
Date	9 MAR 1981	-0.13	33.95	27.26
Start Time	0845 GMT	-0.13	33.95	27.26
Ship	NEELLA DAN	-0.14	33.95	27.26
Position	64°18.20S 62°01.00E	-0.14	33.95	27.27
Cast Depth (m)	1640	-0.14	33.95	27.27
Bottom Depth (m)	3836	-0.15	33.95	27.27
		0	33.96	27.27
		30	33.96	27.27
		35	33.96	27.27
		40	33.96	27.27
		45	33.96	27.28
		50	33.97	27.28
		60	33.98	27.29
		70	33.99	27.30
		75	34.00	27.30
		80	34.01	27.31
		90	34.44	27.62
		100	34.50	27.66
		125	34.57	27.67
		150	34.60	27.68
		175	34.63	27.70
		200	34.64	27.70
		250	34.66	27.72
		300	34.68	27.73
		400	34.70	27.75
		500	34.71	27.77
		600	34.72	27.78
		700	34.72	27.79
		800	34.72	27.80
		900	34.72	27.80
		1000	34.72	27.81
		1100	34.71	27.81
		1200	34.71	27.81
		1300	34.70	27.81
		1400	34.70	27.82
		1500	34.69	27.82

Cruise : FIBEX Station 48
 09 MAR 1981 0845 GMT
 Latitude 64°18.20S
 Longitude 62°01.00E
 Depth: CTD 1640 m Bottom 3896 m



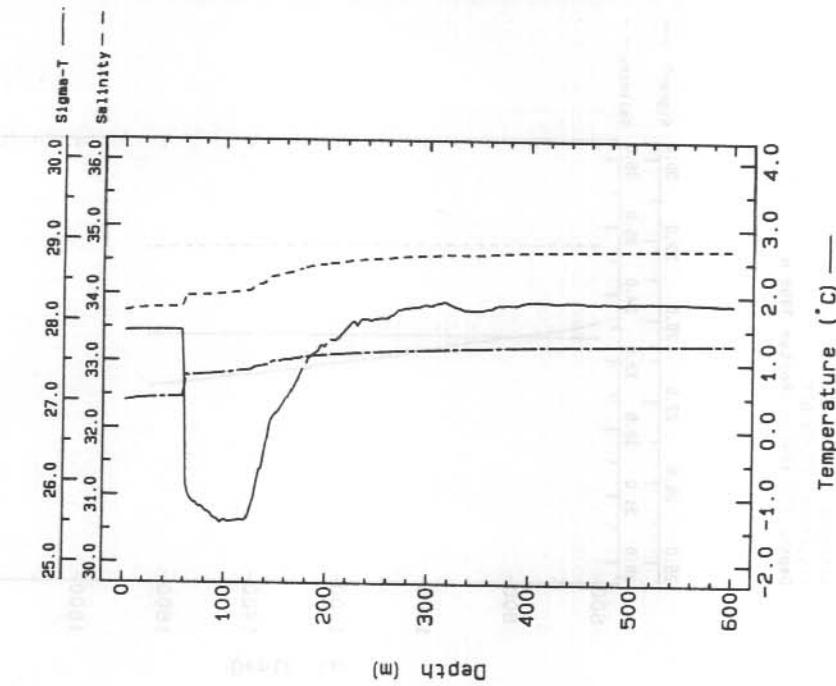
Cruise: FIBEX Station: 48
09 MAR 1981 0845 GMT
Latitude: 64°18'20S
Longitude: 62°01'00E
Depth: CTD 1640 m Bottom 3896 m

Cruise : FIBEX Station 48
09 MAR 1981 0845 GMT
Latitude 64:18.20S
Longitude 62:01.00E
Depth: CTD 1640 m Bottom 3896 m



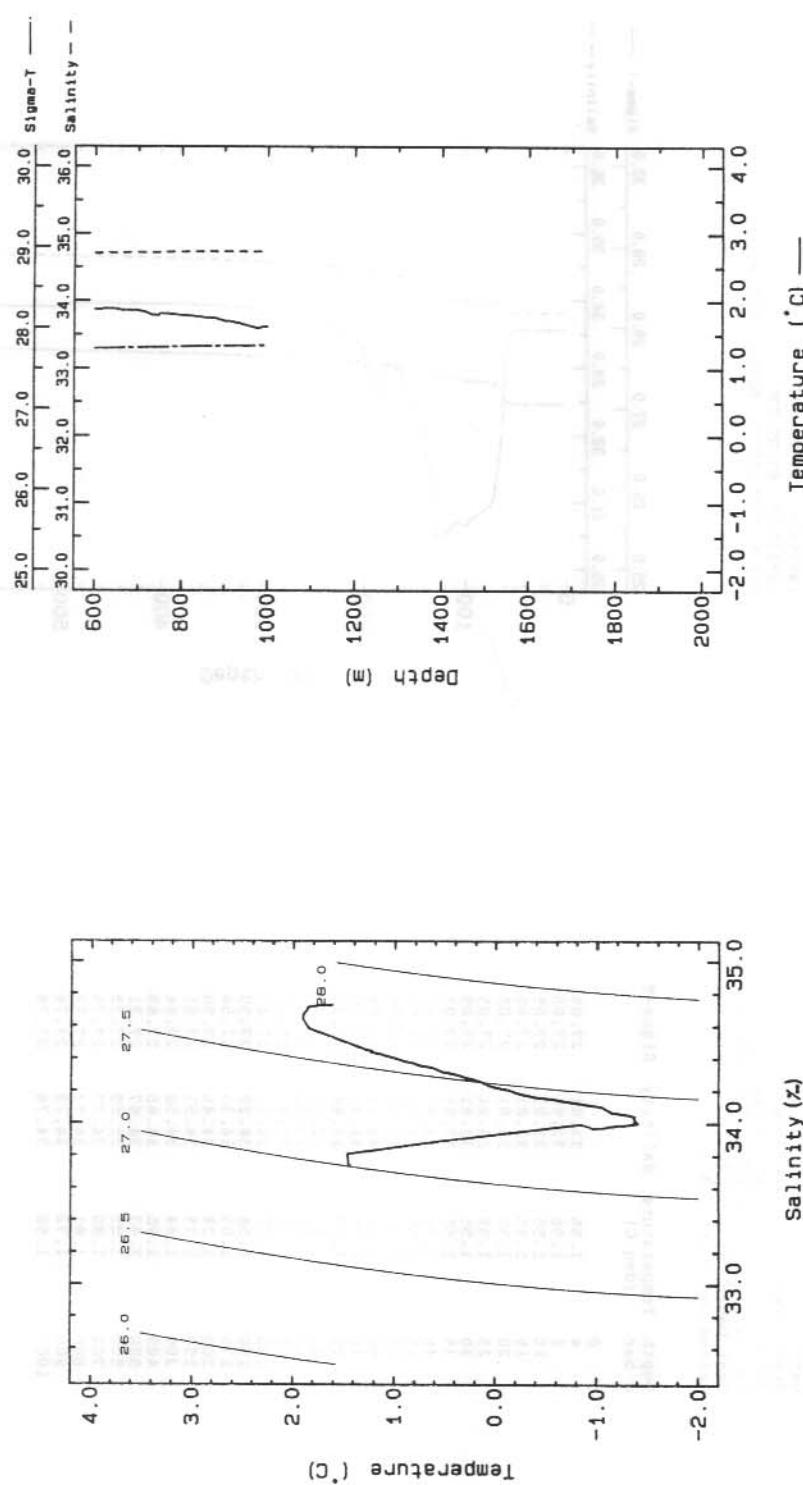
Cruise : FIBEX Station : 49
 Station number : 49
 Date : 10 MAR 1981
 Start Time : 0230 GMT
 Ship : NELLA DAN
 Position : 62:14.10S 61:57.80E
 Cast Depth (m) : 1002
 Bottom Depth (m) : 4635 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	1.44	33.74	27.00
5	1.46	33.75	27.01
10	1.46	33.77	27.03
15	1.46	33.78	27.03
20	1.46	33.79	27.04
25	1.46	33.79	27.04
30	1.47	33.80	27.05
35	1.47	33.80	27.05
40	1.47	33.80	27.05
45	1.47	33.81	27.05
50	1.47	33.81	27.05
60	0.75	33.87	27.16
70	-1.11	33.98	27.33
75	-1.16	33.98	27.34
80	-1.21	33.99	27.34
90	-1.35	34.00	27.35
100	-1.37	34.01	27.36
125	-1.19	34.06	27.40
150	0.23	34.27	27.51
175	0.86	34.38	27.56
200	1.27	34.45	27.59
250	1.64	34.54	27.63
300	1.85	34.59	27.65
400	1.91	34.64	27.69
500	1.90	34.67	27.72
600	1.86	34.70	27.74
700	1.85	34.72	27.76
800	1.78	34.72	27.77
900	1.69	34.73	27.78
1000	1.62	34.73	27.78



Cruise: FIBEX Station: 49
10 MAR 1981 0230 GMT
Latitude : 62° 14'.10S
Longitude: 61° 57'.80E
Depth: CTD 1002 m Bottom 4605 m

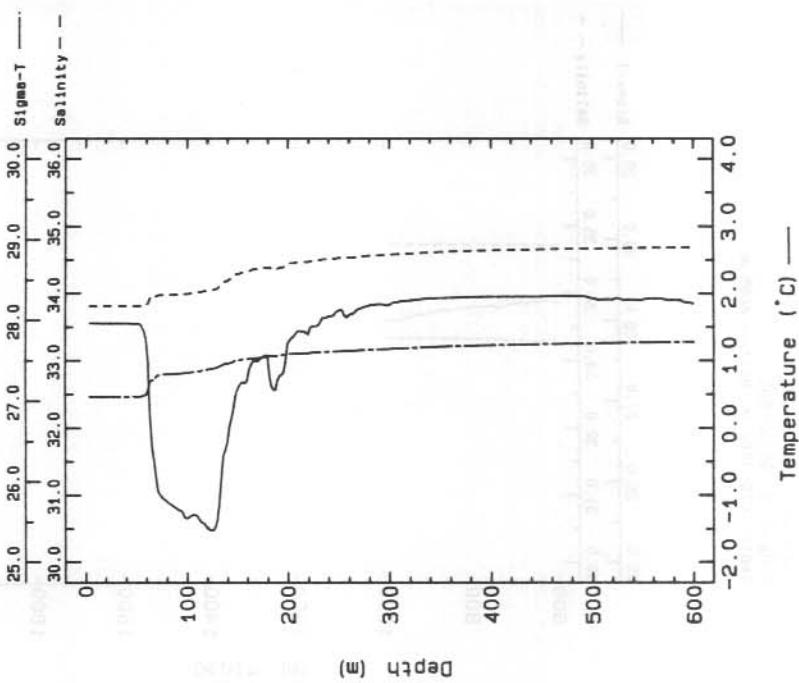
Cruise : FIBEX Station 49
10 MAR 1981 0230 GMT
Latitude 62° 14'.10S
Longitude 61° 57'.80E
Depth: CTD 1002 m Bottom 4605 m



Cruise : FIBEX Station 50
 Station number : 50 Date : 10 MAR 1981
 Date : 10 MAR 1981 Start Time : 1608 GMT
 Start Time : 1608 GMT Latitude : 60:24.80S
 Ship : NEELA DAN Longitude : 61:59.20E
 Position : 60:24.80S Depth: CTD 1002 m Bottom 4770 m
 Cast Depth (m) : 1002
 Bottom Depth (m) : 4770 m

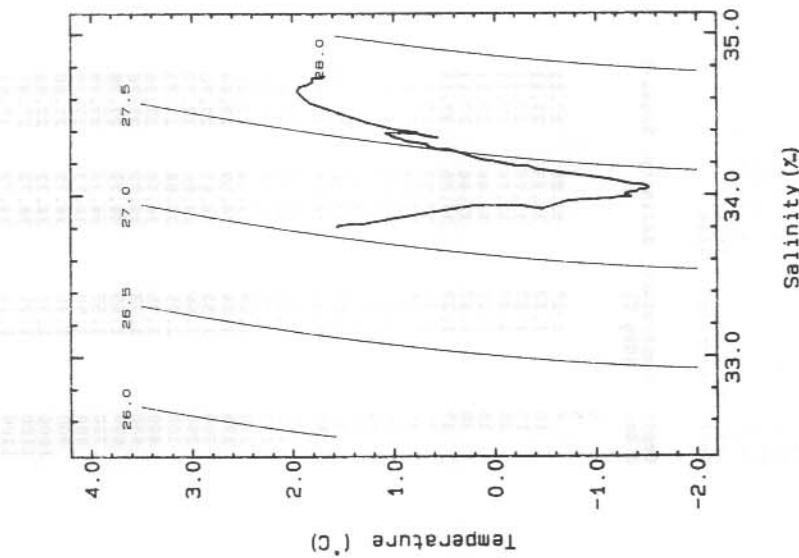
Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	1.55	33.81	27.05
4	1.55	33.81	27.05
5	1.55	33.81	27.05
10	1.55	33.81	27.05
15	1.55	33.81	27.05
20	1.55	33.81	27.05
25	1.55	33.81	27.05
30	1.55	33.81	27.05
35	1.55	33.81	27.05
40	1.55	33.81	27.05
45	1.55	33.81	27.05
50	1.54	33.81	27.05
60	1.30	33.82	27.08
70	-0.71	33.97	27.30
75	-1.02	33.98	27.33
80	-1.10	33.98	27.33
90	-1.21	33.99	27.34
100	-1.35	33.99	27.35
125	-1.52	34.05	27.40
150	0.56	34.29	27.50
175	1.05	34.38	27.54
200	1.26	34.45	27.59
250	1.75	34.53	27.61
300	1.84	34.58	27.64
400	1.95	34.65	27.69
500	1.93	34.67	27.71
600	1.85	34.69	27.73
700	1.80	34.70	27.75
800	1.81	34.73	27.77
900	1.72	34.73	27.78
1000	1.68	34.74	27.78

Cruise : FIBEX Station 50
 10 MAR 1981 1608 GMT
 Latitude : 60:24.80S
 Longitude : 61:59.20E
 Depth: CTD 1002 m Bottom 4770 m



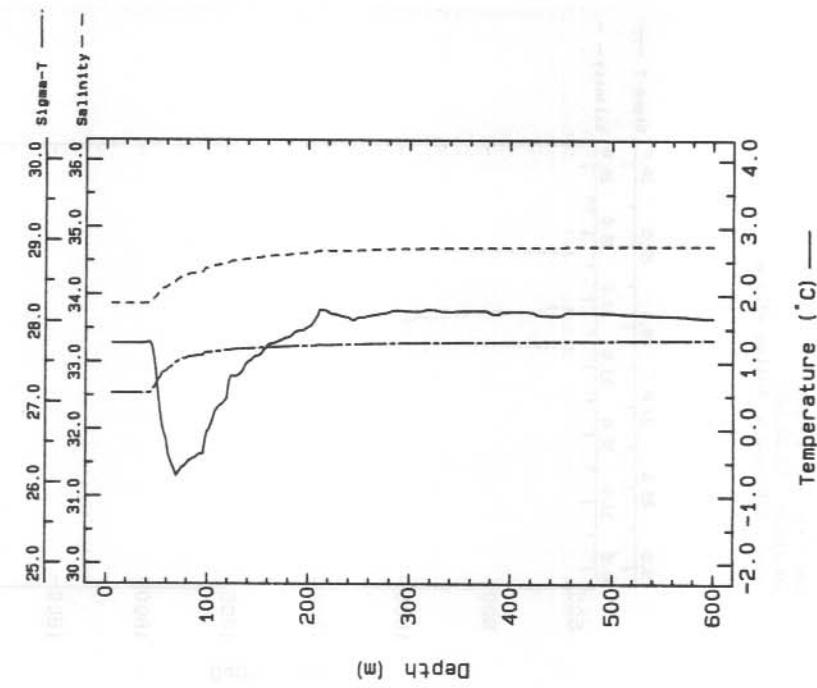
Cruise: FIBEX Station: 50
10 MAR 1981 1608 GMT
Latitude : 60° 24' 80S
Longitude: 61° 59' 20E
Depth: CTD 1002 m Bottom 4770 m

Cruise : FIBEX Station 50
10 MAR 1981 1608 GMT
Latitude 60: 24.80S
Longitude 61: 59.20E
Depth: CTD 1002 m Bottom 4770 m



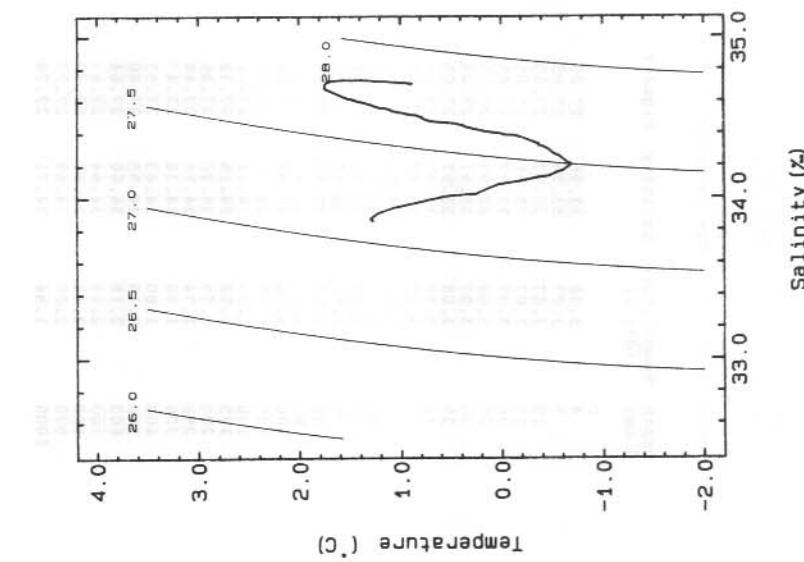
Cruise : FIBEX
 Station number : 51
 Date : 13 MAR 1981
 Start Time : 04:12 GMT
 Ship : NELLA DAN
 Position : 59°58'.90S 83°54'.00E
 Cast Depth (m) : 1604
 Bottom Depth (m) : 1664 m

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	1.27	33.86	27.11
5	1.27	33.85	27.11
10	1.27	33.86	27.11
15	1.27	33.86	27.11
20	1.27	33.86	27.11
25	1.27	33.86	27.11
30	1.27	33.86	27.11
35	1.27	33.86	27.11
40	1.29	33.87	27.11
45	1.26	33.89	27.13
50	0.84	33.97	27.23
60	-0.17	34.10	27.39
70	-0.70	34.21	27.50
75	-0.58	34.26	27.53
80	-0.51	34.28	27.55
90	-0.39	34.32	27.58
100	-0.03	34.39	27.61
125	0.79	34.49	27.65
150	1.09	34.54	27.67
175	1.34	34.59	27.69
200	1.52	34.62	27.70
250	1.66	34.66	27.72
300	1.75	34.68	27.73
400	1.75	34.70	27.75
500	1.73	34.72	27.76
600	1.65	34.73	27.78
700	1.57	34.73	27.79
800	1.50	34.73	27.79
900	1.40	34.73	27.80
1000	1.33	34.73	27.80
1100	1.21	34.72	27.81
1200	1.13	34.72	27.81
1300	1.05	34.71	27.81
1400	0.98	34.71	27.81
1500	0.91	34.71	27.82



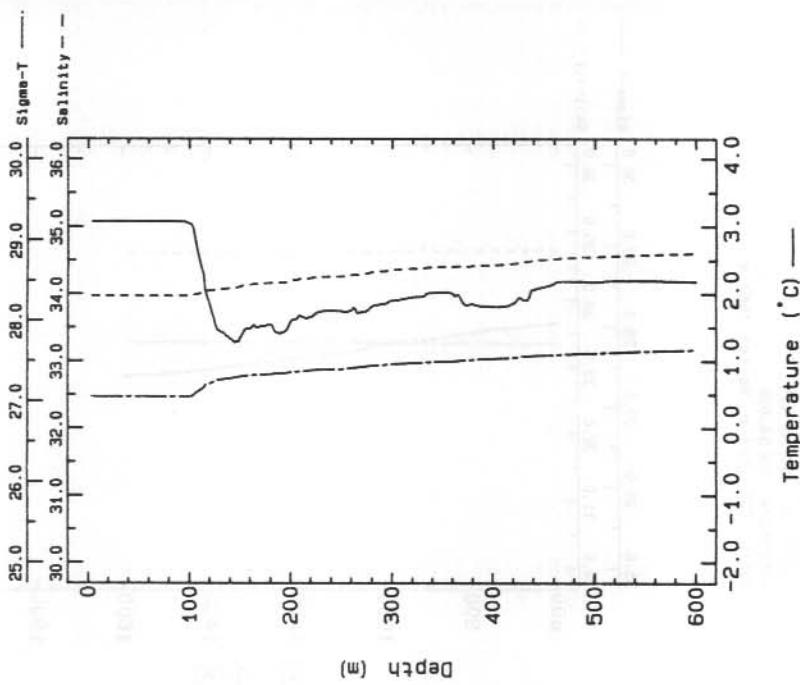
Cruise: FIBEX Station: 51
13 MAR 1981 0412 GMT
Latitude : 59° 58.90S
Longitude: 83° 54.00E
Depth: CTD 1604 m Bottom 1664 m

Cruise : FIBEX Station 51
13 MAR 1981 0412 GMT
Latitude 59° 58.90S
Longitude 83° 54.00E
Depth: CTD 1604 m Bottom 1664 m



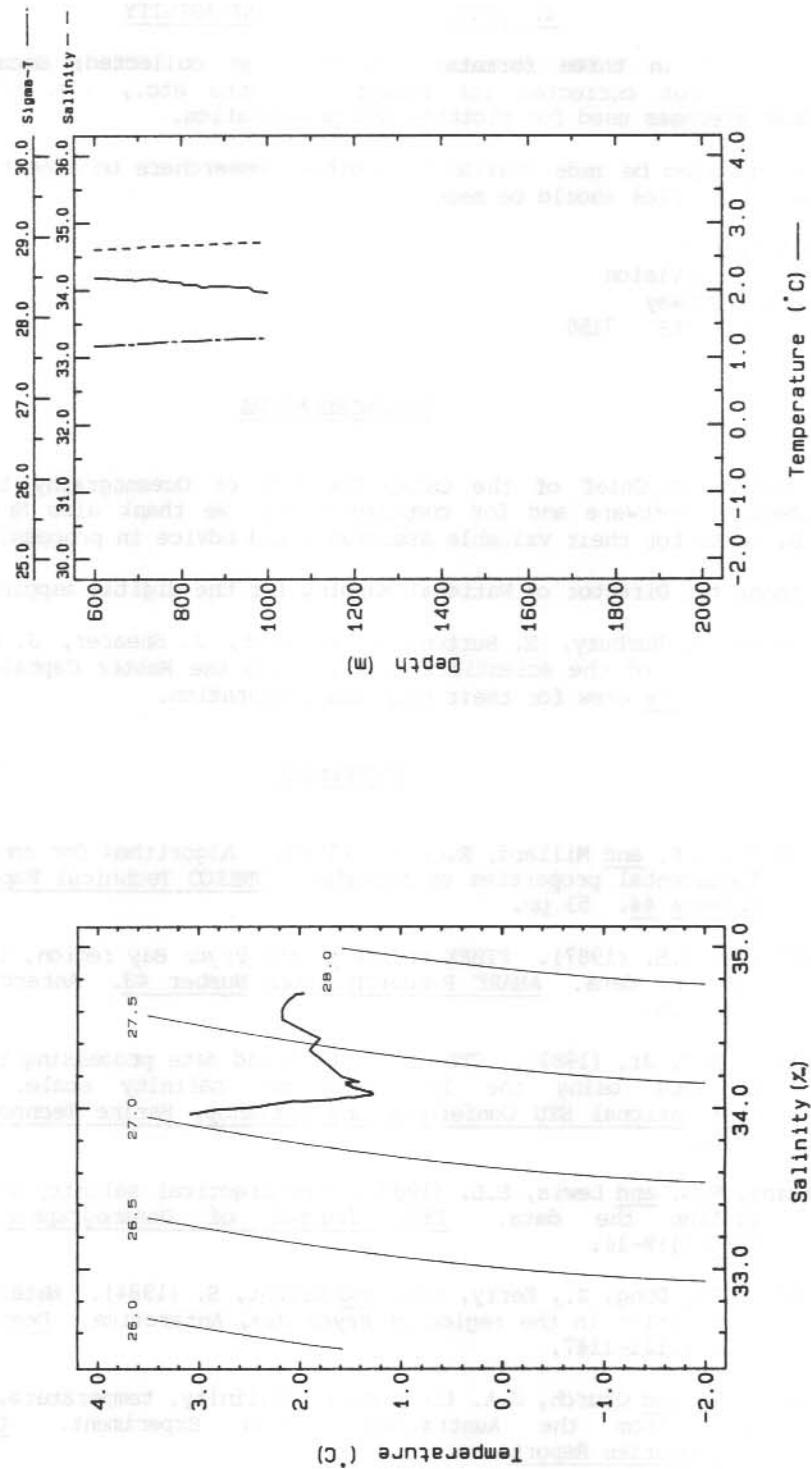
Cruise : FIBEX Station 52
 Station number : 52
 Date : 15 MAR 1981 0555 GMT
 Start Time : 0555 GMT
 Ship : NELLA DAN
 Position : 54°58.90S 100°01.70E
 Cast Depth (m) : 100.2
 Bottom Depth (m) : Not Recorded

Depth d bar	Temperature (deg C)	Salinity	Sigma-T
0	3.08	33.96	27.05
4	3.07	33.97	27.05
5	3.07	33.96	27.05
10	3.07	33.97	27.05
15	3.07	33.96	27.05
20	3.07	33.97	27.05
25	3.08	33.97	27.05
30	3.07	33.97	27.05
35	3.08	33.97	27.05
40	3.08	33.97	27.05
45	3.07	33.97	27.05
50	3.07	33.97	27.05
60	3.07	33.97	27.05
70	3.07	33.97	27.06
75	3.07	33.97	27.05
80	3.07	33.97	27.05
90	3.07	33.97	27.05
100	3.04	33.97	27.06
125	1.59	34.06	27.25
150	1.35	34.11	27.31
175	1.52	34.16	27.33
200	1.59	34.20	27.36
250	1.74	34.26	27.40
300	1.90	34.36	27.47
400	1.80	34.43	27.53
500	2.18	34.55	27.60
600	2.18	34.60	27.64
700	2.15	34.64	27.67
800	2.11	34.67	27.70
900	2.05	34.69	27.72
1000	1.96	34.71	27.74



Cruise: FIBEX Station: 52
15 MAR 1981 0555 GMT
Latitude : 54:58.90S
Longitude: 100:01.70E
Depth: CTD 1002 m Bottom NR

Cruise : FIBEX Station 52
15 MAR 1981 0555 GMT
Latitude 54:58.90S
Longitude 100:01.70E
Depth: CTD 1002 m Bottom NR



4. DATA STORAGE AND AVAILABILITY

Data exist in three formats; raw data, as collected; uncalibrated and de-spiked but corrected for sensor constants etc., i.e. processed; and 2 dbar averages used for plotting and presentation.

Data can also be made available to other researchers on nine track magnetic tape. Enquiries should be made to:

The Director
Antarctic Division
Channel Highway
KINGSTON TAS 7150

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