

Oceanographic Data in the Greenland Sea and Around Svalbard in 1991-1993

Shuki USHIO, Hajime ITO and Nobuo ONO

*National Institute of Polar Research,
9-10, Kaga 1-chome, Itabashi-ku, Tokyo 173-8515*

The Arctic Ocean is connected with the North Atlantic Ocean by the Fram Strait between Greenland and Svalbard. The strait is located in the northern part of the Greenland Sea (see Fig. 1). In the eastern part of the strait, warm saline water flows northward as the West Spitsbergen Current; while in the western part, cold less-saline water flows southward as the East Greenland Current. The northwestern part of the Greenland Sea is normally covered with sea ice even in summer. Furthermore, this region is regarded as a major area where the Arctic sea ice is discharged into mid latitude oceans. Thus, this area plays an important role in heat and salt exchange processes in the Arctic marine system.

To reveal exchange processes of water masses and ocean-atmosphere interaction in high-latitude oceans, a number of international research programs have been focused on the Greenland Sea and its surrounding waters. As one of the international Arctic research programs, oceanographic studies have been executed in cooperation with the Norsk Polarinstitut and other institutes under the leadership of the National Institute of Polar Research since 1991. Japanese scientists have been carrying out field observations in and around Svalbard. The observations include not only physical measurements but also biological surveys. This report presents physical oceanographic data obtained in the Greenland Sea in 1992 and 1993, and data around Svalbard from 1991 to 1993. Table 1 summarizes all the observations.

For research cruises in the Greenland Sea, the *R/V LANCE* has been chartered by the Norsk Polarinstitut almost every year. In the cruises of August 1992 and 1993, water temperature profiles were taken with expendable bathythermographs (XBT). Figures 2 (a) and (b) show the ship's track and XBT stations. Temperature and depth accuracies of the XBT (model MK-30, made by the Tsurumi Seiki, Co., Japan) are $\pm 0.1^{\circ}\text{C}$ and ± 5 m or $\pm 2\%$ of depth, respectively. The XBT temperature data were obtained at about 1-m intervals. XBT data at standard depths are shown in Table 2. In the 1992 cruise, the

Kongsfjorden, which is a fjord in the Svalbard area, was also studied.

Around Spitsbergen, one of the islands in the Svalbard archipelago, oceanographic observations were made on board two commercial boats, the *M/S ORIGO* and the *M/S POLARSTAR*, in July-August 1993. The measurements were obtained by conductivity-temperature-depth recorder (CTD), XBTs, and sampling of air which was in equilibrium with the surface water. The station locations are shown in Fig. 3. The CTD (model AST-1000M, made by ALEC Electronics Co., Japan) has temperature accuracy of $\pm 0.05^{\circ}\text{C}$, salinity accuracy ± 0.05 psu (practical salinity unit), and depth accuracy ± 0.5 db (decibar). These data were recorded at 0.5 db intervals. The CTD and XBT data at the standard depths are shown in Table 3 and Table 4, respectively. The air samples were analyzed to measure the partial pressure of carbon dioxide ($p\text{CO}_2$) and that of methane ($p\text{CH}_4$) in the surface water. The data are shown in Table 5.

Figure 4 shows the study area and observation stations in the Kongsfjorden. In this fjord, water temperature and salinity profiles were measured with CTD. These measurements were carried out in September 1991, in June 1992, and in May-June 1993. The CTD was cast from a winch on a small boat. Table 6 shows temperature and salinity data at standard depths and at the bottom of each station. Positions of CTD observations were measured with a GPS (Global Positioning System, model GP-70, made by FURUNO Electronics Co., Japan).

The authors would like to thank all the observers for their kind support in the field work and in data processing.

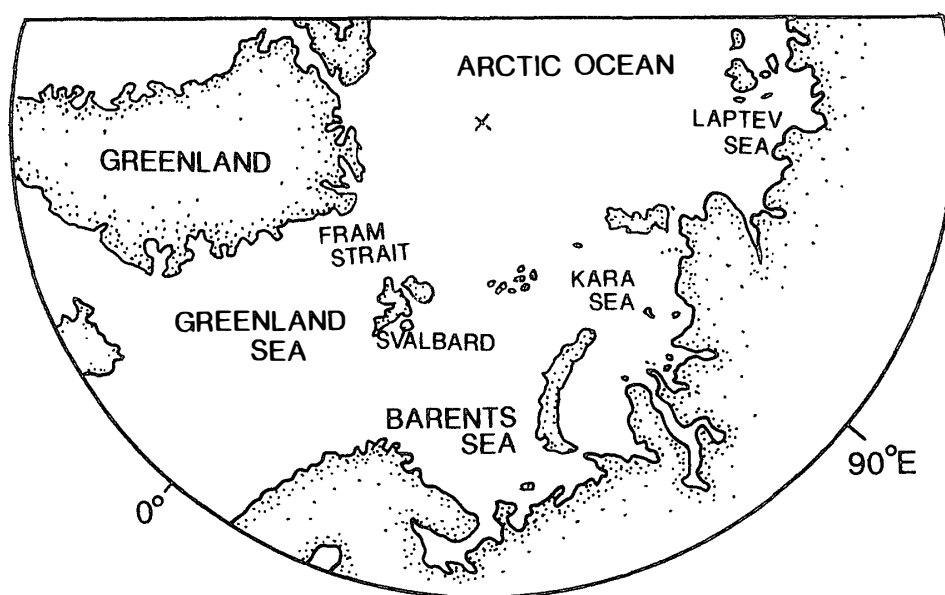


Fig. 1. Location map for the north polar oceans.

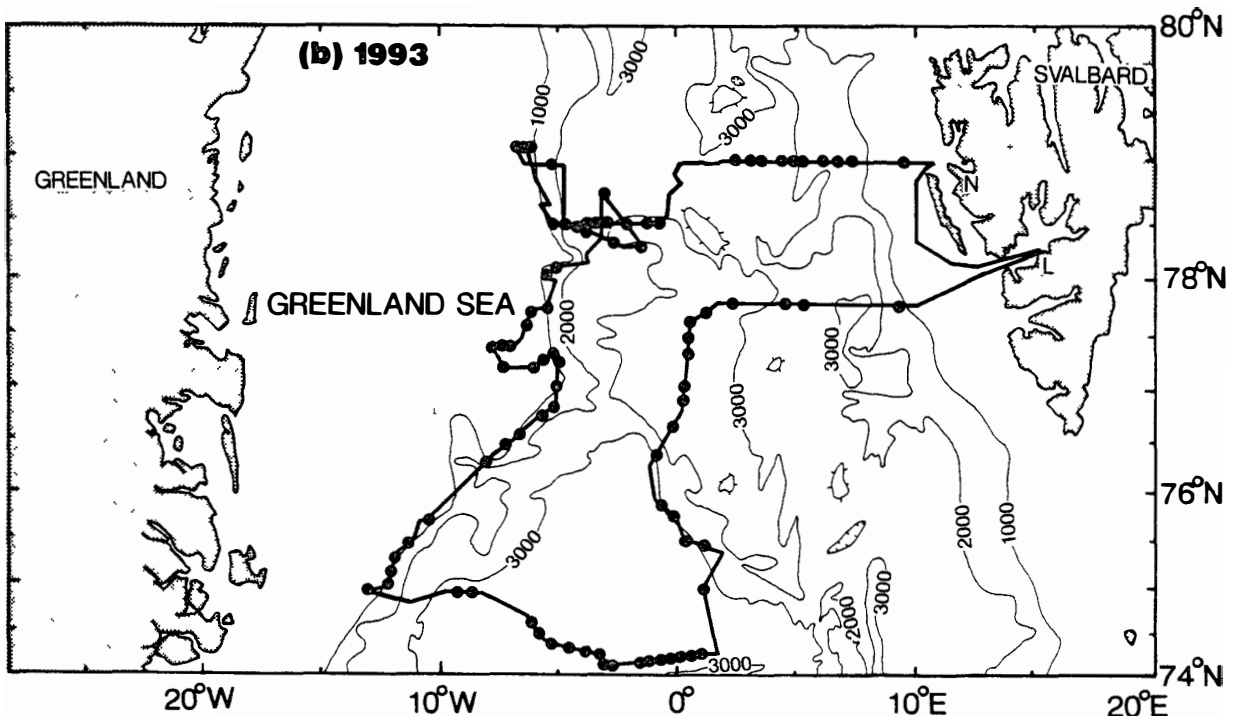
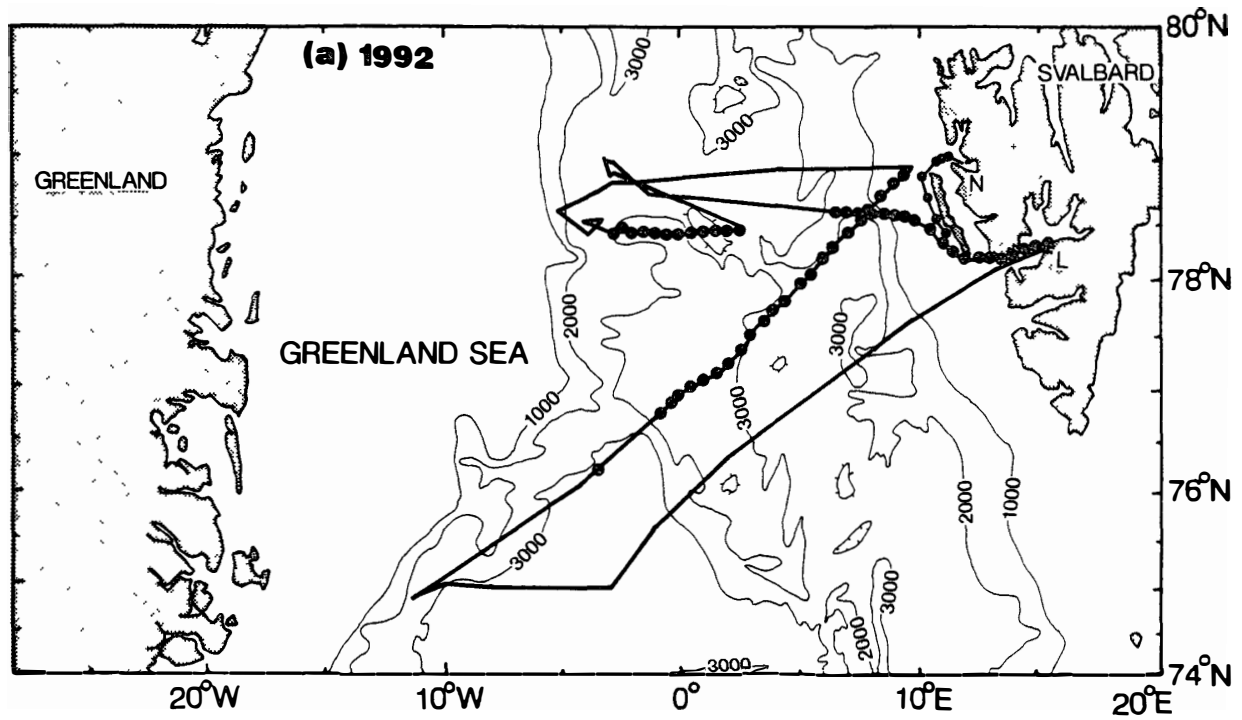


Fig. 2. Ship's track (thick line) and XBT observation stations (closed circles) of the *R/V LANCE* cruises in the Greenland Sea. Isobaths are in meters. The letter 'L' shows the port at Longyearbyen, 'N' the port at Ny-Ålesund. a) 1992 cruise, b) 1993 cruise.

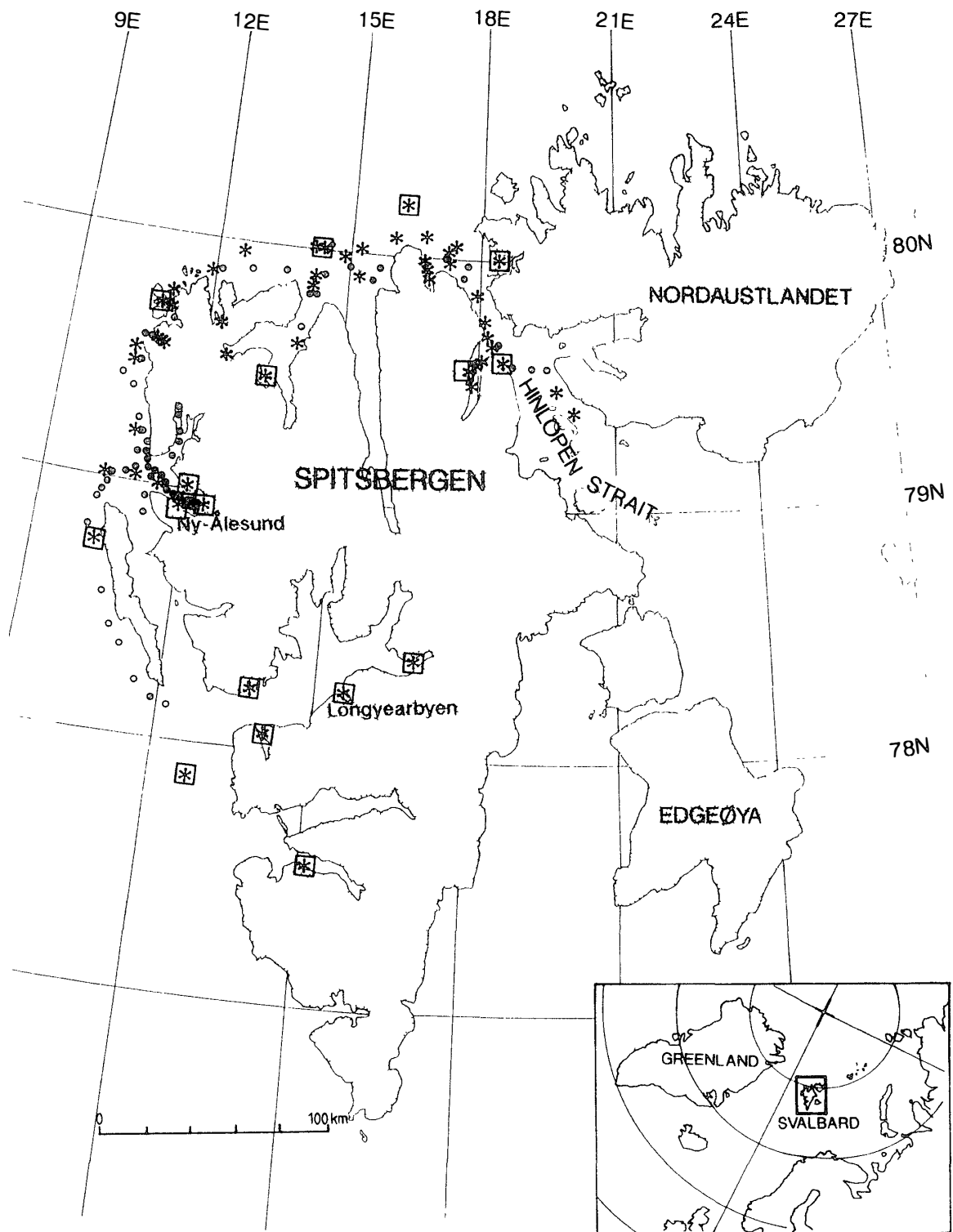


Fig. 3. Observation stations of the *M/S ORIGO* and *M/S POLARSTAR* around Spitsbergen, Svalbard, in 1993. Asterisks indicate the CTD station, closed circles the XBT stations, and open squares the sites of air sampling for measurement of $p\text{CO}_2$ and $p\text{CH}_4$.

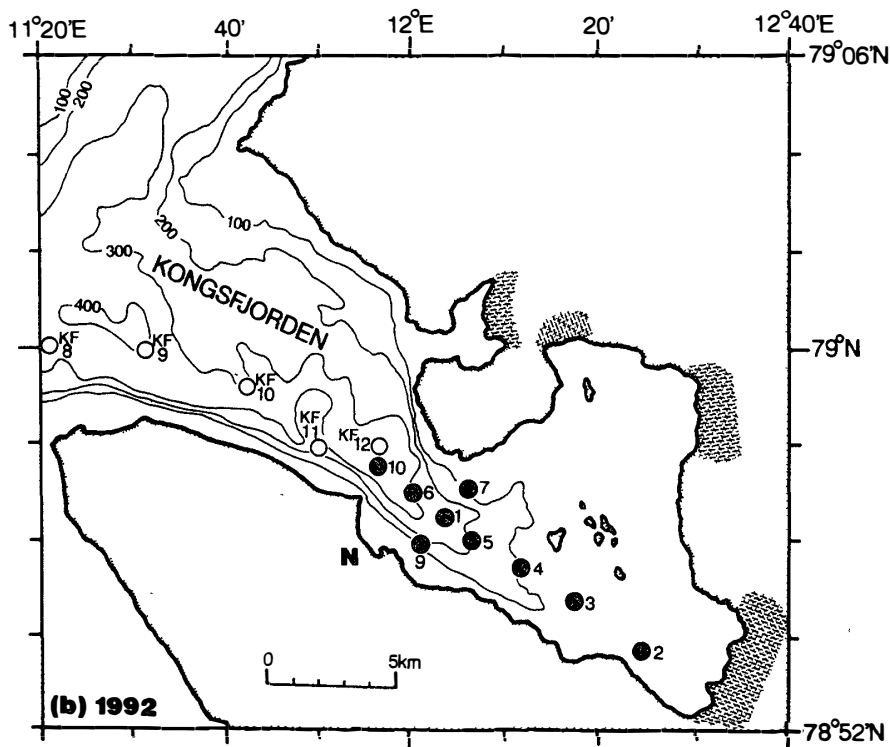
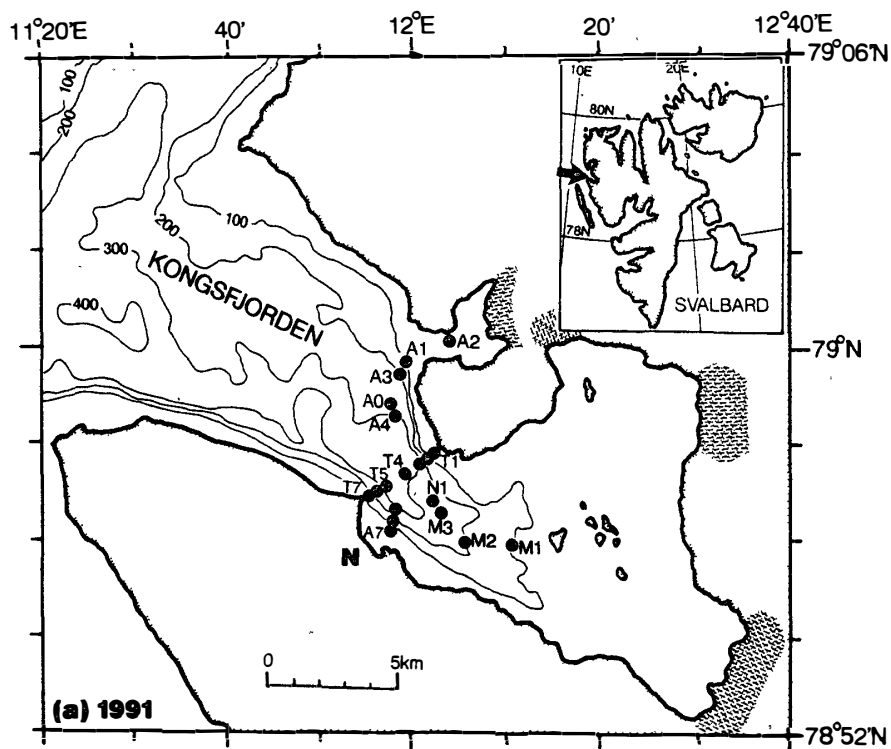


Fig. 4. Observation stations in the Kongsfjorden, Svalbard. Closed circles indicate the CTD stations, and open circles the XBT stations. The letter 'N' indicates the Japanese Ny-Ålesund observatory of the National Institute of Polar Research. The depth contours are in meters. Hatched areas along the shoreline show glacier terminals. a) in 1991, b) in 1992, c) in 1993.

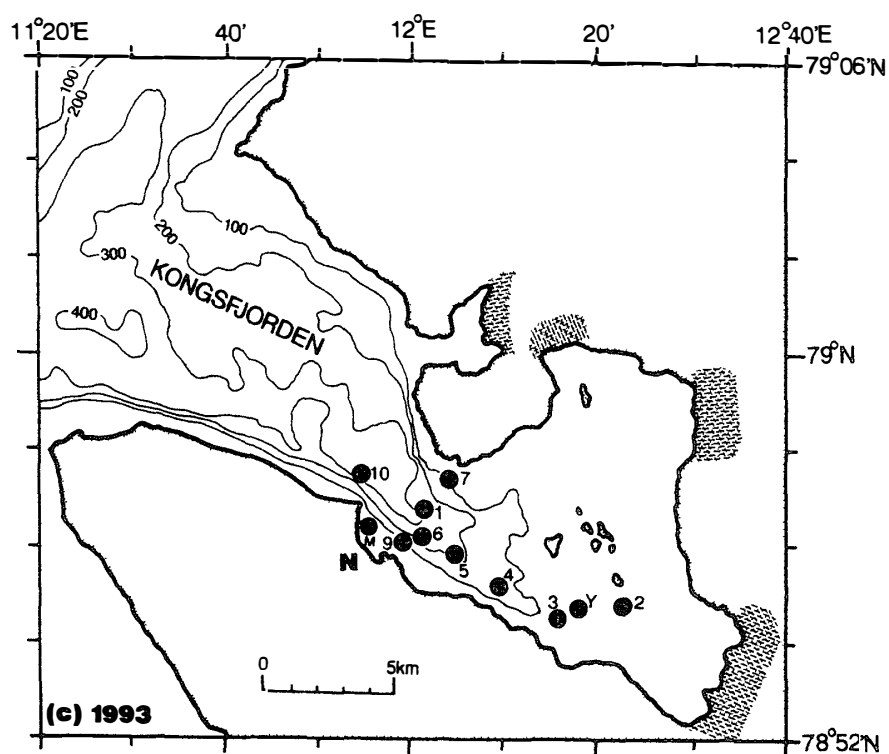


Table 1. Summary of observations.

Observation areas	Periods of observations	Observers	Items	Table No	page
Greenland Sea, Kongsfjorden	Aug 22-Sep. 1, 1992	Shuki Ushio, Meiji Honda	XBT	2-1	7
Greenland Sea	Aug. 17-29, 1993	Hajime Ito	XBT	2-2	12
around Spitsbergen	Jul 16-Aug 13, 1993	Hajime Ito, Shuhji Aoki	CTD	3	20
			XBT	4	30
			air sampling	5	33
Kongsfjorden	Sep.10-22, 1991	Shuki Ushio, Sakae Kudoh, Hajime Ito, Kazuyoshi Furusawa	CTD	6-1	34
Kongsfjorden	Jun 23-24, 1992	Hajime Ito, Kazuyoshi Furusawa	CTD	6-2	37
Kongsfjorden	May29-Jun. 18, 1993	Shuki Ushio, Sakae Kudoh, Tatsuro Suzuki	CTD	6-3	39

Table 2-1. XBT observation data in the Greenland Sea and the Kongsfjorden in 1992.

STATION	GS1	GS2	GS3	GS4	GS5	GS6
DATE	AUG.22, 1992	AUG.22, 1992	AUG.22, 1992	AUG.22, 1992	AUG.23, 1992	AUG.23, 1992
TIME(UT)	17:20	21:47	22:33	23:18	00:00	00:45
LATITUDE	76-13.4 N	76-45.5 N	76-50.9 N	76-57.3 N	77-00.3 N	77-03.5 N
LONGITUDE	03-28.4 W	00-55.6 W	00-31.5 W	00-02.1 W	00-28.6 E	00-58.8 E
DEPTH(m)						
5	4.7	3.6	2.6	1.3	2.2	0.4
10	4.6	5.4	4.9	2.0	3.0	-0.3
20	4.5	5.4	5.2	3.1	4.7	-0.1
30	3.8	5.7	3.5	1.4	5.3	0.1
50	0.2	1.7	2.5	1.2	2.3	1.7
75	-0.7	3.1	2.2	2.0	1.7	3.1
100	-0.9	2.3	2.4	2.1	2.2	2.5
125	-0.9	2.2	1.9	1.9	2.4	2.4
150	-0.8	2.0	1.9	2.0	2.2	2.2
200	-0.7	1.7	1.3	1.5	2.0	2.0
250	-0.8	1.1	1.0	1.1	1.6	1.7
300		0.7	1.2	0.9	0.8	1.4
400		0.2	0.4	0.5	0.7	0.9
500		0.2	0.3	0.4	0.3	0.6
600		0.1	0.2	0.2	0.2	0.3
700		0.0	0.0	-0.1	0.0	0.1
800		-0.2	-0.3	-0.3	-0.3	-0.2
900		-0.4	-0.5	-0.5	-0.4	-0.3
1000		-0.5	-0.6	-0.6	-0.5	-0.4

STATION	GS7	GS8	GS9	GS10	GS11	GS12
DATE	AUG.23, 1992	AUG.23, 1992	AUG.23, 1992	AUG.23, 1992	AUG.23, 1992	AUG.23, 1992
TIME(UT)	01:36	02:29	03:24	04:16	05:08	05:59
LATITUDE	77-06.0 N	77-13.0 N	77-20.7 N	77-27.8 N	77-34.8 N	77-41.5 N
LONGITUDE	01-28.4 E	01-59.0 E	02-29.7 E	02-59.5 E	03-29.7 E	03-59.2 E
DEPTH(m)						
5	5.1	5.8	4.2	5.6	5.8	4.1
10	5.6	5.7	5.2	5.5	5.5	5.6
20	5.5	5.4	5.9	5.3	5.4	3.3
30	5.5	3.6	5.3	3.4	2.9	3.4
50	2.1	3.5	1.2	1.2	2.4	3.4
75	1.5	3.2	1.6	1.4	2.0	3.2
100	1.5	3.0	1.4	1.6	2.0	2.9
125	1.7	2.6	1.4	1.3	1.8	2.6
150	1.5	2.3	0.7	1.2	1.4	2.4
200	1.1	1.7	0.8	0.4	0.7	1.9
250	0.7	0.9	0.1	-0.1	0.6	1.3
300	0.4	0.3	0.2	-0.2	0.2	0.7
400	0.0	0.1	0.0	-0.1	0.2	0.4
500	-0.1	-0.1	0.0	-0.2	-0.1	0.1
600	-0.3	-0.3	-0.3	-0.3	-0.3	0.0
700	-0.3	-0.5	-0.4	-0.4	-0.5	-0.3
800	-0.3	-0.5	-0.5	-0.5	-0.5	-0.5
900	-0.3	-0.6	-0.5	-0.5	-0.5	-0.6
1000	-0.3	-0.6	-0.5	-0.5	-0.6	-0.5

Table 2-1. (continued)

STATION	GS13	GS14	GS15	GS16	GS17	GS18
DATE	AUG.23, 1992	AUG.23, 1992	AUG.23, 1992	AUG.23, 1992	AUG.23, 1992	AUG.23, 1992
TIME(UT)	06:49	07:43	08:29	09:18	10:05	10:54
LATITUDE	77-48.3 N	77-55.7 N	78-01.9 N	78-08.6 N	78-15.1 N	78-21.9 N
LONGITUDE	04-28.9 E	05-01.7 E	05-29.2 E	05-59.2 E	06-28.4 E	06-59.6 E
DEPTH(m)						
5	5.3	4.7	5.6	5.9	5.8	5.8
10	5.2	5.1	5.7	5.9	5.8	5.7
20	5.4	5.3	5.4	5.7	5.9	5.7
30	3.5	4.1	3.0	4.2	5.8	5.8
50	3.0	1.9	2.1	2.8	3.8	3.7
75	2.8	1.5	2.2	3.3	3.4	3.6
100	2.8	1.4	2.1	3.0	3.1	3.3
125	2.7	1.0	1.9	2.6	3.7	3.1
150	2.6	0.7	1.7	2.2	4.2	2.8
200	2.3	0.6	1.2	2.0	3.8	2.6
250	2.0	0.4	0.8	1.5	2.7	2.2
300	1.3	0.2	0.6	1.0	2.2	1.7
400	0.5	0.2	0.2	0.5	1.0	0.9
500	0.0	-0.2	0.0	0.0	0.8	0.6
600	0.2	-0.4	-0.3	-0.3	0.2	0.5
700	-0.2	-0.5	-0.5	-0.4	-0.1	0.1
800	-0.4	-0.6	-0.4	-0.5	-0.3	0.0
900	-0.5	-0.7	-0.4	-0.6	-0.4	-0.1
1000	-0.6	-0.8	-0.4	-0.7	-0.5	-0.2

STATION	GS19	GS20	GS21	GS22	GS23
DATE	AUG.23, 1992	AUG.23, 1992	AUG.23, 1992	AUG.23, 1992	AUG.23, 1992
TIME(UT)	11:45	12:45	13:10	13:53	14:30
LATITUDE	78-29.0 N	78-34.7 N	78-41.4 N	78-46.7 N	78-50.6 N
LONGITUDE	07-32.5 E	07-58.9 E	08-30.2 E	09-00.4 E	09-30.6 E
DEPTH(m)					
5	6.5	7.2	7.8	7.2	7.1
10	6.7	7.2	7.7	7.2	7.0
20	7.0	7.2	7.6	7.3	7.1
30	6.3	7.2	7.4	7.5	5.7
50	6.2	6.8	6.6	6.7	3.2
75	4.7	5.7	6.2	6.1	5.0
100	3.9	5.2	6.0	5.4	5.0
125	3.8	4.8	5.8	4.4	4.7
150	3.5	4.5	5.6	4.3	3.8
200	2.9	4.1	4.9		
250	2.9	3.8	4.3		
300	2.8	3.5	3.8		
400	2.5	3.0	3.4		
500	1.2	2.2	3.2		
600	0.8	1.3	3.0		
700	0.2	0.4	2.8		
800	0.1	0.2			
900	-0.1	-0.2			
1000	-0.2	-0.4			

Table 2-1. (continued)

STATION	GS31	GS32	GS33	GS34	GS35	GS37
DATE	AUG.27, 1992	AUG.27, 1992	AUG.27, 1992	AUG.27, 1992	AUG.27, 1992	AUG.27, 1992
TIME(UT)	14:44	15:12	15:52	16:23	17:05	18:00
LATITUDE	78-24.3 N	78-25.2 N	78-23.1 N	78-23.0 N	78-23.0 N	78-22.4 N
LONGITUDE	02-55.1 W	02-29.8 W	02-00.7 W	01-31.3 W	00-50.9 W	00-00.0 E
DEPTH(m)						
5	-0.2	-0.3	1.4	2.4	0.6	3.8
10	-0.2	0.2	1.5	2.7	0.6	3.9
20	-0.1	3.1	3.0	3.4	5.2	4.9
30	5.7	3.6	4.1	4.0	5.5	5.4
50	5.0	4.4	4.2	4.7	5.2	2.9
75	3.6	4.0	3.8	3.8	4.7	2.0
100	3.2	3.6	3.5	3.7	4.2	1.8
125	2.9	3.3	3.4	3.6	3.8	2.0
150	2.5	3.0	3.1	3.4	3.6	1.6
200	2.6	2.4	2.7	2.9	3.5	1.6
250	2.2	2.3	2.3	2.8	3.4	1.4
300	2.1	2.0	2.0	2.6	3.3	0.8
400	1.4	1.6	1.6	2.0	2.8	0.4
500	0.8	1.2	0.8	1.4	2.3	0.0
600	0.4	1.0	0.5	0.9	1.4	-0.2
700	0.1	0.9	0.2	0.5	0.7	-0.4
800	-0.1	0.8	0.1	0.2	0.2	-0.5
900	-0.4	0.6	-0.2	0.0	-0.1	-0.6
1000	-0.5	0.6	-0.3	-0.2	-0.3	-0.7

STATION	GS38	GS39	GS40	GS41	GS42	GS43
DATE	AUG.27, 1992	AUG.27, 1992	AUG.27, 1992	AUG.27, 1992	AUG.27, 1992	AUG.30, 1992
TIME(UT)	18:32	19:03	19:34	20:04	20:37	06:21
LATITUDE	78-22.3 N	78-22.3 N	78-22.4 N	78-22.9 N	78-24.2 N	78-32.4 N
LONGITUDE	00-30.4 E	01-00.3 E	01-30.9 E	01-59.5 E	02-30.3 E	06-40.7 E
DEPTH(m)						
5	4.0	4.1	5.5	5.5	5.2	6.2
10	4.0	4.0	5.4	5.5	5.2	6.1
20	4.8	5.0	5.4	5.2	5.2	6.1
30	5.3	4.0	4.6	4.9	4.8	5.7
50	2.8	2.5	3.1	4.2	4.6	4.6
75	2.0	2.1	3.2	3.7	4.6	4.1
100	2.0	2.0	2.8	3.6	4.2	3.7
125	1.5	1.7	2.5	3.4	3.9	3.7
150	1.8	1.6	2.3	3.2	3.0	3.4
200	1.3	1.0	1.8	2.6	2.9	3.0
250	0.8	0.7	1.2	2.7	2.8	2.6
300	0.5	0.4	0.8	2.3	2.5	2.3
400	0.2	0.1	0.4	1.5	1.8	1.4
500	0.1	0.0	0.1	0.9	1.2	0.5
600	-0.1	-0.4	-0.1	0.4	0.8	0.1
700	-0.5	-0.6	-0.1	0.1	0.5	-0.2
800	-0.5	-0.6	-0.1	-0.2	0.3	-0.3
900	-0.6	-0.6	-0.1	-0.3	0.1	-0.4
1000	-0.7	-0.6	-0.1	-0.1	0.0	-0.5

Table 2-1. (continued)

STATION	GS44	GS45	GS46	GS47	GS48	GS49
DATE	AUG.30, 1992	AUG.30, 1992	AUG.30, 1992	AUG.30, 1992	AUG.30, 1992	AUG.30, 1992
TIME(UT)	06:41	09:01	09:33	10:07	11:10	12:11
LATITUDE	78-32.0 N	78-31.9 N	78-31.3 N	78-30.6 N	78-30.3 N	78-29.4 N
LONGITUDE	06-58.4 E	07-29.8 E	08-00.3 E	08-30.3 E	09-00.6 E	09-25.7 E
DEPTH(m)						
5	7.0	7.1	7.4	8.0	7.7	6.2
10	7.0	7.0	7.4	8.0	7.7	6.3
20	7.0	7.0	7.4	7.9	7.7	7.5
30	7.0	7.0	7.2	7.8	7.6	7.6
50	5.7	6.3	7.0	7.0	6.8	6.6
75	4.9	5.3	6.2	6.1	6.3	6.2
100	4.4	4.8	4.9	5.9	6.1	5.9
125	4.1	4.5	4.5	5.7	5.8	5.7
150	3.9	4.3	4.0	5.5	5.6	5.5
200	3.5	4.0	3.6	5.0	5.0	5.0
250	3.0	3.6	3.3	4.6	4.6	4.2
300	2.7	3.3	3.0	4.1	4.1	4.2
400	2.2	2.7	2.4	3.8	3.8	4.0
500	1.0	1.8	1.6	3.2	3.5	
600	0.0	0.8	0.9	2.7	3.1	
700	-0.1	0.0	0.1	2.3	2.5	
800	-0.4	-0.3				
900	-0.5	-0.5				
1000	-0.6	-0.6				

STATION	GS50	GS51	GS52	GS53	GS54	GS55
DATE	AUG.30, 1992	AUG.30, 1992	AUG.30, 1992	AUG.30, 1992	AUG.30, 1992	AUG.30, 1992
TIME(UT)	13:13	14:17	15:09	15:44	16:29	17:04
LATITUDE	78-28.0 N	78-22.7 N	78-16.7 N	78-13.0 N	78-09.3 N	78-09.1 N
LONGITUDE	09-59.5 E	10-29.3 E	11-05.0 E	11-30.3 E	11-59.8 E	12-29.6 E
DEPTH(m)						
5	6.2	4.0	4.7	3.8	4.0	4.9
10	6.2	4.2	4.6	3.8	4.0	4.8
20	6.6	4.1	4.2	3.8	4.0	4.4
30	5.0	4.1	4.0	3.8	3.6	4.3
50	4.6	4.3	4.2	3.8	3.6	3.7
75	4.3	5.6	3.3	3.3	3.2	3.8
100	4.2		2.9		3.9	2.9
125	4.2		3.9		3.3	3.8
150	3.9		4.4		2.6	3.8
200			3.7			3.6
250						1.5
300						
400						
500						
600						
700						
800						
900						
1000						

Table 2-1. (continued)

STATION	GS56	GS57	GS58	GS59	GS60	GS61
DATE	AUG.30, 1992	AUG.30, 1992	AUG.30, 1992	AUG.30, 1992	AUG.30, 1992	AUG.30, 1992
TIME(UT)	17:39	18:15	18:52	19:27	19:59	20:20
LATITUDE	78-09.1 N	78-10.1 N	78-11.9 N	78-13.7 N	78-15.0 N	78-16.0 N
LONGITUDE	12-59.6 E	13-29.9 E	13-59.5 E	14-29.5 E	14-59.5 E	15-20.5 E
DEPTH(m)						
5	5.3	5.2	5.1	4.4	4.3	4.6
10	5.0	5.1	5.0	4.4	4.3	4.4
20	4.9	5.0	4.8	4.2	3.8	4.0
30	4.0	4.7	4.3	3.8	1.9	3.3
50	3.6	3.0	1.9	2.3	0.8	1.8
75	3.7	1.6	1.2	0.7	2.0	0.8
100	4.2	1.2	2.1	0.0	2.6	2.9
125	4.9	0.9	3.4	1.3	2.8	2.5
150	4.2	2.0	3.9	2.2	1.3	2.6
200	4.2	2.1	2.5	0.3	0.1	0.8
250	3.4	1.5	0.3	0.2		
300	1.0	1.1				
400						
500						
600						
700						
800						
900						
1000						

STATION	KF1	KF2	KF3	KF4	KF5	KF6
DATE	AUG.31, 1992	AUG.31, 1992	AUG.31, 1992	AUG.31, 1992	SEP.01, 1992	SEP.01, 1992
TIME(UT)	20:53	21:52	22:45	23:40	00:41	00:59
LATITUDE	78-20.0 N	78-29.9 N	78-39.9 N	78-49.9 N	78-58.3 N	78-59.5 N
LONGITUDE	11-09.9 E	10-44.6 E	10-23.5 E	10-05.9 E	10-42.6 E	11-00.1 E
DEPTH(m)						
5	4.6	4.5	4.5	4.6	4.4	4.5
10	4.3	4.3	4.3	4.5	4.5	4.5
20	4.1	4.2	5.6	4.4	4.3	4.5
30	3.9	4.2	6.5	4.7	4.8	4.7
50	4.2	4.3	5.2	4.6	5.7	5.9
75	3.8	6.1	3.8		5.9	4.2
100					2.6	2.2
125					2.2	2.6
150						2.8
200						2.4
250						
300						
400						
500						
600						
700						
800						
900						
1000						

Table 2-1. (continued)

STATION	KF7	KF8	KF9	KF10	KF11	KF12
DATE	SEP.01, 1992	SEP.01, 1992	SEP.01, 1992	SEP.01, 1992	SEP.01, 1992	SEP.01, 1992
TIME(UT)	01:08	01:18	01:27	01:38	01:49	15:06
LATITUDE	79-00.2 N	79-00.1 N	79-00.0 N	78-59.0 N	78-57.9 N	78-58.0 N
LONGITUDE	11-10.0 E	11-20.4 E	11-30.4 E	11-40.2 E	11-49.9 E	11-56.3 E
DEPTH(m)						
5	5.0	4.7	5.2	4.7	3.5	3.9
10	4.7	5.5	4.6	5.3	3.7	4.7
20	4.8	4.9	5.4	5.4	5.3	4.4
30	4.6	4.8	5.2	5.4	5.4	5.5
50	4.4	4.9	5.1	5.2	4.8	5.1
75	5.1	5.3	4.0	4.7	5.0	3.8
100	3.0	2.5	2.2	2.4	3.8	1.7
125	2.4	1.7	2.1	1.6	1.5	2.8
150	2.3	1.6	1.8	1.8	2.0	2.3
200	1.7	1.8	2.0	1.8	1.6	1.7
250	0.3	1.1	1.2	1.2	1.3	1.2
300		0.8	0.8		1.3	1.1
400						
500						
600						
700						
800						
900						
1000						

Table 2-2. XBT observation data in the Greenland Sea in 1993.

STATION	LA8171	LA8172	LA8173	LA8174	LA8175	LA8176
DATE	AUG.17, 1993	AUG.17, 1993	AUG.17, 1993	AUG.17, 1993	AUG.17, 1993	AUG.17, 1993
TIME(UT)	02:36	12:11	12:41	13:12	15:49	16:22
LATITUDE	79-00 N	79-01 N	79-00 N	79-00 N	79-00 N	79-00 N
LONGITUDE	09-30 E	07-27 E	07-00 E	06-30 E	05-30 E	05-00 E
DEPTH(m)						
5	4.0	7.2	7.0	7.1	7.4	7.2
10	4.1	7.1	7.0	7.0	7.4	7.2
20	4.4	7.0	6.9	6.9	7.3	7.1
30	4.4	6.8	6.8	6.9	7.1	7.0
50	1.4	6.8	6.4	6.0	6.5	5.7
75	0.9	5.2	4.6	4.8	4.5	4.4
100	1.5	4.6	4.2	4.6	3.6	4.2
125	1.5	4.4	4.0	4.2	3.2	3.8
150	1.7	4.2	3.9	4.0	3.0	3.6
200	2.7	3.7	3.5	3.7	2.6	3.2
250	2.7	3.5	3.2	3.3	2.3	3.0
300		3.3	3.0	3.1	2.1	2.6
400		2.9	2.3	2.6	1.5	1.8
500		2.6	1.9	1.9	1.0	1.4
600		1.9	1.5	1.0	0.5	1.3
700		1.2	1.0	0.2	0.1	1.7
800		0.7	0.6	-0.1	0.0	2.0
900		0.2	0.2	-0.4	-0.1	1.6
1000		-0.2	-0.2	-0.5	-0.2	1.3

Table 2-2. (continued)

STATION	LA8177	LA8178	LA8179	LA8170	LA8181	LA8182
DATE	AUG.17, 1993	AUG.17, 1993	AUG.17, 1993	AUG.17, 1993	AUG.18, 1993	AUG.18, 1993
TIME(UT)	16:55	19:47	20:20	20:51	09:12	09:19
LATITUDE	79-00 N	79-00 N	79-00 N	79-00 N	78-29 N	78-29 N
LONGITUDE	04-30 E	03-30 E	03-00 E	02-30 E	01-49 W	01-58 W
DEPTH(m)						
5	6.4	5.8	5.8	1.9	0.0	1.0
10	6.4	5.7	5.7	2.7	0.0	0.6
20	7.0	6.6	6.3	6.1	-0.1	-1.2
30	6.8	6.3	3.1	3.1	-0.1	-1.1
50	5.6	4.7	3.3	3.1	-0.2	-1.6
75	4.7	4.3	3.8	3.3	-0.2	-1.6
100	4.4	4.0	3.4	2.9	-0.2	-0.6
125	4.0	3.7	3.3	2.9	-0.3	2.1
150	3.6	3.6	3.1	3.0	-0.3	2.1
200	3.5	2.9	2.7	2.5	-0.3	2.7
250	3.2	2.9	2.3	1.8	-0.4	2.6
300	2.9	2.6	2.0	2.0	-0.5	2.4
400	2.6	2.1	1.6	1.8		2.2
500	1.9	1.4	1.2	1.1		1.4
600	1.2	1.0	0.9	0.4		1.1
700	0.6	0.4	0.4	0.1		0.9
800	0.2	0.0	0.1	-0.1		0.6
900	0.0	-0.2	-0.2	-0.2		0.6
1000	-0.3	-0.3	-0.3	-0.3		0.5

STATION	LA8183	LA8184	LA8185	LA8186	LA8191	LA8192
DATE	AUG.18, 1993	AUG.18, 1993	AUG.18, 1993	AUG.18, 1993	AUG.19, 1993	AUG.19, 1993
TIME(UT)	11:19	11:52	13:51	17:14	12:06	16:30
LATITUDE	78-30 N	78-30 N	78-30 N	78-29 N	79-03 N	79-05 N
LONGITUDE	02-30 W	03-00 W	03-32 W	04-00 W	06-53 W	06-38 W
DEPTH(m)						
5	2.2	-0.2	0.1	1.3	-1.0	-0.8
10	1.5	0.8	-0.2	0.9	-1.0	-0.9
20	-0.5	1.8	-1.2	2.1	-1.0	-1.1
30	-1.2	-0.9	-1.4	-1.3	-1.5	-1.6
50	-1.5	-1.5	-1.5	-1.5	-1.7	-1.7
75	-1.6	-1.6	-1.7	-1.8	-1.7	-1.7
100	-0.5	0.2	-1.3	-1.2	-1.5	-1.5
125	2.9	1.9	-0.1	0.0	-1.6	-1.5
150	3.6	3.5	1.7	1.5	-1.3	-1.6
200	2.7	3.1	2.9	2.8	0.1	0.0
250	2.7	2.8	2.5	2.6	0.5	0.8
300	2.4	2.8	2.3	2.3	0.8	0.6
400	2.2	2.3	1.9	1.7	0.7	0.6
500	1.9	1.7	1.4	1.2		
600	1.5	1.2	1.0	0.8		
700	1.4	0.7	0.6	0.6		
800	1.8	0.4	0.2	0.3		
900	0.0	0.3	0.0	0.0		
1000	0.0	0.3	-0.1	-0.2		

Table 2-2. (continued)

STATION	LA8193	LA8194	LA8211	LA8212	LA8213	LA8214
DATE	AUG.19, 1993	AUG.20, 1993	AUG.21, 1993	AUG.21, 1993	AUG.21, 1993	AUG.21, 1993
TIME(UT)	17:07	15:14	09:58	10:30	10:58	11:36
LATITUDE	79-04 N	78-58 N	78-27 N	78-24 N	78-26 N	78-26 N
LONGITUDE	06-31 W	05-02 W	05-12 W	04-49 W	04-30 W	04-00 W
DEPTH(m)						
5	-0.9	-0.5	-0.8	-0.6	-1.0	-0.8
10	-0.8	-0.2	-0.9	-0.7	-1.1	-0.8
20	-1.2	-0.9	-0.9	-1.3	-1.2	-1.2
30	-1.6	-1.3	-1.2	-1.5	-1.4	-1.6
50	-1.7	-1.6	-1.5	-1.6	-1.5	-1.5
75	-1.7	-1.7	-1.7	-1.8	-1.7	-1.7
100	-1.6	-1.2	-1.8	-1.6	-1.8	-1.3
125	-1.7	-1.7	-1.6	0.3	-1.7	-0.5
150	-1.6	-1.5	-0.2	2.1	-0.6	2.1
200	-0.3	-0.3	2.0	2.7	2.2	2.6
250	0.8	1.3	1.1	2.1	2.6	2.5
300	0.6	0.6	1.0	1.8	2.5	2.5
400	0.6	0.8	0.8	0.6	2.1	2.5
500		0.5		0.6	1.6	2.4
600		0.4		0.6	1.5	2.2
700		0.3		0.6	0.8	0.8
800		0.1			0.9	0.7
900		0.0			0.6	0.1
1000		0.0			0.5	0.0

STATION	LA8215	LA8216	LA8221	LA8231	LA8232	LA8233
DATE	AUG.21, 1993	AUG.21, 1993	AUG.22, 1993	AUG.23, 1993	AUG.23, 1993	AUG.23, 1993
TIME(UT)	14:13	15:00	14:27	01:03	02:06	05:17
LATITUDE	78-19 N	78-17 N	78-49 N	78-09 N	78-01 N	77-47 N
LONGITUDE	02-30 W	01-53 W	03-45 W	05-05 W	05-44 W	05-45 W
DEPTH(m)						
5	-0.7	1.7	-0.9	0.9	-0.8	0.4
10	-0.1	2.3	-1.0	0.3	-0.9	0.0
20	-0.8	3.6	-1.1	0.6	-1.1	-0.1
30	-1.2	1.9	-1.4	-0.5	-1.6	-1.3
50	-1.2	-1.2	-1.7	-1.2	-1.5	-1.4
75	-1.5	-0.6	-1.7	-1.0	-1.8	-1.7
100	-0.1	1.0	-1.6	-0.3	-1.8	-1.3
125	1.5	3.2	-0.8	1.4	-1.7	-1.0
150	2.6	2.7	0.0	2.2	-0.5	-0.3
200	3.0	2.5	2.4	2.6	1.2	0.8
250	3.2	2.5	1.9	2.7	1.3	1.2
300	2.9	2.6	1.7	1.4	1.0	1.0
400	2.5	2.1	1.0	1.7	1.6	0.9
500	2.0	1.7	0.6	1.0		0.8
600	1.9	1.3	0.4	0.9		0.8
700	1.5	0.9	0.4	1.2		0.8
800	1.3	0.6	0.5	1.6		0.9
900	0.9	0.2	0.7	1.6		0.8
1000	0.7	0.1	0.8	1.7		0.8

Table 2-2. (continued)

STATION	LA8234	LA8235	LA8236	LA8237	LA8238	LA8239
DATE	AUG.23, 1993	AUG.23, 1993	AUG.23, 1993	AUG.23, 1993	AUG.23, 1993	AUG.23, 1993
TIME(UT)	06:15	07:13	08:13	09:12	10:12	11:39
LATITUDE	77-42 N	77-34 N	77-24 N	77-20 N	77-16 N	77-07 N
LONGITUDE	06-31 W	06-57 W	07-16 W	08-00 W	08-04 W	07-41 W
DEPTH(m)						
5	-0.3	-1.1	-0.7	-0.1	0.0	0.0
10	-1.1	-1.1	-1.1	0.6	0.3	-0.5
20	-0.9	-1.1	-1.1	-1.1	-1.3	-0.6
30	-1.2	-1.3	-1.4	-1.3	-1.5	-1.6
50	-1.5	-1.5	-1.4	-1.5	-1.5	-1.6
75	-1.6	-1.5	-1.5	-1.5	-1.7	-1.5
100	-1.5	-1.2	-1.4	-1.6	-1.7	-1.6
125	-1.0	-1.0	-0.9	-1.4	-1.4	-1.1
150	-0.1	-0.2	-0.2	-0.8	-0.5	-0.4
200	1.4	0.8	1.1	0.4	0.6	1.3
250	1.1	1.0	1.2	1.1	1.2	1.6
300	1.1	1.0	1.2	1.1	1.1	2.3
400	1.1	1.0	1.2	1.2	1.1	2.2
500						
600						
700						
800						
900						
1000						

STATION	LA8230	LA823A	LA823B	LA823C	LA823D	LA8241
DATE	AUG.23, 1993	AUG.23, 1993	AUG.23, 1993	AUG.23, 1993	AUG.23, 1993	AUG.23, 1993
TIME(UT)	12:50	13:58	15:09	16:16	18:26	22:06
LATITUDE	77-10 N	77-11 N	77-15 N	77-19 N	77-13 N	76-50 N
LONGITUDE	07-21 W	06-29 W	06-07 W	05-43 W	05-15 W	05-12 W
DEPTH(m)						
5	0.4	0.6	0.2	-0.1	-0.1	-0.2
10	0.8	0.9	0.0	-0.2	-0.4	-0.2
20	-0.1	-0.9	0.3	-1.1	-0.8	-0.2
30	-1.5	-1.3	-0.2	-1.5	-1.0	-0.2
50	-1.5	-1.5	-1.6	-1.6	-1.6	-0.3
75	-1.6	-1.6	-1.6	-1.6	-1.4	-0.2
100	-1.5	-1.6	-1.6	-1.5	-1.6	-0.2
125	-0.9	-1.1	-0.7	-0.4	-1.6	-0.2
150	-0.3	-0.3	0.3	0.1	-1.2	-0.3
200	1.3	1.2	1.1	1.4	0.1	-0.3
250	1.3	1.2	1.3	0.7	0.9	
300	1.3	1.4	1.2	0.6	1.0	
400	1.3	1.4	1.3	0.5	1.2	
500					0.7	
600					0.6	
700					0.5	
800					0.3	
900					0.3	
1000					0.2	

Table 2-2. (continued)

STATION	LA8242	LA8243	LA8244	LA8245	LA8246	LA8247
DATE	AUG.23, 1993	AUG.24, 1993	AUG.24, 1993	AUG.24, 1993	AUG.24, 1993	AUG.24, 1993
TIME(UT)	23:02	00:01	01:01	01:59	07:57	09:03
LATITUDE	76-44 N	76-37 N	76-29 N	76-22 N	75-39 N	75-29 N
LONGITUDE	05-49 W	06-31 W	07-11 W	07-49 W	11-16 W	11-51 W
DEPTH(m)						
5	0.6	2.6	1.9	1.1	1.8	1.3
10	-0.1	2.6	1.9	0.4	1.5	0.9
20	-1.2	0.4	-1.0	-1.1	-1.4	-0.3
30	-1.6	1.3	-1.4	-1.4	-1.5	-1.3
50	-1.4	-0.9	-1.0	-1.3	-1.6	-1.6
75	-1.0	2.4	-1.1	-1.4	-1.4	-1.6
100	-0.7	1.6	0.0	-1.0	0.0	-1.3
125	-0.2	2.5	2.1	0.1	0.9	-0.5
150	1.3	2.9	2.3	1.4	2.4	0.3
200	1.6	2.4	1.9	3.2	2.6	2.2
250	1.8	2.2	2.0	3.2	2.3	1.6
300	1.8	1.7	1.5	3.0	1.8	1.2
400	1.6	1.4	1.3	2.6	1.0	1.3
500	1.0	0.8	0.6	1.9	0.8	
600	0.3	0.6	0.4	1.4	0.4	
700	0.2	0.4	0.4	1.9	0.4	
800	0.0	0.3	0.3	2.8		
900	-0.1	0.3	0.2	2.8		
1000	-0.2	0.3	0.4			

STATION	LA8248	LA8249	LA8240	LA824A	LA8251	LA8252
DATE	AUG.24, 1993	AUG.24, 1993	AUG.24, 1993	AUG.24, 1993	AUG.25, 1993	AUG.25, 1993
TIME(UT)	09:56	11:00	11:58	12:41	16:10	19:36
LATITUDE	75-20 N	75-08 N	75-00 N	75-00 N	74-58 N	74-59 N
LONGITUDE	12-12 W	12-28 W	12-48 W	13-21 W	09-30 W	08-30 W
DEPTH(m)						
5	-1.0	1.3	-0.9	0.1	4.6	4.5
10	-0.8	1.8	0.4	0.5	4.6	4.4
20	-1.5	1.4	-0.2	0.6	4.4	4.2
30	-1.3	-1.5	-1.6	-1.1	4.2	2.3
50	-1.6	-1.6	-1.7	-1.6	2.0	1.6
75	-1.7	-1.6	-1.7	-1.7	1.0	1.5
100	-1.4	-1.2	-1.6	-1.7	0.8	1.3
125	-0.9	-0.6	-0.9	-1.3	0.8	1.1
150	-0.4	1.6	-0.2	-0.7	0.5	0.8
200	2.2	2.5	2.4	0.7	0.1	0.6
250	2.0	1.9	2.3	0.9	-0.1	0.4
300	1.3	1.5	2.0	0.8	-0.3	0.2
400	1.4	0.8	1.3	0.7	-0.5	0.2
500			1.0		-0.4	0.1
600			1.0		-0.3	0.4
700			1.0		-0.7	0.6
800					-0.7	0.7
900					-0.6	0.8
1000					-0.6	0.9

Table 2-2. (continued)

STATION	LA8261	LA8262	LA8263	LA8264	LA826A	LA826B
DATE	AUG.26, 1993	AUG.26, 1993	AUG.26, 1993	AUG.26, 1993	AUG.26, 1993	AUG.26, 1993
TIME(UT)	05:47	06:51	07:59	11:24	13:04	13:50
LATITUDE	74-38 N	74-31 N	74-25 N	74-18 N	74-13 N	74-10 N
LONGITUDE	06-30 W	06-00 W	05-30 W	04-50 W	03-55 W	03-30 W
DEPTH(m)						
5	4.8	4.3	5.0	4.9	5.0	5.2
10	4.8	4.6	4.9	4.9	5.1	5.2
20	4.7	4.4	4.8	4.8	4.9	5.0
30	4.2	3.7	2.0	3.5	4.6	2.3
50	-0.6	0.5	-0.3	-0.5	-0.1	-0.3
75	-0.8	0.4	-0.4	-0.9	-0.7	-0.7
100	-0.8	0.2	-0.6	-0.8	-0.8	-0.6
125	-0.9	0.0	-0.8	-0.6	-0.4	-0.6
150	-0.8	-0.2	-0.9	-0.6	-0.3	-0.6
200	-0.6	-0.5	-1.0	-0.7	-0.5	-0.6
250	-0.6	-0.6	-0.9	-0.8	-0.5	-0.8
300	-0.5	-0.6	-0.7	-0.8	-0.4	-0.7
400	-0.5	-0.7	-0.9	-0.8	-0.5	-0.8
500	-0.7	-0.8	-0.9	-1.0	-0.6	-0.8
600		-1.0	-0.7	-1.0	-0.7	-0.7
700		-1.0	-0.6	-0.9	-0.6	-0.5
800		-1.0	-0.4	-0.4	-0.6	-0.2
900		-0.9		0.2	-0.5	0.0
1000		-0.9		0.3	-0.4	0.1

STATION	LA826C	LA826D	LA826E	LA826F	LA826G	LA8271
DATE	AUG.26, 1993	AUG.26, 1993	AUG.26, 1993	AUG.26, 1993	AUG.26, 1993	AUG.26, 1993
TIME(UT)	17:55	18:46	19:37	20:27	21:18	22:11
LATITUDE	74-09 N	74-10 N	74-12 N	74-13 N	74-15 N	74-16 N
LONGITUDE	02-30 W	02-00 W	01-30 W	01-00 W	00-30 W	00-00 E
DEPTH(m)						
5	5.1	5.6	5.7	5.6	5.5	5.9
10	5.1	5.5	5.6	5.6	5.5	5.8
20	4.9	5.4	5.5	5.5	5.4	5.7
30	3.9	5.2	5.3	5.5	5.0	3.9
50	-0.3	-0.2	0.1	0.2	-0.8	-0.5
75	-0.9	-0.6	-0.3	-1.2	-1.2	-0.6
100	-1.2	-0.6	-0.4	-1.2	-1.2	-0.9
125	-1.0	-0.8	-0.5	-1.2	-1.3	-0.9
150	-0.8	-0.9	-0.5	-1.2	-1.1	-0.9
200	-0.6	-0.7	-0.4	-1.1	-1.0	-0.8
250	-0.7	-0.8	-0.6	-1.1	-1.1	-0.9
300	-0.7	-0.8	-0.7	-1.1	-1.0	-0.8
400	-0.8	-1.0	-0.6	-1.0	-1.0	-0.8
500	-1.1	-1.0	-0.8	-0.4	-1.1	-0.8
600	-1.1	-1.0	-0.5	-0.6	-1.0	-0.7
700	-1.0	-1.0	1.4	-0.7	-1.0	-0.6
800	-0.9	-0.9	2.0	-0.6	-0.9	-0.6
900	-0.6	-0.7	1.5	-0.6	-0.9	-0.5
1000	0.0	-0.6	1.2	-0.7	-0.8	-0.5

Table 2-2. (continued)

STATION	LA8272	LA8273	LA8274	LA8275	LA8276	LA8277
DATE	AUG.26, 1993	AUG.26, 1993	AUG.27, 1993	AUG.27, 1993	AUG.27, 1993	AUG.27, 1993
TIME(UT)	23:02	23:54	11:58	16:00	17:00	21:13
LATITUDE	74-17 N	74-18 N	75-00 N	75-26 N	75-28 N	75-46 N
LONGITUDE	00-30 E	01-00 E	01-18 E	01-11 E	00-51 E	00-31 W
DEPTH(m)						
5	5.8	5.9	6.1	6.4	6.3	5.8
10	5.7	5.8	6.1	6.2	6.2	5.7
20	5.7	5.7	5.9	6.0	6.0	5.5
30	4.9	4.0	2.2	5.3	4.4	5.3
50	-0.5	-0.6	-0.4	-0.4	1.2	-0.7
75	-0.9	-1.1	-1.0	-0.7	1.0	-1.0
100	-1.0	-1.3	0.1	-0.9	0.5	-1.2
125	-1.1	-1.3	-0.1	-0.5	-0.4	-1.3
150	-0.9	-1.1	-0.2	-0.7	-1.1	-1.2
200	-0.9	-1.2	-0.3	-0.5	-0.6	-1.2
250	-0.9	-1.1	-0.4	-0.4	-0.5	-1.1
300	-1.0	-1.0	-0.5	-0.4	-0.7	-1.0
400	-1.1	-1.0	-0.6	-0.6	-0.8	-1.0
500	-1.1	-1.0	-0.9	-0.6	-0.4	-1.0
600	-1.1	-1.0	-0.8	-0.6	-0.6	-0.9
700	-1.0	-0.8	-0.8	-0.4	-0.7	-0.9
800	-0.9	-0.5	-0.7		-0.7	-0.9
900	-0.8	-0.2	-0.8		-0.6	-0.7
1000	-0.8	0.0	-0.8		-0.6	-0.7

STATION	LA8282	LA8283	LA8285	LA8286	LA8287	LA8288
DATE	AUG.28, 1993	AUG.28, 1993	AUG.28, 1993	AUG.28, 1993	AUG.28, 1993	AUG.28, 1993
TIME(UT)	02:56	07:09	08:12	09:11	13:12	14:12
LATITUDE	76-18 N	76-40 N	76-50 N	77-00 N	77-18 N	77-28 N
LONGITUDE	01-21 W	00-44 W	00-32 W	00-18 W	00-14 E	00-28 E
DEPTH(m)						
5	6.0	6.1	5.6	5.7	5.5	6.1
10	5.9	6.4	5.4	5.5	5.4	6.0
20	5.6	6.0	4.8	5.0	5.3	5.9
30	5.3	6.4	5.6	3.5	4.0	5.2
50	1.7	4.5	3.5	2.4	2.4	2.1
75	1.1	2.8	3.0	2.6	2.9	1.6
100	0.8	2.5	2.5	2.6	2.7	1.2
125	0.6	1.5	2.2	2.3	2.5	1.3
150	0.3	2.0	2.1	2.2	2.5	0.9
200	0.3	1.6	1.4	2.4	2.1	0.5
250	0.1	1.2	1.4	1.9	1.7	0.2
300	-0.1	0.9	1.0	1.6	1.5	0.3
400	-0.5	0.5	0.1	0.9	0.9	-0.3
500	-0.6	-0.1	-0.1	0.3	0.6	-0.3
600	-0.6	-0.3	-0.3	0.0	0.1	-0.3
700	-0.6	-0.4	-0.5	-0.2	0.0	-0.5
800	-0.8	-0.4	-0.4	-0.3	0.0	-0.5
900	-0.9	-0.5	-0.6	-0.4	0.1	-0.6
1000	-0.8	-0.6	-0.7	-0.4	0.0	-0.7

Table 2-2. (continued)

STATION	LA8289	LA8280	LA828A	LA8291	LA8292	LA8293
DATE	AUG.28, 1993	AUG.28, 1993	AUG.28, 1993	AUG.29, 1993	AUG.29, 1993	AUG.29, 1993
TIME(UT)	15:11	18:54	20:07	00:17	01:00	10:47
LATITUDE	77-38 N	77-45 N	77-45 N	77-45 N	77-45 N	77-45 N
LONGITUDE	00-44 E	01-55 E	02-50 E	04-43 E	05-15 E	09-30 E
DEPTH(m)						
5	6.6	6.1	6.0	6.8	6.5	8.0
10	6.5	6.2	5.9	6.7	6.5	7.9
20	6.4	6.2	6.1	6.6	6.4	7.8
30	6.2	6.0	5.7	6.2	6.3	6.7
50	4.2	5.1	3.7	4.5	4.9	6.7
75	3.2	3.0	3.5	2.9	3.1	5.8
100	2.8	1.8	3.4	2.9	2.6	5.9
125	2.5	1.6	3.2	2.7	2.1	5.7
150	2.1	1.4	3.0	2.5	1.8	5.5
200	1.8	1.0	2.9	2.1	1.6	5.0
250	1.4	0.4	2.7	1.7	1.2	4.8
300	0.8	0.1	2.4	1.0	0.8	4.4
400	0.6	-0.1	1.7	0.0	0.2	3.4
500	0.1	-0.4	1.1	-0.2	-0.2	2.9
600	-0.1	-0.5	0.8	-0.3	-0.4	2.7
700	-0.4	-0.5	0.3	-0.5	-0.5	2.5
800	-0.5	-0.6	-0.1	-0.6	-0.6	2.0
900	-0.6	-0.8	-0.3	-0.6	-0.7	1.1
1000	-0.7	-0.8	-0.4	-0.6	-0.8	0.3

Table 3. CTD observation data around Spitsbergen in 1993.

STATION: 1 DATE: JULY 17, 1993 TIME(UT): 18:30 LATITUDE: 79-33.0 N LONGITUDE: 11-10.5 E			STATION: 2 DATE: JULY 17, 1993 TIME(UT): 21:15 LATITUDE: 79-33.7 N LONGITUDE: 11-02.5 E			STATION: 3 DATE: JULY 18, 1993 TIME(UT): 08:50 LATITUDE: 79-40.2 N LONGITUDE: 12-15.9 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	2.96	32.57	0	4.74	31.77	0	4.22	31.85
10	2.51	33.61	10	2.65	33.48	10	3.05	34.19
20	1.27	34.03	20	2.63	34.09	20	2.42	34.24
30	1.34	34.21				26	-1.34	34.50
50	1.96	34.34						
69	1.72	34.36						

STATION: 3 DATE: JULY 18, 1993 TIME(UT): 09:00 LATITUDE: 79-40.2 N LONGITUDE: 12-15.9 E			STATION: 5 DATE: JULY 18, 1993 TIME(UT): 21:05 LATITUDE: 79-58.6 N LONGITUDE: 12-39.9 E			STATION: 6 DATE: JULY 19, 1993 TIME(UT): 08:50 LATITUDE: 80-00.3 N LONGITUDE: 14-21.9 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	3.76	28.20	0	4.33	34.46	0	2.35	33.04
10	3.04	34.20	10	4.06	34.38	10	2.59	33.84
20	2.43	34.26	20	2.70	34.49	20	2.60	33.81
26	-1.27	34.43	30	2.46	34.54	22	2.60	33.83
			50	2.43	34.55			
			52	2.43	34.55			

Table 3. (continued)

STATION: 7 DATE: JULY 19, 1993 TIME(UT): 12:05 LATITUDE: 80-02.7 N LONGITUDE: 15-19.1 E			STATION: 8 DATE: JULY 19, 1993 TIME(UT): 14:00 LATITUDE: 80-11.0 N LONGITUDE: 16-10.4 E			STATION: 9 DATE: JULY 19, 1993 TIME(UT): 16:25 LATITUDE: 80-05.7 N LONGITUDE: 16-48.5 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	3.72	18.68	0	1.21	30.11	0	4.22	31.85
10	3.36	34.23	10	1.30	33.08	10	2.16	33.60
20	2.73	34.45	20	3.28	34.38	20	2.35	33.91
30	2.52	34.54	30	3.59	34.78	30	2.42	34.40
50	2.64	34.58	50	3.38	34.92	50	2.04	34.60
75	2.58	34.60	75	3.78	34.94	75	1.58	34.55
100	2.36	34.64	100	3.79	34.99	100	0.85	34.68
125	2.84	34.75	125	3.21	34.94	118	1.53	34.63
149	2.19	34.77	150	3.17	34.94			
			200	3.02	34.93			
			237	2.88	34.90			

STATION: 10 DATE: JULY 19, 1993 TIME(UT): 17:15 LATITUDE: 79-59.2 N LONGITUDE: 16-46.1 E			STATION: 11 DATE: JULY 19, 1993 TIME(UT): 19:00 LATITUDE: 79-55.0 N LONGITUDE: 16-50.6 E			STATION: 12 DATE: JULY 20, 1993 TIME(UT): 12:00 LATITUDE: 79-59.5 N LONGITUDE: 17-17.0 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	2.53	30.23	0	3.00	29.01	0	3.34	29.75
10	1.68	33.79	10	1.83	33.42	10	2.02	33.85
20	1.58	34.30	17	1.32	34.01	20	1.84	34.22
30	1.51	34.36				30	1.58	34.35
50	1.46	34.49				50	1.53	34.40
65	1.22	34.47				75	1.56	34.48
						100	1.60	34.57
						125	1.49	34.54
						150	1.56	34.57
						200	1.75	34.67
						250	2.19	34.78
						293	2.45	34.80

Table 3. (continued)

STATION: 13 DATE: JULY 20, 1993 TIME(UT): 14:00 LATITUDE: 79-45.0 N LONGITUDE: 18-14.5 E			STATION: 14 DATE: JULY 20, 1993 TIME(UT): 15:30 LATITUDE: 79-35.3 N LONGITUDE: 18-30.8 E			STATION: 15 DATE: JULY 20, 1993 TIME(UT): 19:30 LATITUDE: 79-30.9 N LONGITUDE: 19-45.4 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	2.92	31.35	0	3.37	25.88	0	-0.20	33.64
10	0.95	33.43	10	1.78	32.03	10	-0.68	33.54
20	-0.44	33.86	20	-0.19	33.78	20	-1.14	33.85
30	-0.57	33.92	30	-1.01	34.19	30	-1.24	33.93
50	-1.01	34.22	50	-1.21	34.25	50	-1.35	34.19
75	-1.17	34.32	75	-0.58	34.41	75	-1.45	34.26
100	-1.23	34.35	100	-0.42	34.45	100	-1.10	34.49
125	-1.15	34.37	125	-0.11	34.51	125	-1.01	34.46
150	-0.41	34.47	150	-0.08	34.54	147	-1.01	34.46
200	-0.24	34.53	200	-0.01	34.56			
250	0.14	34.59	207	0.00	34.56			
300	-0.10	34.59						
335	0.71	34.67						

STATION: 16 DATE: JULY 20, 1993 TIME(UT): 20:20 LATITUDE: 79-26.0 N LONGITUDE: 20-04.0 E			STATION: 17 DATE: JULY 21, 1993 TIME(UT): 08:30 LATITUDE: 79-33.0 N LONGITUDE: 17-39.3 E			STATION: 18 DATE: JULY 21, 1993 TIME(UT): 11:20 LATITUDE: 79-46.7 N LONGITUDE: 18-09.7 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	-0.81	33.67	0	2.20	0.88	0	2.20	32.30
10	-1.00	33.73	10	1.01	32.65	10	1.00	33.50
20	-1.17	33.84	19	-0.30	33.92	20	0.44	33.77
30	-1.25	33.88				30	-0.21	33.86
50	-1.39	34.07				50	-0.69	34.12
75	-1.38	34.27				75	0.31	34.42
100	-1.32	34.37				100	0.89	34.52
125	-1.26	34.39				125	-0.25	34.49
150	-1.25	34.40				150	0.33	34.59
165	-1.24	34.40				200	0.53	34.65
						250	0.38	34.64
						300	-0.05	34.63
						382	-0.20	34.63

Table 3. (continued)

STATION: 19 DATE: VJULY 21, 1993 TIME(UT): 14:30 LATITUDE: 80-02.9 N LONGITUDE: 18-14.6 E			STATION: 20 DATE: JULY 21, 1993 TIME(UT): 20:00 LATITUDE: 80-03.4 N LONGITUDE: 17-17.5 E			STATION: 21 DATE: JULY 21, 1993 TIME(UT): 22:00 LATITUDE: 80-04.5 N LONGITUDE: 16-00.5 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	2.31	32.58	0	3.26	31.62	0	2.63	28.97
10	0.26	33.81	10	2.26	32.71	10	2.74	33.76
18	-0.25	34.02	20	2.46	33.53	20	2.96	34.41
			30	2.76	34.06	30	2.73	34.56
			50	3.34	34.68	50	2.53	34.61
			75	3.26	34.82	75	2.26	34.65
			100	3.43	34.89	100	2.21	34.66
			125	2.99	34.89	125	2.21	34.67
			150	2.45	34.78	137	2.20	34.73
			200	2.29	34.84			
			250	2.89	34.90			
			300	2.12	34.84			

STATION: 22 DATE: JULY 22, 1993 TIME(UT): 00:00 LATITUDE: 79-59.4 N LONGITUDE: 14-53.6 E			STATION: 23 DATE: JULY 22, 1993 TIME(UT): 08:12 LATITUDE: 79-32.3 N LONGITUDE: 12-29.2 E			STATION: 24 DATE: JULY 22, 1993 TIME(UT): 11:35 LATITUDE: 79-28.1 N LONGITUDE: 13-24.2 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	3.64	33.69	0	-0.87	29.17	0	6.46	2.97
10	3.42	33.73	10	-0.73	33.92	10	0.03	33.95
20	3.18	34.27	20	-0.83	33.99	20	0.11	34.09
30	3.13	34.36	30	-1.13	34.06	30	-0.45	34.15
50	2.84	34.50	50	-0.68	34.15	31	-0.48	34.14
75	2.31	34.61	75	-0.91	34.23			
100	2.09	34.66						

Table 3. (continued)

STATION: 25 DATE: JULY 23, 1993 TIME(UT): 04:00 LATITUDE: 79-38.9 N LONGITUDE: 13-57.5 E			STATION: 26 DATE: JULY 23, 1993 TIME(UT): 05:50 LATITUDE: 79-54.5 N LONGITUDE: 14-19.2 E			STATION: 27 DATE: JULY 23, 1993 TIME(UT): 06:55 LATITUDE: 80-00.6 N LONGITUDE: 14-29.3 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	5.65	11.07	0	3.19	33.81	0	2.83	34.13
10	2.26	33.55	10	3.10	34.06	10	2.80	34.26
20	1.84	34.17	20	2.83	34.23	20	2.80	34.25
30	1.38	34.24	30	2.91	34.29	30	2.75	34.27
50	1.37	34.35	50	2.35	34.49	38	2.75	34.29
75	0.67	34.35	75	2.03	34.61			
100	-0.28	34.41	100	1.80	34.62			
116	-0.65	34.40	125	1.01	34.63			
			150	0.40	34.60			
			172	0.27	34.59			

STATION: 28 DATE: JULY 23, 1993 TIME(UT): 11:50 LATITUDE: 79-46.2 N LONGITUDE: 11-06.4 E			STATION: 29 DATE: JULY 23, 1993 TIME(UT): 14:50 LATITUDE: 79-43.7 N LONGITUDE: 10-54.8 E			STATION: 30 DATE: JULY 24, 1993 TIME(UT): 00:15 LATITUDE: 79-27.6 N LONGITUDE: 10-30.2 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	4.72	33.52	0	5.21	33.54	0	6.75	33.59
10	4.53	33.40	10	4.97	33.57	10	6.73	33.56
20	3.70	33.87	20	4.68	33.66	20	5.08	33.52
30	3.42	33.95	24	4.31	33.77	30	4.00	33.78
50	2.23	34.26				33	3.61	33.97
75	1.95	34.36						
100	1.89	34.39						
125	0.93	34.42						
150	0.28	34.44						

Table 3. (continued)

STATION: 31 DATE: JULY 24, 1993 TIME(UT): 02:05 LATITUDE: 79-11.6 N LONGITUDE: 10-46.8 E			STATION: 32 DATE: JULY 24, 1993 TIME(UT): 13:40 LATITUDE: 78-55.9 N LONGITUDE: 11-56.6 E			STATION: 33 DATE: JULY 24, 1993 TIME(UT): 15:50 LATITUDE: 78-55.8 N LONGITUDE: 12-26.4 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	6.57	31.90	0	5.86	27.51	0	3.36	27.73
10	6.17	33.03	9	4.84	32.41	10	1.96	31.83
20	3.67	33.95				20	1.14	33.27
30	2.17	34.15				30	2.42	33.76
50	1.06	34.34						
75	0.78	34.43						
100	1.15	34.56						
125	1.57	34.61						
146	1.69	34.64						

STATION: 33 DATE: JULY 24, 1993 TIME(UT): 16:00 LATITUDE: 78-55.8 N LONGITUDE: 12-26.4 E			STATION: 35 DATE: JULY 25, 1993 TIME(UT): 09:20 LATITUDE: 79-01.0 N LONGITUDE: 12-04.5 E			STATION: 36 DATE: JULY 25, 1996 TIME(UT): 11:00 LATITUDE: 79-00.9 N LONGITUDE: 11-26.0 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	3.88	26.62	0	4.69	20.91	0	7.22	31.24
10	1.95	31.72	10	1.91	31.17	10	6.91	31.91
20	1.36	33.13	20	2.49	32.95	20	5.37	31.40
30	2.41	33.76	30	-0.64	33.64	30	2.82	33.92
44	0.57	34.30	34	-1.32	34.10	50	1.50	34.19
						75	0.67	34.33
						100	0.61	34.38
						125	0.67	34.44
						150	0.08	34.41
						200	0.40	34.55
						250	0.69	34.63
						300	0.91	34.67
						351	1.10	34.72

Table 3. (continued)

STATION: 37 DATE: JULY 25, 1993 TIME(UT): 14:15 LATITUDE: 78-46.4 N LONGITUDE: 10-27.5 E			STATION: 38 DATE: JULY 26, 1993 TIME(UT): 01:10 LATITUDE: 77-54.1 N LONGITUDE: 12-44.4 E			STATION: 39 DATE: JULY 26, 1993 TIME(UT): 10:05 LATITUDE: 77-33.5 N LONGITUDE: 15-04.8 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	6.54	31.45	0	3.94	30.01	0	5.40	23.11
10	6.46	31.63	10	2.58	32.59	10	2.38	31.89
19	3.48	33.50	20	0.29	33.53	20	1.08	32.99
			30	0.08	33.74	30	0.49	33.43
			33	0.08	33.74	36	0.17	33.65

STATION: 40 DATE: JULY 27, 1993 TIME(UT): 05:35 LATITUDE: 78-15.9 N LONGITUDE: 13-46.3 E			STATION: 41 DATE: JULY 27, 1993 TIME(UT): 11:45 LATITUDE: 78-04.0 N LONGITUDE: 14-12.2 E			STATION: 42 DATE: JULY 27, 1993 TIME(UT): 19:05 LATITUDE: 78-23.7 N LONGITUDE: 16-51.8 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	6.47	24.49	0	6.54	29.84	0	10.16	15.62
10	4.44	31.33	10	2.69	32.29	10	4.85	32.05
20	3.59	32.16	11	2.61	32.29	20	2.83	33.38
27	2.72	33.19				30	1.87	33.80
						33	1.60	33.92

Table 3. (continued)

STATION: 43 DATE: JULY 28, 1993 TIME(UT): 13:00 LATITUDE: 78-13.8 N LONGITUDE: 15-37.9 E			STATION: 44 DATE: AUGUST 8, 1993 TIME(UT): 18:25 LATITUDE: 79-33.3 N LONGITUDE: 11-12.5 E			STATION: 45 DATE: AUGUST 8, 1993 TIME(UT): 20:40 LATITUDE: 79-42.9 N LONGITUDE: 11-05.7 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	6.28	23.69	0	4.15	30.33	0	5.33	31.71
9	4.45	31.90	10	4.64	31.16	10	5.36	31.80
			20	5.08	31.53	20	5.62	32.12
			30	5.49	31.99	30	5.21	32.47
			50	3.95	32.55	50	3.81	33.78
			69	3.48	33.14	75	2.81	34.11
						100	2.09	34.30
						125	1.55	34.33
						150	1.13	34.40
						200	0.33	34.45
						212	0.17	34.46

STATION: 46 DATE: AUGUST 8, 1993 TIME(UT): 22:45 LATITUDE: 79-53.2 N LONGITUDE: 11-58.0 E			STATION: 47 DATE: AUGUST 9, 1993 TIME(UT): 08:05 LATITUDE: 79-56.2 N LONGITUDE: 16-42.6 E			STATION: 48 DATE: AUGUST 9, 1993 TIME(UT): 14:20 LATITUDE: 79-36.4 N LONGITUDE: 17-59.2 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	5.28	32.64	0	4.08	32.93	0	-0.40	28.58
10	5.36	32.66	9	4.30	33.01	10	0.11	33.16
20	5.40	32.67				20	-0.15	33.64
30	5.43	32.81				30	0.46	33.86
50	4.83	33.45				50	0.02	33.99
75	3.42	33.91						
100	2.97	34.04						
125	2.88	34.08						
133	2.75	33.90						

Table 3. (continued)

STATION: 49 DATE: AUGUST 9, 1993 TIME(UT): 15:40 LATITUDE: 79-35.8 N LONGITUDE: 18-02.1 E			STATION: 50 DATE: AUGUST 9, 1993 TIME(UT): 17:05 LATITUDE: 79-32.3 N LONGITUDE: 17-47.3 E			STATION: 51 DATE: AUGUST 10, 1993 TIME(UT): 17:15 LATITUDE: 79-41.7 N LONGITUDE: 18-22.7 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	0.20	27.56	0	2.48	23.89	0	0.94	28.54
10	0.53	32.65	10	1.06	32.64	10	0.36	32.53
20	-0.14	33.55	20	-0.15	33.74	20	0.04	33.59
30	-0.05	33.84	30	-0.10	33.88	30	-0.12	33.96
50	-0.05	34.07	50	-0.09	34.13	50	-0.18	34.15
75	-0.03	34.24	75	-0.45	34.32	75	0.01	34.27
87	-0.24	34.26	98	-0.85	34.41	100	-0.07	34.34
						125	0.23	34.41
						150	0.17	34.46
						200	0.47	34.49
						250	1.03	34.61
						300	1.00	34.63
						400	0.57	34.65
						412	0.36	34.66

STATION: 52 DATE: AUGUST 10, 1993 TIME(UT): 19:20 LATITUDE: 79-53.1 N LONGITUDE: 17-54.2 E			STATION: 53 DATE: AUGUST 11, 1993 TIME(UT): 13:55 LATITUDE: 80-05.0 N LONGITUDE: 17-27.2 E			STATION: 54 DATE: AUGUST 12, 1993 TIME(UT): 07:45 LATITUDE: 79-56.3 N LONGITUDE: 15-16.9 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	0.20	27.56	0	2.45	33.35	0	4.75	32.62
10	0.05	32.50	10	2.45	33.32	10	4.69	32.56
20	2.66	33.31	20	2.45	33.32	20	4.65	33.55
30	2.39	33.52	30	1.75	33.41	30	4.45	34.03
50	-0.12	33.93	50	0.59	33.82	50	3.68	34.34
75	0.92	34.15	75	1.68	34.16	75	1.86	34.34
100	2.32	34.45	100	2.58	34.40	100	1.66	34.49
125	2.03	34.55	125	2.46	34.48	125	1.04	34.51
150	2.29	34.64	150	2.06	34.55	144	0.81	34.56
200	1.23	34.57	200	2.03	34.65			
250	2.21	34.76	250	2.92	34.82			
300	1.63	34.70	300	2.77	34.82			
400	0.14	34.62	373	1.14	34.70			
404	0.14	34.62						

Table 3. (continued)

STATION: 55 DATE: AUGUST 12, 1993 TIME(UT): 10:32 LATITUDE: 79-53.5 N LONGITUDE: 14-16.6 E			STATION: 56 DATE: AUGUST 13, 1993 TIME(UT): 10:30 LATITUDE: 79-31.9 N LONGITUDE: 10-37.3 E			STATION: 57 DATE: AUGUST 13, 1993 TIME(UT): 14:35 LATITUDE: 79-02.8 N LONGITUDE: 10-51.3 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	8.97	-----	0	5.76	28.59	0	5.54	30.22
10	4.62	32.55	10	4.29	30.76	10	5.12	30.63
20	4.80	33.13	20	4.43	31.04	20	3.21	31.85
30	4.85	33.38	22	4.44	31.08	30	3.61	32.51
50	3.60	34.05				50	2.63	33.59
75	3.54	34.42				75	1.72	34.13
100	2.65	34.54				100	0.83	34.31
125	3.32	34.77				125	0.67	34.36
150	2.77	34.76				150	0.93	34.41
171	1.13	34.58				200	2.25	34.66
						250	1.79	34.70
						300	1.52	34.71
						340	1.41	34.73

STATION: 58 DATE: AUGUST 13, 1993 TIME(UT): 15:25 LATITUDE: 79-02.7 N LONGITUDE: 10-24.7 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	3.05	31.28
10	2.70	32.23
20	2.45	32.48
30	2.69	33.04
50	2.39	33.58
75	1.36	34.18
100	1.08	34.31
125	1.11	34.38
150	0.88	34.49
200	0.83	34.58
250	1.18	34.69
293	1.21	34.72

Table 4. XBT observation data around Spitsbergen in 1993.

STATION	OR7161	OR7162	OR7164	OR7166	OR7167	OR7168
DATE	JUL.16, 1993	JUL.16, 1993	JUL.16, 1993	JUL.16, 1993	JUL.16, 1993	JUL.16, 1993
TIME(UT)	09:45	10:14	10:46	11:28	12:08	12:27
LATITUDE	78-53.5 N	78-57.0 N	79-01.1 N	79-07.2 N	79-09.6 N	79-12.0 N
LONGITUDE	11-13.4 E	11-08.0 E	11-18.7 E	11-36.1 E	11-42.1 E	11-44.9 E
DEPTH(m)						
10	4.9	5.2	5.5	3.2	3.5	2.5
20	3.8	4.0	3.0	3.3	4.1	1.0
30	1.9	1.7	2.2	2.6	1.9	3.1
50	0.8	0.9	1.0	0.8	0.7	1.0
75	0.5	0.7	0.6	0.6	0.1	0.2
100	0.7	0.2	0.4	-0.1	-0.3	-0.2
125	0.9	0.2	-0.2	-0.5	-0.7	-0.7
150		0.9	0.2	-0.9	-1.2	-1.1
200			0.5	-1.3	-1.4	-1.4
250			0.0	-0.8	-0.9	-0.6
STATION	OR7160	POLA8080	POLA8081	POLA8084	POLA8085	POLA8086
DATE	JUL.16, 1993	AUG.8, 1993	AUG.8, 1993	AUG.8, 1993	AUG.8, 1993	AUG.8, 1993
TIME(UT)	14:44	10:52	11:00	11:23	11:33	11:49
LATITUDE	79-19.3 N	78-56.0 N	78-55.5 N	78-54.0 N	78-53.7 N	78-53.4 N
LONGITUDE	11-38.3 E	12-01.9 E	12-05.8 E	12-16.4 E	12-22.3 E	12-26.8 E
DEPTH(m)						
10	0.7	4.4	4.2	4.2	3.7	3.1
20	0.0	4.7	4.5	4.5	4.6	4.3
30	-0.2	4.4	4.2	4.5	3.4	3.7
50	0.7	3.9	3.2			
75	0.2	1.6	1.7			
100	-0.3	0.6	0.2			
125	-1.0	0.0	-0.1			
150	-1.3	0.0				
200		0.5				
STATION	POLA8087	POLA8088	POLA8089	POLA808A	POLA808B	POLA808C
DATE	AUG.8, 1993	AUG.8, 1993	AUG.8, 1993	AUG.8, 1993	AUG.8, 1993	AUG.8, 1993
TIME(UT)	13:26	13:35	13:44	13:56	14:05	14:15
LATITUDE	78-57.1 N	78-58.1 N	78-59.1 N	79-00.3 N	79-01.1 N	79-02.2 N
LONGITUDE	11-55.2 E	11-48.0 E	11-41.6 E	11-33.3 E	11-27.4 E	11-20.6 E
DEPTH(m)						
10	4.7	4.9	5.2	5.0	4.5	4.2
20	5.1	4.7	5.1	4.5	4.2	4.2
30	4.7	4.7	5.0	4.7	4.1	4.0
50	4.2	3.6	2.9	3.3	3.0	2.2
75	1.9	1.7	1.8	1.7	1.3	1.2
100	0.5	1.0	0.8	0.8	0.8	0.7
125	0.0	0.3	0.6	0.6	0.4	0.3
150	-0.1	0.1	-0.1	0.3	0.0	0.1
200	0.2	0.6	0.2		0.1	-0.2
250	0.7	0.8	0.4		0.4	0.5

Table 4. (continued)

STATION	POLA808D	POLA808E	POLA808F	POLA808G	POLA808H	POLA808K
DATE	AUG.8, 1993	AUG.8, 1993	AUG.8, 1993	AUG.8, 1993	AUG.8, 1993	AUG.8, 1993
TIME(UT)	14:25	14:35	14:44	14:55	16:42	19:23
LATITUDE	79-03.2 N	79-04.5 N	79-05.9 N	79-07.9 N	79-25.8 N	79-34.0 N
LONGITUDE	11-14.4 E	11-07.9 E	11-03.5 E	10-59.1 E	10-26.8 E	10-51.5 E
DEPTH(m)						
10	4.2	4.2	3.9	3.8	3.9	5.0
20	4.2	4.0	4.0	3.8	3.5	4.9
30	4.0	4.1	3.8	3.6	3.4	5.3
50	3.6	3.4	2.3	2.3	3.2	
75	1.6	1.5	1.4	1.0		
100	0.9	0.8	0.8	1.0		
125	1.0	0.4	0.9			
150	1.1					
200	1.3					
250	1.3					

STATION	POLA808L	POLA8091	POLA8092	POLA8101	POLA8102	POLA8103
DATE	AUG.8, 1993	AUG.9, 1993	AUG.9, 1993	AUG.10, 1993	AUG.10, 1993	AUG.10, 1993
TIME(UT)	20:19	10:02	10:44	08:10	09:15	10:01
LATITUDE	79-40.0 N	80-00.7 N	79-57.4 N	79-36.4 N	79-36.9 N	79-36.7 N
LONGITUDE	11-09.2 E	17-12.1 E	17-35.3 E	18-41.7 E	19-16.2 E	19-30.8 E
DEPTH(m)						
10	5.5	4.4	2.5	-0.1	-0.1	0.2
20	5.0	4.4	3.1	-0.3	-0.4	-0.3
30	4.5	4.3	2.5	-0.3	-0.4	-0.4
50	3.9	0.9	1.0	0.2	-0.3	-0.9
75	2.8	2.2	1.4	1.1	0.0	-0.3
100	2.1	2.1	2.1	1.1	0.1	
125	1.8	2.1	2.0	0.3	0.1	
150		2.1	2.1	0.4		
200		2.2	3.7	0.7		
250			3.1	0.7		

STATION	POLA8104	POLA8111	POLA8113	POLA8121	POLA8122	POLA8124
DATE	AUG.10, 1993	AUG.11, 1993	AUG.11, 1993	AUG.12, 1993	AUG.12, 1993	AUG.12, 1993
TIME(UT)	16:58	10:13	17:31	07:20	08:14	10:13
LATITUDE	79-41.3 N	79-56.2 N	79-57.9 N	79-55.2 N	79-57.4 N	79-55.6 N
LONGITUDE	18-27.4 E	17-47.1 E	15-40.8 E	15-35.5 E	15-00.7 E	14-22.4 E
DEPTH(m)						
10	1.1	0.3	4.5	4.6	4.8	4.3
20	0.1	1.2	4.0	4.5	4.4	4.7
30	-0.1	1.9	3.9	4.3	4.3	4.4
50	-0.1	0.3	3.5	2.8	4.1	3.6
75	1.0	1.6	2.1	1.7	3.4	0.0
100	1.8	1.9	2.0	1.6	1.4	1.3
125	0.8	2.0	1.1	1.4	1.9	0.9
150	1.0	2.2				
200	1.0	2.6				
250	0.9	2.7				

Table 4. (continued)

STATION	POLA8125	POLA8131	POLA8132	POLA8133	POLA8135	POLA8136
DATE	AUG.12, 1993	AUG.12, 1993	AUG.12, 1993	AUG.13, 1993	AUG.13, 1993	AUG.13, 1993
TIME(UT)	10:57	22:44	23:28	00:14	00:58	01:43
LATITUDE	79-50.6 N	79-43.6 N	79-50.8 N	79-55.2 N	79-55.5 N	79-53.0 N
LONGITUDE	14-13.5 E	13-59.5 E	14-03.4 E	13-31.5 E	12-49.8 E	12-05.7 E
DEPTH(m)						
10	5.1	5.6	4.9	5.8	5.2	5.2
20	4.7	5.5	4.7	5.6	4.7	5.3
30	4.8	5.3	4.5	5.2	4.7	
50	4.6	3.2	4.1	4.0		
75	3.0	3.4	3.2	3.4		
100	3.0	3.4	3.4	3.5		
125	3.3	2.8	3.5	3.7		
150		1.4				

STATION	POLA8137	POLA8138	POLA8139	POLA8130	POLA813A	POLA813B
DATE	AUG.13, 1993	AUG.13, 1993	AUG.13, 1993	AUG.13, 1993	AUG.13, 1993	AUG.13, 1993
TIME(UT)	11:44	12:30	13:15	13:44	14:02	14:19
LATITUDE	79-30.0 N	79-22.6 N	79-15.4 N	79-10.7 N	79-07.8 N	79-05.0 N
LONGITUDE	10-32.4 E	10-38.5 E	10-44.6 E	10-47.5 E	10-49.1 E	10-50.3 E
DEPTH(m)						
10	4.2	4.8	5.0	5.2	5.4	5.1
20		4.1	3.2	2.9	3.2	4.0
30		3.5	3.4	3.6	3.7	3.5
50			3.8	2.5	2.2	2.6
75			1.2	1.2		1.3
100				1.1		1.4
125						1.2
150						0.7

STATION	POLA813C	POLA813D	POLA813E	POLA813F	POLA813G	POLA813H
DATE	AUG.13, 1993	AUG.13, 1993	AUG.13, 1993	AUG.13, 1993	AUG.13, 1993	AUG.13, 1993
TIME(UT)	15:02	15:49	16:00	16:12	16:29	17:15
LATITUDE	79-02.6 N	79-01.5 N	78-59.7 N	78-57.8 N	78-55.2 N	78-48.1 N
LONGITUDE	10-41.4 E	10-24.6 E	10-23.8 E	10-22.4 E	10-19.6 E	10-16.1 E
DEPTH(m)						
10	2.5	1.8	2.5	3.3	3.0	2.4
20	1.9	1.7	2.3	2.4	2.5	2.3
30	2.2	3.4	2.8	2.4	2.6	2.4
50	2.8	2.1	2.8	2.9		2.7
75	1.5	2.0	1.3	1.4		
100	1.3	1.0	1.3	1.5		
125	0.7	0.8	0.7	1.6		
150	0.4	1.0	0.6	1.1		
200	2.1	1.2	1.1	1.8		
250	1.5	1.0	1.3			

Table 4. (continued)

STATION	POLA813J	POLA813K	POLA813L	POLA813M	POLA813N	POLA8141
DATE	AUG.13, 1993	AUG.13, 1993	AUG.13, 1993	AUG.13, 1993	AUG.13, 1993	AUG.13, 1993
TIME(UT)	18:59	19:45	20:23	21:26	22:05	22:43
LATITUDE	78-32.8 N	78-26.4 N	78-21.7 N	78-13.7 N	78-09.9 N	78-08.2 N
LONGITUDE	10-41.0 E	10-52.2 E	11-09.6 E	11-38.0 E	11-54.6 E	12-17.1 E
DEPTH(m)						
10	2.2	3.2	2.4	1.7	2.1	1.9
20	2.0	2.6	2.1	1.4	2.0	1.8
30	1.8	2.5	1.8	1.4	1.6	1.8
50	1.5	2.4	3.3		1.2	1.2
75	1.4	0.8			0.5	0.4
100						1.9
125						3.2
150						3.9
200						3.7
250						2.3

Table 5. $p\text{CO}_2$ and $p\text{CH}_4$ in the surface sea water around Spitsbergen in 1993.

Date	Latitude (N)	Longitude (E)	$p\text{CO}_2$ (μatm)	$p\text{CH}_4$ (μatm)
JULY 19	80-00.7	14-17.6	172.1	7.615
JULY 19	80-11.0	16-10.4	139.5	4.014
JULY 20	79-35.3	18-30.8	133.2	4.131
JULY 21	79-33.0	17-39.3	127.5	3.971
JULY 21	80-02.9	18-14.6	116.6	4.178
JULY 22	79-28.1	13-24.1	282.1	4.092
JULY 23	79-43.7	10-54.8	196.8	7.374
JULY 24	78-55.9	11-56.6	146.6	8.064
JULY 24	78-55.8	12-26.4	129.5	9.487
JULY 25	79-01.0	12-04.5	122.4	8.943
JULY 25	78-46.4	10-27.5	192.4	4.661
JULY 26	77-52.5	12-47.1	180.8	3.538
JULY 26	77-33.5	15-04.8	185.5	9.053
JULY 27	78-15.9	13-46.3	186.9	5.303
JULY 27	78-04.0	14-12.2	181.1	68.426
JULY 27	78-23.7	16-51.8	190.9	21.042
JULY 28	78-13.8	15-37.9	202.5	12.788

Table 6-1. CTD observation data in the Kongsfjorden in 1991.

(Abbreviations are as follows. PRESS.: pressure, TEMP.: temperature, SAL.: salinity)

STATION: A0 DATE: SEPTEMBER 10, 1991 TIME(UT): ---- LATITUDE: 78-59.2 N LONGITUDE: 11-58.0 E			STATION: A1 DATE: SEPTEMBER 12, 1991 TIME(UT): 07:55 LATITUDE: 78-59.9 N LONGITUDE: 11-59.3 E			STATION: A2 DATE: SEPTEMBER 12, 1991 TIME(UT): 07:30 LATITUDE: 79-00.2 N LONGITUDE: 12-03.2 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	2.01	31.69	0	3.40	32.90	0	1.13	31.66
10	4.85	33.73	10	5.01	33.95	10	3.82	33.88
20	5.53	34.15	20	5.11	34.37	15	3.51	34.05
30	4.69	34.44	30	5.20	34.76			
50	5.00	34.82	50	4.49	34.81			
75	4.49	34.87						
100	4.32	34.90						
125	4.33	34.95						
150	3.98	34.87						
200	3.61	34.88						
250	2.26	34.84						
270	1.99	34.83						

STATION: A3 DATE: SEPTEMBER 12, 1991 TIME(UT): 08:25 LATITUDE: 78-59.6 N LONGITUDE: 11-59.1 E			STATION: A4 DATE: SEPTEMBER 12, 1991 TIME(UT): 09:15 LATITUDE: 78-58.7 N LONGITUDE: 11-57.8 E			STATION: A5 DATE: SEPTEMBER 12, 1991 TIME(UT): 12:21 LATITUDE: 78-56.6 N LONGITUDE: 11-56.8 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	1.24	31.72	0	1.87	32.17	0	2.49	32.25
10	5.23	34.06	10	5.36	34.34	10	5.05	34.51
20	5.07	34.38	20	5.00	34.62	20	5.20	34.77
30	5.18	34.77	30	5.40	34.87	30	4.79	34.80
50	4.44	34.82	50	4.69	34.87	50	4.71	34.86
75	4.23	34.85	75	4.19	34.88	75	4.11	34.85
100	4.17	34.94	100	4.10	34.90	100	3.84	34.89
125	3.97	34.90	125	3.84	34.91	125	3.72	34.90
			150	3.70	34.92	150	3.58	34.91
			200	3.34	34.90	175	3.42	34.89
			250	2.12	34.85			
			260	2.03	34.84			

Table 6-1. (continued)

STATION: A6 DATE: SEPTEMBER 12, 1991 TIME(UT): 12:54 LATITUDE: 78-56.5 N LONGITUDE: 11-56.8 E			STATION: A7 DATE: SEPTEMBER 12, 1991 TIME(UT): 13:19 LATITUDE: 78-56.4 N LONGITUDE: 11-56.8 E			STATION: M1 DATE: SEPTEMBER 13, 1991 TIME(UT): 06:39 LATITUDE: 78-56.0 N LONGITUDE: 12-10.3 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	2.49	32.09	0	2.38	32.01	0	0.54	32.03
10	5.23	34.58	10	5.26	34.67	10	4.96	34.16
20	5.08	34.77	20	4.98	34.79	20	5.31	34.69
30	4.83	34.82	30	4.85	34.80	30	5.05	34.82
50	4.62	34.85	50	4.52	34.86	50	4.41	34.82
75	4.03	34.87				75	4.17	34.88
100	3.82	34.92				100	3.96	34.89
115	3.75	34.90				110	3.81	34.87

STATION: M2 DATE: SEPTEMBER 13, 1991 TIME(UT): 07:30 LATITUDE: 78-55.9 N LONGITUDE: 12-05.6 E			STATION: M3 DATE: SEPTEMBER 13, 1991 TIME(UT): 08:13 LATITUDE: 78-56.5 N LONGITUDE: 12-01.2 E			STATION: N1 DATE: SEPTEMBER 13, 1991 TIME(UT): 12:47 LATITUDE: 78-56.8 N LONGITUDE: 12-01.1 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	1.86	32.51	0	1.27	32.43	0	1.08	32.26
10	5.25	34.28	10	5.21	34.19	10	5.30	34.52
20	5.25	34.78	20	5.24	34.76	20	5.08	34.77
30	4.98	34.83	30	5.06	34.88	30	4.87	34.90
50	4.37	34.85	50	4.41	34.87	50	4.53	34.85
75	4.14	34.86	75	4.12	34.87	75	4.09	34.89
100	3.98	34.90	100	3.93	34.91	100	3.88	34.92
125	3.76	34.92	125	3.92	34.92	125	3.82	34.92
150	3.62	34.90	150	3.63	34.92	150	3.54	34.91
200	3.29	34.91	200	3.24	34.90	200	3.30	34.92
215	3.28	34.90	250	2.70	34.85	250	2.69	34.85
			300	1.98	34.82	300	2.00	34.84

Table 6-1. (continued)

STATION: T1 DATE: SEPTEMBER 22, 1991 TIME(UT): 10:46 LATITUDE: 78-57.8 N LONGITUDE: 12-02.7 E			STATION: T2 DATE: SEPTEMBER 22, 1991 TIME(UT): 11:00 LATITUDE: 78-57.7 N LONGITUDE: 12-01.8 E			STATION: T3 DATE: SEPTEMBER 22, 1991 TIME(UT): 11:19 LATITUDE: 78-57.6 N LONGITUDE: 12-01.3 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	3.37	33.13	0	3.49	33.79	0	3.96	33.99
10	4.17	34.25	10	4.42	34.19	10	4.49	34.19
20	4.29	34.36	20	4.23	34.31	20	4.56	34.28
30	4.31	34.45	30	4.31	34.40	30	4.28	34.36
40	4.35	34.45	50	4.52	34.60	50	4.52	34.60
			75	4.54	34.61	75	4.53	34.61
			95	4.60	34.65	100	4.57	34.69
						125	4.63	34.74
						150	4.66	34.82
						200	3.69	34.87
						250	3.30	34.87
						265	3.15	34.88

STATION: T4 DATE: SEPTEMBER 22, 1991 TIME(UT): 11:41 LATITUDE: 78-57.4 N LONGITUDE: 11-59.7 E			STATION: T5 DATE: SEPTEMBER 22, 1991 TIME(UT): 12:14 LATITUDE: 78-57.0 N LONGITUDE: 11-55.6 E			STATION: T6 DATE: SEPTEMBER 22, 1991 TIME(UT): 12:30 LATITUDE: 78-56.9 N LONGITUDE: 11-55.1 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	4.27	34.10	0	4.38	34.19	0	4.40	34.20
10	4.45	34.15	10	4.39	34.19	10	4.41	34.20
20	4.56	34.25	20	4.42	34.20	20	4.43	34.22
30	4.50	34.33	30	4.42	34.23	30	4.41	34.21
50	4.46	34.55	50	4.42	34.47	50	4.40	34.46
75	4.53	34.63	75	4.61	34.69	75	4.80	34.80
100	4.53	34.68	100	5.06	34.86	100	4.99	34.87
125	4.53	34.76	125	4.96	34.89	105	4.99	34.87
150	4.61	34.80	150	4.62	34.88			
200	3.98	34.88	200	4.09	34.91			
250	3.27	34.89						
300	2.50	34.85						
335	2.12	34.82						

Table 6-1. (continued)

STATION: T7		
DATE: SEPTEMBER 22, 1991		
TIME(UT): 12:38		
LATITUDE: 78-56.8 N		
LONGITUDE: 11-54.6 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	4.37	34.16
10	4.43	34.21
20	4.41	34.21
30	4.40	34.25
50	4.49	34.38
65	4.41	34.44

Table 6-2. CTD observation data in the Kongsfjorden in 1992.

STATION: 1			STATION: 2			STATION: 3		
DATE: JUNE 23, 1992			DATE: JUNE 23, 1992			DATE: JUNE 23, 1992		
TIME(UT): 13:00			TIME(UT): 13:30			TIME(UT): 14:00		
LATITUDE: 78-56.1 N			LATITUDE: 78-53.4 N			LATITUDE: 78-54.4 N		
LONGITUDE: 12-01.9 E			LONGITUDE: 12-22.9 E			LONGITUDE: 12-16.3 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	1.27	32.56	0	0.19	32.83	0	0.25	33.31
10	0.53	33.60	10	0.04	33.73	10	0.51	33.61
20	0.37	33.70	20	-0.17	33.78	20	0.20	33.74
30	0.08	33.80	30	-0.83	33.89	30	-0.15	33.82
50	-0.77	33.96	40	-1.28	34.12	50	-0.31	33.89
75	-0.63	34.26				60	-0.42	33.95
100	-0.47	34.43						
125	0.60	34.59						
150	0.54	34.63						
200	0.85	34.71						
250	0.83	34.73						
265	0.80	34.72						

Table 6-2. (continued)

STATION: 4 DATE: JUNE 23, 1992 TIME(UT): 14:15 LATITUDE: 78-55.1 N LONGITUDE: 12-10.0 E			STATION: 5 DATE: JUNE 23, 1992 TIME(UT): 14:30 LATITUDE: 78-55.7 N LONGITUDE: 12-04.9 E			STATION: 6 DATE: JUNE 23, 1992 TIME(UT): 15:00 LATITUDE: 78-56.6 N LONGITUDE: 11-59.0 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	0.84	33.60	0	1.02	33.58	0	1.32	33.55
10	0.58	33.62	10	0.38	33.72	10	0.55	33.64
20	-0.01	33.79	20	0.31	33.72	20	0.59	33.56
30	-0.12	33.82	30	0.09	33.83	30	0.05	33.87
50	-0.76	34.03	50	-0.67	33.97	50	-0.35	33.96
75	-0.77	34.23	75	-0.67	34.31	75	-0.51	34.32
95	-0.08	34.48	100	-0.37	34.50	100	-0.17	34.47
			125	0.38	34.60	125	0.12	34.60
			150	1.04	34.71	150	0.84	34.64
			165	1.12	34.72	200	0.82	34.71
						250	0.79	34.74
						300	0.84	34.72

STATION: 7 DATE: JUNE 24, 1992 TIME(UT): 07:40 LATITUDE: 78-56.7 N LONGITUDE: 12-04.6 E			STATION: 8 DATE: JUNE 24, 1992 TIME(UT): 08:00 LATITUDE: 78-56.0 N LONGITUDE: 12-02.5 E			STATION: 9 DATE: JUNE 24, 1992 TIME(UT): 08:20 LATITUDE: 78-55.5 N LONGITUDE: 12-00.2 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	1.83	31.68	0	1.67	32.99	0	2.58	32.26
10	0.77	33.58	10	0.46	33.65	10	1.18	33.57
20	0.31	33.64	20	0.26	33.64	20	0.80	33.71
30	-0.10	33.86	30	0.15	33.76	30	0.46	33.78
50	-0.69	33.94	50	-0.53	33.90	50	-0.11	33.94
75	-0.82	34.17	75	-0.76	34.20	75	-0.11	34.20
100	-0.45	34.41	100	-0.56	34.39	100	0.03	34.45
110	-0.36	34.45	125	-0.10	34.50	115	-0.06	34.50
			150	0.68	34.63			
			200	0.82	34.71			
			250	0.81	34.73			
			265	0.82	34.73			

Table 6-2. (continued)

STATION: 10		
DATE: JUNE 24, 1992		
TIME(UT): 08:40		
LATITUDE: 78-57.3 N		
LONGITUDE: 11-54.7 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	2.09	32.66
10	1.08	33.56
20	0.92	33.68
30	0.50	33.75
50	-0.15	33.99
75	-0.02	34.29
100	-0.33	34.45
125	0.77	34.60
150	0.79	34.72
200	0.91	34.69
250	0.82	34.72
300	0.88	34.75
350	0.94	34.74

Table 6-3. CTD observation data in the Kongsfjorden in 1993.

STATION: 2			STATION: 9			STATION: 1		
DATE: MAY 29, 1993			DATE: MAY 29, 1993			DATE: MAY 29, 1993		
TIME(UT): 09:46			TIME(UT): 12:00			TIME(UT): 12:09		
LATITUDE: 78-54.8 N			LATITUDE: 78-56.1 N			LATITUDE: 78-56.7 N		
LONGITUDE: 12-23.1 E			LONGITUDE: 11-59.6 E			LONGITUDE: 12-02.0 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	-0.10	34.20	0	1.46	34.37	0	1.45	34.24
10	-0.19	34.35	10	0.82	34.36	10	0.84	34.36
			20	0.55	34.38	20	0.61	34.35
			30	0.19	34.40	30	0.33	34.40
			50	-0.00	34.42	50	-0.32	34.39
			75	-0.13	34.43	75	-0.69	34.41
			85	-0.21	34.45	100	-0.77	34.42
						125	-0.82	34.45*
						150	-0.96	34.44
						200	-0.96	34.47
						250	-1.32	34.50
						285	-1.22	34.53

Table 6-3. (continued)

STATION: 7 DATE: MAY 29, 1993 TIME(UT): 12:45 LATITUDE: 78-57.4 N LONGITUDE: 12-04.7 E			STATION: 10 DATE: MAY 31, 1993 TIME(UT): 07:30 LATITUDE: 78-57.4 N LONGITUDE: 11-55.0 E			STATION: 6 DATE: MAY 31, 1993 TIME(UT): 07:55 LATITUDE: 78-56.1 N LONGITUDE: 12-01.4 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	1.41	34.30	0	1.49	34.39	0	1.19	34.36
10	0.60	34.39	10	1.38	34.39	10	0.55	34.39
20	0.36	34.37	20	0.25	34.42	20	0.32	34.40
30	-0.16	34.38	30	0.12	34.42	30	-0.23	34.41
50	-0.48	34.36	50	-0.09	34.42	50	-0.37	34.42
75	-0.70	34.43	75	-0.31	34.45	75	-0.52	34.44
			100	-0.40	34.43	100	-0.78	34.44
			125	-0.31	34.46	125	-0.86	34.45
			150	-0.73	34.42	150	-0.77	34.45
			200	-0.86	34.46	200	-0.45	34.55
			250	-0.97	34.59	250	-1.23	34.52
			300	-1.16	34.52	290	-1.15	34.55
			355	-1.09	34.52			

STATION: 5 DATE: MAY 31, 1993 TIME(UT): 08:24 LATITUDE: 78-55.7 N LONGITUDE: 12-05.3 E			STATION: 4 DATE: MAY 31, 1993 TIME(UT): 08:51 LATITUDE: 78-55.1 N LONGITUDE: 12-10.1 E			STATION: 3 DATE: MAY 31, 1993 TIME(UT): 09:15 LATITUDE: 78-54.4 N LONGITUDE: 12-16.4 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	0.89	34.39	0	0.12	34.36	0	0.02	34.29
10	0.78	34.37	10	0.15	34.39	10	-0.02	34.33
20	0.25	34.40	20	-0.01	34.41	20	-0.10	34.41
30	-0.01	34.40	30	-0.18	34.41	30	-0.18	34.41
50	-0.22	34.42	50	-0.40	34.42	50	-0.17	34.42
75	-0.51	34.41	75	-0.48	34.42	75	-0.57	34.44
100	-0.78	34.44	100	-0.33	34.46			
125	-0.59	34.43	125	-0.92	34.44			
150	-0.86	34.45	135	-0.93	34.45			
200	-0.30	34.54						
205	-0.40	34.52						

Table 6-3. (continued)

STATION: 1 DATE: JUNE 3, 1993 TIME(UT): 07:42 LATITUDE: 78-56.7 N LONGITUDE: 12-02.0 E			STATION: M DATE: JUNE 5, 1993 TIME(UT): 08:13 LATITUDE: 78-56.3 N LONGITUDE: 11-56.5 E			STATION: Y DATE: JUNE 7, 1993 TIME(UT): 07:50 LATITUDE: 78-54.6 N LONGITUDE: 12-19.6 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	0.28	34.03	0	0.83	34.39	0	-0.31	33.28
10	0.30	34.35	10	0.71	34.40	10	1.09	34.30
20	0.27	34.43	20	0.56	34.39	20	0.92	34.38
30	-0.19	34.40				30	0.85	34.37
50	-0.54	34.40				50	0.61	34.37
75	-0.67	34.39				55	0.54	34.35
100	-0.45	34.49						
125	-0.86	34.49						
150	-0.58	34.49						
200	-0.87	34.55						
250	-0.84	34.54						
280	-0.89	34.55						

STATION: 3 DATE: JUNE 7, 1993 TIME(UT): 08:07 LATITUDE: 78-54.5 N LONGITUDE: 12-16.4 E			STATION: 4 DATE: JUNE 7, 1993 TIME(UT): 08:23 LATITUDE: 78-55.2 N LONGITUDE: 12-10.0 E			STATION: 5 DATE: JUNE 7, 1993 TIME(UT): 08:42 LATITUDE: 78-55.7 N LONGITUDE: 12-05.2 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	1.11	34.21	0	0.34	33.53	0	-0.48	33.13
10	0.88	34.36	10	0.83	34.35	10	0.82	34.30
20	0.91	34.37	20	0.75	34.38	20	0.80	34.34
30	0.92	34.36	30	0.75	34.37	30	0.76	34.36
50	0.57	34.36	50	0.48	34.38	50	0.38	34.39
70	-1.19	34.45	75	-0.29	34.38	75	-0.29	34.40
			100	-0.81	34.41	100	-0.61	34.40
			125	-0.77	34.47	125	-0.40	34.47
			130	-0.76	34.47	150	-0.69	34.47
						160	-0.74	34.47

Table 6-3. (continued)

STATION: 6 DATE: JUNE 7, 1993 TIME(UT): 08:59 LATITUDE: 78-56.2 N LONGITUDE: 12-01.4 E			STATION: 9 DATE: JUNE 7, 1993 TIME(UT): 11:57 LATITUDE: 78-56.0 N LONGITUDE: 12-00.0 E			STATION: 1 DATE: JUNE 7, 1993 TIME(UT): 12:09 LATITUDE: 78-56.7 N LONGITUDE: 12-02.1 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	1.16	34.07	0	1.52	34.18	0	1.56	34.08
10	0.80	34.23	10	0.75	34.29	10	0.93	34.22
20	0.79	34.35	20	0.78	34.32	20	0.60	34.30
30	0.77	34.37	30	0.77	34.31	30	0.69	34.36
50	0.57	34.38	50	0.60	34.32	50	0.41	34.38
75	-0.14	34.40	75	0.15	34.35	75	-0.33	34.39
100	-0.23	34.42	85	-0.13	34.34	100	-0.54	34.41
125	-0.53	34.44				125	-0.85	34.31
150	-0.75	34.47				150	-0.75	34.45
200	-0.64	34.54				200	-0.81	34.51
250	-0.50	34.59				250	-0.85	34.54
275	-0.28	34.61				270	-0.85	34.54

STATION: 7 DATE: JUNE 7, 1993 TIME(UT): 12:33 LATITUDE: 78-57.4 N LONGITUDE: 12-04.5 E			STATION: 10 DATE: JUNE 7, 1993 TIME(UT): 12:53 LATITUDE: 78-57.4 N LONGITUDE: 11-55.2 E			STATION: 1 DATE: JUNE 8, 1993 TIME(UT): 07:46 LATITUDE: 78-56.7 N LONGITUDE: 12-02.1 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	-0.16	33.51	0	1.72	34.14	0	0.91	34.17
10	0.68	34.18	10	0.76	34.37	10	0.82	34.32
20	-0.06	34.30	20	0.59	34.37	20	0.57	34.36
30	0.67	34.36	30	0.50	34.39	30	0.17	34.35
50	-0.37	34.37	50	0.31	34.39	50	0.04	34.33
75	-0.47	34.40	75	-0.17	34.43	75	-0.39	34.41
95	-0.50	34.40	100	-0.29	34.45	100	-0.80	34.38
			125	-0.52	34.49	125	-0.63	34.43
			150	-0.76	34.52	150	-0.76	34.46
			200	-0.95	34.54	200	-0.82	34.52
			250	-0.91	34.55	250	-0.81	34.54
			300	-0.62	34.57	285	-0.62	34.56
			355	-0.64	34.60			

Table 6-3. (continued)

STATION: 1 DATE: JUNE 8, 1993 TIME(UT): 12:22 LATITUDE: 78-56.7 N LONGITUDE: 12-01.9 E			STATION: 1 DATE: JUNE 8, 1993 TIME(UT): 16:12 LATITUDE: 78-56.8 N LONGITUDE: 12-01.9 E			STATION: 1 DATE: JUNE 8, 1993 TIME(UT): 20:25 LATITUDE: 78-56.6 N LONGITUDE: 12-01.6 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	1.67	34.16	0	2.29	33.75	0	1.19	34.23
10	0.70	34.32	10	0.54	34.14	10	0.37	34.29
20	0.12	34.28	20	0.38	34.25	20	0.39	34.33
30	0.47	34.26	30	0.20	34.31	30	0.23	34.35
50	0.13	34.35	50	0.10	34.33	50	0.15	34.35
75	-0.32	34.38	75	-0.41	34.33	75	-0.49	34.37
100	-0.37	34.40	100	-0.40	34.39	100	-0.63	34.40
125	-0.56	34.42	125	-0.49	34.40	125	-0.65	34.47
150	-0.90	34.44	150	-0.87	34.42	150	-0.79	34.46
200	-0.82	34.48	200	-0.80	34.48	200	-0.80	34.52
250	-0.83	34.50	250	-0.81	34.52	250	-0.82	34.53
275	-0.73	34.53	275	-0.76	34.52	270	-0.74	34.54

STATION: M DATE: JUNE 11, 1993 TIME(UT): 13:00 LATITUDE: 78-56.3 N LONGITUDE: 11-56.5 E			STATION: M DATE: JUNE 12, 1993 TIME(UT): ----- LATITUDE: 78-56.3 N LONGITUDE: 11-56.5 E			STATION: 3 DATE: JUNE 14, 1993 TIME(UT): 07:40 LATITUDE: 78-54.4 N LONGITUDE: 12-16.2 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	1.82	34.18	0	1.45	34.44	0	0.04	34.08
10	0.96	34.40	10	0.58	34.39	10	0.53	34.33
15	0.89	34.36	15	0.53	34.41	20	0.47	34.39
						30	0.43	34.35
						50	0.08	34.35
						75	-0.30	34.27

Table 6-3. (continued)

STATION: 4 DATE: JUNE 14, 1993 TIME(UT): 08:04 LATITUDE: 78-55.2 N LONGITUDE: 12-10.0 E			STATION: 5 DATE: JUNE 14, 1993 TIME(UT): 08:20 LATITUDE: 78-55.7 N LONGITUDE: 12-05.3 E			STATION: 6 DATE: JUNE 14, 1993 TIME(UT): 08:40 LATITUDE: 78-56.2 N LONGITUDE: 12-01.6 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	1.04	34.38	0	1.07	33.35	0	1.15	34.37
10	0.69	34.41	10	0.95	34.37	10	1.03	34.34
20	0.67	34.37	20	0.87	34.36	20	0.55	34.34
30	0.26	34.42	30	0.08	34.39	30	0.40	34.38
50	0.10	34.41	50	-0.23	34.40	50	-0.02	34.32
75	-0.22	34.43	75	-0.42	34.43	75	-0.55	34.41
100	-0.56	34.41	100	-0.64	34.42	100	-0.62	34.43
125	-0.54	34.45	125	-0.63	34.45	125	-0.34	34.49
135	-0.54	34.47	150	-0.70	34.48	150	-0.51	34.48
			195	-0.37	34.52	200	-0.62	34.53
						250	-0.42	34.58
						285	-0.23	34.61

STATION: 9 DATE: JUNE 14, 1993 TIME(UT): 09:08 LATITUDE: 78-56.1 N LONGITUDE: 11-59.5 E			STATION: 1 DATE: JUNE 14, 1993 TIME(UT): 12:52 LATITUDE: 78-56.7 N LONGITUDE: 12-02.0 E			STATION: 7 DATE: JUNE 14, 1993 TIME(UT): 13:24 LATITUDE: 78-57.4 N LONGITUDE: 12-04.7 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	1.30	34.34	0	1.21	34.31	0	1.16	34.17
10	0.82	34.38	10	1.05	34.32	10	0.96	34.22
20	0.48	34.38	20	1.03	34.34	20	0.98	34.28
30	0.17	34.41	30	0.33	34.36	30	0.54	34.35
50	0.03	34.42	50	0.09	34.38	50	-0.11	34.42
75	-0.23	34.42	75	-0.42	34.39	75	-0.41	34.40
85	-0.31	34.44	100	-0.71	34.38	80	-0.48	34.26
			125	-0.90	34.43			
			150	-0.78	34.46			
			200	-0.58	34.51			
			250	-0.23	34.59			
			295	-0.31	34.59			

Table 6-3. (continued)

STATION: 10 DATE: JUNE 14, 1993 TIME(UT): 13:45 LATITUDE: 78-57.5 N LONGITUDE: 11-55.0 E			STATION: 1 DATE: JUNE 15, 1993 TIME(UT): 11:41 LATITUDE: 78-56.8 N LONGITUDE: 12-01.9 E			STATION: 1 DATE: JUNE 16, 1993 TIME(UT): ---- LATITUDE: 78-56.7 N LONGITUDE: 12-01.9 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	1.41	34.37	0	2.73	34.28	0	3.56	33.84
10	0.91	34.32	10	2.30	34.02	10	1.93	34.29
20	0.47	34.39	20	0.83	34.32	20	1.53	34.31
30	0.29	34.38	30	0.73	34.35	30	0.88	34.33
50	0.23	34.40	50	0.32	34.36	50	0.23	34.36
75	-0.11	34.43	75	-0.43	34.36	75	-0.37	34.38
100	-0.45	34.45	100	-0.60	34.40	100	-0.66	34.38
125	-0.53	34.48	125	-0.68	34.39	125	-0.74	34.41
150	-0.55	34.49	150	-0.65	34.44	150	-0.76	34.46
200	-0.43	34.71	200	-0.71	34.50	200	-0.67	34.53
250	-0.29	34.61	250	-0.30	34.56	250	-0.29	34.57
300	-0.25	34.60	275	-0.32	34.57	285	-0.32	34.55
350	-0.20	34.59						

STATION: 1 DATE: JUNE 17, 1993 TIME(UT): ---- LATITUDE: 78-56.7 N LONGITUDE: 12-02.0 E			STATION: 4 DATE: JUNE 18, 1993 TIME(UT): 07:40 LATITUDE: 78-55.2 N LONGITUDE: 12-10.2 E			STATION: 5 DATE: JUNE 18, 1993 TIME(UT): 08:00 LATITUDE: 78-55.7 N LONGITUDE: 12-05.2 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	3.88	34.23	0	4.41	32.92	0	4.23	34.17
10	2.21	34.28	10	2.65	34.28	10	2.60	34.24
20	1.44	34.32	20	2.29	34.25	20	2.23	34.28
30	0.64	34.36	30	1.91	34.28	30	1.73	34.30
50	-0.08	34.34	50	0.54	34.32	50	0.44	34.37
75	-0.45	34.34	75	-0.57	34.36	75	-0.40	34.40
100	-0.66	34.38	100	-0.86	34.36	100	-0.59	34.41
125	-0.65	34.41	125	-0.85	34.39	125	-0.62	34.46
150	-0.59	34.46				150	-0.66	34.47
200	-0.54	34.53				200	-0.26	34.58
250	-0.35	34.55				205	-0.22	34.61
275	-0.23	34.58						

Table 6-3. (continued)

STATION: 1 DATE: JUNE 18, 1993 TIME(UT): 08:20 LATITUDE: 78-56.7 N LONGITUDE: 12-01.9 E			STATION: 10 DATE: JUNE 18, 1993 TIME(UT): 08:40 LATITUDE: 78-57.5 N LONGITUDE: 11-55.0 E		
PRESS. (db)	TEMP. (°C)	SAL. (PSU)	PRESS. (db)	TEMP. (°C)	SAL. (PSU)
0	4.17	34.11	0	3.64	33.76
10	2.55	34.27	10	2.55	34.27
20	2.12	34.25	20	2.28	34.30
30	1.34	34.32	30	1.66	34.29
50	0.26	34.38	50	0.13	34.39
75	-0.25	34.40	75	-0.22	34.43
100	-0.55	34.42	100	-0.63	34.42
125	-0.73	34.46	125	-0.47	34.42
150	-0.69	34.51	150	-0.53	34.48
200	-0.29	34.60	200	-0.53	34.57
250	0.16	34.63	250	-0.15	34.61
280	0.71	34.69	300	0.09	34.64
			355	1.16	34.77