

Oceanographic Data in Lützow–Holm Bay of the Antarctic Climate Research Program
from January 1991 to February 1992 (JARE–32)

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From 1989 to 1992, under the Japanese Antarctic Climate Research (ACR) program, extensive observations of ocean and sea ice have been carried out in and off Lützow–Holm Bay by JARE–31 and –32 for better understanding of the annual cycle of the ocean and sea ice processes. In this report, we present oceanographic data including CTD, XBT, AXBT, dissolved oxygen and vertical current profiles, from January 1991 to February 1992, during JARE–32. In addition to these observations, we also carried out measurements of physical and chemical properties of sea ice, long–term moored measurements with current meters and thermistor strings, and meteorological observations with Argos buoys. These results will be reported in other volumes.

Snow vehicles and sledges equipped with the winch were used for expeditions of observations on the fast ice. The observational stations are almost in the same positions as those of JARE–31. The stations were selected in four areas: Ongul Strait, Hovdebukta (Hovde Bay), the eastern half of Lützow–Holm Bay and around a selected iceberg. Locations of the stations are shown in Figs. 1, 2 and 3. In Ongul Strait the observations were made almost monthly, in Hovdebukta only in May and November, in the eastern half of the bay in three periods: April, August and October–November.

At each station, we measured water temperature and salinity profiles using a conductivity–temperature–depth profiling system (CTD, model SBE–19, Sea–Bird Electronics Inc., USA). The CTD data at standard depths are shown in Table 1. The raw CTD data (vertical resolution is better than 1 m) are written on floppy disks as text files, and are available for any scientific purpose. At some stations, XBT observations were taken instead of CTD observations. The

XBT data are shown in Table 2.

Water samples were collected with Nansen bottles. To determine the amount of dissolved oxygen in the sea-water samples, we used Winkler's method with a titrator (model E645/E552, Metrohm, Switzerland). The dissolved oxygen data are shown in Table 3.

Vertical current profiles were measured with an electromagnetic current meter (model ACM8M, ALEC Electronics Co., Japan). The currents were usually measured at every 20 m depth from the sea surface. The current meter data are shown in Table 4.

In the open water area or coastal flaw polynya off Lützow-Holm Bay, aircraft-deployed expendable bathythermograph (AXBT, Tsurumi Seiki Co., Japan) observations were carried out from a Cessna plane, nearly monthly except in mid-winter. Positions of the AXBT casts are shown in Fig. 4. The positions are determined by the flight information, thus are not so accurate. The AXBTs gave us water temperature profiles down to 460 m in depth as analogue data. Temperature accuracy of the AXBT is $\pm 0.1^{\circ}\text{C}$. The temperature data at ten meters intervals are shown in Table 5.

We are much indebted to Prof. Y. Fujii, leader of the wintering party of JARE-32, and to all the members of JARE-32 for their cooperation in the field work on ice and the flight operation. Support from JARE-31 and -33 is also appreciated. Thanks are extended to Prof. Emeritus S. Kawaguchi, Profs. N. Ono, T. Yamanouchi and M. Wakatsuchi for their support and encouragement. Thanks are also due to Ms. F. Sugawara for her support in preparation of the tables.

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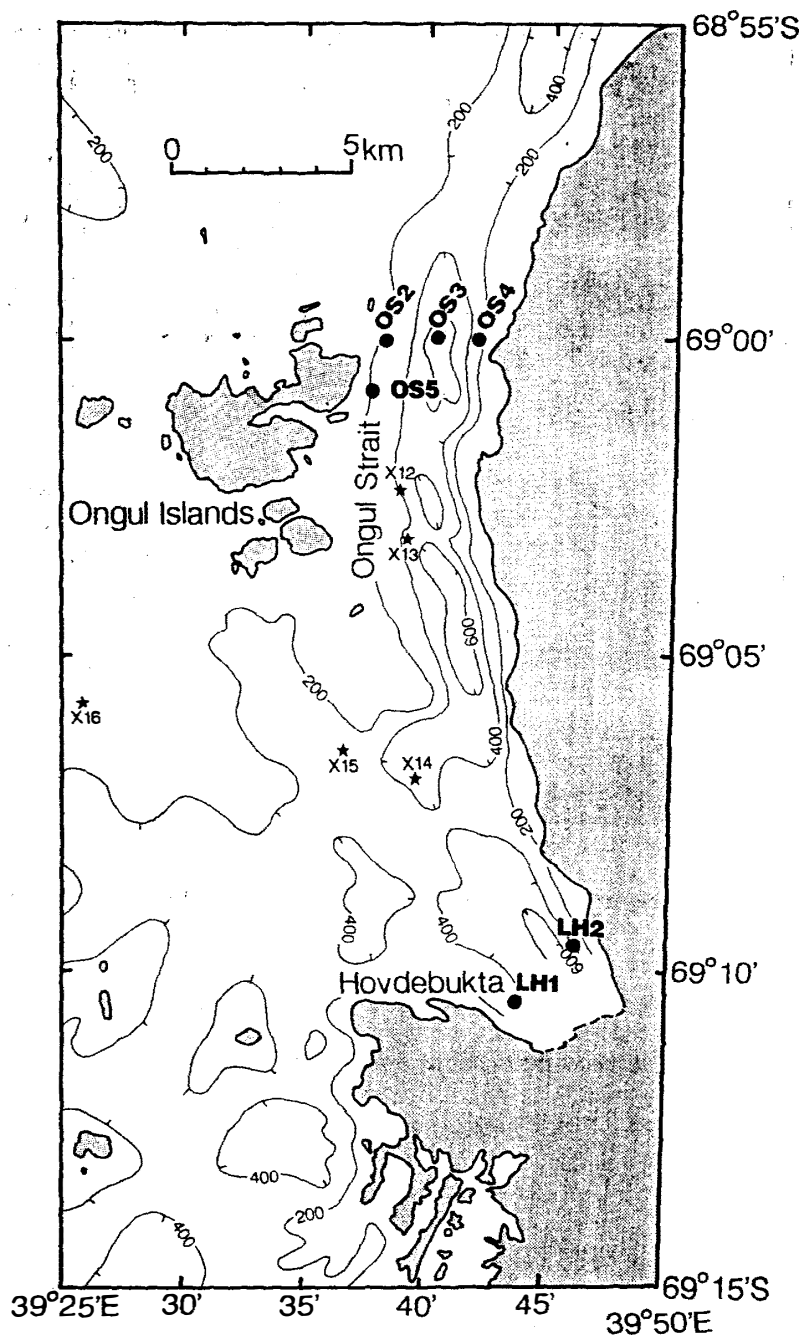


Fig. 1. Locations of oceanographic stations in Ongul Strait and in Hovdebukta (Hovde Bay). At the stations indicated by the dots CTD observations were taken, at those indicated by stars only XBT observations were taken. Isobathymetric lines are drawn in meters.

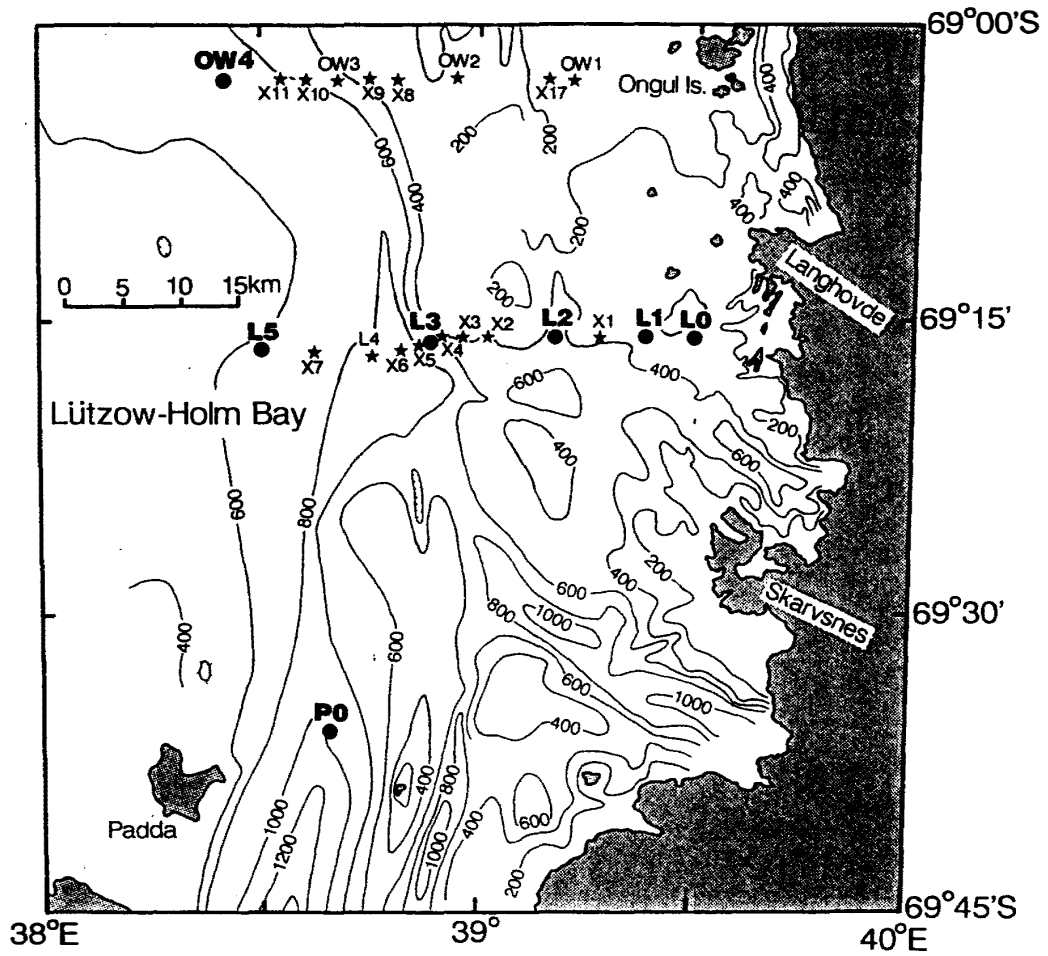


Fig. 2. Locations of oceanographic stations in Lützow-Holm Bay. At the stations indicated by the dots CTD observations were taken, at those indicated by stars only XBT observations were taken. Isobathymetric lines are drawn in meters.

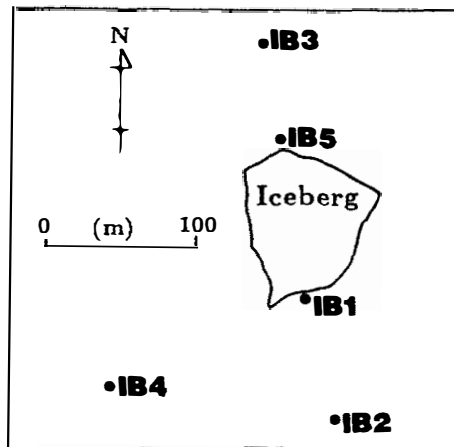


Fig. 3. Locations of oceanographic stations around the selected iceberg in Ongul Strait. The iceberg is located in $69^{\circ}00.9'S$, $39^{\circ}38.5'E$.

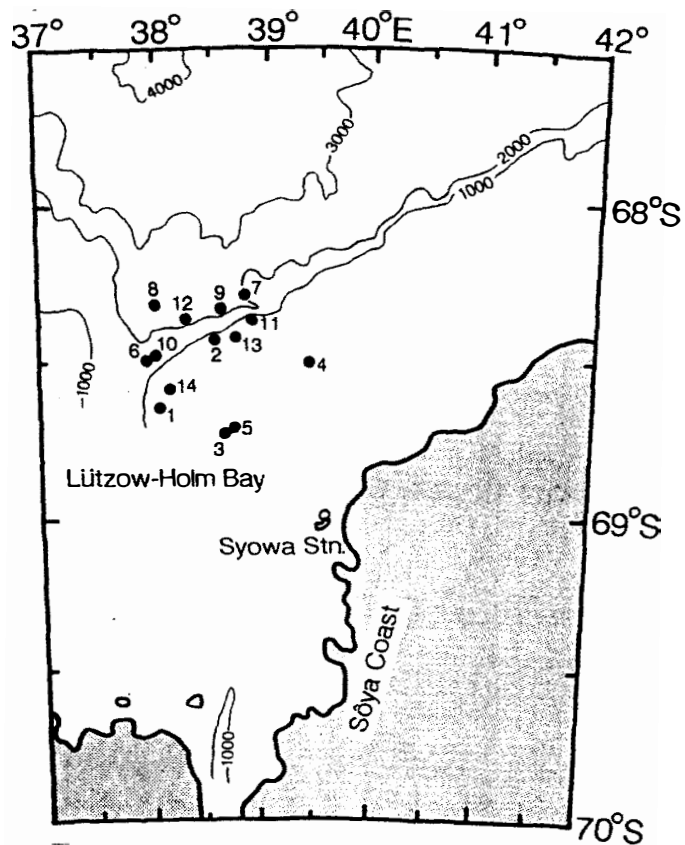


Fig. 4. Positions of the AXBT cast in open water between pack ice and fast ice areas.

Table 1. CTD observation data.

Stn. OS2
 Date April 2, 1991 Time 9:09(UT)
 Lat. 69°00.0'S Long. 39°38.2'E
 Depth 181 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.806	33.577	27.024
9.8	-1.797	33.577	27.024
20.0	-1.790	33.582	27.028
29.9	-1.790	33.583	27.029
50.3	-1.784	33.622	27.060
75.1	-1.766	33.774	27.183
100.2	-1.766	33.929	27.309
124.8	-1.753	33.989	27.358
149.7	-1.735	34.017	27.380
181.6	-1.722	34.042	27.400

Stn. OS4
 Date April 2, 1991 Time 12:09(UT)
 Lat. 68°59.9'S Long. 39°41.8'E
 Depth 333 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.802	33.567	27.016
10.1	-1.804	33.571	27.019
20.3	-1.811	33.579	27.026
29.9	-1.813	33.594	27.038
50.1	-1.818	33.626	27.064
74.7	-1.814	33.665	27.096
100.1	-1.804	33.723	27.143
124.8	-1.767	33.900	27.286
150.2	-1.756	33.980	27.351
200.3	-1.685	34.097	27.444
250.4	-1.606	34.203	27.527
299.9	-1.576	34.234	27.552
323.1	-1.563	34.240	27.557

Stn. OS3
 Date March 29, 1991 Time 13:53(UT)
 Lat. 68°59.9'S Long. 39°40.3'E
 Depth 649 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.796	33.597	27.040
10.1	-1.802	33.634	27.070
20.1	-1.806	33.635	27.071
30.1	-1.808	33.641	27.076
49.9	-1.809	33.712	27.134
75.5	-1.804	33.738	27.155
99.9	-1.782	33.895	27.282
124.8	-1.754	33.984	27.353
150.2	-1.725	34.041	27.399
200.3	-1.672	34.120	27.462
249.6	-1.606	34.210	27.533
299.9	-1.572	34.244	27.560
399.9	-1.524	34.263	27.574
500.2	-1.449	34.273	27.580
600.0	-1.424	34.282	27.586
645.6	-1.417	34.289	27.591

Stn. OS3
 Date April 1, 1991 Time 16:18(UT)
 Lat. 68°59.9'S Long. 39°40.3'E
 Depth 649 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.9	-1.808	33.565	27.014
10.2	-1.810	33.567	27.016
19.7	-1.811	33.574	27.022
30.5	-1.807	33.588	27.033
50.5	-1.813	33.628	27.065
75.5	-1.807	33.698	27.122
99.9	-1.776	33.814	27.216
125.2	-1.759	33.963	27.337
150.0	-1.735	34.019	27.382
200.1	-1.680	34.086	27.434
250.0	-1.630	34.178	27.508
300.3	-1.567	34.238	27.555
399.7	-1.544	34.254	27.567
499.8	-1.499	34.264	27.574
600.2	-1.427	34.277	27.582
645.0	-1.417	34.282	27.586

Stn. OS2
 Date April 2, 1991 Time 9:09(UT)
 Lat. 69°00.0'S Long. 39°38.2'E
 Depth 181 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
2	-10.72	-8.38	-1.83
20	-12.63	-4.80	-1.84
40	-12.65	-7.18	-1.84
60	-13.34	-8.03	-1.83
80	4.24	-2.04	-1.82
100	8.49	2.25	-1.82
120	5.81	-0.70	-1.81
140	5.48	2.10	-1.80
160	12.98	2.32	-1.78
178	8.89	7.67	-1.78

Stn. OS3
 Date April 2, 1991 Time 14:00(UT)
 Lat. 68°59.9'S Long. 39°40.3'E
 Depth 649 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
3	-23.46	-9.70	-1.86
20	-32.80	-4.63	-1.87
40	-36.24	-5.53	-1.86
60	-30.45	-5.05	-1.86
80	-24.04	-10.73	-1.86
100	-24.67	-8.12	-1.85
120	-13.97	-6.04	-1.82
140	-9.46	-2.20	-1.80
160	-4.32	1.32	-1.78
180	-1.93	0.22	-1.76
200	-4.66	-3.41	-1.74
220	-1.56	1.90	-1.71
240	-0.37	0.40	-1.69
260	-4.29	-4.17	-1.66
280	-3.40	-1.76	-1.63
300	-3.37	-3.13	-1.62

Stn. OS4
 Date April 2, 1991 Time 12:09(UT)
 Lat. 68°59.9'S Long. 39°41.8'E
 Depth 333 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
2	-19.12	-6.42	-1.84
20	-30.94	-6.83	-1.86
40	-33.69	-11.64	-1.87
60	-27.69	-13.81	-1.87
80	-25.88	-9.18	-1.87
100	-22.06	-6.22	-1.86
120	-12.16	-3.95	-1.82
140	-3.99	0.33	-1.81
160	-1.97	-4.15	-1.79
180	0.21	2.19	-1.76
200	0.62	-2.64	-1.74
220	-0.06	1.00	-1.70
240	-4.46	-2.54	-1.67
260	-3.79	-3.17	-1.65
280	0.10	-3.29	-1.63
300	-2.30	-2.75	-1.63
320	-7.80	-0.97	-1.62
320	-7.80	-0.97	-1.62
320	-7.80	-0.97	-1.62

Stn. OS3
 Date April 2, 1991 Time 14:00(UT)
 Lat. 68°59.9'S Long. 39°40.3'E
 Depth 649 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.0	-1.814	33.531	26.987
10.1	-1.814	33.539	26.993
20.1	-1.815	33.550	27.003
29.9	-1.808	33.578	27.025
49.8	-1.804	33.598	27.041
74.9	-1.812	33.699	27.123
99.7	-1.788	33.784	27.192
125.4	-1.762	33.922	27.304
150.2	-1.741	34.015	27.379
200.1	-1.694	34.091	27.439
250.0	-1.630	34.173	27.504
299.9	-1.571	34.239	27.556

Stn. OS3
 Date April 12, 1991 Time 11:10(UT)
 Lat. 69°59.9'S Long. 39°40.3'E
 Depth 649 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.0	-1.820	33.519	26.977
10.1	-1.820	33.521	26.979
19.9	-1.816	33.524	26.981
30.1	-1.816	33.527	26.984
50.4	-1.809	33.540	26.994
74.9	-1.805	33.610	27.051
99.7	-1.798	33.682	27.109
125.4	-1.790	33.786	27.193
150.2	-1.774	33.934	27.314
199.9	-1.725	34.087	27.436
249.8	-1.650	34.152	27.488
300.1	-1.591	34.213	27.536
400.5	-1.552	34.249	27.563
499.8	-1.471	34.270	27.578
600.0	-1.425	34.274	27.580
641.7	-1.422	34.280	27.584

Stn. OS3
 Date May 8, 1991 Time 10:26(UT)
 Lat. 68°59.9'S Long. 39°40.3'E
 Depth 649 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.823	33.628	27.066
10.0	-1.824	33.627	27.066
19.9	-1.824	33.628	27.066
29.7	-1.822	33.629	27.067
50.3	-1.827	33.637	27.074
74.9	-1.807	33.648	27.082
99.7	-1.795	33.665	27.096
125.0	-1.788	33.674	27.103
149.6	-1.765	33.695	27.119
200.3	-1.721	33.961	27.334
250.0	-1.656	34.148	27.484
300.3	-1.625	34.185	27.514
400.5	-1.554	34.240	27.556
500.1	-1.501	34.259	27.570
600.2	-1.467	34.267	27.576
606.5	-1.466	34.268	27.576

Stn. OS3
 Date June 4, 1991 Time 11:09(UT)
 Lat. 68°59.9'S Long. 39°40.3'E
 Depth 649 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.9	-1.830	33.670	27.100
10.2	-1.831	33.674	27.104
19.9	-1.830	33.668	27.099
30.3	-1.831	33.674	27.103
50.3	-1.831	33.680	27.108
75.1	-1.778	33.712	27.133
100.2	-1.741	33.782	27.189
125.4	-1.693	33.935	27.312
150.4	-1.687	33.989	27.356
199.9	-1.686	34.045	27.402
250.4	-1.670	34.119	27.461
300.3	-1.642	34.165	27.498
400.1	-1.598	34.213	27.536
500.0	-1.533	34.246	27.560
600.2	-1.478	34.263	27.573
625.3	-1.472	34.268	27.576

Stn. OS3
 Date July 16, 1991 Time 10:47(UT)
 Lat. 68° 59.9' S Long. 39° 40.3' E
 Depth 649 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.834	33.695	27.121
10.2	-1.833	33.695	27.121
19.7	-1.820	33.698	27.123
30.3	-1.783	33.733	27.151
49.7	-1.757	33.817	27.218
75.3	-1.747	33.887	27.274
100.4	-1.736	33.932	27.311
124.6	-1.716	33.996	27.362
150.3	-1.710	34.044	27.402
200.3	-1.683	34.105	27.450
250.0	-1.660	34.147	27.483
300.3	-1.656	34.159	27.493
400.1	-1.636	34.179	27.509
499.9	-1.580	34.210	27.533
599.8	-1.524	34.242	27.557
606.7	-1.515	34.237	27.553

Stn. OS3
 Date August 8, 1991 Time 10:26(UT)
 Lat. 68° 59.9' S Long. 39° 40.3' E
 Depth 649 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.843	33.724	27.145
9.8	-1.844	33.734	27.153
19.9	-1.841	33.739	27.157
30.1	-1.816	33.743	27.159
50.1	-1.760	33.781	27.189
75.5	-1.715	33.908	27.291
99.8	-1.700	33.994	27.360
125.2	-1.687	34.069	27.421
150.3	-1.678	34.109	27.453
199.7	-1.664	34.152	27.488
250.0	-1.655	34.182	27.512
300.3	-1.642	34.189	27.517
400.1	-1.633	34.197	27.524
499.8	-1.621	34.200	27.526
600.2	-1.525	34.239	27.554
606.5	-1.524	34.241	27.556

Stn. OS3
 Date September 10, 1991 Time 9:36(UT)
 Lat. 68° 59.9' S Long. 39° 40.3' E
 Depth 649 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.9	-1.848	33.799	27.206
10.0	-1.850	33.800	27.207
20.1	-1.844	33.802	27.208
30.1	-1.840	33.803	27.208
49.7	-1.753	33.895	27.281
74.7	-1.705	33.977	27.347
100.2	-1.694	34.035	27.393
125.2	-1.685	34.066	27.418
149.8	-1.681	34.087	27.436
200.3	-1.665	34.160	27.494
250.4	-1.642	34.182	27.511
300.3	-1.611	34.197	27.523
400.3	-1.595	34.207	27.530
500.3	-1.588	34.210	27.533
600.0	-1.583	34.210	27.533
608.6	-1.585	34.213	27.536

Stn. OS3
 Date October 2, 1991 Time 9:04(UT)
 Lat. 68° 59.9' S Long. 39° 40.3' E
 Depth 649 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.847	33.832	27.233
9.8	-1.840	33.833	27.233
19.9	-1.834	33.834	27.234
29.9	-1.825	33.848	27.245
49.9	-1.763	33.929	27.310
75.3	-1.684	34.036	27.394
99.6	-1.648	34.104	27.449
125.2	-1.640	34.132	27.471
150.3	-1.639	34.137	27.475
199.9	-1.631	34.171	27.502
249.8	-1.623	34.188	27.516
300.1	-1.619	34.191	27.519
400.5	-1.600	34.201	27.526
500.1	-1.597	34.207	27.531
600.4	-1.595	34.208	27.531
611.0	-1.596	34.212	27.535

Stn. OS3
 Date November 8, 1991 Time 7:32(UT)
 Lat. 68°59.9'S Long. 39°40.3'E
 Depth 649 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.8	-1.839	33.839	27.238
10.3	-1.835	33.846	27.243
19.9	-1.826	33.851	27.247
29.9	-1.802	33.879	27.270
50.0	-1.658	34.023	27.383
74.5	-1.630	34.080	27.428
99.5	-1.639	34.119	27.460
124.6	-1.631	34.145	27.481
150.2	-1.633	34.167	27.499
199.5	-1.626	34.188	27.516
250.2	-1.619	34.204	27.529
300.3	-1.612	34.212	27.535
399.8	-1.606	34.222	27.543
500.0	-1.599	34.230	27.550
561.3	-1.596	34.232	27.551

Stn. OS3
 Date December 10, 1991 Time 9:14(UT)
 Lat. 68°59.9'S Long. 39°40.3'E
 Depth 649 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.9	-1.733	33.810	27.212
10.2	-1.769	33.823	27.223
19.9	-1.763	33.866	27.258
30.1	-1.706	33.933	27.311
49.9	-1.661	34.030	27.388
74.9	-1.618	34.075	27.424
100.2	-1.615	34.116	27.457
125.0	-1.640	34.141	27.478
149.9	-1.658	34.147	27.484
200.3	-1.639	34.190	27.518
249.8	-1.618	34.204	27.529
300.1	-1.600	34.220	27.541
399.9	-1.562	34.234	27.552
499.7	-1.541	34.241	27.556
545.7	-1.537	34.248	27.562

Stn. OS5
 Date January 4, 1992 Time 7:45(UT)
 Lat. 69°00.3'S Long. 39°37.7'E
 Depth 219 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.701	33.828	27.225
10.0	-1.739	33.858	27.251
19.9	-1.722	33.895	27.281
29.9	-1.673	33.964	27.335
49.9	-1.630	34.039	27.395
74.9	-1.586	34.104	27.447
99.9	-1.574	34.133	27.470
125.2	-1.615	34.153	27.487
150.2	-1.603	34.172	27.502
191.0	-1.592	34.193	27.519

Stn. LH1
 Date May 21, 1991 Time 16:35(UT)
 Lat. 69°10.5'S Long. 39°43.7'E
 Depth 260 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.9	-1.836	33.597	27.041
10.2	-1.838	33.604	27.046
20.3	-1.838	33.614	27.055
30.3	-1.838	33.626	27.064
50.1	-1.835	33.641	27.077
74.9	-1.836	33.654	27.088
99.9	-1.795	33.676	27.105
124.8	-1.779	33.693	27.117
150.4	-1.763	33.850	27.245
200.1	-1.748	34.045	27.403
250.2	-1.671	34.147	27.484
253.3	-1.672	34.146	27.483

Stn. LH2
 Date May 22, 1991 Time 11:14(UT)
 Lat. 69° 09.5' S Long. 39° 46.5' E
 Depth 492 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.9	-1.827	33.648	27.082
10.4	-1.828	33.648	27.083
20.3	-1.831	33.651	27.085
30.1	-1.829	33.652	27.086
49.7	-1.820	33.656	27.089
74.7	-1.807	33.670	27.100
100.0	-1.794	33.685	27.112
125.2	-1.772	33.735	27.151
150.0	-1.733	33.869	27.260
199.9	-1.707	34.051	27.407
249.8	-1.650	34.165	27.498
300.1	-1.620	34.197	27.523
400.1	-1.530	34.241	27.557
485.2	-1.325	34.297	27.595

Stn. LH2
 Date November 12, 1991 Time 11:13(UT)
 Lat. 69° 09.5' S Long. 39° 46.5' E
 Depth 492 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.9	-1.796	33.835	27.233
9.9	-1.816	33.829	27.229
20.1	-1.828	33.843	27.241
29.9	-1.858	33.857	27.253
49.9	-1.686	33.971	27.342
74.9	-1.672	34.095	27.442
99.7	-1.661	34.137	27.476
124.8	-1.687	34.159	27.494
149.8	-1.636	34.174	27.505
199.9	-1.620	34.196	27.522
249.8	-1.617	34.207	27.532
300.3	-1.603	34.219	27.541
399.5	-1.573	34.239	27.556
450.8	-1.546	34.238	27.554

Stn. L0
 Date April 28, 1991 Time 14:26(UT)
 Lat. 69° 15.8' S Long. 39° 29.8' E
 Depth 337 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.3	-1.813	33.600	27.043
10.0	-1.811	33.597	27.040
19.9	-1.812	33.590	27.035
29.9	-1.814	33.592	27.036
49.7	-1.808	33.595	27.039
75.1	-1.799	33.605	27.047
100.4	-1.779	33.643	27.077
124.8	-1.757	33.744	27.159
149.8	-1.729	33.829	27.227
199.7	-1.742	34.027	27.388
249.8	-1.680	34.136	27.476
300.1	-1.671	34.190	27.519
322.9	-1.665	34.197	27.524

Stn. L0
 Date August 25, 1991 Time 14:13(UT)
 Lat. 69° 15.8' S Long. 39° 29.8' E
 Depth 337 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.9	-1.836	33.733	27.152
10.0	-1.836	33.735	27.153
20.3	-1.836	33.736	27.155
30.1	-1.823	33.750	27.165
49.7	-1.784	33.876	27.267
75.1	-1.768	33.910	27.294
99.8	-1.705	33.999	27.365
125.0	-1.669	34.076	27.426
150.2	-1.662	34.105	27.450
200.1	-1.646	34.158	27.492
250.0	-1.620	34.196	27.523
299.7	-1.612	34.205	27.529
323.9	-1.604	34.211	27.534

Stn. L0
 Date October 19, 1991 Time 12:38(UT)
 Lat. 69°15.8'S Long. 39°29.8'E
 Depth 337 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.834	33.874	27.266
10.0	-1.835	33.820	27.222
19.9	-1.810	33.829	27.229
30.1	-1.782	33.869	27.261
50.1	-1.719	33.941	27.318
74.7	-1.691	33.996	27.362
99.8	-1.646	34.073	27.423
124.8	-1.634	34.122	27.463
150.0	-1.625	34.158	27.491
200.1	-1.599	34.197	27.523
250.2	-1.620	34.224	27.545
300.1	-1.605	34.243	27.560
331.5	-1.592	34.246	27.562

Stn. L1
 Date April 19, 1991 Time 11:15(UT)
 Lat. 69°16.0'S Long. 39°22.5'E
 Depth 229 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.811	33.550	27.002
10.0	-1.806	33.557	27.008
20.1	-1.787	33.562	27.011
29.7	-1.776	33.573	27.020
49.9	-1.762	33.608	27.049
75.3	-1.745	33.691	27.115
100.4	-1.546	33.766	27.171
124.6	-1.636	33.835	27.230
150.3	-1.653	33.890	27.275
199.9	-1.734	33.997	27.364
221.5	-1.734	34.044	27.402

Stn. L1
 Date August 19, 1991 Time 17:53(UT)
 Lat. 69°16.0'S Long. 39°22.5'E
 Depth 229 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.3	-1.838	33.723	27.143
9.8	-1.840	33.723	27.143
20.1	-1.832	33.725	27.145
30.1	-1.832	33.728	27.148
49.9	-1.776	33.748	27.163
75.1	-1.734	33.845	27.241
100.0	-1.683	33.979	27.348
124.8	-1.663	34.032	27.391
150.1	-1.656	34.095	27.442
199.7	-1.646	34.147	27.484
219.9	-1.638	34.162	27.496

Stn. L2
 Date April 20, 1991 Time 7:54(UT)
 Lat. 69°16.0'S Long. 39°10.0'E
 Depth 492 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.0	-1.809	33.592	27.036
9.9	-1.786	33.601	27.043
19.7	-1.760	33.622	27.059
30.3	-1.745	33.639	27.073
50.2	-1.761	33.660	27.090
75.1	-1.577	33.690	27.110
100.3	-1.481	33.775	27.176
125.0	-1.630	33.933	27.309
150.2	-1.677	33.986	27.354
199.9	-1.732	34.090	27.439
250.0	-1.729	34.128	27.470
300.1	-1.723	34.147	27.485
400.1	-1.697	34.200	27.528
485.8	-1.640	34.220	27.542

Stn. L2
 Date August 20, 1991 8:30(UT)
 Lat. 69° 16.0' S Long. 39° 10.0' E
 Depth 492 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.850	33.722	27.143
10.0	-1.848	33.720	27.142
19.9	-1.849	33.721	27.142
29.9	-1.835	33.719	27.141
49.9	-1.794	33.827	27.227
74.9	-1.819	33.883	27.273
99.6	-1.807	33.912	27.297
125.2	-1.768	33.967	27.341
149.8	-1.705	34.030	27.390
199.7	-1.657	34.127	27.467
250.0	-1.624	34.161	27.494
299.9	-1.625	34.199	27.525
400.1	-1.517	34.260	27.571
488.1	-1.373	34.298	27.598

Stn. L2
 Date October 25, 1991 Time 6:57(UT)
 Lat. 69° 16.0' S Long. 39° 10.0' E
 Depth 492 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
6.1	-1.836	33.752	27.167
10	-1.840	33.746	27.162
20.3	-1.815	33.754	27.169
29.7	-1.808	33.796	27.202
50.3	-1.811	33.866	27.259
75.1	-1.794	33.928	27.309
100.4	-1.764	33.987	27.356
125.0	-1.737	34.036	27.396
149.6	-1.734	34.082	27.433
199.7	-1.636	34.144	27.481
249.6	-1.657	34.179	27.509
299.9	-1.616	34.226	27.546
400.1	-1.362	34.283	27.585
470.7	-0.832	34.385	27.649

Stn. L3
 Date April 23, 1991 Time 16:22(UT)
 Lat. 69° 16.4' S Long. 38° 53.2' E
 Depth 485 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.0	-1.791	33.632	27.068
10.7	-1.793	33.636	27.072
20.3	-1.775	33.644	27.078
29.9	-1.773	33.651	27.084
50.0	-1.802	33.657	27.089
75.3	-1.714	33.684	27.109
100.1	-1.580	33.698	27.116
125.4	-1.387	33.843	27.229
150.4	-1.570	33.977	27.343
199.7	-1.704	34.143	27.482
250.2	-1.667	34.197	27.524
300.3	-1.666	34.223	27.546
400.5	-1.711	34.245	27.564
483.3	-1.581	34.266	27.578

Stn. L3
 Date August 21, 1991 Time 11:20(UT)
 Lat. 69° 16.4' S Long. 38° 53.2' E
 Depth 510 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.9	-1.844	33.725	27.145
9.8	-1.842	33.723	27.144
20.4	-1.834	33.719	27.140
30.3	-1.760	33.756	27.168
50.3	-1.787	33.823	27.223
75.1	-1.811	33.859	27.253
100.0	-1.818	33.881	27.272
125.0	-1.804	33.916	27.300
150.1	-1.744	33.971	27.343
199.5	-1.639	34.083	27.431
249.8	-1.620	34.158	27.492
300.1	-1.631	34.213	27.536
400.3	-1.594	34.247	27.563
473.2	-1.492	34.277	27.584

Stn. L3
 Date October 22, 1991 Time 9:22(UT)
 Lat. 69°16.4'S Long. 38°53.2'E
 Depth 510 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.842	33.823	27.225
10.0	-1.832	33.786	27.195
19.9	-1.846	33.805	27.211
30.3	-1.807	33.825	27.226
50.3	-1.820	33.849	27.246
74.9	-1.817	33.879	27.270
99.3	-1.804	33.943	27.321
124.8	-1.788	33.997	27.366
150.3	-1.769	34.044	27.403
199.9	-1.694	34.115	27.459
250.6	-1.672	34.160	27.495
300.1	-1.636	34.205	27.530
400.3	-1.399	34.282	27.585
472.0	-1.298	34.302	27.598

Stn. L3
 Date January 22, 1992 Time 11:46(UT)
 Lat. 69°16.4'S Long. 38°53.2'E
 Depth 510 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.9	-1.798	33.842	27.239
10.2	-1.782	33.867	27.259
20.1	-1.749	33.882	27.271
30.3	-1.738	33.922	27.303
50.1	-1.649	33.996	27.361
74.9	-1.745	34.101	27.448
100.0	-1.620	34.108	27.451
124.6	-1.335	34.140	27.468
149.6	-1.352	34.164	27.489
199.7	-1.452	34.196	27.518
250.0	-1.507	34.216	27.535
299.9	-1.455	34.253	27.564
400.1	-0.942	34.376	27.645
456.7	-0.210	34.453	27.675

Stn. L5
 Date August 24, 1991 Time 17:22(UT)
 Lat. 69°16.8'S Long. 38°30.4'E
 Depth 645 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.837	33.743	27.159
10.4	-1.809	33.748	27.163
19.9	-1.779	33.793	27.199
29.9	-1.807	33.830	27.230
50.1	-1.824	33.855	27.251
75.1	-1.834	33.875	27.267
100.0	-1.830	33.893	27.282
124.6	-1.828	33.902	27.289
149.8	-1.828	33.924	27.307
199.7	-1.793	34.023	27.386
249.8	-1.744	34.121	27.465
299.7	-1.627	34.177	27.507
399.9	-1.559	34.222	27.541
499.8	-1.118	34.327	27.612
599.8	-0.576	34.441	27.683
628.1	-0.511	34.443	27.681

Stn. OW4
 Date August 29, 1991 Time 12:15(UT)
 Lat. 69°02.7'S Long. 38°25.0'E
 Depth 721 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
7.9	-1.843	33.711	27.134
10.2	-1.845	33.730	27.150
20.1	-1.771	33.743	27.159
30.3	-1.776	33.784	27.192
50.3	-1.791	33.822	27.223
75.3	-1.820	33.861	27.255
100.2	-1.821	33.883	27.274
125.0	-1.809	33.913	27.297
150.2	-1.755	33.962	27.336
199.7	-1.700	34.069	27.421
249.8	-1.690	34.144	27.482
300.3	-1.636	34.203	27.528
399.9	-1.579	34.276	27.586
499.9	-1.111	34.346	27.628
600.0	-0.102	34.531	27.733
700.2	-0.004	34.549	27.742
704.5	-0.006	34.548	27.742

Stn. OW4
 Date October 30, 1991 Time 7:47(UT)
 Lat. 69°02.7'S Long. 38°25.0'E
 Depth 721 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
7.1	-1.830	33.836	27.235
10.0	-1.852	33.839	27.238
20.1	-1.837	33.843	27.241
29.7	-1.823	33.854	27.250
50.1	-1.821	33.878	27.269
75.1	-1.817	33.914	27.298
100.0	-1.807	33.949	27.327
125.4	-1.800	33.999	27.367
150.0	-1.791	34.036	27.397
199.9	-1.772	34.105	27.453
249.8	-1.771	34.152	27.491
300.5	-1.709	34.188	27.519
399.9	-1.773	34.240	27.562
500.1	-1.694	34.297	27.607
600.0	0.004	34.551	27.743
699.8	0.061	34.567	27.753
700.6	0.061	34.566	27.753

Stn. P0
 Date January 27, 1991 Time 17:44(UT)
 Lat. 69°35.9'S Long. 38°39.0'E
 Depth 978 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.0	-1.819	33.967	27.342
10.3	-1.864	33.935	27.317
20.1	-1.867	33.951	27.330
30.3	-1.805	33.965	27.340
50.4	-1.779	34.061	27.417
76.1	-1.674	34.112	27.456
99.7	-1.548	34.123	27.461
125.2	-1.626	34.173	27.504
150.8	-1.634	34.205	27.530
200.1	-1.539	34.218	27.538
250.4	-1.651	34.252	27.569
300.3	-1.584	34.281	27.590
399.8	-0.852	34.383	27.647
500.4	-0.638	34.431	27.678
600.4	-0.511	34.481	27.712

Stn. P0
 Date January 18, 1992 Time 9:53(UT)
 Lat. 69°35.9'S Long. 38°39.0'E
 Depth 978 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.864	33.862	27.257
10.0	-1.863	33.868	27.262
20.1	-1.858	33.879	27.271
29.9	-1.829	33.944	27.323
50.3	-1.669	34.036	27.394
75.1	-1.643	34.070	27.421
100.0	-1.524	34.114	27.453
125.0	-1.469	34.158	27.487
149.9	-1.333	34.167	27.490
200.3	-1.268	34.225	27.535
249.4	-1.287	34.235	27.544
300.3	-0.930	34.319	27.599
400.3	-0.589	34.392	27.644
500.3	-0.460	34.445	27.681
600.2	-0.226	34.502	27.716
700.2	-0.028	34.542	27.738
800.0	0.077	34.564	27.750
820.8	0.098	34.572	27.755

Stn. 1B1
 Date May 10, 1991 Time 10:39(UT)
 Lat. 69°00.9'S Long. 39°38.5'E

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.840	33.634	27.079
10.0	-1.839	33.632	27.070
17.7	-1.841	33.634	27.072

Stn. 1B2
 Date May 13, 1991 Time 10:39(UT)
 Lat. 69°00.9'S Long. 39°38.5'E
 Depth 437 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.9	-1.831	33.627	27.066
10.2	-1.834	33.627	27.065
20.1	-1.828	33.640	27.075
30.1	-1.830	33.635	27.072
49.9	-1.832	33.637	27.074
74.9	-1.826	33.651	27.085
99.9	-1.821	33.663	27.095
125.0	-1.796	33.685	27.112
150.0	-1.733	33.735	27.151
199.9	-1.719	33.989	27.357
250.2	-1.672	34.119	27.461
300.1	-1.612	34.200	27.525
399.9	-1.566	34.231	27.549
424.9	-1.547	34.243	27.559

Stn. 1B3
 Date November 18, 1991 Time 10:45(UT)
 Lat. 69°00.9'S Long. 39°38.5'E
 Depth 437 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.824	33.851	27.248
10.0	-1.819	33.845	27.242
19.9	-1.813	33.852	27.248
30.3	-1.756	33.898	27.284
50.1	-1.637	34.014	27.375
74.9	-1.606	34.096	27.441
100.4	-1.589	34.126	27.465
125.0	-1.621	34.150	27.485
150.0	-1.620	34.160	27.493
199.9	-1.624	34.191	27.518
250.0	-1.613	34.208	27.532
299.9	-1.602	34.218	27.540
319.5	-1.595	34.223	27.544

Stn. 1B3
 Date December 2, 1991 Time 10:33(UT)
 Lat. 69°00.9'S Long. 39°38.5'E
 Depth 437 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.803	33.877	27.268
10.0	-1.803	33.867	27.260
20.1	-1.794	33.874	27.266
29.7	-1.735	33.931	27.310
49.9	-1.678	34.009	27.372
75.3	-1.652	34.040	27.397
100.0	-1.613	34.075	27.424
125.4	-1.630	34.101	27.445
150.0	-1.635	34.118	27.459
200.1	-1.598	34.215	27.537
250.2	-1.579	34.231	27.550
300.3	-1.566	34.242	27.558
352.0	-1.562	34.245	27.560

Stn. IB3
 Date December 11, 1991 Time 11:04(UT)
 Lat. 69°00.9'S Long. 39°38.5'E
 Depth 437 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.8	-1.803	33.860	27.254
10.1	-1.795	33.869	27.262
20.1	-1.782	33.891	27.279
30.1	-1.733	33.957	27.331
50.2	-1.678	34.034	27.392
74.9	-1.648	34.087	27.435
99.9	-1.626	34.126	27.466
125.0	-1.606	34.140	27.476
149.8	-1.644	34.158	27.492
200.1	-1.654	34.197	27.524
250.4	-1.614	34.228	27.548
290.1	-1.592	34.234	27.552

Stn. IB4
 Date December 2, 1991 Time 8:17(UT)
 Lat. 69°00.9'S Long. 39°38.5'E
 Depth 437 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
4.7	-1.804	33.873	27.265
10.0	-1.804	33.856	27.251
19.7	-1.785	33.887	27.276
29.7	-1.740	33.922	27.303
49.7	-1.704	33.971	27.342
75.1	-1.652	34.036	27.393
100.2	-1.613	34.078	27.426
125.2	-1.647	34.104	27.448
150.1	-1.636	34.109	27.452
199.7	-1.602	34.209	27.532
214.8	-1.590	34.223	27.543

Stn. IB5
 Date December 11, 1991 Time 10:16(UT)
 Lat. 69°00.9'S Long. 39°38.5'E
 Depth 437 m

PRESS (dB)	TEMP. (°C)	SAL. (PSU)	SIGMA-t
5.1	-1.810	33.867	27.260
9.9	-1.798	33.856	27.250
20.1	-1.782	33.860	27.254
30.1	-1.759	33.919	27.301
49.9	-1.673	34.047	27.403
75.1	-1.621	34.094	27.439
100.1	-1.630	34.116	27.457
125.0	-1.604	34.137	27.474
150.0	-1.641	34.156	27.491
199.7	-1.642	34.189	27.517
250.2	-1.618	34.223	27.544
299.9	-1.589	34.235	27.553
301.9	-1.587	34.234	27.552

Table 2. XBT observation data.

Stn. OS2
 Date Mar. 5 1991
 Time 12:28(UT)
 Lat. 69° 00. 0' S
 Long. 39° 38. 2' E
 Depth 181 m

PRESS (m)	TEMP. (°C)
5	-1.77
10	-1.82
20	-1.82
30	-1.87
50	-1.91
75	-1.81
100	-1.81
125	-1.74
150	-1.74

Stn. OS2'
 Date Feb. 2, 1992
 Time 04:25(UT)
 Lat. 69° 00. 3' S
 Long. 39° 37. 7' E
 Depth 219 m

PRESS (m)	TEMP. (°C)
5	-1.51
10	-1.65
20	-1.72
30	-1.74
50	-1.69
75	-1.66
100	-1.67
125	-1.66
150	-1.69
180	-1.67

Stn. OS3
 Date Mar. 5, 1991
 Time 11:32(UT)
 Lat. 68° 59. 9' S
 Long. 39° 40. 3' E
 Depth 649 m

PRESS (m)	TEMP. (°C)
5	-1.64
10	-1.67
20	-1.78
30	-1.79
50	-1.82
75	-1.79
100	-1.73
125	-1.69
150	-1.64
200	-1.58
250	-1.53
300	-1.52
400	-1.47
500	-1.46
600	-1.41
630	-1.40

Stn. OS4
 Date Mar. 5, 1991
 Time 11:03(UT)
 Lat. 68° 59. 9' S
 Long. 39° 41. 8' E
 Depth 333 m

PRESS (m)	TEMP. (°C)
5	-1.83
10	-1.87
20	-1.94
30	-2.02
50	-2.00
75	-1.97
100	-1.88
125	-1.83
150	-1.78
200	-1.73
250	-1.69
300	-1.61

Stn. LH1
 Date Nov. 12, 1991
 Time 07:33(UT)
 Lat. 69° 10. 5' S
 Long. 39° 43. 7' E
 Depth 260 m

PRESS (m)	TEMP. (°C)
5	-1.83
10	-1.87
20	-1.92
30	-1.94
50	-1.75
75	-1.68
100	-1.67
125	-1.67
150	-1.67
200	-1.62
250	-1.64

Stn. X12
 Date Feb. 2, 1992
 Time 08:40(UT)
 Lat. 69°02.2'S
 Long. 39°38.6'E
 Depth 400 m *

PRESS (m)	TEMP. (°C)
5	-1.49
10	-1.73
20	-1.78
30	-1.77
50	-1.70
75	-1.74
100	-1.76

Stn. X13
 Date Feb. 2, 1992
 Time 08:49(UT)
 Lat. 69°03.3'S
 Long. 39°38.7'E
 Depth 450 m *

PRESS (m)	TEMP. (°C)
5	-1.12
10	-1.59
20	-1.74
30	-1.76
50	-1.70
75	-1.67
100	-1.68
125	-1.76
150	-1.78
200	-1.77
250	-1.72
300	-1.70
400	-1.53

Stn. X14
 Date Feb. 2, 1992
 Time 09:02(UT)
 Lat. 69°06.9'S
 Long. 39°39.3'E
 Depth 480 m *

PRESS (m)	TEMP. (°C)
5	-1.59
10	-1.52
20	-1.83
30	-1.81
50	-1.81
75	-1.77
100	-1.57
125	-1.57
150	-1.56
200	-1.55
250	-1.47
300	-1.27
400	-1.10
460	-1.02

Stn. X15
 Date Feb. 2, 1992
 Time 09:14(UT)
 Lat. 69°06.4'S
 Long. 39°36.5'E
 Depth 320 m *

PRESS (m)	TEMP. (°C)
5	-1.60
10	-1.68
20	-1.76
30	-1.72
50	-1.69
75	-1.66
100	-1.61
125	-1.61
150	-1.64
170	-1.70

Stn. X16
 Date Feb. 2, 1992
 Time 11:11(UT)
 Lat. 69°05.9'S
 Long. 39°26.7'E
 Depth 120 m *

PRESS (m)	TEMP. (°C)
5	-1.68
10	-1.75
20	-1.90
30	-1.86
50	-1.79
65	-1.76

The water depth designated by star(*) is inferred from the bathymetric chart.

Stn. L1
 Date Oct. 20, 1991
 Time 06:55(UT)
 Lat. 69° 16. 0' S
 Long. 39° 22. 5' E
 Depth 229 m

PRESS (m)	TEMP. (°C)
5	-1.92
10	-1.90
20	-1.92
30	-1.87
50	-1.83
75	-1.79
100	-1.70
125	-1.68
150	-1.64
200	-1.69
220	-1.61

Stn. X1
 Date Apr. 27, 1991
 Time 14:54(UT)
 Lat. 69° 16. 0' S
 Long. 39° 17. 5' E
 Depth 400 m *

PRESS (m)	TEMP. (°C)
5	-1.87
10	-1.85
20	-1.86
30	-1.85
50	-1.86
75	-1.75
100	-1.62
125	-1.58
150	-1.60
200	-1.62
250	-1.53
300	-1.48

Stn. X1
 Date Oct. 25, 1991
 Time 08:02(UT)
 Lat. 69° 16. 0' S
 Long. 39° 17. 5' E
 Depth 400 m *

PRESS (m)	TEMP. (°C)
5	-2.02
10	-1.96
20	-1.98
30	-1.96
50	-1.95
75	-1.92
100	-1.81
125	-1.84
150	-1.85
200	-1.83
250	-1.78
300	-1.75

Stn. L2
 Date Oct. 20, 1991
 Time 11:00(UT)
 Lat. 69° 16. 0' S
 Long. 39° 10. 0' E
 Depth 492 m

PRESS (m)	TEMP. (°C)
5	-1.81
10	-1.82
20	-1.87
30	-1.86
50	-1.87
75	-1.87
100	-1.85
125	-1.84
150	-1.78
200	-1.83
250	-1.74
300	-1.72
400	-1.46
460	-1.20

Stn. X2
 Date Apr. 27, 1991
 Time 11:56(UT)
 Lat. 69° 16. 0' S
 Long. 39° 01. 3' E
 Depth 380 m

PRESS (m)	TEMP. (°C)
5	-1.87
10	-1.86
20	-1.83
30	-1.85
50	-1.86
75	-1.86
100	-1.58
125	-1.72
150	-1.73
200	-1.69
250	-1.70
300	-1.69

Stn. X2
 Date Aug. 25, 1991
 Time 09:42(UT)
 Lat. 69° 16. 0' S
 Long. 39° 01. 3' E
 Depth 380 m

PRESS (m)	TEMP. (°C)
5	-1.88
10	-1.88
20	-1.82
30	-1.83
50	-1.82
75	-1.84
100	-1.83
125	-1.79
150	-1.77
200	-1.68
250	-1.67
300	-1.66
370	-1.64

The water depth designated by star(*) is inferred from the bathymetric chart.

Stn. X2
Date Oct. 24, 1991
Time 12:51(UT)
Lat. 69°16.0'S
Long. 39°01.3'E
Depth 380 m

PRESS (m)	TEMP. (°C)
5	-1.96
10	-1.87
20	-1.90
30	-1.85
50	-1.87
75	-1.88
100	-1.84
125	-1.81
150	-1.77
200	-1.76
250	-1.72
300	-1.61

Stn. X3
Date Oct. 24, 1991
Time 12:05(UT)
Lat. 69°16.0'S
Long. 38°58.3'E
Depth 335 m

PRESS (m)	TEMP. (°C)
5	-1.94
10	-1.91
20	-1.90
30	-1.88
50	-1.90
75	-1.90
100	-1.87
125	-1.84
150	-1.83
200	-1.75
250	-1.76
300	-1.75
330	-1.67

Stn. X4
Date Oct. 24, 1991
Time 11:03(UT)
Lat. 69°16.0'S
Long. 38°55.2'E
Depth 375 m

PRESS (m)	TEMP. (°C)
5	-1.90
10	-1.87
20	-1.88
30	-1.87
50	-1.88
75	-1.88
100	-1.87
125	-1.85
150	-1.84
200	-1.82
250	-1.75
300	-1.70
370	-1.60

Stn. X5
Date Apr. 27, 1991
Time 09:27(UT)
Lat. 69°16.6'S
Long. 38°52.8'E
Depth 655 m

PRESS (m)	TEMP. (°C)
5	-1.75
10	-1.77
20	-1.70
30	-1.70
50	-1.78
75	-1.86
100	-1.67
125	-1.52
150	-1.68
200	-1.78
250	-1.77
300	-1.76
400	-1.82
500	-1.49
600	-0.85
650	-0.46

Stn. X5
Date Oct. 24, 1991
Time 09:11(UT)
Lat. 69°16.6'S
Long. 38°52.8'E
Depth 655 m

PRESS (m)	TEMP. (°C)
5	-1.98
10	-1.88
20	-1.94
30	-1.95
50	-1.95
75	-1.97
100	-1.96
125	-1.94
150	-1.90
200	-1.88
250	-1.94
300	-1.91
400	-1.52
500	-0.86
600	-0.26
640	-0.13

Stn. X6
Date Oct. 24, 1991
Time 08:26(UT)
Lat. 69°16.7'S
Long. 38°51.5'E
Depth 850 m *

PRESS (m)	TEMP. (°C)
5	-1.94
10	-1.85
20	-1.92
30	-1.92
50	-1.94
75	-1.96
100	-1.95
125	-1.94
150	-1.92
200	-1.94
250	-1.87
300	-1.84
400	-1.67
500	-0.87
600	-0.40
700	-0.24
760	-0.20

The water depth designated by star(*) is inferred from the bathymetric chart.

Stn. L4
 Date Apr. 25, 1991
 Time 09:13(UT)
 Lat. 69° 17. 3' S
 Long. 38° 46. 0' E
 Depth 965 m

PRESS (m)	TEMP. (°C)
5	-1.74
10	-1.69
20	-1.74
30	-1.68
50	-1.70
75	-1.48
100	-1.15
125	-1.47
150	-1.70
200	-1.66
250	-1.64
300	-1.53
400	-1.50
500	-0.91
600	-0.40
700	-0.03
760	0.21

Stn. L4
 Date Aug. 22, 1991
 Time 08:45(UT)
 Lat. 69° 17. 3' S
 Long. 38° 46. 0' E
 Depth 965 m

PRESS (m)	TEMP. (°C)
5	-2.06
10	-1.87
20	-1.93
30	-1.95
50	-1.90
75	-1.92
100	-1.93
125	-1.93
150	-1.91
200	-1.78
250	-1.76
300	-1.73
400	-1.34
500	-0.58
600	0.07
700	0.54
800	0.77
900	0.91
960	0.94

Stn. L4
 Date Oct. 22, 1991
 Time 13:33(UT)
 Lat. 69° 17. 3' S
 Long. 38° 46. 0' E
 Depth 965 m

PRESS (m)	TEMP. (°C)
5	-1.94
10	-1.83
20	-1.82
30	-1.85
50	-1.86
75	-1.86
100	-1.86
125	-1.85
150	-1.83
200	-1.82
250	-1.81
300	-1.73
400	-1.51
500	-1.05
600	-0.52
700	-0.12
800	0.00
900	0.06
960	0.08

Stn. X7
 Date Oct. 24, 1991
 Time 07:02(UT)
 Lat. 69° 17. 1' S
 Long. 38° 38. 1' E
 Depth 710 m

PRESS (m)	TEMP. (°C)
5	-2.06
10	-1.97
20	-1.98
30	-2.00
50	-1.97
75	-1.97
100	-1.96
125	-1.94
150	-1.90
200	-1.88
250	-1.60
300	-1.53
400	-1.32
500	-0.46
600	0.23
700	0.50

Stn. L5
 Date Apr. 26, 1991
 Time 17:39(UT)
 Lat. 69° 16. 8' S
 Long. 38° 30. 4' E
 Depth 645 m

PRESS (m)	TEMP. (°C)
5	-1.88
10	-1.81
20	-1.84
30	-1.82
50	-1.89
75	-1.86
100	-1.29
125	-1.59
150	-1.78
200	-1.78
250	-1.76
300	-1.75
400	-1.75
500	-1.29
600	-0.46
610	-0.39

Stn. L5
 Date Oct. 23, 1991
 Time 17:46(UT)
 Lat. 69° 16. 8' S
 Long. 38° 30. 4' E
 Depth 645 m

PRESS (m)	TEMP. (°C)
5	-1.93
10	-1.94
20	-1.97
30	-1.97
50	-2.00
75	-1.98
100	-1.97
125	-1.97
150	-1.96
200	-1.97
250	-1.96
300	-1.82
400	-1.60
500	-1.04
600	-0.48
610	-0.46

Stn. OW1
 Date Aug. 30, 1991
 Time 13:30(UT)
 Lat. 69° 02. 8' S
 Long. 39° 12. 4' E
 Depth 158 m

PRESS (m)	TEMP. (°C)
5	-1.92
10	-1.85
20	-1.84
30	-1.84
50	-1.78
75	-1.76
100	-1.70
125	-1.65
150	-1.64

Stn. OW1
 Date Nov. 1, 1991
 Time 11:18(UT)
 Lat. 69° 02. 8' S
 Long. 39° 12. 4' E
 Depth 158 m

PRESS (m)	TEMP. (°C)
5	-1.96
10	-1.93
20	-1.94
30	-1.91
50	-1.85
75	-1.82
100	-1.78
125	-1.76
150	-1.75

Stn. X17
 Date Feb. 10, 1992
 Time 09:29(UT)
 Lat. 69° 02. 7' S
 Long. 39° 09. 9' E
 Depth 220 m *

PRESS (m)	TEMP. (°C)
5	-1.90
10	-1.92
20	-1.91
30	-1.92
50	-1.91
75	-1.85
100	-1.78
125	-1.78
140	-1.77

Stn. OW2
 Date Aug. 26, 1991
 Time 14:55(UT)
 Lat. 69° 02. 7' S
 Long. 38° 56. 4' E
 Depth 183 m

PRESS (m)	TEMP. (°C)
5	-1.93
10	-1.87
20	-1.85
30	-1.85
50	-1.79
75	-1.78
100	-1.75
125	-1.73
150	-1.67
175	-1.67

Stn. OW2
 Date Nov. 1, 1991
 Time 08:03(UT)
 Lat. 69° 02. 7' S
 Long. 38° 56. 4' E
 Depth 183 m

PRESS (m)	TEMP. (°C)
5	-2.02
10	-2.00
20	-1.98
30	-2.00
50	-1.97
75	-1.94
100	-1.93
125	-1.86
150	-1.79
170	-1.78

Stn. X8
 Date Oct. 31, 1991
 Time 13:15(UT)
 Lat. 69° 02. 7' S
 Long. 38° 48. 5' E
 Depth 215 m

PRESS (m)	TEMP. (°C)
5	-1.94
10	-1.92
20	-1.95
30	-1.96
50	-1.93
75	-1.93
100	-1.92
125	-1.86
150	-1.85
200	-1.78

The water depth designated by star(*) is inferred from the bathymetric chart.

Stn. X9
 Date Oct. 31, 1991
 Time 12:01(UT)
 Lat. 69°02.7'S
 Long. 38°44.8'E
 Depth 285 m

PRESS (m)	TEMP. (°C)
5	-1.90
10	-1.86
20	-1.87
30	-1.87
50	-1.87
75	-1.87
100	-1.85
125	-1.85
150	-1.83
200	-1.76
250	-1.77
280	-1.75

Stn. OW3
 Date Aug. 27, 1991
 Time 10:24(UT)
 Lat. 69°02.7'S
 Long. 38°40.0'E
 Depth 430 m

PRESS (m)	TEMP. (°C)
5	-1.81
10	-1.81
20	-1.79
30	-1.77
50	-1.73
75	-1.77
100	-1.78
125	-1.75
150	-1.73
200	-1.69
250	-1.61
300	-1.52
400	-1.18

Stn. OW3
 Date Oct. 31, 1991
 Time 11:03(UT)
 Lat. 69°02.7'S
 Long. 38°40.0'E
 Depth 430 m

PRESS (m)	TEMP. (°C)
5	-1.91
10	-1.85
20	-1.88
30	-1.86
50	-1.88
75	-1.86
100	-1.86
125	-1.85
150	-1.82
200	-1.75
250	-1.73
300	-1.67
400	-1.34

Stn. X10
 Date Oct. 31, 1991
 Time 08:26(UT)
 Lat. 69°02.7'S
 Long. 38°35.6'E
 Depth 560 m

PRESS (m)	TEMP. (°C)
5	-1.81
10	-1.78
20	-1.84
30	-1.83
50	-1.88
75	-1.87
100	-1.86
125	-1.83
150	-1.82
200	-1.81
250	-1.73
300	-1.73
400	-1.65
500	-0.46
550	-0.37

Stn. X11
 Date Oct. 31, 1991
 Time 07:25(UT)
 Lat. 69°02.7'S
 Long. 38°32.5'E
 Depth 620 m *

PRESS (m)	TEMP. (°C)
5	-1.83
10	-1.78
20	-1.84
30	-1.86
50	-1.86
75	-1.86
100	-1.86
125	-1.84
150	-1.84
200	-1.83
250	-1.79
300	-1.68
400	-1.46
500	-0.13
600	0.34

The water depth designated by star(*) is inferred from the bathymetric chart.

Stn. P0
 Date Jan. 27, 1991
 Time 10:23(UT)
 Lat. 69° 35.9' S
 Long. 38° 39.0' E
 Depth 978 m

PRESS (m)	TEMP. (°C)
5	-1.79
10	-1.82
20	-1.83
30	-1.79
50	-1.64
75	-1.59
100	-1.41
125	-1.41
150	-1.32
200	-1.42
250	-1.73
300	-1.69
400	-0.92
500	-0.77
600	-0.63
700	-0.42
800	-0.30
900	-0.11
950	-0.04

Stn. P0
 Date Jan. 19, 1992
 Time 14:41(UT)
 Lat. 69° 35.9' S
 Long. 38° 39.0' E
 Depth 978 m

PRESS (m)	TEMP. (°C)
5	-1.75
10	-1.78
20	-1.82
30	-1.80
50	-1.80
75	-1.77
100	-1.57
125	-1.51
150	-1.25
200	-1.38
250	-1.30
300	-1.16
400	-0.68
500	-0.44
600	-0.37
700	-0.05
800	0.09
900	0.16
950	0.20

Table 3. Dissolved oxygen data.

Station :OS3
Date :April 12, 1991
Time(UT):12:00

Depth (m)	DO (ml/l)
2	8.04
10	8.03
50	8.03
100	7.88
150	7.51
200	7.21
300	6.97

Station :OS3
Date :May 8, 1991
Time(UT):11:00

Depth (m)	DO (ml/l)
2	8.05
10	8.01
50	8.06
100	7.87
150	7.99
200	7.62
300	7.01
500	6.90

Station :OS3
Date :June 5, 1991
Time(UT):10:00

Depth (m)	DO (ml/l)
2	8.03
10	8.02
50	7.98
100	7.64
150	7.58
200	7.33

Station :OS3
Date :July 18, 1991
Time(UT):10:00

Depth (m)	DO (ml/l)
2	7.99
50	7.91
100	7.55
150	7.41
200	7.35
300	7.22
500	6.97

Station :OS3
Date :August 8, 1991
Time(UT):11:00

Depth (m)	DO (ml/l)
2	8.01
10	7.99
50	7.88
100	7.46
150	7.24
200	7.23
300	7.17
500	7.17

Station :OS3
Date :September 10, 1991
Time(UT):11:00

Depth (m)	DO (ml/l)
4	7.86
10	7.88
50	7.50
100	7.19
150	7.16
200	7.09
300	7.05
500	7.03

Station :OS3
Date :October 2, 1991
Time(UT):12:00

Depth (m)	DO (ml/l)
2	7.78
10	7.83
50	7.44
100	7.04
150	7.07
200	7.07
300	7.10
500	7.07

Station :L3
Date :April 23, 1991
Time(UT):19:00

Depth (m)	DO (ml/l)
4	8.09
10	8.11
50	8.09
100	8.01
150	7.65
200	7.38
300	7.18
450	7.17

Station :L3
Date :August 21, 1991
Time(UT):12:00

Depth (m)	DO (ml/l)
4	7.95
10	7.94
50	7.82
100	7.83
150	7.50
200	7.07
300	7.08
450	7.06

Table 4. Vertical current profile data.

Stn. OS3
 Date March 29, 1991 Time 13:53(UT)
 Lat. 68° 59.9' S Long. 39° 40.3' E
 Depth 649 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
3	-11.38	-7.72	-1.83
10	-22.53	-7.49	-1.85
20	-25.08	-6.38	-1.87
30	-24.91	-7.47	-1.86
40	-24.58	-8.86	-1.86
50	-30.18	-13.76	-1.87
60	-28.31	-8.15	-1.86
70	-27.12	-5.10	-1.86
80	-28.37	-6.38	-1.86
90	-21.12	-2.60	-1.84
100	-14.94	-6.45	-1.84
110	-10.46	-7.00	-1.83
120	-11.95	-3.98	-1.82
130	-6.20	-3.47	-1.80
140	-1.29	-1.22	-1.79
150	-1.29	1.60	-1.78
160	-1.58	-1.35	-1.77
170	-1.97	-0.83	-1.75
180	-0.68	0.16	-1.74
190	-0.89	-2.98	-1.73
200	-2.74	-1.97	-1.72
210	-2.33	-1.15	-1.71
220	-5.60	-1.23	-1.70
230	-8.35	0.11	-1.69
240	-17.20	-3.48	-1.67
250	-19.58	-5.48	-1.66
260	-18.86	-2.65	-1.65
270	-12.37	-2.54	-1.64
280	-6.82	-1.48	-1.64
290	-6.94	-1.29	-1.63
300	-5.45	-1.56	-1.63
310	-6.31	-2.85	-1.62
320	-4.80	-2.48	-1.61
330	-4.08	-0.96	-1.60
340	-3.75	-0.55	-1.60
350	-3.00	-0.68	-1.60
360	-4.40	0.32	-1.60
370	-3.72	-1.04	-1.60
380	-3.00	-1.77	-1.59
390	-3.56	-1.17	-1.58
400	-1.92	-0.24	-1.57
410	-0.48	-0.26	-1.56
420	-0.50	0.16	-1.56
430	-0.36	0.34	-1.55
440	-0.37	0.79	-1.55
450	-1.16	0.18	-1.54
460	-1.61	-0.53	-1.52
470	-0.92	0.19	-1.51
480	-2.55	-0.87	-1.50
490	-2.35	-0.43	-1.50

500	-0.47	0.52	-1.50
510	-2.53	0.01	-1.49
520	-1.16	0.03	-1.49
530	-0.06	0.22	-1.49
540	-0.52	-0.84	-1.49
550	-0.35	-1.08	-1.48
560	-0.78	-1.21	-1.48
570	-0.77	-1.54	-1.48
580	-1.05	-1.47	-1.48
590	-0.45	-1.28	-1.47
600	-0.67	-0.51	-1.47
610	0.25	-0.04	-1.47
620	0.94	-0.16	-1.47
630	0.45	-0.09	-1.47
640	0.28	-0.22	-1.47

Stn. OS3
 Date April 1, 1991 Time 16:18(UT)
 Lat. 68° 59.9' S Long. 39° 40.3' E
 Depth 649 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
2	-16.71	-3.66	-1.84
20	-26.93	-7.03	-1.86
40	-34.55	-8.03	-1.86
60	-28.12	-7.08	-1.87
80	-29.54	-7.93	-1.86
100	-22.98	-2.37	-1.82
120	-10.06	-4.44	-1.82
140	-6.32	-1.38	-1.79
160	-5.47	-0.18	-1.78
180	-2.71	3.36	-1.77
200	0.96	4.01	-1.73
220	0.11	0.68	-1.70
240	-3.86	-1.84	-1.68
260	-5.47	0.11	-1.65
280	-6.86	-1.08	-1.63
300	-5.12	-1.15	-1.62
320	-3.91	-1.89	-1.62
340	-3.23	-3.09	-1.61
360	-3.20	-5.27	-1.61
380	-2.48	-3.06	-1.60
400	-2.81	-2.10	-1.60
420	-2.34	-1.71	-1.59
440	-2.62	-1.90	-1.58
460	-3.66	-1.78	-1.57
480	-3.44	-1.97	-1.56
500	-2.00	-2.01	-1.54
520	-2.62	-1.09	-1.52
540	-4.66	-1.01	-1.49
560	-3.29	-1.37	-1.49
580	-2.65	-2.72	-1.48
600	-1.56	-1.72	-1.48
620	-2.16	-0.50	-1.47
640	-1.30	-0.73	-1.47

Stn. OS3
 Date April 12, 1991 Time 11:10(UT)
 Lat. 69°59.9'S Long. 39°40.3'E
 Depth 649 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
2	-21.53	-6.47	-1.87
20	-23.84	-3.49	-1.86
40	-20.92	1.20	-1.86
60	-26.23	-4.11	-1.86
80	-22.70	-2.51	-1.85
100	-24.71	-2.56	-1.85
120	-25.86	-6.63	-1.85
140	-24.96	-6.42	-1.83
160	-21.53	-6.6	-1.82
180	-15.18	-7.57	-1.79
200	-10.00	-1.94	-1.78
220	-2.94	-1.14	-1.77
240	-1.35	-1.61	-1.71
260	-3.78	-4.43	-1.68
280	-4.40	-0.79	-1.66
300	-4.05	-3.97	-1.64
320	-4.79	-3.44	-1.63
340	-5.18	-3.55	-1.62
360	-4.42	-4.76	-1.61
380	-5.52	-2.26	-1.61
400	-3.82	-2.50	-1.60
420	-2.85	-3.09	-1.60
440	-2.85	-2.56	-1.57
460	-1.38	-2.14	-1.55
480	-0.88	-1.16	-1.53
500	-1.68	-0.61	-1.51
520	-0.89	-1.18	-1.50
540	-0.52	-1.03	-1.49
560	-1.56	-0.26	-1.48
580	-0.75	0.46	-1.48
600	-0.85	-0.09	-1.47
620	0.61	0.13	-1.47
640	-2.05	1.29	-1.47

Stn. OS3
 Date May 8, 1991 Time 10:26(UT)
 Lat. 68°59.9'S Long. 39°40.3'E
 Depth 649 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
1	-13.68	11.13	-1.87
2	-21.73	9.39	-1.87
4	-16.99	9.23	-1.87
6	-22.61	-2.17	-1.87
8	-15.52	7.80	-1.87
10	-13.25	7.33	-1.87
15	-19.12	7.51	-1.87
20	-14.61	6.23	-1.87
25	-17.99	2.09	-1.87
30	-14.62	6.80	-1.87
40	-14.18	6.14	-1.87
50	-14.31	5.62	-1.87
60	-13.62	5.34	-1.86
70	-14.18	4.59	-1.86
80	-14.14	2.06	-1.85
90	-16.41	-5.96	-1.85
100	-14.43	-6.74	-1.85
120	-15.40	0.20	-1.83
140	-13.52	0.59	-1.82
160	-17.62	-4.69	-1.81
180	-20.81	-3.35	-1.79
200	-20.59	-12.03	-1.77
220	-19.73	-12.19	-1.75
240	-16.12	-7.46	-1.71
260	-13.18	-4.01	-1.70
280	-9.35	-4.62	-1.70
300	-1.89	0.83	-1.67
320	-1.51	0.07	-1.63
340	0.53	-0.56	-1.62
360	0.07	0.90	-1.61
380	2.93	1.85	-1.61
400	2.84	1.15	-1.60
420	3.64	-0.33	-1.60
440	2.01	-0.18	-1.58
460	3.01	-0.40	-1.57
480	0.78	-0.44	-1.56
500	-0.30	-0.67	-1.55
520	1.72	-1.36	-1.55
540	-3.15	0.52	-1.54
560	-2.42	-1.93	-1.54
580	-5.22	-4.47	-1.53
600	-4.25	-0.12	-1.51

Stn. OS3
 Date June 4, 1991 Time 11:09(UT)
 Lat. 68° 59.9' S Long. 39° 40.3' E
 Depth 649 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
2	24.08	14.55	-1.88
20	28.76	12.22	-1.88
40	27.62	10.99	-1.88
60	27.13	8.90	-1.88
80	28.85	11.37	-1.81
100	27.27	15.22	-1.79
120	25.96	16.29	-1.75
140	27.30	14.44	-1.74
160	26.12	12.25	-1.74
180	25.98	11.71	-1.74
200	21.97	13.75	-1.74
220	21.67	13.74	-1.73
240	19.06	7.59	-1.74
260	13.96	7.13	-1.72
280	9.74	12.25	-1.70
300	14.73	7.71	-1.69
320	3.79	-0.64	-1.68
340	6.84	-0.36	-1.67
360	2.00	3.94	-1.66
380	0.78	-1.39	-1.66
400	1.50	-2.66	-1.64
420	2.17	-2.14	-1.64
440	1.75	-2.11	-1.63
460	3.15	1.00	-1.61
480	5.01	-1.13	-1.59
500	1.81	1.17	-1.57
520	1.95	2.49	-1.56
540	3.19	-0.58	-1.55
560	-1.03	0.29	-1.54
580	-0.42	-1.46	-1.53
600	2.95	-3.11	-1.53
620	2.07	-0.78	-1.52
620	2.15	-4.25	-1.52
620	3.35	-3.05	-1.52

Stn. OS3
 Date July 16, 1991 Time 10:47(UT)
 Lat. 68° 59.9' S Long. 39° 40.3' E
 Depth 649 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
2	17.99	6.95	-1.88
20	22.39	9.43	-1.88
40	22.04	10.92	-1.82
60	26.34	5.51	-1.81
80	21.65	7.47	-1.80
100	21.29	9.43	-1.79
120	24.54	-0.27	-1.77
140	21.27	4.61	-1.76
160	22.47	13.22	-1.76
180	15.83	6.49	-1.75
200	10.23	3.04	-1.74
220	7.02	2.29	-1.73
240	5.55	1.74	-1.72
260	3.00	0.08	-1.71
280	7.64	-0.52	-1.70
300	1.78	-2.57	-1.70
320	6.24	2.79	-1.70
340	3.25	0.21	-1.70
360	6.56	-1.61	-1.70
380	2.74	-0.29	-1.69
400	3.26	0.02	-1.68
420	2.81	0.92	-1.67
440	3.05	1.32	-1.65
460	2.61	0.28	-1.64
480	0.09	0.80	-1.63
500	1.27	-1.20	-1.62
520	0.94	0.49	-1.61
540	1.71	4.02	-1.59
560	2.70	0.66	-1.58
580	4.77	2.05	-1.57
600	4.41	0.42	-1.57

Stn. IB2
 Date May 13, 1991 Time 10:20(UT)
 Lat. 69°00.9' S Long. 39°38.5' E
 Depth 437 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
3	-9.91	0.13	-1.88
10	-7.39	-1.37	-1.88
20	-9.14	-1.90	-1.88
30	-1.42	0.00	-1.88
40	0.37	-0.86	-1.88
50	1.47	1.83	-1.88
60	-1.44	-1.16	-1.87
70	0.39	-2.50	-1.87
80	-5.31	-1.40	-1.87
90	-5.59	-3.45	-1.87
100	-4.65	-0.26	-1.87
110	-6.40	-3.32	-1.86
120	-6.71	-4.35	-1.85
130	-9.04	-0.71	-1.82
140	-8.54	0.08	-1.81
150	-2.83	-1.09	-1.78
160	-5.40	4.35	-1.75
170	-6.86	2.50	-1.76
180	-3.64	3.56	-1.77
190	-0.83	2.02	-1.77
200	-1.97	-2.05	-1.76
210	-4.80	-2.23	-1.76
220	-4.17	-1.47	-1.75
230	-2.48	2.97	-1.75
240	-1.22	-1.05	-1.74
250	-0.01	0.25	-1.72
260	-0.25	-2.45	-1.70
270	-2.57	-3.15	-1.68
280	-0.77	-0.44	-1.67
290	-4.45	2.95	-1.67
300	-2.96	-0.18	-1.66
310	-4.11	-0.78	-1.65
320	-1.66	-0.45	-1.64
330	-3.51	-0.02	-1.64
340	-1.92	0.29	-1.64
350	-1.98	-0.41	-1.63
360	1.74	-0.19	-1.63
370	-0.97	-0.98	-1.62
380	-1.13	-1.29	-1.62
390	0.46	-1.28	-1.62
400	0.33	-1.38	-1.61
410	0.30	-4.55	-1.61
420	0.24	-4.74	-1.60

Stn. L0
 Date April 28, 1991 Time 12:48(UT)
 Lat. 69°15.8' S Long. 39°29.8' E
 Depth 337 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
1	-3.78	11.41	-1.91
2	-10.42	8.51	-1.88
4	3.94	7.48	-1.87
6	-8.57	-1.78	-1.87
8	0.75	2.39	-1.87
10	-5.46	-2.41	-1.87
20	-5.97	2.70	-1.87
40	-6.00	-0.05	-1.86
60	-10.56	4.92	-1.85
80	-2.65	-0.05	-1.84
100	-5.65	0.31	-1.83
120	0.68	0.12	-1.81
140	-1.44	-1.89	-1.81
160	5.25	-1.80	-1.80
180	4.60	3.69	-1.80
200	-0.66	4.49	-1.78
220	2.76	1.66	-1.76
240	3.05	1.87	-1.75
260	3.31	3.80	-1.73
280	2.94	2.69	-1.74
300	1.65	-2.27	-1.72
320	0.61	-2.45	-1.72

Stn. LH1
 Date May 21, 1991 Time 15:27(UT)
 Lat. 69° 10.5' S Long. 39° 43.7' E
 Depth 260 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
2	-0.49	-8.78	-1.89
10	-3.33	-3.28	-1.89
20	-1.36	2.28	-1.89
30	0.84	-1.66	-1.88
40	-1.52	-0.55	-1.88
50	-4.32	-3.96	-1.88
60	-3.72	-2.69	-1.88
70	-4.73	2.75	-1.88
80	-2.05	3.50	-1.86
90	-3.35	4.39	-1.84
100	-2.87	5.13	-1.84
110	-4.90	-0.79	-1.83
120	-2.05	-1.51	-1.81
130	-0.66	3.43	-1.80
140	0.16	3.00	-1.81
150	3.80	1.72	-1.80
160	0.76	-0.07	-1.80
170	4.69	-1.68	-1.82
180	0.93	1.18	-1.86
190	1.21	-0.69	-1.83
200	5.38	-2.13	-1.82
210	5.41	0.04	-1.80
220	4.43	0.55	-1.76
230	3.17	-3.31	-1.74
240	2.92	-2.31	-1.72

Stn. LH2
 Date May 22, 1991 Time 11:14(UT)
 Lat. 69° 09.5' S Long. 39° 46.5' E
 Depth 492 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
2	0.62	5.38	-1.88
20	1.99	-1.38	-1.88
40	-16.33	-9.85	-1.87
60	2.49	3.08	-1.86
80	2.12	-0.17	-1.85
100	1.90	-1.24	-1.84
120	2.13	-1.89	-1.82
140	0.63	2.02	-1.79
160	-1.43	-1.35	-1.80
180	-1.17	4.21	-1.82
200	0.04	-1.44	-1.75
220	4.73	0.80	-1.73
240	-1.64	0.12	-1.70
260	-6.64	2.16	-1.69
280	-1.10	-1.70	-1.69
280	-2.01	3.91	-1.68
300	0.43	4.04	-1.67
320	-5.33	6.31	-1.66
340	-4.40	3.33	-1.64
360	-4.89	5.49	-1.62
380	-4.69	1.44	-1.60
400	-4.16	1.46	-1.57
420	-1.79	2.00	-1.50
440	-1.61	-0.29	-1.45
460	-0.76	0.66	-1.42
480	-1.05	0.11	-1.37

Stn. L1
 Date April 19, 1991 Time 11:15(UT)
 Lat. 69° 16. 0' S Long. 39° 22. 5' E
 Depth 229 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
2	1.22	-9.31	-1.86
20	-8.49	-1.94	-1.83
40	-6.24	-4.56	-1.83
60	-4.19	-9.81	-1.79
80	-5.96	-7.67	-1.78
100	-8.63	-6.08	-1.59
120	-5.48	-1.74	-1.63
140	-5.86	0.83	-1.69
160	-3.21	1.47	-1.75
180	-4.11	4.34	-1.77
200	-0.59	1.50	-1.78
220	-2.02	3.33	-1.79

Stn. L3
 Date April 23, 1991 Time 15:40(UT)
 Lat. 69° 16. 4' S Long. 38° 53. 2' E
 Depth 485 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
4	-16.11	-0.38	-1.83
20	-14.44	7.22	-1.81
40	-9.46	11.70	-1.82
60	-11.44	10.12	-1.80
80	-13.48	13.50	-1.73
100	-15.30	11.54	-1.62
120	-8.48	5.42	-1.56
140	-13.38	9.29	-1.54
160	-8.11	8.82	-1.68
180	-7.58	10.65	-1.77
200	-11.30	10.57	-1.76
220	-11.22	10.44	-1.77
240	-10.40	5.72	-1.71
260	-9.42	7.22	-1.70
280	-10.56	5.96	-1.72
300	-8.39	4.75	-1.72
320	-7.20	5.03	-1.73
340	-8.46	5.40	-1.75
360	-8.32	5.76	-1.78
380	-6.75	7.40	-1.78
400	-8.57	6.08	-1.76
420	-8.07	5.71	-1.76
440	-9.34	7.02	-1.73
460	-11.11	7.05	-1.65
480	-10.31	6.69	-1.63

Stn. L2
 Date April 20, 1991 Time 07:54(UT)
 Lat. 69° 16. 0' S Long. 39° 10. 0' E
 Depth 492 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
3	-16.69	-7.04	-1.88
20	-7.89	-7.78	-1.79
40	-13.70	-3.98	-1.82
60	-12.12	2.37	-1.79
80	-12.08	5.85	-1.59
100	-6.06	4.42	-1.53
120	-11.10	6.73	-1.64
140	-10.99	3.21	-1.71
160	-13.39	4.42	-1.74
180	-6.08	9.25	-1.77
200	-4.16	4.06	-1.78
220	1.55	-0.15	-1.78
240	0.28	0.16	-1.78
260	-1.28	0.26	-1.78
280	-3.10	2.68	-1.78
300	-7.35	3.38	-1.78
320	-2.99	0.07	-1.75
340	-1.36	-1.29	-1.75
360	-1.02	2.90	-1.72
380	2.53	-0.22	-1.74
400	6.07	3.05	-1.75
420	7.71	-0.55	-1.76
440	5.50	2.93	-1.77
460	4.10	0.64	-1.76
480	2.25	0.97	-1.70

Stn. P0
 Date January 27, 1991 Time 17:50(LT)
 Lat. 69° 35.9' S Long. 38° 39.0' E
 Depth 978 m

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
3	2.29	0.54	-1.89
10	1.89	2.65	-1.88
20	1.63	0.67	-1.92
30	0.97	1.09	-1.75
40	-0.06	2.50	-1.66
50	1.86	0.07	-1.84
60	3.41	4.37	-1.79
70	0.21	4.85	-1.74
80	3.91	1.76	-1.73
90	4.10	4.42	-1.70
100	1.86	0.28	-1.59
110	-0.13	3.19	-1.57
120	4.07	1.88	-1.69
130	-0.71	0.90	-1.68
140	2.88	0.62	-1.66
150	2.24	5.01	-1.69
160	3.71	4.55	-1.72
170	0.27	3.10	-1.65
180	0.63	1.91	-1.63
190	1.15	1.08	-1.63
197	0.75	2.80	-1.62
200	2.90	1.24	-1.63
210	0.58	1.91	-1.57
220	2.75	5.80	-1.78
230	3.73	2.24	-1.63
240	-0.34	4.95	-1.57
250	2.46	1.33	-1.62
260	3.86	5.28	-1.67
270	1.09	1.45	-1.76
280	4.14	5.90	-1.79
280	4.54	5.61	-1.80
290	3.80	2.21	-1.70
300	2.53	6.35	-1.48
310	5.39	4.28	-1.37
320	2.14	6.88	-1.34
330	0.12	2.68	-1.20
340	3.26	2.31	-1.02
350	1.18	6.16	-1.01
360	3.36	3.61	-1.03
370	-1.17	4.75	-0.95
380	-0.50	2.48	-0.91
390	-0.78	2.26	-0.90
400	0.61	2.03	-0.89

DEPTH (m)	N-COMP (cm/s)	E-COMP (cm/s)	TEMP (°C)
410	3.26	5.29	-0.82
420	0.85	6.18	-0.77
430	-1.47	2.60	-0.74
440	2.23	1.61	-0.74
450	-0.89	0.78	-0.74
460	-1.07	0.62	-0.72
470	-0.59	5.34	-0.70
480	0.66	5.42	-0.70
490	-1.04	4.86	-0.69
500	-2.77	3.99	-0.69
510	-0.23	5.50	-0.69
520	0.06	3.98	-0.66
530	-0.28	1.03	-0.65
540	-0.86	0.70	-0.63
550	-5.42	1.71	-0.62
560	-1.04	1.93	-0.60
570	-3.93	0.58	-0.59
580	-6.35	3.68	-0.58
590	-4.61	5.12	-0.56

Table 5. AXBT observation data.

STATION	1	2	3	4	5	6	7
DATE	Mar. 17, 1991	Mar. 17, 1991	Apr. 9, 1991	Apr. 9, 1991	May 3, 1991	May 3, 1991	Aug. 10, 1991
TIME(UT)	06:57	07:23	10:21	10:54	08:25	08:52	08:20
LATITUDE	68° 38' S	68° 25' S	68° 44' S	68° 31' S	68° 43' S	68° 29' S	68° 17' S
LONGITUDE	38° 02' E	38° 33' E	38° 39' E	39° 24' E	38° 41' E	37° 55' E	38° 47' E
DEPTH(m)							
0	-1.8	-1.9	-1.9	-1.8	-1.7	-1.8	-1.9
10	-1.8	-1.9	-1.9	-1.8	-1.7	-1.8	-1.9
20	-1.8	-1.9	-1.9	-1.9	-1.8	-1.8	-1.9
30	-1.8	-1.9	-1.9	-1.9	-1.8	-1.8	-1.9
40	-1.8	-1.9	-1.9	-1.9	-1.9	-1.8	-1.9
50	-1.8	-1.9	-1.9	-1.9	-1.9	-1.8	-1.9
60	-1.8	-1.8	-1.7	-1.9	-1.9	-1.9	-1.9
70	-1.8	-1.7	-1.5	-1.8	-1.8	-1.9	-1.9
80	-1.8	-1.6	-1.4	-1.8	-1.8	-1.9	-1.9
90	-1.8	-1.5	-1.4	-1.7	-1.8	-1.9	-1.9
100	-1.8	-1.6	-1.6	-1.6	-1.7	-1.9	-1.9
110	-1.8	-1.7	-1.6	-1.5	-1.6	-1.9	-1.9
120	-1.8	-1.8	-1.7	-1.5	-1.5	-1.9	-1.9
130	-1.8	-1.9	-1.8	-1.5	-1.5	-1.9	-1.9
140	-1.8	-1.9	-1.9	-1.6	-1.5	-1.9	-1.9
150	-1.8	-1.9	-1.9	-1.7	-1.5	-1.9	-1.9
160	-1.8	-1.9	-1.9	-1.7	-1.5	-1.8	-1.9
170	-1.8	-1.9	-1.9	-1.8	-1.5	-1.7	-1.9
180	-1.8	-1.9	-1.9	-1.8	-1.6	-1.7	-1.9
190	-1.8	-1.9	-1.9	-1.8	-1.6	-1.6	-1.9
200	-1.8	-1.9	-1.9	-1.8	-1.6	-1.5	-2.0
210	-1.8	-1.9	-1.9	-1.8	-1.6	-1.5	-2.0
220	-1.8	-1.9	-1.9	-1.8	-1.6	-1.5	-2.0
230	-1.8	-1.8	-1.9	-1.8	-1.6	-1.5	-2.0
240	-1.8	-1.7		-1.8	-1.6	-1.6	-2.0
250	-1.8	-1.7		-1.8	-1.6	-1.6	-2.0
260	-1.8	-1.6		-1.8	-1.6	-1.6	-2.0
270	-1.8	-1.6		-1.8	-1.6	-1.6	-2.0
280	-1.8	-1.6		-1.8	-1.7	-1.7	-2.0
290	-1.8	-1.6		-1.7	-1.7	-1.7	-2.0
300	-1.8	-1.6		-1.6	-1.7	-1.7	-2.0
310	-1.8	-1.5		-1.6	-1.7	-1.7	-2.0
320	-1.8	-1.5		-1.5	-1.7	-1.7	-2.0
330	-1.8	-1.5		-1.5	-1.7	-1.7	-1.9
340	-1.8	-1.5		-1.5	-1.7	-1.7	-1.8
350	-1.8	-1.5		-1.5	-1.7	-1.7	-1.8
360	-1.7	-1.5		-1.4	-1.7	-1.7	-1.7
370	-1.6	-1.5		-1.4	-1.7	-1.7	-1.7
380	-1.5	-1.5		-1.4	-1.7	-1.7	-1.6
390	-1.4	-1.5		-1.4	-1.7	-1.7	-1.6
400	-1.3	-1.4		-1.4	-1.7	-1.7	-1.6
410	-1.1	-1.4			-1.7	-1.7	-1.6
420	-0.8	-1.4			-1.7	-1.7	-1.5
430	-0.4	-1.4			-1.7	-1.7	-1.5
440	-0.1	-1.4			-1.7	-1.7	-1.5
450	0.0	-1.4			-1.7	-1.7	-1.5
460	0.0	-1.4				-1.7	-1.5

STATION	8	9	10	11	12	13	14
DATE	Aug. 10, 1991	Sep. 16, 1991	Sep. 16, 1991	Nov. 7, 1991	Nov. 7, 1991	Jan. 20, 1992	Jan. 20, 1992
TIME(UT)	08:50	10:33	11:03	06:36	07:14	12:22	12:53
LATITUDE	68° 18' S	68° 20' S	68° 28' S	68° 23' S	68° 22' S	68° 26' S	68° 35' S
LONGITUDE	38° 00' E	38° 37' E	38° 00' E	38° 53' E	38° 16' E	38° 45' E	38° 09' E
DEPTH(m) 0	-1.9	-1.8	-1.9	-1.9	-1.9	-1.9	-1.9
10	-1.9	-1.8	-1.9	-1.9	-1.9	-1.9	-1.9
20	-1.9	-1.8	-1.9	-1.9	-1.9	-1.9	-1.9
30	-1.9	-1.8	-1.9	-1.9	-1.9	-1.9	-1.9
40	-1.9	-1.8	-1.9	-1.9	-1.9	-1.9	-1.9
50	-1.9	-1.8	-1.9	-1.9	-1.9	-1.9	-1.9
60	-1.9	-1.8	-1.9	-1.9	-1.9	-1.9	-1.9
70	-1.9	-1.8	-1.9	-1.9	-1.9	-1.8	-1.9
80	-1.9	-1.8	-1.9	-1.9	-1.9	-1.8	-1.9
90	-1.9	-1.8	-1.9	-1.9	-1.9	-1.7	-1.9
100	-1.9	-1.8	-1.9	-1.9	-1.9	-1.7	-1.9
110	-1.9	-1.8	-1.9	-1.9	-1.9	-1.7	-1.9
120	-1.9	-1.8	-1.9	-1.9	-1.9	-1.7	-1.9
130	-1.9	-1.8	-1.9	-1.9	-1.9	-1.7	-1.9
140	-1.9	-1.8	-1.9	-1.9	-1.9	-1.7	-1.9
150	-1.9	-1.8	-1.9	-1.9	-1.9	-1.8	-1.9
160	-1.9	-1.8	-1.9	-1.9	-1.9	-1.8	-1.9
170	-1.9	-1.8	-1.9	-1.9	-1.9	-1.8	-1.9
180	-1.9	-1.8	-1.9	-1.9	-1.9	-1.8	-1.9
190	-1.9	-1.8	-1.9	-1.9	-1.9	-1.8	-1.9
200	-1.9	-1.8	-1.9	-1.9	-1.9	-1.8	-1.9
210	-1.9	-1.8	-1.9	-1.9	-1.9	-1.8	-1.9
220	-1.9	-1.8	-1.9	-1.9	-1.9	-1.9	-1.9
230	-1.9	-1.8	-1.9	-1.9	-1.9	-1.9	-1.9
240	-1.9	-1.8	-1.9	-1.9	-1.9	-1.9	-1.9
250	-1.9	-1.8	-1.9	-1.9	-1.9	-1.9	-1.9
260	-1.9	-1.8	-1.9	-1.9	-1.9	-1.9	-1.9
270	-1.9	-1.8	-1.9	-1.9	-1.8	-1.8	-1.9
280	-1.9	-1.7	-1.9	-1.8	-1.8	-1.8	-1.9
290	-1.9	-1.7	-1.9	-1.8	-1.7	-1.7	-1.9
300	-1.9	-1.7	-1.9	-1.7	-1.7	-1.7	-1.9
310	-1.9	-1.7	-1.9	-1.7	-1.7	-1.7	-1.9
320	-1.9	-1.7	-1.8	-1.7	-1.6	-1.6	-1.9
330	-1.9	-1.7	-1.8	-1.7	-1.6	-1.6	-1.8
340	-1.9	-1.7	-1.8	-1.7	-1.6	-1.6	-1.8
350	-1.9	-1.7	-1.8	-1.7	-1.5	-1.5	-1.6
360	-1.9	-1.7	-1.8	-1.6	-1.5	-1.5	-1.5
370	-1.9	-1.7	-1.8	-1.6	-1.4	-1.4	-1.4
380	-1.9	-1.7	-1.8	-1.5	-1.4	-1.4	-1.3
390	-1.9	-1.7	-1.8	-1.5	-1.3	-1.3	-1.2
400	-1.9	-1.7	-1.8	-1.5	-1.1	-1.1	-1.1
410	-1.9	-1.7	-1.8	-1.5	-1.1	-1.1	-1.1
420	-1.9	-1.7	-1.5	-1.5	-1.0	-1.0	-1.1
430	-1.9	-1.7	-1.4	-1.5	-0.6	-0.6	-1.1
440	-1.9	-1.7	-1.4	-1.5	-0.5	-0.5	-1.0
450	-1.9	-1.7	-1.4	-1.5	-0.1	-0.1	-1.0
460	-1.9	-1.7	-1.3	-1.5	0.0	0.0	-1.0