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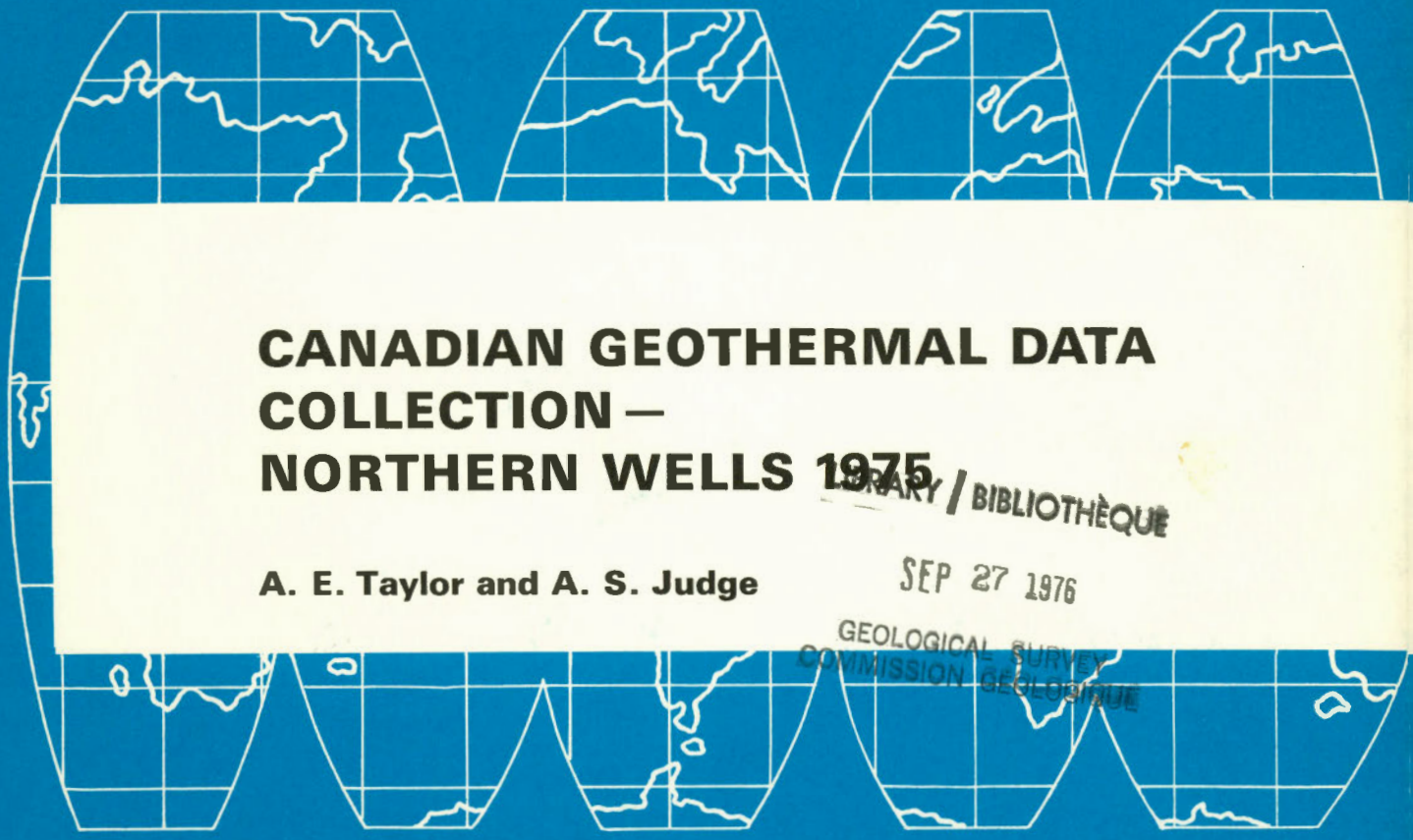

CANADIAN GEOTHERMAL DATA COLLECTION — NORTHERN WELLS 1975

A. E. Taylor and A. S. Judge

Geothermal Series Number 6
Ottawa, Canada 1976

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ABSTRACT

The assessment and solution of many problems which may occur in the development of northern regions require a knowledge of subsurface temperatures. This volume supplements two earlier volumes in this series, and it reports new measurements at 22 of the sites listed in the previous volumes and observations from 19 new sites. A total of 78 determinations of permafrost thickness have been reported in the collection to date. Determined thicknesses in the Arctic Islands range from 140 m to 720 m, in the Mackenzie Delta from 0 m to 700 m and in the remainder of the Northern Mainland from 0 m to in excess of 700 m.

RÉSUMÉ

L'étude et la solution des nombreaux problèmes qui peuvent surgir lors de la mise en valeur des régions septentrionales exige que l'on connaisse les températures du sous-sol. Le présent volume s'ajoute aux deux volumes précédents de la même série et fait état des nouvelles mesures effectuées à 22 des emplacements énumérés dans les volumes précédents, et d'observations à 19 emplacements nouveaux. L'auteur rend compte, jusqu'à présent, de 78 déterminations de l'épaisseur du pergélisol. Les épaisseurs connues dans l'archipel Arctique varient entre 140 m et 720 m, dans le delta du Mackenzie entre 0 m et 700 m, et pour le reste du Nord continental, de 0 à plus de 700 m.

CONTENTS

PREFACE

Subsurface temperature data collected between February 1975 and January 1976 from boreholes of total depth greater than 125 m are reported in this volume. The volume supplements Taylor and Judge (1974, 1975) reporting only new sites and old sites where new data are available. The three volumes, hereafter referred to as the collection, present measurements from 30 sites in the Arctic Islands, 25 in the Mackenzie Delta and another 23 sites on the Arctic Mainland.

The object of this series of reports is to make widely available some of the base data necessary in the assessment and solution of many of the problems that may occur in northern development. Most of the data presented are from wells not yet in thermal equilibrium; however, where sufficient data exist, equilibrium conditions have been estimated.

A brief introduction discusses data acquisition and accuracy, the disturbance to thermal equilibrium by drilling and the determination of equilibrium permafrost thickness. This is followed by a series of appendices which present tables of measured temperature variation with time, graphs of temperature variations with depth at selected time intervals, tables of the logarithmic temperature return to equilibrium from which equilibrium conditions can be inferred, and graphs showing the rate at which equilibrium temperature is restored as a function of the ratio of drilling time to time since completion of drilling.

S E C T I O N 1

INTRODUCTION

The underlying purpose, the history of measurement, the methods of preservation of wells and of data acquisition have all been described at some length, both in Taylor and Judge (1974) and elsewhere. This present volume, plus Taylor and Judge (1974, 1975), is believed to contain all available non-confidential subsurface temperature information from holes of depths greater than 125 m within the permafrost regions of Canada. The authors would greatly appreciate receiving any additional information regarding other data known or possessed by the users of this series. Figures 1, 2 and 3 show locations of all sites of subsurface temperatures available in the collection. The number shown against each site is the Earth Physics Branch (EPB) file identification, and the symbol indicates the permafrost thickness at that site. Table 1 lists the 41 sites of new data presented in this volume and gives the EPB file number, the coordinates, the elevation, the total depth logged and the measurement techniques used for each.

This section, Section 1, describes the nature of the data included in this report, how to use the report, where to find specific information and how to interpret the results.

Section 2 deals specifically with the calculation of permafrost thickness using the measured data and the drilling history of the well. Table 2 presents all the calculated thicknesses of permafrost in the collection, indicates how they are determined and how close the particular wells are to thermal equilibrium. Because the presence of nearby water bodies may have a significant moderating influence on the permafrost, the distance to the nearest water body is given. The last column in Table 2 refers to the volume in the complete collection where the most recent set of data can be found.

Section 3 consists of a series of appendices which present measured and interpreted data.

Appendix 3.1 presents tables of the measured temperature and the date measured. At the top of each table is listed the EPB file number and the abbreviated well name. This is followed by well coordinates to the nearest 0.1 minute, and the elevation to the nearest metre. Below this is the available temperature information. In the summary of temperature:depth logs, each set of depth and temperature is headed by the date on which the measurements were made. Depths below the mean ground surface are given to the nearest 0.1 metre and recorded temperatures to 0.01°C. Data accuracy was discussed in Taylor and Judge (1974). Other information given for each well is the complete official name, the well status at present, the well history (in the form of spud dates, abandonment dates and total well depths) and a reference when data are taken from published papers or reports. The individual wells are listed in order of EPB file number.

Appendix 3.2 presents graphs of temperature versus depth for each well. Temperatures are given in °C and depths in metres. Not all individual logs are plotted because this would unnecessarily complicate some of the graphs; however, sufficient logs are plotted to demonstrate their main characteristics.

Appendix 3.3 presents tables derived on the assumption that the return of the well to thermal equilibrium can be expressed by a logarithmic relationship. The mathematics have been described in some detail in Taylor and Judge (1974, p. 8-10), and are not repeated here. Where a well is instrumented with a multi-thermistor cable, the depth of each calculation corresponds to sensor depth. Where logs have been made by a single thermistor probe, the exact depths of repeated measurements do not normally coincide and therefore, for the calculation of equilibrium temperatures, the temperatures have been interpolated linearly between depths at intervals of 25 m. For each depth given in column 1 of the tables, columns 2 and 3 list the calculated equilibrium temperature in °C and the standard deviation at the depth, columns 4 and 5 list the magnitude of the heat source introduced by the drilling process and its standard deviation, and column 6 gives the time in years necessary for the temperature to return to within 0.1°C of the equilibrium temperature. In some instances in the tables the calculated values of the heat source and time are negative. Such results can arise where the equilibrium temperatures were little disturbed by drilling and results of differing accuracies have been combined. A negative heat source could appear in column 4 of the tables as a result of the hole being cooled during drilling. Such results have no other significance. Equilibrium temperatures are calculated only for wells on which two or more logs have been made. Standard deviations are given if three or more logs were made. The calculated equilibrium temperatures have been used to derive the permafrost thickness listed in Table 2.

Appendix 3.4 presents graphically the return to thermal equilibrium of each well for which there are three or more logs. Each graph is plotted with a logarithmic time

scale against temperature for each depth or, in the case of single thermistor logs, each depth of interpolation. The time scale is modified to be a function of the time taken to drill the well: t_1 is the drilling time and t_2 is the time elapsed between completion and logging of the well.

Ideally, all of the points at each depth should be on a straight line and the intercept of this line with the vertical axis should give the equilibrium temperature. In practice, the thermal disturbance due to drilling is a very complex process and the theory is only an approximation. Within the frozen section, the dissipation of latent heat during freezeback complicates the picture even more. To simplify reading the graphs shown in Appendix 3.4, successive points at a few depths have been joined by lines.

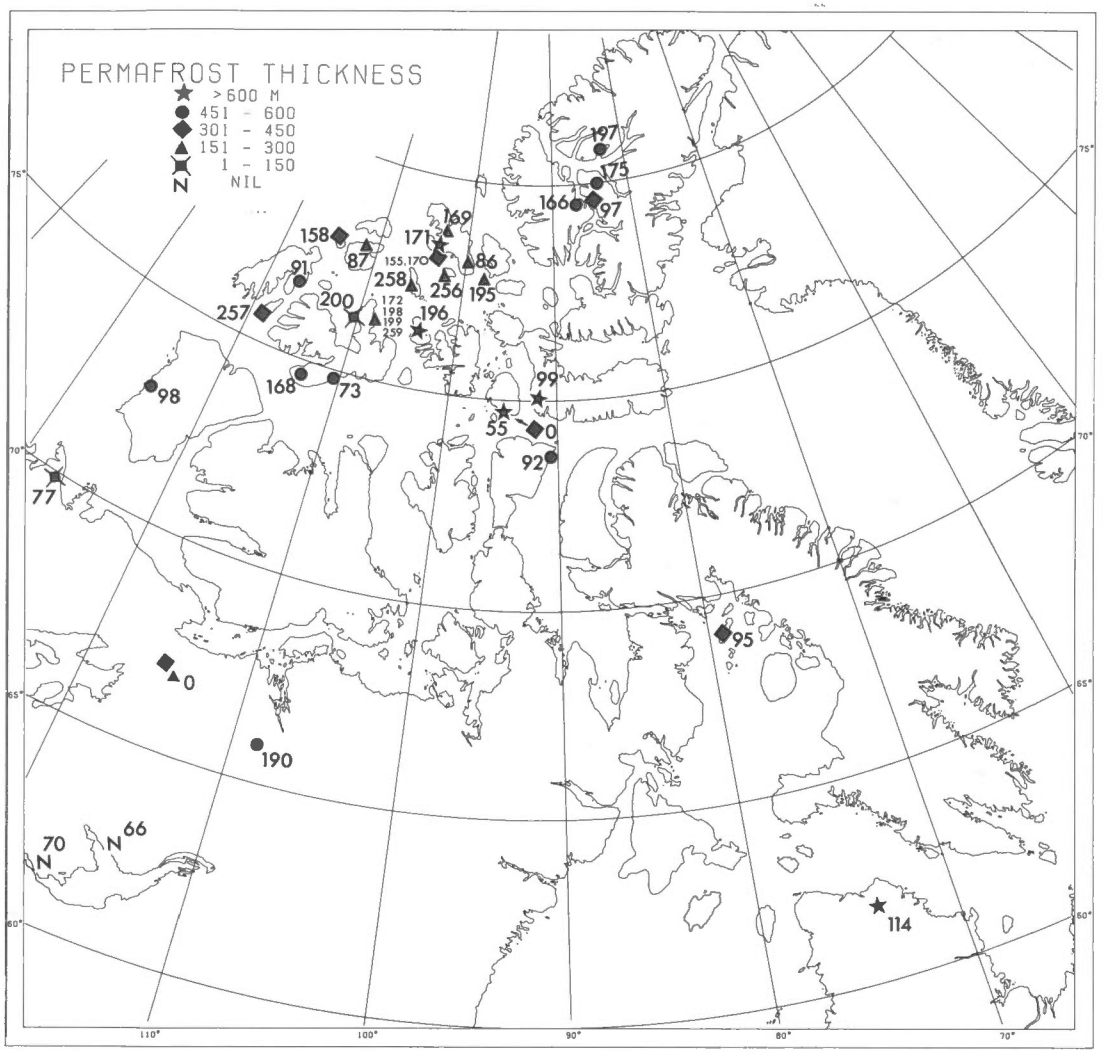

Figure 1. Site locations and permafrost thicknesses for Northern Canada (excluding the Mackenzie Valley and Delta). The symbols represent permafrost thicknesses in metres, and the numerals are Earth Physics Branch file numbers as used in Tables 1 and 2.

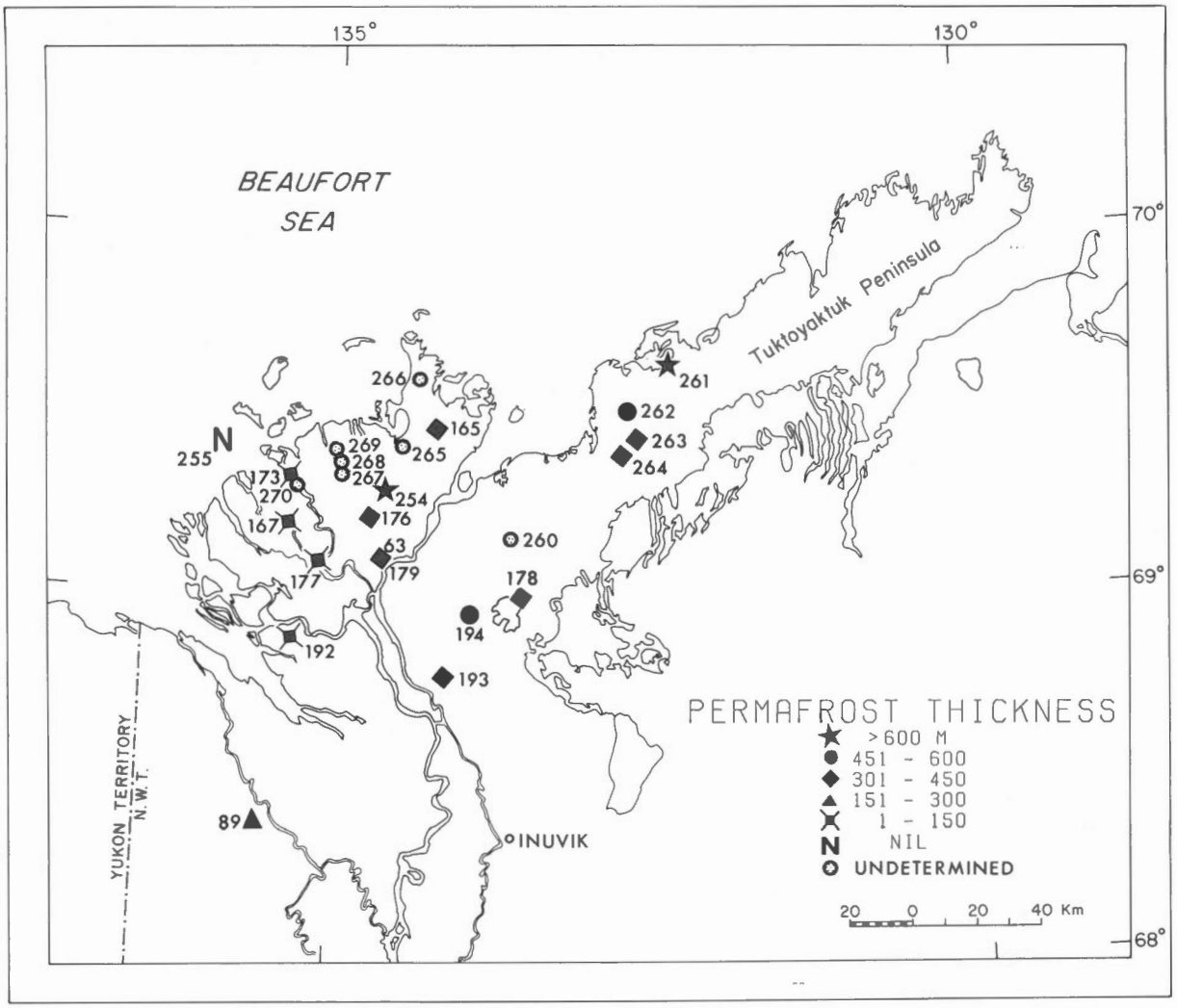

Figure 2. Site locations and permafrost thicknesses in the Mackenzie Delta. The numerals are Earth Physics Branch file numbers.

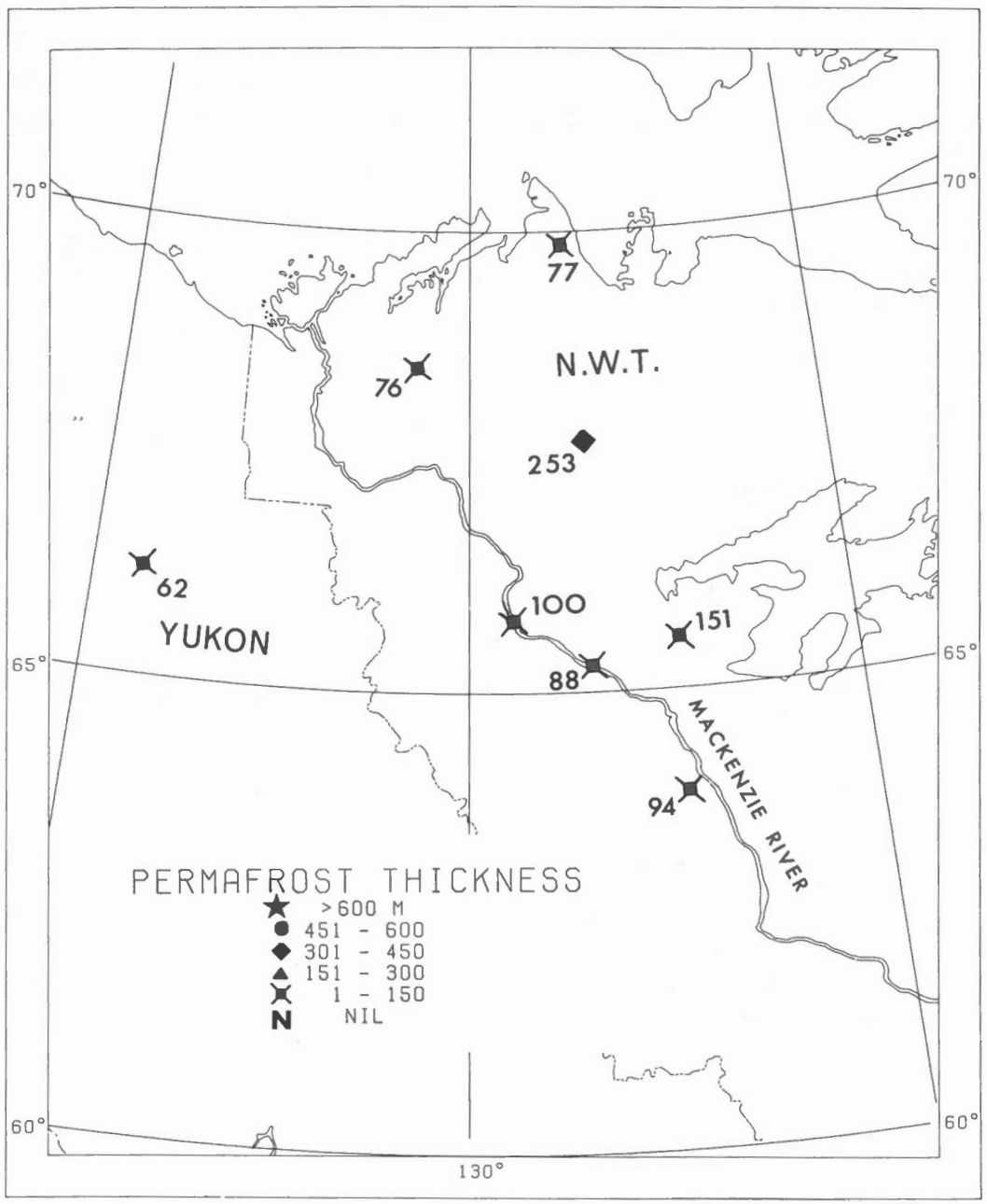

Figure 3. Site locations and permafrost thicknesses in the Mackenzie Valley (excluding the Mackenzie Delta). The numerals are Earth Physics Branch file numbers.

TABLE 1 SITES INCLUDED IN REPORT

EPB NO.	SITE NAME	LATITUDE N	LONGITUDE W	ELEV (M)	DEPTH LOGGED (M)	MEAS. TECH.
	ARCTIC ISLANDS					
99	DEVON E-45	75 4.3	91 48.3	244	108	S
155	KRISTOFFER BAY B-06	78 15.3	102 32.0	15	866	S
166	MOKKA A-02	79 31.2	87 1.2	253	442	M
168	DUNDAS C-80	74 39.0	113 23.0	240	660	S
170	THOR P-38	78 7.8	103 15.2	5	555	S
172	DRAKE B-44	76 23.1	108 16.1	4	346	S
175	GEMINI E-10	79 59.4	84 4.2	126	872	S
196	BENT HORN N-72	76 21.8	103 58.2	63	852	S
197	NEIL O-15	80 44.6	83 4.8	497	807	S
199	DRAKE E-78	76 27.3	108 29.4	2	274	S
200	HECLA I-69	76 18.7	110 23.3	2	519	S
256	SUTHERLAND O-23	77 42.9	102 8.5	21	457	S
257	PEDDER POINT D-49	75 38.2	118 48.3	101	551	S
258	PAT BAY A-72	77 21.0	105 27.0	17	488	S
259	DRAKE D-73	76 22.1	108 29.5	33	393	S
	ARCTIC MAINLAND - MACKENZIE DELTA					
63	REINDEER D-27	69 6.1	134 36.9	29	597	M
165	KILAGMIOTAK F-48	69 27.5	134 11.9	20	381	S
167	UNIPKAT I-22	69 11.7	135 20.5	5	762	S
173	NIGLINTGAK H-30	69 19.4	135 20.1	2	298	S
176	YA YA P-53	69 12.8	134 42.7	36	602	S
178	PARSONS N-10	68 59.8	133 31.8	68	653	S
179	REINDEER F-36	69 5.3	134 39.0	10	355	S
192	KUGPIK O-13	68 52.8	135 18.2	2	728	S
193	IKHIL I-37	68 46.6	134 7.8	125	611	S
194	ATIGI O-48	68 57.0	133 56.1	85	611	S
254	YA YA A-28	69 17.2	134 35.5	40	601	S
255	ADGO P-25	69 24.9	135 50.5	1	558	M
260	RED FOX P-21	69 10.8	133 35.0	23	412	S
261	KIMIK O-29	69 38.1	132 22.2	10	603	S
262	ATERTAK E-41	69 30.5	132 42.1	12	529	S
263	PIKIOLIK M-26	69 25.9	132 37.4	17	552	S
264	PIKIOLIK E-54	69 23.2	132 44.6	18	524	S
265	MALLIK A-06	69 25.0	134 30.3	27	108	S
266	IVIK J-26	69 35.7	134 20.6	23	280	S
267	TAGLU C-42	69 21.0	134 56.6	2	580	S
268	TAGLU F-43	69 22.3	134 56.8	1	550	S
269	TAGLU O-55	69 24.2	134 59.6	1	362	S
270	NIGLINTGAK M-19	69 18.8	135 19.4	2	610	S
	ARCTIC MAINLAND - OTHER					
114	ASBESTOS HILL -1	61 48.9	73 57.9	463	208	M
114	ASBESTOS HILL -2	61 47.8	73 58.4	465	121	M
114	ASBESTOS HILL -3	61 49.3	73 57.7	420	452	M

NOTES...

1) EPB NO. = EARTH PHYSICS BRANCH SITE NUMBER, BY WHICH DATA ARE ORDERED IN THIS REPORT.
2) DEPTH LOGGED IS DEPTH OF DEEPEST TEMP LOG IN METRES.
3) TEMPERATURE MEASURING TECHNIQUE,
   S = SINGLE THERMISTOR PROBE LOG
   M = MULTITHERMISTOR CABLE LOG

S E C T I O N 2

PERMAFROST DISTRIBUTION AND THICKNESS

One of the prime purposes of this collection is to determine the distribution and thickness of permafrost in northern Canada. Table 2 lists all the values determined from temperature data included in the collection. The information listed in the first four columns of the table is self-explanatory. Column 5 lists the "depth to an equilibrium temperature of 0°C", the permafrost thickness. This depth has been determined in a variety of ways depending on the number of logs made and the total depth logged. Where three or more logs have been run, the depth has been determined from the tables of equilibrium temperature derived for Appendix 3.3 by assuming a logarithmic return to equilibrium. The value in the column is preceded by 'E'. In cases where a well did not completely penetrate the permafrost and temperatures have been extrapolated to greater depths, the value is preceded by 'X'. Many of the wells have been logged once or twice only and the listed value is derived by direct interpolation from the latest log. Such values, indicated by a plus (+) sign, probably underestimate the permafrost thickness. In cases where the measurements did not fully penetrate permafrost and the measurements are unsuitable for extrapolation, a '*' appears in column 5. Some assessment of the degree of disturbance in the well may be gauged by reference to column 7, the time ratio which expresses the ratio of the time between well completion and the latest log to the drilling time. Generally, a number greater than 25 indicates measured temperatures are within 0.1°C of the final equilibrium values.

In wells drilled through permafrost with high ice content, most logs made within a few months of well completion have revealed a temperature jump of several degrees (for example, see Appendix 3.1, EPB file #178, Parsons N-10). On subsequent logs the depth of this jump has been found to coincide closely with the base of the permafrost, and has been interpreted as indicating the base of the frozen section. This value is given in Column 6 to a depth accuracy that is determined by the spacing of temperature observations.

Permafrost thickness may be considerably modified locally by the presence of nearby bodies of water. The distance to the nearest significant body is listed in column 8.

Finally, column 9 indicates the volume of the collection in which the most recent set of temperature data for a particular site is to be found.

Permafrost thickness and its geographical distribution are presented on the site maps, figures 1, 2 and 3.

Detailed discussion and interpretation of the permafrost thickness will be published elsewhere.

TABLE 2 PERMAFROST THICKNESS

EPB NO.	SITE NAME	LATITUDE N	LONGITUDE W	DEPTH TO 0 DEG C (M)	THICKNESS FROZEN (M)	TIME RATIO	DISTANCE TO WATER BODY (KM)	REF
	ARCTIC ISLANDS							
197	NEIL O-15	80 44.6	83 4.8	E 552		7.2	4.5	6
175	GEMINI E-10	79 59.4	84 4.2	E 500		5.5	20	6
97	FOSHEIM N-27	79 36.9	84 43.3	300+		.02	7	1
166	MOKKA A-02	79 31.2	87 1.2	EX473		4.5	3	6
169	LOUISE BAY O-25	78 44.9	102 42.0	E 248		7.4	13	3
171	DOME BAY P-36	78 25.9	103 15.8	X 660		12	7	3
155	KRISTOFFER BAY B-06	78 15.3	102 32.0	E 443		9.7	.1	6
170	THOR P-38	78 7.8	103 15.2	E 334		39	.1	6
86	HOODOO DOME H-37	78 6.5	99 45.6	E 294		4.2	13	1
158	BROCK I-20	77 59.7	114 33.9	E 428		9.4	5	3
87	WILKINS E-60	77 59.3	111 21.7	271+		1.1	9	1
195	LINCKENS ISLAND P-46	77 45.8	97 45.4	240+		5.6	.01	3
256	SUTHERLAND O-23	77 42.9	102 8.5	267+		.9	1	6
258	PAT BAY A-72	77 21.0	105 27.0	233+		.2	2	6
91	JAMESON BAY C-31	76 40.2	116 43.7	E 483		13.5	12	3
199	DRAKE E-78	76 27.3	108 29.4	E 170		22	.1	6
198	DRAKE D-68	76 27.1	108 55.7	210+		.5	12	3
172	DRAKE B-44	76 23.1	108 16.1	E 189		32	.05	6
259	DRAKE D-73	76 22.1	108 29.5	225+		.3	3	6
196	BENT HORN N-72	76 21.8	103 58.2	E 719	680+-15	3	2	6
200	HECLA I-69	76 18.7	110 23.3	E 141		11	.3	6
257	PEDDER POINT D-49	75 38.2	118 48.3	335+		6.1	7	6
99	DEVON E-45	75 4.3	91 48.3	X 600+		15	1.6	6
73	WINTER HARBOUR	74 48.1	110 30.6	E 535		19	1	1
0	RESOLUTE 1	74 41.0	94 53.8	X 380			.1	1
55	LOBITOS RESOLUTE L-41	74 40.7	94 44.6	EX600		34	1.3	1
168	DUNDAS C-80	74 39.0	113 23.0	E 575		8.6	21	6
92	GARNIER O-21	73 40.9	90 36.8	500+		.02	2	1
98	STORKERSON BAY A-15	72 54.0	124 33.5	X 500		3.1	1.6	1
95	ROWLEY M-04	69 4.0	79 3.8	E 400		47	3	3
	ARCTIC MAINLAND - MACKENZIE DELTA							
261	KIMIK O-29	69 38.1	132 22.2	X 663		26	.3	6
266	IVIK J-26	69 35.7	134 20.6	*		8	.5	6
262	ATERTAK E-41	69 30.5	132 42.1	535+		26	.5	6
165	KILAGMIOTAK F-48	69 27.5	134 11.9	X 370		4	.2	6
263	PIKIOLIK M-26	69 25.9	132 37.4	362+		33	.3	6
265	MALLIK A-06	69 25.0	134 30.3	*		7	.3	6
255	AOGO P-25	69 24.9	135 50.5	0		3.5	0	6
269	TAGLU O-55	69 24.2	134 59.6	*		11	1	6
264	PIKIOLIK E-54	69 23.2	132 44.6	435+		23	.2	6
268	TAGLU F-43	69 22.3	134 56.8	*		9	.3	6
267	TAGLU C-42	69 21.0	134 56.6	*		8	.2	6
173	NIGLINTGAK H-30	69 19.4	135 20.1	E 154		5	.2	6
254	YA YA A-28	69 17.2	134 35.5	X 700		3.9	.3	6
176	YA YA P-53	69 12.8	134 42.7	E 432	411+-15	8	.3	6
167	UNIPKAT I-22	69 11.7	135 20.5	E 87		4.8	.1	6
260	RED FOX P-21	69 10.8	133 35.0	*		2.3	.15	6
63	REINDEER O-27	69 6.1	134 36.9	E 370	350+- 5	19	.2	6
177	TITALIK K-26	69 5.5	135 6.3	65+		1.0	.2	1
179	REINDEER F-36	69 5.3	134 39.0	EX355	338+- 8	15	.2	6
178	PARSONS N-10	68 59.8	133 31.8	E 356	341+-15	8.3	.3	6
194	ATIGI O-48	68 57.0	133 56.1	EX588	564+-15	10	.1	6
192	KUGPIK O-13	68 52.8	135 18.2	E 83		3.5	.1	6
193	IKHIL I-37	68 46.6	134 7.8	E 344	341+- 8	2.5	1	6
89	BEAVER HOUSE H-13	68 22.3	135 33.0	E 197		10	1.5	3
270	NIGLINTGAK M-19	69 18.8	135 19.4	*		1.3	.2	6

TABLE 2 PERMAFROST THICKNESS

EPB NO.	SITE NAME	LATITUDE N	LONGITUDE W	DEPTH TO 0 DEG C (M)	THICKNESS FROZEN (M)	TIME RATIO	DISTANCE TO WATER BODY (KM)	REF
	ARCTIC MAINLAND - OTHER							
77	HORTON RIVER G-02	69 51.4	127 15.9	E 141		14	7	1
76	KUGALUK N-02	68 32.0	131 31.3	E 102		4	.5	1
253	TEDJI LAKE K-24	67 43.6	126 49.9	415+		3.0	.2	3
0	MUSKOX NORTH	67 5.5	115 16.5	350+		.1	1	1
0	MUSKOX SOUTH	67 .5	115 13.0	160+		7	.05	1
62	NORTH CATH B-62	66 11.2	138 41.6	E 89		25	6	1
190	HACKETT RIVER 190-1	65 55.0	108 28.2	500+			2	3
190	HACKETT RIVER 190-2	65 55.0	108 28.2	500+			2	3
100	HUME RIVER O-53	65 52.0	129 11.0	35+		23	.2	1
151	WEST WHITEFISH H-34	65 33.4	124 35.7	E 112		34	2	3
88	NORMAN WELLS CANOL 30X	65 17.2	126 51.9	143+			.9	1
88	NORMAN WELLS CANOL 19X	65 17.1	126 52.8	58+			.2	1
88	NORMAN WELLS CANOL 18X	65 17.1	126 52.0	76+			.6	1
88	NORMAN WELLS CANOL 7X	65 17.0	126 50.8	128+			.3	1
0	NORMAN WELLS CANOL 33X	65 16.9	126 50.5	62+			.3	1
88	NORMAN WELLS BEAR I 13	65 15.5	126 53.3	67+			.4	1
88	NORMAN WELLS BEAR I 7	65 15.4	126 52.9	52+			.5	1
94	DAHADINNI M-43A	63 53.0	124 39.3	E 51		5	35	3
66	YELLOWKNIFE	62 30.5	114 25.3	0		18	.08	1
114	ASBESTOS HILL -3	61 49.3	73 57.7	X 500+		.4	10	6
114	ASBESTOS HILL -1	61 48.9	73 57.9	X 700+		6	10	6
114	ASBESTOS HILL -2	61 47.8	73 58.4	X 700+		7	10	6
70	PROVIDENCE A-47	61 26.2	117 22.5	0		78	18	1

NOTES...

1) EPB NO. = EARTH PHYSICS BRANCH SITE NUMBER. EARLY SITES TAKEN FROM THE LITERATURE ARE REFERRED TO AS EPB NO. 0.
2) DEPTHS TO 0 DEGREES C ARE OBTAINED FROM
   - LOGARITHM RETURN TO EQUILIBRIUM TABLES (DEPTH PRECEDED BY "E"), (SEE TEXT).
   - AN EXTRAPOLATION TO GREATER DEPTHS ("X")
   - DEEPER THAN LOGGED DEPTH. NOT SUITABLE FOR EXTRAPOLATION (*)
   - DIRECT INTERPOLATION FROM LATEST LOG (FOLLOWED BY "+")
3) TIME RATIO IS RATIO OF "TIME SINCE DRILLING COMPLETION FOR LATEST LOG - TO DRILLING TIME". (SEE TEXT)
4) REF INDICATES WHERE DATA ON SITE IS PUBLISHED
   -1, CANADIAN GEOTHERMAL DATA COLLECTION,
   - NORTHERN WELLS, 1955 TO FEBRUARY 1974.
   GEOTHERMAL SERIES OF THE E.P.B., NO. 1, (1974).
   -3, CANADIAN GEOTHERMAL DATA COLLECTION,
   - NORTHERN WELLS 1974.
   GEOTHERMAL SERIES OF THE E.P.B., NO. 3, (1975).
   -6, THIS VOLUME.

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The results contained in this report are part of a continuing northern program of the Geothermal Service of the Earth Physics Branch, EMR.

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S E C T I O N 3

APPENDICES

3.1 Tables of Temperature versus Depth

EARTH PHYSICS BRANCH HOLE NO. 63 REINDEER D-27

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LATITUDE 69 DEGREES 6.1 MINUTES NORTH LONGITUDE 134 DEGREES 36.9 MINUTES WEST

ELEVATION 29 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DEPTH (M)	DATE 9 7 66 TEMP (C)	DATE 2 7 67 TEMP (C)	DATE 2 7 68 TEMP (C)	DATE 14 7 69 TEMP (C)	DATE 29 7 70 TEMP (C)	DATE 12 8 71 TEMP (C)	DATE 19 7 72 TEMP (C)	DATE 15 8 74 TEMP (C)	DATE 24 7 75 TEMP (C)
3.0				8.95	19.00	6.91	23.00	13.25	4.52
18.3	-.09		-5.66	-5.77	-5.92	-6.36	-6.42	-6.54	-6.42
48.8	-.16		-4.84	-5.10	-5.23	-5.32	-5.39	-5.50	-5.52
79.2	-.19	-2.86	-4.32	-4.69	-4.87	-4.95	-5.00	-5.08	-5.09
109.7	-.17	-.95	-3.18	-3.66	-3.93	-4.19	-4.40	-4.60	-4.65
140.2	-.25	-1.13	-2.44	-3.29	-3.61	-3.79	-3.93	-4.16	-4.20
170.7	-.40	-2.13	-2.95	-3.28	-3.42	-3.50	-3.57	-3.66	-3.67
201.2	-.41	-1.76	-2.41	-2.68	-2.82	-2.91	-2.97	-3.04	-3.05
231.6	-.42	-1.32	-1.83	-2.08	-2.23	-2.30	-2.35	-2.42	-2.44
262.1	-.26	-.46	-.78	-1.48	-1.66	-1.71	-1.77	-1.83	-1.84
292.6	-.12	-.37	-.51	-.71	-.91	-1.01	-1.10	-1.21	-1.23
323.1	-.22	-.34	-.38	-.42	-.58	-.54	-.59	-.78	-.74
353.6	.50	-.05	-.18	-.20	-.23	-.24	-.25	-.27	-.27
384.0	2.53	1.27	.90	.73	.66	.58	.53	.50	.47
414.5	3.28	2.05	1.71	1.55	1.45	1.40	1.36	1.30	1.28
445.0	3.95	2.76	2.43	2.27	2.17	2.12	2.09	2.05	2.02
475.5	4.75	3.55	3.23	3.07	2.96	2.91	2.88	2.83	2.82
506.0	5.42	4.24	3.92	3.78	3.69	3.63	3.60	3.54	3.53
536.4	6.14	4.98	4.65	4.51	4.44	4.36	4.33	4.29	4.27
566.9	6.89	5.72	5.43	5.26	5.17	5.13	5.09	5.04	5.03
597.4	7.74	6.66	6.36	6.23	6.14	6.11	6.07	6.02	6.01

TEMPERATURE RESULTS ARE OBTAINED FROM A MULTI-THERMISTOR CABLE
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

B.A., SHELL, I.O.E. REINDEER D-27
-WELL SPUDDED 8 7 65
-DRILLING FOR 181 DAYS TO A TOTAL DEPTH OF 3861 METERS
-WELL ABANDONED 5 1 66

N.B. CABLE INSTALLED BY E.P.B. MEASUREMENTS BY E.P.B. AND U.B.C.

EARTH PHYSICS BRANCH HOLE NO. 99 DEVON E-45

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LATITUDE 75 DEGREES 4.3 MINUTES NORTH LONGITUDE 91 DEGREES 48.3 MINUTES WEST

ELEVATION 244 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 18 5 72		DATE OF LOG 6 5 73		DATE OF LOG 15 5 74		DATE OF LOG 4 5 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
33.5	-12.61	15.5	-14.09	7.4	-15.41	7.6	-15.90
64.0	-12.45	31.1	-13.77	15.2	-14.35	15.5	-14.52
94.5	-12.07	46.9	-13.73	22.0	-14.12	22.9	-14.22
		62.2	-13.60	29.8	-14.01	30.5	-14.11
		77.4	-13.45	37.2	-13.93	33.5	-14.05
		93.0	-13.24	44.7	-13.89	41.1	-13.99
		106.1	-12.99	52.1	-13.85	48.8	-13.93
				59.8	-13.76	56.7	-13.86
				67.0	-13.71	64.0	-13.78
				74.4	-13.63	71.6	-13.72
				81.9	-13.53	79.2	-13.64
				89.3	-13.42	86.9	-13.53
				96.7	-13.32	94.5	-13.40
				104.2	-13.20	102.1	-13.28
				106.6	-13.09	108.5	-13.13

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

IOE PANARCTIC ET AL DEVON ISLAND E-45
- -WELL SPUDDED 16 12 71
- -DRILLING FOR 75 DAYS TO A TOTAL DEPTH OF 1838 METERS
- -DRILLING STOPPED 29 2 72
- -WELL ABANDONED 5 3 72

N.B. MULTITHERMISTOR CABLE INSTALLED ON OUTSIDE SURFACE CASING
BY I.O.E. FOR COMPARISON.

EARTH PHYSICS BRANCH HOLE NO. 114 ASBESTOS HILL -1

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LATITUDE 61 DEGREES 48.9 MINUTES NORTH LONGITUDE 73 DEGREES 57.9 MINUTES WEST

ELEVATION 463 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DEPTH (M)	DATE 22 6 74 TEMP (C)	DATE 22 6 74 TEMP (C)	DATE 23 6 74 TEMP (C)	DATE 23 6 74 TEMP (C)	DATE 24 6 74 TEMP (C)	DATE 24 6 74 TEMP (C)	DATE 24 6 74 TEMP (C)	DATE 25 6 74 TEMP (C)	DATE 27 6 74 TEMP (C)	DATE 1 7 74 TEMP (C)	DATE 30 7 74 TEMP (C)
14.6	-2.25	-2.73	-3.52	-4.09	-4.42	-4.62	-4.65	-4.88	-5.36	-5.72	-6.22
29.4	-2.54	-2.76	-3.45	-4.04	-4.39	-4.59	-4.63	-4.87	-5.35	-5.70	-5.94
44.3	-2.66	-2.91	-3.90	-4.44	-4.75	-4.92	-4.95	-5.13	-5.51	-5.78	-5.75
59.1	-2.72	-2.97	-3.98	-4.52	-4.81	-4.97	-5.00	-5.19	-5.57	-5.84	-5.82
74.0	-2.80	-3.12	-4.23	-4.74	-4.98	-5.12	-5.15	-5.31	-5.59	-5.86	-5.86
88.8	-2.75	-3.06	-4.16	-4.64	-4.87	-5.01	-5.03	-5.19	-5.45	-5.72	-5.64
103.6	-2.67	-2.84	-3.76	-4.32	-4.60	-4.76	-4.79	-4.96	-5.31	-5.53	-5.61
118.5	-2.84	-3.13	-4.11	-4.56	-4.79	-4.91	-4.93	-5.07	-5.32		-5.34
148.2	-2.81	-3.01	-3.83	-4.26	-4.49	-4.61	-4.63	-4.76	-5.01	-5.16	-5.30
177.9	-2.85	-2.97	-3.64	-4.04	-4.25	-4.37	-4.38	-4.51	-4.68	-4.69	-4.49
207.6	-2.62	-3.01	-3.48	-3.85	-4.03	-4.13	-4.14	-4.26		-4.33	-4.57

TEMPERATURE RESULTS ARE OBTAINED FROM A MULTI-THERMISTOR CABLE

LOGGING OF THIS HOLE IS COMPLETE

ASBESTOS CORP. ASBESTOS HILL 74-AH-92 CABLE 126
  -WELL SPUDDED 16 6 74
  -DRILLING FOR 6 DAYS TO A TOTAL DEPTH OF 241 METERS
  -DRILLING STOPPED 22 6 74

HOLE SPUD AROUND NOON 16 06 74. CIRCULATION STOPPED AROUND 11H 00M 22 06 74.
CABLE 126 INSTALLED 14H 00M TO 14H 30M 22 06 74.
FLUID IN WELL AT TIME OF COMPLETION WAS CA CL_2 BRINE, FREEZING POINT ABOUT -3 DEG
HOLE DIPS 77 DEGREES. DEPTHS ARE CORRECTED TO VERTICAL DEPTH.
LENGTH OF HOLE = 241 M.

SERIES OF TEMPERATURE LOGS TAKEN ON FOLLOWING DATES AND TIMES...

22 06 74	14H 30M.	22 06 74	17H 45M.	23 06 74	08H 30M.
23 06 74	21H 30M.	24 06 74	08H 45M.	24 06 74	17H 45M.
24 06 74	19H 45M.	25 06 74	11H 00M.	27 06 74	19H 40M.
01 07 74	19H 30M.	30 07 74	16H 15M.		

EARTH PHYSICS BRANCH HOLE NO. 114 ASBESTOS HILL -2

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LATITUDE 61 DEGREES 47.8 MINUTES NORTH LONGITUDE 73 DEGREES 58.4 MINUTES WEST

ELEVATION 465 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DEPTH (M)	TEMP (C) DATE 25 7 74	TEMP (C) DATE 29 7 74	TEMP (C) DATE 30 7 74
2.6	-8.61	-8.59	-8.58
15.8	-7.43	-7.54	-7.51
29.0	-7.21	-7.29	-7.30
42.2	-7.06	-7.14	-7.14
55.4	-7.06	-7.08	-7.05
68.6			-7.00
81.8	-6.98	-6.99	-6.77
95.0			-6.70
108.2	-6.75	-6.77	-6.72
121.4			-6.42

TEMPERATURE RESULTS ARE OBTAINED FROM A MULTI-THERMISTOR CABLE
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

ASBESTOS CORP. ASBESTOS HILL 74-AH-101 CABLE 122
  -WELL SPUDDED 14 7 74
  -DRILLING FOR 2 DAYS TO A TOTAL DEPTH OF 147 METERS
  -DRILLING STOPPED 16 7 74

HOLE DIPS 60 DEGREES. DEPTHS ARE CORRECTED TO VERTICAL DEPTH.
SERIES OF TEMPERATURE LOGS TAKEN ON FOLLOWING DATES AND TIMES...
  25 07 74 20H 00M. 29 07 74 19H 00M. 30 07 74 15H 00M.

EARTH PHYSICS BRANCH HOLE NO. 114 ASBESTOS HILL -3

****

LATITUDE 61 DEGREES 49.3 MINUTES NORTH LONGITUDE 73 DEGREES 57.7 MINUTES WEST

ELEVATION 420 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE 9 12 74	
DEPTH (M)	TEMP (C)
10.7	-3.80
25.0	-4.10
52.7	-4.40
80.2	-4.70
105.8	-4.70
133.2	-4.70
159.4	-4.60
185.6	-4.40
208.5	-4.00
233.2	-3.90
256.0	-3.60
278.3	-3.20
300.3	-3.00
322.8	-2.90
345.0	-2.40
365.2	-2.10
386.8	-2.00
408.4	-1.40
430.4	-1.40
452.3	-1.20

TEMPERATURE RESULTS ARE OBTAINED FROM A MULTI-THERMISTOR CABLE
LOGGING OF THIS HOLE IS COMPLETE

ASBESTOS CORP. ASBESTOS HILL 74-AH-108 CABLE 127
- WELL SPUDDED 25 8 74
- DRILLING FOR 67 DAYS TO A TOTAL DEPTH OF 500 METERS
- DRILLING STOPPED 15 11 74

DRILLING FLUID CA CL2 BRINE, AT TEMP +1 TO +5 DEG C. HOLE SHUT DOWN 01 10 74 UNTIL 16 10 74 AND FILLED WITH DIESEL FOR THIS PERIOD. CABLE INSTALLED 16 11 74. INCLINED HOLE, DEPTHS CORRECTED TO VERTICAL.

EARTH PHYSICS BRANCH HOLE NO. 155 KRISTOFFER BAY B-06

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LATITUDE 78 DEGREES 15.3 MINUTES NORTH LONGITUDE 102 DEGREES 32.8 MINUTES WEST

ELEVATION 15 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 11 5 72		DATE OF LOG 14 9 72		DATE OF LOG 13 5 73		DATE OF LOG 20 5 74		DATE OF LOG 14 5 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
31.1	-10.60	55.5	-10.22	15.2	-16.72	15.2	-17.29	32.3	-15.81
61.6	-10.56	86.8	-9.44	30.5	-15.27	30.2	-15.96	63.4	-14.46
92.0	-9.88	116.4	-8.33	45.7	-14.53	45.1	-15.09	97.2	-13.33
122.5	-7.83	146.9	-7.28	61.0	-14.01	59.8	-14.50	132.3	-11.66
153.0	-6.28	177.4	-6.39	75.9	-13.49	74.7	-14.03	165.2	-10.58
183.2	-4.84	207.9	-5.56	91.4	-12.79	89.6	-13.35	196.0	-9.64
213.7	-3.51	238.4	-4.28	106.7	-12.20	104.6	-12.75	226.5	-8.59
243.8	-2.47	268.8	-2.83	121.9	-11.58	119.5	-12.16	256.9	-7.22
274.3	-1.26	299.3	-1.83	136.9	-11.00	134.5	-11.60	287.4	-6.06
304.5	-1.17	314.6	-1.44	152.4	-10.50	149.4	-11.05	317.6	-5.06
335.0	-1.63	329.8	-1.22	167.6	-9.98	164.3	-10.56	348.4	-4.18
365.5	.52	345.8	-1.17	182.9	-9.51	179.6	-10.06	378.6	-2.84
395.6	2.84	360.3	-1.00	197.8	-8.98	194.5	-9.57	409.0	-1.42
426.1	4.11	390.8	.56	213.4	-8.52	209.5	-9.17	439.5	.23
456.6	5.96	421.2	1.89	228.6	-7.87	224.4	-8.58	470.0	2.08
		451.7	3.67	243.8	-7.06	239.4	-7.91	500.5	3.71
		482.2	5.00	259.1	-6.45	254.0	-7.26	531.3	5.55
		512.7	6.22	274.3	-5.82	269.0	-6.69	561.7	7.14
		543.2	8.22	289.6	-5.21	283.9	-6.04	591.9	8.68
		573.6	9.56	304.5	-4.72	298.8	-5.53	622.4	10.31
		604.1	11.00	320.0	-4.12	313.8	-5.12	652.9	11.51
		634.6	12.39	335.3	-3.64	328.7	-4.56	683.4	12.80
		665.1	13.50	350.5	-3.26	343.7	-4.07	713.8	14.13
				365.8	-2.78	358.6	-3.57	744.3	15.52
				381.0	-2.04	373.5	-2.94	774.8	16.74
				396.2	-1.23	388.8	-2.22	805.3	18.00
				411.8	-.61	403.4	-1.51	835.8	19.21
				426.4	.06	418.6	-.98	866.2	20.54
				442.0	1.16	433.3	-.24		
				457.5	2.05	448.2	1.01		
				472.1	2.82	463.2	1.80		
				487.7	3.65	478.1	2.65		
				503.2	4.50	493.4	3.38		
				518.2	5.34	508.0	4.26		
				533.4	6.25	523.3	5.14		
				548.6	7.04	537.9	5.96		
				563.9	7.77	552.8	6.79		
				579.1	8.53	567.8	7.48		
				594.4	9.32	583.0	8.28		
				609.6	10.12	597.7	9.02		
				624.8	10.91	612.6	9.83		
				640.1	11.51	627.8	10.60		
				655.3	12.09	642.5	11.19		
				670.9	12.75	657.7	11.77		
				685.8	13.38	672.4	12.40		
				701.8	14.02	687.3	13.02		
				716.6	14.72	702.2	13.67		
				731.5	15.48	717.2	14.33		
				746.8	16.03	732.4	15.07		
				762.0	16.67	747.1	15.66		
				777.5	17.26	762.0	16.30		
				792.5	17.85	776.9	16.89		
						791.9	17.45		
						806.8	18.09		
						821.8	18.67		
						836.7	19.27		

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

PANARCTIC TENNECO ET AL KRISTOFFER BAY B-06
- -WELL SPUDDED 9 11 71
- -DRILLING FOR 119 DAYS TO A TOTAL DEPTH OF 3925 METERS
- -DRILLING STOPPED 8 3 72
- -WELL ABANDONED 17 3 72

N.B. LOG OF 14 09 72 TAKEN BY PANARCTIC.

EARTH PHYSICS BRANCH HOLE NO. 165 KILAGMIOTAK F-48

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LATITUDE 69 DEGREES 27.5 MINUTES NORTH LONGITUDE 134 DEGREES 11.9 MINUTES WEST

ELEVATION 20 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 1 4 73		DATE OF LOG 19 6 73		DATE OF LOG 4 2 74		DATE OF LOG 15 8 74		DATE OF LOG 24 7 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
16.5	-6.81	14.9	-6.80	18.9	-8.73	13.1	-8.00	14.0	6.31
31.1	-4.94	29.8	-5.85	34.7	-7.21	28.0	-6.99	29.0	-7.20
45.7	-4.21	44.7	-5.40	65.2	-6.40	57.9	-6.57	44.2	-7.00
61.0	-4.21	59.5	-5.43	95.7	-5.95	88.1	-6.30	59.1	-6.86
77.1	-3.90	74.7	-5.29	126.2	-5.20	118.0	-5.84	74.7	-6.74
91.4	-3.21	89.3	-4.88	156.4	-4.65	147.5	-5.26	89.6	-6.58
107.6	-2.68	104.2	-4.63	186.5	-4.16	177.4	-5.00	105.2	-6.39
121.9	-1.42	119.4	-3.74	217.0	-3.80	207.3	-4.56	120.4	-6.12
137.2	-.67	134.0	-2.66	247.2	-3.04	237.4	-4.28	135.3	-5.78
152.4	-.58	148.8	-1.18	277.4	-2.07	267.3	-3.83	150.9	-5.57
167.6	-.52	163.7	-.91	307.8	-1.38	296.9	-1.39	166.1	-5.51
182.9	-.60	178.6	-1.19	323.1	-1.04	311.8	-1.68	181.4	-5.28
198.1	-.58	193.5	-.84					196.9	-5.05
213.4	-.56	208.4	-.70					212.1	-4.91
228.6	-.58	223.2	-.76					227.7	-4.76
243.8	-.59	238.1	-.77					243.2	-4.58
259.1	-.58	253.0	-.67					258.2	-4.45
274.3	-.59	268.2	-.71					273.4	-4.13
289.6	-.62	282.8	-.66					288.6	-3.75
304.8	-.63	297.7	-.66					303.6	-3.43
320.0	-.63	312.5	-.66					321.3	-3.45
335.3	-.22	327.4	-.27						
350.5	-.25								
365.8	-.28								
381.0	-.36								

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

GULF MOBIL KILAGMIOTAK F-48
- WELL SPUDDED 4 2 72
- DRILLING FOR 268 DAYS TO A TOTAL DEPTH OF 4772 METERS
- DRILLING STOPPED 21 8 72
- WELL ABANDONED 12 10 72

N.B. CALIPER SURVEY RUN DAY PREVIOUS TO LOG OF 15 08 74

EARTH PHYSICS BRANCH HOLE NO. 166 MOKKA A-02

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LATITUDE 79 DEGREES 31.2 MINUTES NORTH LONGITUDE 87 DEGREES 1.2 MINUTES WEST

ELEVATION 253 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DEPTH (M)	TEMP (C) DATE 14 4 73	TEMP (C) DATE 23 5 74	TEMP (C) DATE 13 5 75
0.0	-2.80		
15.2	-4.40		
30.5	-6.10	-12.90	-13.10
45.7	-7.80	-12.60	-13.10
61.0	-7.80	-12.40	-13.10
76.2	-7.20	-12.20	-12.40
91.4	-6.70	-11.70	
106.7	-6.10	-11.20	-11.80
121.9			
137.2		-10.40	-11.00
152.4	-6.10	-9.70	
167.6	-5.60	-9.10	-9.60
182.9	-6.70	-8.90	-9.40
198.1	-5.60	-8.10	-8.90
213.4	-5.60	-7.60	-8.20
228.6	-6.70	-7.30	-7.90
243.8	-6.70	-6.90	-7.50
259.1	-5.00	-6.30	-7.40
274.3	-5.00	-5.90	-6.70
289.6	-4.40	-5.50	-6.20
320.0	-5.60	-4.60	-5.40
350.5	-3.90	-3.70	-4.40
381.0	-4.40	-2.50	-3.30
411.5	-3.90	-1.70	-2.20
442.0	-3.90	-1.00	-1.20

TEMPERATURE RESULTS ARE OBTAINED FROM A MULTI-THERMISTOR CABLE
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

IMPERIAL PANARCTIC ET AL MOKKA A-02
- -WELL SPUDDED 17 10 72
- -DRILLING FOR 170 DAYS TO A TOTAL DEPTH OF 3300 METERS
- -DRILLING STOPPED 5 4 73
- -WELL ABANDONED 15 4 73

N.B. CABLE INSTALLED ON OUTSIDE OF CASING BY IMPERIAL OIL.
READING OF 14 04 73 BY I.O.E. READINGS THEREAFTER BY E.P.B.

EARTH PHYSICS BRANCH HOLE NO. 167 UNIPKAT I-22

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LATITUDE 69 DEGREES 11.7 MINUTES NORTH LONGITUDE 135 DEGREES 20.5 MINUTES WEST

ELEVATION 5 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 1 4 73		DATE OF LOG 25 4 73		DATE OF LOG 20 6 73		DATE OF LOG 3 11 73		DATE OF LOG 4 2 74		DATE OF LOG 16 8 74		DATE OF LOG 22 7 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
15.2	-.19	15.2	-1.90	14.9	-.70	15.2	-2.22	14.5	-1.45	13.4	-2.55	15.2	-3.43
30.5	.72	30.5	-.70	30.1	-.31	30.5	-1.33	29.9	-.99	28.3	-.79	30.5	-1.25
45.7	2.65	45.7	1.00	59.5	1.56	45.7	-1.33	60.4	.27	58.2	-.58	61.0	-.77
61.0	4.59	61.0	2.40	89.3	3.74	61.0	-.83	90.8	1.81	88.1	1.19	91.7	.87
76.2	6.18	75.2	4.10	119.1	5.35	76.2	.44	121.3	3.42	118.3	2.72	121.9	2.28
91.4	6.93	91.4	5.10	148.8	6.42	91.4	1.39	151.8	4.84	148.1	3.74	152.7	3.58
106.7	8.14	106.7	5.90	178.6	7.56	106.7	1.94	182.3	5.98	178.0	5.05	183.2	4.68
121.9	8.87	121.9	6.80	208.4	8.93	121.9	2.78	212.8	7.35	208.2	6.46	213.4	6.21
137.2	8.94	137.2	7.00	238.1	9.78	137.2	3.33	243.2	8.19	238.0	7.42	243.8	7.17
152.4	9.88	152.4	7.80	267.9	10.66	152.4	4.06	273.7	9.18	267.9	8.34	274.3	8.18
182.9	10.83	167.6	8.40	297.7	11.16	167.6	4.78	304.5	9.61	297.2	9.11	304.8	8.97
213.4	11.87	182.9	8.80	327.4	11.69	182.9	5.33	335.0	10.49	327.1	9.76	335.6	9.59
243.8	12.50	198.1	9.60	357.2	12.33	198.1	6.22	365.5	11.29	356.9	10.48	365.8	10.28
274.3	13.45	213.4	9.90	387.2	13.32	213.4	6.83	395.9	12.06	386.8	11.29	395.9	11.18
304.8	13.72	228.6	10.40	416.7	13.79	228.6	7.22	426.4	12.63	416.7	12.17	427.0	11.81
335.3	14.21	243.8	10.70	446.5	14.27	243.8	7.78	456.9	13.23	446.2	12.48	457.2	12.41
365.8	15.03	259.1	11.20	476.3	14.91	259.1	8.06	487.7	14.04	476.1	13.13	487.7	13.13
396.2	15.76	274.3	11.50	506.3	15.62	274.3	8.61	518.2	14.58	506.0	13.98	518.2	13.83
426.7	16.15	289.6	11.80	535.8	16.15	289.6	8.89	548.6	15.39	535.8	14.48	548.6	14.55
457.2	16.66	304.8	12.00	565.6	17.08	304.8	9.22					579.1	15.34
487.7	17.55			595.3	17.66	335.3	9.78					609.6	16.13
518.2	17.83			625.1	18.38	355.8	10.56					640.4	16.83
548.6	18.76			654.8	18.95	396.2	11.33						
579.1	19.23			684.6	19.55	426.7	11.89						
609.6	20.22			714.4	20.20	457.2	12.44						
640.1	20.52					487.7	13.11						
670.6	21.12					518.2	13.67						
701.0	21.77					548.6	14.44						
731.5	23.07					579.1	15.22						
752.0	23.05					609.6	15.00						
						640.1	16.67						
						670.6	17.22						
						701.0	17.78						
						731.5	18.61						

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

SHELL UNIPKAT I-22
- -WELL SPUDDED 8 9 72
- -DRILLING FOR 179 DAYS TO A TOTAL DEPTH OF 4361 METERS
- -WELL ABANDONED 6 3 73

N.B. LOGS OF 25 4 73 AND 03 11 73 BY SHELL USING ATKINS THERMISTOR.

EARTH PHYSICS BRANCH HOLE NO. 168 DUNDAS C-80

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LATITUDE 74 DEGREES 39.0 MINUTES NORTH LONGITUDE 113 DEGREES 23.0 MINUTES WEST

ELEVATION 240 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 28 4 73		DATE OF LOG 25 5 74		DATE OF LOG 7 5 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
20.7	-12.90	16.5	-13.41	11.3	-14.66
44.5	-12.54	31.7	-14.19	26.5	-14.17
95.1	-11.37	46.6	-14.13	34.1	-14.29
141.0	-9.49	61.9	-13.80	49.4	-14.31
177.6	-8.75	77.4	-13.43	64.6	-14.01
212.0	-7.86	93.3	-13.10	79.9	-13.61
243.7	-6.66	108.8	-12.62	95.1	-13.25
276.4	-5.62	125.0	-11.82	110.3	-12.75
307.3	-4.80	140.2	-11.25	125.6	-12.01
338.2	-3.60	155.8	-10.85	140.8	-11.53
369.1	-2.88	171.3	-10.54	156.1	-11.06
399.6	-2.61	186.8	-10.19	171.3	-10.72
430.1	-1.73	202.7	-9.86	186.5	-10.39
460.6	-1.16	218.5	-9.48	201.8	-10.06
491.0	-.72	236.5	-8.93	217.0	-9.74
521.5	.83	253.3	-8.52	232.3	-9.29
551.7	1.65	269.1	-8.00	247.5	-8.89
582.5	2.93	284.7	-7.52	262.7	-8.43
613.0	3.91	300.8	-7.26	278.0	-7.89
643.4	4.97	316.7	-6.70	293.2	-7.58
652.6	5.21	331.6	-6.21	308.5	-7.22
		346.6	-5.63	323.7	-6.67
		361.2	-5.27	339.5	-6.07
		376.4	-5.10	354.8	-5.61
		391.1	-4.78	370.3	-5.38
		406.3	-4.47	385.6	-5.16
		421.2	-4.17	416.4	-4.58
		435.9	-3.62	447.4	-3.63
		450.8	-3.25	478.2	-3.00
		465.7	-3.01	508.7	-2.10
		480.7	-2.64	539.5	-1.24
		495.6	-2.25	570.3	.17
		510.5	-1.78	601.1	1.37
		525.5	-1.31	631.9	2.65
		540.4	-.71	659.6	3.75
		555.3	-.04		
		570.3	.59		
		585.2	1.16		
		600.2	1.81		
		615.1	2.52		
		630.0	3.13		
		645.3	3.77		
		659.9	3.86		

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

PANARCTIC DOME DUNDAS C-80
- WELL SPUDDED 14 10 72
- DRILLING FOR 97 DAYS TO A TOTAL DEPTH OF 4000 METERS
- WELL ABANDONED 19 1 73

EARTH PHYSICS BRANCH HOLE NO. 178 THOR P-38

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LATITUDE 78 DEGREES 7.8 MINUTES NORTH LONGITUDE 103 DEGREES 15.2 MINUTES WEST

ELEVATION 5 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 13 9 72		DATE OF LOG 11 5 73		DATE OF LOG 19 5 74		DATE OF LOG 15 5 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
25.3	-14.72	15.0	-16.54	14.9	-16.74	30.8	-15.92
55.8	-13.72	30.8	-15.86	31.1	-15.92	61.0	-15.61
86.3	-12.67	45.8	-15.33	46.6	-15.45	91.4	-13.96
116.7	-11.78	61.1	-14.78	62.2	-14.90	121.9	-12.89
147.2	-10.28	76.4	-14.17	77.1	-14.34	152.7	-10.99
177.7	-8.39	91.6	-13.68	92.0	-13.93	183.2	-9.58
208.2	-6.78	106.9	-13.23	107.0	-13.44	213.4	-7.68
238.7	-5.33	122.2	-12.58	121.9	-12.87	243.8	-5.84
269.1	-3.44	137.4	-11.77	136.9	-12.24	274.3	-3.60
299.6	-1.56	152.7	-10.92	151.5	-11.18	304.8	-1.73
317.9	-.28	168.0	-10.06	166.7	-10.30	335.3	.19
348.4	1.94	183.2	-9.22	181.7	-9.51	366.1	2.01
378.9	3.61	198.5	-8.37	196.3	-8.74	396.5	3.66
394.1	4.44	213.8	-7.48	211.2	-7.78	426.7	5.32
424.6	6.11	228.8	-6.66	226.5	-7.12	457.5	6.83
455.1	7.78	244.6	-5.62	241.1	-6.09	488.0	8.46
485.5	9.33	259.6	-4.51	256.0	-4.91	518.2	9.80
500.8	10.11	274.9	-3.37	271.0	-3.81	548.6	11.01
		290.1	-2.41	285.9	-2.76	554.7	11.39
		305.4	-1.43	301.1	-1.85		
		320.4	-.47	315.8	-.85		
		336.0	.44	330.7	-.13		
		350.9	1.35	345.6	.94		
		366.5	2.23	360.6	1.81		
		381.8	3.05	375.5	2.65		
		397.0	3.88	390.4	3.39		
		412.3	4.63	405.4	4.13		
		427.6	5.45	420.6	4.91		
		442.8	6.27	435.3	5.82		
		458.4	7.07	450.5	6.59		
		473.1	7.79	465.1	7.38		
		488.7	8.56	481.3	8.16		
		503.9	9.29	495.0	8.83		
		519.2	9.91	509.9	9.50		
		534.5	10.51	525.5	10.11		
		549.7	11.18	542.5	10.95		
				555.3	11.36		

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

PANARCTIC TENNECO ET AL THOR P-38
- -WELL SPUDDED 6 4 72
- -DRILLING FOR 28 DAYS TO A TOTAL DEPTH OF 1829 METERS
- -DRILLING STOPPED 4 5 72
- -WELL ABANDONED 10 5 72

N.B. LOG OF 13 09 72 TAKEN BY PANARCTIC.
DEPTHS ADJUSTED FOR TOOL ERRORS AT 311 M. AND 411 M.

EARTH PHYSICS BRANCH HOLE NO. 172 DRAKE B-44

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LATITUDE 76 DEGREES 23.1 MINUTES NORTH LONGITUDE 108 DEGREES 16.1 MINUTES WEST

ELEVATION 4 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 7 5 73		DATE OF LOG 16 5 74		DATE OF LOG 6 5 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
15.8	-14.23	15.2	-14.54	16.1	-14.54
31.4	-13.32	35.4	-13.53	32.5	-13.55
47.5	-12.04	53.3	-12.04	52.2	-12.34
62.8	-11.01	70.4	-10.66	67.1	-11.19
78.3	-9.63	86.6	-9.35	82.1	-9.84
93.3	-8.35	102.1	-7.96	97.0	-8.48
108.5	-6.86	117.0	-6.68	111.6	-7.02
123.4	-5.57	132.0	-5.05	126.8	-5.56
138.7	-3.68	146.9	-3.40	141.7	-4.04
153.6	-2.25	162.2	-1.92	156.4	-2.68
169.2	-.86	177.1	-.72	172.2	-1.25
184.7	.27	191.7	.49	186.2	-.04
199.9	1.60	207.0	1.66	201.1	1.54
215.2	2.34	221.9	2.44	216.0	2.26
230.4	3.16	236.8	3.22	231.3	3.04
245.7	3.94	251.5	3.94	245.9	3.89
260.9	4.66	266.4	4.70	260.8	4.59
275.8	5.51	281.3	5.50	275.7	5.37
291.1	6.25	296.6	6.27	290.6	6.10
306.3	6.89	311.5	6.93	305.6	6.73
321.3	7.55	326.4	7.50	320.5	7.40
336.5	8.06	341.1	8.00	335.1	7.91
346.3	8.40			338.4	8.25

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

PANARCTIC TENNECO ET AL DRAKE B-44
- -WELL SPUDDED 23 9 72
- -DRILLING FOR 29 DAYS TO A TOTAL DEPTH OF 1396 METERS
- -WELL ABANDONED 22 10 72

EARTH PHYSICS BRANCH HOLE NO. 173 NIGLINTGAK H-30

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LATITUDE 69 DEGREES 19.4 MINUTES NORTH LONGITUDE 135 DEGREES 20.1 MINUTES WEST

ELEVATION 2 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 20 4 73		DATE OF LOG 19 6 73		DATE OF LOG 3 11 73		DATE OF LOG 4 2 74		DATE OF LOG 22 7 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
13.4	3.30	14.9	-.42	15.2	-1.44	29.0	-1.50	15.2	-2.21
28.7	4.80	29.8	.06	30.5	-1.33	59.4	-1.07	30.5	-1.73
43.9	3.50	44.7	-.22	45.7	-1.33	89.9	-.85	45.7	-1.53
59.1	3.80	59.8	-.39	61.0	-1.33	120.4	.04	61.0	-1.27
74.4	4.70	74.4	-.01	76.2	-1.22	150.9	1.12	76.2	-.91
89.6	5.90	89.3	.87	91.4	-.89	181.4	2.33	91.4	-.63
104.9	7.10	104.2	2.28	106.7	-.44	211.8	2.83	106.7	-.20
120.1	8.10	119.1	3.86	121.9	.56	242.3	3.36	121.9	.24
135.3	8.10	134.0	4.25	137.2	1.11	263.0	3.61	137.5	.64
150.6	8.00	148.8	4.26	152.4	1.39			152.4	.86
165.8	8.40	164.8	4.55	167.6	1.67			167.9	1.13
181.1	8.60	178.6	4.79	182.9	1.94			182.9	1.40
196.3	8.70	193.5	5.03	198.1	2.22			198.1	1.65
211.5	9.00	208.4	5.31	213.4	2.50			213.4	1.88
226.8	9.40	223.2	5.70	228.6	2.78			228.6	2.07
242.0	9.40	238.1	5.95	243.8	3.06			243.5	2.29
257.3	9.80	253.0	6.04	259.1	3.33			259.1	2.68
272.5	9.90	267.9	6.13	274.3	3.44			274.3	2.69
287.7	9.80	282.8	6.12						
		297.7	6.12						

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

SHELL NIGLINTGAK H-30
- -WELL SPUDDED 24 10 72
- -DRILLING FOR 165 DAYS TO A TOTAL DEPTH OF 2377 METERS
- -WELL ABANDONED 7 4 73

N.B. LOGS OF 20 4 73 AND 3 11 73 DONE BY SHELL USING ATKINS THERMISTOR.

EARTH PHYSICS BRANCH HOLE NO. 175 GEMINI E-10

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LATITUDE 79 DEGREES 59.4 MINUTES NORTH LONGITUDE 84 DEGREES 4.2 MINUTES WEST

ELEVATION 126 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 30 4 73		DATE OF LOG 22 5 74		DATE OF LOG 12 5 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
34.4	-3.54	30.7	-14.99	33.8	-14.92
69.8	-7.78	60.1	-14.60	65.8	-15.02
101.5	-5.44	90.2	-13.83	96.3	-14.31
132.3	-3.58	120.2	-13.14	126.5	-13.29
162.8	-3.74	150.3	-11.40	157.0	-11.74
193.2	-1.60	180.4	-9.79	187.5	-10.18
223.4	-.31	210.4	-7.98	217.9	-8.41
254.2	-.43	240.5	-7.35	248.7	-7.49
284.7	.79	263.0	-6.32	278.9	-6.13
315.2	-.06	285.6	-5.22	309.4	-5.08
345.6	.11	308.1	-4.48	339.5	-4.14
376.4	-.07	331.0	-4.09	370.6	-3.17
406.9	.24	353.2	-3.15	401.1	-2.17
436.8	1.48	375.7	-2.26	431.6	-1.06
467.9	4.75	398.3	-1.51	461.8	-.58
498.0	6.85	420.8	-.77	492.3	.50
528.2	8.27	443.7	-.41	522.7	1.57
559.0	9.79	465.9	-.32	553.2	3.78
589.5	11.59	488.5	1.00	584.0	5.67
620.3	12.95	511.3	2.06	614.2	7.28
650.1	14.30	533.6	3.09	644.7	8.79
680.6	15.79	556.4	4.32	675.1	10.43
711.4	16.66	578.9	5.64	705.9	11.70
741.9	17.61	601.2	6.82	736.1	12.84
772.4	18.79	624.0	8.04	766.6	14.13
802.5	19.75	646.3	9.24	797.1	15.44
		668.8	10.39	827.5	16.66
		691.3	11.38	858.0	18.23
		713.9	12.26		
		736.5	13.05		
		759.0	14.00		
		781.5	14.86		
		804.1	15.87		
		826.6	16.65		
		849.2	17.83		
		871.7	18.97		

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

PANARCTIC GEMINI E-10
- -WELL SPUDDED 14 10 72
- -DRILLING FOR 145 DAYS TO A TOTAL DEPTH OF 3845 METERS
- -DRILLING STOPPED 8 3 73
- -WELL ABANDONED 15 3 73

EARTH PHYSICS BRANCH HOLE NO. 176 YA YA P-53

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LATITUDE 69 DEGREES 12.8 MINUTES NORTH LONGITUDE 134 DEGREES 42.7 MINUTES WEST

ELEVATION 35 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 19 6 73		DATE OF LOG 4 2 74		DATE OF LOG 16 8 74		DATE OF LOG 24 7 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
14.9	-5.40	32.3	-6.77	13.7	-7.18	14.0	-7.75
29.8	-5.07	62.8	-5.91	28.7	-6.86	29.3	-7.14
59.6	-4.04	93.3	-5.31	58.5	-6.25	59.7	-5.52
89.5	-3.45	123.7	-4.44	88.4	-5.71	90.2	-5.94
119.3	-1.46	154.2	-3.98	118.3	-4.93	120.7	-5.15
149.4	-1.63	185.0	-3.58	148.4	-4.34	151.2	-4.53
178.9	-.67	215.5	-3.01	178.3	-3.95	181.7	-4.05
208.8	-.64	246.0	-2.30	208.2	-3.51	212.1	-3.63
238.6	-.52	276.5	-1.96	237.7	-3.02	242.5	-3.19
258.4	-.41	306.9	-1.25	267.6	-2.42	273.1	-2.60
298.2	-.39	337.4	-1.01	297.5	-2.01	303.9	-2.23
328.1	-.43	367.9	-.71	327.7	-1.58	334.7	-1.76
357.9	-.47	398.7	-.40	357.2	-1.05	365.2	-1.30
387.7	-.58	429.2	.58	387.1	-.76	395.6	-1.01
417.5	1.18			417.0	-.02	426.4	.05
447.4	2.13			446.8	.85	457.2	.93
477.2	2.81			476.7	1.65	487.4	1.72
507.0	3.58			506.6	2.44	518.2	2.50
536.8	4.32			530.0	3.04	548.5	3.32
566.7	4.73					579.1	4.14
						601.7	4.97

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

GULF MOBIL YA YA P-53
- WELL SPUDDED 8 12 72
- DRILLING FOR 102 DAYS TO A TOTAL DEPTH OF 3033 METERS
- WELL ABANDONED 20 3 73

EARTH PHYSICS BRANCH HOLE NO. 178 PARSONS N-10

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LATITUDE 68 DEGREES 59.8 MINUTES NORTH LONGITUDE 133 DEGREES 31.8 MINUTES WEST

ELEVATION 68 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 21 6 73		DATE OF LOG 3 2 74		DATE OF LOG 15 8 74		DATE OF LOG 23 7 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
14.8	-.14	12.2	-4.95	12.2	-6.21	15.2	-7.03
29.7	-.36	27.4	-4.30	26.8	-4.91	30.5	-5.36
59.3	-.29	42.7	-4.18	56.4	-4.58	61.3	-4.81
89.2	-.44	57.9	-4.10	86.6	-4.08	91.4	-4.27
118.9	-.55	72.8	-3.81	116.4	-3.72	121.9	-3.92
148.3	-.71	88.4	-3.55	146.3	-3.03	152.4	-3.29
178.2	-.35	103.3	-3.36	176.2	-2.21	182.6	-2.57
207.5	-.39	118.6	-3.28	206.0	-1.79	213.4	-2.12
237.5	-.11	149.0	-2.41	236.2	-1.41	243.8	-1.62
266.9	-.03	179.6	-1.28	265.8	-.77	274.3	-1.10
296.5	.28	210.3	-.97	295.7	-.71	304.8	-.77
326.1	.49	248.8	-.87	325.5	-.43	335.3	-.51
356.1	4.80	271.3	-.45	355.4	.56	365.8	.75
385.5	5.35	301.4	-.37	385.3	1.61	396.5	1.64
415.1	6.12	316.7	-.33	415.4	2.45	427.3	2.46
444.7	6.81	332.2	-.35	445.3	3.19	457.8	3.26
474.4	7.49	347.5	.19	475.2	4.08	488.6	4.06
504.4	8.44	362.7	1.33	505.7	4.78	519.4	4.88
533.7	9.03	393.2	2.25	534.9	5.56	549.9	5.65
563.6	9.91	423.7	3.07	559.0	6.33	580.3	6.54
593.3	10.53	454.2	3.86			610.8	7.30
623.0	11.38	484.6	4.65				
652.9	11.44	515.1	5.34				
		545.6	6.31				

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

GULF MOBIL PARSONS N-10
  -WELL SPUDDED 24 2 73
  -DRILLING FOR 94 DAYS TO A TOTAL DEPTH OF 3205 METERS
  -WELL ABANDONED 29 5 73

EARTH PHYSICS BRANCH HOLE NO. 179 REINDEER F-36

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LATITUDE 69 DEGREES 5.3 MINUTES NORTH LONGITUDE 134 DEGREES 39.0 MINUTES WEST

ELEVATION 10 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 20 6 73		DATE OF LOG 3 2 74		DATE OF LOG 14 8 74		DATE OF LOG 24 7 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
15.0	-1.28	21.9	-5.81	14.0	-6.51	14.9	-6.98
30.0	-.81	37.2	-5.58	29.0	-6.12	29.9	-6.48
45.0	-.40	67.7	-5.73	58.8	-6.07	60.4	-6.28
60.0	-.71	98.1	-5.22	89.0	-5.87	91.1	-6.08
75.0	-.43	128.6	-4.88	118.6	-5.55	121.3	-5.78
90.0	-.28	159.1	-4.19	148.4	-4.97	151.8	-5.08
105.0	-.13	189.6	-3.20	178.3	-4.22	182.0	-4.23
120.0	-.92	220.1	-2.27	208.2	-3.16	212.8	-3.12
135.0	-.44	250.5	-1.76	238.0	-2.33	243.2	-2.38
150.0	-.34	281.3	-.97	267.9	-1.78	273.7	-1.80
165.0	-.42	311.8	-.53	297.8	-1.07	303.9	-1.01
180.0	-.40	327.1	-.43	327.7	-.47	335.0	-.44
195.0	-.59	342.3	.21	347.8	.05	354.8	-.07
210.0	-.68						
225.0	-.23						
240.0	-.19						
255.0	-.24						
270.0	-.25						
285.0	-.21						
300.0	-.07						
315.0	-.13						
330.0	-.00						
345.0	2.12						

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

GULF IMPERIAL SHELL REINDEER F-36
- WELL SPUDDED 13 3 73
- DRILLING FOR 54 DAYS TO A TOTAL DEPTH OF 1829 METERS
- DRILLING STOPPED 6 5 73
- WELL ABANDONED 15 5 73

EARTH PHYSICS BRANCH HOLE NO. 192 KUGPIK O-13

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LATITUDE 68 DEGREES 52.8 MINUTES NORTH LONGITUDE 135 DEGREES 18.2 MINUTES WEST

ELEVATION 2 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 4 11 73		DATE OF LOG 5 2 74		DATE OF LOG 16 8 74		DATE OF LOG 22 7 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
12.2	-1.11	14.9	-4.06	13.1	-.86	15.2	-1.67
27.4	-.56	38.2	-.94	28.0	-.40	30.5	-.83
42.7	.83	60.7	1.47	58.2	.45	51.0	.04
57.9	4.44	91.1	3.86	88.1	2.06	91.4	1.28
73.2	6.11	121.6	5.34	117.7	3.30	121.9	2.65
88.4	7.22	152.4	6.58	147.5	4.20	152.4	3.44
103.6	8.06	182.9	7.66	177.7	5.29	182.9	4.16
118.9	8.33	213.4	8.63	207.3	6.56	213.7	5.49
134.1	8.88	243.8	9.48	237.1	7.72	243.8	6.81
149.4	9.56	274.6	9.84	267.3	8.16	274.3	7.54
164.6	10.11	305.1	10.48	296.6	8.87	304.8	8.09
179.8	10.56	335.6	11.33	326.7	9.57	335.3	9.04
195.1	11.11	366.1	11.99	356.3	10.33	366.1	9.78
210.3	11.39	396.5	12.55	386.5	11.00	396.2	10.45
225.6	11.67	427.3	13.23	416.1	11.73	426.7	11.25
240.8	11.94	457.8	13.83	446.2	12.30	457.2	11.84
256.0	11.67	488.6	14.99	475.8	13.29	487.7	12.65
271.3	11.78	519.1	15.54	505.7	14.14	518.2	13.77
286.5	12.22	549.6	16.27	535.5	14.79	548.5	14.48
301.8	12.33					579.4	15.16
332.2	13.06					609.6	15.91
362.7	13.61					640.1	16.70
393.2	14.22						
423.7	14.72						
454.2	15.28						
484.6	15.39						
515.1	16.67						
545.6	17.50						
576.1	18.06						
606.6	18.87						
637.0	22.22						
667.5	22.50						
698.0	23.50						
728.5	24.22						

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

SHELL KUGPIK O-13
-WELL SPUDDED 26 3 73
-DRILLING FOR 188 DAYS TO A TOTAL DEPTH OF 3689 METERS
-DRILLING STOPPED 30 9 73

N.B. LOG OF 04 11 73
BY SHELL USING ATKINS BRIDGE.

EARTH PHYSICS BRANCH HOLE NO. 193 IKHIL I-37

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LATITUDE 68 DEGREES 46.6 MINUTES NORTH LONGITUDE 134 DEGREES 7.8 MINUTES WEST

ELEVATION 125 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 19 12 73		DATE OF LOG 3 2 74		DATE OF LOG 15 8 74		DATE OF LOG 23 7 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
0.0	5.60	12.2	-7.65	10.4	3.99	15.2	-1.08
30.5	3.90	27.4	-7.32	25.9	.35	30.5	-1.54
61.0	.60	57.9	-2.15	55.2	-4.19	61.0	-5.09
91.4	.60	89.0	-.45	85.0	-3.53	91.4	-4.76
121.9	.60	119.5	-.10	115.2	-3.47	121.9	-4.37
152.4	.60	150.0	-.12	144.8	-2.14	152.4	-3.28
182.9	1.10	180.4	-.04	174.3	-.46	182.9	-2.23
213.4	1.70	211.2	-.02	204.5	-.23	213.4	-1.21
243.8	2.20	241.7	-.01	234.7	-.28	243.8	-.60
274.3	3.30	272.2	.52	264.3	-.25	274.3	-.41
304.8	2.80	303.0	.07	293.8	-.16	304.8	-.17
335.3	2.80	318.2	.03	324.0	-.04	335.3	-.04
365.8	7.50	333.8	.24	353.6	1.73	366.1	1.24
396.2	8.30	349.0	3.87	383.7	3.07	396.9	2.18
426.7	10.00	364.5	4.71	413.3	4.54	427.3	3.66
457.2	10.60	395.0	5.81	443.2	5.45	457.8	4.62
487.7	11.70	425.5	7.69	472.7	6.27	488.5	5.56
518.2	12.80	456.0	8.09	502.9	7.02	519.4	6.40
548.6	13.30	486.5	9.15	532.8	8.05	549.9	7.66
		516.9	9.98			580.6	8.75
						610.8	9.76

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

GULF MOBIL IKHIL I-37
- WELL SPUDDED 10 4 73
- DRILLING FOR 237 DAYS TO A TOTAL DEPTH OF 4704 METERS
- WELL ABANDONED 3 12 73

N.B. LOG OF 19 12 73 BY GULF USING E.P.B. CABLE AND PROBE WITH ATKINS BRIDGE.
ABSOLUTE VALUE OF READINGS FOR THIS LOG UNCERTAIN.

EARTH PHYSICS BRANCH HOLE NO. 194 ATIGI O-48

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LATITUDE 68 DEGREES 57.0 MINUTES NORTH LONGITUDE 133 DEGREES 56.1 MINUTES WEST

ELEVATION 85 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 19 3 74		DATE OF LOG 15 8 74		DATE OF LOG 23 7 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
15.5	-9.05	25.9	-.20	15.2	-.90
30.5	-6.73	55.8	-1.16	30.5	-1.53
61.0	-4.95	85.6	-5.92	61.0	-2.44
91.4	-3.90	115.8	-5.79	91.4	-6.21
121.9	-3.84	145.4	-5.44	121.9	-6.06
152.4	-2.30	175.3	-5.29	152.4	-5.80
182.9	-3.46	205.1	-4.56	182.9	-5.58
213.4	-3.27	235.3	-4.74	213.4	-5.25
243.8	-3.36	265.2	-4.47	243.8	-5.03
274.3	-3.32	294.7	-4.18	274.6	-4.73
304.8	-3.10	324.6	-3.91	305.1	-4.45
335.3	-1.15	354.5	-3.84	335.3	-4.15
365.8	-2.83	384.4	-3.34	365.5	-3.94
396.2	-1.85	414.2	-2.83	397.2	-3.53
426.7	-1.07	444.1	-2.53	426.7	-2.93
457.2	-1.21	474.0	-1.78	458.4	-2.50
487.7	-.79	503.8	-1.23	488.9	-1.92
518.2	-.46	533.7	-.88	519.4	-1.41
548.6	-.19	548.6	-.52	550.2	-.82
579.1	1.88	563.6	.13	580.6	.04
				611.1	.15

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

GULF MOBIL ATIGI O-48
- -WELL SPUDDED 9 1 74
- -DRILLING FOR 50 DAYS TO A TOTAL DEPTH OF 1981 METERS
- -WELL ABANDONED 28 2 74

EARTH PHYSICS BRANCH HOLE NO. 196 BENT HORN N-72

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LATITUDE 76 DEGREES 21.8 MINUTES NORTH LONGITUDE 103 DEGREES 58.2 MINUTES WEST

ELEVATION 63 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 17 5 74		DATE OF LOG 6 5 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
32.8	-13.11	29.8	-15.44
61.9	-12.58	59.4	-15.04
92.8	-11.81	89.5	-14.33
122.8	-11.12	120.0	-13.62
153.3	-10.29	150.7	-12.74
184.7	-9.31	181.1	-11.73
216.1	-8.65	211.8	-11.06
246.0	-7.31	240.5	-9.89
277.1	-6.46	270.4	-8.88
307.2	-5.63	300.2	-8.01
336.8	-4.98	330.0	-7.19
366.7	-4.22	359.9	-6.49
396.5	-3.34	389.7	-5.77
426.4	-2.56	419.6	-5.19
456.3	-1.55	449.4	-4.68
486.2	-1.51	479.2	-3.86
501.1	-1.51	509.1	-3.25
509.8	-1.25	538.9	-2.72
516.8	-1.10	568.8	-2.20
523.6	-1.04	598.6	-1.78
531.6	-1.00	613.8	-1.48
538.6	-.97	628.4	-1.28
545.9	-.96	643.3	-1.08
560.8	-.90	658.3	-.97
575.8	-.82	673.2	-.68
590.7	-.73	688.1	-.20
605.6	-.65	703.8	.01
620.6	-.65	718.3	.30
635.5	-.63	732.9	.68
643.1	-.59	748.1	1.13
650.4	-.67	762.4	1.52
658.4	-.63	777.6	1.95
665.4	-.32	792.5	2.31
695.3	1.32	807.5	2.66
710.2	1.50	822.4	3.32
725.1	1.87	837.3	3.56
755.0	2.73	852.2	3.75
785.2	3.49		
814.7	4.10		
844.6	4.94		

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

PANARCTIC TENNECO ET AL BENT HORN N-72
- WELL SPUDDED 24 11 73
- DRILLING FOR 133 DAYS TO A TOTAL DEPTH OF 4383 METERS
- WELL ABANDONED 6 4 74

EARTH PHYSICS BRANCH HOLE NO. 197 NEIL O-15

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LATITUDE 80 DEGREES 44.6 MINUTES NORTH LONGITUDE 83 DEGREES 4.8 MINUTES WEST

ELEVATION 497 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 23 5 74		DATE OF LOG 11 5 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
29.6	-2.75	29.6	-8.37
44.8	-3.47	60.7	-8.62
59.8	-4.00	90.8	-8.63
74.7	-3.74	121.3	-8.51
89.9	-3.77	151.8	-8.11
104.9	-4.39	182.3	-7.70
119.8	-3.87	213.4	-7.24
134.8	-3.93	243.2	-6.70
149.4	-3.40	273.7	-5.94
164.7	-3.06	304.2	-5.29
179.3	-2.87	335.0	-4.68
194.5	-3.07	365.5	-4.10
209.5	-2.67	396.5	-3.18
224.1	-2.11	426.1	-2.21
239.1	-2.13	441.4	-1.90
254.0	-.82	456.6	-1.57
269.0	-.34	472.1	-1.23
283.9	-.16	487.1	-.96
298.8	-.25	502.6	-.70
313.8	-.09	517.9	-.38
329.0	-.44	532.8	-.09
343.7	-.10	548.0	.28
351.4	-.23	563.6	.57
358.6	-.20	578.5	.84
363.4	-.05	593.8	1.16
368.1	.27	609.0	1.60
372.3	.57	624.2	2.09
376.5	.76	639.8	2.58
381.0	.50	655.0	2.95
388.5	.81	670.0	3.46
396.2	.75	685.2	3.89
403.7	1.55	700.4	4.33
418.3	2.29	715.7	4.75
432.4	.17	731.2	5.24
448.2	1.78		
463.5	.54		
478.1	.91		
493.0	2.87		
508.0	3.59		
523.3	2.66		
537.9	3.76		
552.8	4.14		
567.8	4.36		
598.0	5.23		
627.8	6.36		
657.4	7.06		
687.3	7.86		
717.2	9.04		
747.1	8.97		
776.9	10.17		
806.8	10.20		

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

GULF HC ET AL NEIL O-15
  -WELL SPUDDED 17 3 74
  -DRILLING FOR 51 DAYS TO A TOTAL DEPTH OF 2448 METERS
  -WELL ABANDONED 7 5 74

EARTH PHYSICS BRANCH HOLE NO. 199 DRAKE E-78

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LATITUDE 76 DEGREES 27.3 MINUTES NORTH LONGITUDE 108 DEGREES 29.4 MINUTES WEST

ELEVATION 2 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 5 8 74		DATE OF LOG 6 5 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
13.7	-12.78	17.0	-13.60
29.0	-11.59	31.6	-12.19
43.6	-10.53	46.8	-11.06
58.5	-9.44	65.6	-9.53
73.4	-8.05	80.5	-7.92
88.4	-6.68	95.4	-6.50
103.2	-5.36	109.7	-5.24
118.4	-4.09	125.1	-3.60
132.8	-2.69	139.8	-2.20
147.6	-1.46	154.2	-.92
162.3	-.22	168.6	.37
177.3	1.10	183.9	1.65
191.6	2.31	198.5	2.88
206.3	3.40	213.1	3.70
220.9	4.17	227.3	4.41
235.4	4.82	241.8	5.14
249.9	5.56	256.3	5.72
264.4	6.10	271.0	6.39
273.8	6.72		

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

PANARCTIC POR HOMESTEAD DRAKE E-78
- -WELL SPUDDED 2 5 74
- -DRILLING FOR 16 DAYS TO A TOTAL DEPTH OF 1356 METERS
- -DRILLING STOPPED 18 5 74
- -WELL ABANDONED 27 5 74

WELL WAS DIRECTIONALLY DRILLED. TRUE VERTICAL TOTAL DEPTH = 1221 M.
LENGTH OF HOLE = 1356 M. DEPTHS IN TABLES HAVE BEEN CORRECTED TO VERTICAL.

EARTH PHYSICS BRANCH HOLE NO. 208 HECLA I-69

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LATITUDE 76 DEGREES 18.7 MINUTES NORTH LONGITUDE 110 DEGREES 23.3 MINUTES WEST

ELEVATION 2 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 5 8 74		DATE OF LOG 6 5 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
13.4	-14.71	18.3	-14.69
28.3	-13.61	33.5	-13.29
43.3	-11.50	48.5	-10.67
58.2	-9.04	64.0	-8.32
73.1	-7.16	78.9	-6.69
88.0	-5.59	94.1	-5.00
103.2	-3.69	109.3	-3.09
117.8	-2.09	124.5	-1.51
132.7	-.60	139.6	.16
147.8	.89	155.0	1.44
162.0	1.99	169.8	2.49
177.2	2.95	199.9	4.22
191.5	3.77	229.1	5.78
206.1	4.58	258.4	7.39
220.6	5.32	287.7	8.74
235.0	6.10	316.2	9.91
249.7	6.92	344.9	10.99
263.7	7.65	373.4	11.72
277.9	8.34	401.4	12.30
292.1	8.80	429.0	13.05
306.4	9.47	456.8	14.16
320.5	10.02	484.4	14.82
334.4	10.58	519.0	15.49
348.3	11.06		
361.9	11.45		
375.6	11.80		
389.2	12.11		
402.8	12.44		
416.2	12.72		
429.9	13.03		

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

PANARCTIC TENNECO ET AL HECLA I-69
- -WELL SPUDDED 22 2 73
- -DRILLING FOR 66 DAYS TO A TOTAL DEPTH OF 1457 METERS
- -DRILLING STOPPED 29 4 73
- -WELL ABANDONED 9 5 73

WELL WAS DIRECTIONALLY DRILLED. TRUE VERTICAL TOTAL DEPTH = 1224 M.
LENGTH OF HOLE = 1457 M. DEPTHS IN TABLES HAVE BEEN CORRECTED TO VERTICAL.

EARTH PHYSICS BRANCH HOLE NO. 254 YA YA A-28

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LATITUDE 69 DEGREES 17.2 MINUTES NORTH LONGITUDE 134 DEGREES 35.5 MINUTES WEST

ELEVATION 40 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG 16 8 74		DATE OF LOG 25 7 75	
DEPTH (M)	TEMP (C)	DEPTH (M)	TEMP (C)
56.7	-.37	27.4	-2.34
86.9	-.44	57.9	-6.51
116.7	-.51	88.4	-6.43
146.6	-1.08	119.2	-5.64
176.2	-1.04	149.7	-3.52
206.0	-1.03	180.1	-3.14
235.9	-1.06	210.6	-3.82
265.8	-1.12	241.1	-2.99
295.7	-1.05	271.9	-2.76
325.5	-.91	302.1	-1.61
355.1	-.84	333.1	-2.34
384.7	-.88	363.6	-2.31
414.5	-.71	394.4	-1.97
444.4	-.55	425.2	-1.49
474.3	-.51	456.0	-1.02
503.8	-.46	486.8	-.88
533.7	-.43	517.6	-.85
		548.6	-.65
		579.4	-.65
		601.1	-.47

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

GULF MOBIL YA YA A-28
- WELL SPUDDED 28 2 74
- DRILLING FOR 98 DAYS TO A TOTAL DEPTH OF 3944 METERS
- WELL ABANDONED 6 7 74

EARTH PHYSICS BRANCH HOLE NO. 255 ADGO P-25

****

LATITUDE 69 DEGREES 24.9 MINUTES NORTH LONGITUDE 135 DEGREES 50.5 MINUTES WEST

ELEVATION 1 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DEPTH (M)	DATE 3 5 75 TEMP (C)	DATE 30 7 75 TEMP (C)	DATE 7 8 75 TEMP (C)	DATE 20 12 75 TEMP (C)	DATE 19 1 76 TEMP (C)
3.4	3.67	1.33	1.33	.50	.17
23.2	6.89	4.56	4.44	3.61	3.50
43.0	6.89	4.78	4.67	3.83	3.50
62.8	7.06	4.89	4.83	4.06	3.94
82.6	7.39	5.33	5.28	4.50	4.39
102.4	7.50	5.50	5.44	4.67	4.61
122.2	7.83	5.83	5.78	4.94	4.89
142.0	8.11	6.06	5.94	5.22	5.17
161.8	8.28	6.22	6.17	5.44	5.33
181.7	8.44	6.50	6.44	5.67	5.61
201.5	8.78	6.83	6.72	6.00	5.94
221.3	8.56	6.94	6.83	6.28	6.22
241.1	8.72	7.11	7.06	6.39	6.39
260.9	9.00	7.39	7.33	6.67	6.61
280.7	9.50	7.78	7.72	7.06	7.00
300.5	9.56	7.89	7.83	7.22	7.17
320.3	9.94	8.33	8.28	7.61	7.56
340.2	10.44	8.78	8.67	8.06	8.00
360.0	11.00	9.22	9.17	8.50	8.44
379.8	10.78	9.33	9.22	8.72	8.67
399.6	10.78	9.44	9.33	8.83	8.78
419.4	11.44	10.00	9.94	9.39	9.33
439.2	11.78	10.39	10.28	9.72	9.72
459.0	12.11	10.72	10.61	10.11	10.06
478.8	12.78	11.33	11.28	10.72	10.67
498.7	13.11	11.67	11.61	11.06	11.00
518.5	13.72	12.22	12.17	11.56	11.50
538.3	13.72	12.39	12.33	11.83	11.83
558.1	14.44	13.00	12.94	12.44	12.39

TEMPERATURE RESULTS ARE OBTAINED FROM A MULTI-THERMISTOR CABLE
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

IMPERIAL ADGO P-25
- WELL SPUDDED 2 1 75
- DRILLING FOR 85 DAYS TO A TOTAL DEPTH OF 2538 METERS
- WELL ABANDONED 28 3 75

N.B. Logs of 20 12 75 and 19 01 76 taken by I.O.E. using digital multimeter

EARTH PHYSICS BRANCH HOLE NO. 256 SUTHERLAND O-23

****

LATITUDE 77 DEGREES 42.9 MINUTES NORTH LONGITUDE 102 DEGREES 8.5 MINUTES WEST

ELEVATION 21 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
14 5 75

DEPTH (M)	TEMP (C)
31.7	-12.90
61.3	-11.94
91.4	-10.99
121.9	-9.15
152.7	-6.75
182.9	-4.88
213.7	-2.83
244.1	-1.21
259.1	-.39
274.6	.41
289.6	1.11
304.8	1.75
320.0	2.44
335.6	3.29
366.1	4.83
396.2	5.75
426.7	6.27
457.2	6.69

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

DOME ARCTIC VENTURES SUTHERLAND O-23
-WELL SPUDDED 27 3 73
-DRILLING FOR 404 DAYS TO A TOTAL DEPTH OF 4457 METERS
-DRILLING STOPPED 5 5 74
-WELL ABANDONED 5 5 74

EARTH PHYSICS BRANCH HOLE NO. 257 PEDDER POINT D-49

****

LATITUDE 75 DEGREES 38.2 MINUTES NORTH LONGITUDE 118 DEGREES 48.3 MINUTES WEST

ELEVATION 161 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
8 5 75

DEPTH (M)	TEMP (C)
18.3	-14.62
48.8	-13.71
79.6	-12.31
110.0	-10.63
140.2	-9.43
170.7	-7.59
201.2	-5.91
231.6	-4.38
262.1	-2.86
292.6	-1.86
323.1	-.54
354.2	.83
384.7	2.06
415.4	3.22
446.5	4.56
477.0	6.35
507.8	7.84
538.6	9.28
551.1	9.96

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

PANARCTIC ET AL PEDDER POINT D-49
-WELL SPUDDED 12 10 74
-DRILLING FOR 30 DAYS TO A TOTAL DEPTH OF 1871 METERS
-DRILLING STOPPED 6 11 74
-WELL ABANDONED 10 11 74

EARTH PHYSICS BRANCH HOLE NO. 258 PAT BAY A-72

****

LATITUDE 77 DEGREES 21.0 MINUTES NORTH LONGITUDE 105 DEGREES 27.0 MINUTES WEST

ELEVATION 17 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
15 5 75

DEPTH (M)	TEMP (C)
30.8	-7.63
61.3	-2.14
91.7	-2.24
122.2	-2.07
152.7	-2.89
182.9	-1.92
213.7	-.39
243.8	.15
259.1	.74
274.3	.95
289.6	2.28
304.8	4.03
320.3	5.66
335.3	5.49
365.8	8.04
396.2	9.99
426.7	11.71
457.2	13.46
476.1	14.38
487.7	14.46

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

PANARCTIC TENNECO ET AL PAT BAY A-72
-WELL SPUDDED 28 2 75
-DRILLING FOR 63 DAYS TO A TOTAL DEPTH OF 3231 METERS
-DRILLING STOPPED 1 5 75
-WELL ABANDONED 4 5 75

EARTH PHYSICS BRANCH HOLE NO. 259 DRAKE D-73

****

LATITUDE 76 DEGREES 22.1 MINUTES NORTH LONGITUDE 108 DEGREES 29.5 MINUTES WEST

ELEVATION 33 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
16 5 75

DEPTH (M)	TEMP (C)
32.0	-2.68
64.6	-5.70
98.1	-5.42
130.1	-3.92
161.5	-2.83
192.0	-1.87
222.5	-.21
238.0	.92
253.0	1.74
268.5	2.94
299.0	4.14
329.2	5.46
359.7	6.89
390.4	8.03
393.2	8.55

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

PANARCTIC TENNECO ET AL DRAKE D-73
-WELL SPUDDED 23 4 75
-DRILLING FOR 17 DAYS TO A TOTAL DEPTH OF 1361 METERS
-WELL ABANDONED 10 5 75

EARTH PHYSICS BRANCH HOLE NO. 260 RED FOX P-21

****

LATITUDE 69 DEGREES 10.8 MINUTES NORTH LONGITUDE 133 DEGREES 35.0 MINUTES WEST

ELEVATION 23 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
25 7 75

DEPTH (M)	TEMP (C)
15.5	-.74
30.2	-.61
61.0	-.44
91.1	-.19
122.2	-.44
152.4	-.77
182.9	-.88
213.4	-.90
244.1	-1.05
274.6	-.80
305.1	-.65
335.9	-.53
366.7	-.52
397.2	-.44
411.8	-.43

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

GULF MOBIL DOME RED FOX P-21
-WELL SPUDDED 23 2 75
-DRILLING FOR 76 DAYS TO A TOTAL DEPTH OF 4179 METERS
-DRILLING STOPPED 9 5 75
-WELL ABANDONED 9 5 75

EARTH PHYSICS BRANCH HOLE NO. 261 KIMIK D-29

****

LATITUDE 69 DEGREES 38.1 MINUTES NORTH LONGITUDE 132 DEGREES 22.2 MINUTES WEST

ELEVATION 10 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
27 7 75

DEPTH (M)	TEMP (C)
29.3	-8.11
45.1	-7.95
60.0	-7.79
90.5	-7.55
121.0	-7.21
151.5	-6.83
182.3	-6.42
212.8	-6.00
243.5	-5.60
274.3	-5.17
305.4	-4.76
335.9	-4.30
366.4	-3.77
397.8	-3.32
427.9	-2.91
459.0	-2.49
490.4	-2.12
521.5	-1.78
552.3	-1.44
583.1	-1.06
602.9	-.92

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

I.O.E. KIMIK D-29
- WELL SPUDDED 17 12 71
- DRILLING FOR 49 DAYS TO A TOTAL DEPTH OF 2558 METERS
- DRILLING STOPPED 4 2 72
- WELL ABANDONED 16 2 72

EARTH PHYSICS BRANCH HOLE NO. 262 ATERTAK E-41

****

LATITUDE 69 DEGREES 30.5 MINUTES NORTH LONGITUDE 132 DEGREES 42.1 MINUTES WEST

ELEVATION 12 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
27 7 75

DEPTH (M)	TEMP (C)
29.0	-7.52
43.9	-7.44
59.4	-7.23
74.7	-6.99
89.9	-6.79
120.7	-6.10
151.2	-5.63
181.4	-5.19
211.8	-4.75
242.3	-4.25
273.1	-3.65
303.9	-3.15
334.4	-2.77
365.8	-2.16
396.5	-1.80
427.6	-1.44
458.7	-1.13
489.5	-.64
520.3	-.44
538.0	.09

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

IMPERIAL ATERTAK E-41
- WELL SPUDDED 1 5 72
- DRILLING FOR 44 DAYS TO A TOTAL DEPTH OF 1984 METERS
- DRILLING STOPPED 14 6 72
- WELL ABANDONED 13 7 72

EARTH PHYSICS BRANCH HOLE NO. 263 PIKIOLIK M-26

****

LATITUDE 69 DEGREES 25.9 MINUTES NORTH LONGITUDE 132 DEGREES 37.4 MINUTES WEST

ELEVATION 17 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
27 7 75

DEPTH (M)	TEMP (C)
29.6	-7.73
44.8	-7.58
60.0	-7.40
90.8	-7.07
121.3	-6.73
152.1	-6.03
182.3	-5.12
213.1	-4.23
243.5	-3.33
274.3	-2.22
305.1	-1.41
336.2	-.71
366.7	.14
397.8	1.33
429.2	2.28
459.3	3.39
490.4	4.48
521.5	5.44
552.0	6.29

TEMPERATJRE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

I.O.E. PIKIOLIK M-26
-WELL SPUDDED 22 12 71
-DRILLING FOR 39 DAYS TO A TOTAL DEPTH OF 1984 METERS
-DRILLING STOPPED 30 1 72
-WELL ABANDONED 7 2 72

EARTH PHYSICS BRANCH HOLE NO. 264 PIKIOLIK E-54

****

LATITUDE 69 DEGREES 23.2 MINUTES NORTH LONGITUDE 132 DEGREES 44.6 MINUTES WEST

ELEVATION 18 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
28 7 75

DEPTH (M)	TEMP (C)
29.6	-7.51
44.8	-7.32
60.0	-7.11
90.8	-6.77
121.0	-6.38
151.5	-5.68
181.7	-4.86
213.1	-4.03
244.1	-3.26
274.9	-2.54
305.7	-1.90
335.9	-1.44
367.3	-1.01
399.0	-.52
430.1	-.17
460.6	.81
491.6	1.66
522.1	2.45
526.7	2.59

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

I.O.E. PIKIOLIK E-54
-WELL SPUDDED 11 12 71
-DRILLING FOR 55 DAYS TO A TOTAL DEPTH OF 3118 METERS
-DRILLING STOPPED 4 2 72
-WELL ABANDONED 15 2 72

EARTH PHYSICS BRANCH HOLE NO. 265 MALLIK A-06

****

LATITUDE 69 DEGREES 25.0 MINUTES NORTH LONGITUDE 134 DEGREES 30.3 MINUTES WEST

ELEVATION 27 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
25 7 75

DEPTH (M)	TEMP (C)
13.7	-7.92
29.3	-7.20
59.4	-6.94
89.9	-6.42
108.2	-4.75

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

IMPERIAL MALLIK A-06
- WELL SPUDDED 21 4 72
- DRILLING FOR 146 DAYS TO A TOTAL DEPTH OF 4137 METERS
- DRILLING STOPPED 14 9 72
- WELL ABANDONED 8 10 72

EARTH PHYSICS BRANCH HOLE NO. 266 IVIK J-26

****

LATITUDE 69 DEGREES 35.7 MINUTES NORTH LONGITUDE 134 DEGREES 20.6 MINUTES WEST

ELEVATION 23 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
25 7 75

DEPTH (M)	TEMP (C)
29.0	-7.84
44.2	-7.78
59.7	-7.76
74.7	-7.71
90.2	-7.57
105.2	-7.42
120.4	-7.21
135.3	-6.91
150.9	-6.56
166.1	-6.29
181.1	-6.08
196.9	-5.77
212.1	-5.12
227.4	-4.34
242.6	-4.81
257.9	-4.80
273.1	-4.65
287.4	-4.41

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

IMPERIAL IVIK J-26
- WELL SPUDDED 8 4 72
- DRILLING FOR 129 DAYS TO A TOTAL DEPTH OF 3648 METERS
- DRILLING STOPPED 15 8 72
- WELL ABANDONED 30 9 72

EARTH PHYSICS BRANCH HOLE NO. 267 TAGLU C-42

****

LATITUDE 69 DEGREES 21.0 MINUTES NORTH LONGITUDE 134 DEGREES 56.6 MINUTES WEST

ELEVATION 2 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
26 7 75

DEPTH (M)	TEMP (C)
13.7	-.48
28.7	.67
59.1	-.79
89.9	-.44
120.4	-.27
150.9	-.42
181.7	-.40
211.5	-.44
242.0	-.74
273.4	-.57
304.2	-.50
335.0	-.60
365.5	-.72
396.2	-.58
427.0	-.75
457.8	-.85
487.7	-.83
519.4	-.89
549.9	-.61
580.3	-.54

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

I.O.E. TAGLU C-42
-WELL SPUDDED 30 4 72
-DRILLING FOR 128 DAYS TO A TOTAL DEPTH OF 4895 METERS
-DRILLING STOPPED 5 9 72
-WELL ABANDONED 18 11 72

EARTH PHYSICS BRANCH HOLE NO. 268 TAGLU F-43

****

LATITUDE 69 DEGREES 22.3 MINUTES NORTH LONGITUDE 134 DEGREES 56.8 MINUTES WEST

ELEVATION 1 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
26 7 75

DEPTH (M)	TEMP (C)
12.2	-6.46
27.1	-5.45
57.6	-3.62
88.1	-2.45
118.6	-2.27
149.4	-1.58
180.1	-.96
210.3	-.74
240.5	-.64
271.9	-.79
302.4	-.86
333.5	-.74
363.6	-.88
395.0	-.84
426.1	-.82
456.6	-.73
487.7	-.60
519.1	-.72
549.6	-.61

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

I.O.E. TAGLU F-43
-WELL SPUDDED 23 3 73
-DRILLING FOR 88 DAYS TO A TOTAL DEPTH OF 4555 METERS
-DRILLING STOPPED 19 6 73
-WELL ABANDONED 11 9 73

EARTH PHYSICS BRANCH HOLE NO. 269 TAGLU D-55

****

LATITUDE 69 DEGREES 24.2 MINUTES NORTH LONGITUDE 134 DEGREES 59.6 MINUTES WEST

ELEVATION 1 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

DATE OF LOG
26 7 75

DEPTH (M)	TEMP (C)
29.0	-1.25
59.1	-3.11
89.6	-1.67
120.1	-1.08
150.6	-.86
181.1	-.66
212.1	-1.00
242.6	-1.10
273.1	-1.03
304.2	-.76
334.4	-.69
362.1	-1.09

TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

I.O.E. TAGLU D-55
- WELL SPUDDED 4 4 72
- DRILLING FOR 103 DAYS TO A TOTAL DEPTH OF 3706 METERS
- DRILLING STOPPED 16 7 72
- WELL ABANDONED 21 8 72

EARTH PHYSICS BRANCH HOLE NO. 270 NIGLINTGAK M-19

****

LATITUDE 69 DEGREES 18.8 MINUTES NORTH LONGITUDE 135 DEGREES 19.4 MINUTES WEST

ELEVATION 2 METERS

SUMMARY OF DEPTH-TEMPERATURE LOGS

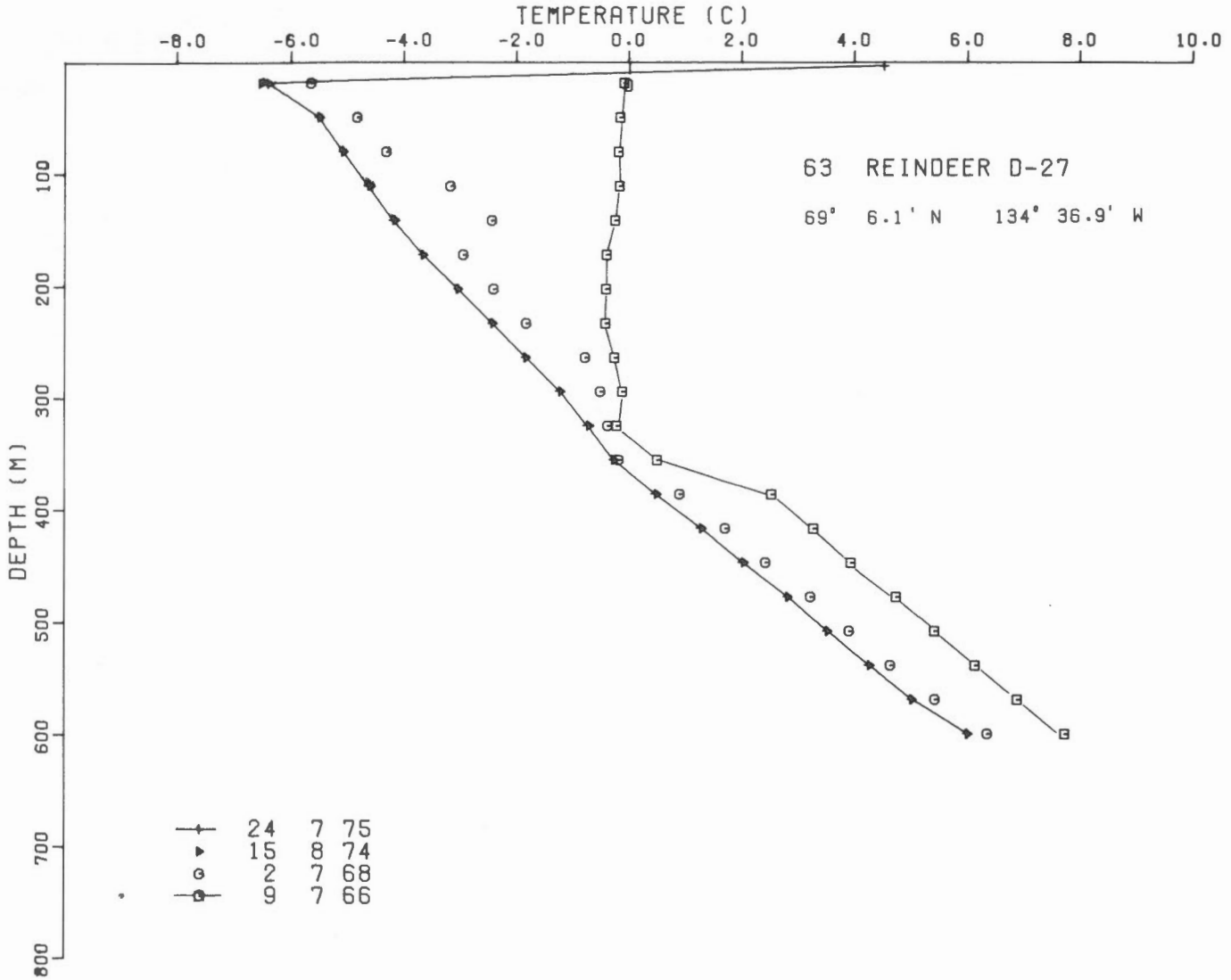
DATE OF LOG
28 8 75

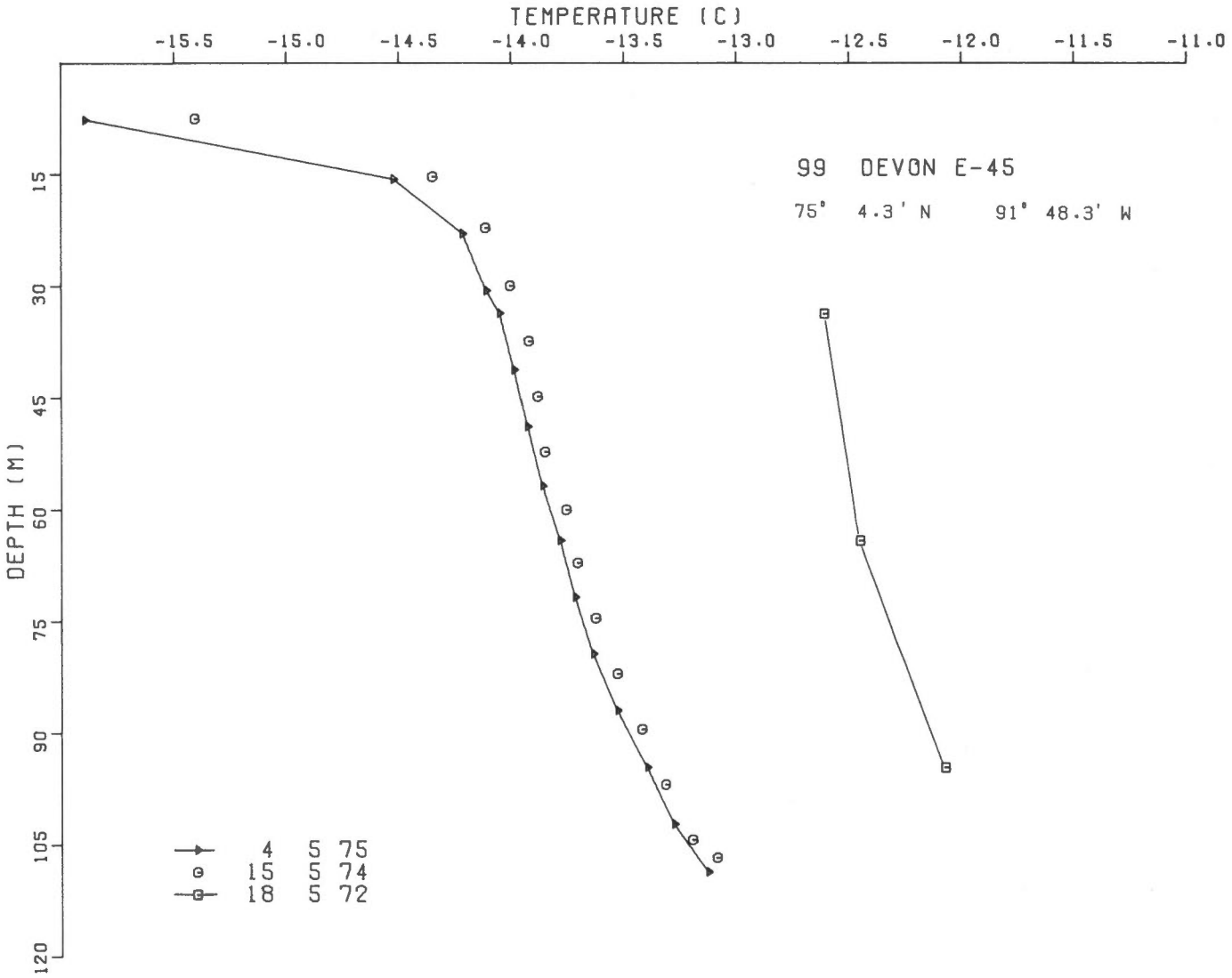
DEPTH (M)	TEMP (C)
30.5	.44
61.0	-1.03
91.1	.73
121.9	2.99
152.4	3.21
182.6	3.54
213.4	4.06
243.8	4.71
274.3	5.36
304.5	6.01
335.3	6.64
366.1	7.31
396.2	7.43
426.7	7.52
457.2	7.53
487.4	7.57
517.9	7.61
548.6	7.65
578.8	7.71
609.9	7.81

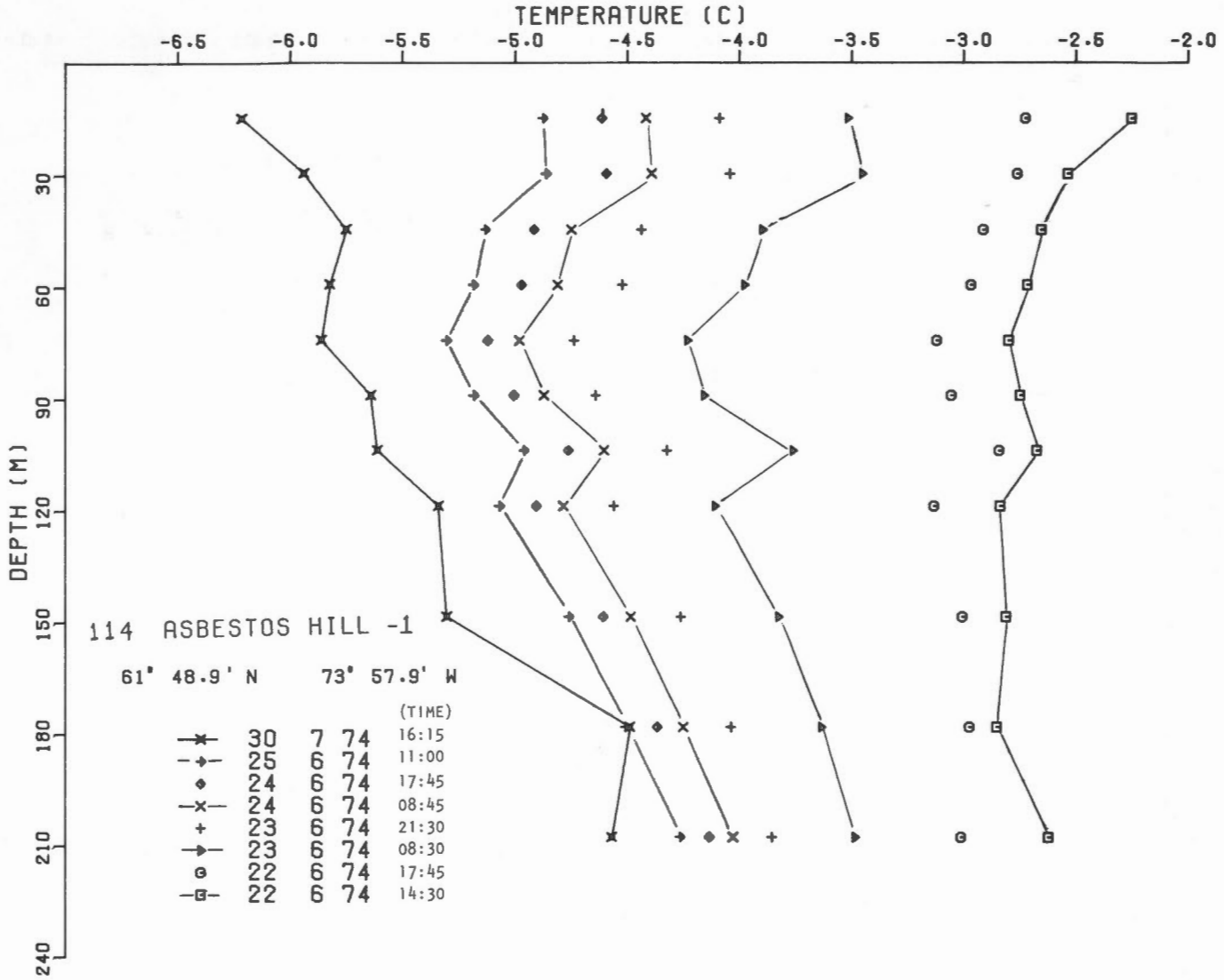
TEMPERATURE RESULTS ARE OBTAINED FROM SINGLE THERMISTOR LOGS
FURTHER TEMPERATURE LOGS ARE EXPECTED FOR THIS HOLE

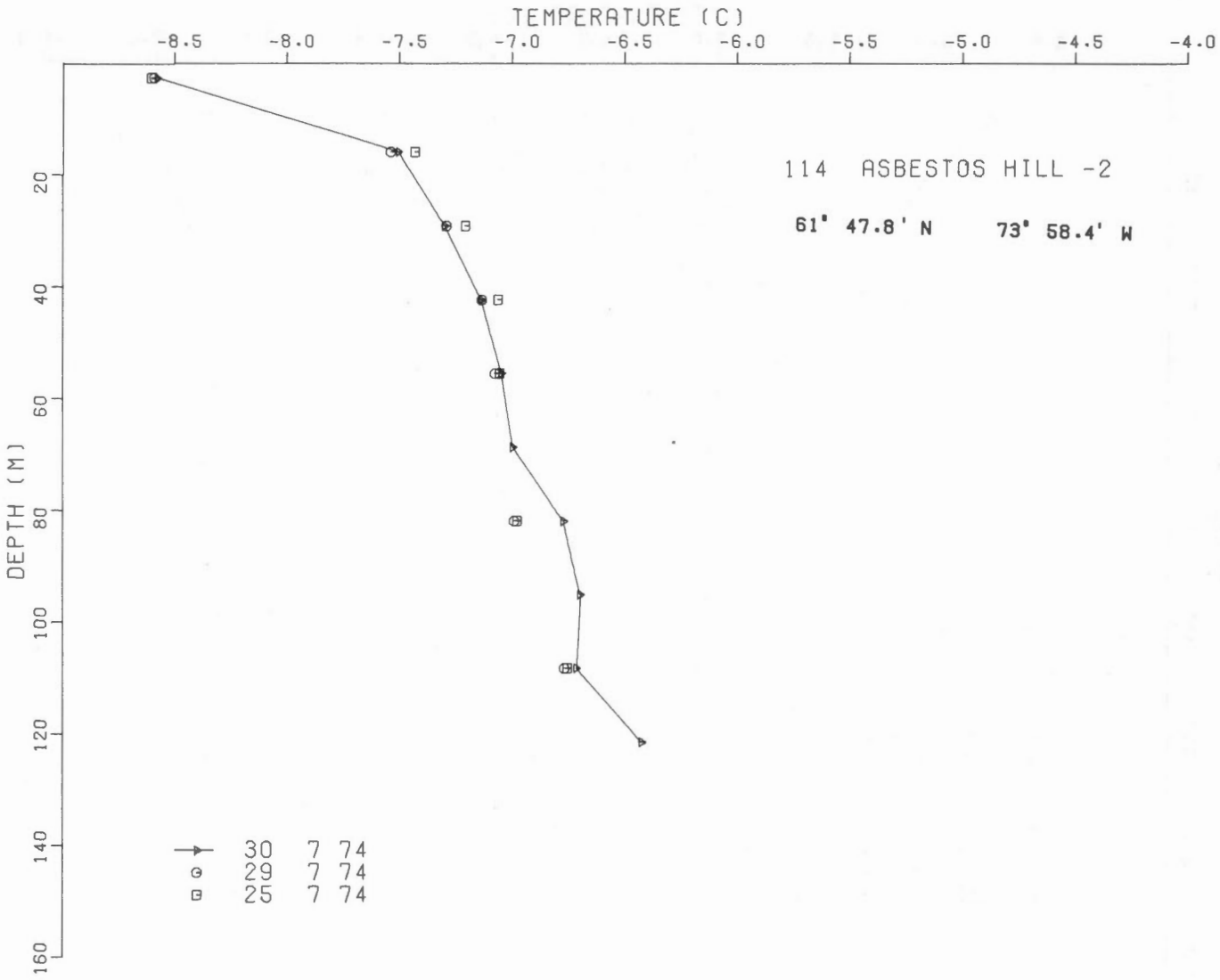
SHELL NIGLINTGAK M-19
-WELL SPUDDED 1 5 74
-DRILLING FOR 211 DAYS TO A TOTAL DEPTH OF 4025 METERS
-DRILLING STOPPED 28 11 74
-WELL ABANDONED 28 11 74

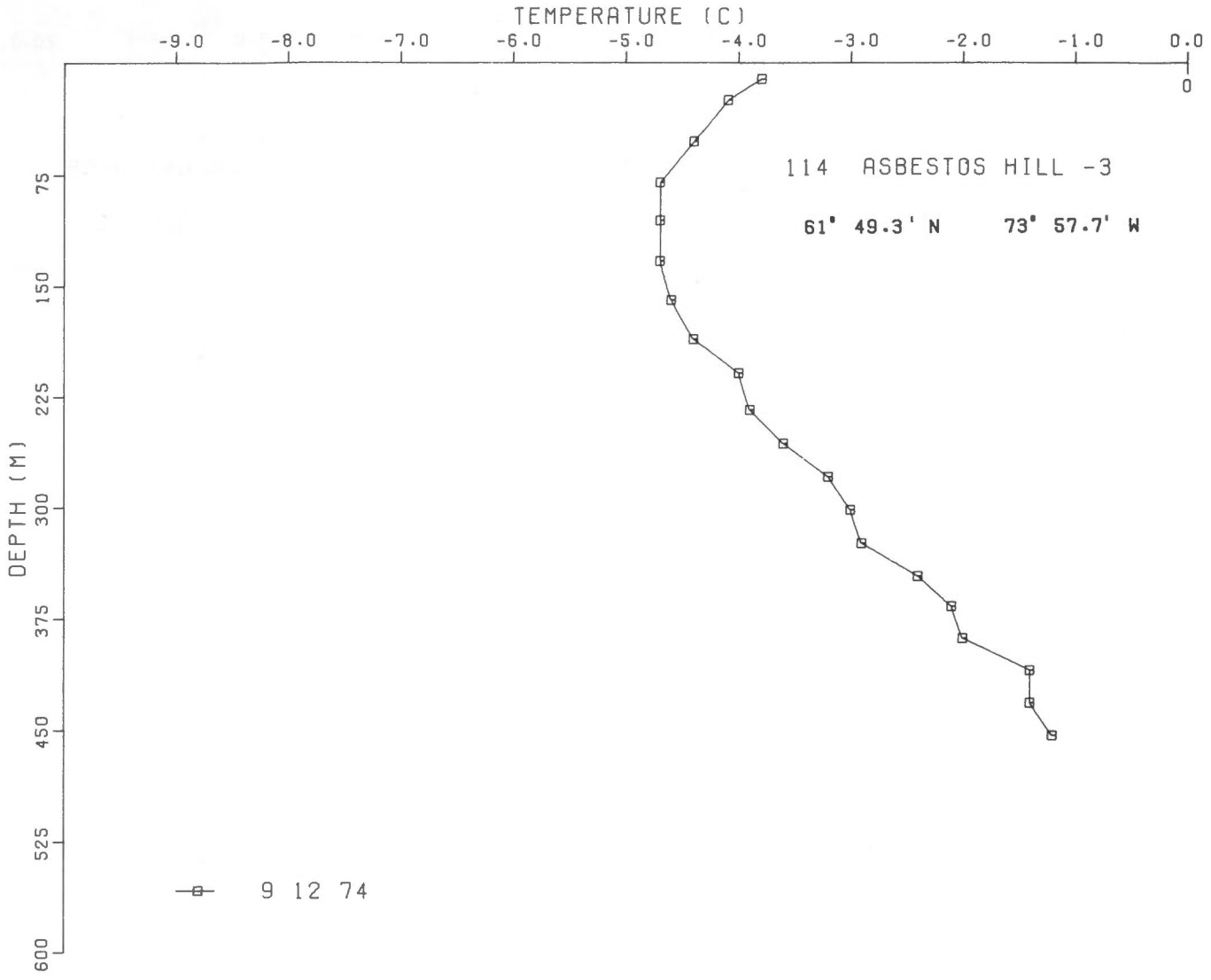
3.2 Graphs of Temperature versus Depth

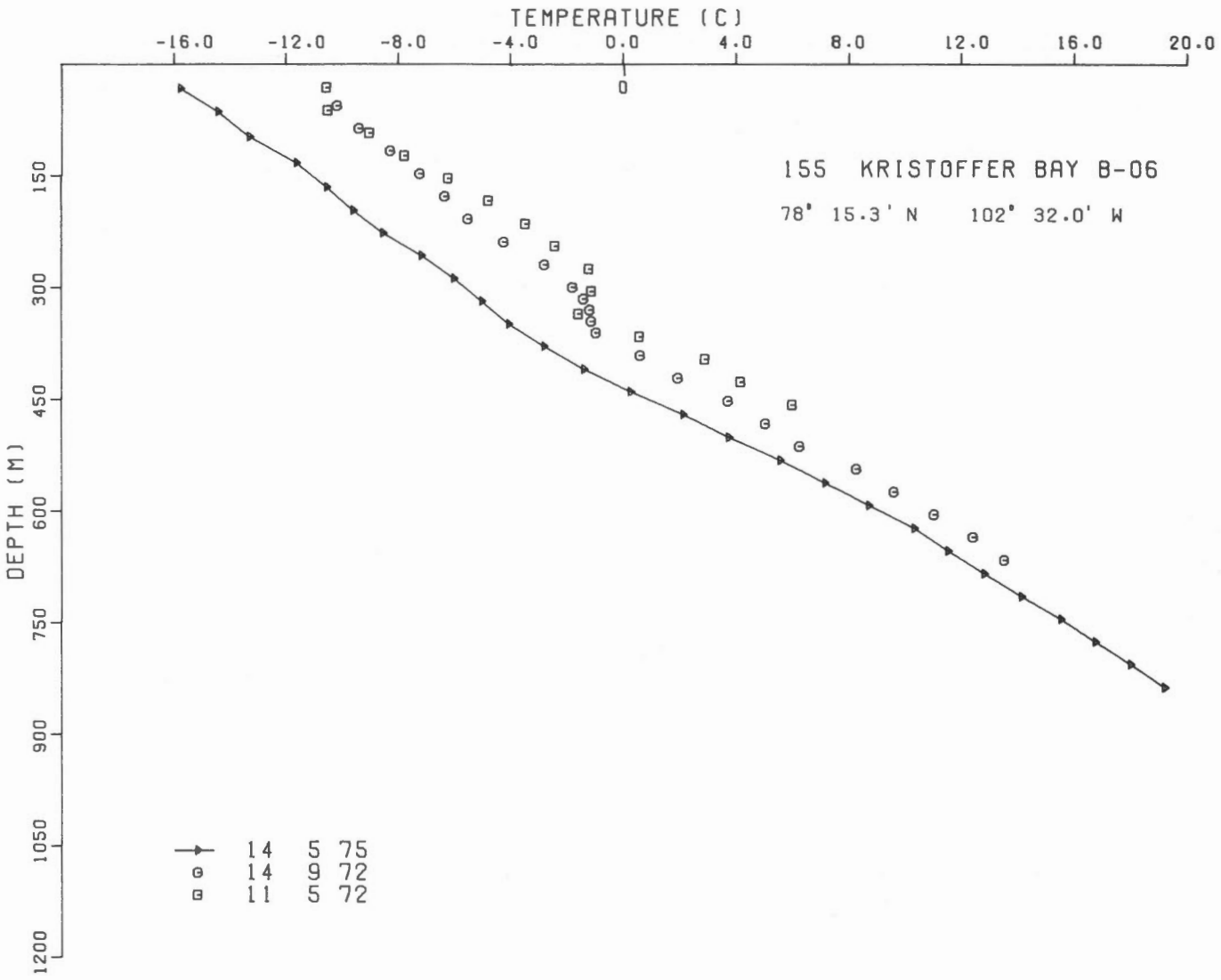

TEMPERATURE (C)
-8.0
-6.0
-4.0
-2.0
0.0
2.0
4.0
6.0
8.0
10.0
DEPTH (M)
100
200
300
400
500
600
700
800
63 REINDEER D-27
69° 6.1' N 134° 36.9' W
24 7 75
15 8 74
2 7 68
9 7 66

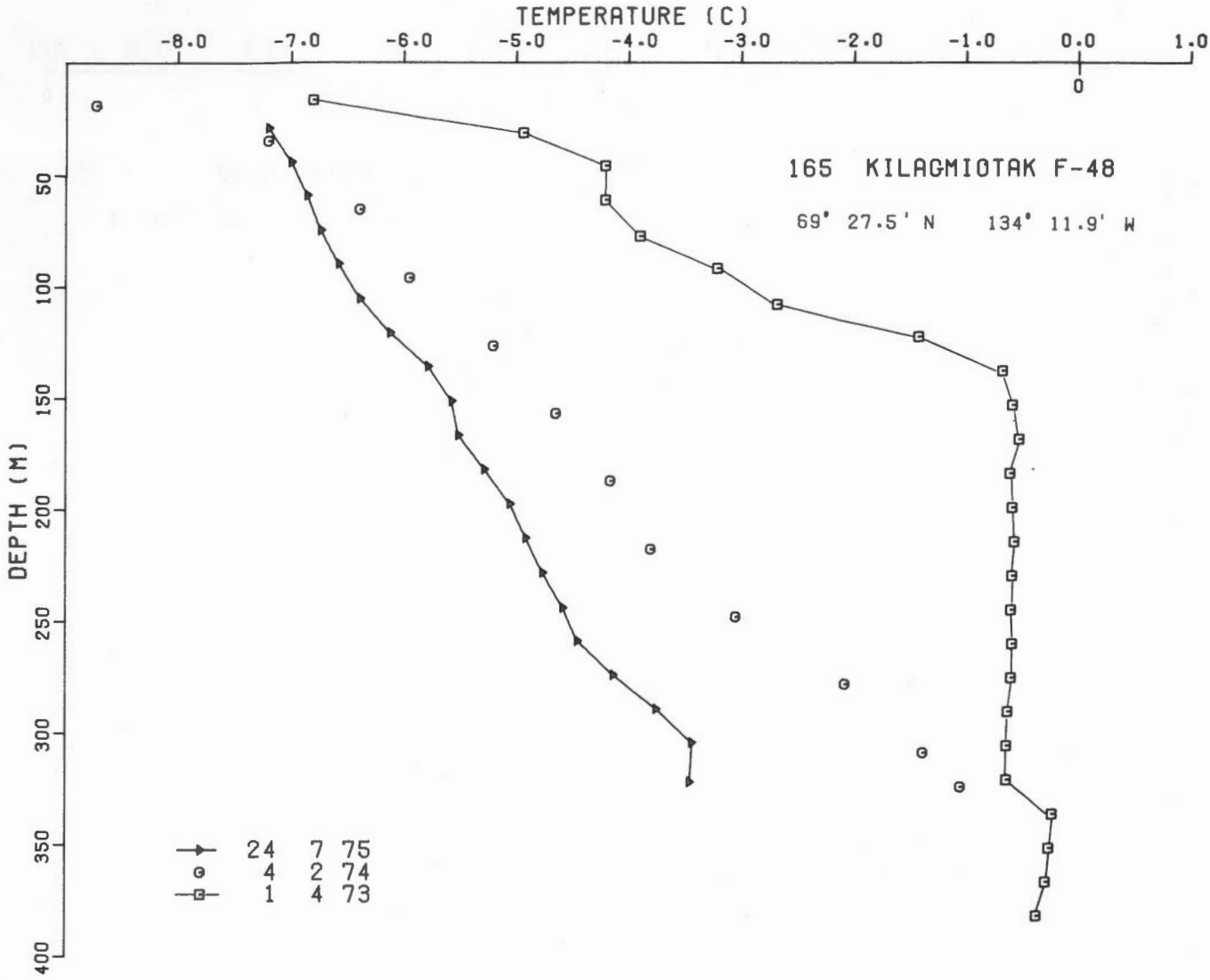

TEMPERATURE (C)
-15.5
-15.0
-14.5
-14.0
-13.5
-13.0
-12.5
-12.0
-11.5
-11.0
DEPTH (M)
15
30
45
60
75
90
105
120
99 DEVON E-45
75° 4.3' N 91° 48.3' W
4 S 75
15 S 74
18 S 72

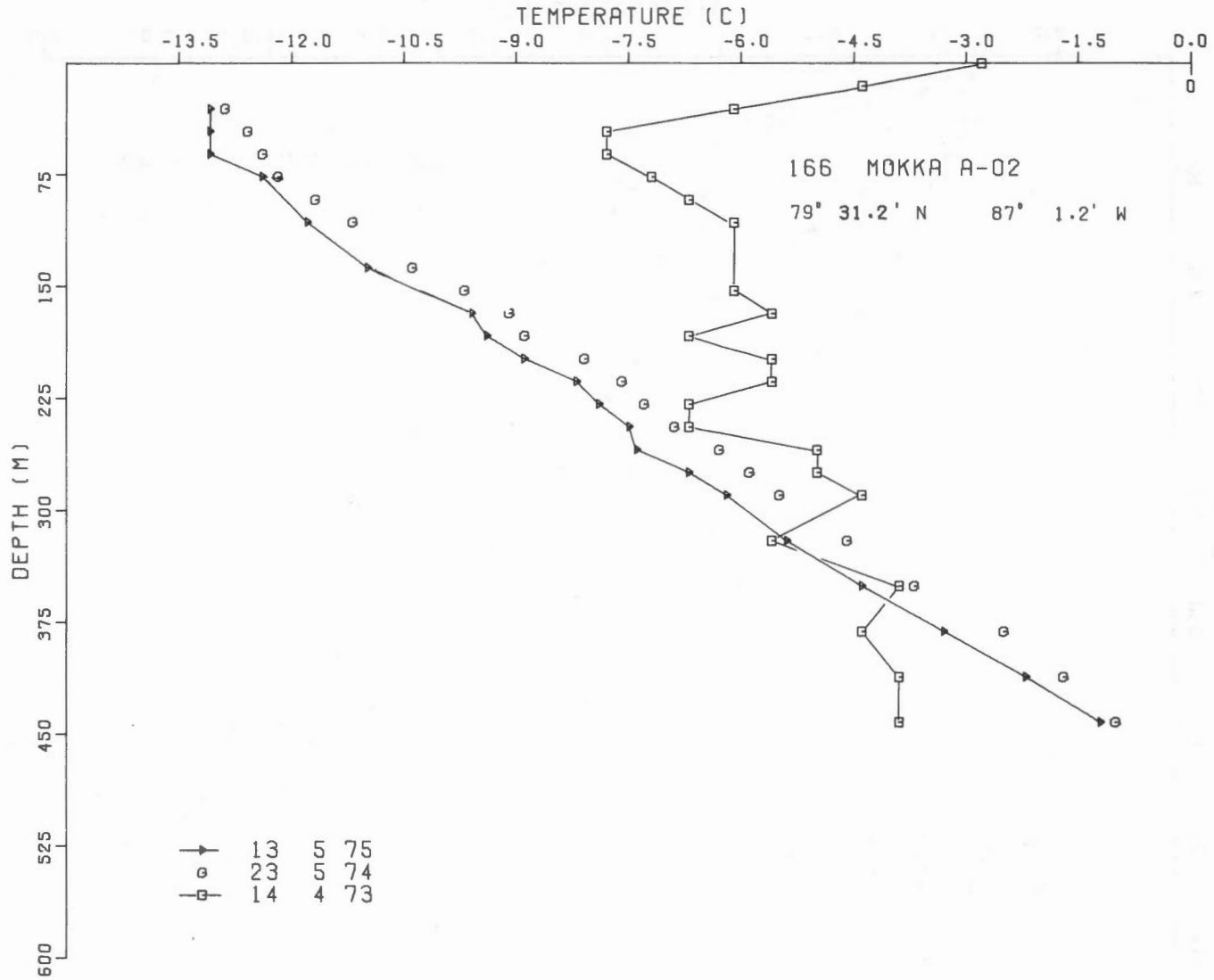

TEMPERATURE (C)
-6.5
-6.0
-5.5
-5.0
-4.5
-4.0
-3.5
-3.0
-2.5
-2.0
DEPTH (M)
30
60
90
120
150
180
210
240
114 ASBESTOS HILL -1
61° 48.9' N 73° 57.9' W
(TIME)
30 7 74 16:15
25 6 74 11:00
24 6 74 17:45
24 6 74 08:45
23 6 74 21:30
23 6 74 08:30
22 6 74 17:45
22 6 74 14:30

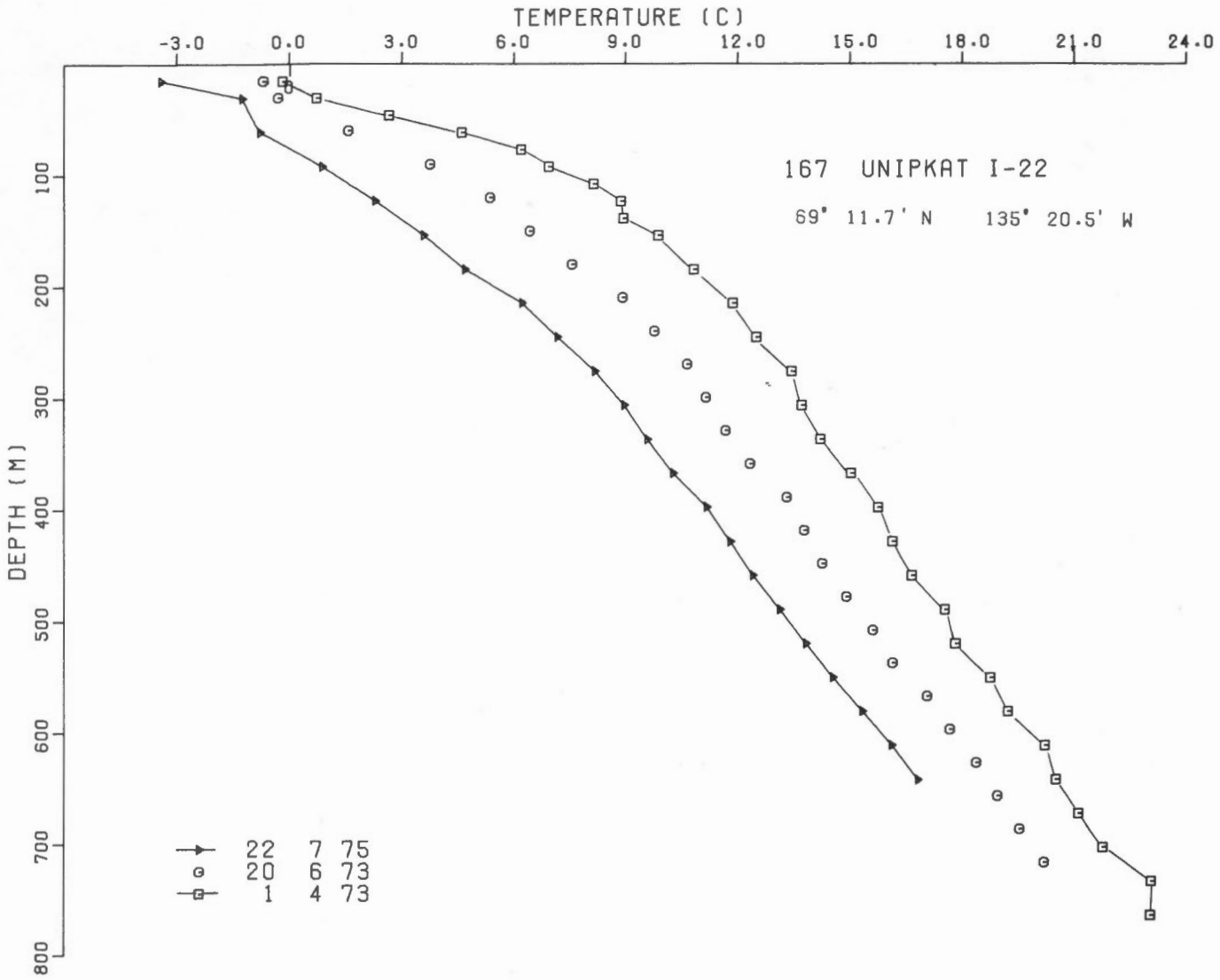

TEMPERATURE (C)
-8.5
-8.0
-7.5
-7.0
-6.5
-6.0
-5.5
-5.0
-4.5
-4.0
DEPTH (M)
20
40
60
80
100
120
140
160
114 ASBESTOS HILL -2
61° 47.8' N
73° 58.4' W
30 7 74
29 7 74
25 7 74

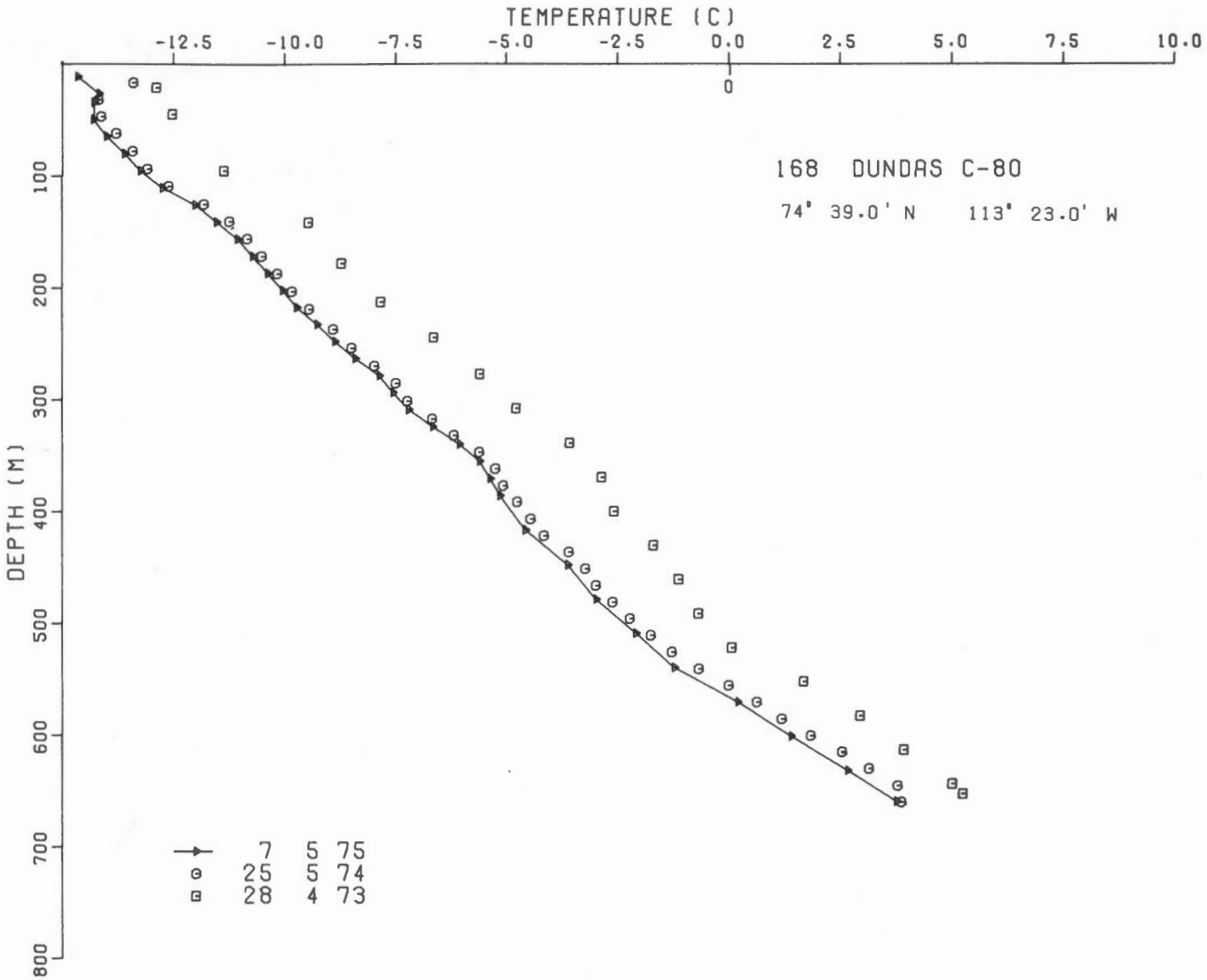

TEMPERATURE (C)
-9.0
-8.0
-7.0
-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
0.0
0
DEPTH (M)
75
150
225
300
375
450
525
600
114 ASBESTOS HILL -3
61° 49.3' N
73° 57.7' W
9 12 74

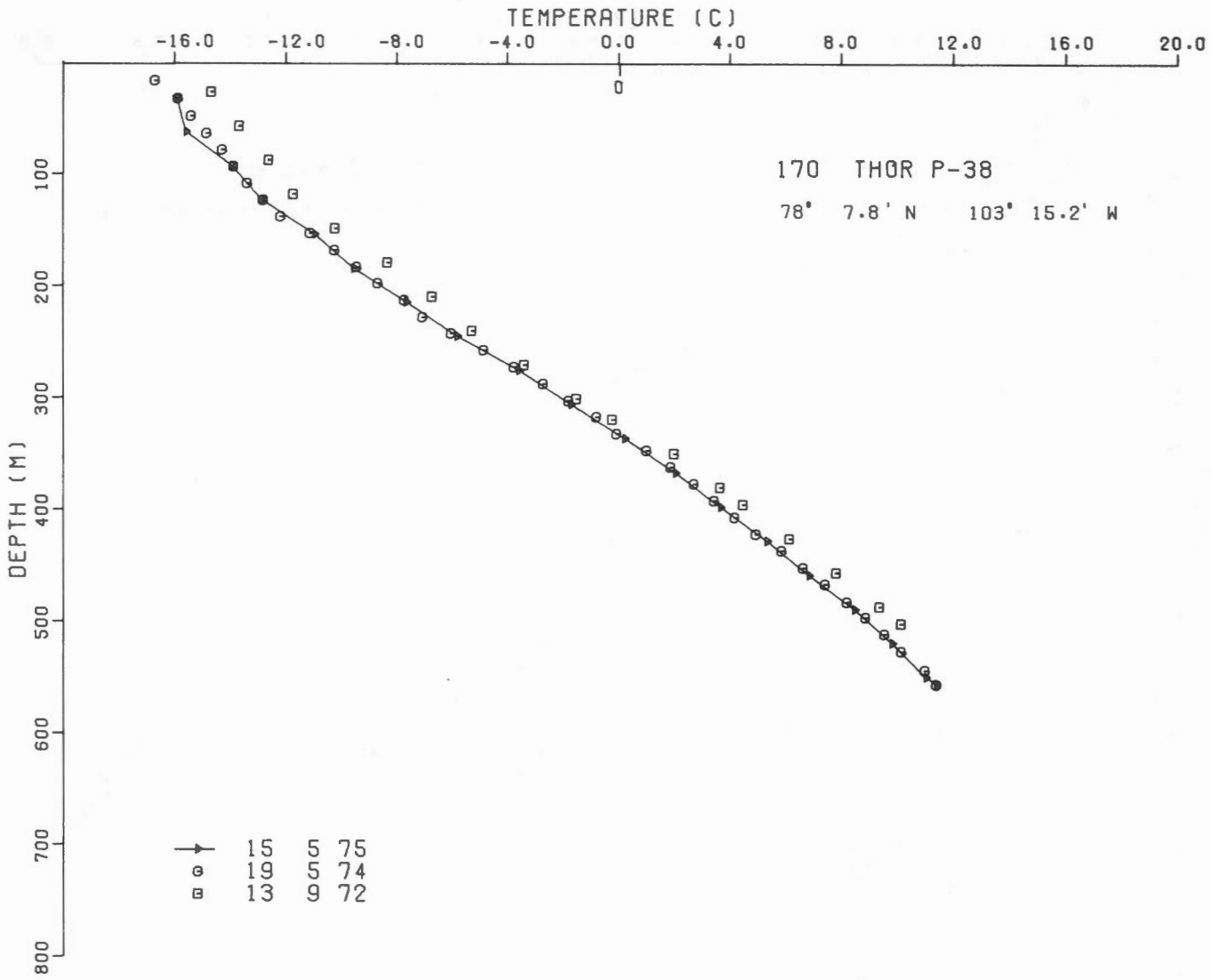

TEMPERATURE (C)
-16.0
-12.0
-8.0
-4.0
0.0
4.0
8.0
12.0
16.0
20.0
0
155 KRISTOFFER BAY B-06
78° 15.3' N 102° 32.0' W
DEPTH (M)
150
300
450
600
750
900
1050
1200
14 5 75
14 9 72
11 5 72

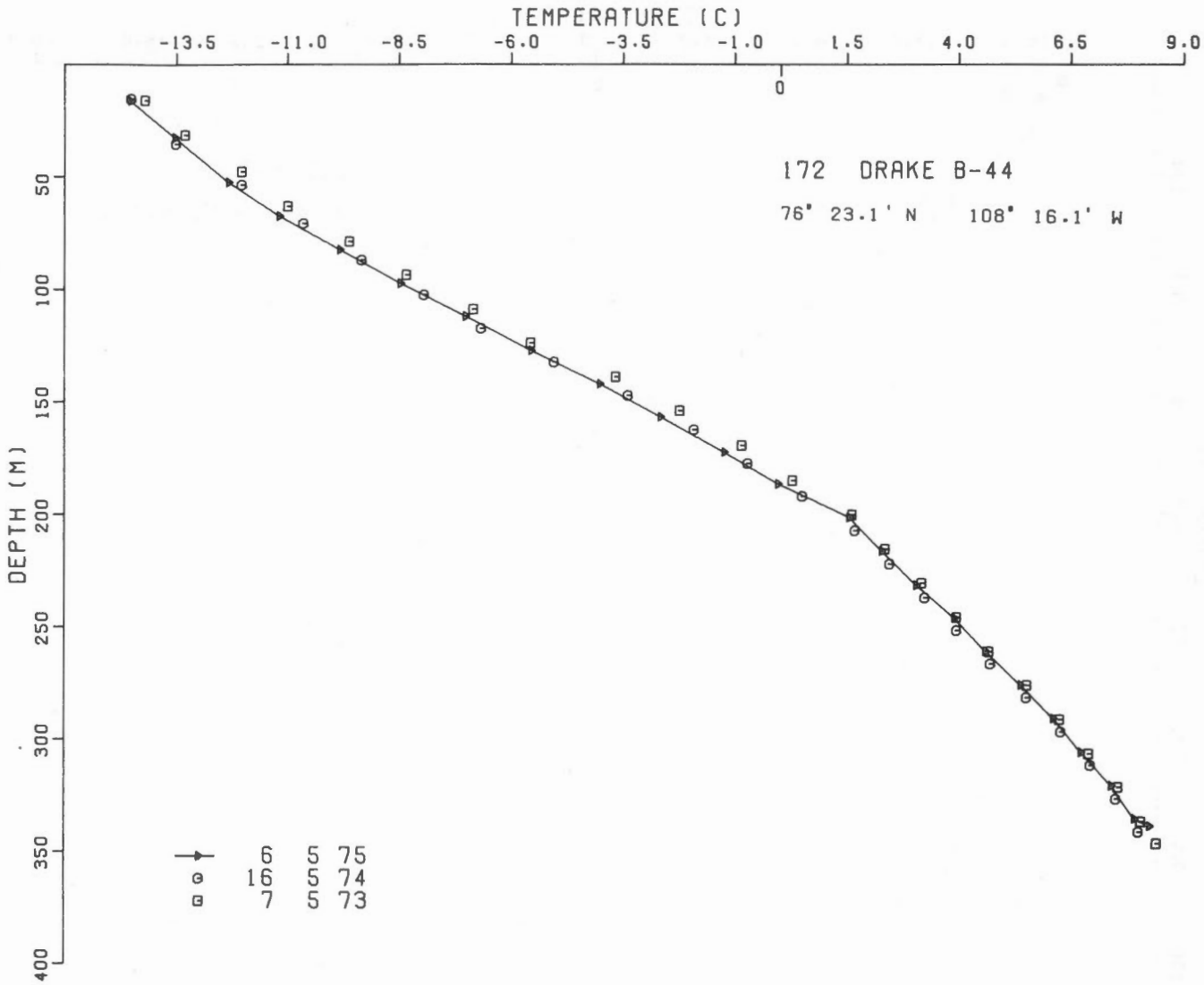

TEMPERATURE (C)
-8.0
-7.0
-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
0
165 KILAGMIOTAK F-48
69° 27.5' N 134° 11.9' W
DEPTH (M)
50
100
150
200
250
300
350
400
24 7 75
4 2 74
1 4 73

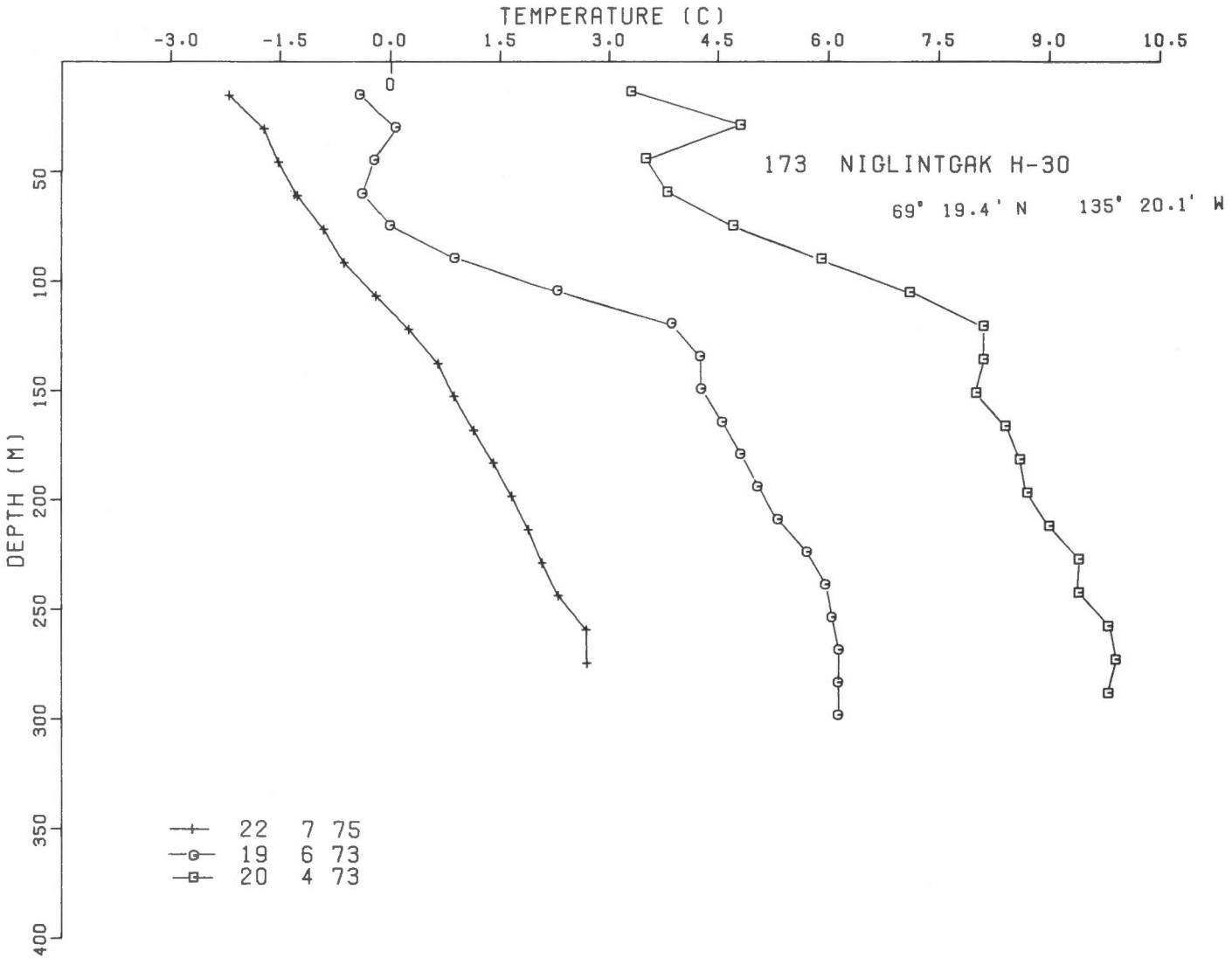

TEMPERATURE (C)
-13.5
-12.0
-10.5
-9.0
-7.5
-6.0
-4.5
-3.0
-1.5
0.0
0
166 MOKKA A-02
79° 31.2' N 87° 1.2' W
DEPTH (M)
75
150
225
300
375
450
525
600
13 5 75
23 5 74
14 4 73

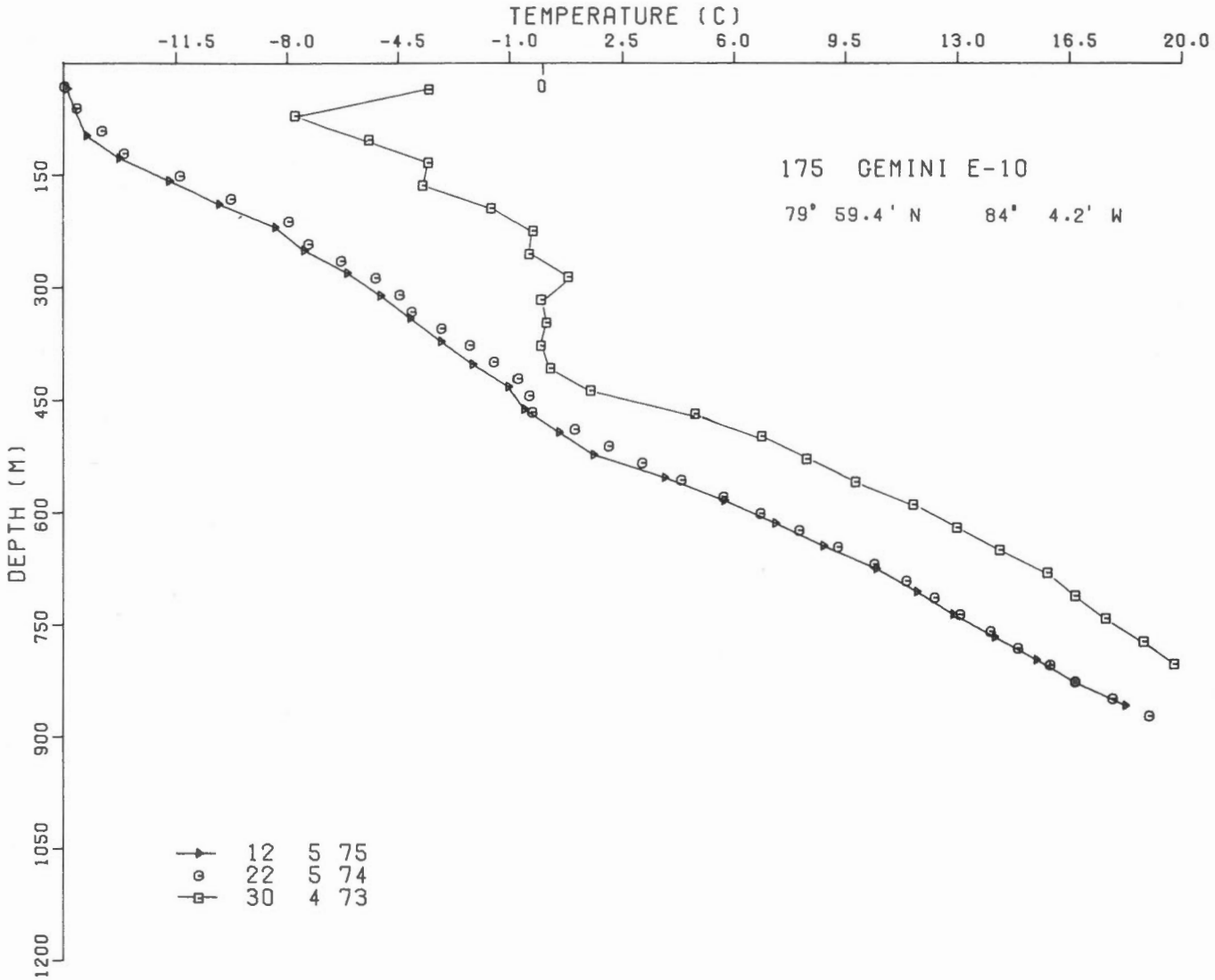

TEMPERATURE (C)
-3.0
0.0
3.0
6.0
9.0
12.0
15.0
18.0
21.0
24.0
DEPTH (M)
100
200
300
400
500
600
700
800
167 UNIPKAT I-22
69° 11.7' N 135° 20.5' W
22 7 75
20 6 73
1 4 73

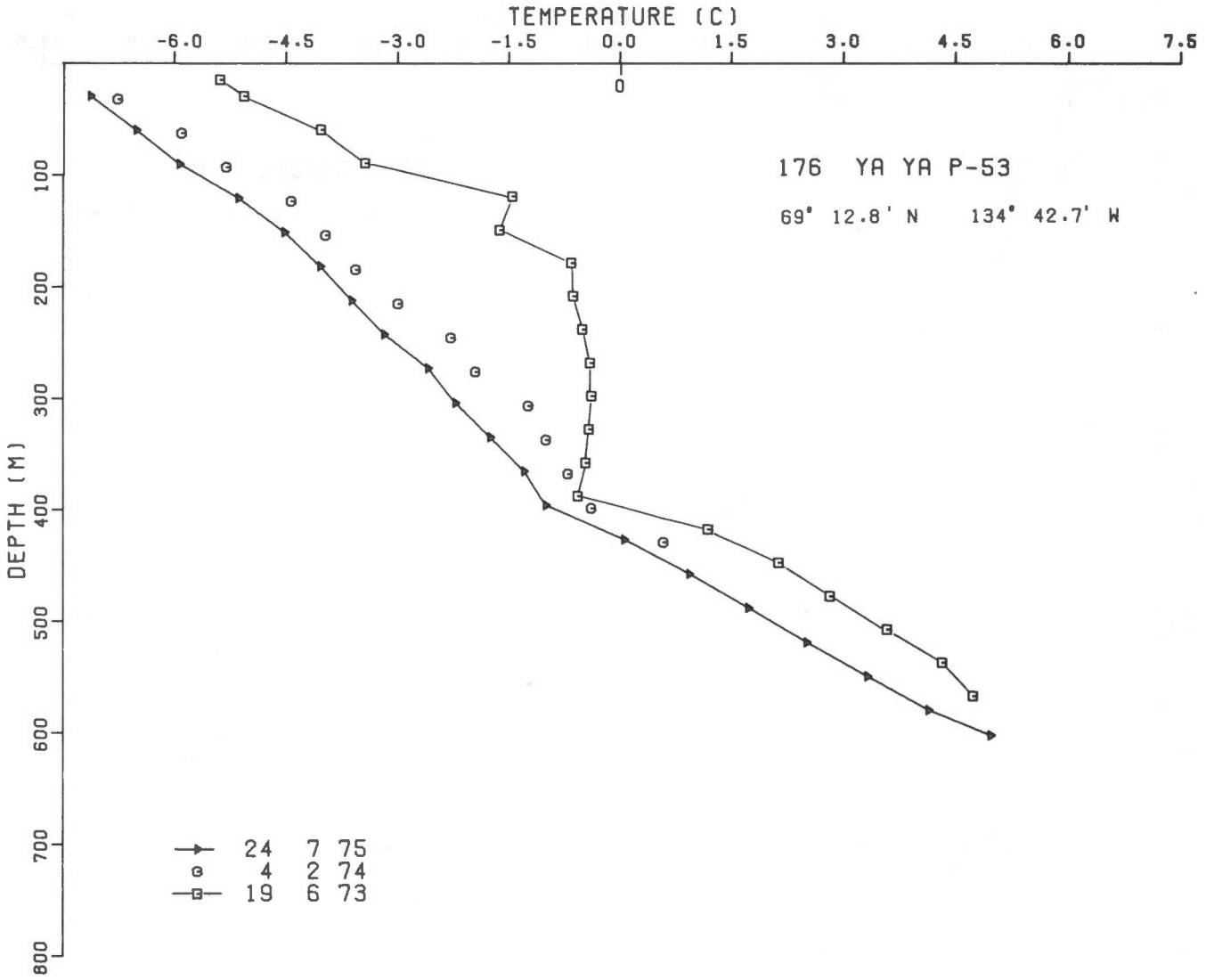

TEMPERATURE (C)
-12.5
-10.0
-7.5
-5.0
-2.5
0.0
2.5
5.0
7.5
10.0
0
168 DUNDAS C-80
74° 39.0' N 113° 23.0' W
DEPTH (M)
100
200
300
400
500
600
700
800
7 5 75
25 5 74
28 4 73

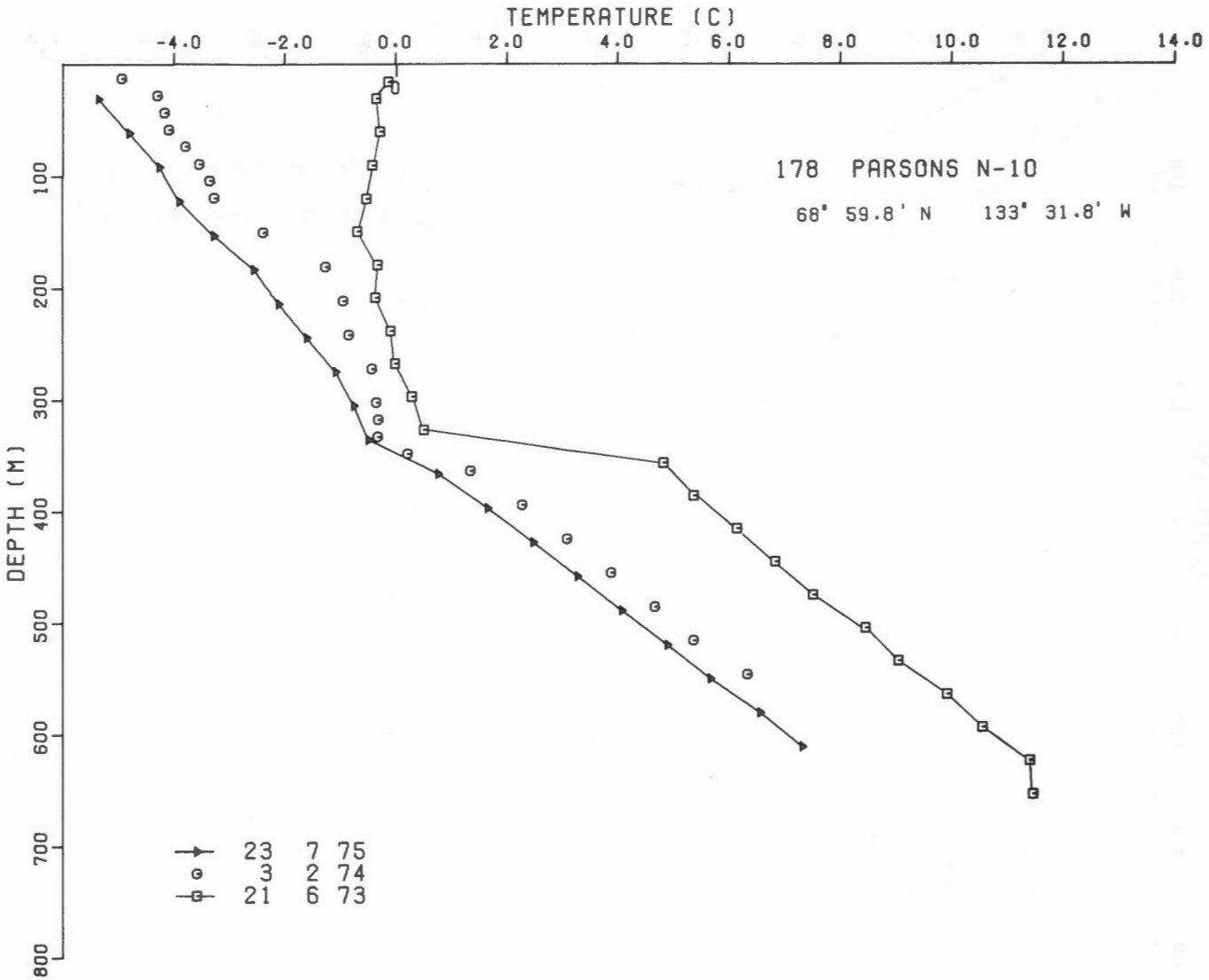

TEMPERATURE (C)
-16.0
-12.0
-8.0
-4.0
0.0
4.0
8.0
12.0
16.0
20.0
0
DEPTH (M)
100
200
300
400
500
600
700
800
170 THOR P-38
78° 7.8' N 103° 15.2' W
15 5 75
19 5 74
13 9 72

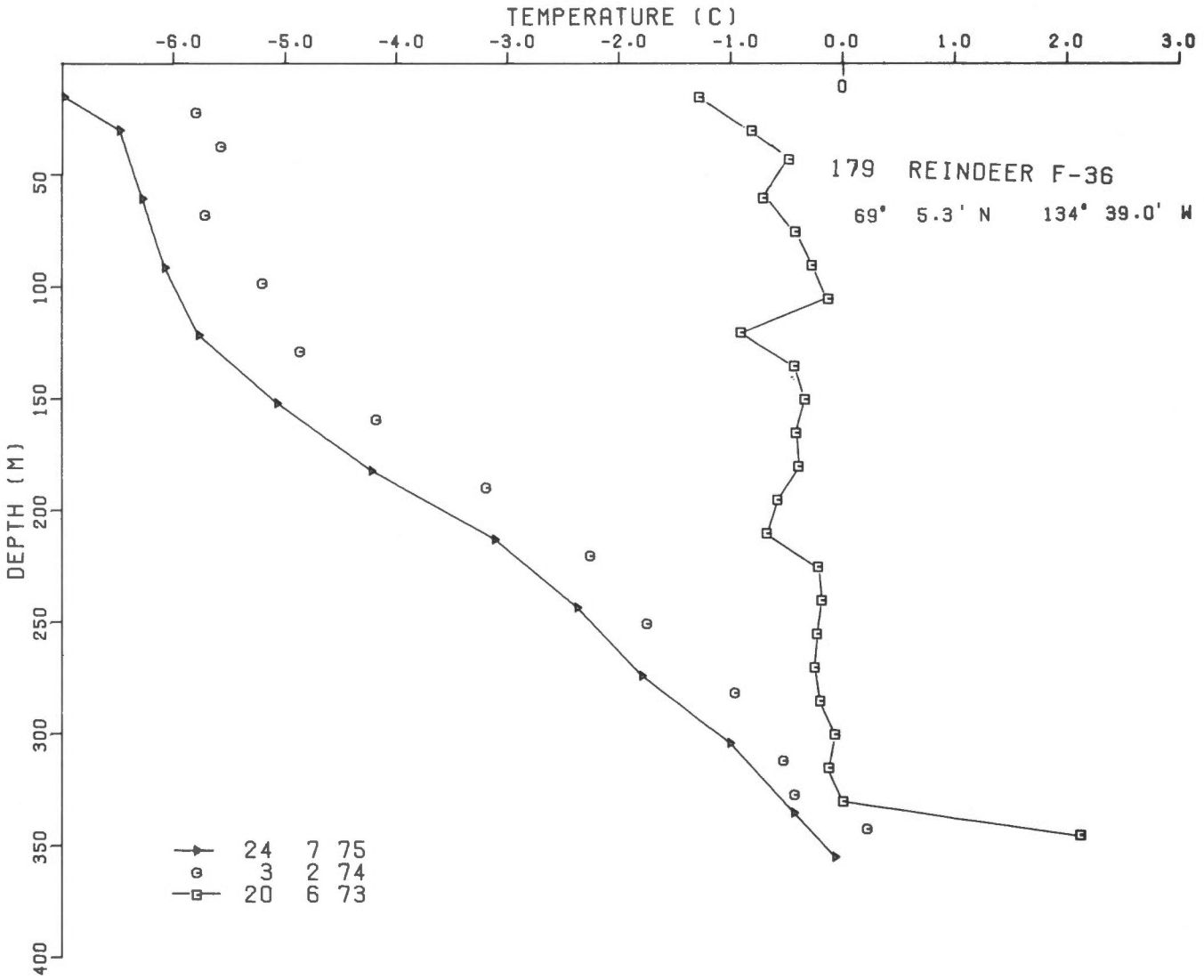

TEMPERATURE (C)
-13.5
-11.0
-8.5
-6.0
-3.5
-1.0
1.5
4.0
6.5
9.0
0
DEPTH (M)
50
100
150
200
250
300
350
400
172 DRAKE B-44
76° 23.1' N 108° 16.1' W
6 5 75
16 5 74
7 5 73

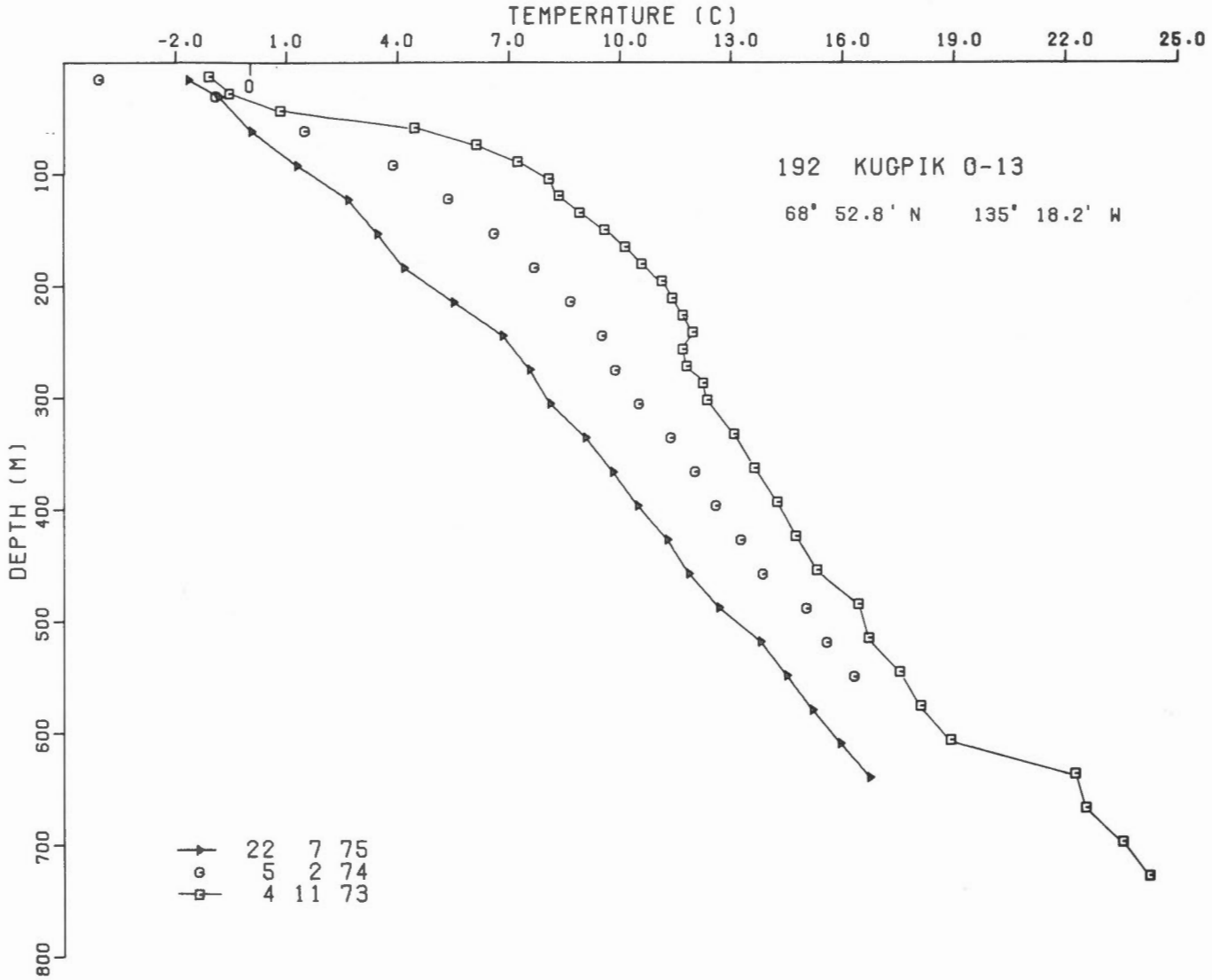

TEMPERATURE (C)
-3.0
-1.5
0.0
1.5
3.0
4.5
6.0
7.5
9.0
10.5
0
DEPTH (M)
50
100
150
200
250
300
350
400
173 NIGLINTGAK H-30
69° 19.4' N 135° 20.1' W
22 7 75
19 6 73
20 4 73

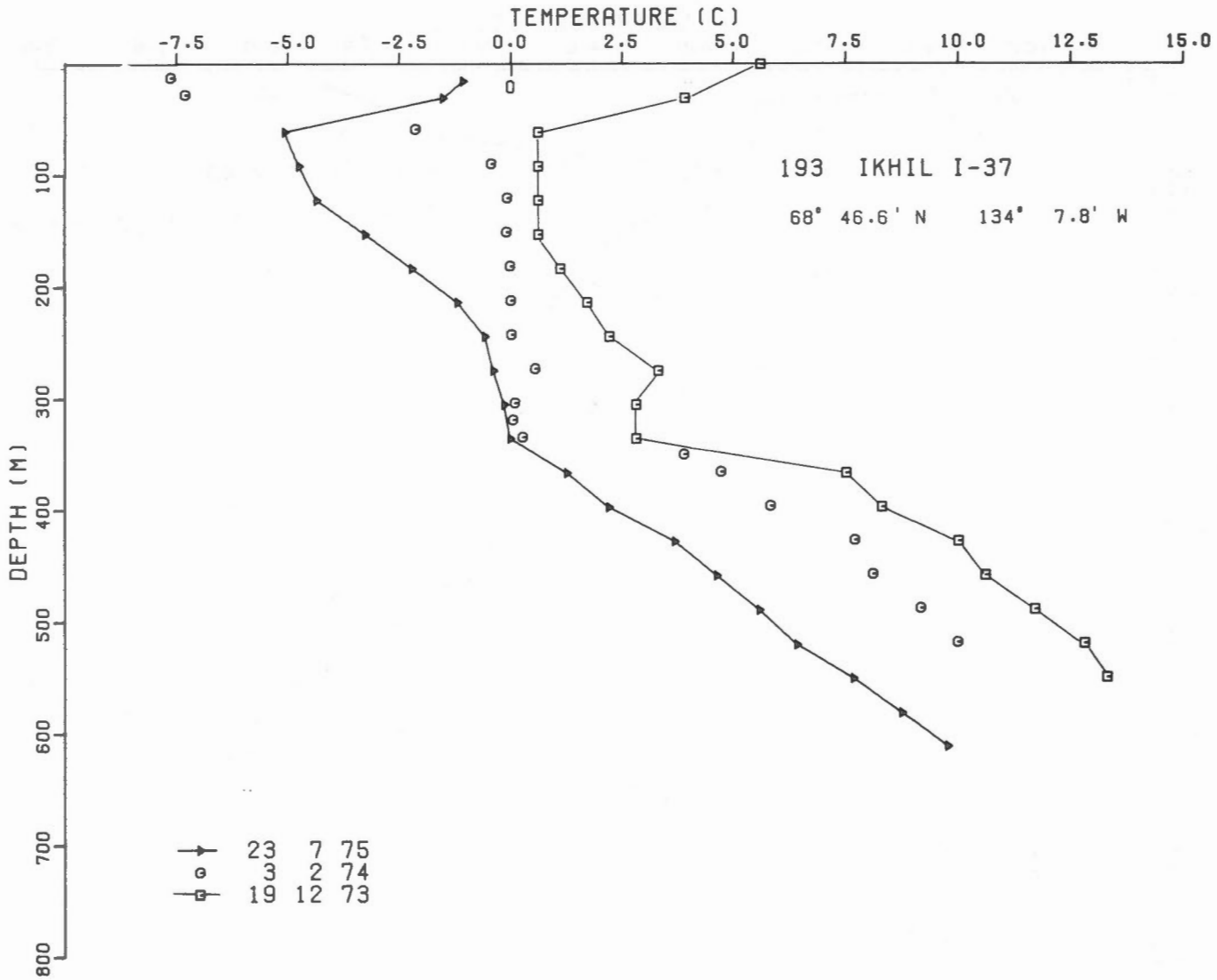

TEMPERATURE (C)
-11.5
-8.0
-4.5
-1.0
2.5
6.0
9.5
13.0
16.5
20.0
0
175 GEMINI E-10
79° 59.4' N 84° 4.2' W
DEPTH (M)
150
300
450
600
750
900
1050
1200
12 5 75
22 5 74
30 4 73

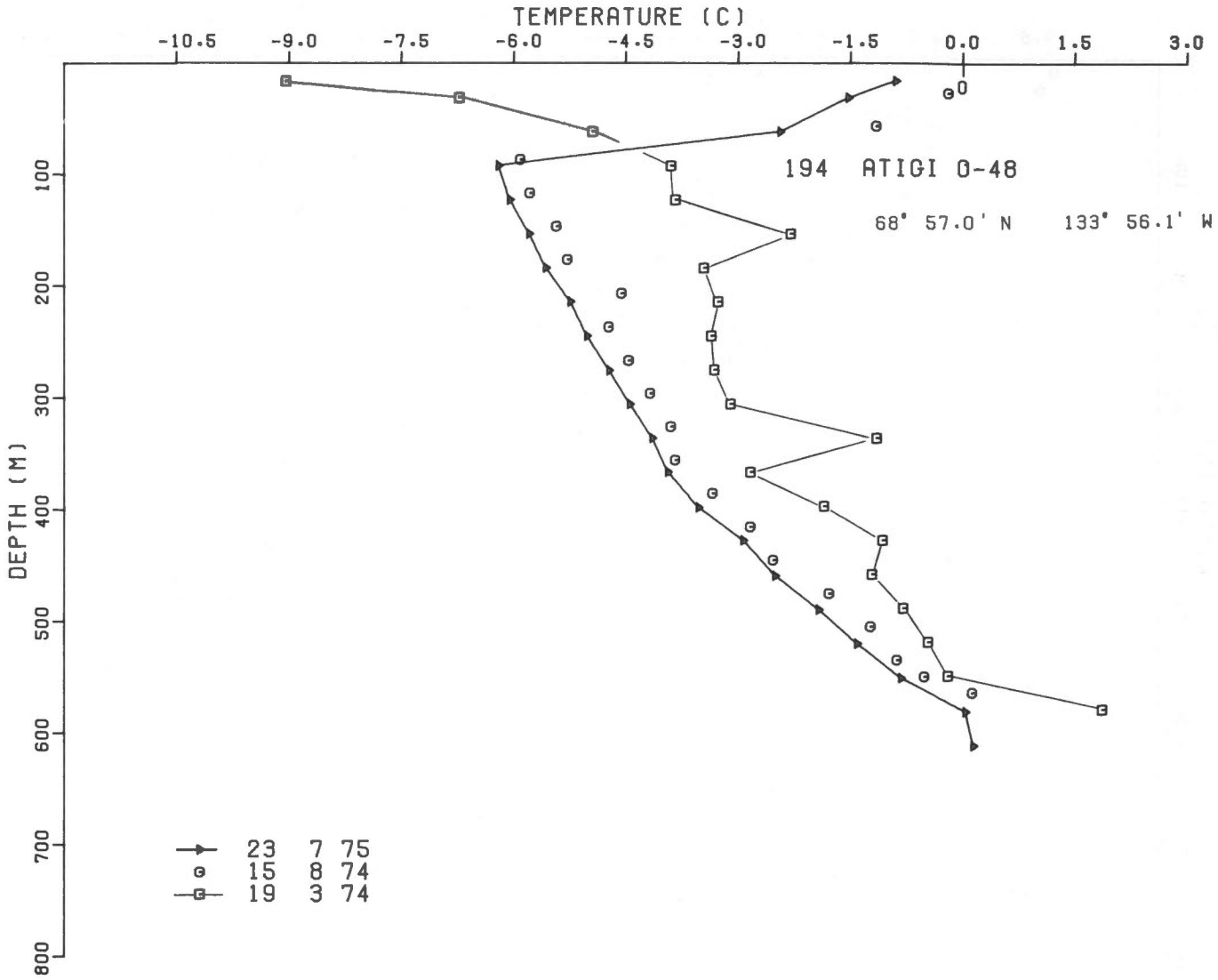

TEMPERATURE (C)
-6.0
-4.5
-3.0
-1.5
0.0
1.5
3.0
4.5
6.0
7.5
0
176 YA YA P-53
69° 12.8' N 134° 42.7' W
DEPTH (M)
100
200
300
400
500
600
700
800
24 7 75
4 2 74
19 6 73

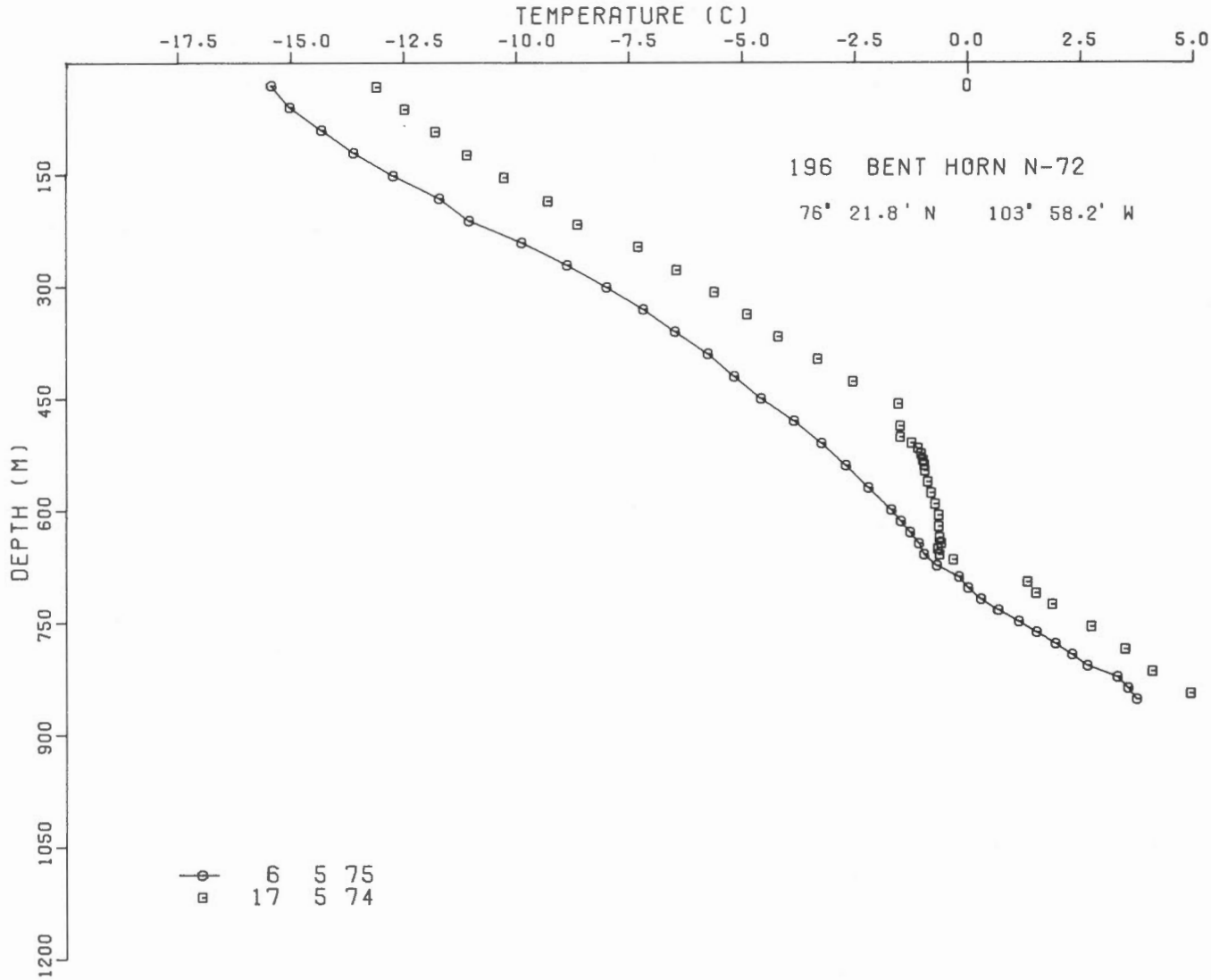

TEMPERATURE (C)
-4.0
-2.0
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
DEPTH (M)
100
200
300
400
500
600
700
800
178 PARSONS N-10
68° 59.8' N 133° 31.8' W
23 7 75
3 2 74
21 6 73

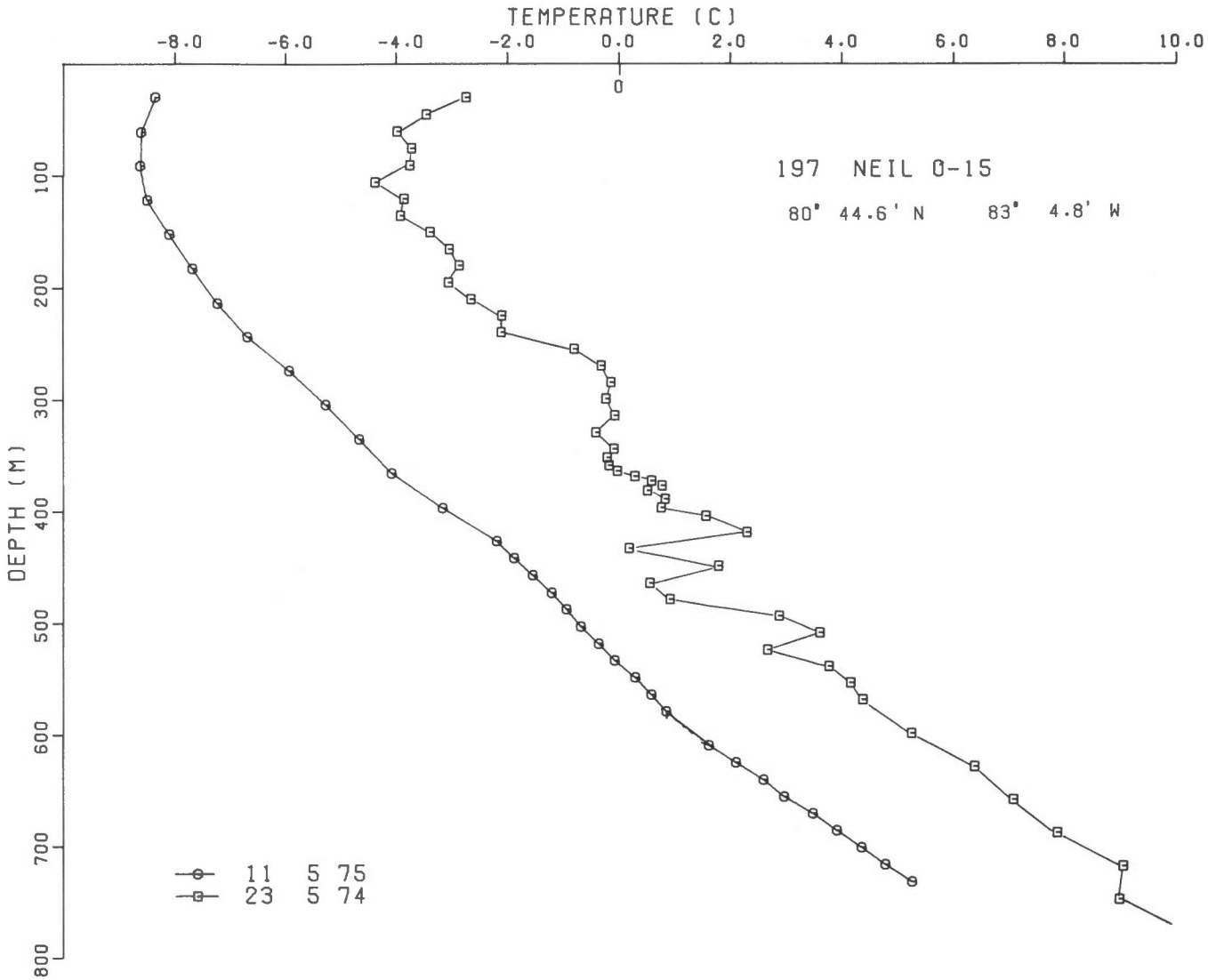

TEMPERATURE (C)
-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
0
179 REINDEER F-36
69° 5.3' N 134° 39.0' W
DEPTH (M)
50
100
150
200
250
300
350
400
24 7 75
3 2 74
20 6 73

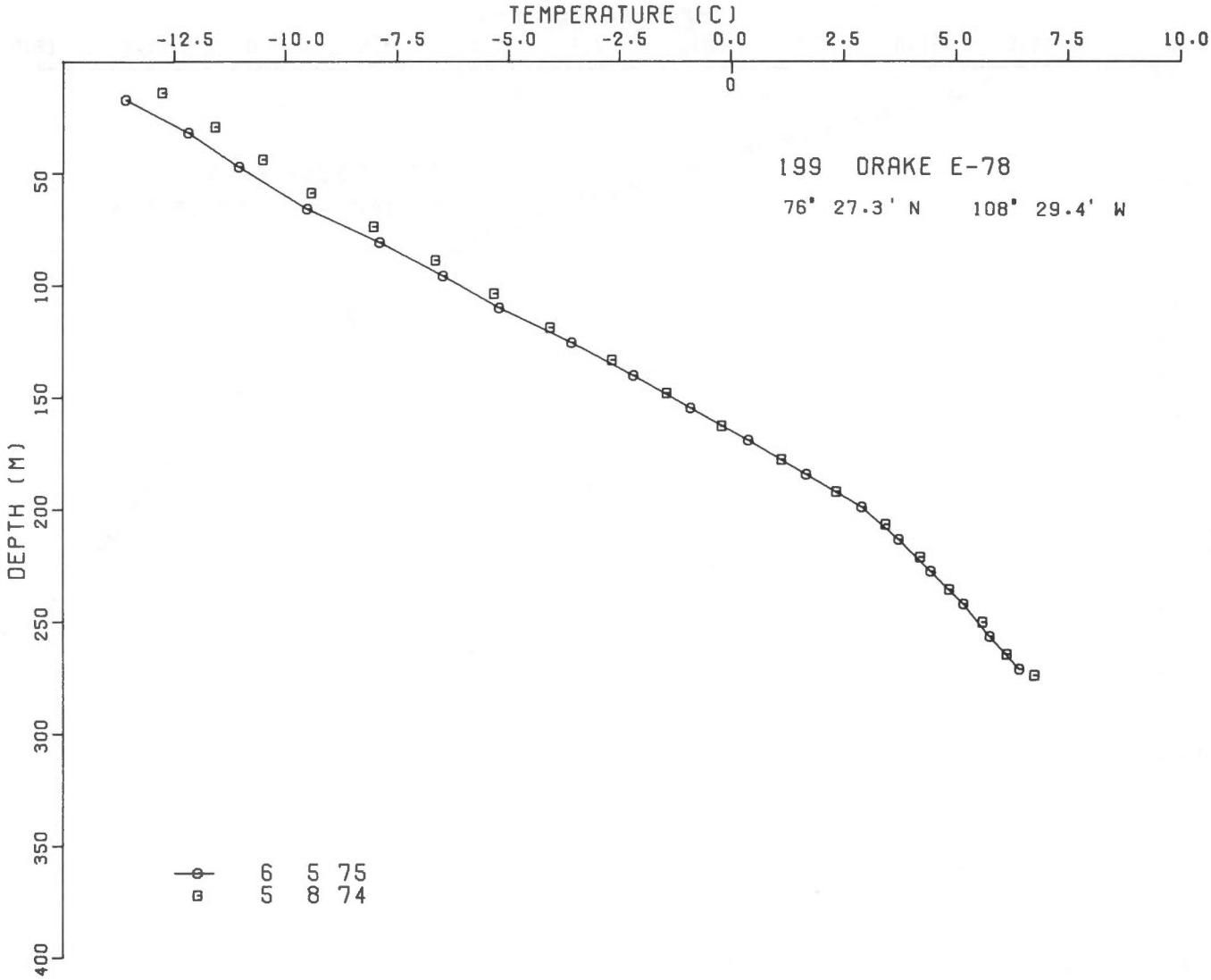

TEMPERATURE (C)
-2.0
1.0
4.0
7.0
10.0
13.0
16.0
19.0
22.0
25.0
DEPTH (M)
100
200
300
400
500
600
700
800
192 KUGPIK 0-13
68° 52.8' N 135° 18.2' W
22 7 75
5 2 74
4 11 73

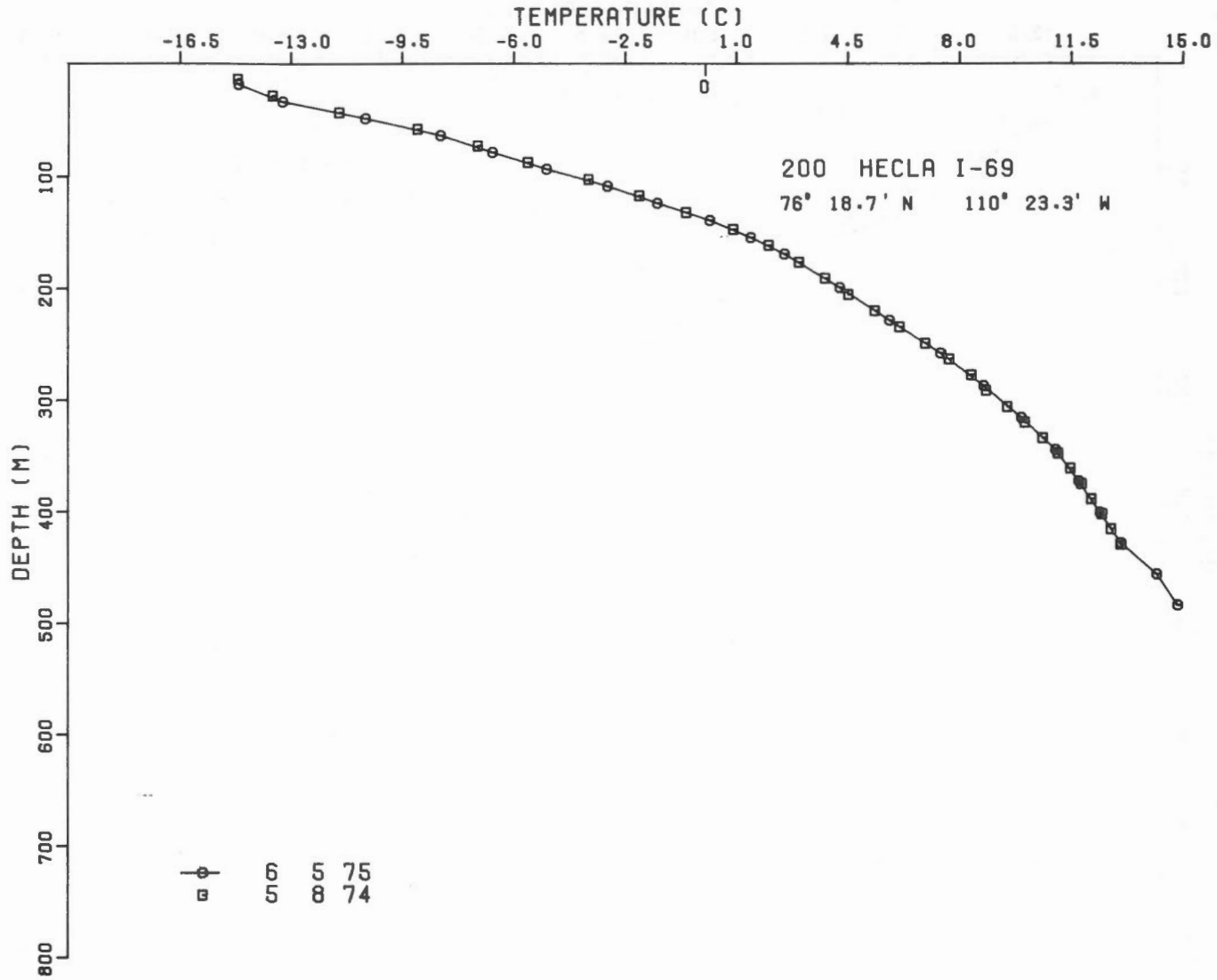

TEMPERATURE (C)
-7.5
-5.0
-2.5
0.0
2.5
5.0
7.5
10.0
12.5
15.0
DEPTH (M)
100
200
300
400
500
600
700
800
193 IKHIL I-37
68° 46.6' N 134° 7.8' W
23 7 75
3 2 74
19 12 73

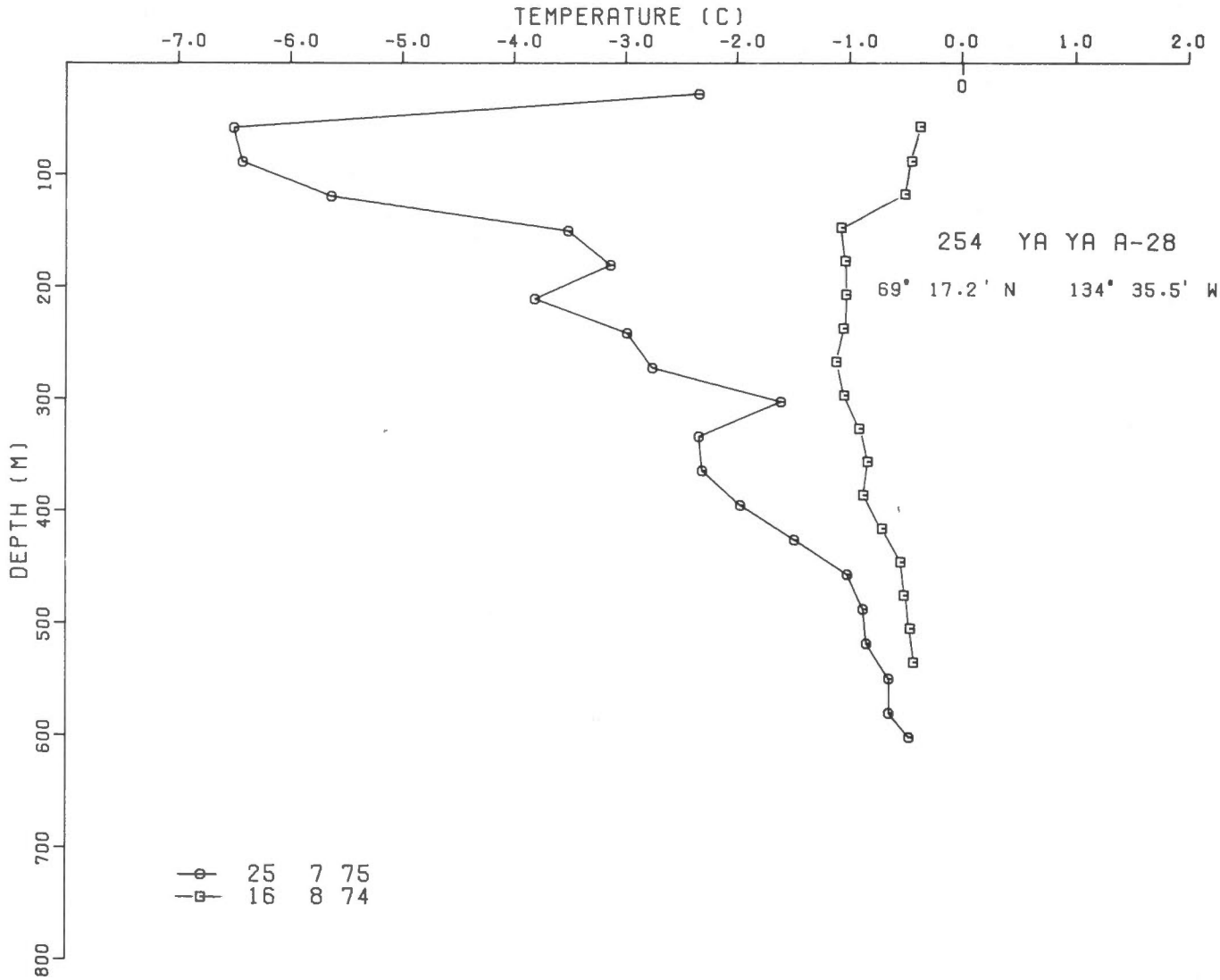

TEMPERATURE (C)
-10.5
-9.0
-7.5
-6.0
-4.5
-3.0
-1.5
0.0
1.5
3.0
DEPTH (M)
100
200
300
400
500
600
700
800
194 ATIGI 0-48
68° 57.0' N 133° 56.1' W
23 7 75
15 8 74
19 3 74

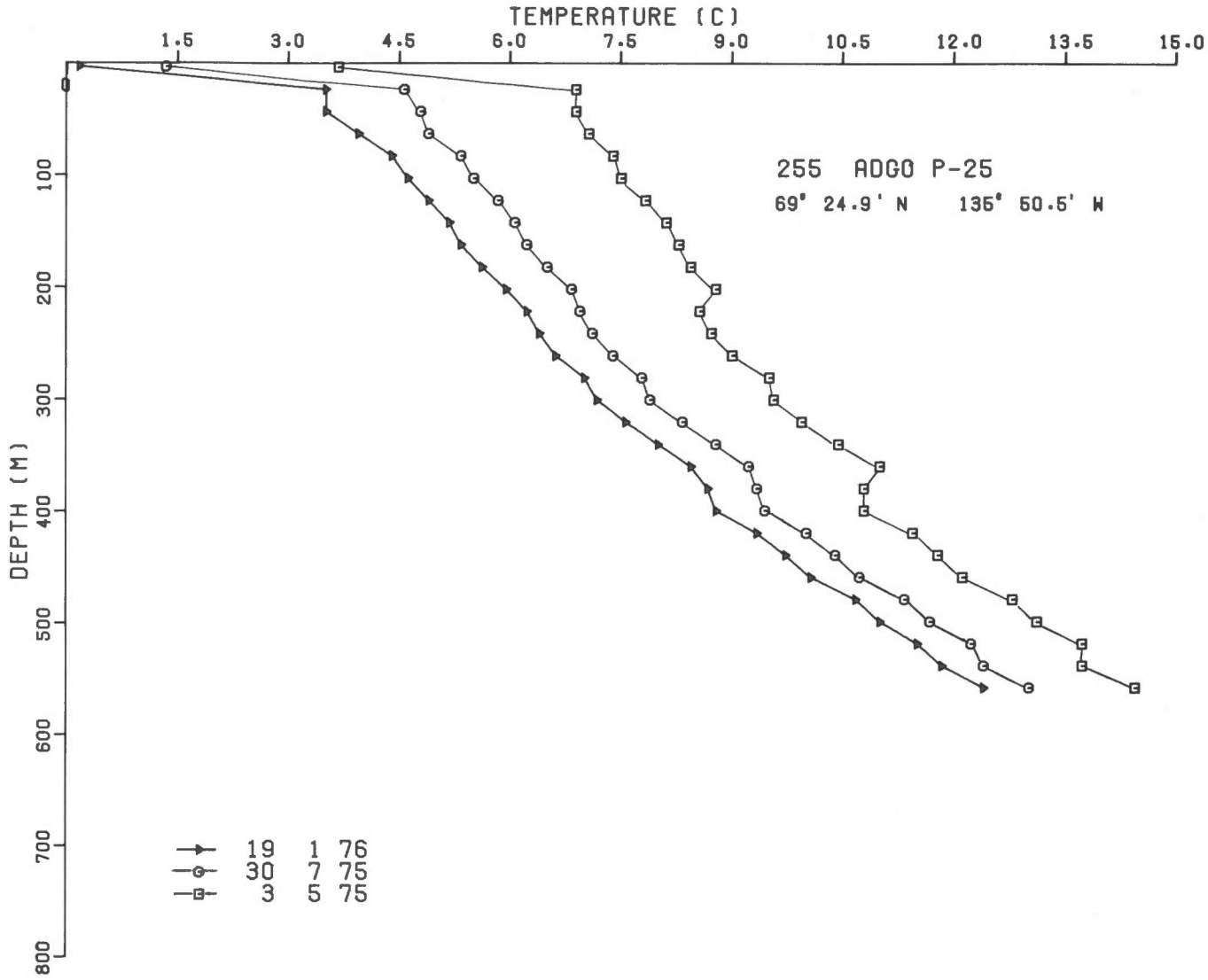

TEMPERATURE (C)
-17.5
-15.0
-12.5
-10.0
-7.5
-5.0
-2.5
0.0
2.5
5.0
0
196 BENT HORN N-72
76° 21.8' N 103° 58.2' W
DEPTH (M)
150
300
450
600
750
900
1050
1200
6 5 75
17 5 74

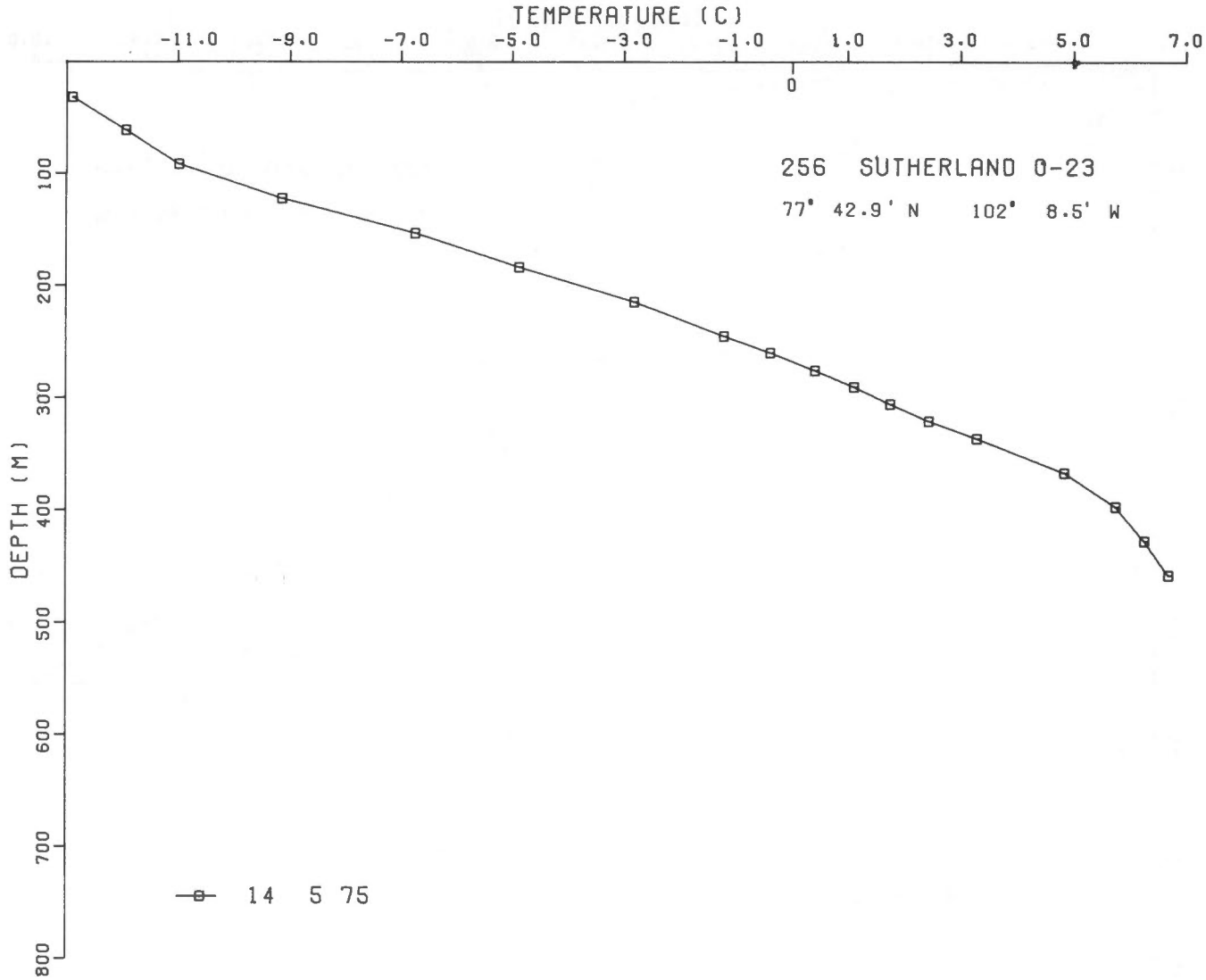

TEMPERATURE (C)
-8.0
-6.0
-4.0
-2.0
0.0
2.0
4.0
6.0
8.0
10.0
0
197 NEIL 0-15
80° 44.6' N 83° 4.8' W
DEPTH (M)
100
200
300
400
500
600
700
800
11 5 75
23 5 74

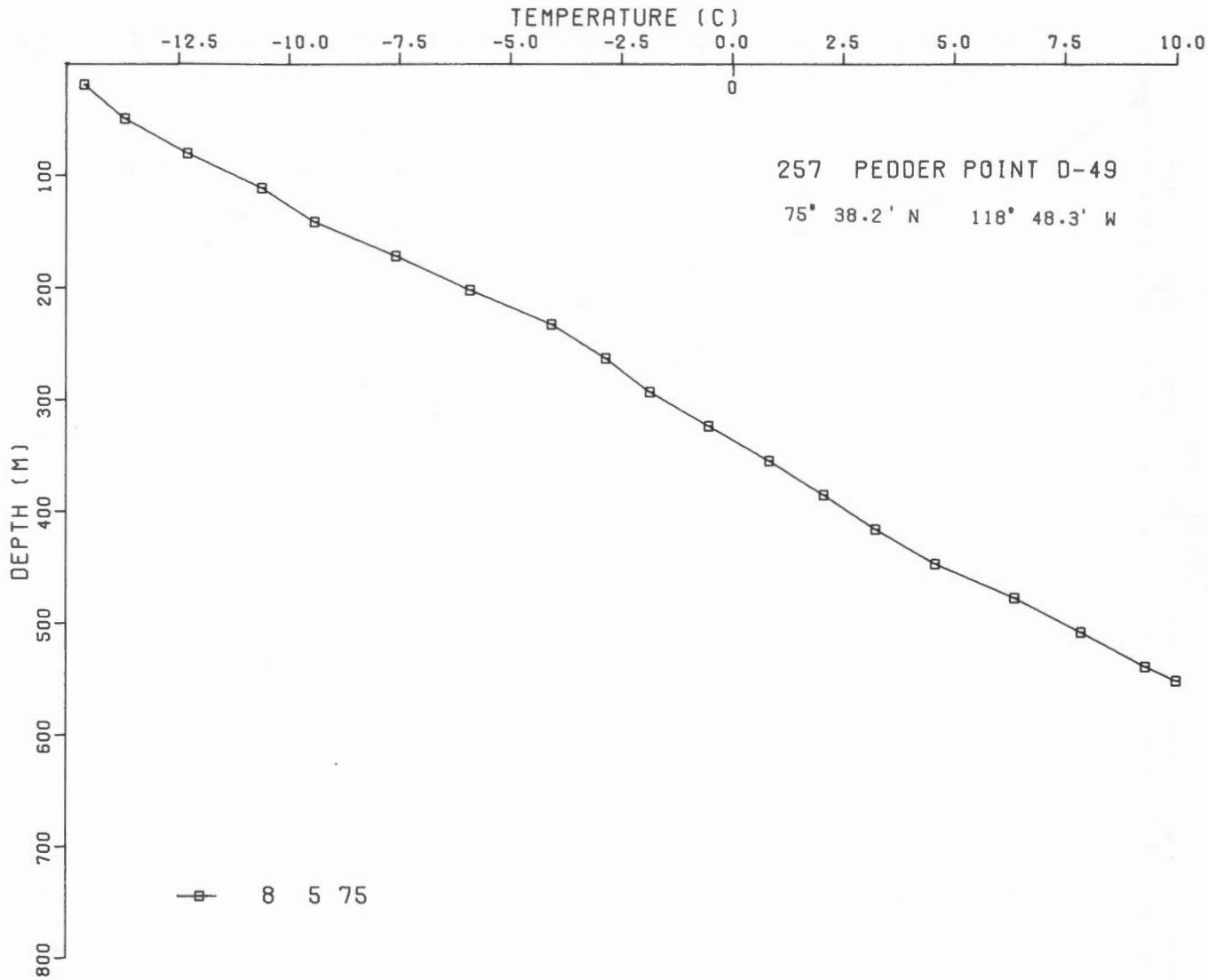

TEMPERATURE (C)
-12.5
-10.0
-7.5
-5.0
-2.5
0.0
2.5
5.0
7.5
10.0
0
199 DRAKE E-78
76° 27.3' N 108° 29.4' W
DEPTH (M)
50
100
150
200
250
300
350
400
6 5 75
5 8 74

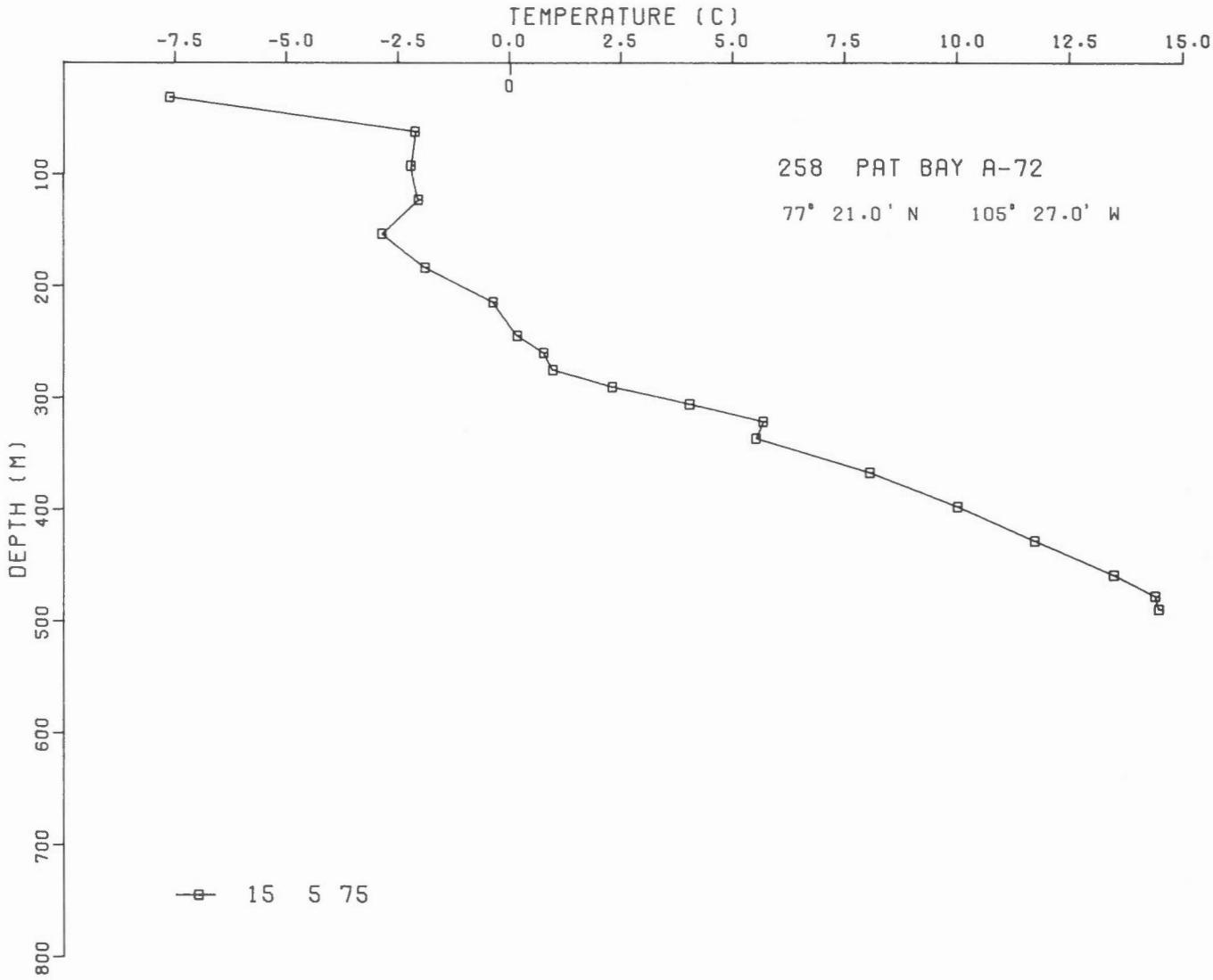

TEMPERATURE (C)
-16.5
-13.0
-9.5
-6.0
-2.5
1.0
4.5
8.0
11.5
15.0
0
200 HECLA I-69
76° 18.7' N 110° 23.3' W
DEPTH (M)
100
200
300
400
500
600
700
800
6 5 75
5 8 74

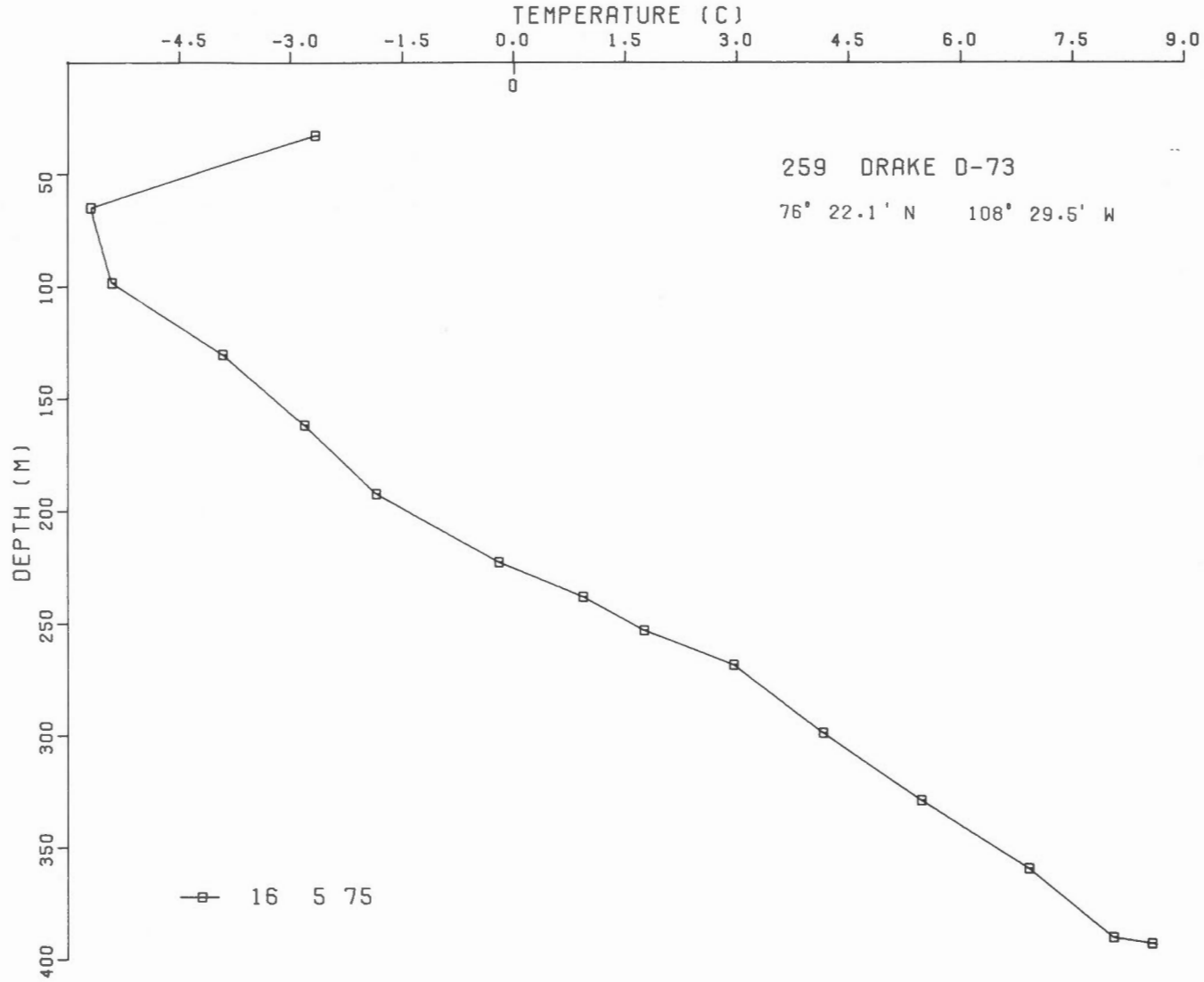

TEMPERATURE (C)
-7.0
-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
0
DEPTH (M)
100
200
300
400
500
600
700
800
254 YA YA A-28
69° 17.2' N 134° 35.5' W
25 7 75
16 8 74

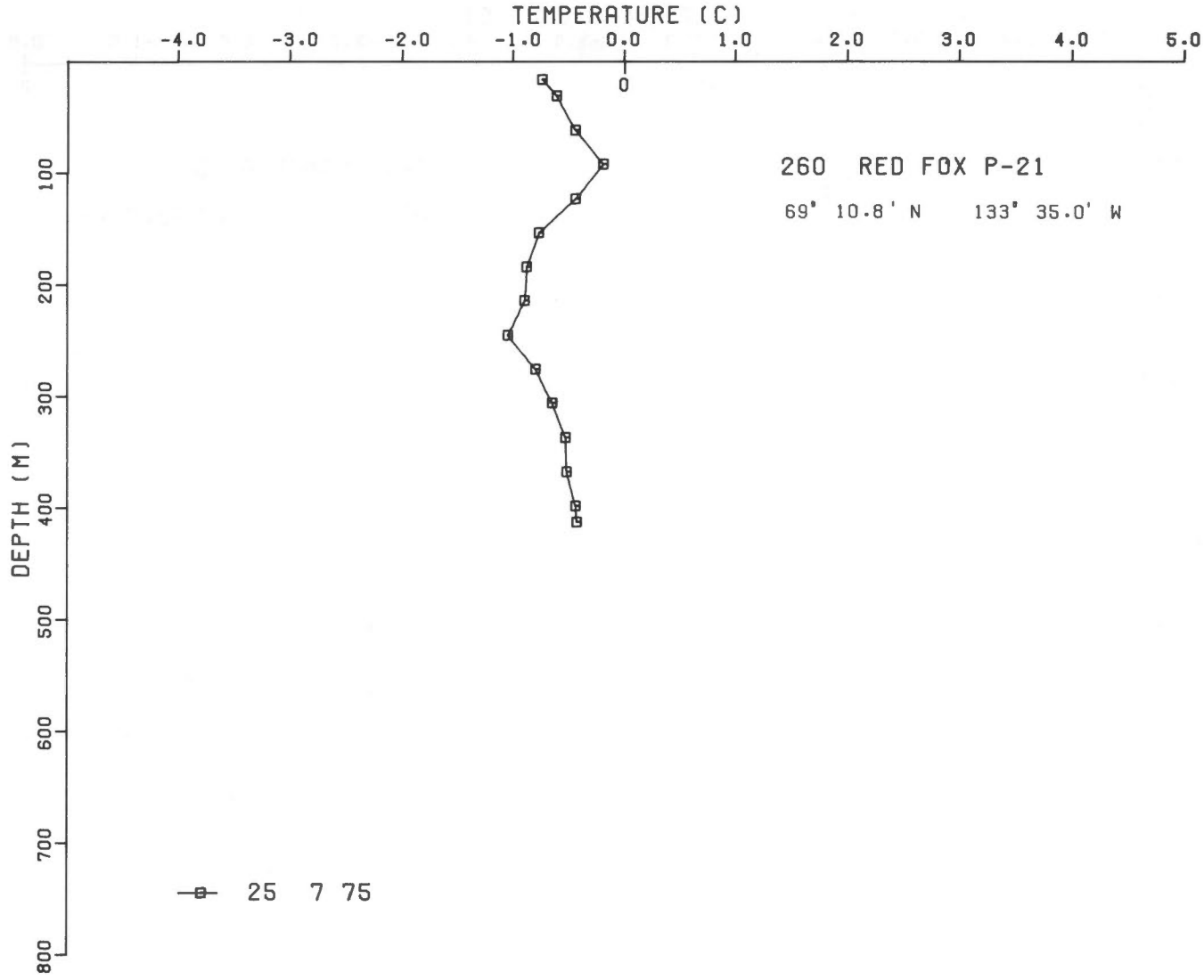

TEMPERATURE (C)
1.5
3.0
4.5
6.0
7.5
9.0
10.5
12.0
13.5
15.0
DEPTH (M)
0
100
200
300
400
500
600
700
800
255 ADGO P-25
69° 24.9' N 135° 50.5' W
19 1 76
30 7 75
3 5 75

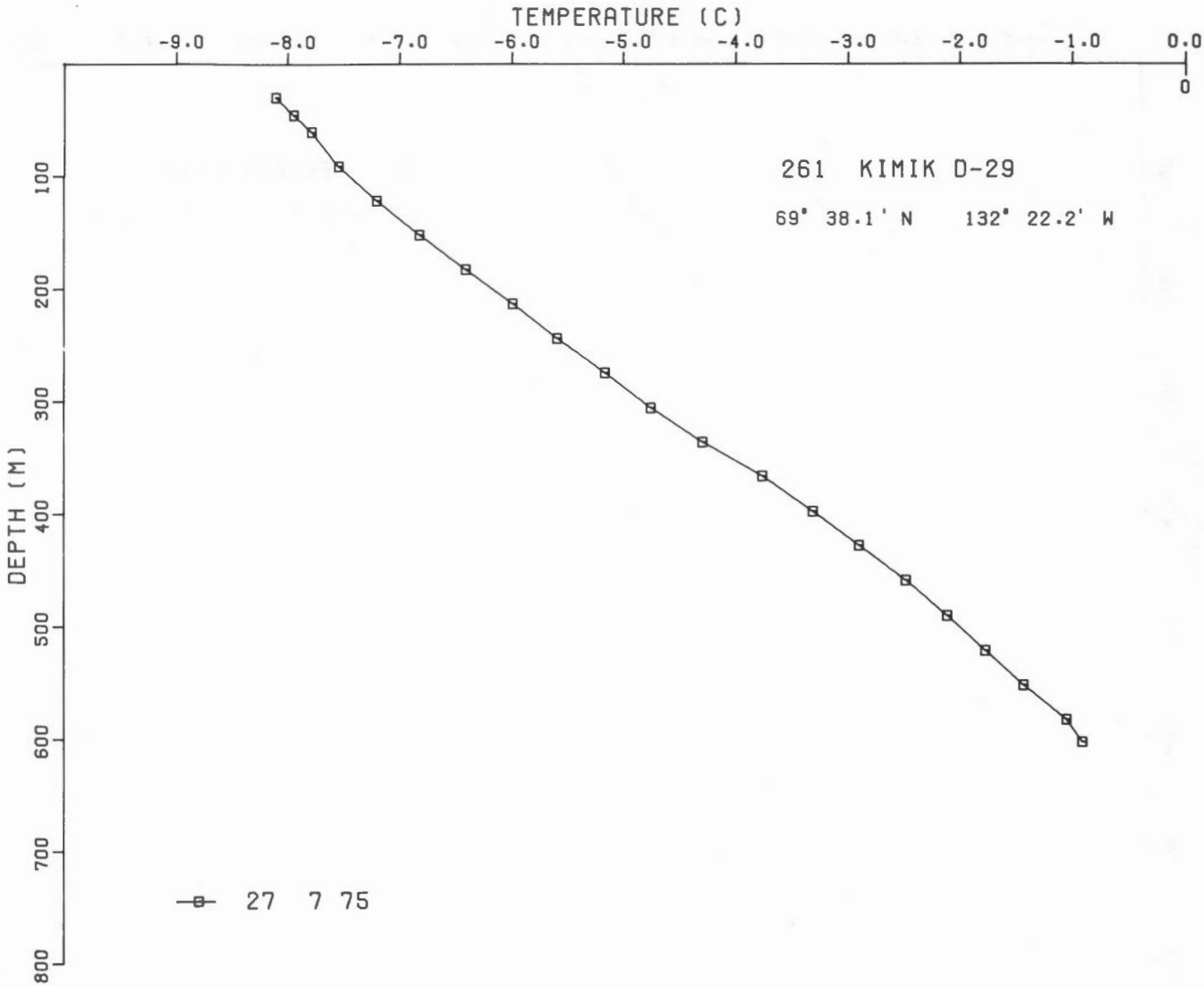

TEMPERATURE (C)
-11.0
-9.0
-7.0
-5.0
-3.0
-1.0
0
1.0
3.0
5.0
7.0
256 SUTHERLAND 0-23
77° 42.9' N 102° 8.5' W
DEPTH (M)
100
200
300
400
500
600
700
800
14 5 75

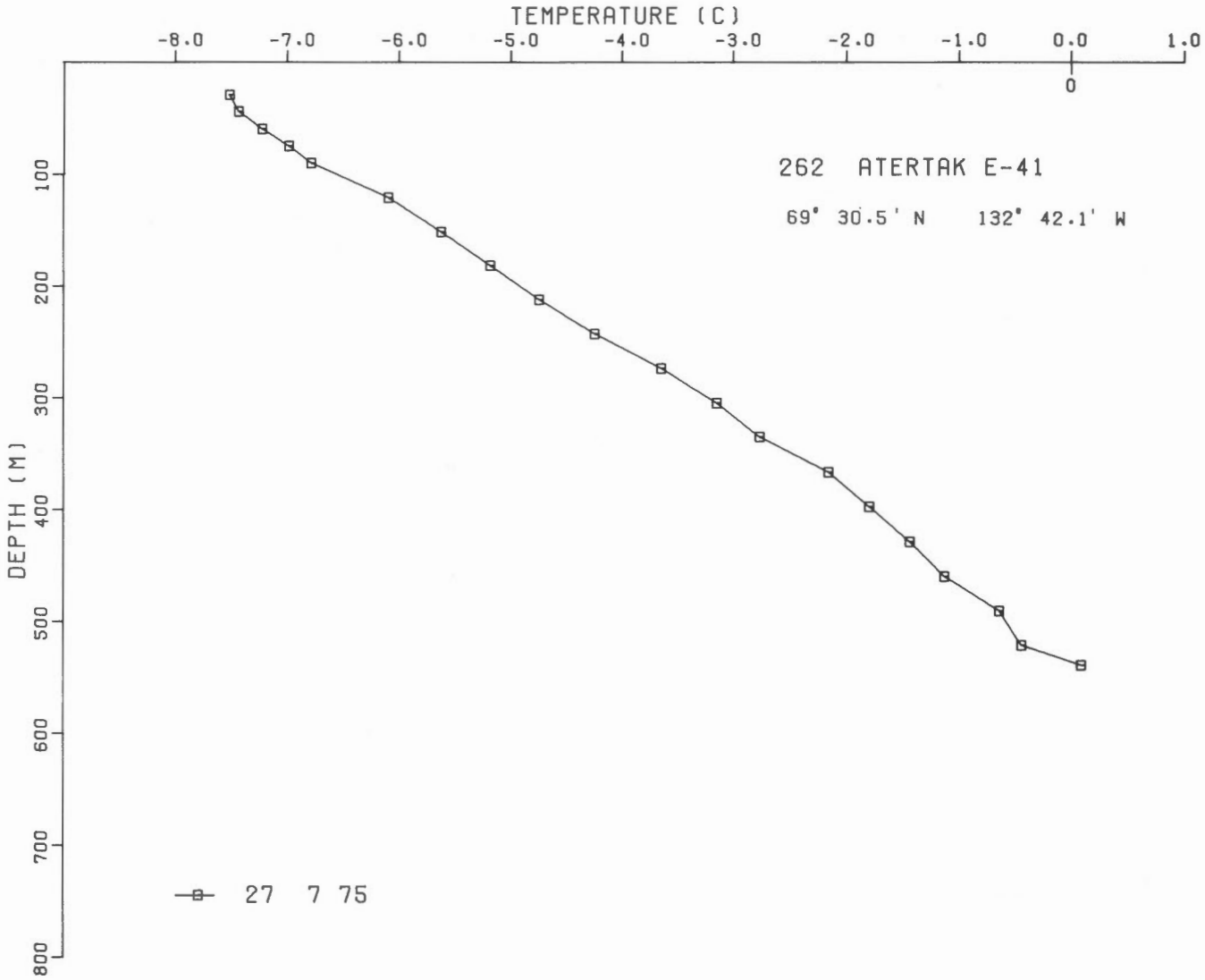

TEMPERATURE (C)
-12.5
-10.0
-7.5
-5.0
-2.5
0.0
2.5
5.0
7.5
10.0
0
257 PEDDER POINT D-49
75° 38.2' N 118° 48.3' W
DEPTH (M)
100
200
300
400
500
600
700
800
8 5 75

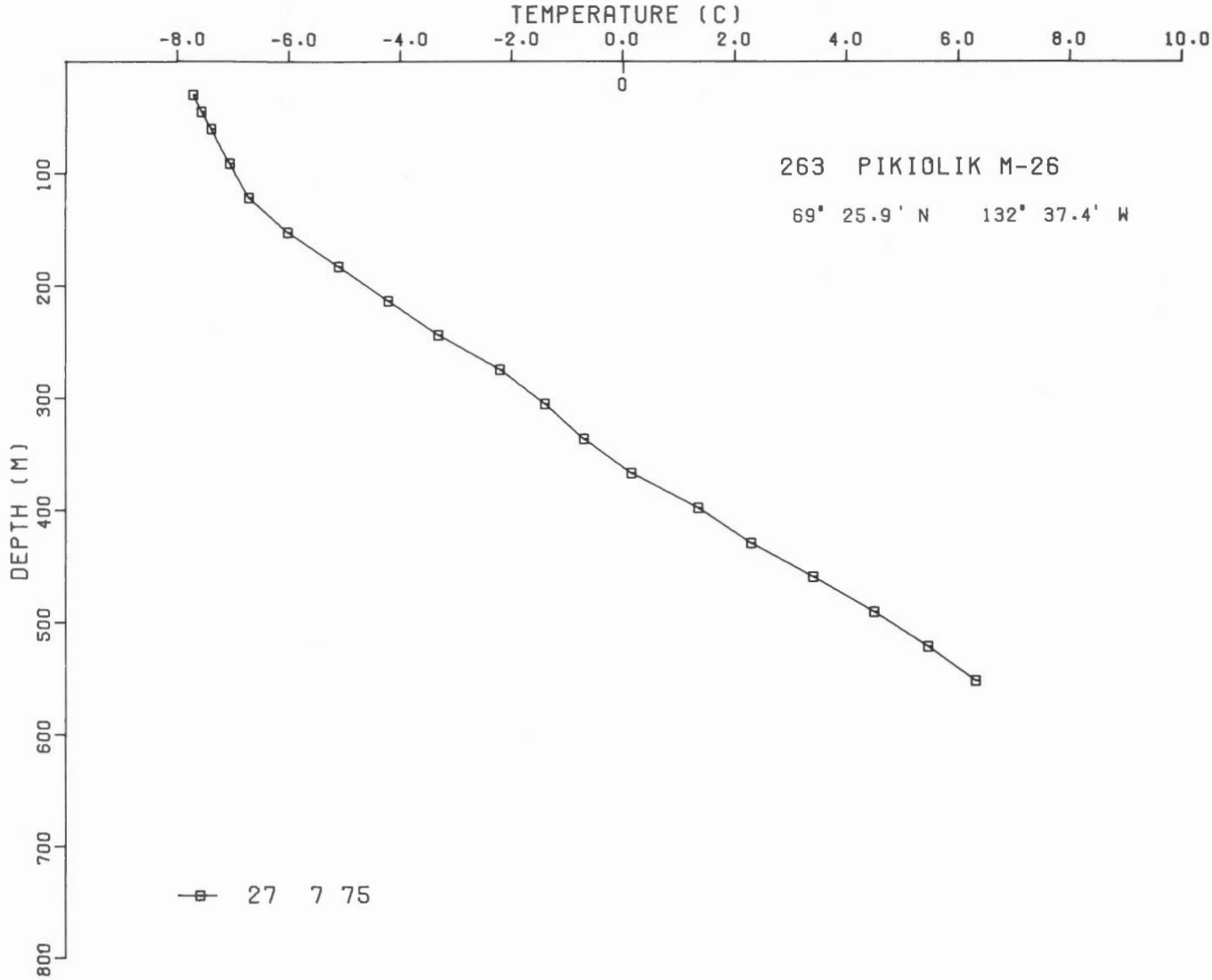

TEMPERATURE (C)
-7.5
-5.0
-2.5
0.0
2.5
5.0
7.5
10.0
12.5
15.0
0
DEPTH (M)
100
200
300
400
500
600
700
800
258 PAT BAY A-72
77° 21.0' N 105° 27.0' W
15 5 75

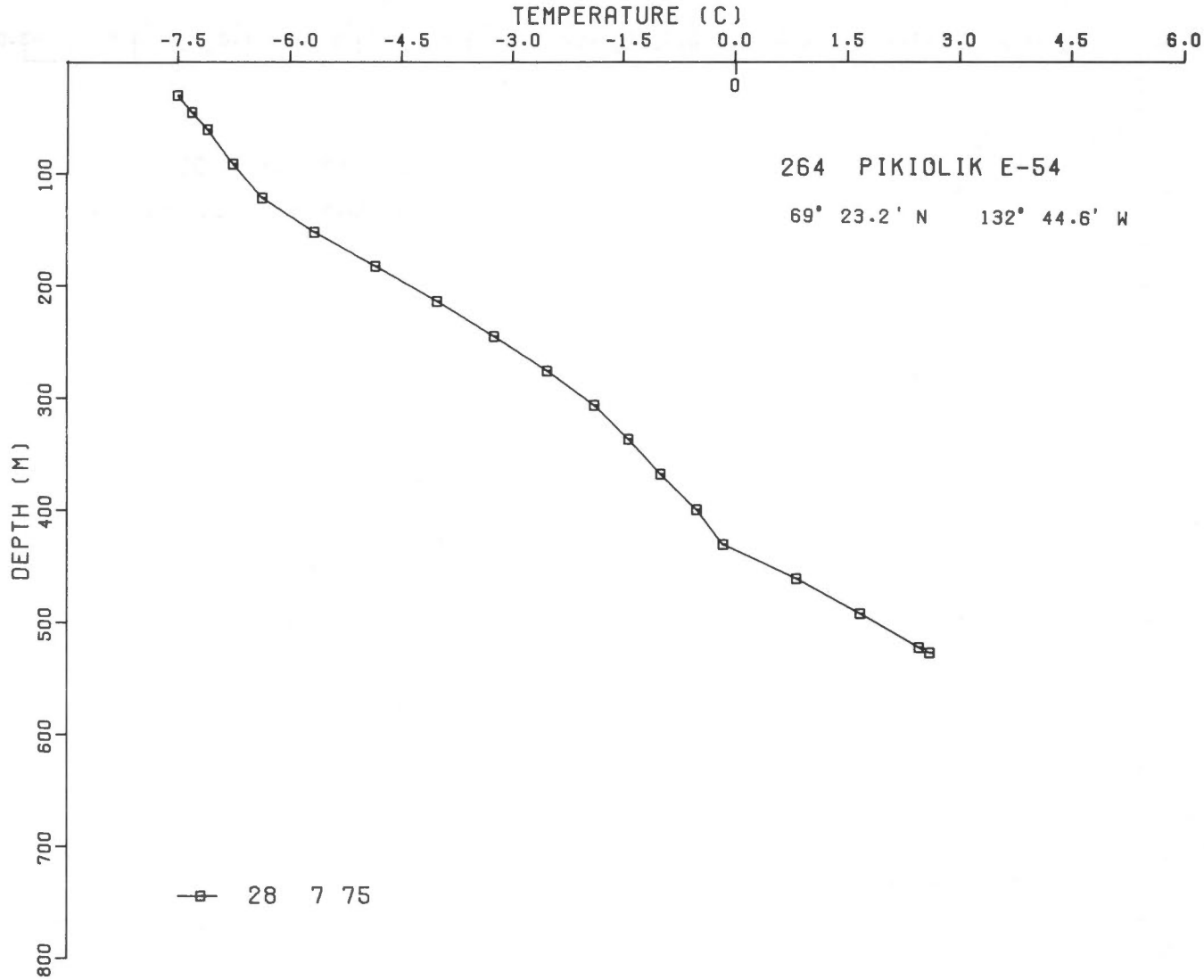

TEMPERATURE (C)
-4.5
-3.0
-1.5
0.0
1.5
3.0
4.5
6.0
7.5
9.0
0
259 DRAKE D-73
76° 22.1' N 108° 29.5' W
DEPTH (M)
50
100
150
200
250
300
350
400
16 5 75

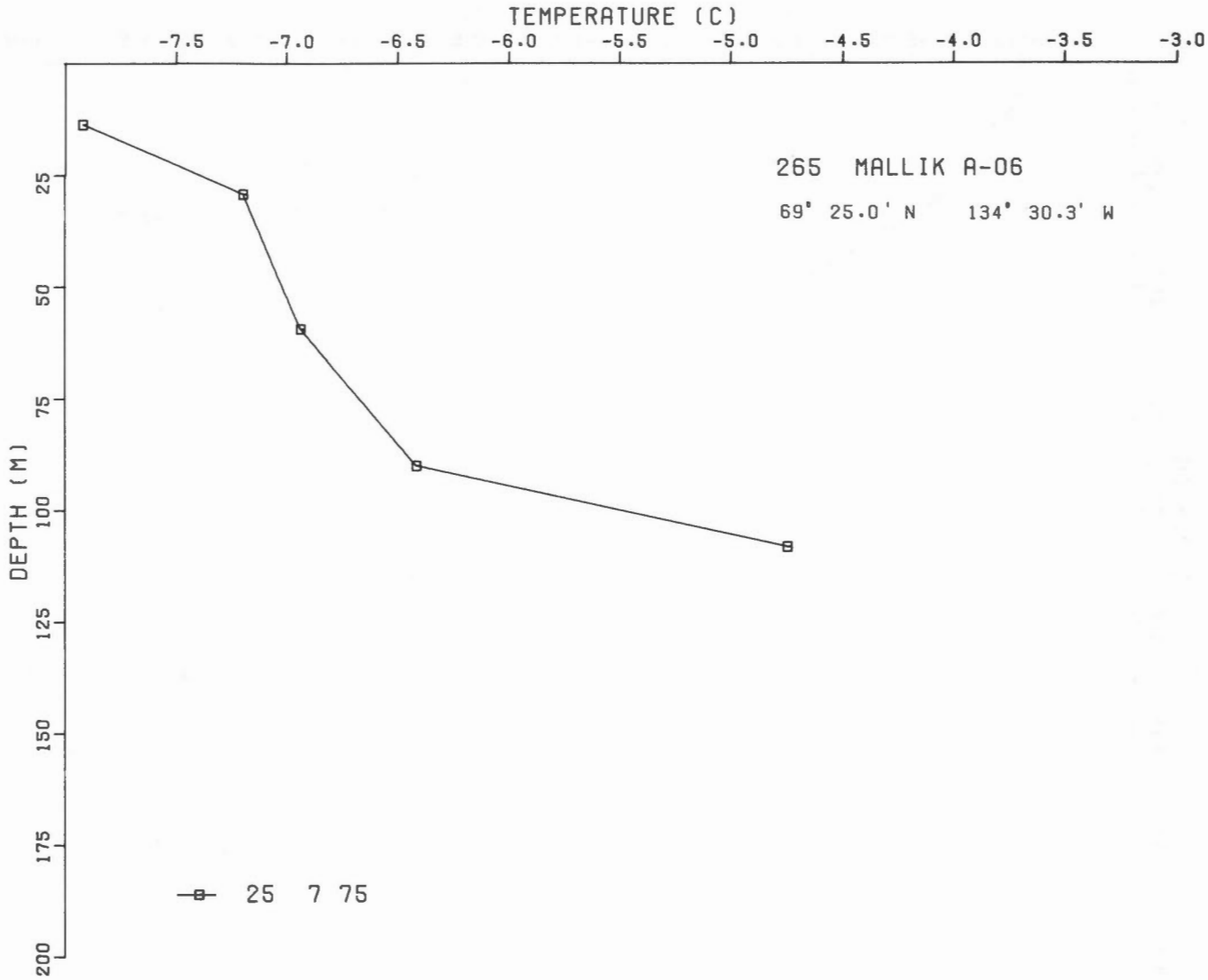

TEMPERATURE (C)
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0
5.0
0
260 RED FOX P-21
69° 10.8' N 133° 35.0' W
DEPTH (M)
100
200
300
400
500
600
700
800
25 7 75

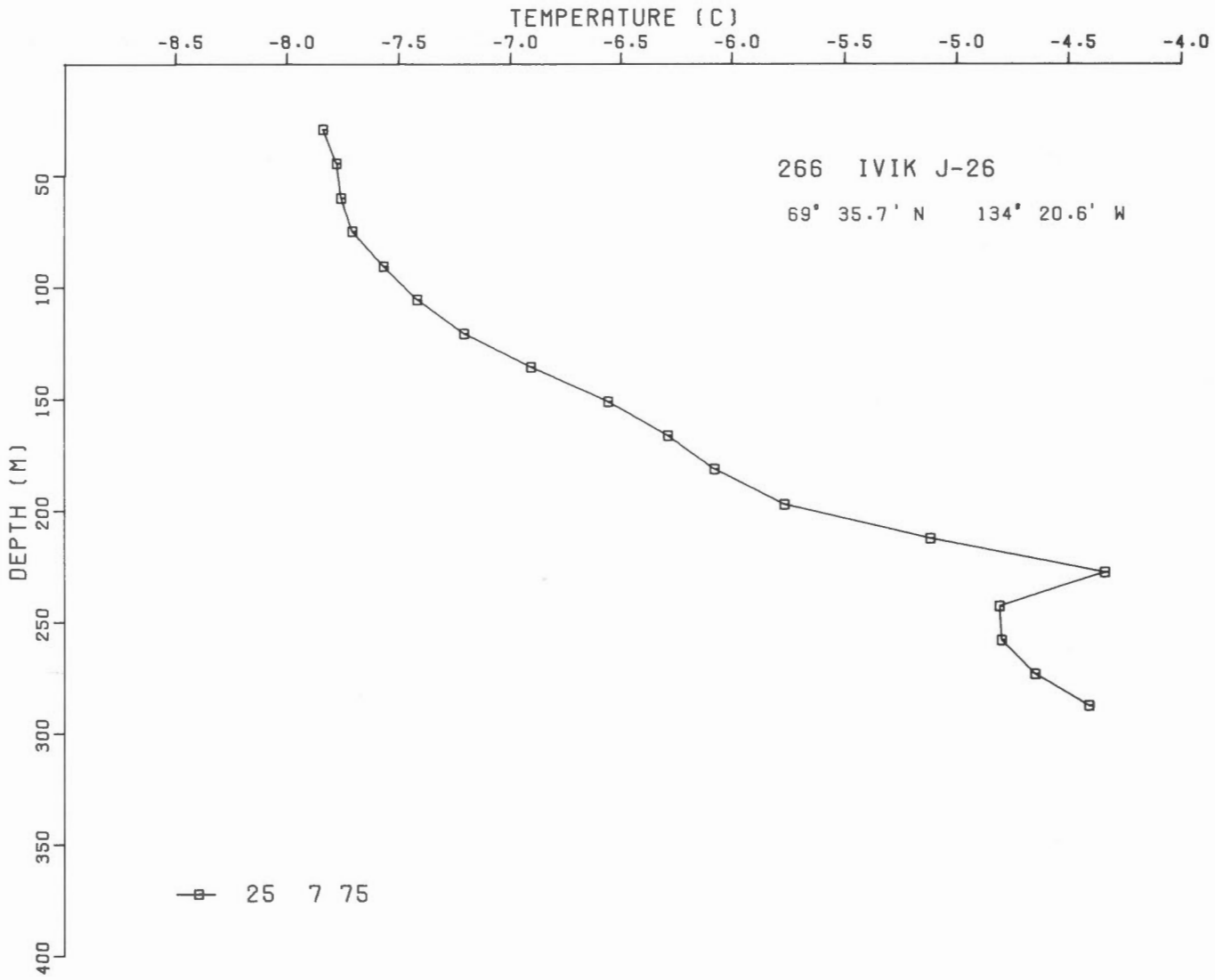

TEMPERATURE (C)
-9.0
-8.0
-7.0
-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
0.0
0
261 KIMIK D-29
69° 38.1' N 132° 22.2' W
DEPTH (M)
100
200
300
400
500
600
700
800
27 7 75

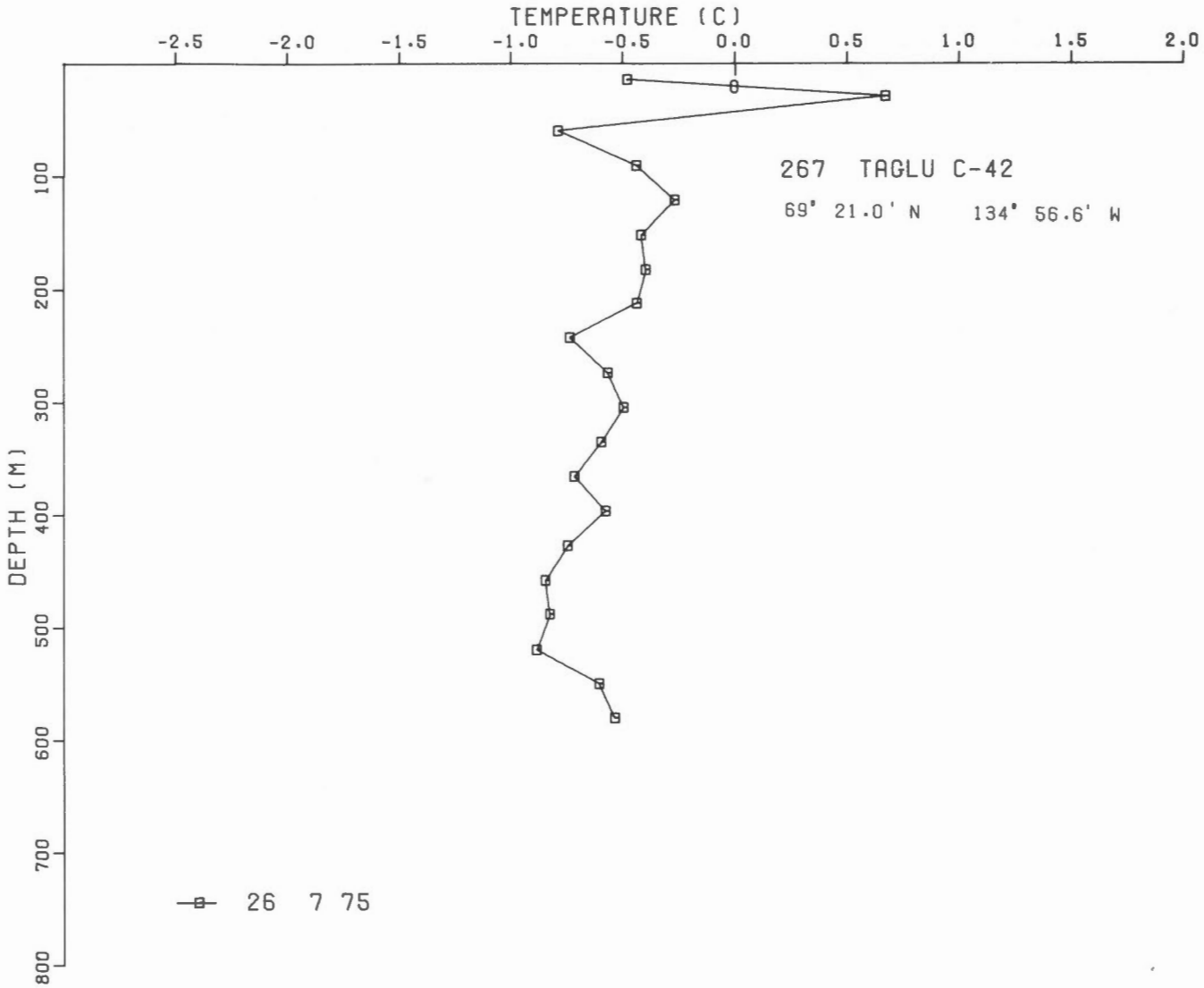

TEMPERATURE (C)
-8.0
-7.0
-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
0
262 ATERTAK E-41
69° 30.5' N 132° 42.1' W
DEPTH (M)
100
200
300
400
500
600
700
800
27 7 75

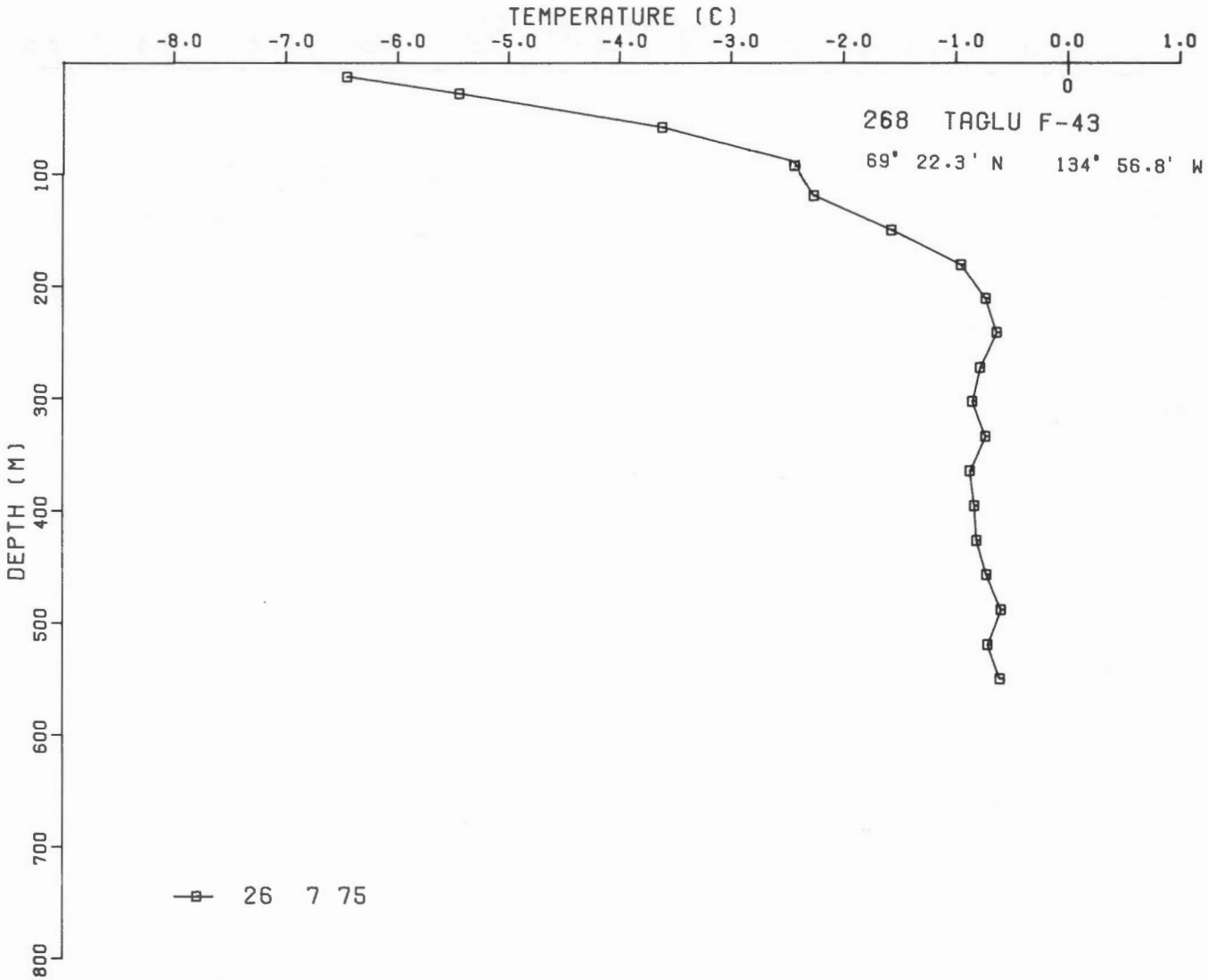

TEMPERATURE (C)
-8.0
-6.0
-4.0
-2.0
0.0
2.0
4.0
6.0
8.0
10.0
0
263 PIKIOLIK M-26
69° 25.9' N 132° 37.4' W
DEPTH (M)
100
200
300
400
500
600
700
800
27 7 75

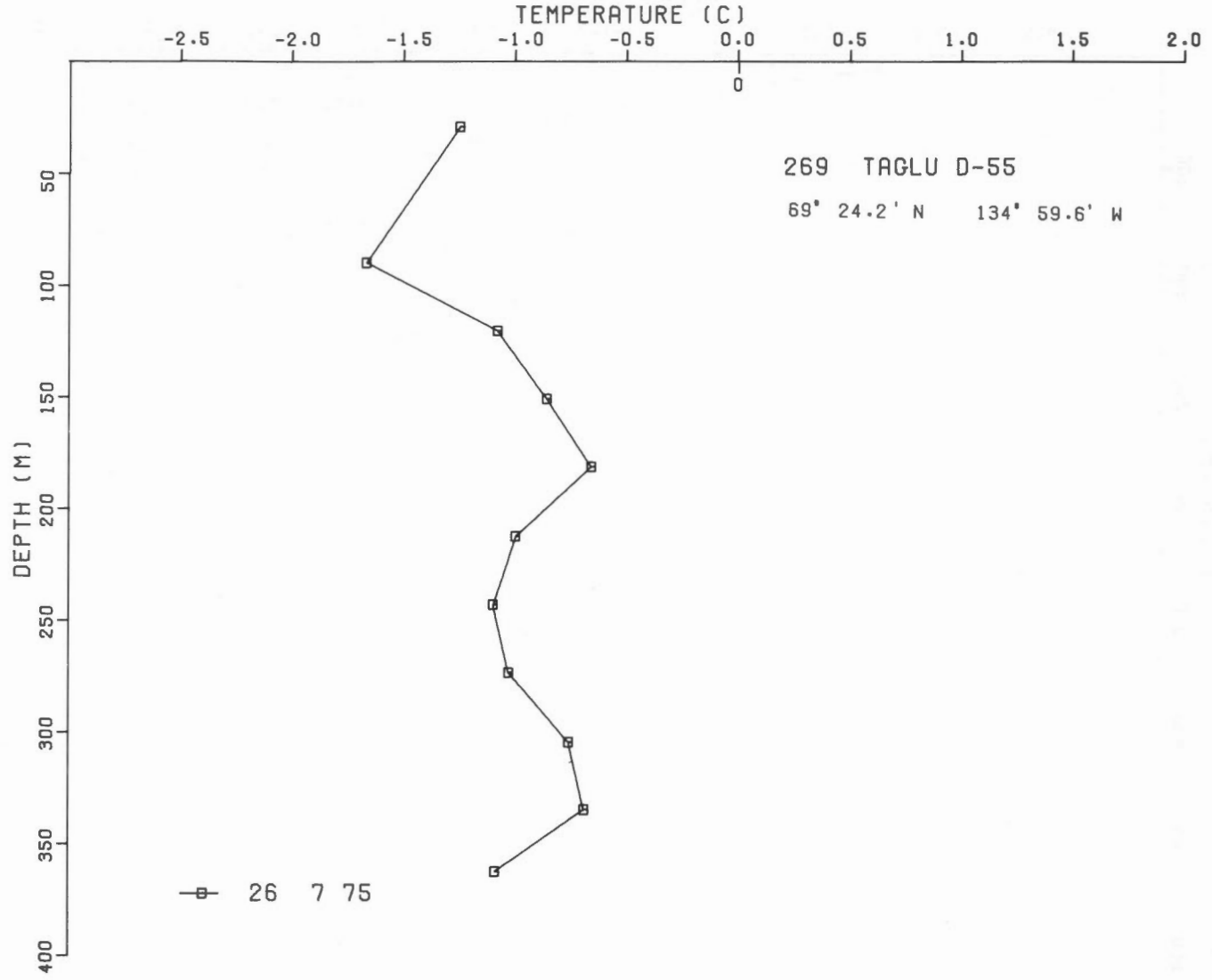

TEMPERATURE (C)
-7.5
-6.0
-4.5
-3.0
-1.5
0.0
1.5
3.0
4.5
6.0
0
264 PIKIOLIK E-54
69° 23.2' N 132° 44.6' W
DEPTH (M)
100
200
300
400
500
600
700
800
28 7 75

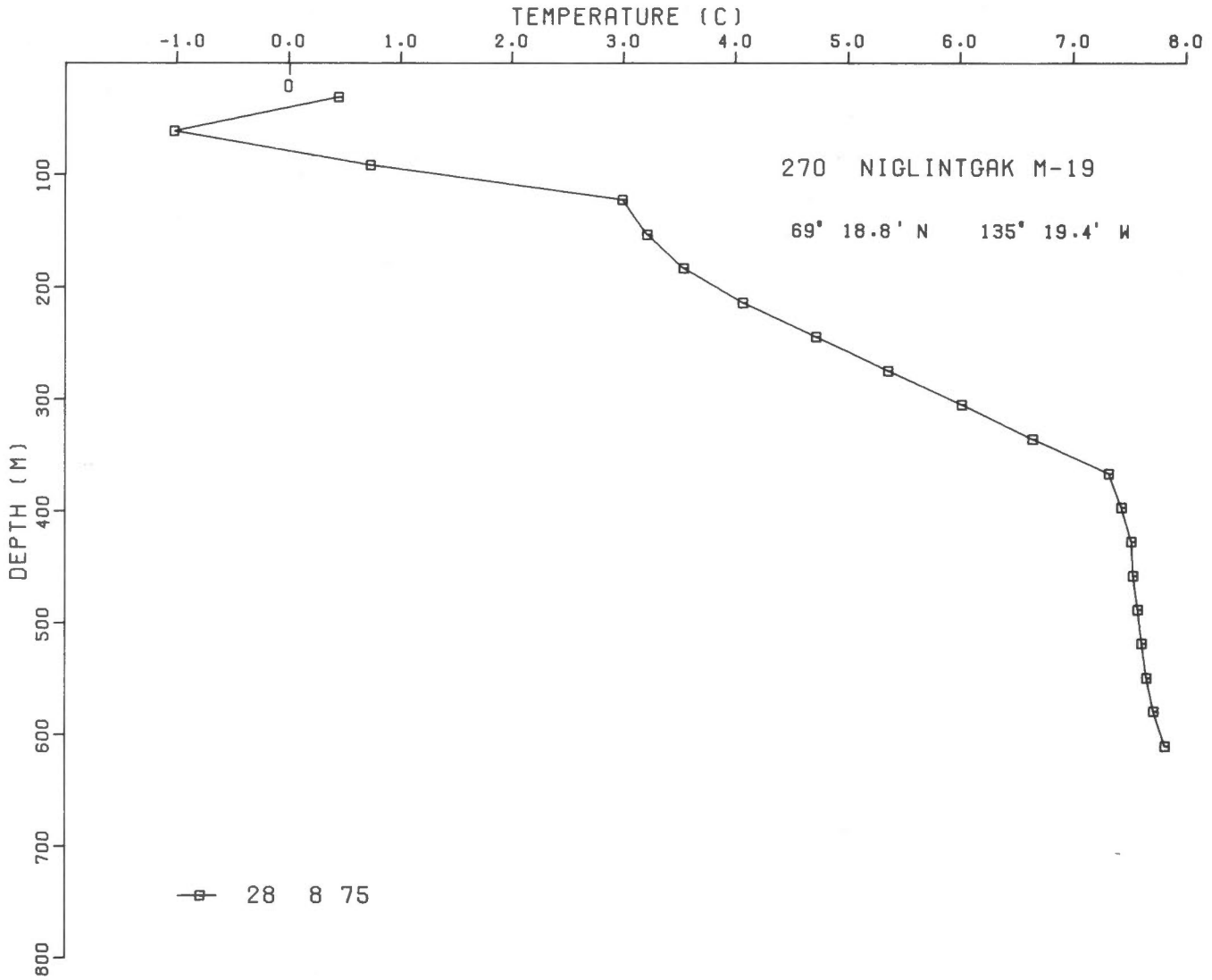

TEMPERATURE (C)
-7.5
-7.0
-6.5
-6.0
-5.5
-5.0
-4.5
-4.0
-3.5
-3.0
DEPTH (M)
25
50
75
100
125
150
175
200
265 MALLIK A-06
69° 25.0' N 134° 30.3' W
25 7 75


TEMPERATURE (C)
-8.5
-8.0
-7.5
-7.0
-6.5
-6.0
-5.5
-5.0
-4.5
-4.0
DEPTH (M)
50
100
150
200
250
300
350
400
266 IVIK J-26
69° 35.7' N 134° 20.6' W
25 7 75


TEMPERATURE (C)
-2.5
-2.0
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
2.0
0
DEPTH (M)
100
200
300
400
500
600
700
800
267 TAGLU C-42
69° 21.0' N 134° 56.6' W
26 7 75


TEMPERATURE (C)
-8.0
-7.0
-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
0
268 TAGLU F-43
69° 22.3' N 134° 56.8' W
DEPTH (M)
100
200
300
400
500
600
700
800
26 7 75


TEMPERATURE (C)
-2.5
-2.0
-1.5
-1.0
-0.5
0.0
0.5
1.0
1.5
2.0
0
269 TAGLU D-55
69° 24.2' N 134° 59.6' W
DEPTH (M)
50
100
150
200
250
300
350
400
26 7 75


TEMPERATURE (C)
-1.0
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
0
DEPTH (M)
100
200
300
400
500
600
700
800
270 NIGLINTGAK M-19
69° 18.8' N 135° 19.4' W
28 8 75

3.3 Tables of Equilibrium Temperature

EARTH PHYSICS BRANCH HOLE NO. 63 REINDEER D-27

****

LATITUDE 69 DEGREES 6.1 MINUTES NORTH LONGITUDE 134 DEGREES 36.9 MINUTES WEST

ELEVATION 29 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
18.3	-7.14	.08	10.15	.30	50.09
48.8	-6.09	.06	8.52	.25	41.99
79.2	-5.59	.08	7.98	.30	39.32
109.7	-4.67	.28	7.42	1.04	36.53
140.2	-4.17	.23	6.46	.98	31.81
170.7	-3.92	.05	5.26	.18	25.82
201.2	-3.23	.04	4.24	.16	20.79
231.6	-2.53	.05	3.24	.20	15.83
262.1	-1.80	.14	2.67	.53	13.00
292.6	-1.11	.09	1.68	.32	8.09
323.1	-.62	.04	.68	.16	3.14
353.6	-.35	.01	1.21	.04	5.74
384.0	.31	.01	3.24	.02	15.81
414.5	1.13	.00	3.14	.01	15.30
445.0	1.87	.00	3.03	.01	14.79
475.5	2.66	.00	3.05	.02	14.86
506.0	3.38	.00	2.97	.01	14.47
536.4	4.12	.00	2.94	.01	14.33
566.9	4.88	.00	2.93	.01	14.27
597.4	5.87	.00	2.72	.01	13.24

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

9	7	66
2	7	67
2	7	68
14	7	69
29	7	70
12	8	71
19	7	72
15	8	74
24	7	75

EARTH PHYSICS BRANCH HOLE NO. 99 DEVON E-45

****

LATITUDE 75 DEGREES 4.3 MINUTES NORTH LONGITUDE 91 DEGREES 48.3 MINUTES WEST

ELEVATION 244 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-14.35	.02	2.89	.21	5.83
50	-14.06	.00	2.26	.00	4.55
75	-13.82	.00	2.22	.01	4.46

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

18 5 72
6 5 73
15 5 74
4 5 75

EARTH PHYSICS BRANCH HOLE NO. 155 KRISTOFFER BAY B-06

****

LATITUDE 78 DEGREES 15.3 MINUTES NORTH LONGITUDE 102 DEGREES 32.0 MINUTES WEST

ELEVATION 15 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-17.24		5.88		19.00
50	-15.50	.01	4.55	.02	14.69
75	-14.56	.03	4.29	.06	13.83
100	-13.58	.02	4.47	.04	14.40
125	-12.52	.04	4.44	.06	14.32
150	-11.66	.05	4.82	.10	15.55
175	-10.91	.06	5.23	.11	16.90
200	-10.17	.06	5.59	.11	18.06
225	-9.32	.06	5.71	.10	18.46
250	-8.14	.03	5.46	.06	17.63
275	-7.12	.03	5.41	.05	17.49
300	-6.07	.04	4.52	.07	14.58
325	-5.04	.11	3.32	.19	10.68
350	-4.28	.07	3.45	.12	11.09
375	-3.43	.02	4.33	.03	13.95
400	-2.33	.02	4.95	.03	15.97
425	-1.18	.07	4.84	.13	15.62
450	.44	.01	4.74	.03	15.29

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

11 5 72
13 5 73
20 5 74
14 5 75

EARTH PHYSICS BRANCH HOLE NO. 165 KILAGHIOTAK F-48

****

LATITUDE 69 DEGREES 27.5 MINUTES NORTH LONGITUDE 134 DEGREES 11.9 MINUTES WEST

ELEVATION 20 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
50	-8.32	.32	4.86	.62	35.33
75	-7.98	.26	4.75	.50	34.48
100	-8.04	.35	5.97	.67	43.46
125	-8.29	.38	8.39	.73	61.27
150	-8.21	.53	9.99	1.03	73.02
175	-7.81	.44	9.55	.85	69.74
200	-7.28	.51	9.00	.98	65.74
225	-6.82	.44	8.43	.85	61.50
250	-6.24	.42	7.74	.81	56.47
275	-5.15	.41	6.34	.80	46.17
300	-3.54	.65	4.17	1.25	30.25

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

1	4	73
19	6	73
4	2	74
15	8	74
24	7	75

EARTH PHYSICS BRANCH HOLE NO. 166 MOKKA A-02

****

LATITUDE 79 DEGREES 31.2 MINUTES NORTH LONGITUDE 87 DEGREES 1.2 MINUTES WEST

ELEVATION 253 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
30.5	-13.64	.04	2.33	.02	10.63
45.7	-13.32	.08	1.71	.04	7.74
61.0	-13.21	.14	1.68	.08	7.59
76.2	-12.77	.02	1.72	.01	7.80
91.4	-12.30		1.73		7.84
106.7	-12.00	.11	1.83	.06	8.29
137.2	-11.83		4.12		18.94
152.4	-10.13		1.25		5.58
167.6	-9.70	.10	1.27	.05	5.70
182.9	-9.38	.12	.83	.06	3.65
198.1	-8.78	.21	.99	.11	4.38
213.4	-8.12	.15	.78	.08	3.42
228.6	-7.69	.18	.31	.09	1.23
243.8	-7.26	.18	.18	.10	.61
259.1	-7.04	.32	.64	.17	2.75
274.3	-6.43	.23	.45	.12	1.87
289.6	-5.99	.20	.50	.11	2.10
320.0	-4.96	.26	-.19	.14	-1.15
350.5	-4.07	.22	.06	.12	.11
381.0	-2.78	.28	-.50	.15	-2.55
411.5	-1.78	.19	-.65	.10	-3.28
442.0	-.85	.11	-.94	.06	-4.63

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

14 4 73
23 5 74
13 5 75

EARTH PHYSICS BRANCH HOLE NO. 167 UNIPKAT I-22

****

LATITUDE 69 DEGREES 11.7 MINUTES NORTH LONGITUDE 135 DEGREES 20.5 MINUTES WEST

ELEVATION 5 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-1.71	.29	.83	.25	3.85
50	-1.18	.16	1.92	.13	9.16
75	-.43	.10	2.95	.08	14.21
100	.88	.12	3.10	.10	14.96
125	2.07	.13	3.15	.11	15.21
150	3.11	.16	3.04	.13	14.69
175	4.12	.15	2.98	.13	14.36
200	5.31	.15	2.84	.13	13.71
225	6.32	.16	2.67	.13	12.87
250	7.13	.16	2.57	.13	12.34
275	7.90	.16	2.52	.13	12.12
300	8.51	.12	2.36	.10	11.31
325	9.09	.09	2.32	.08	11.15
350	9.68	.11	2.31	.10	11.09
375	10.35	.12	2.31	.11	11.09
400	11.05	.10	2.24	.09	10.73
425	11.60	.10	2.13	.09	10.19
450	12.03	.09	2.12	.09	10.14
475	12.58	.09	2.15	.09	10.31
500	13.20	.09	2.09	.08	10.03
525	13.76	.09	2.01	.08	9.60
550	14.30	.13	2.10	.09	10.05
575	15.03	.19	1.96	.14	9.36
600	15.60	.12	2.01	.08	9.64
625	16.23	.14	1.94	.10	9.29
650	17.26	.00	1.59	.00	7.57
675	17.75	.00	1.60	.00	7.58
700	18.27	.00	1.60	.00	7.61

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

1 4 73
25 4 73
20 6 73
4 2 74
16 8 74
22 7 75

EARTH PHYSICS BRANCH HOLE NO. 168 DUNDAS C-80

****

LATITUDE 74 DEGREES 39.0 MINUTES NORTH LONGITUDE 113 DEGREES 23.0 MINUTES WEST

ELEVATION 240 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-14.37	.08	2.23	.20	5.79
50	-14.64	.00	3.22	.00	8.43
75	-14.08	.01	3.25	.02	8.50
100	-13.48	.01	3.33	.03	8.71
125	-12.40	.01	3.26	.02	8.52
150	-11.60	.00	3.31	.01	8.67
175	-11.01	.01	3.18	.03	8.31
200	-10.49	.02	3.34	.05	8.74
225	-9.93	.02	3.68	.04	9.65
250	-9.30	.03	4.09	.07	10.74
275	-8.50	.04	4.08	.11	10.70
300	-7.96	.06	4.27	.15	11.21
325	-7.16	.04	4.38	.11	11.51
350	-6.26	.03	4.23	.08	11.10
375	-5.84	.04	4.33	.10	11.37
400	-5.32	.00	3.93	.01	10.30
425	-4.79	.00	4.20	.01	11.04
450	-3.98	.01	3.79	.03	9.94
475	-3.45	.01	3.61	.03	9.47
500	-2.70	.01	3.18	.02	8.32
525	-1.94	.04	3.13	.09	8.19
550	-1.08	.08	3.83	.19	10.06
575	.01	.06	3.77	.13	9.90
600	1.05	.09	3.55	.20	9.30
625	2.18	.13	3.13	.30	8.20
650	3.16	.09	2.89	.20	7.54

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

28 4 73
25 5 74
7 5 75

EARTH PHYSICS BRANCH HOLE NO. 170 THOR P-38

****

LATITUDE 78 DEGREES 7.8 MINUTES NORTH LONGITUDE 103 DEGREES 15.2 MINUTES WEST

ELEVATION 5 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-16.35		3.30		2.49
50	-15.86	.08	9.99	.75	7.63
75	-14.94	.09	9.73	.83	7.42
100	-13.96	.05	8.54	.48	6.51
125	-12.98	.04	8.18	.40	6.23
150	-11.47	.07	6.81	.70	5.19
175	-10.20	.04	8.31	.34	6.33
200	-8.79	.04	7.97	.39	6.07
225	-7.30	.08	6.65	.76	5.06
250	-5.54	.02	4.64	.17	3.52
275	-3.61	.02	2.79	.18	2.10
300	-2.03	.03	2.65	.33	2.00
325	-.54	.02	4.03	.19	3.05
350	.93	.03	5.56	.26	4.23
375	2.37	.03	5.20	.32	3.95
400	3.67	.03	5.55	.25	4.22
425	4.99	.06	5.69	.52	4.32
450	6.29	.05	6.09	.43	4.63
475	7.58	.06	6.08	.56	4.62
500	8.77	.07	6.45	.62	4.91

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

13 9 72
11 5 73
19 5 74
15 5 75

EARTH PHYSICS BRANCH HOLE NO. 172 DRAKE B-44

****

LATITUDE 76 DEGREES 23.1 MINUTES NORTH LONGITUDE 108 DEGREES 16.1 MINUTES WEST

ELEVATION 4 METERS

LOGARITHMIC RETURN TC EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-14.16	.05	3.31	.55	2.59
50	-12.62	.02	5.46	.27	4.30
75	-10.58	.04	4.91	.52	3.86
100	-8.36	.02	4.83	.27	3.80
125	-5.93	.07	3.89	.77	3.05
150	-3.44	.02	6.20	.27	4.89
175	-1.16	.01	5.37	.08	4.23
200	1.18	.16	2.85	1.81	2.22
225	2.59	.07	1.88	.81	1.45
250	3.93	.11	1.40	1.23	1.07
275	5.18	.09	1.92	1.10	1.49
300	6.40	.05	1.57	.53	1.21
325	7.45	.06	1.54	.74	1.18

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

7 5 73
16 5 74
6 5 75

EARTH PHYSICS BRANCH HOLE NO. 173 NIGLINTGAK 4-30

****

LATITUDE 69 DEGREES 19.4 MINUTES NORTH LONGITUDE 135 DEGREES 20.1 MINUTES WEST

ELEVATION 2 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-2.22	.00	1.77	.00	7.80
50	-1.69	.02	1.16	.02	5.04
75	-1.24	.12	1.02	.16	4.38
100	-1.17	.33	2.45	.45	10.84
125	-.87	.47	3.93	.63	17.56
150	-.10	.27	3.57	.36	15.92
175	.61	.02	3.42	.03	15.25
200	1.11	.04	3.38	.05	15.04
225	1.42	.05	3.60	.06	16.04
250	1.87	.05	3.46	.06	15.43

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

19 6 73
4 2 74
22 7 75

EARTH PHYSICS BRANCH HOLE NO. 175 GEMINI E-10

****

LATITUDE 79 DEGREES 59.4 MINUTES NORTH LONGITUDE 84 DEGREES 4.2 MINUTES WEST

ELEVATION 126 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
50	-16.71	.27	8.28	.33	32.69
75	-15.93	.06	6.27	.07	24.69
100	-15.56	.10	7.34	.13	28.96
125	-14.91	.17	7.98	.20	31.52
150	-13.37	.06	7.12	.07	28.09
175	-11.96	.02	6.67	.02	26.29
200	-10.58	.01	6.81	.02	26.84
225	-9.45	.10	6.71	.12	26.44
250	-8.53	.07	5.95	.08	23.46
275	-7.30	.04	5.66	.05	22.27
300	-6.17	.03	4.80	.04	18.87
325	-5.27	.02	3.87	.02	15.16
350	-4.28	.05	3.22	.07	12.58
375	-3.20	.17	2.33	.21	9.04
400	-2.25	.19	1.80	.24	6.95
425	-1.41	.14	1.78	.17	6.88
450	-1.27	.01	3.84	.01	11.90
475	-.99	.08	4.57	.10	17.96
500	-.02	.05	5.12	.07	20.13
525	1.02	.12	5.23	.15	20.58
550	2.65	.05	4.91	.07	19.32
575	4.18	.10	4.81	.12	18.89
600	5.57	.12	4.76	.15	18.69
625	6.92	.09	4.58	.12	18.01
650	8.25	.06	4.43	.07	17.41
675	9.56	.10	4.37	.12	17.16
700	10.65	.08	4.17	.10	16.38
725	11.63	.09	4.00	.11	15.68
750	12.65	.09	3.86	.11	15.15
775	13.70	.12	3.79	.14	14.85
800	14.82	.10	3.55	.13	13.90

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

30 4 73
22 5 74
12 5 75

EARTH PHYSICS BRANCH HOLE NO. 176 YA YA P-53

****

LATITUDE 69 DEGREES 12.8 MINUTES NORTH LONGITUDE 134 DEGREES 42.7 MINUTES WEST

ELEVATION 36 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-7.59	.06	3.15	.13	8.65
50	-7.14	.06	3.57	.14	9.83
75	-6.67	.03	3.80	.07	10.48
100	-6.26	.05	4.53	.14	12.52
125	-5.81	.08	5.55	.20	15.38
150	-5.17	.08	4.57	.18	12.63
175	-4.95	.13	5.31	.31	14.70
200	-4.51	.10	4.35	.23	13.70
225	-4.00	.03	4.44	.07	12.27
250	-3.44	.05	3.88	.12	10.71
275	-2.92	.02	3.27	.04	9.01
300	-2.43	.13	2.72	.30	7.46
325	-1.97	.14	2.09	.33	5.71
350	-1.43	.12	1.41	.29	3.80
375	-1.08	.13	.79	.31	2.07
400	-.81	.11	1.30	.25	3.49
425	-.19	.03	2.10	.07	5.74
450	.30	.02	2.19	.05	5.98
475	1.20	.03	2.03	.06	5.54
500	1.85	.03	2.02	.07	5.49
525	2.50	.03	1.99	.07	5.42
550	3.16		1.74		4.73

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

19 6 73
4 2 74
16 8 74
24 7 75

EARTH PHYSICS BRANCH HOLE NO. 178 PARSONS N-10

****

LATITUDE 68 DEGREES 59.8 MINUTES NORTH LONGITUDE 133 DEGREES 31.8 MINUTES WEST

ELEVATION 68 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-5.86	.21	3.31	.24	8.39
50	-5.21	.05	2.89	.07	7.32
75	-4.75	.05	2.59	.07	6.54
100	-4.31	.07	2.27	.08	5.72
125	-3.91	.08	1.98	.10	4.96
150	-3.21	.16	1.51	.18	3.76
175	-2.44	.25	1.25	.28	3.09
200	-1.99	.25	.99	.29	2.43
225	-1.67	.20	.88	.23	2.15
250	-1.29	.15	.74	.17	1.78
275	-.89	.13	.58	.15	1.36
300	-.76	.08	.64	.09	1.52
325	-.60	.03	.64	.04	1.52
350	-.22	.08	2.43	.09	6.12
375	.78	.04	2.58	.04	6.52
400	1.54	.05	2.47	.05	6.23
425	2.21	.05	2.44	.05	6.16
450	2.87	.05	2.40	.06	6.04
475	3.57	.05	2.33	.06	5.86
500	4.16	.03	2.44	.04	6.16
525	4.83	.03	2.37	.04	5.99
550	5.48	.06	2.37	.06	5.97
575	6.12		2.37		5.98
600	6.77		2.33		5.87

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

21 6 73
3 2 74
15 8 74
23 7 75

EARTH PHYSICS BRANCH HOLE NO. 179 REINDEER F-36

****

LATITUDE 69 DEGREES 5.3 MINUTES NORTH LONGITUDE 134 DEGREES 39.0 MINUTES WEST

ELEVATION 10 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-7.11	.02	7.54	.05	11.09
50	-6.96	.05	7.91	.13	11.63
75	-6.84	.08	7.85	.20	11.54
100	-6.58	.03	7.85	.08	11.54
125	-6.13	.01	6.61	.02	9.70
150	-5.58	.03	6.44	.06	9.45
175	-4.78	.05	5.39	.14	7.90
200	-3.77	.08	3.90	.18	5.70
225	-2.98	.07	3.41	.17	4.97
250	-2.36	.05	2.65	.11	3.85
275	-1.74	.11	1.89	.26	2.72
300	-1.11	.07	1.30	.17	1.85
325	-.62	.02	.72	.05	.99

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

20 6 73
3 2 74
14 8 74
24 7 75

EARTH PHYSICS BRANCH HOLE NO. 192 KUGPIK O-13

****

LATITUDE 68 DEGREES 52.8 MINUTES NORTH LONGITUDE 135 DEGREES 18.2 MINUTES WEST

ELEVATION 2 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-1.17	.50	.12	.48	.41
50	-.73	.12	1.76	.11	8.82
75	-.36	.12	3.56	.12	18.10
100	.73	.03	3.91	.03	19.88
125	1.90	.13	3.69	.13	18.77
150	2.56	.20	3.93	.19	19.96
175	3.29	.27	4.01	.25	20.39
200	4.31	.27	3.87	.25	19.70
225	5.47	.24	3.48	.23	17.65
250	6.48	.22	2.99	.21	15.14
275	7.08	.18	2.70	.17	13.67
300	7.63	.22	2.65	.21	13.39
325	8.32	.21	2.59	.20	13.08
350	9.02	.22	2.48	.21	12.51
375	9.62	.21	2.41	.20	12.14
400	10.20	.19	2.34	.18	11.77
425	10.87	.18	2.20	.17	11.06
450	11.39	.19	2.16	.18	10.89
475	12.08	.24	2.26	.22	11.36
500	12.92	.25	2.08	.24	10.45
525	13.68	.18	1.86	.17	9.32
550	14.02		1.95		9.77
575	14.59		1.89		9.47
600	15.19		1.92		9.62
625	15.58		2.91		14.72

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

4 11 73
5 2 74
16 8 74
22 7 75

EARTH PHYSICS BRANCH HOLE NO. 193 IK4IL I-37

****

LATITUDE 68 DEGREES 46.6 MINUTES NORTH LONGITUDE 134 DEGREES 7.8 MINUTES WEST

ELEVATION 125 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-2.92	3.48	1.48	2.21	9.31
50	-5.18	.95	2.28	.60	14.49
75	-5.40	.30	2.37	.19	15.06
100	-4.95	.56	2.30	.36	14.63
125	-4.43	.58	2.11	.37	13.38
150	-3.27	.47	1.61	.30	10.12
175	-2.11	.52	1.24	.33	7.71
200	-1.61	.33	1.15	.21	7.12
225	-1.31	.26	1.13	.16	7.04
250	-1.18	.31	1.24	.20	7.76
275	-1.26	.38	1.58	.24	9.92
300	-1.02	.47	1.30	.29	8.13
325	-.84	.47	1.20	.30	7.48
350	.24	.36	1.95	.23	12.36
375	.82	.13	2.65	.08	16.89
400	1.88	.26	2.57	.17	16.37
425	2.99	.29	2.71	.18	17.28
450	3.78	.19	2.58	.12	16.41
475	4.50	.16	2.60	.10	16.53
500	5.13	.13	2.69	.08	17.16
525	5.88	.11	2.66	.07	16.95

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

19 12 73
3 2 74
15 8 74
23 7 75

EARTH PHYSICS BRANCH HOLE NO. 194 ATIGI O-48

****

LATITUDE 68 DEGREES 57.0 MINUTES NORTH LONGITUDE 133 DEGREES 56.1 MINUTES WEST

ELEVATION 85 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
100	-6.34	.00	1.85	.00	2.47
125	-6.20	.01	1.89	.01	2.52
150	-6.11	.02	2.77	.03	3.73
175	-5.82	.00	2.00	.00	2.67
200	-5.33	.15	1.51	.20	2.00
225	-5.18	.09	1.43	.11	1.89
250	-5.02	.05	1.26	.07	1.66
275	-4.75	.06	1.09	.07	1.42
300	-4.51	.06	1.04	.09	1.36
325	-4.43	.01	1.97	.01	2.64
350	-4.25	.03	1.72	.04	2.29
375	-3.84	.05	.99	.07	1.29
400	-3.52	.06	1.34	.07	1.76
425	-3.11	.00	1.50	.01	1.99
450	-2.71	.01	1.15	.02	1.51
475	-2.15	.09	.90	.12	1.17
500	-1.57	.10	.78	.13	1.00
525	-1.27	.07	.67	.09	.84
550	-.74	.10	.50	.12	.62
575	-.25		1.39		1.84

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

19 3 74
15 8 74
23 7 75

EARTH PHYSICS BRANCH HOLE NO. 196 BENT HORN N-72

****

LATITUDE 76 DEGREES 21.8 MINUTES NORTH LONGITUDE 103 DEGREES 58.2 MINUTES WEST

ELEVATION 63 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
50	-15.76		2.03		7.23
75	-15.28		2.07		7.38
100	-14.69		2.06		7.32
125	-14.07		2.03		7.21
150	-13.34		2.00		7.11
175	-12.50		1.94		6.90
200	-11.87		1.94		6.90
225	-11.06		1.89		6.71
250	-10.15		1.99		7.06
275	-9.29		1.87		6.63
300	-8.55		1.83		6.49
325	-7.85		1.79		6.34
350	-7.24		1.78		6.30
375	-6.65		1.80		6.39
400	-6.14		1.94		6.90
425	-5.68		2.08		7.40
450	-5.27		2.36		8.42
475	-4.56		2.05		7.28
500	-3.91		1.62		5.72
525	-3.44		1.62		5.72
550	-2.91		1.33		4.67
575	-2.41		1.07		3.73
600	-1.93		.84		2.88
625	-1.49		.57		1.90
650	-1.12		.31		.96
675	-.83		.70		2.36
700	-.37		1.18		4.12
725	.13		1.17		4.08
750	.84		1.18		4.12
775	1.54		1.14		3.98
800	2.16		1.18		3.82
825	3.11		.86		2.95

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

17 5 74
 6 5 75

EARTH PHYSICS BRANCH HOLE NO. 197 NEIL 0-15

****

LATITUDE 80 DEGREES 44.6 MINUTES NORTH LONGITUDE 83 DEGREES 4.8 MINUTES WEST

ELEVATION 497 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
50	-9.02		3.75		5.17
75	-9.11		3.75		5.18
100	-9.03		3.38		4.66
125	-8.91		3.51		4.83
150	-8.61		3.64		5.02
175	-8.28		3.74		5.15
200	-7.89		3.47		4.77
225	-7.52		3.77		5.20
250	-7.07		4.12		5.68
275	-6.48		4.34		6.00
300	-5.89		3.95		5.45
325	-5.33		3.48		4.79
350	-4.81		3.21		4.42
375	-4.26		3.46		4.76
400	-3.49		3.24		4.45
425	-2.60		2.71		3.72
450	-2.05		2.57		3.52
475	-1.38		1.54		2.08
500	-1.14		3.03		4.16
525	-.54		2.33		3.18
550	-.06		2.88		3.96
575	.40		2.91		4.00
600	.95		3.05		4.19
625	1.70		3.18		4.37
650	2.43		3.12		4.28
675	3.21		3.01		4.14
700	3.92		3.10		4.26
725	4.65		3.05		4.19

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

23 5 74
11 5 75

EARTH PHYSICS BRANCH HOLE NO. 199 DRAKE E-78

****

LATITUDE 76 DEGREES 27.3 MINUTES NORTH LONGITUDE 108 DEGREES 29.4 MINUTES WEST

ELEVATION 2 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-13.12		6.46		2.81
50	-11.03		5.15		2.23
75	-8.71		4.23		1.83
100	-6.23		3.11		1.34
125	-3.65		1.06		.44
150	-1.31		.26		.09
175	.91		-.03		-.04
200	2.98		-.23		-.12
225	4.27		.41		.16
250	5.44		.68		.28

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

5 8 74
6 5 75

EARTH PHYSICS BRANCH HOLE NO. 200 HECLA I-69

****

LATITUDE 76 DEGREES 18.7 MINUTES NORTH LONGITUDE 110 DEGREES 23.3 MINUTES WEST

ELEVATION 2 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
25	-14.46		4.48		8.01
50	-10.51		.81		1.37
75	-7.40		3.25		5.79
100	-4.56		3.45		6.15
125	-1.61		1.85		3.25
150	.95		.81		1.37
175	2.76		.34		.52
200	4.30		-.81		-1.56
225	5.57		-.01		-.18
250	6.92		.13		.16
275	8.07		.98		1.69
300	9.37		-1.51		-2.83
325	10.32		-.91		-1.74
350	11.15		-.33		-.69
375	11.73		.38		.61
400	12.32		.35		.55
425	13.00		-.58		-1.13

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

5 8 74
6 5 75

EARTH PHYSICS BRANCH HOLE NO. 254 YA YA A-28

****

LATITUDE 69 DEGREES 17.2 MINUTES NORTH LONGITUDE 134 DEGREES 35.5 MINUTES WEST

ELEVATION 40 METERS

LOGARITHMIC RETURN TO EQUILIBRIUM

DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
75	-7.83		5.99		15.95
100	-7.41		5.51		14.92
125	-6.26		4.52		12.00
150	-4.07		2.41		6.35
175	-3.69		2.14		5.60
200	-4.16		2.52		6.63
225	-3.96		2.35		6.19
250	-3.34		1.92		4.75
275	-2.99		1.53		3.97
300	-1.84		.65		1.62
325	-2.43		1.22		3.14
350	-2.66		1.46		3.78
375	-2.48		1.31		3.37
400	-2.13		1.08		2.77
425	-1.68		.83		2.10
450	-1.24		.57		1.39
475	-1.03		.42		.99
500	-.96		.40		.93
525	-.88		.36		.84

TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

16 8 74
25 7 75

EARTH PHYSICS BRANCH HOLE NO. 255 ADGO P-25

****

LATITUDE 69 DEGREES 24.9 MINUTES NORTH LONGITUDE 135 DEGREES 50.5 MINUTES WEST

ELEVATION 1 METERS

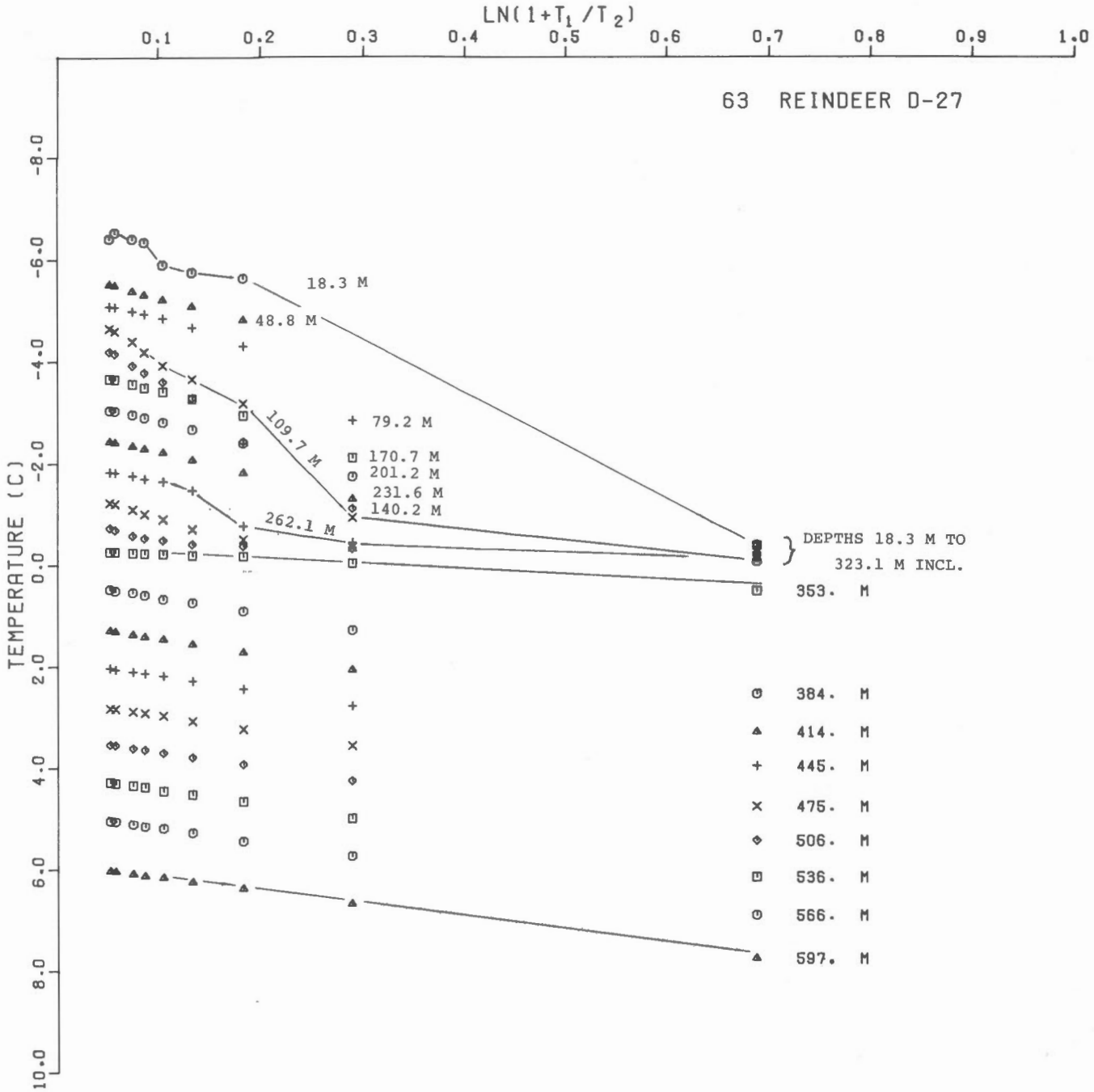
LOGARITHMIC RETURN TO EQUILIBRIUM

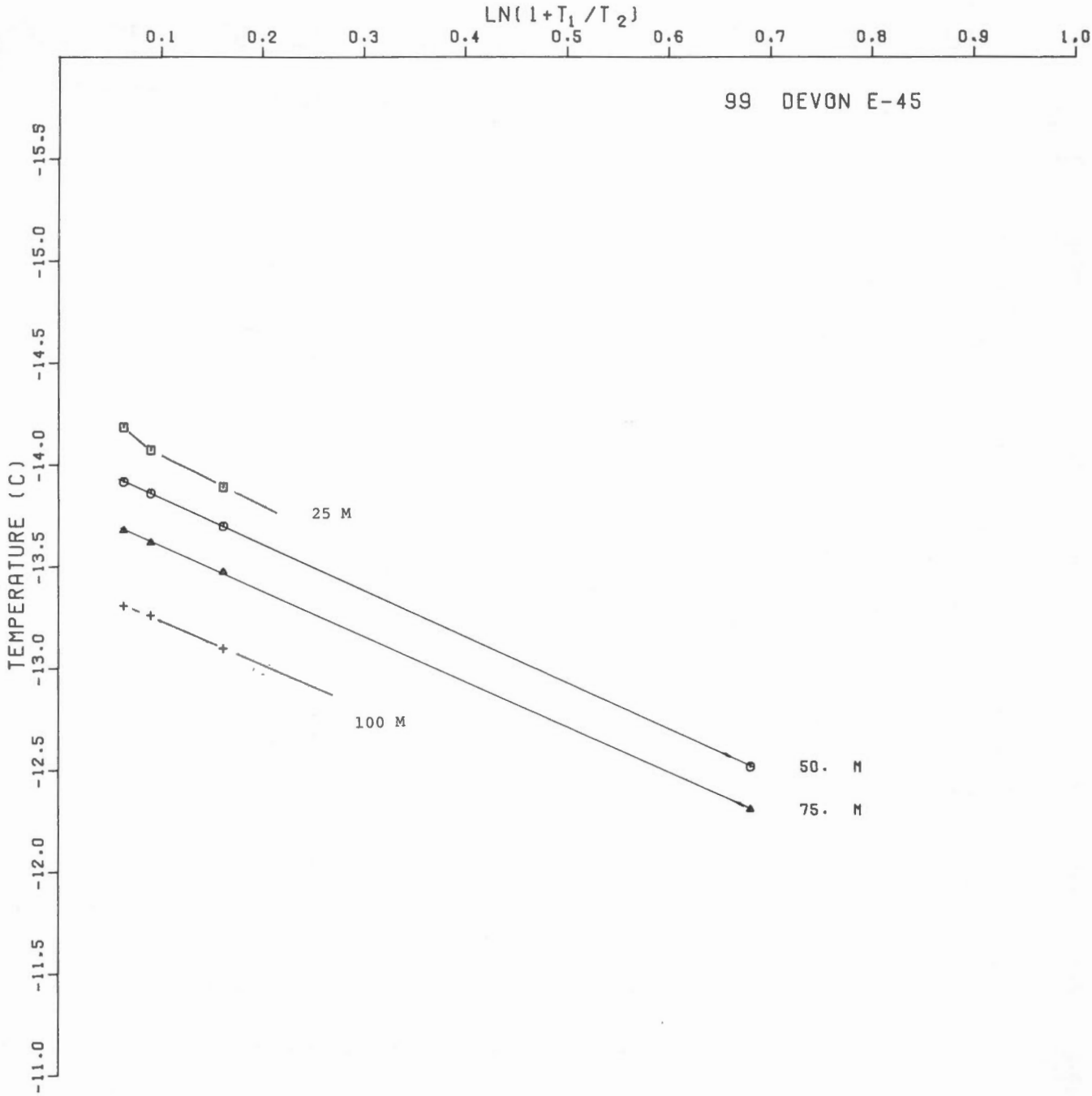
DEPTH (M)	EQUILIBRIUM TEMPERATURE (C)	DELTA T(EQ) (C)	SOURCE FUNCTION (C)	DELTA S.F. (C)	TIME TO T(EQ)+0.1 (YEARS)
3.4	-.47	.09	3.29	.14	7.54
23.2	2.73	.04	3.29	.07	7.55
43.0	2.93	.12	3.17	.18	7.26
62.8	3.24	.04	3.02	.06	6.92
82.6	3.73	.05	2.90	.07	6.65
102.4	3.94	.04	2.82	.07	6.45
122.2	4.22	.06	2.87	.09	6.56
142.0	4.46	.03	2.85	.05	6.59
161.8	4.66	.04	2.86	.05	6.54
181.7	4.90	.05	2.76	.07	6.31
201.5	5.28	.04	2.77	.06	6.34
221.3	5.67	.03	2.26	.04	5.20
241.1	5.83	.05	2.29	.07	5.23
260.9	6.08	.05	2.32	.08	5.29
280.7	6.43	.04	2.44	.06	5.56
300.5	6.61	.03	2.34	.04	5.32
320.3	7.03	.05	2.32	.08	5.28
340.2	7.44	.04	2.36	.06	5.42
360.0	7.85	.04	2.50	.05	5.70
379.8	8.17	.03	2.06	.04	4.68
399.6	8.32	.04	1.95	.05	4.42
419.4	8.85	.04	2.05	.05	4.66
439.2	9.22	.04	2.03	.06	4.61
459.0	9.58	.03	2.00	.05	4.54
478.8	10.19	.03	2.06	.05	4.67
498.7	10.52	.04	2.05	.05	4.66
518.5	11.01	.05	2.16	.07	4.90
538.3	11.36	.03	1.87	.04	4.23
558.1	11.90	.02	2.00	.03	4.55

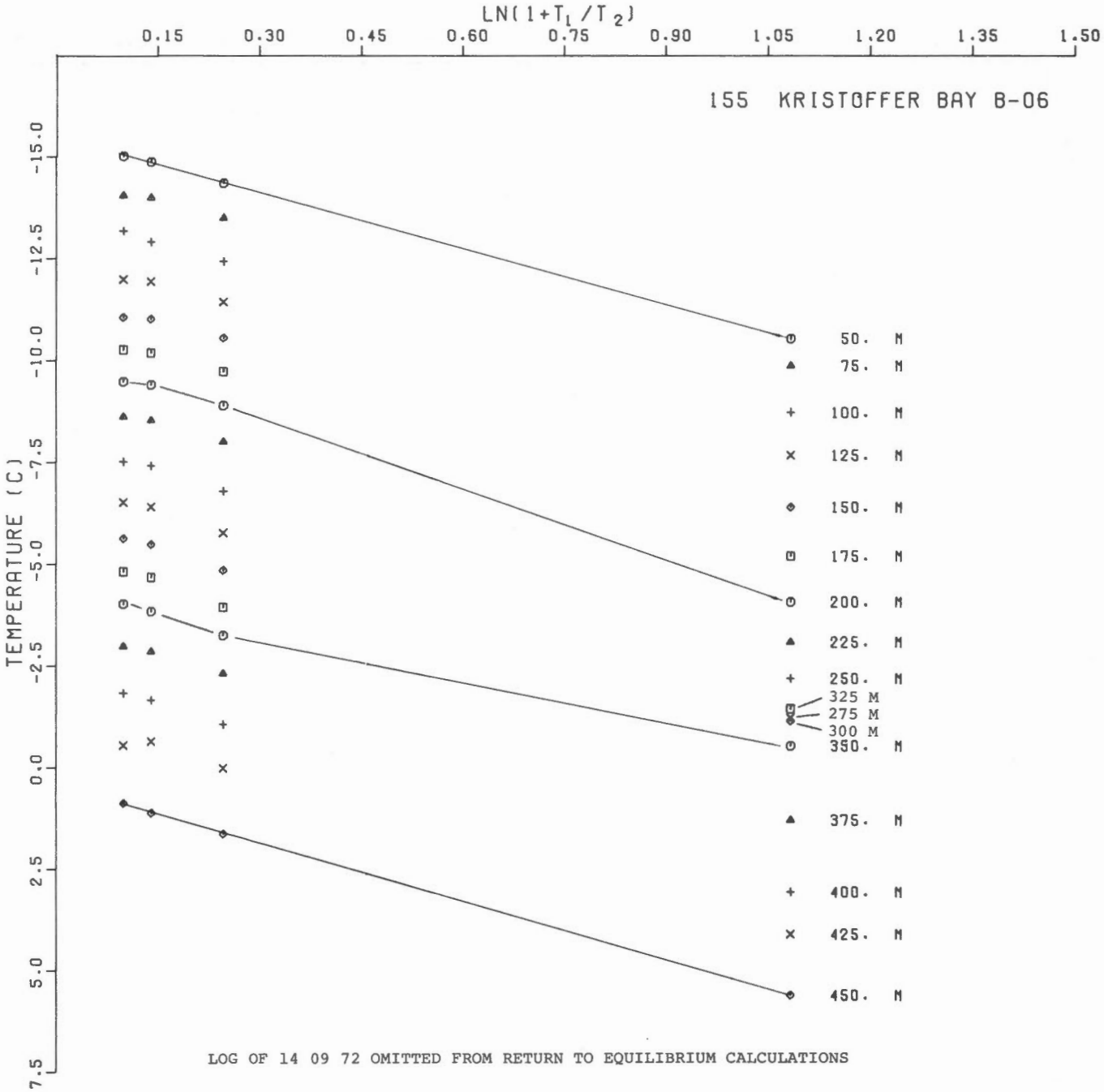
TEMPERATURE LOGS USED IN RETURN TO EQUILIBRIUM CALCULATIONS...

3	5	75
30	7	75
7	8	75
20	12	75
19	1	76

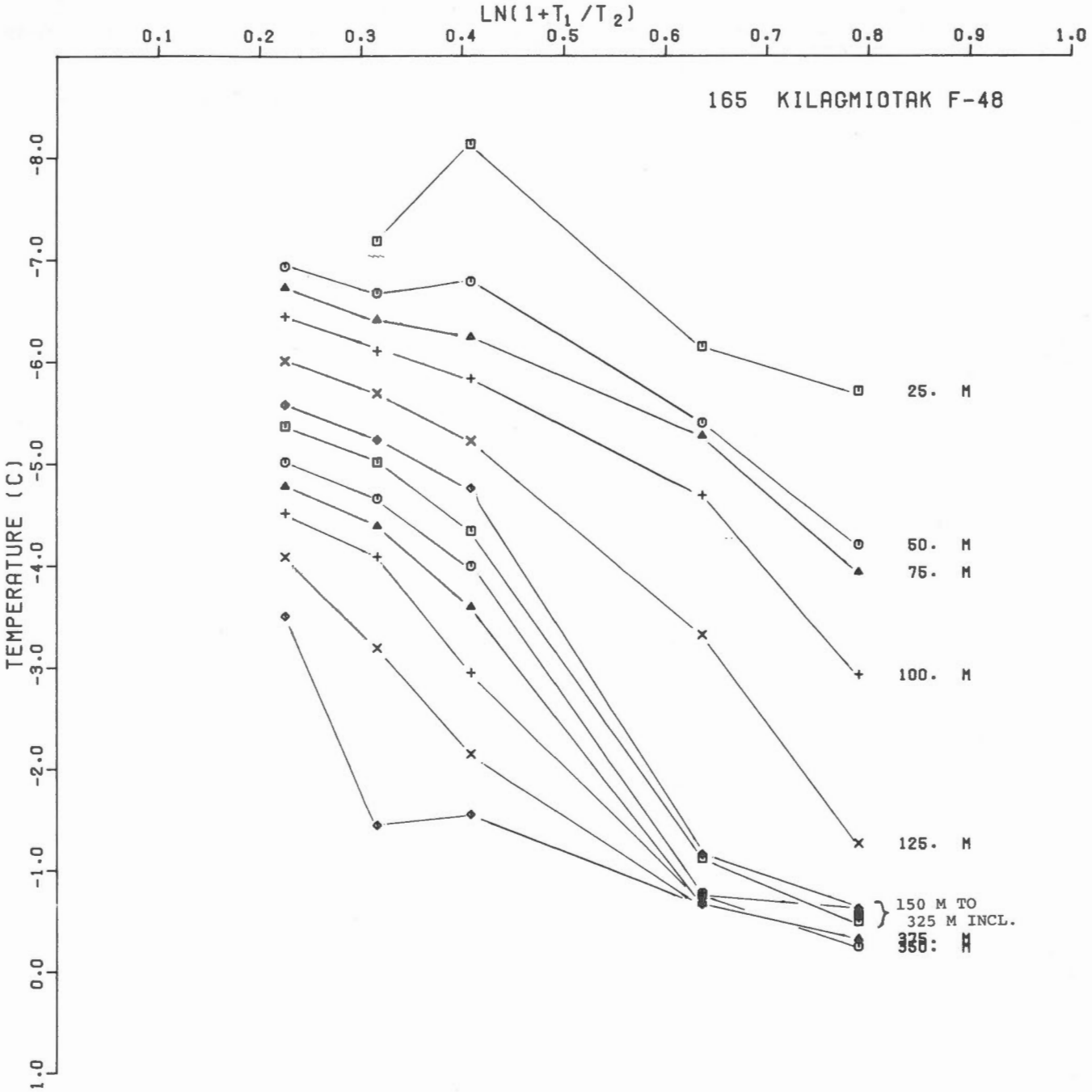
3.4 Graphs of the Return to Thermal Equilibrium

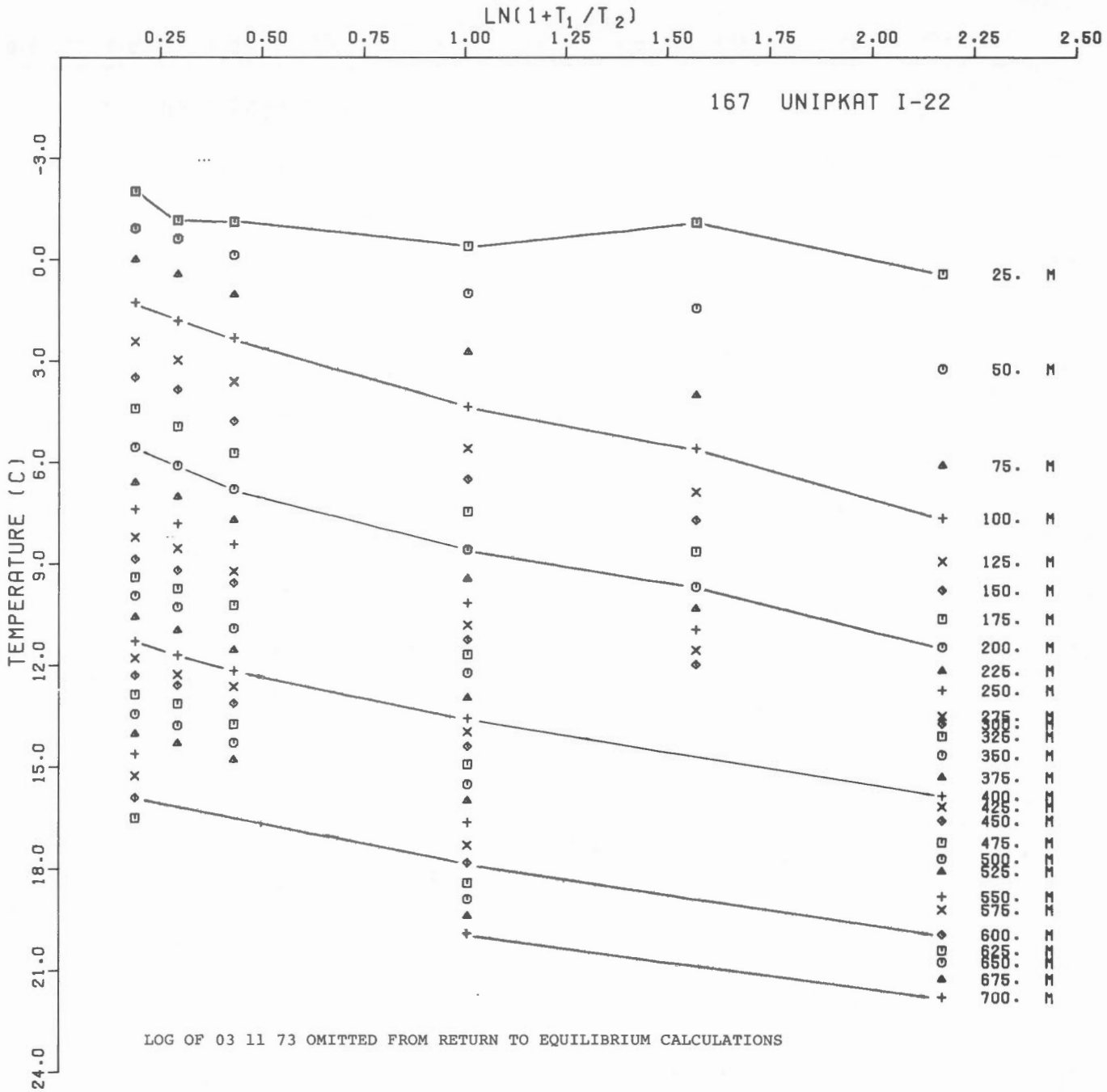

LN(1+T1 /T2)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
63 REINDEER D-27
TEMPERATURE (C)
-8.0
-6.0
-4.0
-2.0
0.0
2.0
4.0
6.0
8.0
10.0
18.3 M
48.8 M
109.7 M
262.1 M
79.2 M
170.7 M
201.2 M
231.6 M
140.2 M
DEPTHS 18.3 M TO
323.1 M INCL.
353. M
384. M
414. M
445. M
475. M
506. M
536. M
566. M
597. M


LN(1+T1 /T2)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
99 DEVON E-45
TEMPERATURE (C)
-15.5
-15.0
-14.5
-14.0
-13.5
-13.0
-12.5
-12.0
-11.5
-11.0
25 M
100 M
50. M
75. M

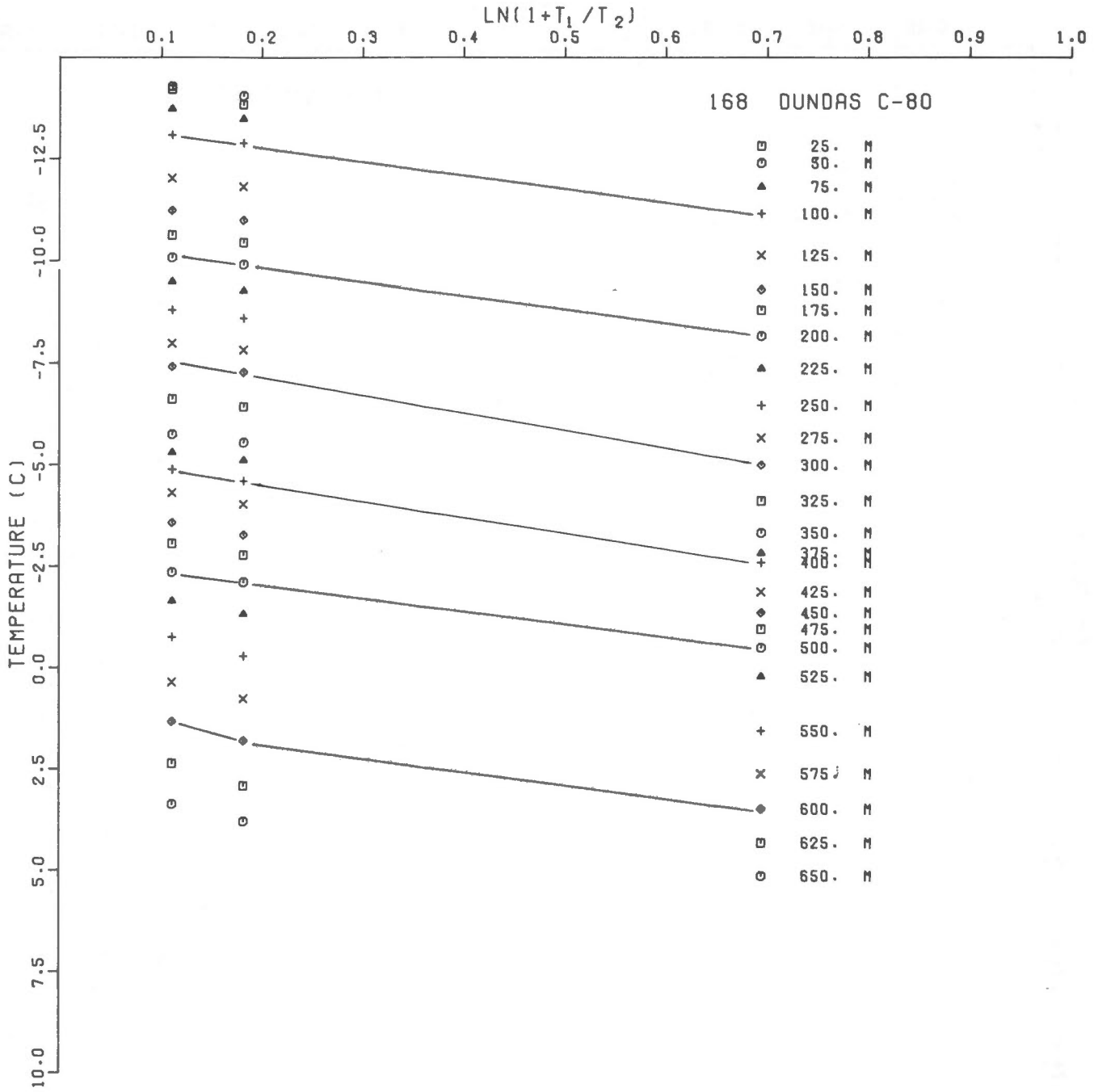


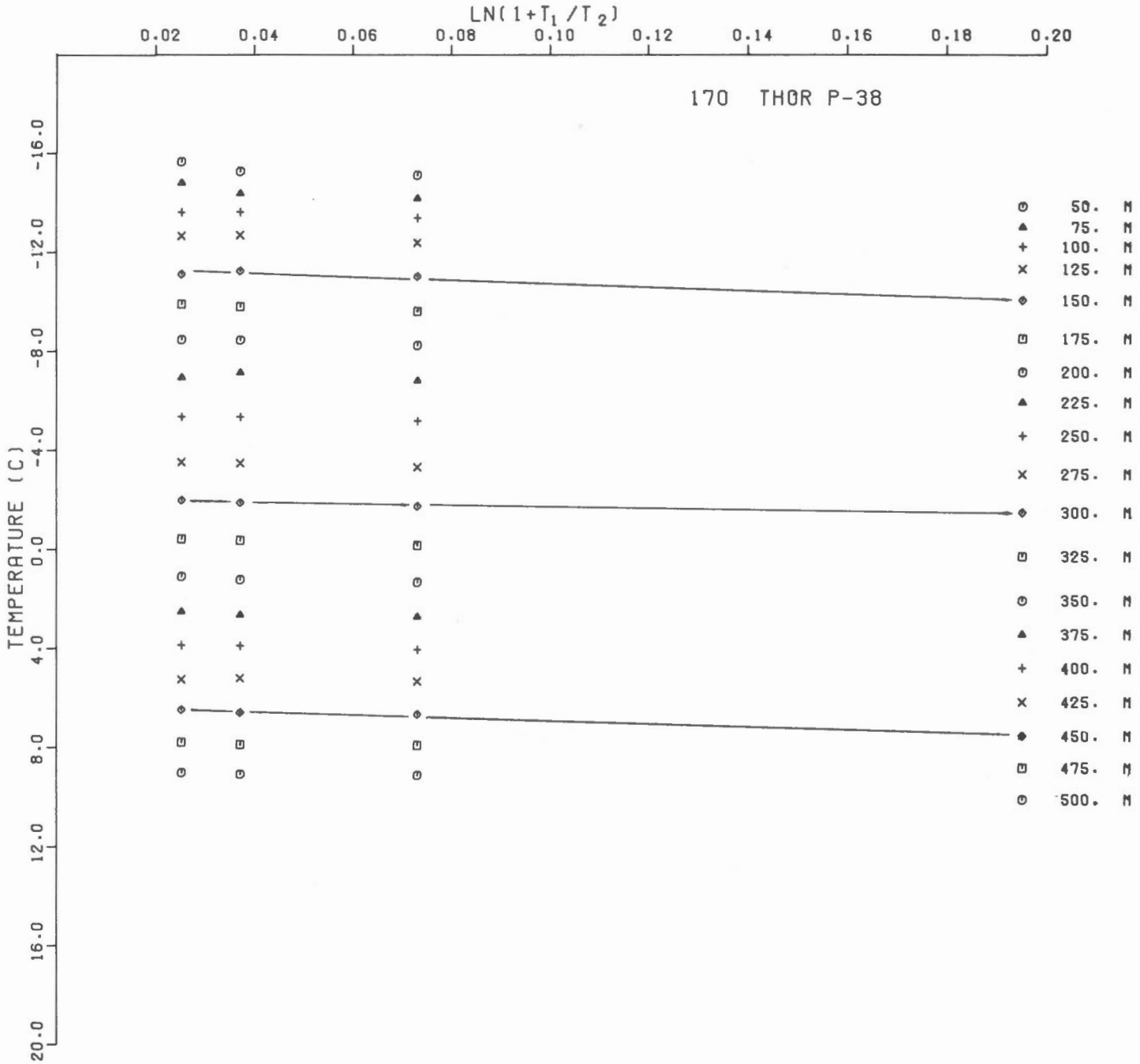
LOG OF 14 09 72 OMITTED FROM RETURN TO EQUILIBRIUM CALCULATIONS

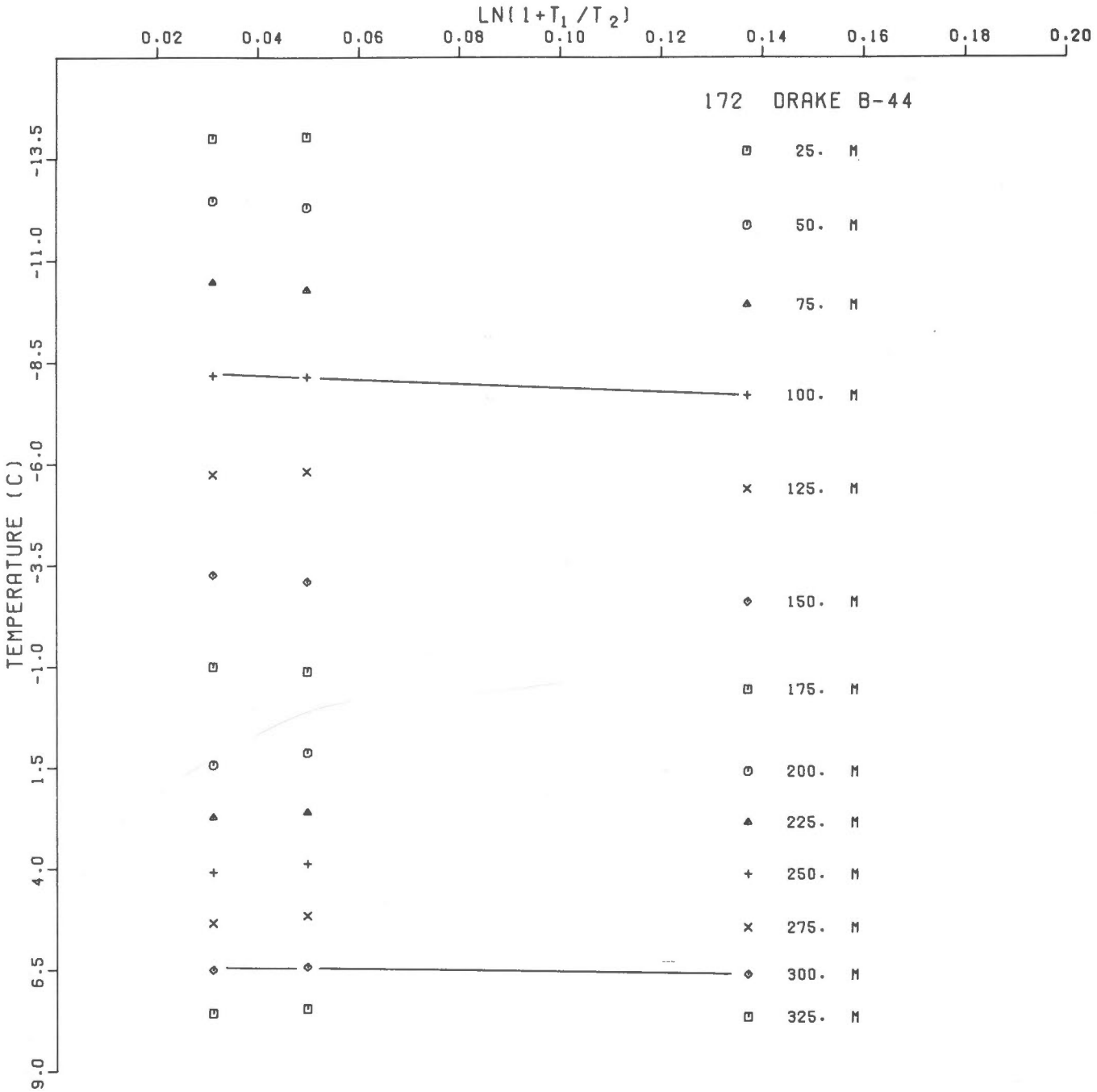

LN(1+T1 /T2)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
165 KILAGMIOTAK F-48
TEMPERATURE (C)
-8.0
-7.0
-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
25. M
50. M
75. M
100. M
125. M
150 M TO
325 M INCL.
375. M
350. M

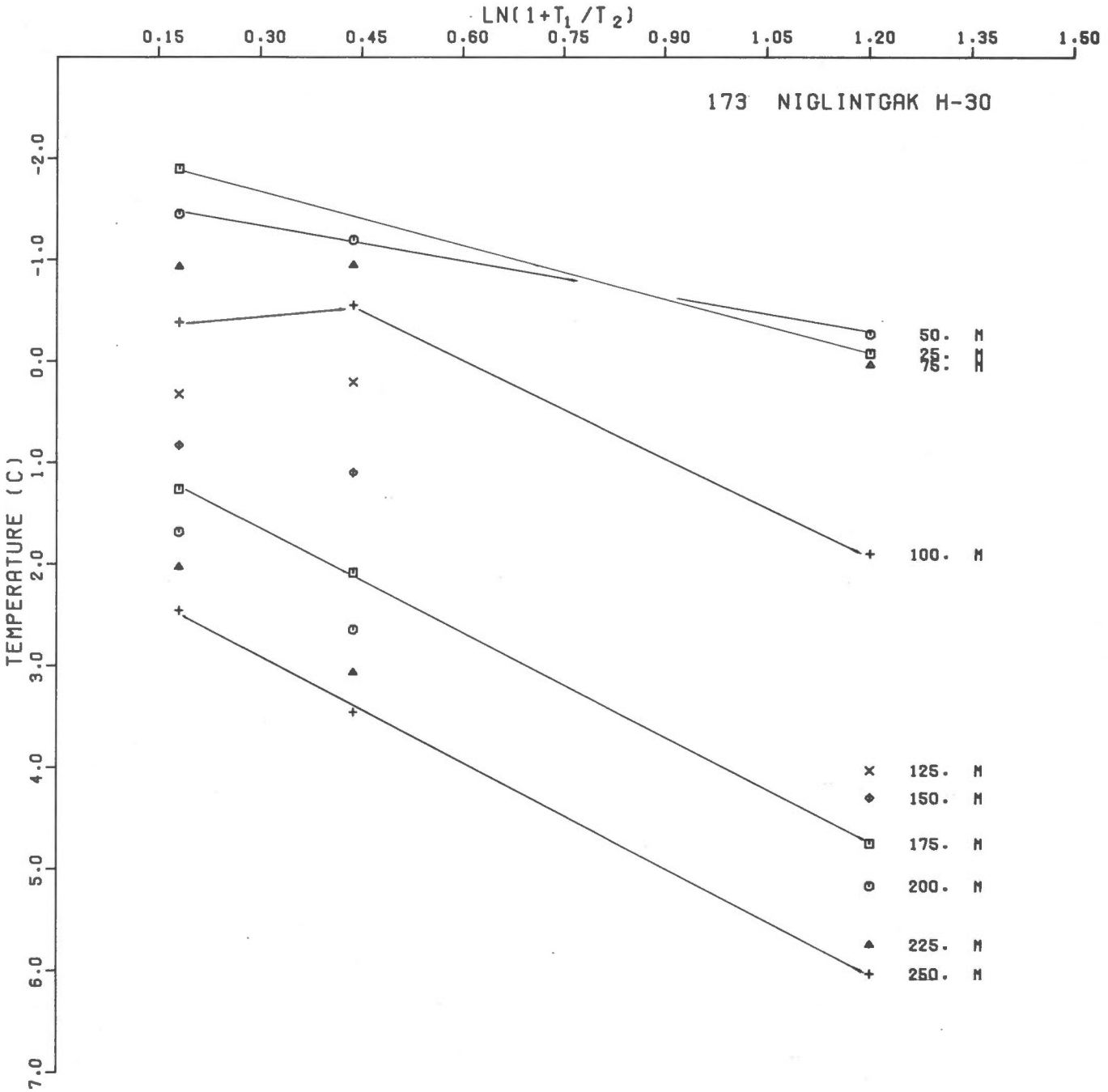


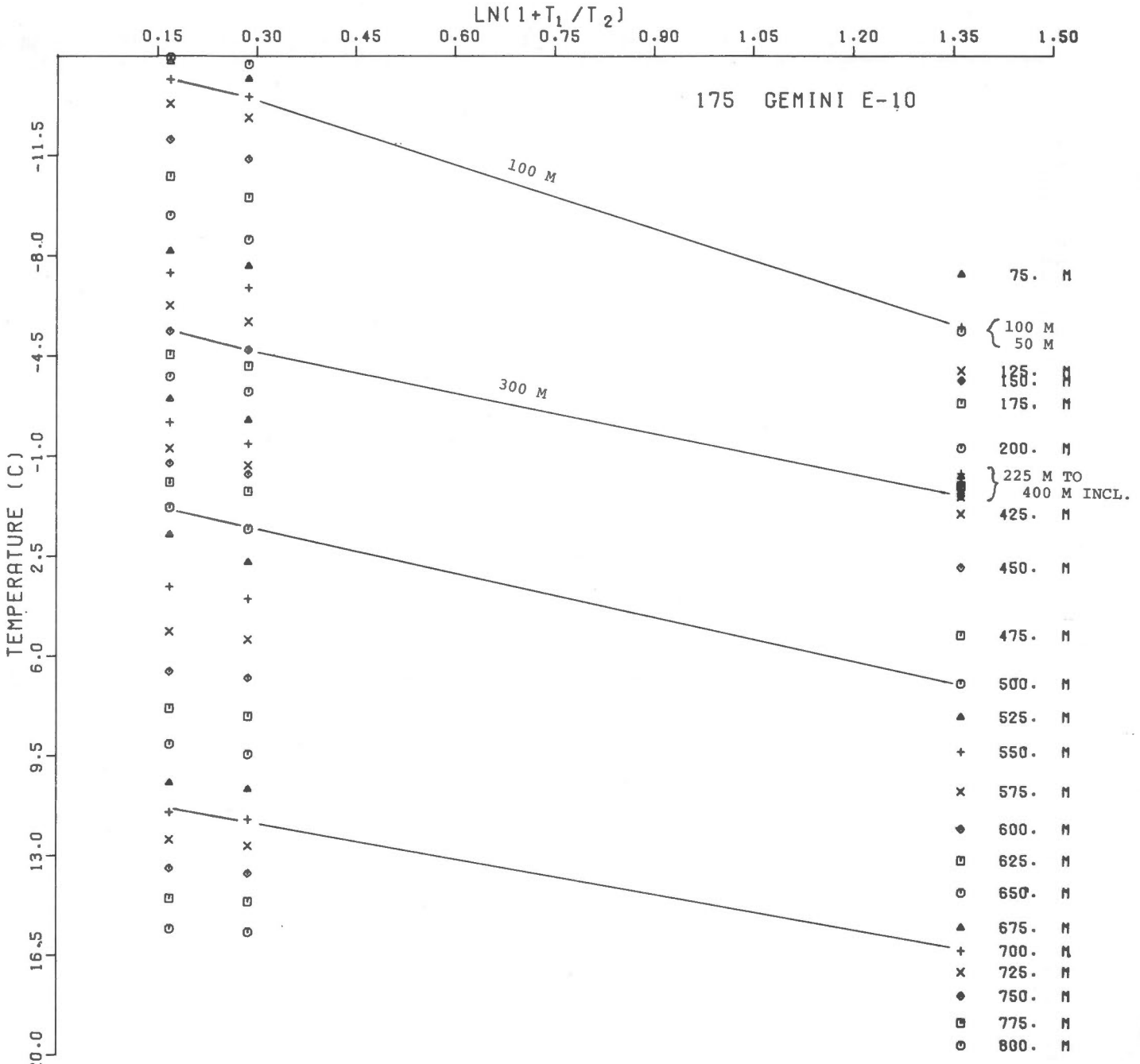
LOG OF 03 11 73 OMITTED FROM RETURN TO EQUILIBRIUM CALCULATIONS

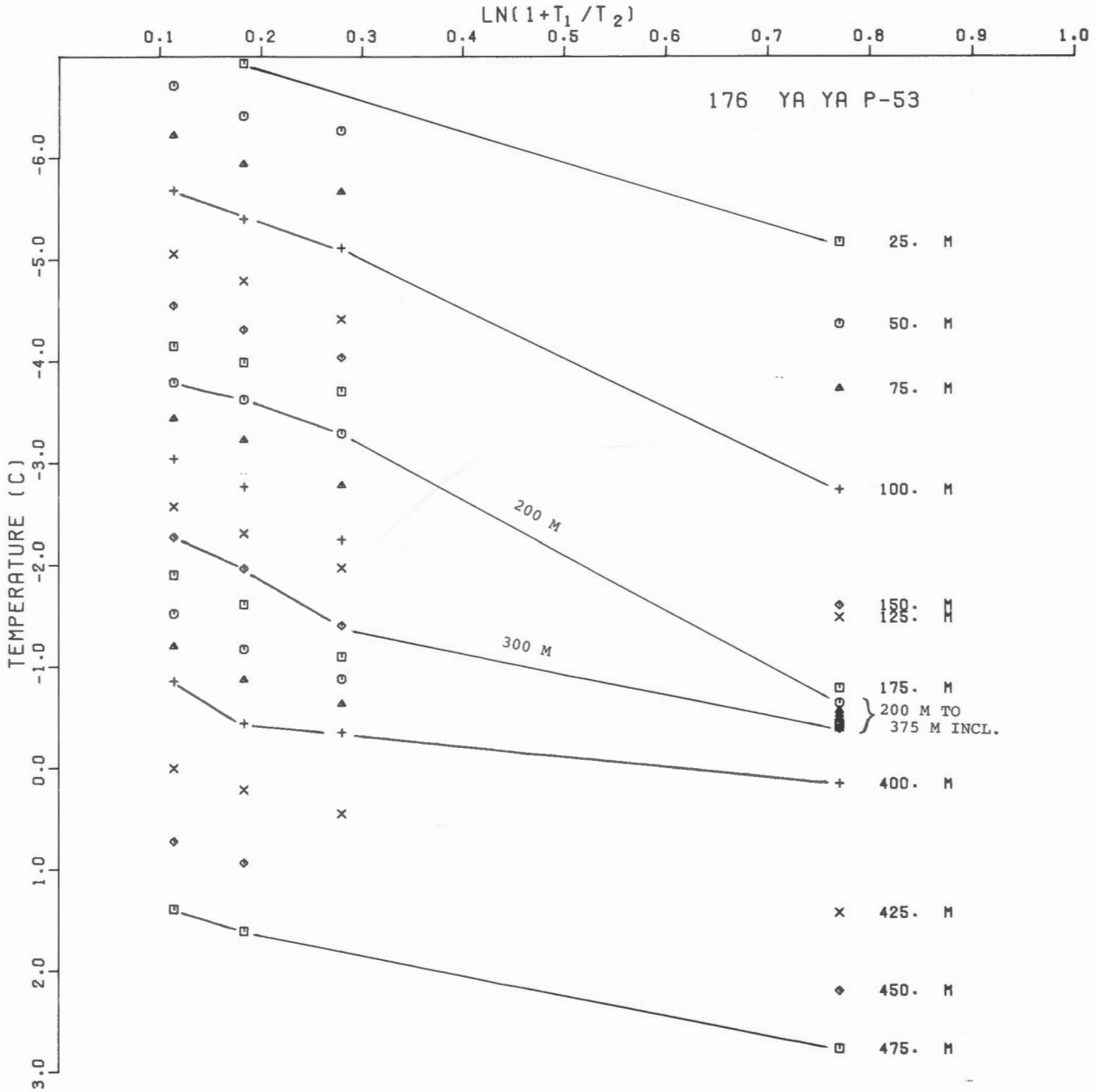

LN(1+T1 /T2)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
168 DUNDAS C-80
TEMPERATURE (C)
-12.5
-10.0
-7.5
-5.0
-2.5
0.0
2.5
5.0
7.5
10.0
25. M
50. M
75. M
100. M
125. M
150. M
175. M
200. M
225. M
250. M
275. M
300. M
325. M
350. M
375. M
400. M
425. M
450. M
475. M
500. M
525. M
550. M
575. M
600. M
625. M
650. M

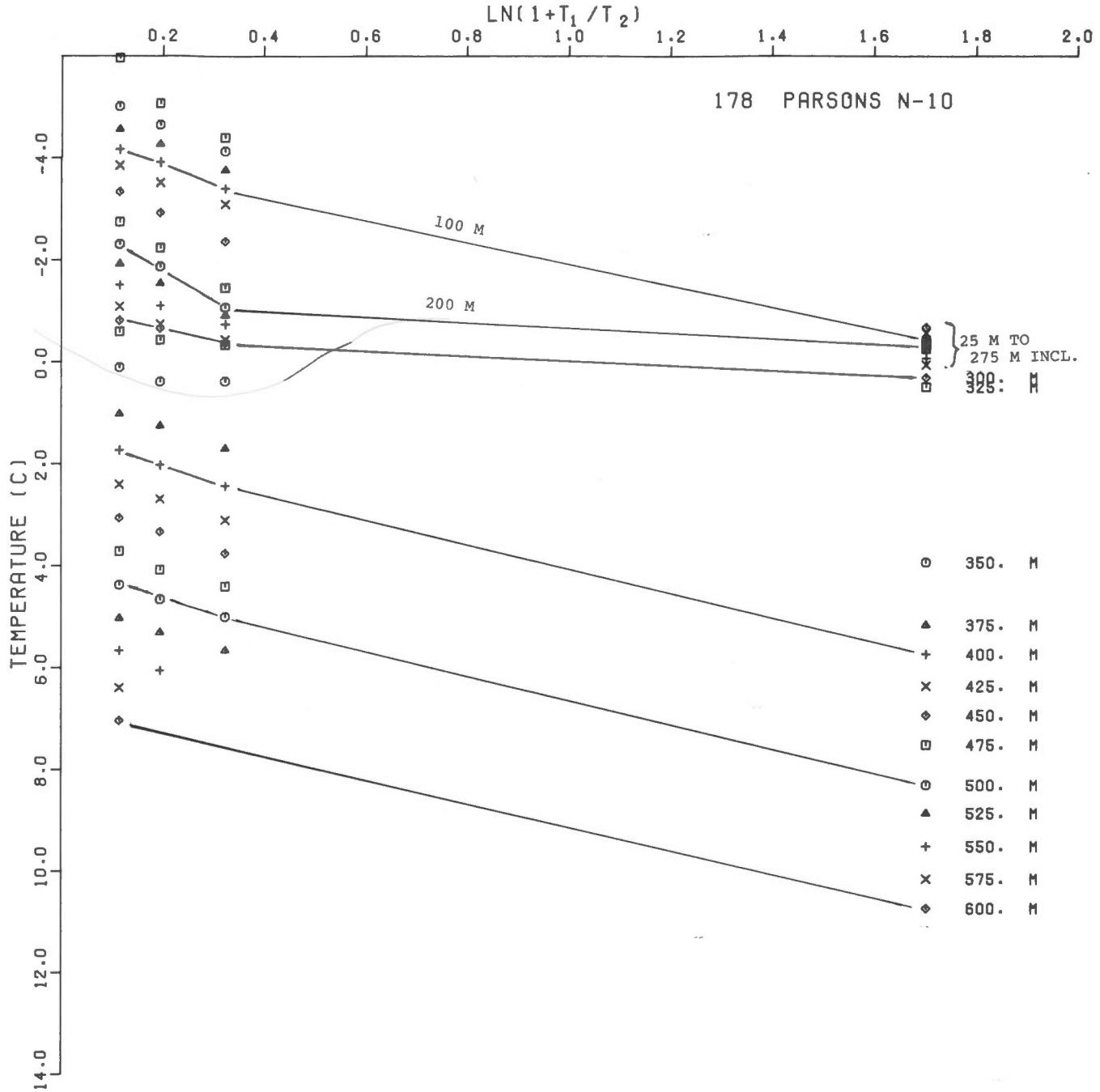

LN(1+T1 /T2)
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
0.18
0.20
170 THOR P-38
TEMPERATURE (C)
-16.0
-12.0
-8.0
-4.0
0.0
4.0
8.0
12.0
16.0
20.0
50. M
75. M
100. M
125. M
150. M
175. M
200. M
225. M
250. M
275. M
300. M
325. M
350. M
375. M
400. M
425. M
450. M
475. M
500. M

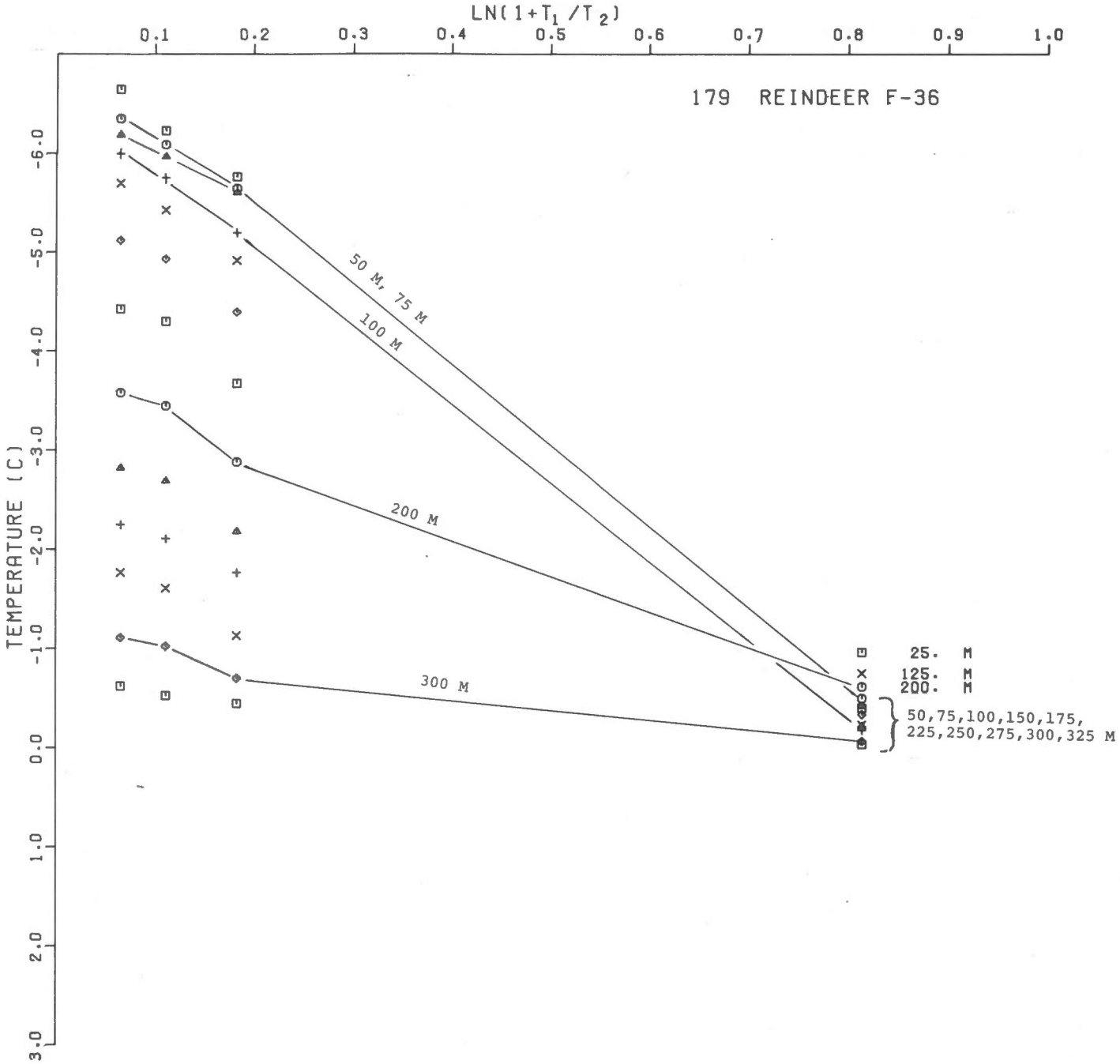

LN(1+T1 /T2)
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
0.18
0.20
172 DRAKE B-44
TEMPERATURE (C)
-13.5
-11.0
-8.5
-6.0
-3.5
-1.0
1.5
4.0
6.5
9.0
25. M
50. M
75. M
100. M
125. M
150. M
175. M
200. M
225. M
250. M
275. M
300. M
325. M

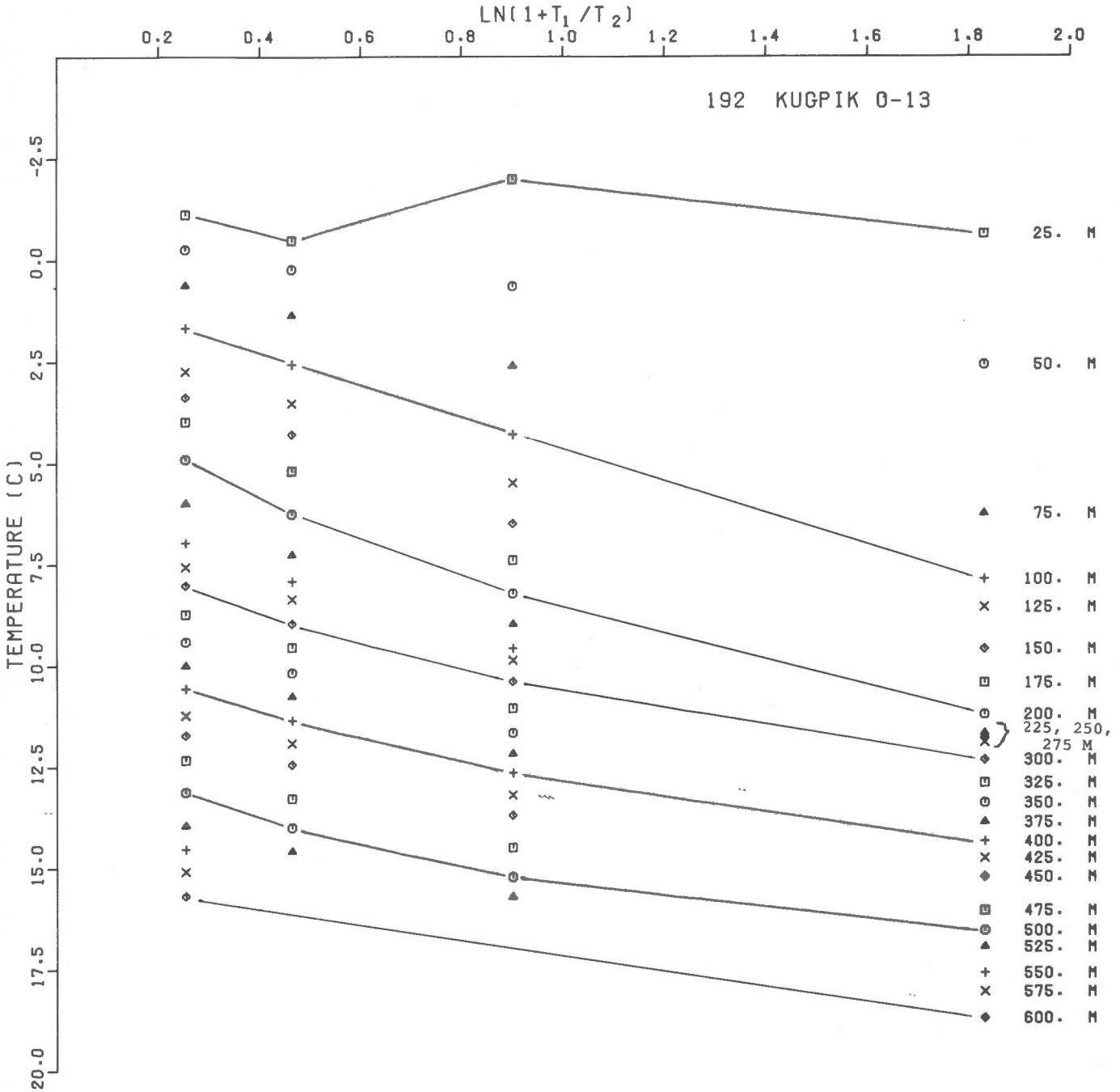

LN(1+T1 /T2)
0.15
0.30
0.45
0.60
0.75
0.90
1.05
1.20
1.35
1.50
173 NIGLINTGAK H-30
TEMPERATURE (C)
-2.0
-1.0
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
50. M
25. M
75. M
100. M
125. M
150. M
175. M
200. M
225. M
250. M

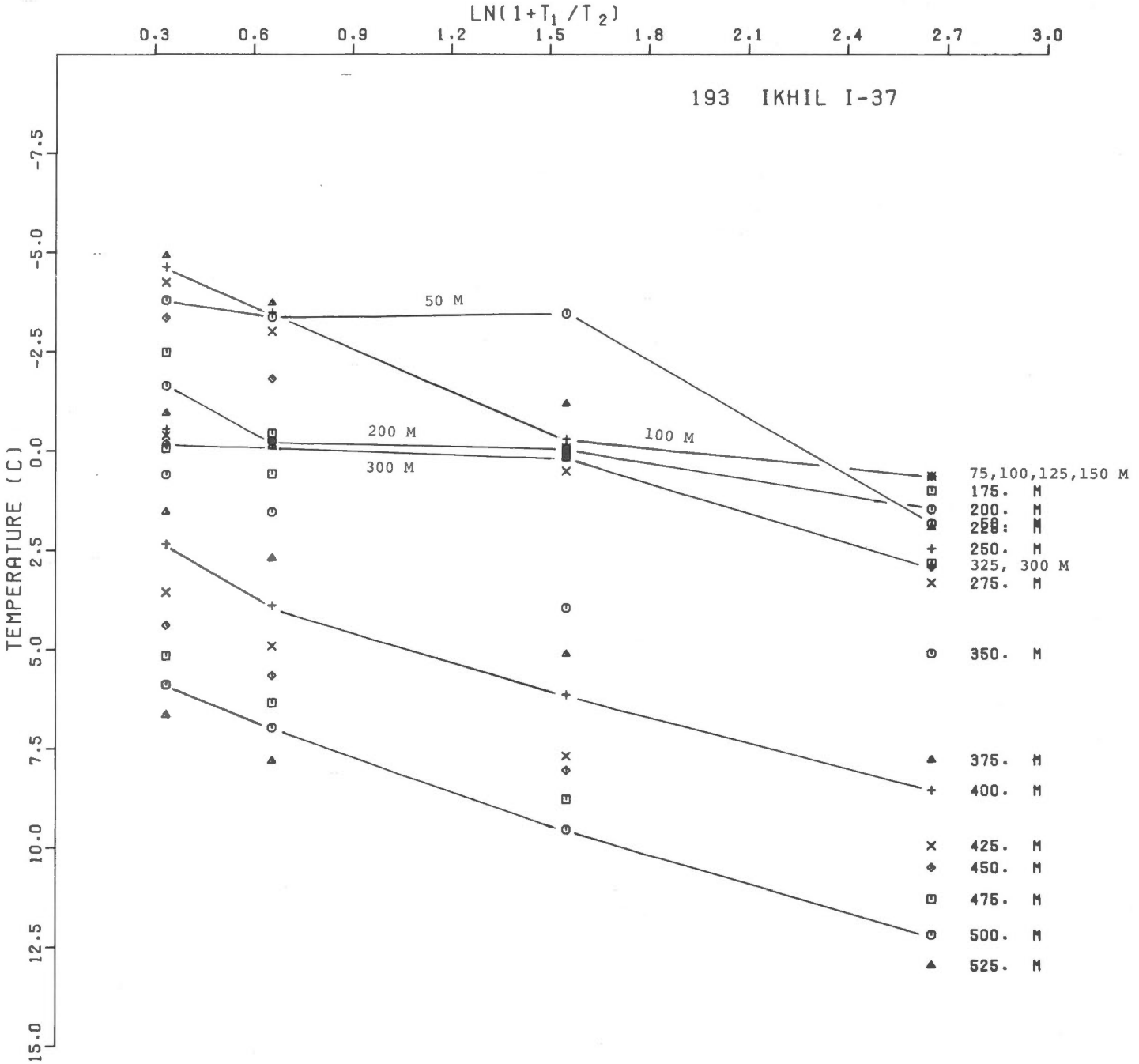

LN(1+T1 /T2)
0.15
0.30
0.45
0.60
0.75
0.90
1.05
1.20
1.35
1.50
175 GEMINI E-10
100 M
300 M
TEMPERATURE (C)
-11.5
-8.0
-4.5
-1.0
2.5
6.0
9.5
13.0
16.5
20.0
75. M
100 M
50 M
125. M
150. M
175. M
200. M
225 M TO
400 M INCL.
425. M
450. M
475. M
500. M
525. M
550. M
575. M
600. M
625. M
650. M
675. M
700. M
725. M
750. M
775. M
800. M

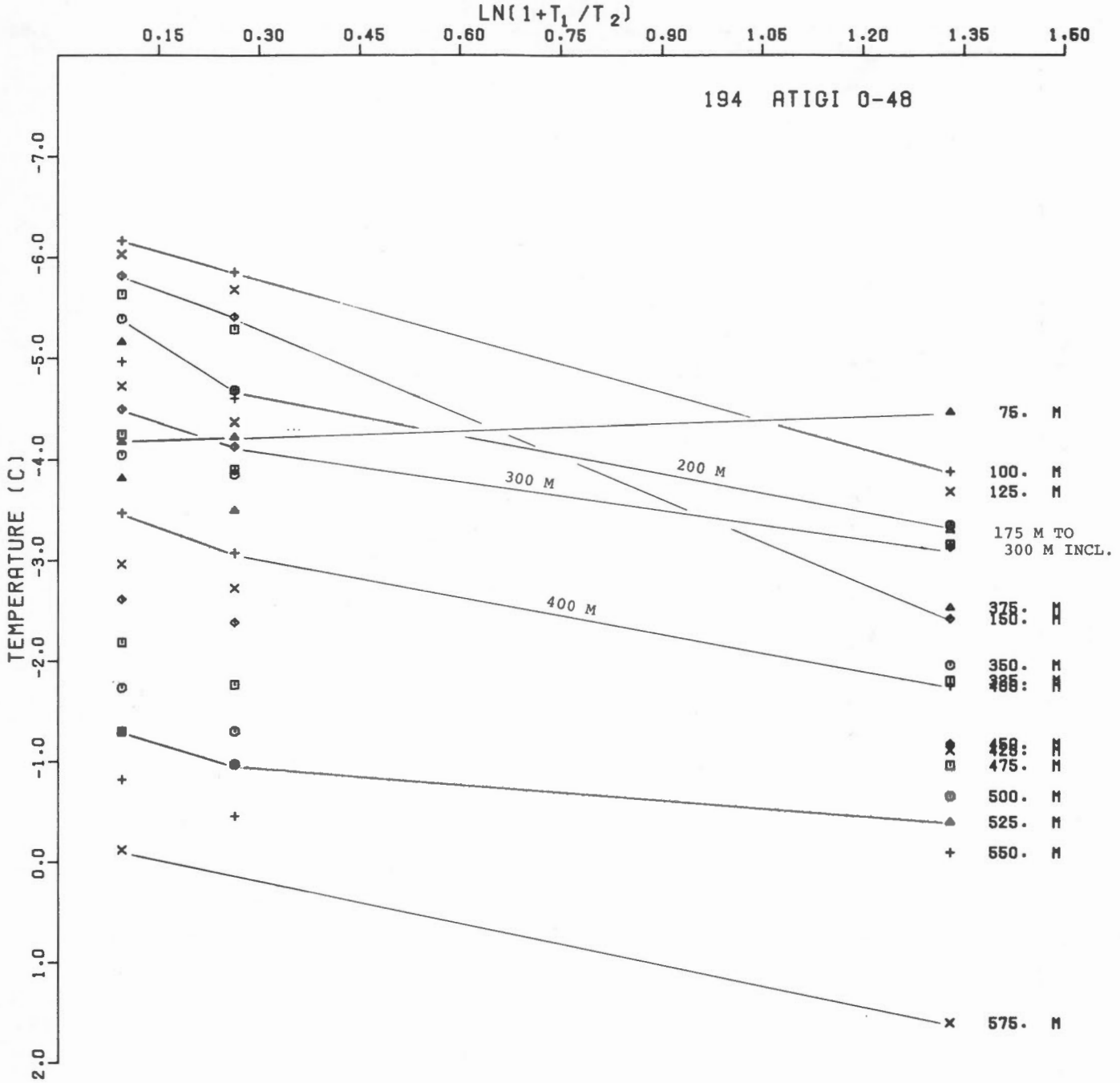

LN(1+T1 /T2)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
176 YA YA P-53
TEMPERATURE (C)
-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
200 M
300 M
25. M
50. M
75. M
100. M
150. M
125. M
175. M
200 M TO
375 M INCL.
400. M
425. M
450. M
475. M


LN(1+T1 /T2)
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
178 PARSONS N-10
100 M
200 M
25 M TO
275 M INCL.
300. M
325. M
350. M
375. M
400. M
425. M
450. M
475. M
500. M
525. M
550. M
575. M
600. M
TEMPERATURE (C)
-4.0
-2.0
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0


LN(1+T1 /T2)
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
179 REINDEER F-36
TEMPERATURE (C)
-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
3.0
50 M, 75 M
100 M
200 M
300 M
25. M
125. M
200. M
50,75,100,150,175,
225,250,275,300,325 M


LN(1+T1 /T2)
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
192 KUGPIK 0-13
TEMPERATURE (C)
-2.5
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
20.0
25. M
50. M
75. M
100. M
125. M
150. M
175. M
200. M
225, 250, 275 M
300. M
325. M
350. M
375. M
400. M
425. M
450. M
475. M
500. M
525. M
550. M
575. M
600. M


LN(1+T1 /T2)
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
193 IKHIL I-37
TEMPERATURE (C)
-7.5
-5.0
-2.5
0.0
2.5
5.0
7.5
10.0
12.5
15.0
50 M
200 M
300 M
100 M
75,100,125,150 M
175. M
200. M
250. M
325, 300 M
275. M
350. M
375. M
400. M
425. M
450. M
475. M
500. M
525. M


LN(1+T1 /T2)
0.15
0.30
0.45
0.60
0.75
0.90
1.05
1.20
1.35
1.50
194 ATIGI 0-48
TEMPERATURE (C)
-7.0
-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
0.0
1.0
2.0
200 M
300 M
400 M
75. M
100. M
125. M
175 M TO
300 M INCL.
350. M
475. M
500. M
525. M
550. M
575. M