RADIOCARBON DATE LIST III: LABRADOR AND NORTHERN QUEBEC, CANADA

AND

RADIOCARBON DATE LIST VI: BAFFIN ISLAND, N.W.T., CANADA

Compiled by J.T. Andrews, C.A. Laymon, and W.M. Briggs

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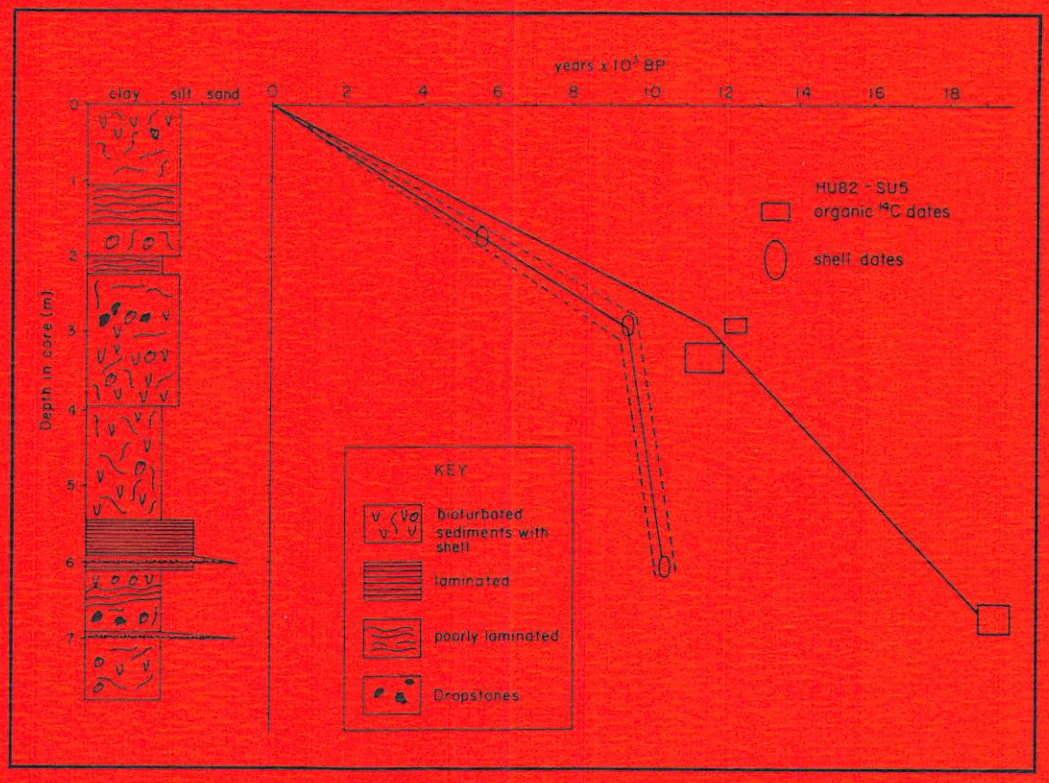

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RADIOCARBON DATE LIST III: LABRADOR AND NORTHERN QUEBEC, CANADA

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ABSTRACT

Date List III from Labrador and Northern Ungava includes 8 new radiocarbon dates, whereas Date List VI for Baffin Island adds another 116 radiocarbon assays to the earlier compilations. In Date List VI the dates are listed from south to north in each of six geographic areas. This list includes 66 accelerator mass spectometry (AMS) dates on small milligram samples of shell, foraminifera, and organics; many of the AMS dates are from a suite of marine piston cores collected within the fiords and on the shelf of Baffin Island. The bulk of the samples, 72/122, are on marine shells but 31 dates are reported on the acid-insoluble fine-grained organic matter fraction (AIOM) of cores. Seven samples are on hand-picked foraminifera. Two indexes are provided for the combined date lists, ordered by laboratory identification number or by reported radiocarbon age.

Two indexes are provided to 470 radiocarbon dates from previous date lists from Baffin Island. These indexes are ordered by laboratory identification number and by the reported radiocarbon date.

For interested parties this compilation (Date Lists III and VI) can be purchased as an ASCII file for PC computers.

PREFACE

An important aspect of the investigation of earth history is the establishment of a well-dated chronology. Radiocarbon dating can provide such a framework, particularly for events of the last 20,000 years or so. Traditionally, Radiocarbon Date Lists are published by the appropriate laboratory, hence they cover a wide geographic range. The two Date Lists in this Occasional Paper are, however, geographically restricted to the Eastern Canadian Arctic. They represent the collective efforts of INSTAAR researchers, and others, over about the last five years. At an average cost of $250 per date this compilation of 122 dates represents a significant investment of research dollars. The presentation is enhanced by the inclusion of two indexes that access the earlier Radiocarbon Date Lists. We hope that these data will be useful to a wide spectrum of researchers on paleoclimatic and paleoenvironmental conditions in the Eastern Canadian Arctic.

Mark F. Meier
Director, INSTAAR
February, 1989

ACKNOWLEDGMENTS

We would like to acknowledge the assistance of the dating laboratories that have been involved in our geochronological investigations. The interest and cooperation of the University of Arizona Accelerator Mass Spectrometry (AMS) facility, Geochron Inc., the Geological Survey of Canada, and the Smithsonian Institution are greatly appreciated. In particular, Dr A. J. T. Jull of the Arizona AMS facility has been particularly helpful. The University of Arizona AMS facility is supported by National Science Foundation grant EAR-85-12761.

We wish to thank Rolf Kihl, INSTAAR, University of Colorado, for his many preparations of material for radiocarbon dating and for maintaining a file of samples and results. Mrs Kathleen Salzberg is owed an especial "thank you" for her editing skills and patience.

The University of Colorado's research support for the dates in these date lists has come from the following grants and contracts from programs within the National Science Foundation (NSF) and the Office of Naval Research (ONR): NSF-DPP-82-08677; NSF-DPP-83-06581; NSF-DPP-85-03281; NSF-DPP-86-19284; NSF-EAR-84-09915; NSF-EAR-86-18452; ONR-N0001487K0026.

INTRODUCTION

This Date List is in two parts. The first deals with radiocarbon dates that researchers from the University of Colorado, Institute of Arctic and Alpine Research (INSTAAR) have obtained from Labrador and the Ungava Peninsula. The second, and larger part, is of dates from the Canadian Arctic: onshore and offshore Baffin Island, including one date from Jones Sound. The Baffin Island data are divided into six discrete geographic regions (Fig. 1) that are arranged from south to north. In all, a total of 122 dates are listed from sites between ca. 58 and 76 degrees north.

This Date List is one of several such lists that have been compiled over the last two decades from the Eastern Canadian Arctic (cf. Andrews and Drapier, 1967; Andrews, 1975, 1976; Andrews and Miller, 1972; Miller, 1979; Short, 1981; Andrews and Short, 1983). These lists are regionally specific and complement the lists of results that are published by some of the individual radiocarbon dating laboratories (such as the Geological Survey of Canada). The great majority of these dates have been collected by researchers connected with INSTAAR, but, at their discretion, we also include other organization's dates from Baffin Island.

This publication includes two indexes for the 122 dates that we report; the first is arranged by the radiocarbon laboratory identification number and the second index is ordered by the radiocarbon date, from youngest to oldest. In addition, two similar consolidated indexes to the previous six Date Lists from Baffin Island, including the relevant dates in Andrews and Drapier (1967) are presented.

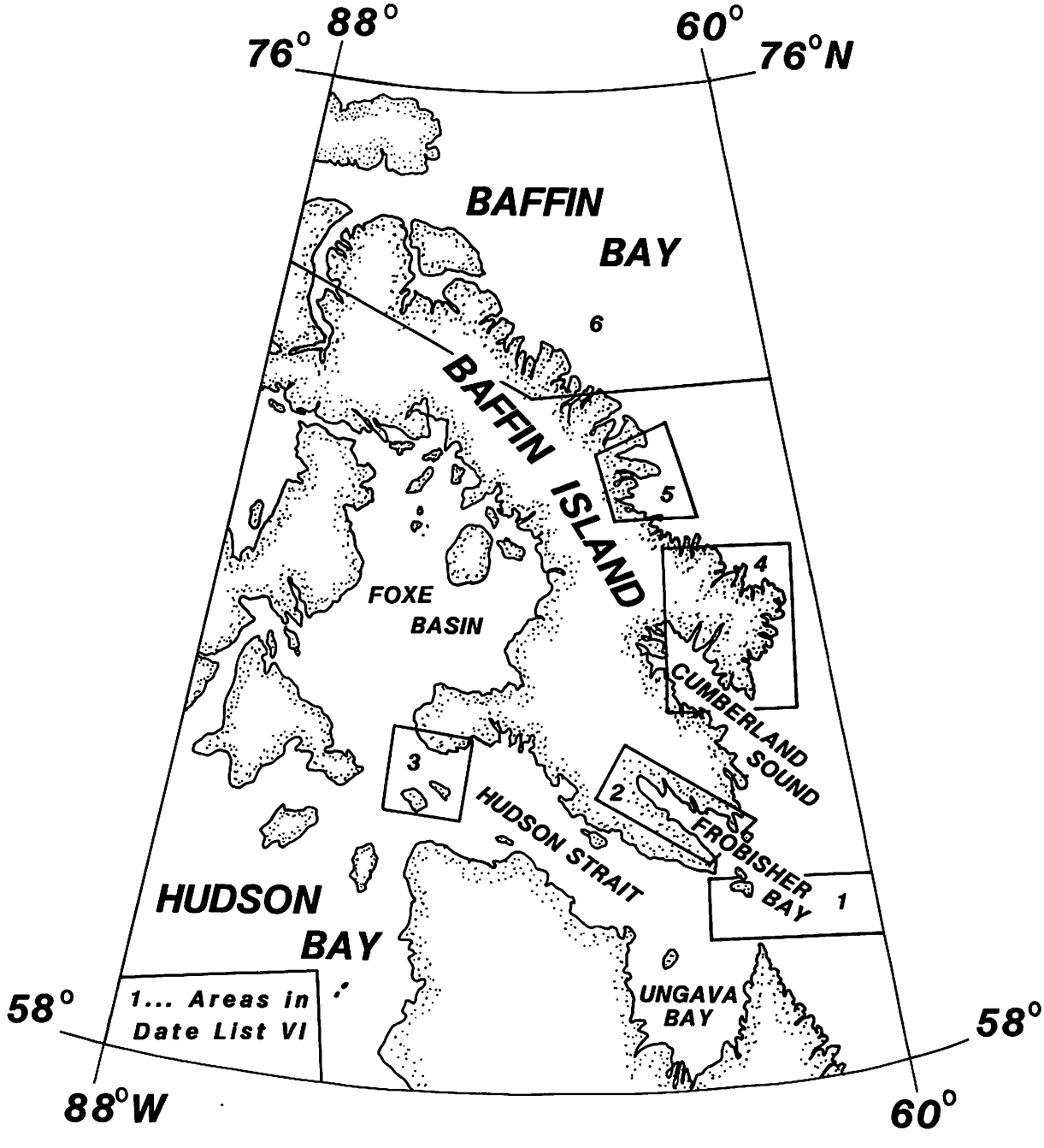

Figure 1. Areas listed in Radiocarbon Date List IV: Baffin Island, N.W.T.

COMMENTARY

This Date List marks a significant shift in the technology of radiocarbon dating. In polar areas, both terrestrial and marine productivity is frequently low, hence the importance of the Accelerator Mass Spectrometry (AMS) approach to radiocarbon dating. The advent of AMS radiocarbon dating is revolutionizing polar research because of the ability to date a few milligrams of sample, rather than the 2 to 50 g of sample required for conventional dating. Starting in 1984 we have worked with the AMS facility at the University of Arizona on a number of specific dating problems (cf. Andrews et al., 1985). In this date list are a total of 57 age determinations from the University of Arizona's AMS facility (Table 1); this compares with 66 dates from conventional radiocarbon laboratories.

A major departure from previous Date Lists is the number of small (>2 mg) samples of benthic or planktonic foraminifera that have been successfully dated from a series of piston cores on the Baffin Island shelf. In addition, we have obtained dates on small bivalves in the milligram weight range. This has enabled us to compare radiocarbon age determinations on marine shells and the enclosing >125-um organic fraction (Andrews et al., 1985). These comparisons are listed under core sites HU77-021-159 and HU82-031-SU5 in this publication.

Table 1 is a tabulation of the material dated, the type of dating procedure (AMS versus conventional), and age range for the 122 samples. In common with the previous Date Lists the material most frequently dated is marine shell with 72/122 age determinations. Second in frequency is the >125-um acid-insoluble organic fraction. A discussion of the preparation method used in obtaining this fraction is given by Kihl (1975).

The largest frequency of dates occurs in the 8- to 9-ka interval (Table 1), a feature that was also shared by the dates in the earlier Date Lists. However, both shells and foraminifera now extend the late glacial back to <12 ka at some sites and in some cores.

Table 2 is a list of the radiocarbon laboratories used in these current two Date Lists, only four, and it also includes the laboratory identifications for other laboratories that are included in the consolidated 1967-1983 indexes. Table 3 presents the full taxonmic names of mollusca and foraminifera that are listed in the date lists.

Two indexes are provided from previous date lists on Baffin Island. The first lists the results by laboratory number, and it also includes the radiocarbon date and specific date list. The second index is ordered by radiocarbon date (youngest to oldest) and includes the laboratory number and material dated.

Date Lists III (Labrador) and VI (Baffin Island) can be obtained on a 5 1/2" diskette as an ASCII file for IBM PC compatible machines; this diskette also contains concise information on the 470 dates in the previous Baffin Island date lists. This diskette can be obtained for $15.00 by writing to Mrs Kathleen Salzberg, Box 450, INSTAAR, University of Colorado, Boulder, CO 80309.

TABLE 1

Radiocarbon dates by age, material, and type of dating.

Age (ka)	OM*	Peats	Wood	Bone (fish)	Shell	Foraminifera	Total
0-1§	0/1	0/2			3/3		9
1-2	1/0	0/1					2
2-3	2/0				1/0		3
3-4	1/0				1/1	1/0	4
4-5	2/1				1/0		4
5-6	1/0	1/1		1/0	2/4		10
6-7		0/1			1/4		6
7-8	3/1	0/1	0/1		3/7		16
8-9	1/0	0/1			4/13		19
9-10					4/8	4/0	16
10-11	3/1				3/3		10
11-12	0/1				1/1	1/0	4
12-16	5/2	0/2					9
16-18	2/0						2
18-22	2/0						2
>22	0/1				2/2	1/0	6
TOTAL	31	10	1	1	72	7	122

§This also includes samples <modern, too small, or lost.
*Concentrated organic matter (cf. Kihl, 1975).
Note: the first figure in column is number of AMS dates.
Total AMS dates = 56; Conventional = 66.

TABLE 2

List of Radiocarbon Dating Laboratories included in this publication and previous INSTAAR Date Lists. Those with a * after their identification are laboratories with results in this compilation (see Index 1).

AA*	University of Arizona AMS Facility
Beta	Beta Analytic Inc.
BGS	Brock University, Canada
Birm	Birmingham University, U. K.
DIC	Dicarb Coporation
GaK	Gakushuin University, Japan
Gif	Gif-sur-Yvette, Centre des Faibles Radioactivites, France
GSC*	Geological Survey of Canada
GX*	Geochron Inc.
I	Isotopes (Teledyne) Inc.
L	Lamont-Dogherty Geological Observatory
QC	Queens College, New York
QL	Quaternary Isotopes Laboratory, University Washington
Qu	Quebec department of Natural Resources, Canada
S	University of Saskatchewan, Canada
SI*	Smithsonian Institution
St	Stockholm University, Sweden
Y	Yale University

Further details on laboratories can be found in various issues of the journal Radiocarbon.

TABLE 3

Names of Mollusca and Foraminifera abbreviated in the date lists

Mollusca	Foraminifera
Mya truncata	Cibicides lobatulus
Mya pseudoarenaria	Cibicides reniforme
Macoma calcarea	Elphidium excavatum
Hiatella arctica	Elphidium excavata forma clavata
Chlamys islandicus	Islaniella helenae
Serripes groenlandium	Neogloboquadrina pachyderma
Clinocardium ciliatum	
Balanus balanoides	

RADIOCARBON DATE LIST III: LABRADOR AND NORTHERN QUEBEC

MAP SHEETS 14 L, 35 K & L (58 30 to 62 30 N)

LOCATION: Square Lake, Torngat Mountains

Lat: 58 38 Long: 63 36 Elev.: 513 m asl
Map Sheet (NTS): 14 L Collector/yr: H. Nichols, 1978

Date: 07950 Error: 100 Lab. #: AA-1825
Material dated: <125 μm organics Depth in core: 68.5 - 71.5 cm

Site/sample description: GRL-702-O was treated by the method outlined in Kihl (1975) and yielded 60 mg of material for dating. Sample was ca. 0.28% organic carbon by weight. Square Lake (unofficial name) is located 3 km S of Nakvak Brook in the Torngat Mountains of northern Labrador. The lake is dammed on the distal side by an extensive section of the right lateral Saglek Moraine.

Date: 07020 Error: 80 Lab. #: AA-1507
Material dated: <125 μm organics Depth in core: 52 - 54 cm

Site/sample description: GRL-693-O yielded 70 mg of acid-insoluble organic residue after treatment. Sample consisted of 0.7% organic carbon by weight.

Date: too small Error: Lab. #: GX-12482
Material dated: <125 μm organics Depth in core: 22.5 - 27.5 cm

Site/sample description: GRL-701-O yielded an estimated 170 mg of sample after treatment (cf. Kihl, 1975), and was 1.2% organic carbon by weight.

Date: 01732 Error: 85 Lab. #: AA-2219
Material dated: <125 μm organics Depth in core: 17.5-22.5 cm

Site/sample description: GRL-711-O. Sample yielded 250 mg of organics after treatment, and was 0.96% organic carbon by weight.

Comments: (SKS, PUC) Square Lake was first visited by Ives during his attempts to delineate weathering zones (Ives, 1960). A basal C-14 date of 18,210 +/- 1900 BP (GX-6362) was reported by Short (1981). At that time it was postulated that the date was a minimum age for the Saglek Moraine system. Because percentages of total organic matter (TOM%) were found to be very low (<0.1%) (Clark et al., in press) in the basal section of the core it is important to stress that this basal date is now considered to be a maximum date for deposition of the varved sediments and age of the lateral moraines. A 1-cm sand layer at 72 cm marks a change to laminated clay, sand, and silt and an increase in TOM% to between 1-2%. This change in sedimentology, dated at 7950 +/- 100 BP (AA-1825) is interpreted as a change from glaciolacustrine to

a mountain lake environment, associated with deglaciation of the basin. This date also marks the beginning of the modern diatom flora, a rise in pollen influx, and an increase in Alnus and Betula pollen percentages. The date from the middle of the section (7020 +/- 80 BP) dates a decrease in sedimentation rate and the time when TOM% reach fairly steady values. AA-2219 marks the peak in TOM% in the core, a moderate increase in diatom numbers and decreasing pollen concentrations, especially seen in Alnus. This marks the onset of regional climatic cooling (cf. Clark et al., in press).

LOCATION: Shoal Cove, Labrador

Date: 09110 Error: 470 Lab. #: GX-09293
Lat: 59 21.7 Long: 65 45.02 Elev.: 2-4 m aht
Map Sheet (NTS): 14 L Collector/yr: P. U. Clark, 1982
Material dated: Shell Depth in core: NA

Site/sample description: Marine shells (Balanus) collected from a clayey sand. Fossiliferous sediment crops out on the west side of stream where it enters Shoal Cove. Del ^{13}C for shells was 1.5 o/oo.

Comments: (PUC) The sediment is marine/glaciomarine in origin. Mapping suggested that the late Wisconsin glacial limit occurred 3-5 km east of this site. The date provides a minimum age for deglaciation of this section of coast.

MAP SHEET 35 K & L

LOCATION: Ungava Peninsula, Quebec

Date: 07725 Error: 190 Lab. #: GX-12037
Lat: 62 22 Long: 76 23 Elev.: 85 m aht
Map Sheet (NTS): 35 K & L Collector/yr: C. A. Laymon, 1985
Material dated: Shell Depth in core: NA

Site/sample description: Whole valves of H. arctica were collected from a marine mud less than 1 m thick overlying at least 80 m of sandy valley-fill, consisting mainly of ice-stagnation deposits. The shells had been frost-heaved onto the surface. Limestone erratics were present in the mud. The del ^{13}C equalled 1.8 o/oo.

Comments: (CAL) There is no good association between the sample and a specific former sea-level, but the date does represent the timing of ice retreat from the coast of Ungava Peninsula to

farther inland, thus permitting finer sediments to accumulate along the outer coast.

LOCATION: Ungava Peninsula, Quebec

Date: 06220 Error: 240 Lab. #: GX-12036
Lat: 62 27 Long: 76 44 Elev.: 115 m aht
Map Sheet (NTS): 35 K & L Collector/yr: C. A. Laymon, 1985
Material dated: Shell Depth in core: NA

Site/sample description: Fragments of H. arctica and M. truncata were collected from a mud adjacent to a remnant of a sandy delta in a large valley. The mud was located a few meters above and below the surface of the delta and contains a few limestone clasts. Del ^{13}C equaled 1.3 o/oo.

Comments: (CAL) The association between the marine mud and the sandy delta is difficult to assess, but given that the mud is found a few meters above the delta it is suggested that the date provides a minimum age for the delta. The age and elevation of this sample require significant revisions of exisiting reconstructions of the emergence history of the north coast of Ungava Peninsula (Laymon, 1988; Matthews, 1967).

LOCATION: Ungava Peninsula, Quebec

Date: 07370 Error: 95 Lab. #: GX-12035
Lat: 62 27 Long: 77 45 Elev.: 28 m aht
Map Sheet (NTS): 35 K & L Collector/yr: C. A. Laymon, 1985
Material dated: Shell Depth in core: NA

Site/sample description: Whole valves of H. arctica were collected from highly fossiliferous, carbonate-rich blue-gray marine mud, with a maximum thickness of 65 cm. The mud is underlain by light brown sand which in turn is overlain by a coarse gravelly-sand with numerous pebbles, cobbles, and boulders. Most of these were well rounded. The extent of the marine mud is limited to the lower part of the valley. Species present include H. arctica, C. islandicus, Macoma spp., S. groenlandicum, C. ciliatum, limpids, brachiopods, and others. Del ^{13}C equaled 1.3 o/oo.

Comments: (CAL) The marine mud was deposited after ice retreat from a zone of stagnant ice-deposits, 1 km upvalley. This caused sedimentation on the coast to be dominated by fine-grained detrital carbonate sediments that proved favorable for marine life. The overlying gravelly sand unit is probably derived from stream and wave erosion of the moraine and other stagnant ice deposits upvalley as they emerged due to isostatic uplift. This date provides a minimum age estimate for ice retreat from the

marginal position in this valley and for relative sea level at 159 m aht.

RADIOCARBON DATE LIST VI: BAFFIN ISLAND, N.W.T.

1. LABRADOR SEA, HUDSON STRAIT, AND SE BAFFIN SHELF

MAP SHEETS 25 A AND 25 H

LOCATION: Hudson Strait, Core HU77-021-154

Date: 08730 Error: 80 Lab. #: AA-3103
Lat: 60 53.6 Long: 65 25.7 Elev.: - 933 m
Map Sheet (NTS): 25 A Collector/yr: W. M. Briggs, 1987
Material dated: Shell. Depth in core: 100-102 cm

Site/sample description: Shell (GRL-862-S) from the same depth in the core as an earlier GSC date of 8730 +/- 250.

Comments: (JTA) This date compares favorably with earlier, conventional dates on this core reported in Fillon et al. (1981). The corrected date for this level in the core is thus ca. 8.2 ka. The core is located in the deep basin, just west of the outer sill of Hudson Strait. The date at 200-300 cm is reported (Fillon et al., 1981) at 9100 +/- 480.

LOCATION: Hatton Basin, Core HU84-035-14

Lat: 60 59.2 Long: 62 27.3 Elev.: - 605 m
Map Sheet (NTS): NA Collector/yr: H. Josenhans, 1985

Date: lost Error: Lab. #: AA-1272
Material dated: Shell. Depth in core: 245 cm

Site/sample description: Shells from the same level as AA-1273. The sample was lost during laboratory processing.

Date: 20650 Error: 260 Lab. #: AA-1273
Material dated: <125 μm organics Depth in core: 240-250 cm

Site/sample description: Acid insoluble fine-grained fraction (GRL-682-0) was submitted (cf. Kihl, 1975) to compare with shells from the same level in the core (AA-1272). Sample weight <125 μm was 470 mg or 0.28% organic carbon by weight.

Comments: (JTA,HJ) Because AA-1272 was lost during treatment we cannot compare the dates. Initially the ^{14}C age of AA-1273 appeared too old and thus confirmed trends noted by Fillon et al. (1981) and Andrews et al. (1985). However, HJ noted that inspection of high-resolution seismic records suggested that iceberg scour had removed a portion of the overlying sediment, hence an age of ca. 21 ka cannot be automatically discounted.

LOCATION: Hatton Basin, Core HU77-021-151

Lat: 61 09. Long: 62 28.3 Elev.: - 603 m
Map Sheet (NTS): NA Collector/yr: W. M. Briggs, 1987

Date: 09620 Error: 90 Lab. #: AA-3464
Material dated: Foraminifera Depth in core: 197.5-200 cm

Site/sample description: GRL-868-S consisted of 3.9 mg of I. helaneae. Sample from the same level as AA-3465 (below).

Date: 09870 Error: 160 Lab. #: AA-3465
Material dated: Foraminifera Depth in core: 197.5-200 cm

Site/sample description: GRL-867-S consisted of 4.4 mg of planktonic foraminifera N. pachyderma.

Date: 09200 Error: 200 Lab. #: AA-2637
Material dated: Foraminifera Depth in core: 480-482 cm

Site/sample description: GRL-859-S consisted of 898 hand-picked foraminifera (Elphidium spp.). Weight ca. 5.9 mg. Sample was diluted 1:1 for dating.

Date: 11725 Error: 125 Lab. #: AA-3473
Material dated: Foraminifera Depth in core: 542-544 cm

Site/sample description: GRL-869-S consisted of 5.5 mg (929 specimens) of foraminifera. Of these 482 were N. pachyderma and the others benthic species. Sample obtained from the core catcher.

Comments: (JTA,WMB) Date from the basal sediment suggests the outer Hatton Basin was ice free between ca. 11.5 and 12.25 ka. However, above this old date the dates between 480 and ca. 200 cm suggest vary rapid sedimentation. The comparison of ages (AA-3464 and AA-3465) between benthic and planktonic species gives statistically similar dates. A date has been submitted from the top of the core for dating.

LOCATION: Labrador Sea, Core HU75-009-IV-55

Date: 21500 Error: 240 Lab. #: AA-3338
Lat: 61 30.3 Long: 58 38.6 Elev.: - 2440 m
Map Sheet (NTS): NA Collector/yr: W. M. Briggs, 1988

Material dated: Foraminifera Depth in core: 249-251 cm

Site/sample description: Sample taken immediately below a turbitite in this core (see Chough, 1978). Sample GRL-866-S consisted of 2200 specimens of hand-picked foraminifera. Sample weighed 23.6 mg and consisted of N. pachyderma (sinistral).

Comments: (JTA, WMB) Sample submitted to obtain chronology of major turbidite units in offshore cores (cf. Chough, 1978). The date indicates that the sedimentation rate at this site has averaged ca. 10 cm/1 ka for the last 20 ka or so.

LOCATION: Resolution Basin, Core HU77-021-156 TW & PC

Lat: 61 51.05 Long: 64 12.03 Elev.: - 486 m
Map Sheet (NTS): 25 H Collector/yr: W. M. Briggs, 1987 & L. E. Osterman, 1985
Date: 09385 Error: 140 Lab. #: AA-3109
Material dated: Foraminifera Depth in core: 0-2 cm pc

Site/sample description: GRL-865-S consisted of 1344 tests of varied foraminifera, weighing 31.7 mg. Major species included N. pachyderma, B. frigida, N. labradorica, and C. lobatulus.

Comments: (JTA) Date confirms the prediction made for the age of the top of the piston core (cf. Andrews et al., 1987) based on a comparison of the ^{18}O signal in the core and from molluscs in raised marine sediments.

Date: 03440 Error: 50 Lab. #: AA-3108
Material dated: Foraminifera Depth in core: 44-49 cm tw

Site/sample description: Foraminifera (GRL-864-S) were handpicked from the base of the trigger weight core. Core described in Osterman (1982). Some 1547 individuals were submitted for ^{14}C dating with a weight of 25.1 mg. Sample consisted mainly of N. pachyderma, N. labradorica, E. excavatum, C. lobatulus, and C. reniforme.

Comments: (JTA) There has been discussion (e.g. Osterman, 1982; Andrews et al., 1987; Williams, 1988) about the relationship between the bottom of the trigger weight and top of the piston core at this site.

Date: >27000 Error: Lab. #: AA-0263
Material dated: Foraminifera Depth in core: 230-240 cm pc

Site/sample description: 4 mg (GRL-872-S) of of hand-picked foraminifera were submitted from near the base of the piston core.

Comments: (JTA,LEO) The stratigraphy and interpretation of this core is discussed in Osterman (1982) and Andrews et al. (1987). A

date of 27,255 +/- 1250 (GX-7883) (GRL-515-O) on the <125 μm AIOM at 190-205 cm in the core is considered contaminated and an age closer to 18 ka is considered more probable for the 190-cm level (Osterman et al., 1985).

LOCATION: Labrador Sea, Core HU75-009-IV-58

Date: 45000 Error: 4000 Lab. #: AA-2642
Lat: 62 46. Long: 59 22. Elev.: - 1057 m
Map Sheet (NTS): NA Collector/yr: J. T. Andrews,1987
Material dated: Shell Depth in core: 175 cm

Site/sample description: Shell (GRL-857-S), H. arctica, was extracted from the core. It lay within a sandy unit that may represent a local debris flow. Sample weight was 153.5 mg. The date is just finite (A. J. T. Jull, pers. comm., 1988). Sample >37,000 at the 95% confidence level.

Comments: (JTA) This core is described in detail in Fillon (1985) who outlined information on stable isotopic stratigraphy and foraminfera. The shell sample occurs immediately above an ash peak, at 190 cm (Fillon, 1985:216) with a concentration of 20 shards/gram. Fillon (1985:216) gives an estimated date for the ash zone of 59,000. Such a date cannot be disputed by this ^{14}C date. Fillon (1985) reported a series of amino acid assays around this level in the core.

2. META INCOGNITA AND HALL PENINSULAS, AND FROBISHER BAY

MAP SHEETS 25 J & G, 25 I & 15 L, 25 O, AND 25 N

LOCATION: Noble Inlet, Meta Incognita Peninsula

Lat: 62 00.8 Long: 66 06.0 Elev.: 10 m aht
Map Sheet (NTS): 25 J & G Collector/yr: G. H. Miller, 1981

Date: 09190 Error: 195 Lab. #: GX-08194
Material dated: Shell Depth in core: NA

Site/sample description: see below and Miller et al. (1988).

Date: 09310 Error: 220 Lab. #: GX-09766
Material dated: Shell Depth in core: NA

Site/sample description: see below.

Date: 08600 Error: 110 Lab. #: GSC-3648
Material dated: Shell Depth in core: NA

Site/sample description: Paired valves and fragmented whole valves of M. truncata (used for dating) (del ^{13}C = 1.5 o/oo) and other species excavated from a wave-cut cliff in a small perched delta near mouth of large, unnamed inlet immediately south of Noble Inlet. Shells collected from between 0.5 and 1.5 m depth in a pit at 10 m aht; shells concentrated in a sandy lens but also found in clayey silt. Deposit contains abundant, striated erratic limestone clasts. Delta lip at 20 m aht, apex at 26 m aht, and washing limit at 32 m aht.

Comments: (GHM) Sedimentology and local geomorphology require site to be ice proximal. Initial date from Geochron confirmed that last glaciation of southern Meta Incognita Peninsula by foreign ice was of latest late Foxe age. Shell-bearing deposits overlie striated bedrock with striae oriented E-W due to topographical channelling of flow. On the upland above this site striae trend N 45 E (regional flow) and till contains abundant erratics. Subsequent dates on ice-proximal sites down-ice from this site are younger (see below), hence this sample was redated by GSC (see Miller et al., 1988).

LOCATION: Noble Inlet, Meta Incognita Peninsula

Date: 08580 Error: 150 Lab. #: GSC-3469
Lat: 62 05.3 Long: 66 08.4 Elev.: 16 m aht
Map Sheet (NTS): 25 J & G Collector/yr: G. H. Miller, 1981

Material dated: Shell Depth in core: NA

Site/sample description: Valves of M. calcarea (some paired) from stony, glacial-marine silt containing abundant striated limestone clasts from the middle reaches on south side Noble Inlet. Shells collected at 16 m and relative sea level at least 20 m aht. Local marine limit poorly defined but may be ca. 40-45 m aht. Del ^{13}C for the sample was -0.8 o/oo.

Comments: (GHM) Shell-bearing sediment considered to represent a distal facies of ice-contact, glacial-marine deposit (ice within 0.5 km of the site) as ice receeded up Noble Inlet during regional deglaciation. Shell date is close estimate of timing of deglaciation. Fauna is diverse and contains subarctic elements (C. islandicus). By position, deglaciation of this site should have postdated deglaciation of Kendall Strait and be approximately coeval with deglaciation of inlet to the south (see GSC-3648 and GX-8194).

LOCATION: Noble Inlet, Meta Incognita Peninsula

Date: 08240 Error: 90 Lab. #: GSC-3404
Lat: 62 05.4 Long: 66 08.5 Elev.: 2 m aht
Map Sheet (NTS): 25 J & G Collector/yr: G.H.Miller, 1981
Material dated: Shell Depth in core: NA

Site/sample description: 32 whole and broken valves of H. arctica, mostly paired, excavated from stream-eroded face of marine sediment on the south side of Noble Inlet. Shells were collected in the lowermost stratum of a deposit inset into an ice-proximal deposit (see discussion for GSC-3469). A clear erosional unconformity in the ice-proximal unit extends below present sea level, and had been backfilled by sediment from which these shells were obtained. Shells at 2 m aht refer to sea level at 9 m aht.

Comments: (GHM) Local stratigraphic relations indicate ice receeded up Noble Inlet, with short-lived stillstand close to the site, during which the ice proximal unit was deposited ca. 8600 BP. Subsequently, the ice receeded and fluvial erosion dissected the deposit to a base level below present sea level. Relative sea level rose again, depositing the nonglacial marine unit from which this collection was obtained. The sequence of sea-level changes requirerd by the stratigraphy and ^{14}C dates at this site are discussed in Andrews and Miller (1985) and Miller and Stravers (1987).

LOCATION: Noble Inlet, Meta Incognita Peninsula

Date: 08810 Error: 90 Lab. #: GSC-4607

Lat: 62 05.5 Long: 66 08. Elev.: 6-20 m aht
Map Sheet (NTS): 25 J & G Collector/yr: G. H. Miller, 1986
Material dated: Shell Depth in core: NA

Site/sample description: Shells H. arctica and some M. truncata were collected on the surface of a wave-cut bank eroded into ice-proximal glacial marine sediment. 30% of the shell was removed by an acid leach. Del ^{13}C value was 1.3 o/oo.

Comments: (GHM) Date provides an estimate on the final deglaciation of Noble Inlet by ice from Hudson Strait (Miller and Stravers, 1987; Miller et al., 1988). Sediment was deposited from ice flowing northward from Hudson Strait.

LOCATION: Noble Inlet, Meta Incognita Peninsula

Date: 09385 Error: 280 Lab. #: GX-08943
Lat: 62 05.7 Long: 66 06.0 Elev.: 60-70 m aht
Map Sheet (NTS): 25 J & G Collector/yr: G.H.Miller, 1981
Material dated: Shell Depth in core: NA

Site/sample description: Shells (GRL-815-S) collected primarily as float on the surface of well-sorted sand deposit on the north side of the middle reach of Noble Inlet. The shells were collected at 60 to 70 m aht; few shells were noted above that elevation. Shells broken, but mostly consist of large, angular fragments. Deposit overlies striated bedrock with striae oriented N 45 E. Fauna includes C. islandicus and abundant M. calcarea. Del ^{13}C=1.7 o/oo.

Comments: (GHM) Shells are probably ice-transported as their elevation is above that of the local marine limit. Because the shells are large and abundant they have probably not been transported far. After correction for reservoir effects the date (ca. 8.9 ka) is within (at 2 sigma) 100 years of the ice-proximal deposit across the inlet (GSC-3469). The interpretation of this sample is that it dates a local oscillation within regional deglaciation of SE Meta Incognita Peninsula, with ice advancing across Noble Inlet incorporating shells that lived in the inlet immediately postdeglaciation.

LOCATION: Noble Inlet, Meta Incognita Peninsula

Date: 08640 Error: 100 Lab. #: GSC-3951
Lat: 62 06. Long: 66 07. Elev.: - 2 m bht
Map Sheet (NTS): 25 J & G Collector/yr: G. H. Miller, 1981
Material dated: Shell Depth in core: NA

Site/sample description: Whole valves, many still paired from stone-free clayey silt exposed at low tide. Fauna exclusively H. arctica. Initial amino acid analyses indicated age <15 ka. Eight whole left and right valves plus three fragments used for dating (weight = 23.4 g). 10% leach; one 2-day count in the 2-L counter. Del ^{13}C = 1.3 o/oo.

Overall Comments on Noble Inlet Series: Collectively, these dates indicate that foreign (Labradorean?) ice receded from Noble Inlet shortly after 9000 BP, probably with minor readvances. By ca. 8200 BP ice had completely left the region and normal marine processes dominated. During this period relative sea level dropped from the marine limit to below present sea level, then rose to between 5 and 15 m aht, before falling again.

LOCATION: SE Meta Incognita Peninsula

Date: 08660 Error: 110 Lab. #: GSC-3468
Lat: 62 09.4 Long: 66 02.4 Elev.: 3 - 10 m aht
Map Sheet (NTS): 25 J & G Collector/yr: G. H. Miller, 1981
Material dated: Shell Depth in core: NA

Site/sample description: Fragmented and abraded shell fragments from silts in an ice-contact delta. Whole shells occur rarely. The shells were collected from gullies eroded into the silts. Date based on a 3-day count on 17.3 g of H. arctica in the 2-L counter. Sample site was 3-10 m asl and the delta surface is at 40 m asl. ^{13}C = + 0.7 o/oo.

Comments: (GHM) Silts enclosing the shells are ca. 20% by weight in the <2-mm fraction. The massive ice-contact delta was formed by ice moving toward the N from Hudson Strait. The carbonate-rich silts are interpreted to be a distal facies. Striated bedrock underneath the silts have striations bearing 015 degrees. The date represents the time when NE-N flowing ice paused in Kendall Strait during regional deglaciation, at a time when sea level was 40 m above present (Miller and Stravers, 1987; Miller et al., 1988).

LOCATION: Frobisher Bay, Core HU82-034-68

Date: 10010 Error: 360 Lab. #: AA-0886
Dat: 62 13.3 Long: 65 40.2 Elev.: - 311 m
Map Sheet (NTS): 25 J & G Collector/yr: L.E.Osterman, 1982
Material dated: Shell Depth in core: ca. 443 cm

Site/sample description: 38 mg of P. arctica was picked by L.E. Osterman from the core catcher, i.e. possibly from the basal sediment.

Comments: (JTA,LEO) The site and stratigraphy of the core are described in Praeg et al. (1986). A date of ca. 12 ka (B. MacLean, pers. comm., 1986) has been obtained from somewhat higher in the core. The discrepancy in the two age estimates may reflect the stratigraphic interpretation of material in the core catcher, or some reworking in the foraminiferal sample.

LOCATION: Jackman Sound, Lake A

Date: 08660 Error: 65 Lab. #: AA-3104
Lat: 62 15.2 Long: 66 10.05 Elev.: 34 m aht
Map Sheet (NTS): 25 J & G Collector/yr: W. N. Mode, 1987
Material dated: Shell Depth in core: 230 cm

Site/sample description: GRL-863-S was extracted from the lower of three sections of lake sediment collected by W. N. Mode and K. M. Williams in 1987. The contact between marine and lacustrine sediment occurred at ca. 195-200 cm.

Comments: (JTA,KMW) The date was submitted as part of a project to use marine/lake contacts as a means of obtaining high-quality relative sea-level curves. The date and elevation of this sample fits fairly closely with the relative sea-level curves portrayed in Stravers (1986) and Miller and Stravers (1987).

LOCATION: Buerger Point, Meta Incognita Peninsula

Date: 08210 Error: 180 Lab. #: GSC-4578
Lat: 62 18.6 Long: 66 10.4 Elev.: 3 m aht
Map Sheet (NTS): 25 J & G Collector/yr: G. H. Miller, 1986
Material dated: Shell Depth in core: NA

Site/sample description: M. truncata from well-sorted marine sands in small bay, half-way between Buerger Point and Halford Island. Shells collected from wave-eroded face in sandy raised marine terrace. Valves frequently paired and thin. Collection from 3 m aht but terrace surface at 8 m aht.

Comments: (GHM) Date contrasts with that from stony, glaciomarine diamicton some 2 km away which has a date of 9335 +/-135 (GX-13021) (corrected to 8970 +/- BP). Age of GSC-4578 with ^{13}C correction of 2.1 o/oo is 8250 +/- 180. Date should be a reasonable estimate for sea level at 8 m aht.

LOCATION: Jackman Sound

Date: 08680 Error: 110 Lab. #: GSC-4602
Lat: 62 20.5 Long: 66 30.5 Elev.: 15 m aht
Map Sheet (NTS): 25 J & G Collector/yr: G. H. Miller, 1986

Material dated: Shell Depth in core: NA

Site/sample description: Shells were collected from a stream-cut in a massive marine delta complex. Shells were mainly paired M. truncata. The del ^{13}C value was 2.7 o/oo which resulted in a 50 yr addition to the date.

Comments: (GHM) Shells were collected 10 m below the delta surface and are only 0.75 km on the distal side of a Neoglacial moraine of the Terra Nivea Ice Cap. Shells provide a minimum date on deglaciation of Jackman Sound and an estimate for sea level at 25 m asl.

LOCATION: Buerger Point, Meta Incognita Peninsula

Date: 09785 Error: 525 Lab. #: GX-09291
Lat: 62 21.8 Long: 66 10.0 Elev.: 8-10 m aht
Map Sheet (NTS): 25 J & G Collector/yr: J.A. Stravers,1982
Material dated: Shell Depth in core: NA

Site/sample description: Sample (GRL-818-S) consisted of small fragments of H. arctica, M. truncata, Macoma spp., and Balanus spp. collected from 8-10 m aht from a coarse-grained ice-contact delta within a coastal cirque. Site between Buerger Point and Halford Island.

Comments: (JAS) The delta surface ranges from 16 m aht at the lip to 21 m aht where it terminates against a bedrock ridge within the cirque. The deposit rests on the cirque floor which is near to present sea level. The sample probably represents reworked shell fragments because other ^{14}C dates do not confirm a 16-21 m aht sea level at ca. 9785 BP. However, the sample may approximate the date of deglaciation of the cirque.

LOCATION: Buerger Point, Meta Incognita Peninsula

Date: 08030 Error: 80 Lab. #: GSC-3603
Lat: 62 22.0 Long: 66 11.0 Elev.: 5-6 m aht
Map Sheet (NTS): 25 J & G Collector/yr: J.A.Stravers,1982
Material dated: Shell Depth in core: NA

Site/sample description: Sample (GRL-0821-S, del ^{13}C = 1.2 o/oo) consisted mainly of in situ whole, paired valves of H. arctica, and M. truncata collected from 5-6 m aht in a 9-m aht beach 5 km SE of Buerger Point.

Comments: (JAS) The beach occupies a small bedrock hollow and probably represents the mean high tide level for a 9-m sea level. The beach is undergoing erosion by wave action during present high tides, suggesting a current rise in present sea level.

LOCATION: Buerger Point, Meta Incognita Peninsula

Date: 09475 Error: 505 Lab. #: GX-09292
Lat: 62 25.5 Long: 66 16 Elev.: 1.5 m aht
Map Sheet (NTS): 25 J & G Collector/yr: J.A.Stravers,1982
Material dated: Shell Depth in core: NA

Site/sample description: Fragments of H. arctica and Balanus spp. (GRL-819-S) excavated from a sublittoral marine mud exposed at 1.5 m aht in the small embayment 4 km SW of Buerger Point. The outcrop is currently being destroyed by spring tides and wave erosion.

Comments: (JAS) The date cannot be related to a specific sea level. Originally it was hoped that this sample might date deglaciation from Frobisher Bay ice from the site. However, subsequent reconstructions suggest that the Hall advance terminated short of Buerger Point (Stravers, 1986).

LOCATION: Buerger Point, Meta Incognita Peninsula

Date: 08645 Error: 315 Lab. #: GX-09290
Lat: 62 25.5 Long: 66 16.2 Elev.: 21 m aht
Map Sheet (NTS): 25 J & G Collector/yr: J.A.Stravers,1982
Material dated: Shell Depth in core: NA

Site/sample description: Whole valves and fragments of M. truncata (GRL-817-S) were collected from sandy deltaic foreset beds at 21 m aht. The deposit is located 4 km SW of Buerger Point in a stream cut.

Comments: (JAS) The foreset beds can be traced upward into topset beds which underlie a prominent terrace at 25 m aht (delta lip) to 29 m aht. A wave eroded notch is cut into till at 32 m aht and it is believed that this is the maximum height for sea-level associated with this date. The marine limit occurs at 67 m aht cut into pre-late Foxe (?) till. Between 67 and 29 m aht no depositional features are seen, suggesting rapid initial isostatic uplift. This area may be unique if it was not covered by late Foxe ice (Stravers, 1986).

LOCATION: York Sound

Date: 09380 Error: 260 Lab. #: GX-10107
Lat: 62 28. Long: 66 29.5 Elev.:0 - 13 m aht
Map Sheet (NTS): 25 J & G Collector/yr: J.A.Stravers,1983
Material dated: Shell Depth in core: NA

Site/sample description: Whole valves and fragments of H. arctica and M. truncata (GRL-840-S; del ^{13}C = 1.6 o/oo) collected as float and from shallow excavations in an outcrop of a light-gray, crudely stratified diamicton. The outcrop occurs as a shoreline escarpment between the spring high tide level and 13 m aht at the mouth of a cirque basin (informal name, Peaceful Cove) (Stravers, 1986).

Comments: (JAS) The diamicton contains abundant striated limestone cobbles and is identical in appearance to the diamicton at Midnight Harbour (SI-5759) dated at 10,905 +/- 145. The diamicton in Peaceful Cove is overlain by 5 m of coarse delta sands which form a terrace surface at 18 m aht. The date of ca. 9380 raises questions about the accuracy of the Midnight Harbour date. It is possible that the Midnight Harbour sample contains "old" shell material, or that the bivalves burrowed into the diamicton thus postdating the deposit. It seems fortuitous that SI-5759 so closely matches dates from the type area of the Hall Moraines (Miller, 1980) (QC-480C, in Miller, 1979). The 18-m delta sand level grades upvalley into outwash deposits in the cirque basin. Therefore, the 18-m sea level dates the deglaciation of the basin, probably around 8 ka (cf. Stravers, 1986).

LOCATION: Midnight Harbour, Frobisher Bay

Date: 10905 Error: 145 Lab. #: SI-5759
Lat: 62 30.2 Long: 66 30.8 Elev.: 0-8 m aht
Map Sheet (NTS): 25 J & G Collector/yr: J.A.Stravers,1981
Material dated: Shell Depth in core: NA
Site/sample description: Whole valves and abraded fragments of M. truncata and H. arctica (GRL-808-S) collected from a limestone bearing glaciomarine diamicton from SE Frobisher Bay. The outcrop occurs at 0-8 m aht along the inner shore of Midnight Harbour (unofficial name [Stravers, 1986])

Comments: (JAS) The diamicton is related to an ice-proximal position, possibly prior to the Hall advance maximum. Late Foxe limestone-bearing till is found upto 145 m aht in the bay. Thus, it is most likely that this deposit was overridden by Hall advance ice, possibly causing the breakage of whole valves, but not transporting nor abrading them.

LOCATION: Near Charles Francis Hall Bay, Frobisher Bay

Date: 10530 Error: 110 Lab. #: SI-5758
Lat: 62 37. Long: 66 41. Elev.: 31 m aht
Map Sheet (NTS): 25 J & G Collector/yr: J.A.Stravers, 1981
Material dated: Shell Depth in core: NA

Site/sample description: Whole valves of M. truncata and H. arctica (GRL-811-S) were collected from a clayey limestone-bearing till on the floor of a cirque of the first peninsula SE of Charles Francis Hall Bay. Sample site was 0.2 km inland (Stravers, 1986).

Comments: (JAS) The shells were transported in the till, but probably only for a short distance since many of the shells were intact. The shells indicate that marine waters existed at the site shortly after retreat from the Hall advance maximum. The Gold Cove readvance (Miller, 1980) may have been the event that led to the readvance and incorporation of the shells.

LOCATION: Frobisher Bay, Core HU77-021-159

Lat: 62 50.05 Long: 67 02.04 Elev.: - 579 m
Map Sheet (NTS): 25 J & G Collector/yr: L.E.Osterman, 1983

Date: 08425 Error: 375 Lab. #: AA-0191
Material dated: Shell Depth in core: 860-920 cm

Site/sample description: Small bivalve of P. arctica weighing 18 mg.

Comments: (JTA) An AIOM date from the same level was previously dated at 11,910 +/- 380 (Osterman, 1982). The younger date on the bivalve indicates that "old" carbon was incorporated into the sediment (cf. Mudie and Short, 1985; Andrews et al., 1985).

Date: 07790 Error: 230 Lab. #: AA-0413
Material dated: Shell Depth in core: 420-430 cm

Site/sample description: Sample consisted of 59 mg of shell (P. arctica).

Comments: (JTA) This date is much younger that a date on AIOM fraction which was dated at 10,025 +/- (GX-7882) (Osterman, 1982). The pollen data in Mudie and Short (1985) from this core indicate that in the lowermost 6 m of this 9.5 m core there were numerous pre-Quaternary palymorphs. This date, together with AA-0191 indicates a very rapid rate of sediment accumulation during the retreat of ice from the Frobisher Bay moraines.

LOCATION: Sabine Peninsula

Lat: 62 39.72 Long: 65 14.9 Elev.: 45 m aht
Map Sheet (NTS): 25 I & 15 L Collector/yr: J.E. Walters, 1986

Date: 11680 Error: 130 Lab. #: GX-12859
Material dated: Shell Depth in core: NA

Site/sample description: del ^{13}C value = 1.6 o/oo. Whole and fragmented shells of M. truncata collected from a frost boil near Sabine Bay, some 20 m below the local marine limit (Walters, 1988).

Comments: see below AA-2496

Date: 10360 Error: 160 Lab. #: AA-2496
Material dated: Shell Depth in core: NA

Site/sample description: Single fragment of M. truncata.

Comments: (JEW) After the date from GX-12859 of ca. 11.6 ka a series of amino acid analyses were performed on shell fragments from the site to test for contamination by "old" shells. The shell with the lowest D/L ratio was then submitted for AMS dating (AAL-5091B) (Walters, 1988). The resulting date, and the D/L ratios, suggests some mixing of shells at this site.

LOCATION: Countess of Warwick Sound

Date: 11060 Error: 300 Lab. #: AA-0655A & B
Lat: 62 49.7 Long: 65 31.0 Elev.: 60-62 m aht
Map Sheet (NTS): 25 I & 15 L Collector/yr: G. H. Miller, 1979
Material dated: Shell Depth in core: NA

Site/sample description: Valves of M. truncata collected from deltaic beds that date deglaciation from the Hall moraines (Miller, 1980). Site discussed in Miller (1979).

Comments: (JTA) Two dates of 11260 +/- 400 and 10700 +/- were obtained on individual shells using the AMS facility (Andrews et al., 1985). These dates compare well with a series of dates on the same collection run by the Quaternary Research Center which gave ages that ranged between 10,510 and 10,790 BP (Miller, 1980).

LOCATION: Countess of Warwick Sound

Date: 10130 Error: 180 Lab. #: GX-12858
Lat: 62 49.81 Long: 65 25. Elev.: 8 m aht
Map Sheet (NTS): 26 I & 15 L Collector/yr: J.E. Walters, 1986
Material dated: Shell Depth in core: NA

Site/sample description: Abundant shell fragments of B. balanus collected from a till exposed in a small bluff NW Countess of Warwick Sound. The till has a strong fabric and 20-30% by weight of the matrix is carbonate.

Comments: (JEW) This date is similar to others from this region and indicates that ice was present in outer Frobisher Bay close to 10 ka (Miller, 1980; Stravers, 1986; Walters, 1988).

LOCATION: Frobisher Bay, Core HU77-021-160

Date: 00720	Error: 220	Lab. #: AA-2084
Lat: 63 02.6	Long: 67 27.6	Elev.: ca. 500 m
Map Sheet (NTS): 25 O	Collector/yr: J.T. Andrews, 1987	
Material dated: Shell	Depth in core: 40 cm	

Site/sample description: N. tenuis, weight 83 mg was extracted from the working half of this core. The above age became 364 +/- 140 BP using four cycles.

Comments: (JTA) An age of between 300 to 700 BP indicates a sedimentation rate of at least 0.5 to 1 m / 1 ka.

LOCATION: Pugh Island, Frobisher Bay

Date: 08590	Error: 100	Lab. #: GSC-3666
Lat: 63 15.5	Long: 68 11	Elev.: ca 25 m aht
Map Sheet (NTS): 25 N	Collector/yr: J. Jacobs & W.N. Mode, 1982	
Material dated: Shell	Depth in core: NA	

Site/sample description: Sample collected from face of stream gully. Shells (GRL-820-S) were in situ whole valves and fragments (27.8 g). Del ^{13}C = + 1.5 o/oo.

Comments: (GHM) Site presumably the same as that first reported by Colvill (Colvill, 1982; Andrews and Short, 1983) which was dated at 9875 +/- 130 (QC-903). Even if this date is corrected on the same reporting convention (cf. Miller et al., 1988) the age of ca. 9 ka is still significantly different from the 9.8 ka result. GSC-3666 suggests that the outer islands in inner Frobisher Bay were deglaciated by 8.6 ka.

LOCATION: Cape Rammelsberg, Frobisher Bay

Date: 15650	Error: 1880	Lab. #: GX-09324
Lat: 63 26.31	Long: 68 25.12	Elev.: 28 m aht
Map Sheet (NTS): 25 N	Collector/yr: E. K. Lind, 1980	
Material dated: <125 μm organics	Depth in core: NA	

Site/sample description: Organic-bearing silty sand (GRL-592-O) collected from the surface of a raised marine section on outer Cape Rammelsberg at a depth of 17 m and elevation of 28 m aht. Sample, after treatment weighed 280 mg, about 0.06% organic

carbon by weight.

Comments: (EKL) Sediment collected from the basal layer of a 13 m sequence of interbedded sand, silt, and clay (Lind, 1984). The stratigraphy was interpreted as representing an increase in ice proximity as the ice readvanced down Frobisher Bay to the Frobisher Bay moraines. The basal unit from which GRL-592-O (GX-9324) was taken is interpreted, on the basis of texture and micropaleontological analyses, as a shallow nearshore deposit representing ameliorated conditions prior the the advance. The ^{14}C age, however, suggests 1) a significant erosional/nondepositional unconformity, or 2) contamination by "old" carbon (i.e. the event dates between ca. 9 and 10 ka on the basis of regional evidence, e.g. Miller, 1980).

LOCATION: Cormack Bay, Frobisher Bay

Date: 08170 Error: 245 Lab. #: GX-11548
Lat: 63 28 Long: 67 22 Elev.: -2.5 m bht
Map Sheet (NTS): 25 O Collector/yr: J.T. Andrews, 1985
Material dated: Shell Depth in core: NA

Site/sample description: Valves of M. truncata and H. arctica collected from a blue-gray clay that underlies the present delta on the north side of the head of Cormack Bay. The clay contains striated limestone clasts and is overlain by a few centimeters of coarse sands and gravels. No outcrop of the clay was seen above present high tide.

Comments: (JTA) The date is coeval with the final episode of rapid deglaciation of Frobisher Bay moraines which lie W of the site (Miller, 1980; Lind, 1984). The local marine limit around this site is between 100-110 m aht, and probably dates close to 9.0 ka or slightly older.

LOCATION: Iqaluit townsite, Frobisher Bay

Date: 0 Error: 100 Lab. #: GX-11549
Lat: 63 44.9 Long: 68 30. Elev.: ca. 15 m aht
Map Sheet (NTS): 25 N Collector/yr: J.T. Andrews, 1985
Material dated: Peat Depth in core: NA

Site/sample description: Continuous layer of peat lying on top of marine sediments and overlain by either marine sediment or colluvium. Section exposed in trench during excavation of sewer line ca. 100 km E of the Iqaluit Research Lab.

Comments: (JTA) During inspection it was unclear whether the overlying sediment was the result of an earlier phase of road construction or a possible marine transgression. The former was

favored, but the potential importance of the site justified a date. The result indicates that the peaty layer represented the tundra surface, prior to building an unpaved road.

3. WESTERN HUDSON STRAIT AND FOXE PENINSULA

MAP SHEETS 35 N & M AND 36 C & D

LOCATION: Nottingham Island, Hudson Strait, N.W.T.

Date: 07230 Error: 120 Lab. #: GX-10860
Lat: 62 26. Long: 77 58. Elev.: 81 m aht

Map Sheet (NTS): 35 N & M Collector/yr: C. A. Laymon, 1984
Material dated: Shell Depth in core: NA

Site/sample description: Valves of H. arctica were collected from the surface of a frost boils on a mudflat at the SW end of a large delta which transgressed seaward as the island emerged.

Comments: (CAL) Given the location of this sample, adjacent to the large delta, the date may delimit the time when large amounts of meltwater from residual ice masses on the island wasted away (Laymon, 1988).

LOCATION: Nottingham Island, Hudson Strait, N.W.T.

Date: 05780 Error: 80 Lab. #: GSC-4152
Lat: 63 07. Long: 77 54. Elev.: 10 m aht
Map Sheet (NTS): 35 N & M Collector/yr: C. A. Laymon, 1984
Material dated: Shell Depth in core: NA

Site/sample description: Prolific shell bed in a shallow, narrow gorge in bedrock. The deposit had a low gradient to the W. The surface was covered with large angular boulders and cobbles, whereas the E-sloping surface consisted of ca. 50% shell. Many whole valves but majority were fragmented. Sample obtained on H. arctica. Many plates of B. balanoides were preserved.

Comments: (CAL) Sea-level control on this sample is not good, but it was dated in an attempt to get some control on the lower portion of the emergence curve (Laymon, 1988). I suggest that the shell bed was concentrated by eastward-flowing tidal currents.

LOCATION: Nottingham Island, Hudson Strait, N.W.T.

Date: 06920 Error: 90 Lab. #: GSC-4162
Lat: 63 12. Long: 78 01. Elev.: 57 m aht
Map Sheet (NTS): 35 N & M Collector/yr: C. A. Laymon, 1984
Material dated: Shell Depth in core: NA

Site/sample description: H. arctica valves were collected from a

stream-cut in a large sandy deposit, about 3-4 m thick, which contained dropstones of all sizes.

Comments: (CAL) Sample cannot be associated with a specific sea level, but the sandy deposit extends from about 48-64 m aht. This sample is used in the construction of a postglacial emergence curve for the islands in Hudson Strait (Laymon, 1988).

LOCATION: Nottingham Island, Hudson Strait, N.W.T.

Date: 07200 Error: 80 Lab. #: GSC-3991
Lat: 63 19. Long: 78 09. Elev.: 97 m aht
Map Sheet (NTS): 35 N & M Collector/yr: C. A. Laymon, 1984
Material dated: Wood Depth in core: NA

Site/sample description: Picea (id. H. Jette, Quaternary Paleoecology Lab., GSC) from the lower part of a trunk. Log measured 5.5 x 11 x 100 cm. The wood was well preserved and about 10 of the outer rings were used for dating. The log and other twigs were exposed in a 12-m thick interbedded sandy, fine sand, and muddy sublittoral/beach deposit. The log was at the contact between interbedded mud and fine sand littoral deposits, and overlying coarser beach sediments.

Comments: (CAL) The elevation of the sample at just less than 100 m (Laymon, 1988). The log suggests that trees were growing within the Hudson Bay/James Bay watershed at this time. It is hypothesized that the sediments were deposited in contact with a residual, downwasting ice mass on the central part of the island.

LOCATION: Nottingham Island, Hudson Strait, N.W.T.

Date: 07350 Error: 90 Lab. #: GSC-4038
Lat: 63 26. Long: 77 55. Elev.: 100 m aht
Map Sheet (NTS): 35 N & M Collector/yr: C. A. Laymon, 1984
Material dated: Shell Depth in core: NA

Site/sample description: Whole valves of H. arctica were collected from a small muddy deposit between the coast and the NW end of the fiord on the NW side of the island. Whole shells were very abundant and probably frost-heaved from the sediment.

Comments: (CAL) This is the highest shell sample observed on Nottingham Is. Although apparently suitable sites for molluscs were located at higher elevations they were not fossiliferous. This may indicate that inshore marine conditions were not suitable for molluscs prior to ca. 7.4 ka. The marine limit near this site is 165-170 m aht.

LOCATION: Nottingham Island, Hudson Strait, N.W.T.

Date: 05865 Error: 170 Lab. #: GX-10861
Lat: 63 26. Long: 77 58. Elev.: 38 m aht
Map Sheet (NTS): 35 N & M Collector/yr: C. A. Laymon, 1984
Material dated: Shell Depth in core: NA

Site/sample description: M. truncata valves (GRL-848-S, del ^{13}C = 2.0 o/oo) were collected from the surface of a large sandy delta (see GX-10860). Four whale vertebrae were also found on the surface.

Comments: (CAL) The delta in which the shells were found prograded seaward as the island emerged. As a result, the delta surface extends from ca. 80 m aht to present sea level. The shells came from the upper 1 m of the sediment at 38 m aht and it is argued that they represent a close approximation of sea level.

LOCATION: Salisbury Island, Hudson Strait, N.W.T.

Date: 03295 Error: 185 Lab. #: GX-09867
Lat: 63 33. Long: 77 10. Elev.: 11 m aht
Map Sheet (NTS): 35 N & M Collector/yr: C. A. Laymon, 1983
Material dated: Shell Depth in core: NA

Site/sample description: Well-preserved, in situ, paired valves of M. truncata (GRL-826-S, del ^{13}C = 1.8 o/oo) from a thick raised marine deposit of sublittoral and littoral sediments. Section exposed in a stream cut. Section consists of well bedded, fossiliferous silt and sands overlain by 1.5 m of coarse angular gravels. Shells were collected from the upper 2 m of the lower unit.

Comments: (CAL) Since this sample was collected just below littoral sediments it has a close association with a former sea level. It is used, therefore, to constrain the lower portion of the emergence curve for western Hudson Strait (Laymon, 1988).

LOCATION: Salisbury Island, Hudson Strait, N.W.T.

Date: 07850 Error: 290 Lab. #: GX-09996
Lat: 63 35. Long: 77 14. Elev.: 114 m aht
Map Sheet (NTS): 35 N & M Collector/yr: C. A. Laymon, 1983
Material dated: Shell Depth in core: NA

Site/sample description: Shell fragments (GRL-838-S, del ^{13}C = 1.3 o/oo) collected from the surface of a sticky mud with angular to subrounded clasts. Shells were probably frost-heaved to the

surface.

Comments: (CAL) Given the nature of the sediment and the fact that the shell fragments were very localized, and that none were found above this site, it is suggested that these are "in situ." Although there is no specific sea-level control for this sample it provides a minimum age for deglaciation and the 114 m aht sea level.

LOCATION: Mill Island, Hudson Strait

Date: 07250 Error: 240 Lab. #: GX-09866
Lat: 63 57. Long: 77 45. Elev.: 75 m aht

Map Sheet (NTS):35N & M,36C & D Collector/yr: C. A. Laymon, 1983
Material dated: Shell Depth in core: NA

Site/sample description: Whole valves of H. arctica were collected from mud boils on a terrace in a 40-m wide, 300-m long depression in bedrock.

Comments: (CAL) The site cannot be tied directly to a former sea level, but is the highest occurrence of shells observed on Mill Island, and therefore provides a minimum estimate for deglaciation of the island and relative sea level at 75 m aht.

LOCATION: Foxe Peninsula

Date: 06885 Error: 250 Lab. #: GX-10081
Lat: 64 13. Long: 76 44. Elev.: 33 m aht
Map Sheet (NTS): 36 C & D Collector/yr: C. A. Laymon, 1983
Material dated: Shell Depth in core: NA

Site/sample description: Shells of H. arctica (GRL-839-S, del ^{13}C = 2.0 o/oo) collected from the highest of four raised beaches at the NW end of a small lake. Beach elevations at 18, 19, 31, and 33 m aht. The lowermost beach consisted of a shell hash. The 33 m aht level was a flat surface with many subangular boulders suggesting an origin as a diamicton.

Comments: (CAL) The sample cannot be related to a former sea level although it sets a maximum age for the 33 m aht sea level (Laymon, 1988).

LOCATION: Foxe Peninsula

Date: 07720 Error: 100 Lab. #: GSC-3959
Lat: 64 16. Long: 76 14. Elev.: 136 m aht
Map Sheet (NTS): 36 C & D Collector/yr: C. A. Laymon, 1983

Material dated: Shell Depth in core: NA

Site/sample description: Whole valves of H. arctica were being eroded from a silty unit at the base of a delta. The delta heads into a canyon which was a meltwater route during deglaciation. The delta slopes S from 139 to 155 m aht. The delta consists of 18-20 m of nonfossiliferous sand with very few pebbles. Beneath the upper sand unit there is a 4-m-thick silt from which the shells were collected.

Comments: (CAL) Stratigraphic field relations suggests that the fossiliferous marine mud is a distal facies of a delta about 1 km to the N, at the head of the canyon. This delta is mainly sand with a few larger clasts. It has a maximum elevation of 187 m aht. This date provides an estimate on deglaciation and the age of the local marine limit (Laymon, 1988).

LOCATION: Foxe Peninsula

Date: 05330 Error: 100 Lab. #: GX-10859
Lat: 64 18. Long: 76 48. Elev.: 43 m aht
Map Sheet (NTS): 36 C & D Collector/yr: C. A. Laymon, 1983
Material dated: Shell Depth in core: NA

Site/sample description: Whole valves of M. truncata (GRL-846-S, del ^{13}C = 2.1 o/oo) were collected from a face in a stream-cut of a large terrace W of Tessikakjuak Lake. The shells were partly buried by mass movement of the face. The terrace consists of a coarse sandy gravel diamicton, with angular clasts and no apparant bedding. The deposit is flat and fines have been winnowed off the surface. A small patch of marine mud, containing B. balanoides plates, plus a few valves of M. truncata and H. arctica were found on the E side of the deposit.

Comments: (CAL) This site cannot be specifically associated with a relative sea level but it can be used to constrain the postglacial emergence of Foxe Peninsula (Laymon, 1988).

LOCATION: Foxe Peninsula

Date: 08010 Error: 255 Lab. #: GX-09865
Lat: 64 19. Long: 76 34. Elev.: 115 m aht
Map Sheet (NTS): 36 C & D Collector/yr: C. A. Laymon, 1983
Material dated: Shell Depth in core: NA

Site/sample description: Whole valves of H. arctica (GRL-824-S, del ^{13}C = 1.8 o/oo) from a fan-delta with a surface leveation of 115 m aht. The delta lies against the N side of a NW-SE trending valley immediately S of a large kame terrace (Laymon, 1988). The upper 2 m of the delta consists of a coarse gravelly sand with

large cobbles and boulders. Below is a unit of interbedded sand and clayey silt, the latter containing in situ whole valves. Molluscs in the bed consist of (in addition to above) M. truncata, C. ciliatum, S. groenlandicum, C. islandicus, Macoma spp., and M. pseudoarenaria.

Comments: (CAL) This site and date are discussed in more detail in Laymon (1988). Field evidence suggests that meltwater from an ice mass in contact with the kame terrace flowed across the terrace at 187 m aht and into the sea. As this sediment plume entered the sea, sediment was deposited at the base of the N wall of the valley, forming a fan-delta. Therefore, this date establishes the date of ice retreat onto Foxe Peninusula and the age of the marine limit (which may be ca. 187 +/- m aht).

LOCATION: Foxe Peninsula

Date: 06000 Error: 165 Lab. #: GX-10858
Lat: 64 21. Long: 76 49. Elev.: 69 m aht
Map Sheet (NTS): 36 C & D Collector/yr: C. A. Laymon, 1983
Material dated: Shell Depth in core: NA

Site/sample description: Streamcut into an emerged sublittoral sediment between Uningalik and Ihalukpiuk lakes. Stratigraphy consists of a basal sandy gravel (possibly till) overlain by 2.7 m of fossiliferous marine sand, containing numerous pebbles and small cobbles. This is in turn overlain by 2 m of gravelly sand. The fossiliferous unit contains numerous paired mollusc valves excellently preserved. Fauna consisted mainly of M. truncata, with limited numbers of H. arctica, S. groenlandicum, Macoma spp., C. ciliatum, C. islandicus, and B. balanoides.

Comments: (CAL) Although this site cannot be closely associated with a specific sea level it does provide some control on postglacial emergence (Laymon, 1988).

4. CUMBERLAND SOUND AND CUMBERLAND PENINSULA

MAP SHEETS 26 A, 26 H, 26 I, 26 P, AND 16 L & K

LOCATION: Cumberland Sound, Core HU85-027-025

Date: 09450 Error: 95 Lab. #: AA-2633
Lat: 64 56 Long: 64 58 Elev.: - 823 m
Map Sheet (NTS): 26 A Collector/yr: A.E. Jennings,1985
Material dated: Shell Depth in core: 174.5 cm

Site/sample description: GRL-853-S was from the trigger weight core. Large valve of Bathyarca glacialis (175 mg) separated from glacial marine silty clay of the Davis Strait Silt.

Comments: (AEJ) Similar age to AA-1916 which was obtained from core HU85-027-029 in the same acoustic unit.

LOCATION: Cumberland Sound, Core HU85-027-028

Date: >45000 Error: Lab. #: AA-2632
Lat: 65 02 Long: 65 03 Elev.: - 850 m
Map Sheet (NTS): 26 H Collector/yr: A.E. Jennings,1985
Material dated: Shell Depth in core: 684-685 cm

Site/sample description: GRL-854-S was taken from the piston core in a dark-gray, silty clay.

Comments: (AEJ) Shell fragments probably reworked as AA-1916 and AA-2633 give substantially younger dates from stratigraphically older sediments from the Sound (Jennings, in prep.).

LOCATION: Cumberland Sound, Core HU85-027-029

Lat: 65 05 Long: 65 00 Elev.: - 814 m
Map Sheet (NTS): 26 H Collector/yr: A.E. Jennings,1985

Date: 09340 Error: 84 Lab. #: AA-1916
Material dated: Shell Depth in core: 740 cm

Site/sample description: GRL-853-S was an articulated Bathyarca glacialis bivalve (70.2 mg) and was found in "ice-distal" glacial marine mud of the Davis Strait Silt acoustic unit (sample from the piston core).

Comments: (AEJ) Date inidicates that glacial ice was retreating

in Cumberland Sound by 9340 BP.

Date: 02890 Error: 115 Lab. #: AA-1915
Material dated: Shell Depth in core: 102 cm

Site/sample description: GRL-852-S was a small, 5.2 mg, gastropod shell isolated from silty clay matrix in the piston core.

Comments: (AEJ) Sample recovered from uppermost sediment unit in Cumberland Sound, the Tiniktartuq silt and clay.

LOCATION: Cumberland Sound, Core HU85-027-027

Date: 05160 Error: 60 Lab. #: AA-2631
Lat: 65 13 Long: 65 20 Elev.: - 896 m
Map Sheet (NTS): 26 H Collector/yr: A.E. Jennings,1985
Material dated: Fish bone Depth in core: 630 cm

Site/sample description: Skeleton of a very small fish (79.6 mg) (GRL-18-B) was submitted for dating. Skeleton was articulated and came from the piston core.

Comments: (AEJ) Sample collected within the Tiniktartuq silt and clay (Jennings, in prep.).

LOCATION: Pangnirtung Fiord

Date: 07230 Error: 90 Lab. #: AA-1181
Lat: 66 09. Long: 65 43. Elev.: - 8 m
Map Sheet (NTS): 26 I Collector/yr: R. Gilbert, 1984
Material dated: Shell Depth in core: NA

Site/sample description: Fragment of M. truncata from intertidal flats 147 m from the bedrock outcrop at the inner edge of the intertidal flat, opposite the Pangnirtung Hotel, and 26 m from the boulder barricade.

Comments: (RG) From 11 m below the surface of the flats; recovered in a core.

LOCATION: Tasikuttaaq Lake

Lat: 66 23. Long: 65 56. Elev.: ca. 290 m asl
Map Sheet (NTS): 26 I Collector/yr: D. S. Lemmen, 1983

Date: 03428 Error: 70 Lab. #: AA-1005
Material dated: <125 μm organics Depth in core: 38-40 cm

Site/sample description: Sample depth in wet core was 43-44 cm.

Sample from massive, nonglacial sediment immediately below contact with laminated glacial sediment.

Date: 07577 Error: 137 Lab. #: AA-1004
Material dated: <125 μm organics Depth in core: 75-77 cm

Site/sample description: From a core 5.3 km from the north end of Taskuttaaq Lake in the Kolik Valley, north of Pangnirtung Fiord. Water depth 35 m. Sample depth in core when wet was 86-88 cm.

Comments: (RG) Sediment from the base of massive, nonglacial sediment above varved glacial sediments (Lemmen et al., 1988).

LOCATION: Sunneshine Fiord, Core HU82-031-SU5

Lat: 66 33.3 Long: 61 42.6 Elev.: - 146 m
Map Sheet (NTS): 16 L & K Collector/yr: L.E. Osterman,1983

Date: 04060 Error: 90 Lab. #: AA-1508
Material dated: <125 μm organics Depth in core: 168-172 cm

Site/sample description: Sample (GRL-687-0) from the same level as AA-712 which gave a date on shell of 5800 +/- 330 BP. To date this is the only sample that we know where the shell dates older than the fine-grained organic fraction. The stratigraphy of HU82-SU5 is outlined in Andrews et al. (1985), in Andrews and Jennings (1987), and the palynology is included in Short et al. (in press).

Date: 05600 Error: 330 Lab. #: AA-0712
Material dated: Shell Depth in core: 165 cm

Site/sample description: See above

Date: 12190 Error: 430 Lab. #: AA-0348
Material dated: <2 μm organics Depth in core: 290-297 cm

Site/sample description: See above (GRL-624-0, 0.25% organics by weight).

Date: 09450 Error: 360 Lab. #: AA-0412
Material dated: Shell Depth in core: 277 cm

Site/sample description: See above

Date: 11365 Error: 365 Lab. #: GX-09432
Material dated: <2 μm organics Depth in core: 340 cm

Site/sample description: See above (GRL-599-0, 0-27% organics by weight).

Date: 10490 Error: 450 Lab. #: AA-0264
Material dated: Shell Depth in core: 618 cm

Site/sample description: See above.

Date: 22720 Error:+1420,-1210 Lab. #: GX-09433
Material dated: <125 μm organics Depth in core: 660-684 cm

Site/sample description: GRL-600-0 contained 0.4% organics by weight.

Comments: (JTA) This core is an important one because of the presence of small bivalves within the core, thus providing material for obtaining dates on both the fine-grained organic fraction and the adjacent shells. Pollen analysis (Mode, in Short et al., in press) indicates that large amounts of pre-Quaternary pollen occurs in the lower 6 m of this core.

LOCATION: Coronation Fiord, Core HU82-031-CO4

Date: 10380 Error: 120 Lab. #: AA-1918
Lat: 67 15 Long: 64 18 Elev.: - 356 m
Map Sheet (NTS): 26 P Collector/yr: J.T. Andrews, 1983

Material dated: <125 μm organics Depth in core: 595 cm

Site/sample description: GRL-601-0 was prepared from sediment taken from 595 cm in this 1096 cm core. The treatment followed the method outlined in Kihl (1975). The weight of the AIOM fraction was estimated to be 130 mg.

Comments: (JTA) This core is discussed in Syvitski and Blakeney (compilers) (1983) and by Andrews and Jennings (1972). The palynology of this core has not been studied but it is suspected that some "old" carbon may be included in the AIOM fraction. The date comes from below the heavily bioturbated mud (Andrews and Jennings, 1987, Fig. 12) in a zone of laminated sediment with a "noisy" magnetic susceptibility record. The glacial history of Coronation Fiord is discussed in Boyer (1972) and Dyke et al. (1982).

5. HOME BAY AND EAST-CENTRAL FIORDS

MAP SHEETS 27 A, 27 B, 27 C (68 25 to 69 41 N)

LOCATION: Cape Hooper

Date: 09085	Error: 290	Lab. #: AA-0244 A
05740	290	AA-0244 B
07650	290	AA-0244 C
Lat: 68 26.	Long: 66 46.	Elev.: 18 m aht
Map Sheet (NTS): 27 A		Collector/yr: J.T. Andrews, 1966
Material dated: Shell		Depth in core: NA

Site/sample description: Prolific shell bed near the DEW Line runway. This sample, collected in 1966, has been used to check dates from different radiocarbon laboratories (Andrews and Short, 1983). The three dates reported by the TAMS (U. Arizona) facility differ from each other. This may indicate that shells of different ages occur in the same unit.

Comments: (JTA) Deglaciation of Home Bay is estimated to have occurred some 9.4 ka (Andrews et al., 1970). The dates reported previously ranged from 7640 +/- 125 (Beta-2362) to 8050 +/- 115 (QL-457).

LOCATION: Tingin Fiord

Date: 09060	Error: 330	Lab. #: GX-09328
Lat: 68 59	Long: 69 01	Elev.: 73 m aht
Map Sheet (NTS): 27 B		Collector/yr: J.A. Stravers,1982
Material dated: Shell		Depth in core: NA

Site/sample description: In situ valves of M. truncata were collected from massive marine silts along the N side of the inner part of Tingin Fiord.

Comments: (JTA, JAS) The marine limit occurs at 90 m aht and is marked by the transition from marine silts to coarse gravels and boulders in three terraces at 93, 110, and 113 m aht. The sample cannot be related to a specific sea level >73 m aht, but with corrections it is similar to previous dates from Tingin Fiord (cf. Andrews and Drapier, 1967; Andrews et al., 1970).

LOCATION: Tingin Fiord, Core HU82-031-TI3

Lat: 69 11.5	Long: 68 23.5	Elev.: - 487 m
Map Sheet (NTS): 27 C		Collector/yr: J.T. Andrews, 1985

Date: 05185 Error: 425 Lab. #: GX-11335
Material dated: <125 μm organics Depth in core: 137.5-142.5 cm

Site/sample description: GRL-688-O was pretreated (i.e. Kihl, 1975) and 220 mg of sample was available for dating. Del ^{13}C = -26.7 o/oo.

Date: 10430 Error: 1250 Lab. #: GX-09434
Material dated: <125 μm organics Depth in core: 364-384 cm

Site/sample description: GRL-602-O was prepared by the method outlined by Kihl (1975). This resulted in an estimated a sample of ca. 230 mg.

Date: 12890 Error: 290 Lab. #: AA-0190
Material dated: <125 μm organics Depth in core: 1077-1108 cm

Site/sample description: Fine-grained sediment was pretreated (Kihl, 1975) and resulted in ca. 190 mg of AIOM being available.

Comments: (JTA) The stratigraphy and down-core variations in magnetic susceptibility and paleomagnetic parameters are outlined in Andrews and Jennings (1987) and Andrews et al. (1986), respectively. The two lowermost dates are considered too old. If the empirical formula of Andrews et al. (1985) is used, "corrected" ages of about 8.7, 7.5, and 3.9 ka are derived.

LOCATION: Itirbilung Fiord, Core HU83-028-IT2.3

Lat: 69 17.5 Long: 68 27. Elev.: -424 m
Map Sheet (NTS): 27 C Collector/yr: J.T.Andrews, 1983

Date: 05084 Error: 70 Lab. #: AA-2276
Material dated: <2 μm organics Depth in core: 100-104 cm

Site/sample description: GRL-712-O comes from 102 cm in the core. It was prepared by the method outlined in Kihl (1975). Sample weight was 250 mg.

Date: 08390 Error: 250 Lab. #: AA-2275
Material dated: <2 μm organics Depth in core: 371-375 cm

Site/sample description: GRL-714-O had a sample weight of 140 mg. The sample was prepared using the techniques discussed in Kihl (1975).

Date: 15800 Error: 400 Lab. #: AA-1523
Material dated: <2 μm organics Depth in core: 841-845 cm

Site/sample description: GRL-689-O was prepared by the method

outlined in Kihl (1975). 51 g of material was taken and an estimated 140 mg of organics was concentrated.

Comments: These AIOM dates are in correct stratigraphic order but are probably too old. Radiocarbon dates on land suggest that deglaciation of the fiord occurred between 7 and 10 ka. If the dates are corrected (cf. Andrews et al., 1985) then a basal age of ca. 10 ka is derived. However, there are many meters of sediment below the base of the piston core (cf. Syvitski, 1984). The core has been processed for paleomagnetics and this may also help delimit the sedimentation rates at the site.

LOCATION: Itirbilung Fiord, Core HU83-028-IT3.1

Date: 13500 Error: 700 Lab. #: AA-0935
Lat: 69 17.6 Long: 68 12.3 Elev.: - 365 m
Map Sheet (NTS): 27 C Collector/yr: J. T. Andrews, 1983
Material dated: <125 μm organics Depth in core: 445-452 cm

Site/sample description: GRL-669-0 was prepared in the INSTAAR Sedimentology Lab. (Kihl, 1975). 110 mg of material was submitted for dating.

Comments: (JTA) Down-core variations in organic carbon and in the percentage of pre-Quaternary pollen is presented in Andrews (1987) and Short et al. (subm.). A corrected date of ca. 9.5 ka is inferred for this level based on the equation in Andrews et al. (1985).

LOCATION: Itirbilung Fiord, Core HU83-028-IT1.1

Date: 03920 Error: 60 Lab. #: AA-1917
Lat: 69 20. Long: 69 03.8 Elev.: - 256 m
Map Sheet (NTS): 27 C Collector/yr: J.T. Andrews, 1987
Material dated: Shell Depth in core: 590-597 cm

Site/sample description: This core comes from the inner basin of the fiord near the base of the prodelta (Syvitski, compiler, 1984). Recovered core length was 680 cm.

Comments: (JTA) The date indicates that, if the shells were in situ, the sedimentation rate in the inner fiord basin has averaged ca. 140 cm/ka during the late Holocene.

LOCATION: McBeth Fiord, south side

Lat: 69 32.5 Long: 69 35. Elev.: 11 m asl
Map Sheet (NTS): 26 C Collector/yr: J.T. Andrews, 1983

Date: 0 Error: Lab. #: AA-0347
Material dated: Shell Depth in core: NA

Site/sample description: GRL-830-S. See comments for GX-9890.

Date: 0 Error: Lab. #: GX-09890
Material dated: Shell Depth in core: NA

Site/sample description: GRL-830-S was collected by Andrews and Boulton from 11 m asl in a glacially tectonized section.

Comments: (JTA) These two dates are from the same site. This site occurred close to the site where Stravers collected samples dated close to 5 ka (see this date list below). This sample was one of three that was, somehow, contaminated. The count was reported as 501 +/- 1% of modern values (GX-09890).

LOCATION: McBeth Fiord, south side

Lat: 69 32.5 Long: 69 35.0 Elev.: 4 m aht
Map Sheet (NTS): 27 C Collector/yr: J.A. Stravers, 1987
Date: 4180 Error: 80 Lab. #: GX-13683
Material dated: Shell Depth in core: NA

Site/sample description: GRL-860-S was cleaned and leached with HCl. The shell ^{d}el 1^{3}C value was 1.3 o/oo. The site lies close to sea level and the shells were collected from deformed beds with nearly vertical dips.

Comments: (JTA,JAS) This site was revisited because of the problems in dating a series of shells collected in 1983 during a cruise of C.S.S. Hudson into the Baffin Island fiords (Syvitski and Blakeney, 1983). For some reason shells from that expedition were all highly contaminated (see GX-09889). It is not completely certain that the two sites are the same. GX-13683 and GX-13805 both indicate that relative sea level was at least 2 to 4 m above present at about 5 ka.

Date: 05420 Error: 100 Lab. #: GX-13805
Material dated: Shell Depth in core: NA

Site/sample description: GRL-861-S was cleaned and leached with HCl. The shells had a del ^{13}C value of 1.4 o/oo. In situ paired valves mainly of M. truncata with lesser H. arctica. Shells collected from flat-lying to shallow dipping stratified muddy sands.

Comments: (JAS). In the field, beds considered the same age, probably, as those at 4 m aht with the age of 4180 +/- 80.

LOCATION: McBeth Fiord, Core HU83-028-MC4.1

Lat: 69 31.4 Long: 69 57. Elev.: - 549 m
Map Sheet (NTS): 27 C Collector/yr: J.T. Andrews, 1983
Date: 02819 Error: 103 Lab. #: AA-1011
Material dated: <125 μm organics Depth in core: 77.5-85.5 cm

Site/sample description: GRL-674-O was prepared (cf. Kihl, 1975) and resulted in 140 mg of sample.

Date: 04780 Error: 80 Lab. #: AA-1801
Material dated: Shell Depth in core: 325 cm

Site/sample description: 14 mg of shell was collected.

Date: 16700 Error: 900 Lab. #: AA-0653
Material dated: <125 μm organics Depth in core: 782-786 cm

Site/sample description: GRL-662-O was prepared in the usual manner (cf. Kihl, 1975) and 110 mg of sample was submitted.

Comments: (JTA) The pollen biostratigraphy is presented in Short et al. (subm.). A corrected age of ca. 11.6 ka is suggested for this core (cf. Andrews et al., 1985: 1831). The core is located in basin upfiord from C-14 dates on molluscs and whalebone of >50 ka (e.g. Loken, 1966). However, ^{14}C dates on molluscs from raised deltas and beach deposits east of this site gave ages between 8 and 9 ka (King, 1969, Miller, 1979).

LOCATION: McBeth Fiord, peat

Date: 01230 Error: 110 Lab. #: GX-10374
Lat: 69 40. Long: 68 42 Elev.: ca 20 +/-5 m
Map Sheet (NTS): 27 C Collector/yr: J.T. Andrews, 1983
Material dated: Coarse organics Depth in core: NA

Site/sample description: Section of vegetation and eolian sand exposed in a cut on the north side of McBeth Fiord, some 2.5 km from the shore of the fiord. Sample taken at a depth of ca. 144 cm from surface of the deposit. 540 mg of organic material was submitted.

Comments: (JTA) Pollen stratigraphy for this organic-poor section is described by Short et al. (in press).

LOCATION: McBeth Fiord, Core HU83-028-MC83.6

Lat: 69 40.7 Long: 68 09.8 Elev.: - 429 m
Map Sheet (NTS): 27 C Collector/yr: J.T. Andrews, 1983
Date: 12970 Error: 225 Lab. #: AA-1012

Material dated: <125 μm organics Depth in core: 88-93 cm

Site/sample description: GRL-676-O contained 310 mg of carbon. It prepared in the manner noted in Kihl (1975).

Date: 19200 Error: 1100 Lab. #: AA-0654
Material dated: <125 μm organics Depth in core: 292 cm

Site/sample description: GRL-663-O yielded 40 mg of material for dating after pretreatment (cf. Kihl, 1975).

Comments: (JTA) The short core was taken in the outer, northern arm of McBeth Fiord to the west of the lateral moraines along the fiord walls that were dated by Loken (1966) at >40,000 BP. This date is on transported shells and is thus a maximum date for the readvance.

6. NORTHERN BAFFIN ISLAND AND CHANNELS

MAP SHEET 27 G, 37 E, 37 H, 48 C, 48 H (70 - 76 N)

LOCATION: Clark Fiord, Core HU82-031-CL1

Lat: 70 49.6 Long: 72 37. Elev.: - 196 m
Map Sheet (NTS): 37 E Collector/yr: A.E. Jennings,1984
Date: 10410 Error: 380 Lab. #: AA-0652
Material dated: <125 μm organics Depth in core: 399-400 cm

Site/sample description: Core taken at the foot of the prodelta. GRL-661-O was pretreated prior to submission for dating and yielded 190 mg of readily oxidizable organic material. The sample comes from the base of the core which was described as "flow-in."

Comments: (AEJ) As the date is on flow-in sediment the date is a maximum one for the ca. 4 m level in this core. However, the age still appears "old" and may be contaminated by old carbon.

Date: 02145 Error: 80 Lab. #: AA-0936
Material dated: <125 μm organics Depth in core: 0-10 cm

Site/sample description: Surface sediment from a grab sample at the head of Clark Fiord. GRL-672-O was prepared for dating to give some information on the apparent age of the top few centimeters of the surface sediment. Pretreatment yielded 120 mg of material for dating.

Comments: (AEJ) The sample was not strictly from the surface of the fiord as the sample was a bulk collection. Even so, the age is older than expected and may indicate deposition of reworked earlier Holocene materials, possibly off the prodelta.

LOCATION: Clark Fiord, Core HU82-031-CL5

Lat: 71 0.5 Long: 71 53. Elev.: - 683 m
Map Sheet (NTS): 27 G Collector/yr: A.E. Jennings,1984
Date: 10250 Error: 390 Lab. #: AA-0651
Material dated: <125 μm organics Depth in core: 970-976 cm

Site/sample description: The 64.5 g of bulk sample (GRL-666-O) of silty clay was pretreated and yielded 70 mg of acid-insoluble organics (cf. Kihl, 1975).

Date: 12350 Error: 950 Lab. #: GX-09431
Material dated: <125 μm organics Depth in core: 410-440 cm

Site/sample description: A bulk sample of 315 g with 0.69% organic carbon by weight (GRL-597-O) was pretreated (Kihl, 1975) prior to submission for dating.

Date: 07900 Error: 225 Lab. #: GX-09430
Material dated: <125 μm organics Depth in core: 167-185 cm

Site/sample description: The sample of silty clay was pretreated prior (GRL-595-O) to submitting for dating (cf. Kihl, 1975). The organic content was 0.99% by weight.

Date: 04540 Error: 300 Lab. #: AA-0650
Material dated: <125 μm organics Depth in core: 101-106 cm

Site/sample description: 49.1 g of laminated, sandy mud was prepared for dating (Kihl, 1975) and yielded 160 mg of organic carbon.

Comments: (AEJ) This core is fully discussed and described in Jennings (1986) (sediments, mineralogy, rock magnetic properties) and the palynology is included in the paper by Short et al. (subm.). The inversion of the two lowermost dates is a problem, but the younger and deeper of the two is considered to be the more reliable, although even it is probably too old (cf. Jennings, 1986).

LOCATION: Cambridge Fiord, Core HU83-028-CA4.1

Date: 04295 Error: 100 Lab. #: GX-09xxx
Lat: 71 25.5 Long: 74 45.7 Elev.: - 515 m
Map Sheet (NTS): 37 H Collector/yr: J.T. Andrews, 1983
Material dated: <125 μm organics Depth in core: 463 cm

Site/sample description: GRL-668-O had about 0.23% by weight organic carbon, and 50 mg of carbon was was submitted for dating.

Comments: (JTA) The paleomagnetic record of this core is described in Andrews et al. (1986) and the palynology is discussed by Short et al. (in press). Data on other cores from Cambridge Fiord are presented by Horvarth (1986). Neither Geochron nor INSTAAR has been able to positively identify the lab. number for this sample.

LOCATION: Omega Bay, Cambridge Fiord

Date: 0 Error: Lab. #: GX-09889
Lat: 71 26.5 Long: 74 57.5 Elev.: ca. 42 m asl
Map Sheet (NTS): 37 H Collector/yr: J.T. Andrews, 1983
Material dated: Shell Depth in core: NA

Site/sample description: GRL-827-S was collected 4 m below the surface of an outcrop of silty clay exposed in a river cut at ca. 46 m asl. The sample consisted of 8.6 g of paired H. arctica.

Comments: (JTA) This date and GX-9918, GX-9890, and AA-374 were from a suite of samples collected in 1983 while JTA was on C.S.S. Hudson. The sample had a count of 168 +/- 2% of expected modern values. There is no explanation for why this and other samples collected on the 1983 S.A.F.E. cruise are so heavily contaminated. The expected age of the sample was between 8 and 9 ka.

LOCATION: Omega Bay, Cambridge Fiord

Date: 0 Error: Lab. #: GX-09918
Lat: 71 27 Long: 74 55 Elev.: ca. 42 m asl
Map Sheet (NTS): Collector/yr: J.T.Andrews, 1983
Material dated: Shell Depth in core:

Site/sample description: GRL-828-S was collected on an excursion from the 1983 S.A.F.E. cruise. The shells were cleaned and then leached with dilute HCl. 17.6 g of shell were collected from a small outcrop of silts on the west side of the river, about 1 km from the bayhead.

Comments: (JTA) The activity of the shells was reported as 498 +/- 1% of modern. There is no obvious reason for this contamination. The expected age is between 6 and 8 ka. Contamination of some sort aboard CSS Hudson is a possible explanation, but after this date was reported a scan of the ship showed no high levels of ^{14}C.

LOCATION: Feachem Lake 3

Date: 45600 Error: +4100,-2700 Lab. #: GX-13720
Lat: 71 55 Long: 74 24 Elev.: 57 m aht
Map Sheet (NTS): 37 H Collector/yr: J.A. Stravers, 1987

Material dated: Shell Depth in core: NA

Site/sample description: Whole valves and fragments of H. arctica and M. truncata, collected from glaci-tectonized marine muds along the western margin of Feachem Lake (informal name). Shells collected from the surface of a mudlfow. These muds form a series of nested lateral moraines; the sample came from the innermost loop. The marine muds extend to 123 m aht and lie at least 60 m above in situ marine sediments on the foreland. Holocene marine limit cannot be mapped along the shores of the lake, however, it lies at 38 m aht on the outer coast of Buchan Gulf and predates 8130 +/- 110 (GSC-4357).

Comments: (JAS) There are two possible sources for the ice which constructed this moraine system. 1) Expansion of the outlet glacier that presently terminates in Feachem Bay just to the SW, or 2) Through-flowing ice from a major Laurentide outlet glacier in Buchan Gulf. Unfortunately the date on transported shells only provides a maximum age for the glacial event, although given the problems of ^{14}C shells in this age range (cf. Szabo et al., 1981) the actual date is considered a minimum age estimate. Amino acid assays will be conducted on this collection (see also Stravers, 1987).

LOCATION: Arctic Bay

Lat: 73 03 Long: 85 02 Elev.: 61 m asl
Map Sheet (NTS): 48 C Collector/yr: S. K. Short, 1982
Date: 14185 Error: 760 Lab. #: GX-09304
Material dated: Peaty sand Depth in core: 280 - 290 cm

Site/sample description: GRL-589-O was pretreated to remove carbonates and mobile organics (cf. Kihl, 1975). GRL-589-O consisted after pretreatment of 540 mg of carbon. Samples of organic-"rich" sand were collected from a 5-m exposure at Arctic Bay, located in a valley below George V Mountain, between Victor and Arctic bays. The area lies in the High-Arctic vegetation zone.

Date: 15810 Error: 490 Lab. #: GX-10628
Material dated: Peaty sand Depth in core: 255 - 260 cm

Site/sample description: GRL-670-O weighed 760 mg.

Date: 16849 Error: 860 Lab. #: GX-09030
Material dated: Peaty sand Depth in core: 182.5 - 187.5 cm

Site/sample description: GRL-588-O contained 630 mg of datable organics.

Date: 07830 Error: 230 Lab. #: GX-10290
Material dated: Peaty sand Depth in core: 137.5 - 142.5 cm

Site/sample description: NA.

Date: 08635 Error: 565 Lab. #: GX-09302
Material dated: Peaty sand Depth in core: 82.5 - 87.5 cm

Site/sample description: GRL-587-O consisted of a sedge peat with moderate inorganic content. Sample weight after pretreatment was 2520 mg of carbon.

Date: 06720 Error: 390 Lab. #: GX-12852

Material dated: Peaty sand Depth in core: 50 - 57.5 cm

Site/sample description: GRL-710-O consisted of felty sedge peat. Sample was not pretreated and 3.16 g was submitted for ^{14}C dating.

Date: 05075 Error: 210 Lab. #: GX-09686
Material dated: Peaty sand Depth in core: 23 - 26 cm

Site/sample description: GRL-616-O weighed 800 mg of carbon after treatment.

Date: 0 Error: Lab. #: GX-09685
Material dated: Peaty sand Depth in core: 0 - 4 cm

Site/sample description: GRL-615-O weighed 4.06 g.

Comments: (SKS,JTA) The exposure was originally found by G. Falconer in 1961 and the "middle" of the section was dated at 9360 +/- 120 BP (I-1315) (Andrews and Drapier, 1967). The date of 8635 +/- is from about the same level as that dated by Falconer and thus confirms an early Holocene age for this level. There are three dates between 182 and 290 cm that are significantly greater than 12,000 BP and which range in age between 14,185 and 16,849 BP, but the dates are not in correct (i.e. depth) order. At the 95% confidence level the three dates actually overlap and this may indicate that the sediment accumulated rapidly (ca. 0.04 cm/yr). The reversal in the dates may, however, reflect folding of the sandy peats through downslop creep. The remaining dates suggest a period of slow organic build-up between 8 and 13 ka. The site and the palynology is discussed further in Short and Andrews (1988). Note that the dates from samples we submitted from 0-4 and 23-26 cm were reported by Geochron as 5075 and 0, respectively. We have assumed that these two samples were either mixed-up in our laboratory or at Geochron.

LOCATION: Strathcona Sound, Core HU76-025-35 (PC15)

Date: 08680 Error: 140 Lab. #: AA-2641
Lat: 73 04.6 Long: 84 21.78 Elev.: - 230 m
Map Sheet (NTS): 48 C Collector/yr: J.T. Andrews, 1987
Material dated: Shell Depth in core: 525 cm

Site/sample description: GRL-858-S weighed 13.4 mg.

Comments: (JTA) Core was 921 cm in length. The core is currently being studied for both pollen and diatom content.

LOCATION: Jones Sound, Core HU83-023-52

Date: 06990 Error: 70 Lab. #: AA-1800
Lat: 75 35.2 Long: 78 41.5 Elev.: - 512 m
Map Sheet (NTS): 48 H Collector/yr: G. Vilks, 1985
Material dated: Shell Depth in core: 489-492 cm

Site/sample description: Small valves of P. arctica.

Comments: (KMW) The date is at variance with two other dates from 480 and 505 cm, both of which gave ages of ca. 8.4 ka (Vilks, pers. comm., 1986). It is unclear whether the differences in age is related to laboratory problems or represents the emplacement of shells at the site through resedimentation. If the latter is the problem then the younger date should be more appropriate (Williams, 1988).

REFERENCES CITED

Andrews, J. T. 1975. Radiocarbon Date List II from Cumberland Peninsula, Baffin Island, N.W.T., Canada. Arctic and Alpine Research, 7:77-91.

Andrews, J. T. 1976. Radiocarbon Date List III. Baffin Island, N.W.T., Canada. University of Colorado, Institute of Arctic and Alpine Research, Occasional Paper 21. 50 pp.

Andrews, J. T. 1987. Late Quaternary marine sediment accumulation in Fiord--Shelf--Deep transects, Baffin Island to Baffin Bay. Quaternary Science Reviews, 6:231-243.

Andrews, J. T., Buckley, J. T. and England, J. H., 1970. Late-glacial chronology and glacio-isostatic recovery, Home Bay, east Baffin Island, Canada. Geological Society of America Bulletin, 81:1123-1148.

Andrews, J. T. and Drapier, L. 1967. Radiocarbon dates obtained through Geographical Branch field observations. Geographical Bulletin, 9:115-162.

Andrews, J. T. and Ives, J. D., 1978. "Cockburn" nomenclature and the late Quaternary history of eastern Canadian Arctic. Arctic and Alpine Research, 10:617-633.

Andrews, J. T. and Jennings, A. E., 1987. Influence of sediment source and type on the magnetic susceptibility of fiord and shelf deposits, Baffin Island and Baffin Bay, N.W.T. Canadian Journal of Earth Sciences, 24:1386-1401.

Andrews, J. T. and Miller, G. H., 1972. The Quaternary history of northern Cumberland Peninsula, east Baffin Island, N.W.T., Part X: Radiocarbon Date List. Arctic and Alpine Research, 4:45-59.

Andrews, J. T. and Miller, G. H., 1985. Holocene sea level variations within Frobisher Bay. In: Andrews, J.T. (ed.), Quaternary Environments: Eastern Canadian Arctic, Baffin Bay, and Western Greenland. Allen and Unwin, Boston, 585-607.

Andrews, J. T., Jull, A. T., Donahue, D. J., Short, S. K., and Osterman, L. E., 1985. Sedimentation rates in Baffin Island fiord cores from comparative radiocarbon dates. Canadian Journal Earth Sciences, 22:1827-1834.

Andrews, J. T., Mothersill, J. S., and Tabrez, A. R., 1986. Paleomagnetic record, texture and mineralogy of late Quaternary sediments, Baffin Island fiords, N.W.T., Canada. Arctic and Alpine Research, 18:361-376.

Andrews, J. T., Williams, K. M., Briggs, W., Evans, L., and Erlenkeuser, H., 1987. Deglaciation and meltwater events in Hudson Strait and the Eastern Canadian Arctic. Geo-Marine Letters, 7:23-30.

Andrews, J. T., Matthews, R. K., Miller, G. H., Hillaire-Marcel, C., Osterman, L. E., Williams. K. M., 1988. Late Quaternary events on the SE Baffin Island Shelf, N.W.T.: Results from cruise HU77-021. Geological Association of Canada, Abstracts, 13, A2.

Blake, W., Jr. 1966. End moraines and deglaciation chronology in northern Canada, with special reference to southern Baffin Island. Geological Survey of Canada Paper, 66-21:1-31.

Boyer, S. J. 1972. Pre-Wisconsin, Wisconsin, and Neoglacial ice limits in Maktak Fiord, Baffin Island: A statistical analysis. MSc thesis, University of Colorado, Boulder. 117 pp.

Chough, S. K. 1978. Morphology, sedimentary facies and processes of the Northwest Atlantic Mid-Ocean Channel between 61 and 52 N, Labrador Sea. PhD dissertation, McGill University, Canada. 167 pp.

Clark, P. U., Short, S. K., Williams, K. M., and Andrews, J. T., in press. Sediments, diatoms and palynology of a core from Square Lake, Torngat Mountains. Canadian Journal Earth Sciences.

Colvill, A. J. 1982. Glacial landforms at the head of Frobisher Bay, Baffin Island, Canada. MA thesis, University of Colorado, Boulder. 202 pp.

Davis, P. T. 1980. Late Holocene glacial, vegetational, and climatic history of Pangnirtung and Kingnait fiord area, Baffin Island, N.W.T., Canada. PhD dissertation, University of Colorado, Boulder. 366 pp.

Davis, P. T. 1985. Neoglacial moraines on Baffin Island. In: Andrews, J.T. (ed.), Quaternary Environments Eastern Canadian Arctic, Baffin Bay, and Western Greenland. Allen & Unwin, Boston. 682-718.

Dyke, A. S. and two others, 1982. Quaternary geology of Cumberland Peninsula, Baffin Island, District of Franklin. Geological Survey of Canada, Memoir, 403. 32 pp.

Falconer, G. and three others, 1965. Major end moraines in eastern and central arctic Canada. Geographical Bulletin, 7:137-153.

Fillon, R. H. 1985. Northwest Labrador Sea stratigraphy, sand input and paleoceanography during the last 160,000 years. In: J.T. Andrews (ed.), Quaternary Environments: Eastern Canadian Arctic, Baffin Bay and West Greenland. Allen and Unwin, Boston. 774 pp.

Fillon, R. H., Hardy, I., Wagner, F. J. E., Andrews, J. T., and Josenhans, H., 1981. Labrador shelf: shell and total organic matter C-14 date discrepancies. Geological Survey of Canada Paper 81-1B:105-111.

Gray, J. T. and Lauriol, B., 1985. Dynamics of the Late Wisconsin Ice Sheet in the Ungava Peninsula, interpreted from geomorphological evidence. Arctic and Alpine Research, 17:289-310.

Jacobs, J. D. and three others, 1985a. Holocene environmental change in the Frobisher Bay area, Baffin Island, N.W.T.: deglaciation, emergence, and the sequence of vegetation and climate. Geographie physique et Quaternaire, 39:151-162.

Jacobs, J. D., Mode, W. N., and Dowdeswell, E. K., 1985b. Contemporary pollen deposition and the distribution of -Betula glandulosa- at the limit of Low Arctic Tundra in southern Baffin Island. Arctic and Alpine Research, 17:279-287.

Jennings, A. E. 1986. Late Quaternary marine sediments from a transect of fiord and continental shelf environments: A study of piston cores from Clark Fiord and Scott Trough, Baffin Island, Canada. M.Sc thesis, University of Colorado, Boulder. 252 pp.

Jennings, A. E. 1988. Is there a till at the bottom of Cumberland Sound? Geological Association of Canada, Abstracts, 13, A61.

Jennings, A. E. in prep. Late Quaternary stratigraphy, sedimentology and paleontology: Cumberland Sound, Arctic Canada. PhD dissertation, University of Colorado.

Kihl, R. 1975. Physical preparation of organic matter samples for C-14 dating. Arctic and Alpine Research, 7:90-91.

King, C. A. M. 1969. Glacial geomorphology of Henry Kater Peninsula, East Baffin Island, N.W.T. Arctic and Alpine Research, 1:195-212.

King, G. A. 1985. A standard method for evaluating radiocarbon dates for local deglaciation: Application to the deglaciation history of southern Labrador and adjacent Quebec. Geographie physique et Quaternaire, 39:163-182.

Laymon, C. A. 1988. Glacial geology of Western Hudson Strait, Canada, with reference to Laurentide Ice Sheet dynamics. PhD dissertation, University of Colorado. 345 pp.

Lemmen, D. S., Gilbert, R., Snol, J. P., and Hall, R. J., 1988. Holocene sedimentation in glacial Tasikutaaq Lake, Baffin Island. Canadian Journal Earth Sciences, 25:810-823.

Lind, E. K. 1984. Holocene paleoecology and deglacial history of the Cape Rammelsberg area, southern Baffin Island, N.W.T., Canada. MSc thesis, University of Colorado, Boulder. 219 pp.

Loken, O. H. 1966. Baffin Island refugia older than 54,000 years. Science , 153:1378-1380.

Matthews, B. 1967. Late Quaternary land emergence in northern Ungava. Arctic, 20:176-202.

Mercer, J. T. 1954. The physiography and glaciology of southermost Baffin Island. PhD dissertation, McGill University, Montreal. 150 pp.

Mercer, J. T. 1956. Geomorphology and glacial history in southernmost Baffin Island. Geological Society of America Bulletion, 67:553-570.

Miller, G. H. 1979. Radiocarbon Date List IV, Baffin Island, N.W.T. University of Colorado, Institute of Arctic and Alpine Research, Occasional Paper 29. 61pp.

Miller, G. H. 1980. Late Foxe glaciation of southern Baffin Island, N.W.T., Canada. Geological Society of America Bulletin, Part I. 91:399-405.

Miller, G. H. 1985a. Aminostratigraphy of Baffin Island shell-bearing deposits. In: Andrews, J.T. (ed.), Quaternary Environments Eastern Canadian Arctic, Baffin Bay, and Western Greenland. Allen & Unwin, Boston. 394-427.

Miller, G. H. 1985b. Moraines and proglacial lake shorelines, Hall Peninsula, Baffin Island. In: Andrews, J.T. (ed.), Quaternary Environments Eastern Canadian Arctic, Baffin Bay, and Western Greenland. Allen & Unwin, Boston. 546-557.

Miller, G. H. and Stravers, J. A. 1987. Part Four. Glacial geology and Holocene events, outer Frobisher Bay. In: Andrews, J. T., et al., XIIth INQUA Congress, Field Guide C-2, National Research Council of Canada, Ottawa, 63-84.

Miller, G. H., Jull, A. T., and Donahue, D. J., 1987. Applications of amino acid racemization/accelerator mass spectrometry in geochronology and paleothermometry. Geological Society of America, Abstracts, 19(7):772.

Miller, G. H., Hearty, P., and Stravers, J. A., 1988. Ice-Sheet dynamics and glacial history of southeasternmost Baffin Island and outermost Hudson Strait. Quaternary Research, 30:116-131.

Mode, W. N. 1980. Quaternary stratigraphy and palynology of the Clyde Foreland, Baffin Island, N.W.T., Canada. PhD dissertation, University of Colorado, Boulder. 219 pp.

Mode, W. N. and Jacobs, J. D. 1987. Part Three. Surficial geology and palynology, inner Frobisher Bay. In: Andrews, J. T., et al., XIIth INQUA Congress, Field Guide C-2, National Research Council of Canada, Ottawa, 53-62.

Mudie, P. and Short, S. K. 1985. Marine palynology of Baffin Bay. In: Andrews, J.T. (ed.), Quaternary Environments Eastern Canadian Arctic, Baffin Bay, and Western Greenland. Allen & Unwin, Boston. 263-308.

Muller, D. M. 1980. Glacial geology and Quaternary history of southgeast Meta Incognita Peninsula, Baffin Island, canada. MSc thesis, University of Colorado, Boulder. 211 pp.

Osterman, L. E., 1982. Late Quaternary history of Southern Baffin Island, Canada: A study of foraminifera and sediments from Frobisher Bay. PhD dissertation, University of Colorado, Boulder. 380 pp.

Osterman, L. E., Miller, G. H., and Stravers, J. A., 1985. Late and Mid-Foxe Glaciation of southern Baffin Island. In: Andrews, J. T. (ed.), Quaternary Environments: Eastern Canadian Arctic, Baffin Bay, and Western Greenland. Allen & Unwin, Boston. 520-545.

Praeg, D. B., Machem, B., Hardy, I. A., and Mudie, P. J., 1986. Quaternary geology of the southeast Baffin Island Continental Shelf, N.W.T., Geological Survey of Canada Paper, 85-14, 38 pp plus maps.

Quinlan, G. 1985. A numerical model of postglacial relative sea level chage near Baffin Island. In: Andrews, J. T. (ed.), Quaternary Environments: Eastern Canadian Arctic, Baffin Bay, and Western Greenland. Allen & Unwin, Boston. 560-584.

Short, S. K. 1981. Radiocarbon Date List I. Labrador and Northern Quebec. University of Colorado, Institute of Arctic and Alpine Research Occasional Paper 36. 33 pp.

Short, S. K. and Andrews, J. T. 1980. Palynology of six middle and late Holocene peat sections, Baffin Island. Geographie physique et Quaternaire, 34:61-75.

Short, S.K. and Andrews, J. T. 1988. A sixteen thousand year old organic deposit, northern Baffin Island, N.W.T.,Canada: Palynology and Significance. Geographie physique et Quaternaire, 42:75-82.

Short, S. K., Mode, W. N., and Davis, P. T., 1985. The Holocene record from Baffin Island: Modern and fossil pollen studies. In: Andrews, J. T. (ed.), Quaternary Environments: Eastern Canadian Arctic, Baffin Bay, and Western Greenland. Allen & Unwin, Boston. 608-642.

Short, S. K., Andrews, J. T. & Mode, W. N., in press. Modern and Late Quaternary pollen spectra from fiord sediments, eastern Baffin Island, Arctic Canada. Marine Micropaleontology,

Squires, C. 1984. The late Foxe deglaciation of the Burton Bay area, southeastern Baffin Island. MA thesis, University of Windsor, Ontario. 115 pp.

Stravers, J. A. 1986. Glacial geology of outer Meta Incognita Peninsula, southern Baffin Island, Arctic Canada. PhD dissertation, University of Colorado. 231 pp.

Syvitski, J. P. M. (compiler) 1984. Sedimentology of Arctic Fjords Experiment: HU 83-028 Data Report, Volume 2. Canadian Data Reports on Hydrography and Ocean Sciences No. 28. 20 chapters, various paginations.

Syvitski, J. P. M. and Blakeney, C. P. (compilers) 1983. Sedimentology of Arctic Fjords Experiment: HU 82-031 Data Report, Volume 1. Canadian Data Report on Hydrography and Ocean Sciences No. 12. 935 pp.

Szabo, B. J., Stuiver, M., Miller, G. H., and Andrews, J. T., 1981. Comparison of uranium-series, radiocarbon, and amino acid data from marine molluscs, Baffin Island, Arctic Canada. Geology, 9:451-457.

Walters, J. E. 1988. Glacial geology of Countess of Warwick Sound, Baffin Island, Arctic Canada. MSc thesis, University of Colorado, Boulder. 110pp.

Williams, K. M. 1988. Late Quaternary paleo-oceanography of the Baffin Bay region based on diatoms. PhD dissertation, University of Colorado. 263 pp.

Williams, K. M., Abbott, M., Weiner, N., and Andrews, J. T., 1988. Biostratigraphy and sedimentology characteristics in three lake cores from Jackman Sound, southern Baffin Island, N.W.T., Canada. Geological Society of America, Abstracts, 20:A347.

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Radiocarbon dates ordered by laboratory number.

L#	D	E	M D
AA-0190	12890	290	< 125 μm organics
AA-0191	08425	375	Shell
AA-0244 A	09085	290	Shell
AA-0244 B	05740	290	Shell
AA-0244 C	7650	290	Shell
AA-0263	>27000		Foraminifera
AA-0264	10490	360	Shell
AA-0347	0		Shell
AA-0348	12190	430	< 125 μm organics
AA-0412	09450	360	Shell
AA-0413	07790	230	Shell
AA-0650	04540	300	< 125 μm organics
AA-0651	10250	390	< 125 μm organics
AA-0652	10410	380	< 125 μm organics
AA-0653	16700	900	< 125 μm organics
AA-0654	19200	1100	< 125 μm organics
AA-0655A & B	11060	400	Shell
AA-0712	05600	330	Shell
AA-0886	10010	360	Shell
AA-0935	13500	700	< 125 μm organics
AA-0936	02145	80	< 125 μm organics
AA-1004	07580	140	< 2 μm organics
AA-1005	03430	70	< 125 μm organics
AA-1011	02820	100	< 125 μm organics
AA-1012	12970	225	< 125 μm organics
AA-1181	07230	90	Shell
AA-1272	lost		Shell
AA-1273	20650	260	< 2 μm organics
AA-1507	07020	80	< 125 μm organics
AA-1508	04060	90	< 2 μm organics
AA-1523	15800	400	< 2 μm organics
AA-1800	06990	70	Shell
AA-1801	04780	80	Shell
AA-1825	07950	100	< 125 μm organics
AA-1915	02900	110	Shell
AA-1916	09300	100	Shell
AA-1917	03920	60	Shell
AA-1918	10380	120	< 125 μm organics
AA-2084	00720	220	Shell
AA-2219	01700	100	< 125 μm organics
AA-2275	08160	125	< 125 μm organics
AA-2276	05084	70	< 125 μm organics
AA-2496	10360	160	Shell
AA-2624	45000	4000	Shell

AA-2631	05160	60	Fish bone
AA-2632	>45000		Shell
AA-2633	09450	95	Shell
AA-2637	09200	200	Foraminifera
AA-2641	08850	120	Shell
AA-3103	08730	80	Shell
AA-3104	08660	65	Shell
AA-3108	03440	60	Foraminifera
AA-3109	09380	140	Foraminifera
AA-3338	21500	240	Foraminifera
AA-3465	09620	90	Foraminifera
AA-3466	09870	160	Foraminifera
AA-3467	117251	25	Foraminifera
GSC-3404	08240	90	Shell
GSC-3468	08660	110	Shell
GSC-3469	08580	150	Shell
GSC-3603	08030	80	Shell
GSC-3648	08600	110	Shell
GSC-3666	08560	100	Shell
GSC-3951	08640	100	Shell
GSC-3959	07720	100	Shell
GSC-3991	07200	80	Wood
GSC-4038	07350	90	Shell
GSC-4152	05780	80	Shell
GSC-4162	06920	90	Shell
GSC-4578	08210	180	Shell
GSC-4602	08680	110	Shell
GSC-4607	08810	8790	Shell
GX-08194	09190	195	Shell
GX-08943	09385	280	Shell
GX-09030	16849	860	Peaty sand
GX-09290	08645	315	Shell
GX-09291	09785	525	Shell
GX-09292	09475	505	Shell
GX-09293	09110	470	Shell
GX-09302	08635	565	Peaty sand
GX-09304	14185	490	Peaty sand
GX-09324	15650	1880	<125 μm organics
GX-09328	09060	330	Shell
GX-09430	07900	225	<125 μm organics
GX-09431	12350	950	<125 μm organics
GX-09432	11365	365	<125 μm organics
GX-09433	22720	1300	<125 μm organics
GX-09434	10430	1250	<125 μm organics
GX-09685	0		Peaty sand
GX-09686	05075	210	Peaty sand
GX-09766	09310	220	Shell
GX-09865	08010	255	Shell
GX-09866	07250	240	Shell
GX-09867	03295	185	Shell

GX-09889	0		Shell
GX-09890	0		Shell
GX-09918	0		Shell
GX-09996	07850	290	Shell
GX-09xxx	04295	100	<125 μm organics
GX-10081	06885	250	Shell
GX-10107	09380	260	Shell
GX-10290	07830	230	Peaty sand
GX-10374	01230	110	Coarse organics
GX-10628	15810	490	Peaty sand
GX-10858	06000	165	Shell
GX-10859	05330	100	Shell
GX-10860	07230	120	Shell
GX-10861	05865	170	Shell
GX-11335	05185	425	<125 μm organics
GX-11548	08170	245	Shell
GX-11549	0	100	Peat
GX-12035	07370	95	Shell
GX-12036	06220	240	Shell
GX-12037	07725	190	Shell
GX-12482	too small		<125 μm organics
GX-12852	06720	390	Peaty sand
GX-12858	10130	180	Shell
GX-12859	11680	130	Shell
GX-13683	4180	80	Shell
GX-13720	45600	4100/2700	Shell
GX-13805	05420	100	Shell
SI-5758	10530	110	Shell
SI-5759	10950	145	Shell

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List arranged by increasing radiocarbon age

Date	Error	Lab. #	Material Dated
lost		AA-1272	Shell
too small		GX-12482	<125 μm organics
0		GX-09685	Peaty sand
0		GX-09889	Shell
0		GX-09890	Shell
0		AA-0347	Shell
0		GX-09918	Shell
0	100	GX-11549	Peat
00720	220	AA-2084	Shell
01230	110	GX-10374	Coarse organics
01700	100	AA-2219	<125 μm organics
02145	80	AA-0936	<125 μm organics
02820	100	AA-1011	<125 μm organics
02900	110	AA-1915	Shell
03295	185	GX-09867	Shell
03430	70	AA-1005	<125 μm organics
03440	60	AA-3108	Foraminifera
03920	60	AA-1917	Shell
04060	90	AA-1508	<125 μm organics
04180	80	GX-13683	Shell
04295	100	GX-09xxx	<125 μm organics
04540	300	AA-0650	<125 μm organics
04780	80	AA-1801	Shell
05075	210	GX-09686	Peaty sand
05084	70	AA-2276	<125 μm organics
05160	60	AA-2631	Fish bone
05185	425	GX-11335	<125 μm organics
05330	100	GX-10859	Shell
05420	100	GX-13805	Shell
05600	330	AA-0712	Shell
05640	290	AA-244 C	Shell
05780	80	GSC-4152	Shell
05865	170	GX-10861	Shell
06000	165	GX-10858	Shell
06220	240	GX-12036	Shell
06720	390	GX-12852	Peaty sand
06885	250	GX-10081	Shell
06920	90	GSC-4162	Shell

06990	70	AA-1800	Shell
07020	80	AA-1507	<125 μm organics
07200	80	GSC-3991	Wood
07230	120	GX-10860	Shell
07230	90	AA-1181	Shell
07250	240	GX-09866	Shell
07350	90	GSC-4038	Shell
07370	95	GX-12035	Shell
07580	140	AA-1004	<125 μm organics
07650	290	AA-244 B	Shell
07720	100	GSC-3959	Shell
07725	190	GX-12037	Shell
07790	230	AA-0413	Shell
07830	230	GX-10290	Peaty sand
07850	290	GX-09996	Shell
07900	225	GX-09430	<125 μm organics
07950	100	AA-1825	<125 μm organics
08010	255	GX-09865	Shell
08030	80	GSC-3603	Shell
08160	125	AA-2275	<125 μm organics
08170	245	GX-11548	Shell
08210	180	GSC-4578	Shell
08240	90	GSC-3404	Shell
08425	375	AA-0191	Shell
08560	100	GSC-3666	Shell
08580	150	GSC-3469	Shell
08600	110	GSC-3648	Shell
08635	565	GX-09302	Peaty sand
08640	100	GSC-3951	Shell
08645	315	GX-09290	Shell
08660	110	GSC-3468	Shell
08660	65	AA-3104	Shell
08680	140	AA-2641	Shell
08730	80	AA-3103	Shell
08810	8790	GSC-4607	Shell
08850	120	GSC-4602	Shell
09060	330	GX-09328	Shell
09085	290	AA-244 A	Shell
09110	470	GX-09293	Shell
09120	170	AA-2637	Foraminifera
09190	195	GX-08194	Shell
09310	220	GX-09766	Shell
09340	80	AA-1916	Shell
09380	140	AA-3109	Foraminifera
09380	260	GX-10107	Shell
09385	280	GX-08943	Shell
09450	360	AA-0412	Shell
09450	95	AA-2633	Shell
09475	505	GX-09292	Shell

09620	90	AA-3464	Foraminifera
09785	525	GX-09291	Shell
09870	160	AA-3465	Foraminifera
10010	360	AA-0886	Shell
10130	180	GX-12858	Shell
10250	390	AA-0651	<125 μm organics
10360	160	AA-2496	Shell
10380	120	AA-1918	<125 μm organics
10410	380	AA-0652	<125 μm organics
10430	1250	GX-09434	<125 μm organics
10490	360	AA-0264	Shell
10530	110	SI-5758	Shell
10950	145	SI-5759	Shell
11060	300	AA-0655A & B	Shell
11365	365	GX-09432	<125 μm organics
11680	130	GX-12859	Shell
11725	125	AA-3473	Foraminifera
12190	430	AA-0348	<125 μm organics
12350	950	GX-09431	<125 μm organics
12890	290	AA-0190	<125 μm organics
12970	225	AA-1012	<125 μm organics
13500	700	AA-0935	<125 μm organics
14185	490	GX-09304	Peaty sand
15650	1880	GX-09324	<125 μm organic
15800	400	AA-1523	<125 μm organics
15810	490	GX-10628	Peaty sand
16700	900	AA-0653	<125 μm organics
16849	860	GX-09030	Peaty sand
19200	1100	AA-0654	<125 μm organics
20650	260	AA-1273	<125 μm organics
21500	240	AA-3338	Foraminifera
22720	1300	GX-09433	<125 μm organics
45000	4000	AA-2624	Shell
45600	4100/-2700	GX-13720	Shell
>27000		AA-0263	Foraminifera
>45000		AA-2632	Shell

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Beta-1705	02940	Date List V
Beta-1806	00905	Date List V
Beta-1871	07140	Date List V
Beta-1872	07595	Date List V
Beta-2362	07640	Date List V
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BGS-269	02450	Date List III
BGS-270	01810	Date List III
BGS-271	03260	Date List III
BGS-272	00890	Date List III
BGS-295	00150	Date List III
BGS-304	33640	Date List III
BGS-305	38470	Date List III
BGS-306	40710	Date List III
BIRM-370	01480	Date List III
BIRM-380	02500	Date List III
BIRM-535	01970	Date List III
BIRM-536	02240	Date List III
DIC-0327	00850	Date List III
DIC-0328	03840	Date List III
DIC-0331	Modern	Date List III
DIC-0332	08650	Date List III
DIC-0333	02980	Date List III
DIC-0334	07610	Date List III
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DIC-0374	09480	Date List III
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GaK-2568	29000	Date List I
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GaK-2571	Modern	Date List I
GaK-2572	>20000	Date List I
GaK-2573	09850	Date List I
GaK-2574	10000	Date List I
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GaK-2799	282000	Date List I
GaK-2983	00350	Date List I
GaK-3090	08230	Date List I
GaK-3091	04950	Date List I
GaK-3092	08290	Date List I
GaK-3093	07870	Date List I
GaK-3094	00850	Date List I
GaK-3096	00930	Date List I
GaK-3097	00160	Date List I
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GaK-3099	00330	Date List I
GaK-3100	Modern	Date List I
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GaK-3687	01480	Date List I
GaK-3722	00680	Date List I
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GaK-4837	07990	Date List II
GaK-4838	Modern	Date List II

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GaK-5282	00650	Date List II
GaK-5411	01990	Date List III
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GaK-5479	08980	Date List III
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Gif-4245	00880	Date List IV
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GSC-2201	09880	Date List III
GSC-2211	06120	Date List III

GSC-2215	09110	Date List III
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GSC-2283	08290	Date List III
GSC-2384	08730	Date List IV
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GSC-2750	09510	Date List IV
GSC-2752	09960	Date List IV
GSC-2771	07380	Date List V
GSC-2778	10200	Date List V
GSC-2797	39000	Date List V
GSC-2813	10000	Date List V
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GSC-3157	08690	Date List V
GSC-3404	08220	Date List V
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GX-1676	05120	Date List I
GX-1677	>28000	Date List I
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GX-1824	05330	Date List I
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GX-5527	02290	Date List IV
GX-5623	08815	Date List IV
GX-5624	07220	Date List IV
GX-5625	04765	Date List IV
GX-5777	00770	Date List IV
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GX-5780	02215	Date List IV
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GX-6280	11770	Date List V
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QL-0180	39600	Date List III
QL-0181	44800	Date List III
QL-0182	36000	Date List III
QL-0183	47700	Date List III
QL-0184	40000	Date List III
QL-0185	36600	Date List III
QL-0186	41400	Date List III
QL-0187	08210	Date List III
QL-0188	50400	Date List III
QL-0973	45800	Date List IV
QL-0974	44400	Date List IV
QL-0976-1	02360	Date List IV
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QL-0979	37200	Date List IV
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QL-1087	47500	Date List IV
QL-1173	10790	Date List IV
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QL-1179	50700	Date List IV
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Qu-0305	00830	Date List III
Qu-0307	01610	Date List III
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SI-1336	42700	Date List II
SI-1688	00190	Date List II
SI-1689	02160	Date List II
SI-1690	07365	Date List II
SI-1691	02355	Date List II
SI-1692	Modern	Date List II
SI-1693	00660	Date List II
SI-1694A	00505	Date List II
SI-1694B	Modern	Date List II
SI-1695A	00180	Date List II
SI-1695B	Modern	Date List II
SI-1696	00745	Date List II
SI-1697	00370	Date List II
SI-1698	too small	Date List II
SI-1699	04660	Date List II
SI-1700	02015	Date List II
SI-1701	00190	Date List II
SI-1702A	02025	Date List II
SI-1702B	00365	Date List II
SI-1703	01740	Date List II
SI-2548	109.1% Modern	Date List III
SI-2549	00810	Date List III
SI-2550	01025	Date List III
SI-2555	02570	Date List III
SI-2556	03650	Date List III
SI-2557	02090	Date List III
SI-2610	09550	Date List III
SI-2611	07505	Date List III
SI-2612	10095	Date List III
SI-2613	06110	Date List III
SI-2614	11360	Date List III
SI-2617	06835	Date List III
SI-2618	too small	Date List III
SI-2620	07780	Date List III
SI-2621	too small	Date List III

SI-2949	00830	Date List IV
SI-2950	02825	Date List IV
SI-2951	03525	Date List IV
SI-3455	Modern	Date List IV
SI-3456	02575	Date List IV
SI-3457	03320	Date List IV
SI-3678	06320	Date List IV
SI-4180	Modern	Date List V
SI-4181	07980	Date List V
SI-4368	08820	Date List V
SI-4752	03175	Date List V
SI-4755	04840	Date List V
SI-4757	05825	Date List V
SI-5170	09595	Date List V
SI-5172	09845	Date List V
SI-5173	08660	Date List V
St-3816	08760	Date List I
St-3829	01185	Date List I
Y-1702	>50000	Andrews & Drapier, 1967
Y-1703	>54000	Andrews & Drapier, 1967
Y-1705	08190	Andrews & Drapier, 1967
Y-1830	08430	Andrews & Drapier, 1967
Y-1831	03580	Andrews & Drapier, 1967
Y-1832	09180	Andrews & Drapier, 1967
Y-1833	07960	Andrews & Drapier, 1967
Y-1834	07820	Andrews & Drapier, 1967
Y-1835	07290	Andrews & Drapier, 1967

INDEX OF PREVIOUS DATE LISTS, 1967-1983, BY RADIOCARBON AGE

Radiocarbon Date	Error	Material	Lab. no
too small		Peat	SI-1698
109.1% Modern		Salix twigs	SI-2548
Modern		Peat/charcoal	GX-1681
Modern		Sediment	DIC-0331
Modern		Peat	SI-3455
Modern		Shell	SI-4180
Modern	140	Wood	GSC-2008
Modern	70	Peaty sand	GaK-4840
Modern		Peat	GaK-4838
Modern		Organic sands	SI-1692
Modern		> 125 μm organics	SI-1694B
Modern		> 125 μm organics	SI-1695B
Modern		Organic mat	GaK-3861
Modern		Macrofossils	SI-2618
Modern		Organic sands	SI-2621
Modern	90	Lichen	GaK-3100
00090	320	Shell	GaK-2571
00120	70	Dead moss	GaK-4835
00150	100	Sediment	BGS-295
00160	80	Peat	GaK-3097
00170	105	Willow roots	I-1603
00180	105	<125 μm organics	SI-1695A
00190	90	Bone	SI-1688
<200		Mosses and lichens	I-1674
00255	100	Peat	QC-0661
00330	75	Dead moss	I-1204
00330	90	Moss	GaK-3099
00350	100	Peat	GaK-2983
00365	270	>125 μm organics	SI-1702B
00370	105	Organic sands	SI-1697
00420	125	Peaty sands&	GX-8382
00450	130	Organics	GaK-3726
00475	125	Organics	GX-8381
00505	155	<125 μm organics	SI-1694A
00620	210	Peat	Qu-0308
00640	155	>125 μm organics	GaK-5449
00650	230	Peaty sand	GaK-5282
00650	140	>125 μm organics	GaK-5282
00660	130	Buried organics	SI-1693
00680	80	Bone	GaK-3722
00680	90	Peat	GaK-3098
00730	70	Peat	GaK-2792
00745	115	rganics	SI-1696

00770	135	>125 μm organics	GX-5777
00770	70	Bone	GaK-3101
00770	80	Whale bone	Qu-0241
00785	105	Peat	I-1834
00810	80	Peat	SI-2549
00830	60	Peat	SI-2949
00830	70	Buried soil	Qu-0305
00840	110	Organics	GaK-3860
00850	110	Peat	GaK-3094
00850	65	>125 μm organics	DIC-0327
00850	75	Sediments	DIC-0401
00880	80	Soil	Gif-4245
00890	90	>125 μm organics	BGS-272
00905	100	Peat	Beta-1806
00905	130	Peaty sands	GX-8383
00930	100	Buried soil	GaK-3096
00955	130	Peaty sand	GX-8380
00960	200	>125 μm organics	GaK-5450
00965	145	Peat	QC-0653
00970	70	Organics	GaK-4839
00970	80	Soil	BGS-267
00980	80	Peat	Gif-3864
01010	100	Organics	GaK-3725
01025	100	Moss	SI-2550
01070	90	Organics	GaK-4309
01130	80	Plant fragments	GSC-1845
01170	150	Peat	Qu-0301
01170	330	Soil	GaK-3686
01185	120	Bone	St-3829
01205	120	Peat	GX-1812
01260	150	Buried soil	GaK-3160
01290	100	Buried soil	GaK-4307
01345	135	Peaty sands	GX-8384
01360	105	Peat	I-2414
01450	105	Organics	QC-0618
01460	70	Peat	Beta-1622
01480	110	Leaves	GaK-3685
01480	110	>125 μm organics	GaK-3687
01480	160	Peat	BIRM 370
01500	80	Soil	BGS-268
01500	85	>125 μm organics	DIC-0390
01510	240	Peat	QC-0479
01560	120	Whale bone	Qu-0240
01610	120	Buried soil	GaK-4308
01610	230	Peat	Qu-0307
01640	130	Peat	Qu-0303
01670	90	Peat	GaK-2575
01740	70	<125 μm organics	SI-1703
01775	210	Organic lense	GX-6371
01790	80	Soil	GSC-2084
01810	90	>125 μm organics	BGS-270

01860	110	Peat	I-1835
01865	115	>125 μm organics	GX-5779
01870	90	Peat	Gif-3493
xxxxx	55	Peat	SI-1701
01900	110	>125 μm organics	GX-5778
01940	150	>125 μm organics	GX-8899
01950	100	Shell	I-1830
01970	200	Peat	BIRM 535
01990	180	>125 μm organics	GaK-5411
02015	60	Buried soil	SI-1700
02025	105	Buried soil	SI-1702A
02035	70	Peat	Beta-1087
02050	70	Shell	I-0489
02060	85	>125 μm organics	GaK-5411
02080	190	Buried soil	GX-3271
02090	100	Peat	GaK-2771
02090	175	>125 μm organics	SI-2557
02120	80	Peaty sand	Qu-0302
02160	115	Buried organics	SI-1689
02215	105	>125 μm organics	GX-5780
02225	155	Silty necron mud	GX-8939
02240	190	Peat	BIRM 536
02290	170	>125 μm organics	GX-5527
02355	145	Peaty sands	SI-1691
02360	100	Whale Bone	QL-0976-1
02400	140	Necron mud	GX-8825
02450	90	Organic mud	BGS-269
02470	390	>125 μm organics	DIC-0515
02500	170	Peat	BIRM 380
02565	190	Detrital organics	GX-6292
02570	75	Peat	SI-2555
02575	140	Peaty sands	GX-8385
02575	75	Peat	SI-3456
02660	100	Peat	Gif-3494
02660	230	Organics	GX-3272
02660	90	Peat	Gif-3865
02680	90	Soil organics	Gif-4243
02730	+1290 -1540	Peat	DIC-0649
02745	145	>125 μm organics(marine)	GX-7881
02745	160	Fine organics & moss	GX-8826
02770	140	Shell	GSC-0583
02780	140	Shell	GSC-0654
02800	95	Peat	QC-1052
02800	140	Shell	I-1555
02825	65	Peat	SI-2950
02830	235	Peat	DIC-0648
02940	145	Peaty sand	Beta-1705
02980	190	>125 μm organics	DIC-0333
02990	140	Shell	I-1599

03010	80	Shell	GSC-2474
03030	170	>125 μm organics(lake)	GX-5781
03070	75	>125 μm organics	DIC-0402
03100	150	Shell	GSC-0564
03110	100	Peat	QC-0654
03170	100	Moss	Gif-3956
03175	150	Fine organics & moss	SI-4752
03260	100	Soil	BGS-271
03320	80	Peat	SI-3457
03420	160	Organic mud	GX-8897
03430	135	Moss	GX-6835
03450	170	Plant debris	GSC-0584
03520	230	Shell	I-1600
03525	60	Peat	SI-2951
03530	130	Shell	I-1601
03550	200	Leaves and twigs	I-1247
03570	140	Peat	GSC-1507
03580	120	Shell	Y-1831
03600	480	Shell	I-1317
03650	160	>125 μm organics(lake)	GX-6838
03650	180	Silty necron mud	GX-8941
03650	200	>125 μm organics	SI-2556
03670	270	Shell	S-0012
03830	140	Shell	I-1668
03830	75	Soil organics	DIC-0597
03840	55	>125 μm organics	DIC-0328
03850	105	Shell	I-2585
03890	107	Shell	I-2586
03915	165	Colloidal mud	GX-8607
04000	110	Peat	QC-0619
04000	140	Shell	GSC-0557
04000	180	Shell	I-0485
04010	440	Shell	I-1320
04025	190	Shell	I-0484
04050	130	Shell	I-2546
04090	150	Shell	I-1597
04150	170	Colloidal mud	GX-8898
04190	140	Moss	GX-6836
04240	185	Colloidal mud	GX-8940
04260	475	Peat	DIC-0378
04270	140	Shell	I-1671
04285	90	Shell	QC-0513
04310	95	Shell	QC-0456
04375	200	Shell	I-0407
04400	490	Shell	I-1318
04420	110	Shell	I-2413
04430	110	Shell	I-2584
04460	210	Peat	Qu-0304
04560	180	>125 μm organics(marine)	GX-7091
04590	115	Shell	I-2582
04660	90	Peat	SI-1699

04700	210	Shell	I-0487
04765	200	>125 μm organics (lake)	GX-5625
04770	140	Shell	I-1670
04770	140	Shell	I-1669
04810	110	Shell	GaK-3724
04830	120	Vegetation remains	I-2961
04840	200	Colloidal mud & moss	SI-4755
04875	350	Shell	I-1245
04920	180	Shell	I-1931
04950	140	Shell	GaK-3091
04990	175	Shell	I-2442
05070	200	Shell	I-1238
05070	450	Shell	I-1244
05100	120	Shell	I-2549
05120	400	Shell	GX-1676
05190	120	Shell	I-2669
05200	100	Shell	GaK-3723
05250	105	Buried peat/soil	GaK-4836
05270	140	Shell	I-1833
05330	450	Shell	GX-1824
05340	170	Shell	GSC-2199
05370	130	Organic matter	Gif-3866
05380	185	Shell	I-2411
05390	150	Shell	I-1321
05400	200	Shell	L-762c
05490	180	Buried soil	QC-0683B
05550	120	<125 μm organics	GaK-5251
05550	0	Shell	GSC-2103
05560	250	Shell	I-1243
05570	130	Shell	I-1831
05580	130	Shell	I-2548
05600	300	Shell	S-0013
05700	240	Detrital organics	GX-6293
05710	200	Shell	I-1319
05710	80	Shell	DIC-0335
05750	110	Shell	GaK-4440
05750	250	Shell	I-0486
05800	70	Shell	GSC-2138
05825	235	Colloidal mud & moss	SI-4757
05900	130	Shell	I-2412
06030	80	Peat	QC-0501
06050	250	Shell	I-0405
06060	170	Shell	GSC-2258
06110	170	Shell	SI-2613
06120	90	Shell	GSC-2211
06130	120	Shell	I-2583
06150	170	Shell	I-1596
06150	250	Shell	GaK-4306
06215	90	Shell	QC-0455
06220	140	Shell	GSC-0631

06220	220	Collodal mud	GX-8608
06240	140	Shell	I-1556
06270	150	Shell	GSC-0633
06270	210	Shell	I-2410
06320	130	Moss	SI-3678
06410	150	Shell	GSC-0328
06510	70	Wood fragments	GSC-2175
06520	150	Vegetation fragments	I-2962
06560	125	Shell	I-2695
06560	125	Shell	I-1934
06725	250	Shell	I-0406
06800	600	Peat	Qu-0299
06835	100	Shell	SI-2617
06930	150	Shell	GSC-0739
06935	220	Colloidal mud & moss	GX-8504
07000	150	Shell	GSC-0599
07030	190	Shell	I-1554
07075	215	Shell	QC-0881
07080	170	Shell	I-1672
07060	175	Shell	GX-8160
07100	140	Shell	GaK-3365
07105	720	>125 μm organics	GX-6607
07140	115	Shell	Beta-1871
07185	120	Shell	QC-1138
07200	150	Shell	I-1598
07220	250	>125 μm organics (lake)	GX-5624
07285	200	Shell	GX-6603
07290	120	Shell	Y-1835
07340	135	Shell	QC-0901
07365	410	Peaty sands	SI-1690
07380	220	Shell	GSC-2771
07500	200	Shell	I-1553
07505	100	Organics in sand/siltS	SI-2611
07510	320	Shell	QC-0902
07560	130	Shell	GaK-3678
07595	130	Shell	Beta-1872
07610	65	Shell	DIC-0334
07640	125	Shell	Beta-2362
07740	140	Shell	GSC-0556
07750	135	Shell	I-2831
07770	100	Shell	GSC-2111
07780	115	Shell	SI-0620
07800	150	Shell	QC-0905
07820	140	Shell	Y-1834
07865	250	Shell	QC-1137
07870	150	Shell	GaK-3093
07900	210	Shell	I-1602
07930	300	Shell	I-1246
07940	130	Shell	I-1932
07950	140	Shell	GaK-3677
07950	170	Shell	GaK-2566

07960	140	Shell	Y-1833
07970	340	Shell	I-1673
07980	175	Shell	SI-4181
07985	130	Shell	QC-0904
07990	170	Shell	GaK-4837
08000	150	Shell	GSC-0630
08000	320	>125 μm organics (lake)	GX-6840
08025	110	Peat	QC-0452
08050	115	Shell	QC-0457
08070	250	>125 μm organics (lake)	GX-6839
08135	210	Shell	QC-0883
08140	250	Shell	QC-0882
08160	145	Shell	QC-0880
08180	130	Shell	I-1983
08190	120	Shell	Y-1705
08210	130	Shell	I-1933
08210	50	Organics	QL-0187
08220	90	Shell	GSC-3404
08230	160	Shell	GaK-3090
08250	750	Shell	I-1316
08285	285	>125 μm organics (marine)	GX-8755
08290	170	Shell	GaK-3092
08290	90	Shell	GSC-2283
08300	135	Shell	I-2611
08320	140	Shell	GSC-2506
08350	300	Shell	I-0724
08400	160	Shell	QC-0879
08410	340	Shell	GSC-1638
08430	140	Shell	Y-1830
08435	105	Shell	GX-0930
08440	150	Shell	GaK-3862
08450	190	Shell	GX-8159
08480	270	Shell	GSC-2083
08480	280	Shell	GSC-3015
08580	120	Seaweed	GSC-2684
08610	185	Moss	DIC-0375
08650	80	Shell	DIC-0332
08660	110	Shell	GSC-2183
08660	160	Shell	GSC-2466
08660	175	Shell	SI-5173
08680	140	Shell	GSC-2478
08690	120	Shell	GSC-3157
08690	90	Shell	GSC-2001
08730	120	Shell	GSC-2384
08750	100	Shell	GSC-2508
08760	350	Shell	St-3816
08790	380	Shell	GSC-2991
08810	205	Moss	GX-6837
08815	275	>125 μm organics (lake)	GX-5623
08820	110	Shell	SI-4368
08845	265	Shell	GX-8671

08890	100	Shell	GSC-2568
08950	160	Shell	GSC-2982
08980	180	Shell	GaK-5479
09092	150	Shell	QC-0454
09100	100	Shell	QC-0449
09100	140	Marine algae	GSC-1969
09110	160	Shell	GSC-2215
09180	1140	Shell	GSC-0707
09180	180	Shell	Y-1832
09190	195	Shell	GX-8194
09230	100	Shell	GSC-2618
09240	80	Shell	GSC-2582
09280	120	Shell	GSC-2479
09360	230	Peat	I-1315
09370	140	Shell	QC-0447
09395	100	Shell	QC-0448
09480	165	Organic lense	DIC-0374
09480	565	>125 μm organics (marine)	GX-8751
09510	90	Shell	GSC-2750
09550	90	Shell	SI-2610
09570	370	>125 μm organics (marine)	GX-8753
09595	90	Shell	SI-5170
09600	100	Peat	GSC-2731
09725	120	Shell	QC-0450
09725	130	Shell	QC-0544
09845	175	Shell	SI-5172
09850	250	Shell	GaK-2573
09875	130	Shell	QC-0903
09880	200	Moss	GSC-2201
09935	165	Peat	QC-0451
09950	185	Peat	QC-0453
09960	230	Shell	GSC-2752
10000	1000	Shell	GaK-2574
10000	200	Shell	GSC-2813
10025	225	>125 μm organics (marine)	GX-7882
10095	95	Shell	SI-2612
10100	110	Shell	GSC-2725
102000	210	Shell	GSC-2778
10510	70	Shell	QL-1174
10685	385	>125 μm organics (marine)	GX-6352
10720	140	Shell	QC-0480 A
10760	150	Shell	QC-0480 C
10790	70	Shell	QL-1173
10915	600	>125 μm organics (marine)	GX-8754
10940	240	Fine-grained organics	GSC-0122
11360	320	Organic lense	SI-2614
11770	550	Shell	GX-6280
11910	380	>125 μm organics (marine)	GX-7119
12035	600	>125 μm organics (marine)	GX-8756

12150	140	Shell	QC-0543
14400	400	Detrital vegetation	I-1233
14435	450	>125 μm organics (marine)	GX-5319
15080	620	>125 μm organics (marine)	GX-7880
16360	650	>125 μm organics (marine)	GX-6608
17065	665	>125 μm organics (marine)	GX-7458
17800	500	Shell	I-0725
18700	1200	Shell	I-1314
19000	1000	Shell	I-1242
>20000		Marine shell	GaK-2572
24000	850	Shell	S-0459
>24550		>125 μm organics	GX-5318
24600	500	Woody peat	I-0731
27255	1250	>125 μm organics (marine)	GX-7883
>28000		Shell	GX-1677
>28200		Shell	GX-8241
282000	1500	Shell	GaK-2799
290000	+3500 2000	Shell	GaK-2567
290002	200	Shell	GaK-2568
>29000		Shell	GaK-2569
>29000		Shell	GX-1675
>29000		Shell	GaK-2570
>30000		Peat	I-1241
30000	1200	Peat	I-0839
30320	820	Shell	GSC-0528
>32000		Shell	S-0458
32200	+1700 1400	Shell	I-3200
32300	+2100 -1600	Shell	I-1815
>32500		Shell	GX-8591
33600	300	Shell	QL-0136
33640	1300	Shell	BGS-304
>34200		Shell	GX-8240
>34800		Peat	GSC-0427
34900	+2100 -1700	Shell	I-1832
>35000		Plant remains	I-1234
>35000		Plant root/stem	I-1240
36000	300	Shell	QL-0182
36250	+3600 -2000	Shell	I-2581
36300	300	Shell	QL-0060
36600	350	Shell	QL-0185
>36900		Woody peat	GSC-0259
37200	800	Shell	QL-0979
>38000		Seaweed	GSC-2716

38470	2450	Shell	BGS-305
>39000		Shell	GSC-2797
>39000		Shell	I-1813
>39000		Shell	I-1814
>39000		Shell	I-1812
>39000		Shell	I-1816
39600	500	Shell	QL-0180
>39600		Wood	GSC-0209
40000	300	Shell	QL-0184
>40000		Leaves	I-1235
40710	5500	Shell	BGS-306
>41000		Shell	I-1829
41400	500	Shell	QL-0186
>41900		Shell	QC-0446
42400	800	Fine-grained organics	QL-1180
42700	2250	Shell	SI-1336
44400	1000	Shell	QL-0974
44800	500	Shell	QL-0181
45200	800	Shell	QL-0177
45400	600	Shell	QL-0179
45500	600	Shell	QL-0178
45800	1000	Shell	QL-0973
469500	2050	Shell	SI-1335
47000	+1400 -1200	Whale bone	QL-0976-2
47500	+1000 -1200	Peat	QL-1087
47700	700	Shell	QL-0183
47800	+1300 -1100	Shell	QL-1181
48700	+1400 -1000	Peat	QL-1086
>50000		Shell	Y-1702
50400	1000	Sandy peat	QL-0188
50700	+2000 -1600	Organic matter	QL-1179
>54000		Shell	Y-1703

INSTITUTE OF ARCTIC AND ALPINE RESEARCH
OCCASIONAL PAPERS

Numbers 1 through 5, and 9, 11, 12, 16, 17, 18, 21, 23, 31, 37, and 39 are out of print. A second edition of Number 1 is available from the author. Numbers 2, 3, 4, 5, 9, and 11 are available from National Technical Information Service, U.S. Department of Commerce. For details, please write to INSTAAR.

6. *Guide to the Mosses of Colorado.* By W.A. Weber. 1973. 48 pp. Order from the author, University of Colorado Museum, Boulder, Colorado 80309. $2.50.
7. *A Climatological Study of Strong Downslope Winds in the Boulder Area.* By W.A.R. Brinkmann. 1973. 228 pp. Order from the author, Institute for Environmental Studies, University of Wisconsin, 1225 West Dayton Street, Madison, Wisconsin 53706.
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