

References
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St-Onge, M.R., Scott, D.J., and Wodicka, N., 1999. Geology, Frobisher Bay, Nunavut. Geological Survey of Canada, Map 1979A, scale 1:100 000, 1 zip file. <https://doi.org/10.4095/218833>

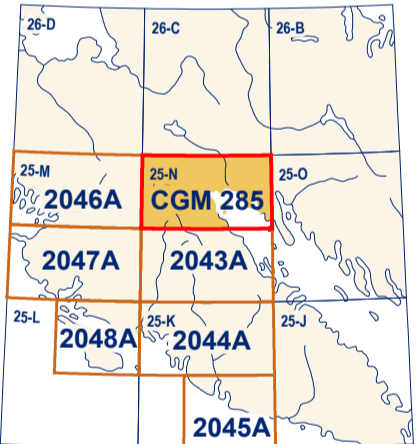
Table 1. Summary of radiocarbon dates

Map no.	Age	Lab. identification	Elev. (m)	Material
1	6450 ± 190	GX-8199	39	Molluscs
2	6222 ± 450	GX-8896		Bulk organics
3	7050 ± 170	AA-15123	16	Molluscs
4	7800 ± 150	QC-905	5	Molluscs
5	7510 ± 320	QC-902	34	Molluscs
6	7380 ± 220	GSC-2771	11	Molluscs
7	7340 ± 135	QC-901	13	Molluscs
8	7080 ± 175	GX-8190	16	Molluscs
9	7080 ± 120	GSC-5603	1	Molluscs
10	6750 ± 170	GSC-464	16	Molluscs
11	6440 ± 160	GSC-553	3	Molluscs
12	6430 ± 225	GX-8895	2	Bulk organics
13	6140 ± 170	GSC-503	16	Molluscs
14	4905 ± 100	AA-6508	15.5	Humic acids
15	4140 ± 130	GSC-849	15	Charred fat
16	3605 ± 75	AA-6525	15.5	Humic acids
17	2915 ± 140	GX-8385	<30	Peat
18	2035 ± 70	Beta-1087	<30	Peat
19	1490 ± 70	Beta-1022	<30	Peat
20	1345 ± 135	GX-8384	<30	Peat
21	955 ± 130	GX-8380	17	Peaty sand
22	905 ± 100	Beta-1086	<30	Peat
23	905 ± 130	GX-8393	<30	Peat
24	890 ± 50	AEOV-1708C	10	Bone
25	740 ± 70	AEOV-1349C	16	Bone
26	740 ± 80	AEOV-1350C	16	Wood
27	670 ± 150	AA-6524	15.5	Humic acids
28	550 ± 80	AEOV-1349C	6	Bone
29	490 ± 70	AEOV-1510C	8	Bone
30	475 ± 125	GX-8381	17	Peaty sand
31	440 ± 150	GX-8382	21	Molluscs
32	420 ± 125	GX-8382	<30	Peat

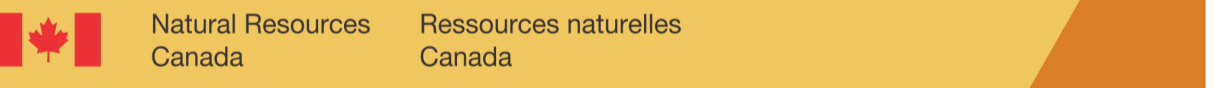
For nonmarine material, the normalized age (machine age corrected to a $\delta^{13}C = -25‰$) is given where available, otherwise the uncorrected age is given. For marine organisms, where the isotopic ratio is known the age is corrected following GSC convention to a $\delta^{13}C = 0‰$, which is equivalent to subtracting a marine reservoir effect of 400 years from a normalized age; otherwise the uncorrected age (which incorporates the marine reservoir effect) is given.

Abstract

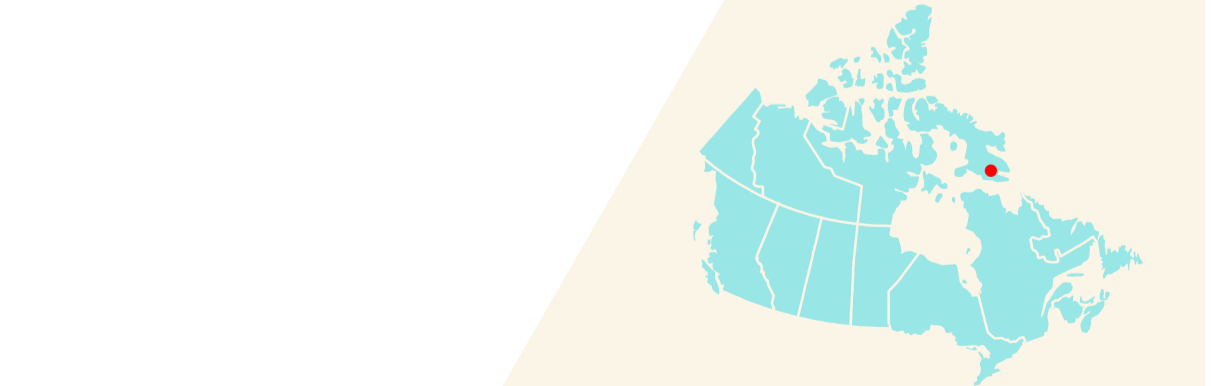
This new surficial geology map product represents the conversion of Map 2042A (Hodgson, 2003) and its legend, using the Geological Survey of Canada's Surficial Data Model (SDM version 2.3) (Open File 8236). All geoscience knowledge and information from Map 2042A that contributed to the current SDM are maintained during the conversion process. The purpose of converting legacy map data to a common science language and common legend is to enable and facilitate the efficient digital compilation, interpretation, management, and dissemination of geological map information in a structured and consistent manner. This provides an effective knowledge management tool designed around a geodatabase that can expand, following the type of information to appear on new surficial geology maps.



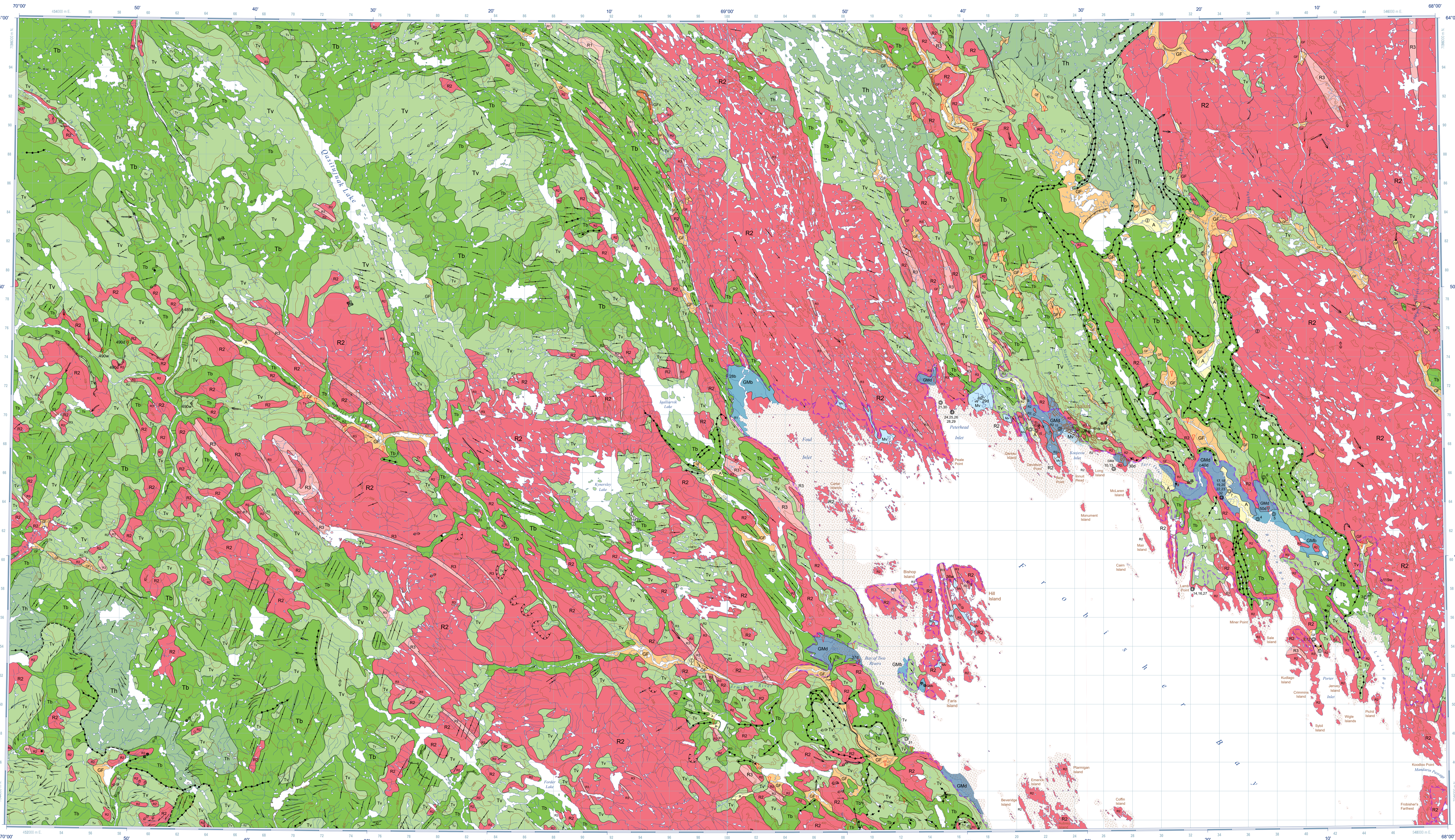
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CANADIAN GEOSCIENCE MAP 285
SURFICIAL GEOLOGY
FROBISHER BAY
Nunavut
NTS 25-N north
1:100 000



Geological Survey of Canada
Canadian Geoscience Maps



- QUATERNARY**
- HOLOCENE**
- A** Alluvial sediments, undifferentiated: gravel, sand, boulders, minor silt, and much < 10 m thick, deposited in broadfloods, may include nonglacial alluvial floodplain, terrace, fan, and delta topsets.
- Mv** Marine veneer: sand, silt, and gravel 0.5–2 m thick, discontinuous cover of littoral and offshore sediment including beach ridges and sea-island debris, mimics surface of underlying silt or rock; fine-grained sediment occurs a continuous vegetation cover patterned with subparallel ribs.
- GMd** Glaciomarine detritic sediments: sand, silt, gravel and boulders; massive to crossbedded sediments that coarsen upwards in ice-contact deposits or at termination of subglacial or meltwater channels, 2–20 m thick.
- GMb** Glaciomarine blanket: sand, silt, minor gravel, and dropstones, 2–30 m thick, deposited from suspension and lobbing ridging, locally capped by Holocene marine regression sediments.
- GFc** Glacioluvial ice-contact sediments: poorly stratified to sorted gravel, sand, and boulders, 5–20 m thick, eskers and kames, forming ridges and hummocks.
- GF** Glacioluvial sediments, undifferentiated: gravel and sand, stratified, 1–30 m thick; undifferentiated outwash, proglacial floodplains, terraces, and fans, includes kame terraces, minor subglacial and subaqueous deposits, glacioluvial channelled deltas and fans; locally well-sorted, grades to glaciomarine deltas at marine limit; may include washed till surfaces with few fines.
- EARLY HOLOCENE AND WISCONSINAN**
- Th** Hummocky till: diamictic, 1–20 m thick, may be underlain by remnant glacial ice, rolling to hummocky topography, mainly in Frobisher Bay moraines.
- Tv** Till veneer: diamictic, 0.5–2 m thick, greater than 40% of area is silt, less than 60% of area is rock ledges and knobs, and rubble; bedrock topography is evident; may include minor till blanket, minor colluvium, talus, colluvial fans, solifluction lobes, and undifferentiated valley-bottom deposits, minor washed-till boulder fields.
- Tb** Till blanket: diamictic, 1–10 m thick, undulating plain which may include minor fluted, hummocky, ridged, or channelled areas; solifluction ridges on steeper slopes, thick and moraine; minor till veneer or glacioluvial outwash; rare glacioluvial fines.
- BEDROCK AND ROCK WEATHERING PRODUCTS:** In-situ and frost-worn outcrop, discontinuous cover of rubble, boulders, gravel, sand, and minor silt; glacially scoured to frost-rivined or disaggregated outcrop, less than 40% till and boulder fields (including till from which finer fraction was washed by glacial meltwater or a higher sea), and colluvium; very minor fluvial deposits, muck, or raised marine neotides and shoreline deposits; topography variable from rolling to rough with some major and numerous minor ridges and scarps; vegetation continuous to absent, low Arctic to mid-Arctic, depending on substrate, exposure, and elevation, subdivided by M.R. St-Onge et al. (1990) by resistance to weathering, least to most rock R1, R2, R3.
- R1** Sedimentary bedrock: Ordovician limestone.
- R2** Igneous bedrock: tonalite-monzogranite orthogneiss of Archean Superior Province and of Paleoproterozoic Narsaruaq and Ramsey River, monzogranite of Paleoproterozoic Cumberland Batholith.
- R3** Metamorphic bedrock: classic metasedimentary rocks of Paleoproterozoic Saglek and Lake Harbour groups and Bandford Bay assemblage, marble of Paleoproterozoic Lake Harbour group.
- Geological contact, defined**
- Beach crest**
- Limit of submergence:**
- Marine, approximate**
- Glacioluvial, defined**
- Meltwater channel:**
- Minor, subglacial or proglacial, direction unknown**
- Minor, subglacial or proglacial, direction known**
- Lateral**
- Moraine ridge:**
- Minor, De Geer, subaqueous push moraine**
- Major, and**
- Esker, paleoflow direction known**
- Drumlinoid, tilt lineation**
- Fluted bedrock, direction known, not mapped to scale**
- Cirque headwall**
- Limit of glaciation (readvance/recession), approximate**
- Delta, marine or glacioluvial, orientation unspecified**
- Striation:**
- River icing**
- Ice flow direction unknown**
- Ice flow direction known**
- Station location: w - washing limit, d - delta top, b - beach, elevation (m)**
- Dated sample location (radiocarbon, see Table 1)**
- Sample location, till**

Recommended citation
Geological Survey of Canada, 2018. Surficial geology, Frobisher Bay, Nunavut, NTS 25-N north. Geological Survey of Canada, Canadian Geoscience Map 285 (preliminary). Surficial Data Model v. 2.3 conversion of Map 2042A, scale 1:100 000. <https://doi.org/10.4095/506158>

This publication has been scientifically reviewed, but it has not undergone a formal edit.

Authors: Geological Survey of Canada

Geology by D.A. Hodgson, 1995–1997, 1999

Geology conforms to Surficial Data Model v. 2.3

Data conversion by D.E. Kerr, 2016

Geology has been spatially adjusted to fit the updated base.

Geomatics by J. Kingsley

Cartography by D. Everett

Initiative of the Geological Survey of Canada, conducted under the auspices of Natural Resources Canada's Geomatics for Energy and Minerals (GEM) Program.

Map projection: Universal Transverse Mercator, zone 19, North American Datum 1983

SURFICIAL GEOLOGY
FROBISHER BAY
Nunavut
NTS 25-N north
1:100 000



Base map at the scale of 1:50 000 from Natural Resources Canada, with modifications.
Elevations in metres above mean sea level.
Mean magnetic declination 2018, 27°17'W, decreasing 23.6' annually.
Readings vary from 26°45'W in the SW corner to 27°46'W in the NE corner of the map.

This map is not to be used for navigational purposes.

The Geological Survey of Canada welcomes corrections or additional information from users.
Data may include additional observations not portrayed on this map. See map info document accompanying the downloaded data for more information about this publication.

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