

- LEGEND**
- QUATERNARY**
- 8 **GLACIERS AND GLACIETTES:** ice, firn, and snow; stagnant ice caps to 60 m thick and drift glaciers
 - 7 **COLLUVIAL DEPOSITS:** silt clay to rubble diamicton derived from upslope deposits; 1-5 m thick; mainly weathered rock incorporating till, and marine or glacial deposits
 - FLUVIAL DEPOSITS:** channel, floodplain, fan, and deltaic deposits; gravel, sand, or silt dominant depending on eroding source deposits; deltas facing downwards
 - 6b **Fluvial deposits, active:** 1-3 m thick; subject to flooding during snowmelt freshet
 - 6a **Fluvial deposits, inactive:** 1-20 m thick, including terraces and abandoned segments of deltas and fans
 - 6 **Fluvial deposits, undivided**
 - MARINE DEPOSITS**
 - 5b **Raised beaches:** sand, minor silt or gravel; 1-2 m thick; single ridges or flights of emerged low amplitude ridges
 - 5a **Emerged neritic deposits:** silt and fine sand, scattered ice-rafted clasts, rare marine shells; generally massive, in places laminated; 1-6 m thick
 - 4 **GLACIOLACUSTRINE OR EMERGED GLACIOMARINE DEPOSITS:** silt and fine sand; rare agglutinates; faint to strong rhythmic bedding (colour or textural laminae); 1-50 m thick; highly dissected; commonly overlies glaciogene diamicton
 - GLACIOLUVIAL DEPOSITS**
 - 3b **Outwash:** ice contact sediments and valley train deltas; boulder to granule size gravel over sand or silt; up to 20 m thick
 - 3a **Kames and eskers:** boulder to granule size gravel and silt sand; 2-20 m thick; possibly a veneer protecting silt sand weathered rock
 - MORAINAL DEPOSITS**
 - 2b **Till, Laurentide:** granule to boulder size clasts of local lithologies and some Precambrian Shield and more southerly Paleozoic lithologies, in a calcareous silt matrix; 5-20 m thick; flat to ridged; Deposited by a glacier or ice shelf occupying McClure Strait after maximum recorded extension of local ice
 - 2a, 2a' **Till, local provenance:** granule to boulder size clasts of mainly quartzitic sandstone in silt sand matrix; 1-10 m thick; generally featureless except for rock drumhead ridges with till veneer (2a'); Deposited by ice originating on Melville Island; rare Precambrian Shield erratics deposited during water inundation by continental ice
- QUATERNARY AND PRE-QUATERNARY**
- WEATHERED BEDROCK:** rubble to fines derived from disaggregation to 1-5 m depth by mechanical weathering of underlying and subjacent bedrock, probably in the Quaternary; unweathered rock outcrops on steeper slopes
- 1d, 1d' **Rubble:** angular to subround blocks in sand or silt matrix, matrix locally dominant; occurs on flat to inclined tabularities, ridges, scarps and cliffs to 600 m high; includes minor intact outcrop, where derived from quartzitic sandstone it is neutral to weakly acidic (1d), where derived from limestone or dolomite it is alkaline (1d')
 - 1c **Sand:** discontinuous lag gravel veneer, minor rubble, or silt sand, derived from friable sandstone and siltstone; occurs on tabularities and low scarplands; neutral to weakly acidic; locally alkaline
 - 1b, 1b' **Rubble to fines, unsorted:** discrete areas and combinations of rubble, sand, silt, and clayey silt, derived from underlying sandstone, siltstone, or shale; occurs on dissected tabularities; weakly acid (1b) to weakly alkaline (1b')
 - 1a, 1a' **Fines:** fine sand, silt, minor clay; clasts of shale or siltstone; derived from generally weak lithologies which contain some resistant units; occurs on rolling to undulating; weakly acid (1a) to weakly alkaline (1a')

- Geological boundary (defined, approximate, assumed/transitional)
- Fluting
- Moraine ridge
- Erratics (Precambrian, Paleozoic)
- Gravel knoll
- Abandoned ice marginal meltwater channel (ice front, saddle, cut)
- Delta
- Marine bench
- Raised beach ridges
- Limit of lichen absence indicating extent of Neoglacial snowfall cover
- Ponding, commonly around high centre polygons
- Blowout in sand plain
- Pingo
- Massive ground ice exposed in slope failure
- Elevation (m) of former sea level at significant features, measured by altimeter
- Ground observation (Fyles, 1964; Hodgson, 1985 and 1989; Heron, 1962)
- | Age | Material |
|---------|---------------------------------|
| Lab no. | Elevation (m) |
| | sample (relative sea level) (m) |
- Radiocarbon age estimate

Geology by D.A. Hodgson, 1985, 1989

Geological cartography by Y.F. St Pierre Savard, Geological Survey of Canada

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

Colour separations were produced using digital methods

Base map assembled by the Geological Survey of Canada from maps 88 H (1988), 89 A (1988), 88 G, 89 B (1985), published at the same scale by the Surveys and Mapping Branch

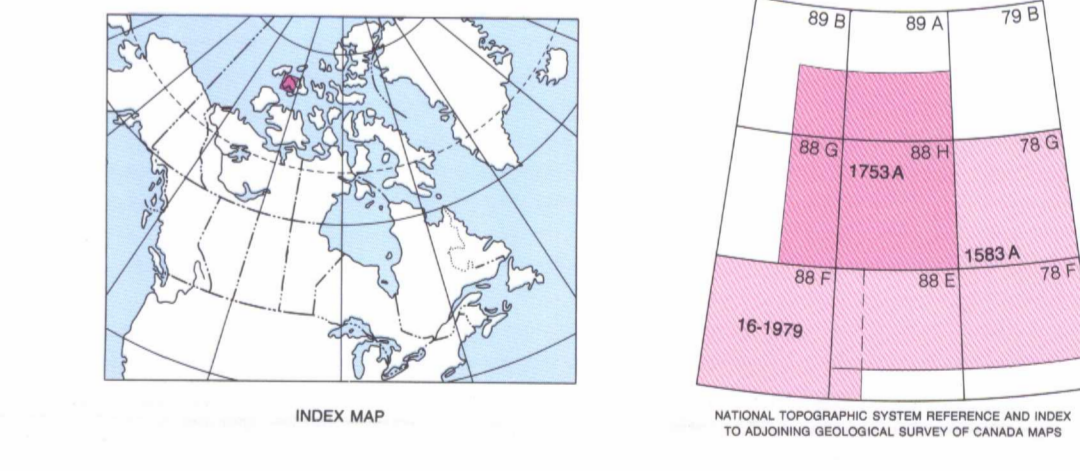
Copies of the topographical editions covering the map area may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, Ontario, K1A 0G9

Bathymetric contours in metres were derived from hydrographic charts 7572, 7832, 7951 and 7952 published by the Canadian Hydrographic Service

The proximity of the North Magnetic Pole causes the magnetic compass to be erratic in this area

Mean magnetic declination 1991, 54°04' East, decreasing 43.7' annually. Readings vary from 51°19' E in the SW corner to 58°59' E in the NE corner of the map

Elevations in feet (88 G, 89 A, 89 B), and in metres (88 H) above mean sea level



MAP 1753A
SURFICIAL GEOLOGY
WESTERN MELVILLE ISLAND
DISTRICT OF FRANKLIN
NORTHWEST TERRITORIES

Scale 1:250 000 - Échelle 1/250 000

Kilometres 0 5 10 15 20 Kilomètres

Universal Transverse Mercator Projection / Projection transverse universelle de Mercator

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APR 27 1993

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