

LEGEND

Note: some map units and symbols shown in the legend may not appear on this map

SURFICIAL GEOLOGY

QUATERNARY

ALLUVIAL DEPOSITS: stream deposited material within modern active drainage systems; modern "modern" defined as the period since retreat of the sea, proglacial lakes, or glacial ice.

AC Alluvium: silt, sand, and gravel deposited in channels and on floodplains; may include alluvium in terraces which formed as streams cut to present level in glacial and marine sediments.

AD Deltaic sediments: sand, gravel, and boulders deposited where modern streams enter lakes or Hudson Bay.

AM Alluvium and marine sand or silt, undifferentiated: occurs in areas consisting of modern alluvium mixed with silt and sand that were washed from slopes by wave action or deposited in the sea by meltwater streams.

AG Alluvium and outwash gravel, undifferentiated: occurs in areas consisting of valleys or abandoned channels above marine limit.

LACUSTRINE DEPOSITS: materials deposited in glacial lakes formed on the western side of the Keewatin Ice Divide, and glacial deposits modified by lacustrine processes.

Ln Nearshore sediments: generally well sorted sand, gravel, cobbles, or boulders deposited as beaches, bars, spits, and ice-pushed ridges.

Ld Deltaic sediments: sand, pebbly sand, and gravel deposited in glacial lakes by glacial or frontal ice sheets and subsequently abandoned as glacial lakes drained.

MARINE DEPOSITS: materials deposited in the Tyrrell Sea and glacial deposits modified by marine processes.

Md Deltaic sediments: sand, pebbly sand, and gravel deposited in the Tyrrell Sea by glacial or nonglacial streams.

Mn Nearshore sediments: generally well sorted sand, gravel, cobbles, or boulders deposited as beaches, bars, spits, and ice-pushed ridges.

Me Offlap sediments: thin sheet of sand deposited by migrating shorelines; probably a lag developed by wave reworking of marine clay.

Mq Offshore sediments: clay silt and silty sand deposited in a deep water environment; may occur anywhere in the Tyrrell Sea but distribution is patchy above 60 m a.s.l.; thickest deposits generally occur in major valleys or valleys with major eskers.

Me (Mn) Mottled pattern on airphotos. Mn, mottled pattern on airphotos.

GLACIOFLUVIAL DEPOSITS: water-sorted sediments deposited in ground, or near a glacier, largely as a result of meltwater flow.

Gk Ice contact stratified drift: sand and gravel deposited near ice margins in, over, or downed ice or in ice tunnels; commonly as eskers but includes isolated hummocky deposits of uncertain origin.

Go (Gc) Outwash: sand, gravel, and silt with terraced, hummocky, or other surfaces. Go, sand and gravel deposited by subglacial meltwater streams in areas above local sea level or level of proglacial lakes; includes 1) sediment deposited between the esker ridge and meltwater channels; commonly over stagnant ice that forms temporary flows; 2) outwash fans, hummocky ridges, and other features on the floor or at the mouth of meltwater channels; 3) silt, silt and fine gravel; 4) distal fine sediment debouching from the subaqueous mouth of an ice tunnel; material deposited preferentially in depressions between the esker ridge and valleys.

Gh Disintegration moraine: till, sand, and gravel, undifferentiated: occurs as short ridges or hummocks, probably deposited in holes and crevasses in stagnant ice; ridge orientation may form a reticulate pattern.

TILL DEPOSITS: poorly sorted sediments with distinctive forms deposited directly by glacial ice.

Tp (Tc) Till plain: generally sandy, silty, noncalcareous grey till; includes areas of clay-rich till. Tp, prominent striped pattern on airphotos.

Tr Ribbed (Rogen) moraine: generally bouldery till, in places sand and gravel, forming hummocks and straight, linear ridges; generally less than 1 km long and 2 to 10 m high; ridges generally trend in right angles, and form trains parallel to direction of ice flow.

Th Hummocky till: till without significant boulder cover occurring as low, rounded hummocks; includes ridges of till that are linear ridges, moraines, or erosion remnants between subglacial meltwater channels.

Tm Till and marine silt, undifferentiated: till-cored landforms blanketed by marine sediments; marine deposits in depressions among till landforms.

ROCK PRE-QUATERNARY

R Surface comprises more than 80% outcrop.

RT (RT1) Surface comprises 20 to 80% outcrop, or bedrock is more than 1 m of the surficial deposit indicated.

Geological boundary

Small bedrock outcrop x

Drumlin or fluting /

Crag and tail (direction of ice flow known) /

Glacial striae (direction of ice movement known, unknown location of measurement at centre of staff, older striation drawn with broken staff) /

Linear feature related to ice flow /

Trend of ribbed or minor moraine ridges /

De Geer moraines: straight, approximately 2 m high end moraine ridges built parallel to an ice front; possibly deposited annually by flowing ice submerged in a sea or lake /

Hummocky moraine /

Esker: projected beneath water surfaces where known /

Meltwater channel: steep-sided channel commonly cut in bedrock or till /

Limit of marine submergence /

Trend of nearshore ridges originating as beaches, bars, and ice-shoved ridges /

Escarpment: generally in unconsolidated sediments /

Area of ridges formed by pack-ice shove /

Permanently drained postglacial lake basin; may include deposits of silty sediment with up to 10% organic carbon /

Turbid lake: contains continual load of suspended sediment during ice-free periods; rarely occurs above marine limit and indicates instability or alteration of the active layer due to wave washing or oscillation *

Sollan deposits; commonly formed where ice shove or bank failures have disrupted the vegetation mat over alluvial sand /

Radiocarbon date /

Geology by J.M. Aylsworth and M.D. Clarke, based on airphoto interpretation

(Striae measurements by J.O. Pyles, R.C. Shields, and J.A. Fraser, 1964)

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

Base map, enlarged from 1:250 000 scale, published by the Surveys and Mapping Branch in 1966

Copies of the topographical edition of this map may be obtained from the Canadian Office of Energy, Mines and Resources, Ottawa K1A 0S9

Mean magnetic declination 1989, 8°13'E decreasing 21.1' annually. Readings vary from 10°26' in the SW corner to 5°40' in the NE corner of the map.

The proximity of the North Magnetic Pole causes the magnetic compass to errate in this area.

Elevations in feet above mean sea level

5340105
1978-
DWHC

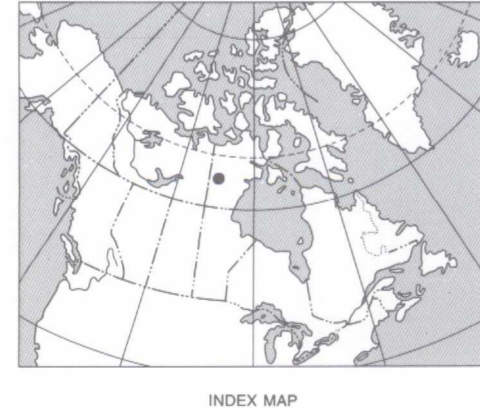
DESCRIPTIVE NOTES

During deglaciation the ice front retreated eastward towards the Keewatin Ice Divide, damming a large glacial lake in Thelon River valley and Beverly Lake basin. A series of high-level shorelines records a maximum lake level of 220 m in the west, dropping to 210 m in the east of this map area; shorelines continued to lower as progressively lower, northward draining, outlets became ice free. When the ice dam was breached, marine waters inundated the basin to some undetermined depth. As it is impossible to differentiate between marine and lacustrine beaches in the absence of shells, and as shells were only found at one location, at 110 m, the elevation of 120 m was arbitrarily selected to separate the lower marine deposits from the higher lacustrine beaches.

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Recommended station: Aylsworth, J.M. 1989. Surficial geology, Tebesjuak Lake District of Keewatin, Northwest Territories. Geological Survey of Canada, Map 35-1989, scale 1:125 000.

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MAP 35-1989
SURFICIAL GEOLOGY
TEBESJUAK LAKE
DISTRICT OF KEEWATIN
NORTHWEST TERRITORIES

Scale 1:125 000 - Echelle 1/125 000

Kilometres / Kilomètres

Universal Transverse Mercator Projection
Projection transverse universelle de Mercator

1000	2000	3000	4000	5000
1000	2000	3000	4000	5000
1000	2000	3000	4000	5000
1000	2000	3000	4000	5000
1000	2000	3000	4000	5000