



LEGEND
Notes: Some map units and symbols shown in the legend may not appear on this map.

SURFICIAL DEPOSITS
QUATERNARY

NONGLACIAL ENVIRONMENT
Alluvial deposits: stream deposited material within modern active drainage systems; recent to historic in the period since retreat of the sea, proglacial lakes, or glacial ice.

Ae 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 sedimentary till.

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

NONGLACIAL AND GLACIAL ENVIRONMENT
Lacustrine deposits: materials deposited in glacial lakes ponded on the western side of the Keewatin Ice Divide, and glacial deposits modified by lacustrine processes.

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

Md Marine deposits: materials deposited in the Tyrrell Sea and glacial deposits modified by marine processes.

Mw Offlap sediments: thin sheet of sand deposited by a migrating shoreline; probably a lag deposit in wave crests of massive clayey sand or silty sand or glacial till.

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-rafted ridges.

Mq Offshore sediments: clay-silt and silty sand deposited in a deep water environment; may occur anywhere below marine limit but distribution is patchy above 60 m a.s.l.; thickest deposits generally occur in major river valleys or major estuaries. Mq prominent striped pattern on arthropods. Mq, mottled pattern on arthropods.

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

AG Alluvium and outwash gravel, undifferentiated: occurs as flat areas in stream valleys and abandoned channels above marine limit.

TM Till and marine silt, undifferentiated: till-covered landscape blanketed by marine sediments or marine deposits in depressions among till landforms.

GLACIAL ENVIRONMENT
GLACIOLUINAL DEPOSITS: water-sorted sediments deposited in, around, or near a glacier, largely as a result of meltwater stream flow.

Qd Ice-contact stratified drift: sand and gravel deposited near ice margins in stream valleys or in ice tunnels, commonly as eskers but includes isolated hummocky deposits of uncertain origin.

Qo Outwash: sand, gravel, and silt with terraced, hummocky and levelled surfaces. Gravel and sand deposited by subglacial meltwater streams in areas above bowl or level of proglacial lakes includes (1) sediment deposited between the water ridge and margin, commonly in stream valleys, and (2) outwash fans of meltwater streams at the mouth of meltwater channels.

Qh 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 Till plain: generally sandy, silty, noncalcareous or clayey till with 20% clay sized particles; area of clay-rich red till. Tp, prominent striped pattern on arthropods.

Ts Hummocky till: till without significant bedrock or till; till is minor and moraine or erosion remnants between subglacial meltwater channels.

Tb Ribbed (Ridged) moraine: generally bouldery till, in place covering an hummocky till; till is minor and moraine or erosion remnants between subglacial meltwater channels.

TH Homogeneity till: till without significant bedrock or till; till is minor and moraine or erosion remnants between subglacial meltwater channels.

ROCK
PRE-QUATERNARY
R Precambrian intrusive (granite and metamorphic rocks), red volcanic rocks, and unmetamorphosed sediment.

Rf Surface comprises more than 80% outcrop; Rf surface completely covered by till/moraine.

Rt Surface comprises 20 to 80% outcrop, or bedrock is mantled with an average of less than 1 m of the surficial deposits indicated.

SYMBOLS
Geological boundary: dashed line with long dashes on one side.

Small bedrock outcrop: solid black rectangle.

Drumlin or fluting (direction of ice flow known, unknown): solid black oval or rectangle.

Crag and tail (direction of ice flow known): solid black line with short dashes.

Clacial rise (direction of ice movement known, unknown): solid black line with long dashes.

Linear features related to ice flow but obscured by sedimentation: dashed line with short dashes.

Trend of ribbed or minor moraine ridges: dashed line with long dashes.

Deflexed moraine: 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.

Esker (direction of flow known, unknown): can be confused with or obscured by meandering features; projected beneath water surfaces where known or inferred.

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

Limit of marine submergence: dashed line with long dashes.

Trend of meandering ridges originating as beaches, bars, megaripples, and ice-rafted ridges: dashed line with long dashes.

Escarpments generally in unconsolidated sediments: dashed line with long dashes.

Permanently drained proglacial lake basins may include deposits of silty sediment with up to 15% organic carbon.

Terrace: may contain occasional bank of suspended sediment during ice free periods; rarely occurs above marine limit and indicates instability or fluctuation of the active layer due to wave washing or sublimation processes.

Sediment deposits commonly formed where ice shove or bank failure have disrupted the vegetation mat over alluvial sand.

Radocarbon date: solid black rectangle.

Geology by J.M. Aylsworth, A.N. Boydell, and W.W. Shill; based mainly on airphoto interpretation with ground checking, 1973. Some data taken from unpublished notes by C.M. Cunningham, R.C. McDonald, and R.C. Stamer.

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Mean magnetic declination 1984, 3°04' West increasing 12.7° annually. Readings vary from 0° in 30' to 3°10' in 30' to the NE corner of the map area.

Elevations in feet above mean sea level.

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MAP 1-1984
SURFICIAL GEOLOGY
GIBSONS LAKE
DISTRICT OF KEEWATIN
NORTHWEST TERRITORIES
Scale 1:125 000
Universal Transverse Mercator Projection
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DISTRICT OF KEEWATIN
NORTHWEST TERRITORIES

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