



SURFICIAL GEOLOGY
QUATERNARY

NONGLACIAL ENVIRONMENT

6 **ORGANIC DEPOSITS:** marsh and shallow lake sediments, sedge-peat deposits in excess of 1 m thick.

GLACIAL ENVIRONMENT

5 **GLACIOLACUSTRINE DEPOSITS:** well sorted sand, gravely sand and gravel deposited along the shoreline and at inflows to proto-Contwoyto Lake as the water plane fell from its maximum level; most abundant where sediment supply was high, near eskers and areas of thick till.

4 **Deltaic sediments:** sand, pebbly sand, and gravel, 1 to 3 m thick, deposited in proto-Contwoyto Lake by glacial and nonglacial streams.

3 **Beach and nearshore sediments:** sand, pebbly sand, and gravel, 1 to 3 m thick, forming flights of raised beaches and bars; most common near eskers.

2 **GLACIOFLUVIAL DEPOSITS:** sand, gravely sand, and gravel deposited beneath, around, or near a glacier, largely as a result of meltwater flow. Below the level of proto-Contwoyto Lake, sediments partly reworked into flights of beaches.

1 **Outwash sediments:** sorted, stratified to cross-stratified sand and gravel, 1 to 5 m thick; deposited between esker ridges and ice or valley walls in subglacial or proglacial meltwater channels; forms outwash fans, terraces, and kettled terraces; surfaces commonly marked by braided channels, kettles, and hummocks.

0 **Ice contact sediments:** well sorted, stratified to cross-stratified sand, sand and gravel esker sediments and sorted, poorly stratified sand and gravel kame deposits. Eskers occur as 5 to 10 m high, kettled, flat-topped to peaked elongate ridges, generally parallel to direction of ice movement. Kames occur as 1 to 5 m high elongate to conical mounds flanking eskers. Unit also includes isolated sorted sediment mounds of uncertain origin.

GLACIAL DEPOSITS (TILL): poorly sorted sediments deposited along the margins of or beneath glaciers; predominantly sandy; thin and discontinuous over and around bedrock highs; thicker and more extensive in low areas.

1c **Bouldery till veneer:** pebbly sand texture, 2 to 5 m thick; surface commonly littered with boulders, with occasional kame deposits.

1b **Till veneer:** sandy texture, usually less than 2 m thick; surface reflects the morphology of the underlying bedrock.

1a **Till blanket:** pebbly, sandy to silty sand texture, 2 to 10 m thick; masks the bedrock morphology. Surface features include drumlins, flutes, and hummocks.

- BEDROCK PRE-QUATERNARY**
- R Proterozoic sediments, diabase and gabbro dykes and sills. Archaean metavolcanic, metasedimentary, felsic to mafic intrusive rocks.
- x Small bedrock outcrop
 - ↖ ↗ Striae (ice flow direction known, unknown)
 - ⊖ Drumlin or fluting
 - ⊕ Hummocky surface
 - ⊓ Crag and tail
 - ↔ Esker, direction of flow known or assumed
 - ⊞ Meltwater channel
 - ⊓ Beach ridge

Geology by B.R. Hart, R.W. Avery, R.N.W. DiLabio, and W.B. Coker, 1988; based mainly on airphoto interpretation with limited field checking.

SURFICIAL GEOLOGY
CONTWOYTO LAKE (76E/13-14)
NORTHWEST TERRITORIES

Scale 1:50 000 - Echelle 1/50 000

Kilometres Kilometres

Universal Transverse Mercator Projection Projection transverse universelle de Mercator
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Contribution to Canada-Northwest Territories Mineral Development Subsidiary Agreement 1987-91, under the Economic Development Agreement. Project funded by the Geological Survey of Canada.

Contribution à l'Entente auxiliaire Canada-Territoires du Nord-Ouest d'exploitation minière 1987-1991, dans le cadre de l'Entente de développement économique. Projet subventionné par la Commission géologique du Canada.

Northwest Territories Energy, Mines and Resources Secretariat

Energy, Mines and Resources Canada

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 GEOLOGICAL SURVEY OF CANADA
 COMMISSION GÉOLOGIQUE DU CANADA
 OTTAWA
 1989

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