



SURFICIAL GEOLOGY

SURFICIAL DEPOSITS QUATERNARY

NONGLACIAL ENVIRONMENT

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

GLACIAL ENVIRONMENT

GLACIOLACUSTRINE DEPOSITS: well sorted sand, gravelly 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.

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

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

GLACIOFLUVIAL DEPOSITS: sand, gravelly 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.

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.

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.

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

Till veneer: sandy texture, usually less than 2 m thick; surface reflects the morphology of the underlying bedrock. 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. Archean 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/11-12) NORTHWEST TERRITORIES

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