



LEGEND

Coloured legend blocks indicate map units that appear on this map

SURFICIAL DEPOSITS

QUATERNARY

6

ORGANIC DEPOSITS: variable proportions of lichen-moss, sedge, and woody peat; thickness variable; includes bog peat and fen peat; irregular thermokarst depressions are common; occupies most topographic lows

5

ALLUVIAL DEPOSITS: variable proportions of silt, sand, and rounded gravel, commonly terraced; thickness ranges from a thin veneer to several metres

PROGLACIAL ENVIRONMENT

4b

NEARSHORE AND LITTORAL SEDIMENTS: well sorted sand, gravel, and cobbles occurring as a blanket grading basinward into undifferentiated silt and clay, or as one or a series of ridges, 1 to 4 m in height (includes beaches, bars, and spits) commonly well developed on wave washed glaciofluvial deposits

4a

OFFSHORE SEDIMENTS: laminated silt, clay, and sand; thickness ranges from a veneer to tens of metres; thick accumulations form planar surfaces characterized by extensive peat cover

GLACIAL ENVIRONMENT

3

ICE CONTACT GLACIOFLUVIAL DEPOSITS: interstratified sand, gravel, cobbles, and diamict; deposited by meltwater flowing in contact with or proximal to glacier ice; thickness ranges from 5 to 50 m; forming eskers, kames, crevasse fillings, ice contact deltas, and recessional, end, and interlobate moraines

GLACIAL DEPOSITS: till and related sediments, comprising unsorted to poorly sorted debris deposited at the front of or beneath glaciers, or under ice shelves. Glacial deposits in the western part of the study area (NTS 63N, 64C, and 64F) are sandy and contain a large proportion of debris derived from crystalline shield lithologies. Matrix carbonate composition of sandy till is generally 0% but may reach 5%. Farther east (NTS 64B and 64S), glacial deposits are silty and contain a large proportion of calcareous debris derived from Paleozoic carbonate lithologies flooring Hudson Bay and adjacent lowlands. Matrix carbonate content ranges from 5 to 35%. Sediment may be leached or carbonate to a depth of 2.5 m, particularly in areas of thin drift where drainage is controlled by bedrock topography and clay cover is minimal

2a

2b

Till blanket: forms a continuous cover, 1 to several metres in thickness, masking underlying bedrock topography; surface commonly fluted and may be covered by a veneer of Lake Agassiz clay; 2a - Sandy till; 2b - Silty till

1a

1b

Till veneer: forms a discontinuous cover, ranging from 0 to 3 m in thickness; thicker deposits may fill isolated bedrock depressions; surface morphology reflects underlying bedrock structure; 1a - Sandy till; 1b - Silty till

BEDROCK

PRE-QUATERNARY

R

PRECAMBRIAN ROCK: glacially scoured metasedimentary and metavolcanic rocks and associated felsic to mafic intrusive lithologies

Geology by C.A. Kaszycki, 1985

Compiled by C.A. Kaszycki and V.J. Way Nee, 1986

Geological cartography by the Geological Survey of Canada

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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 at 1:250 000 published by the Surveys and Mapping Branch, 1963

Copies of the topographical edition of this map may be obtained from the Canada Map Office, Department of Energy Mines and Resources, Ottawa, Ontario K1A 0E9

Mean magnetic declination 1989, 08°43' East, decreasing 12.2' annually. Readings vary from 07°13' E in the NE corner to 10°06' E in the SW corner of the map

Elevations in feet above mean sea level

REFERENCE

Klassen, R.W.  
1986: Surficial Geology of north-central Manitoba. Geological Survey of Canada, Memoir 419, 57p.  
Accompanied by Map 1603A, Surficial Geology, north-central Manitoba, scale 1:500 000

Copies of this map may be obtained from the Geological Survey of Canada:  
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Manitoba  
Energy and Mines

Canada

INDEX MAP

MAP 1761A

SURFICIAL GEOLOGY

**BIG SAND LAKE**

MANITOBA

Scale 1:250 000 - Échelle 1/250 000

Kilometres 5 0 5 10 15 20 Kilomètres

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|       |       |      |
|-------|-------|------|
| 64 F  | 64 G  | 64 H |
| 1760A | 1761A |      |
| 64 C  | 64 B  | 64 A |
| 1759A | 1758A |      |
| 63 N  | 63 O  | 63 P |
| 1757A |       |      |

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