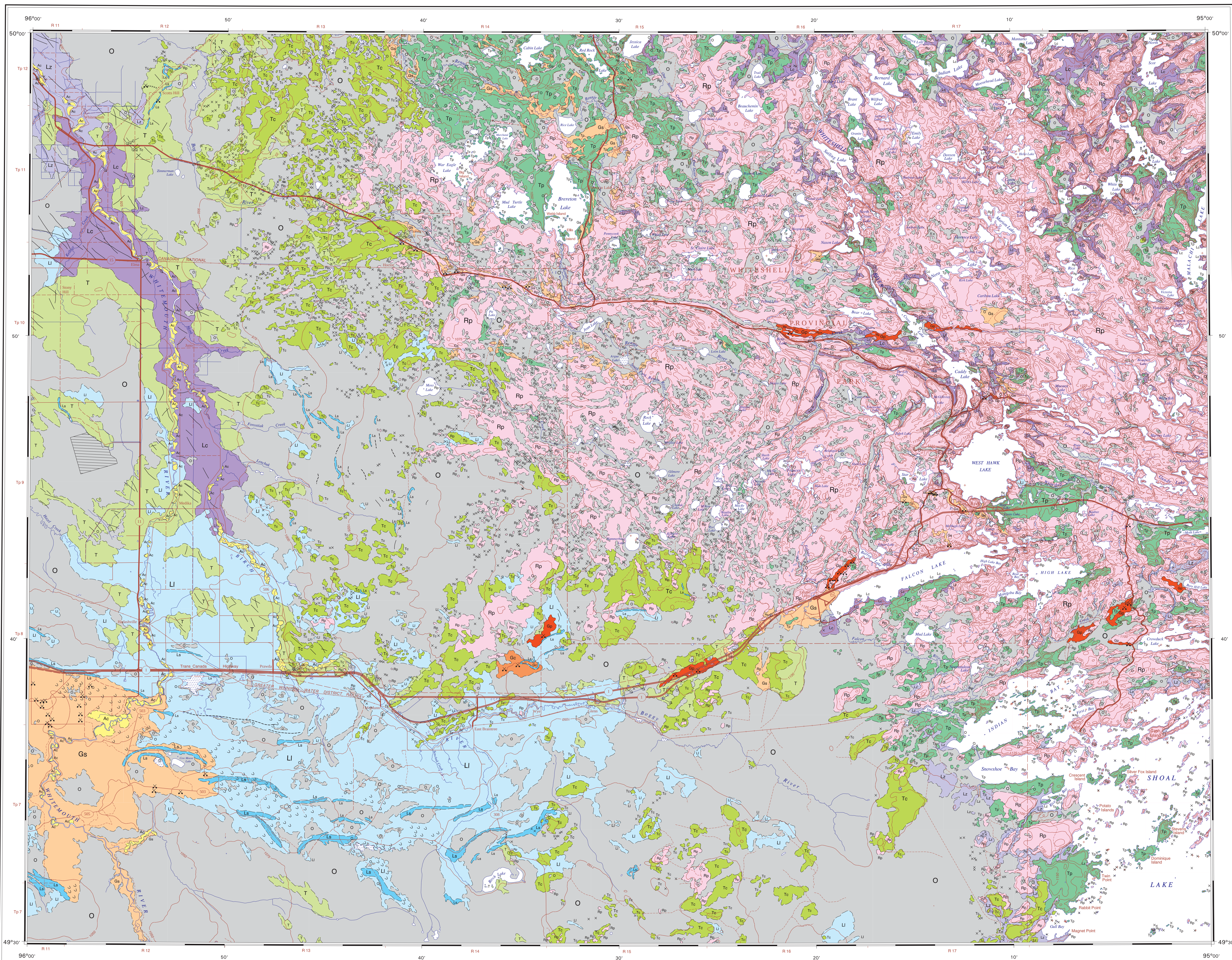




- LEGEND**
- This legend is common to GSC maps 2049A–2060A, and MGS geoscientific maps MAP2003-1–MAP2003-12. Coloured legend blocks indicate map units that appear on this map. Not all map symbols shown in the legend necessarily appear on this map.
- QUATERNARY**
- NONGLACIAL DEPOSITS**
- O** Organic deposits: peat, muck, <1–5 m thick; very low relief wetland deposits; accumulated in fen, bog, swamp, and marsh settings.
 - E** Eolian sediments: fine sand; 1–5 m thick; dunes; formed by wind prior to stabilization by vegetation; in most cases on subaqueous outwash sand.
 - Lm** Shoreline sediments: sand and gravel; 1–2 m thick; beaches; formed by waves at the margins of modern lakes.
 - Ap** Overbank deposits.
 - Ac** Channel deposits.
- ALLUVIAL SEDIMENTS:** sand and gravel, sand, silt, clay, organic detritus; 1–20 m thick; channel and overbank sediments; deposited by postglacial rivers.

GLACIOFLUVIAL DEPOSITS

 - Ls** Shoreline deposits.
 - U** Littoral deposits.
 - Lz** Clayey to sandy silt.
 - Lc** Clay to silty clay.
 - Gs** Subaqueous outwash: fine sand, minor gravel, thin silt and clay interbeds; 1–75 m thick; subaqueous outwash fans; deposited near the ice margin in glacial Lake Agassiz by meltwater turbidity currents; commonly reshaped by wave erosion and reworked by wind.
 - Gc** Predominantly derived from carbonate rocks.
 - Gp** Predominantly derived from igneous and metamorphic rocks.

GLACIAL DEPOSITS

 - T** Till: calcareous silt diamict; 1–75 m thick; low-relief, commonly streamlined deposits; subglacial deposits; largely derived from carbonate rocks; thicker sequences consist of multiple units of varying textures; commonly scoured by icebergs; covered discontinuously by thin veneers (<1 m) of glaciolacustrine and glaciofluvial sediments.
 - Tc** Predominantly derived from carbonate rocks.
 - Tp** Predominantly derived from igneous and metamorphic rocks.

DISCONTINUOUS TILL AND ASSOCIATED GLACIOFLUVIAL SEDIMENTS: gravely silt to sand diamict; sand and gravel; 1–30 m thick; low-relief deposits between bedrock outcrops making up 25–75% of the area; sandy till interbedded and interspersed with nearly equal and often greater amounts of sandy glaciofluvial sediments, as well as minor glaciolacustrine sediments.

PRE-QUATERNARY

 - Rc** Paleozoic sedimentary rocks.
 - Rp** Precambrian igneous and metamorphic rocks.

- Geological boundary (approximate)
Built-up area (map GSC 2055A / MGS MAP2003-7 only)
Mine waste
Peat-extraction area
Gravel pit
Mine or bedrock quarry
Stabilized dunes
Abandoned channel
Minor beach ridge
Wave-cut scarp
Groundwater seeping channel
Piping depression
Iceberg scour
Tunnel valley
Esker (direction of flow indicated)
Streamlined landform
Glacial striae
Crossed striae (numbers indicate relative age, 1 being the oldest)
Small bedrock outcrop

Copies of this map may be obtained from the Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0G8, 3503-26th Street, N.W., Calgary, Alberta T2L 2A7, 10-600 Robson Street, Vancouver, B.C. V6B 5G3. Manitoba Industry, Economic Development and Mines, Manitoba Geological Survey, Publication Sales, 300-1005 Elgin Avenue, Winnipeg, Manitoba R3G 3P2.

Co-ordinated by H. Thériault and G.L.D. Matile through the auspices of the Southern Prairies NATMAP Project and the Winnipeg Region NATMAP Project.

Digital cartography by P.A. Melbourne, Earth Sciences Sector Information Division (ESS Info).

This map was produced from processes that conform to the ESS Info Publishing Services Subdivision Quality Management System, registered to the ISO 9001:2000 standard.

GSC MAP 2057A
MGS GEOSCIENTIFIC MAP MAP2003-9
SURFICIAL GEOLOGY
WEST HAWK LAKE
MANITOBA-ONTARIO

Scale 1:100 000/Échelle 1/100 000

Kilometres 2 4 6 8 Kilomètres

Universal Transverse Mercator Projection
North American Datum 1983
© Her Majesty the Queen in Right of Canada 2004

Projection transversale universelle du Mercator
Système de référence géodésique nord-américain, 1983
© Sa Majesté la Reine du chef du Canada 2004

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

Digital base map from data compiled by Geomatics Canada, modified by ESS Info.

Mean magnetic declination 2004, 3°03' E; decreasing 5.6" annually. Readings vary from 3°35' E in the SW corner to 2°30' E in the NE corner of the map.

Elevations in feet above mean sea level

02 010	02 011	02 012	02 013	02 014
GSC 2049A	GSC 2050A	GSC 2051A	GSC 2052A	GSC 2053A
MGS MAP2003-1	MGS MAP2003-2	MGS MAP2003-3	MGS MAP2003-4	MGS MAP2003-5
02 015	02 016	02 017	02 018	02 019
GSC 2054A	GSC 2055A	GSC 2056A	GSC 2057A	GSC 2058A
MGS MAP2003-6	MGS MAP2003-7	MGS MAP2003-8	MGS MAP2003-9	MGS MAP2003-10
02 020	02 021	02 022	02 023	02 024
GSC 2059A	GSC 2060A	GSC 2061A	GSC 2062A	GSC 2063A
MGS MAP2003-11	MGS MAP2003-12	MGS MAP2003-13	MGS MAP2003-14	MGS MAP2003-15

NATIONAL TOPONYMIC SYSTEM REFERENCE AND INDEX TO AQUEOUS ENVIRONMENTAL SURVEY OF CANADA AND MANITOBA GEOLOGICAL SURVEY MAPS

Recommended citation:
Matile, G.L.D.
2004: Surficial geology, West Hawk Lake, Manitoba-Ontario: Geological Survey of Canada, Map 2057A/Manitoba Industry, Economic Development and Mines, Manitoba Geological Survey, Geoscientific Map MAP2003-9, scale 1:100 000.