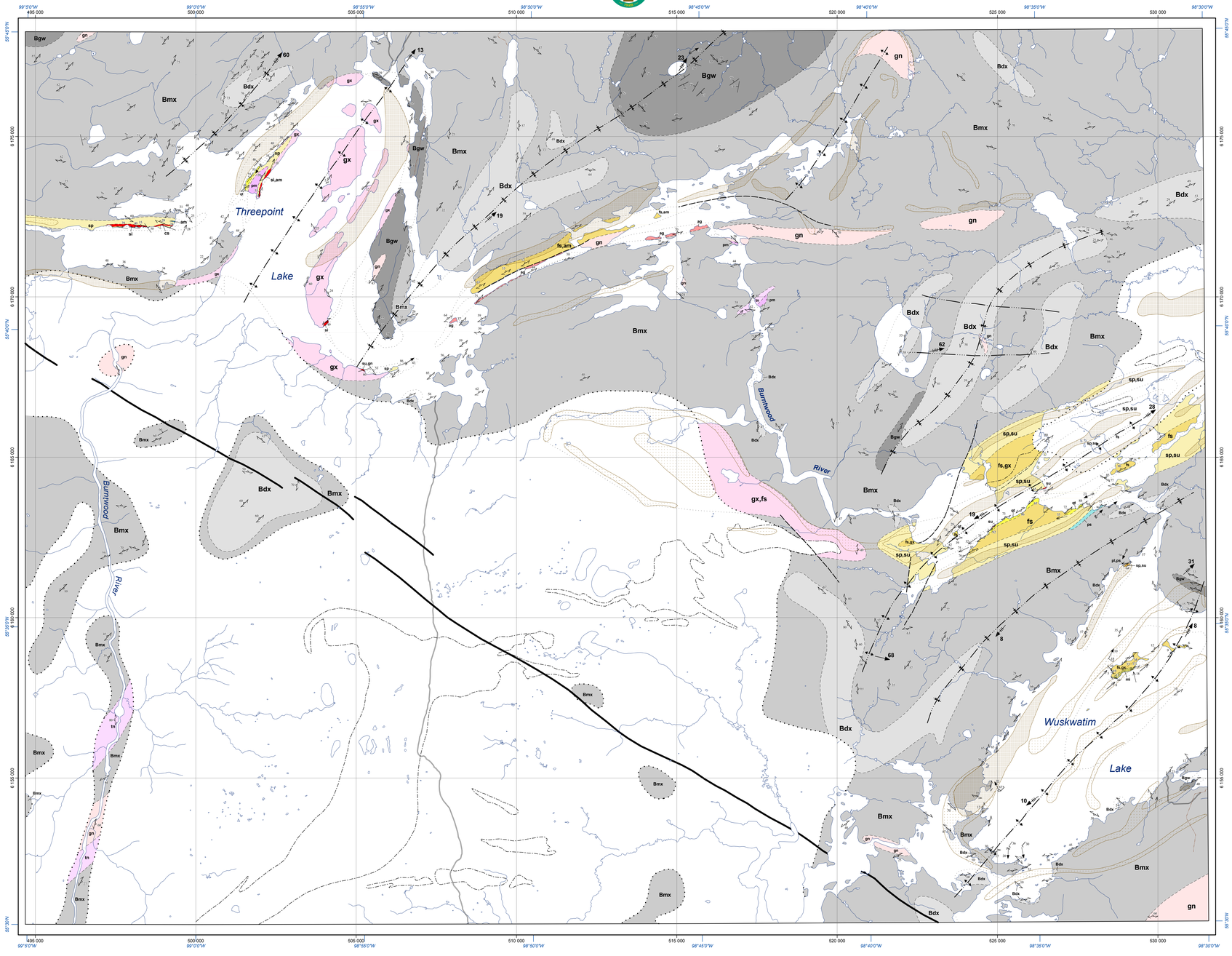
Revised geology of the Wuskwatim – Threepoint lakes area, Manitoba (NTS 63O10 and parts of 63O11)



Legend

Paleoproterozoic granitoid rocks

- pm — Pegmatite
- gn — Granite-granodiorite with mainly biotite±garnet
- gx — Granite-granodiorite, foliated, with biotite±amphibole, orthopyroxene, magnetite, local K-feldspar porphyroclasts
- ag — Agmatite, foliated, tonalite blocks, granodiorite matrix
- tn — Tonalite with biotite-pyroxene±amphibole
- am — Amphibolite (dikes) with diopside-amphibole-plagioclase

Paleoproterozoic arc-related paragneiss

- Bgw — Greywacke-mudstone-derived garnet-biotite gneiss with local sillimanite, graphite, quartz veins
- Bmx — Greywacke-mudstone-derived garnet-biotite migmatite (metatexite) with cordierite ± sillimanite, orthopyroxene, spinel, graphite, 10–60% granitoid leucosome and veins
- Bdx — Greywacke-mudstone-derived garnet-biotite migmatite (diatexite) with cordierite ± sillimanite, orthopyroxene, spinel, graphite, approx. 70% leucosome
- ps — Psammite (sandstone-siltstone), weakly calcareous

Paleoproterozoic or possible Archean paragneiss

- pl — Pelite, biotite-garnet gneiss ± sillimanite, orthopyroxene, spinel, magnetite, graphite, iron sulphide
- su,sil,cs — Iron formation, mainly sulphide-facies (su); silicate-facies (si); calcsilicate (cs)
- sp — Semipelite, thin-layered, garnet-biotite gneiss ± pelite; iron formation, chert, generally quartz-rich ± sillimanite, orthopyroxene, magnetite, graphite, iron sulphide
- qt — Arkosic quartzite, thin bedded, local pelite layers, generally with garnet ± sillimanite, magnetite, graphite

Archean and/or Paleoproterozoic orthogneiss

- fs — Felsic multi-component granulite gneiss (tonalite-granite) with biotite ± orthopyroxene, garnet, magnetite, common mafic boudins or dikes
- mi — Mafic-intermediate granulite gneiss (gabbro-tonalite) with hornblende, diopside, orthopyroxene, garnet, magnetite

Symbols

- Bedding: tops unknown
- Foliation: inclined, vertical, dip unknown
- Shear zone: sense unknown, dextral
- Lineation, including mineral, stretching and rodding
- Minor fold axis: age unknown, symmetry M, S, Z
- Fold axial plane: generation unknown
- Major fold axis: age unknown, F3, F4
- Geological contact, including early (thrust) faults: approximate, assumed, underwater or covered
- Fault, assumed from aeromagnetic pattern
- Major fold axial plane: F3, F4
- Major anticline
- Major syncline
- Esker
- Drift edge
- Winter road
- Trail

Aeromagnetic anomalies (interpreted from gradient)

- Gabbro dike (assumed): Mesoproterozoic MacKenzie swarm
- Aeromagnetic high, generally due to iron formation
- Moderate aeromagnetic anomaly

Compiled by H.V. Zwanzig and L.A. Murphy

Geology by H.V. Zwanzig, J.A. Percival [1], L.A. Murphy and M.L. Growdon [2] (2006); and after G. Kendrick, T.G. Frohlinger and D.A. Baldwin (1979), and D.A. Baldwin and T.G. Frohlinger (1979)

[1] Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8
[2] Department of Geological Sciences, University of Indiana, 1001 East 10th Street, Bloomington, IN 47405-1405

Cartography, digitizing and GIS preparation by: P.G. Lenton, B. Lenton and M.E. McFarlane

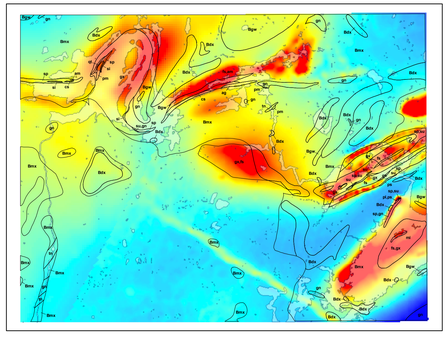
Published by:
Manitoba Science, Technology, Energy and Mines
Manitoba Geological Survey, 2006

This map is a provisional summary of work carried out during the 2006 summer field season and is produced directly from the geologists' manuscript. It is not to be regarded as a final terpretation of the geology of the area.

SUGGESTED REFERENCE
Zwanzig, H.V., Percival, J.A., Murphy, L.A., Growdon, M.L. 2006: Revised geology of the Threepoint–Wuskwatim Lakes area, Manitoba (NTS 63O-10 and part of 63O-11), Manitoba Science, Technology, Energy and Mines, Manitoba Geological Survey, Preliminary Map PMAP2006-3, 1:50 000 scale.

REFERENCES

Zwanzig, H.V., Murphy, L., Percival, J.A., Whalen, J.B. and Rayner, N. 2006: Thompson Nickel Belt–type units in the northeastern Kisseynew Domain, Manitoba (parts of NTS 63O); *in* Report of Activities 2006, Manitoba Science, Technology, Energy and Mines, Manitoba Geological Survey, p. 85–103.
Kendrick, G., Frohlinger, T.G. and Baldwin, D.A. 1979: Wuskwatim Lake, Manitoba; Manitoba Mines, Resources and Environment, Mineral Resources Division, Map 78-3-18, scale 1:50 000.
Baldwin, D.A. and Frohlinger, T.G.1979: Apeganau River, Manitoba; Manitoba Mines, Resources and Environment, Mineral Resources Division, Map 78-3-17, scale 1:50 000.
Coyle, M. and Kiss, F. 2006: First vertical derivative of the magnetic field, Wuskwatim Lake aeromagnetic survey, Manitoba, Wuskwatim Lake (NTS 63O/10), Manitoba; Geological Survey of Canada Open File 5145; Manitoba Industry, Economic Development and Mines, Manitoba Geological Survey, Open File Report OF2006-24, scale 1:50 000.

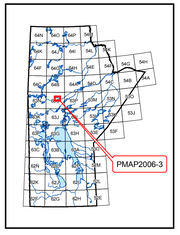


Residual total field

nT
High : 468
Low : -384

0 10 kilometres

Index map



Manitoba