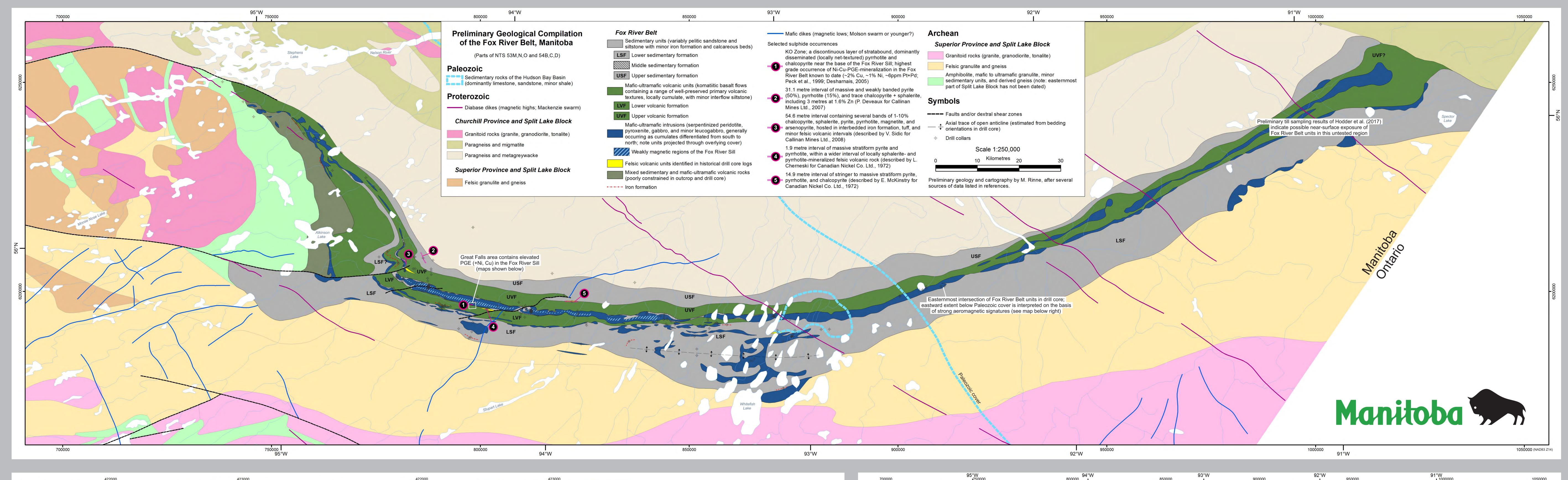
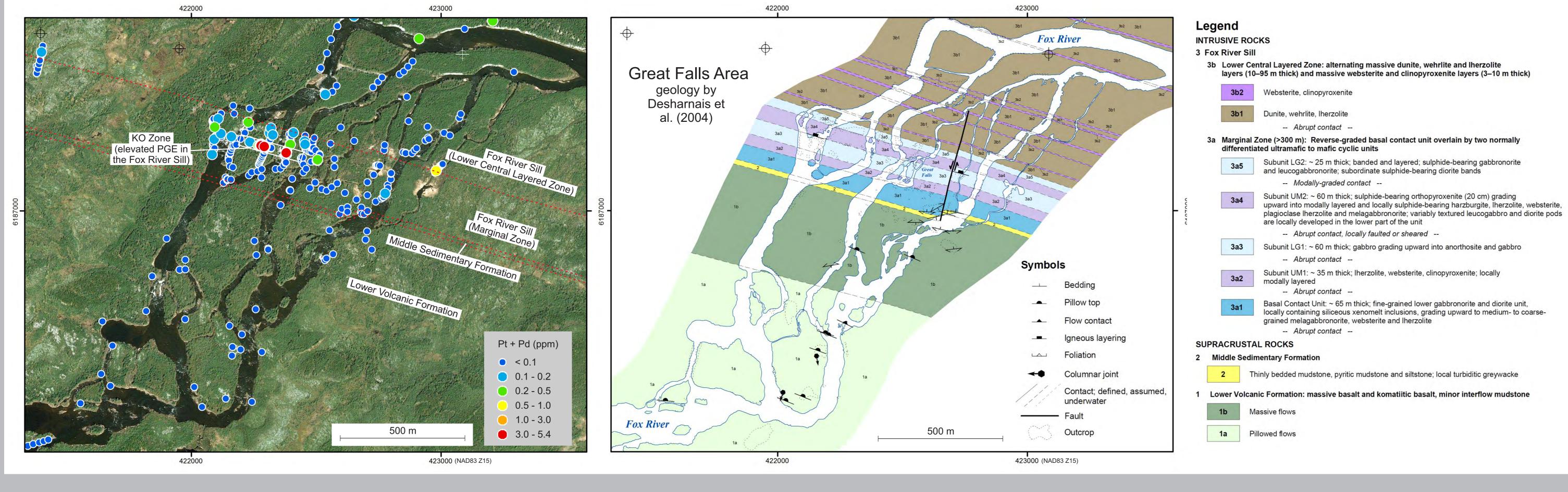


Geological Compilation of the Fox River Belt

M.L. Rinne Manitoba Geological Survey





Residual Total Magnetic Field (nT)

Project overview

The Fox River Belt (FRB) forms a very large and well-preserved segment of the Circum-Superior Belt in northern Manitoba, and demonstrates potential to host Ni-Cu±PGE mineralization of the same age as in the prolific Thompson Nickel Belt (TNB). Building on previous work, this project aims to deliver a revised geological compilation of the FRB, including an investigation of relationships between the FRB and TNB. These outcomes are intended to inform exploration targeting Ni-Cu±PGE(±Cr) resources in Manitoba, and may contribute to land use planning decisions of the Keewatin Tribal Council and associated communities.

This work has benefitted from the advice and information offered by Jon Scoates (whose seminal work forms the basis of most of this compilation), James Scoates, Guy Desharnais, and David Benson, along with MGS staff including T. Hodder, C. Epp, S. Anderson, G. Keller, and P. Lenton.

Peridotite of the Fox River Sill with

intercumulus pyrrhotite, pyrite, and chalcopyrite

Continued review of assessment files. compilation of drill data

Kaskattama highlands region

Updates to belt geology based primarily on uppermost bedrock intervals in drill core

2017 progress

Investigation of multispectral satellite imagery as a possible means to distinguish carbonate from greenstone-dominated riverside exposures in the Fox River Belt and

Sampled, photographed, and documented selected 13- and 38-series drill core at Midland

Continued review of available geochemical data, updates to geochemistry compilation

Selected references

- Mineralogist, vol. 42, pt. 2, p. 291-302.

Technical Poster.

- nagmatism in the Fox River Belt: tectonic and economic mplications; Ph.D. thesis, University of Manitoba, 207 p. + 1 Hodder, T.J., Kelley, S.E., Trommelen, M.S., Ross, M., Rinne, M. 2017: The Kaskattama highland: till composition and

- indications of a new Precambrian inlier in the Hudson Bay Lowland?; Manitoba Mining and Minerals Convention 2017,
- 7, 12 p. + 11 black & white maps scale 1:50 000.
- northern Manitoba; Geological Survey of Canada, Open File

- Böhm, C.O. 2000: Geology of the western part of the Fox River Belt (parts of NTS 53M and 53N); in Report of Activities Peck, D.C., Scoates, R.F.J., Theyer, P., Desharnais, G., Hulbert, L.J Huminicki, M.A.E. 2002: Stratiform and contact-type PGE-Cu-Ni mineralization in the Fox River Sill and the Bird River Belt
- northwestern Manitoba; Manitoba Energy and Mines; Mineral Resources Division, Geological Report 81-1-1, 1 map scale
- 53M16 and 53N13); Manitoba Innovation, Energy and Mines

Manitoba Geological Survey, Open File 2010-1, 1 CD-ROM.