

# Neoarchean Mafic– Ultramafic Intrusions in the Bird River Greenstone Belt: Tectonic Setting and Economic Significance

H. P. Gilbert, J. S. Scoates, R.F. J. Scoates, X. M. Yang, C. A. Mealin, M. G. Houlé et  
C. R. Galeschuk

---

Volume 39, numéro 4, 2012

URI : [https://id.erudit.org/iderudit/geocan39\\_4fs07](https://id.erudit.org/iderudit/geocan39_4fs07)

[Aller au sommaire du numéro](#)

---

Éditeur(s)

The Geological Association of Canada

ISSN

0315-0941 (imprimé)  
1911-4850 (numérique)

[Découvrir la revue](#)

---

Citer ce document

Gilbert, H. P., Scoates, J. S., Scoates, R. J., Yang, X. M., Mealin, C. A., Houlé, M. G. & Galeschuk, C. R. (2012). Neoarchean Mafic– Ultramafic Intrusions in the Bird River Greenstone Belt:: Tectonic Setting and Economic Significance. *Geoscience Canada*, 39(4), 184–184.

# GAC-MAC 2013:

## FIELD GUIDE SUMMARY

### **Neoarchean Mafic-Ultramafic Intrusions in the Bird River Greenstone Belt: Tectonic Setting and Economic Significance**

**GAC-MAC Winnipeg 2013,  
post-meeting field trip**

H.P. Gilbert<sup>1</sup>, J.S. Scoates<sup>2</sup>, R.F.J. Scoates<sup>3</sup>, X.M. Yang<sup>1</sup>, C.A. Mealin<sup>4</sup>, M.G. Houle<sup>5</sup>, and C.R. Galeschuk<sup>6</sup>

<sup>1</sup>Manitoba Geological Survey  
360-1395 Ellice Avenue  
Winnipeg, MB, Canada, R3G 3P2  
E-mail: paul.gilbert@gov.mb.ca

<sup>2</sup>Department of Earth, Ocean and Atmospheric Sciences  
University of British Columbia  
6339 Stores Road  
Vancouver, BC, Canada, V6T 1Z4

<sup>3</sup>2502 Holroyd Drive  
Nanaimo, BC, Canada, V9S 4K9

<sup>4</sup>Ontario Geological Survey  
Willet Green Miller Centre, Level B7  
933 Ramsey Lake Road  
Sudbury, ON, Canada, P3E 6B5

<sup>5</sup>Geological Survey of Canada  
Earth Sciences Sector  
490 rue de la Couronne  
Québec, QC, Canada, G1K 9A9

<sup>6</sup>Mustang Minerals Corp.  
P.O. Box 670  
S18 - 24 Aberdeen Avenue  
Pinawa, MB, Canada, R0E 1L0

### **FIELD TRIP OBJECTIVES**

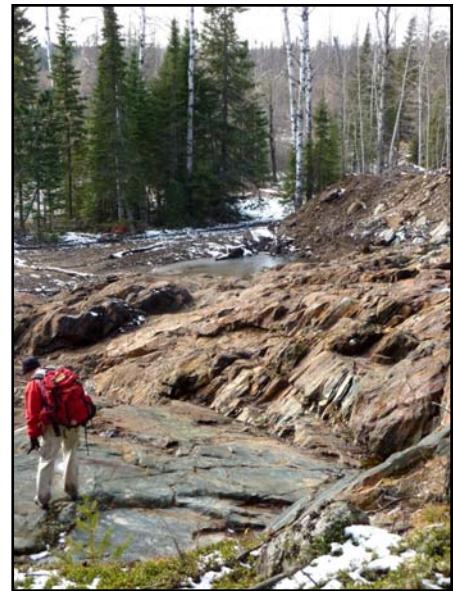
The Neoarchean Bird River greenstone belt in southeastern Manitoba contains a variety of mafic to ultramafic intru-

sions that host significant Ni-Cu-(PGE) and chromite mineralization. This excursion will focus on magmatic stratigraphy, chromitite layering and associated mineralization in the Neoarchean Bird River Sill and Mayville intrusion (Figs. 1, 2), located within the main part and northern arm, respectively, of the Bird River greenstone belt. In addition to the surface exposures, drillcore will be examined from the Ni-Cu-(PGE) M2 deposit and the PGE-reef style mineralization in the Mayville intrusion, as well as the Ni-Cu-(PGE) orebodies at the former Maskwa-Dumbarton Mine within the Bird River Sill.

This field excursion in the Bird River greenstone belt provides a unique opportunity to examine and compare two contemporaneous (ca. 2.745 Ga) Neoarchean mafic to ultramafic intrusions that are separated by an approximately 20 km wide granitoid terrane containing some relatively older (Mesoarchean) intrusive phases. The trip complements the GAC-MAC 2013 Special Session entitled *Magmatic Ni-Cu-PGE-Cr Deposits: Ore-Forming Processes with Implications for Exploration*.

### **OTHER INFORMATION**

The 3-day trip is based at the Wilderness Edge conference centre at Pinawa (100 km east-northeast of Winnipeg). It will depart from Winnipeg directly after technical sessions on May 24 and return on the evening of May 27. A moderate level of physical activity is involved (at least 1-3 km daily) and sturdy footwear and raingear are recommended. Parts of the Mayville intrusion may not be accessible because of high water levels, in which case an alternative itinerary will be run.



**Figure 1.** Typical exposure of the ore zone at the M2 site in the Mayville intrusion.



**Figure 2.** Medium-grained to very coarse grained leucogabbro (Mayville intrusion).