

# Geochemistry, Petrogenesis, and Mineralization of the Makwa Deposit, Bird River Sill

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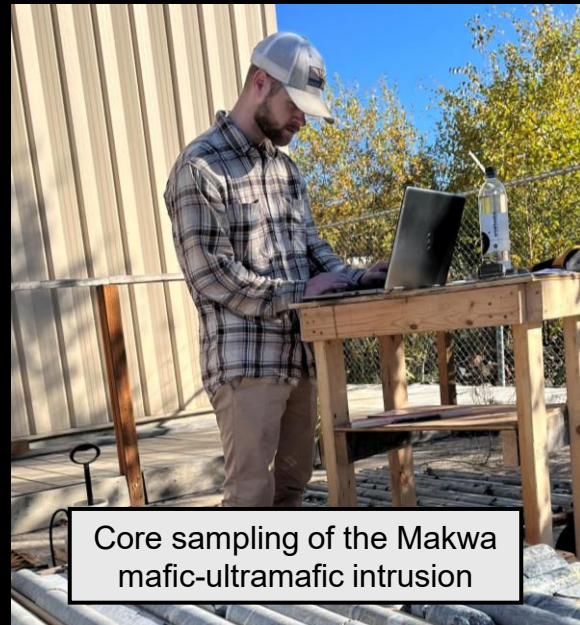


## Project Motivation

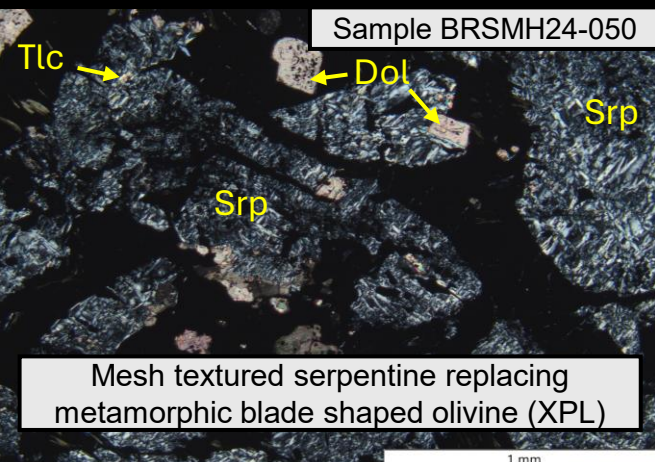
This project is a collaboration between the University of Manitoba and NSERC to investigate the formation of critical metal deposits in Manitoba.

The Makwa Deposit is a conventional basal accumulation type magmatic Ni-Cu-PGE deposit. A combination of petrographic, microscopic, geochemical and isotopic techniques will be used to complete three main objectives.

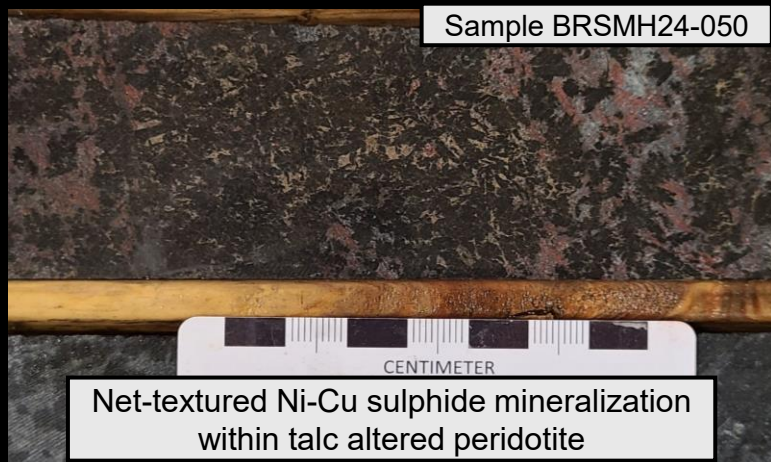
1. Characterize the stratigraphy of the Makwa Intrusion and Ni-Cu-PGE mineralization.
2. Assess the effects of alteration on mineralogy, trace element geochemistry, and ore remobilization.
3. Determine the evolution, geotectonic setting and sulfur source.



Core sampling of the Makwa mafic-ultramafic intrusion



Mesh textured serpentine replacing metamorphic blade shaped olivine (XPL)



Net-textured Ni-Cu sulphide mineralization within talc altered peridotite