

Whitewater  
889480

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June 15/06  
(from RD)

Kaslo Volcanics-NTS 82-K-03

June 12, 2006

Age:-Upper Permian

Geology:-The Kaslo Volcanics in the Whitewater mine area are characterized by an antiform cored by "ultramafics" and basalt with andesite at the top of the cycle. Previous mapping indicates hypabyssal ultramafic intrusions and sills. The extent and conformable nature of parts of the ultramafic member suggests some are also flows (komatiite), however, I have not yet observed any olivine or pyroxene spinifex.

GSC airborne magnetic data, and GSC geology and reports by Cairns and Klepecki suggest at least two volcanic centres. The top of the Kaslo Volcanics are marked by the Martin Conglomerate. Where I have seen this unit, it is in fact andesitic agglomerate, indicating the Permian Kaslo volcanics ended with a large phreatomagmatic eruption.

\* Styles of mineralization in the Kaslo Volcanics:-nickel up to 5% in trenches; high grade gold in quartz veins and stock works in sheared ultramafics; conformable Cu-Zn-Au-Ag and polymetallic veins.

Alteration:-district scale albitization through the Permian Kaslo volcanics and up into the lower Triassic Slocan Group. <sup>+ Na</sup>

Analogues:-Permian Ni-Cu-PGE deposits (a world nickel event). <sup>①</sup> Yangliuping Ni-Cu-PGE Sulfide Deposits, SW china:  
[http://www.env.duke.edu/people/faculty/boudreau/9thPtSymposium/Song\\_Abstract.pdf](http://www.env.duke.edu/people/faculty/boudreau/9thPtSymposium/Song_Abstract.pdf)

② Ban Phuc Ni-Cu-PGE deposits related to late Permian komatiite-basalt association in the Song Da Rift in Northern Viet Nam  
<http://pubs.nrc-cnrc.gc.ca/mineral/tcm-57339-2.html>

③ Norilsk-Talnakh Ni-Cu-PGE deposits associated with the late Permian Dessan traps;

Exploration Targets:- 1)Ni-Cu-PGE; 2)shear zone hosted Au in ultramafic-mafic volcanics analogous to Archean greenstone belts; 3)post volcanic "sedx" or "Greens Creek" style, high grade Zn-Pb-Cu-Ag-Au in the lower Slocan Group just above the Martin "Conglomerate".

Suggested first pass:-helicopter airborne magnetic-EM survey followed by helicopter supported geology and ground geophysics.

Industry Activity:-Aeroquest Ltd is currently flying an aerotem survey for Inco over about 40% of the belt optioned from Peter Leontowicz. Robin Day et al hold about 40% of the belt. Other stake holders can be found at the BCDM Map Place.

Robin Day

File: Whitewater Kaslo Volcanics June 2006. doc