Publication information

Geological Survey of Canada

Open File 8111

Indicator mineral signatures of the Halfmile Zn-Pb-Cu volcanogenic massive sulphide deposit, Bathurst, New Brunswick: Part 2 – till data

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doi:10.4095/

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Recommended citation

McClenaghan, M.B., Budulan, G., Parkhill, M.A., Layton-Matthews, D., and Crabtree, D., 2016. Indicator mineral signatures of the Halfmile Zn-Pb-Cu volcanogenic massive sulphide deposit, Bathurst, New Brunswick: Part 2 – till data; Geological Survey of Canada, Open File 8111, 1 zip file. doi:10.4095/

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Till and bedrock samples were collected in 2007 and 2008 around the Halfmile Lake Zn-Pb-Cu VMS deposit, Bathurst Mining Camp, as part of the Geological Survey of Canada’s Targeted Geoscience Initiative-3 (TGI-3) (2005–2010). This report describes one component of the study, which examined the indicator minerals in till samples around the deposit. The Halfmile Lake VMS deposit is capped by a preglacial gossan that formed by chemical weathering and oxidation during the late Pliocene. The mineralogical and geochemical signatures of the glacial dispersal train down-ice (east) of the deposit reflect this gossan, including secondary minerals goethite, beudantite, and jarosite in the till. Chalcopyrite, pyrite, gold, and cinnabar are also present in the till down-ice of the deposit. The Zn-spinel gahnite, which is known to be an indicator of VMS mineralization, is also present in the local till; however, its bedrock source is not yet known.

Directory structure

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