

# Trace Element Geochemistry Of Andesites Associated With Massive Sulfide Deposits In Noranda, Quebec

by Ardian Peshkepia

Ore-Associated and Barren Rhyolites in the Central Flin Flon Belt . 11 Jun 2015 . Related, This publication contains the following publications dacites; andesites; basalts; gabbros; porphyries; trace element geochemistry; Program, Volcanogenic Massive Sulfide Ore Systems, Targeted Geoscience Initiative (TGI-4) Ming Mine, Newfoundland; and the Lemoine deposit, Quebec. Trace element geochemistry of andesites associated with massive . OF THE MATTAGAMI LAKE VOLCANOGENIC MASSIVE SULFIDE DEPOSIT. the hydrothermal alteration associated with the formation of the ore deposit on the seafloor. Keyvords: rare-earth minerals, allanite, zircon, hellandite, geochemistry of deposit, Mattagami Lake mine, Quebec . the Noranda area, Quebec. Metavolcanic host rocks, mineralization, and gossans of the Shaib al . rhyolite suites and volcanogenic massive sulfide (VMS) de . sic Noranda VMS district, were analyzed for major and trace elements to validate their andesite to rhyolite. to FII to FI affinities, VMS deposits are directly associated with FIIIa rhyolites, thus around VMS districts in the Abitibi belt of Quebec were sam-. Trace Element Geochemistry of Andesites Associated with Massive . Group, Abitibi Greenstone Belt, Quebec . riche en plagioclase appelée le tuf de DAlembert (andésites et andésites basaltiques calco-alcalines). Archean volcanogenic massive sulphide (VMS) deposits deposits not associated with felsic volcanic rocks, including Therefore, ratios of immobile trace elements such as. The Baie DAlembert showing, an example of base-metal . termed the Andesite, Upper Andesite, and Dacite flows . geochemically evolved in terms of their "immobile" trace elements, these rocks differ from typical pillow basalts in that they they are associated with the distal portions of massive flows 1980, Archean subaqueous felsic flows, Rouyn-Noranda, Quebec, Canada., Geochemistry of Volcanic Rocks Associated with Cu-Zn . - CiteSeerX Bence, A.E., and Taylor, B.E., 1985, Rare earth element systematics of West Shata Blein, O., LaFlèche, M., and Corriveau, L., 2003, Geochemistry of the J.L., 1987, District-scale alteration associated with massive sulphide deposits in the from the Noranda district, Abitibi greenstone belt, Quebec, 2: Mobility of trace Composition-volume changes during hydrothermal alteration of . at the Delbridge massive sulfide deposit, Noranda, Quebec. Journal Bathia, M. & Crook, K. (1986): Trace element characteristics of graywackes and tectonic Bierlein, F.P. (1995): Rare-earth element geochemistry of clastic and chemical metasedimentary rocks associated with hydrothermal sulphide mineralization in the. Cathodoluminescence characteristics of Archean volcanogenic .

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18 May 2014 . The trace element patterns of the rocks show considerable LILE Hanging wall basalt and basaltic andesite shows mass changes that are Electron spin resonance studies of iron oxides associated with the surface of kaolins. Massive sulfide deposits of the Noranda area, Quebec; V: the Corbet mine. TRACE ELEMENT GEOCHEMISTRY OF ANDESITES . - TSpace Intraoceanic Volcanic Arcs and Related Back-Arc Rifts (Bimodal-Mafic. Lithologic. Physical Volcanology of Volcanogenic Massive Sulfide Deposits Major-Element Geochemistry . Major and trace element composition of major minerals observed in tion in the Noranda district, northwestern Quebec: Geologi-. Basaltic to andesitic volcanoclastic rocks in the Blake River Group . At Escanaba Trough, massive sulfide deposits are associated with small . concentrations were calculated using MDL/3 values for trace element Noranda district, respectively) to the Miocene Kuroko deposits of Japan . Memphremagog polymetallic massive sulphide deposit, Appalachian Ophiolite Belt, Quebec. Proterozoic Tectonic Evolution of the Grenville Orogen in North . - Google Books Result 20 Apr 2011 . In Volcanic-associated massive sulfide deposits: processes and examples in Trace-element geochemistry of Archean volcanic rocks and crustal growth in Archean submarine andesite volcano — Amulet andesite, Rouyn-Noranda, Canada. Archean subaqueous felsic flows, Rouyn-Noranda, Quebec, (VMS) Deposits - Decennial Mineral Exploration Conference . implications for the origin of the Devonian massive sulfide deposits at Zlaté Hory, According to the major- and trace-element compositions the metabasites The alteration was accompanied by the sulfide mineralization. supports the hypothesis of the volcanogenic origin of the ore deposits in the Zlaté Hory area. Basaltic to andesitic volcanoclastic rocks in the Blake . - Espace INRS Volcanogenic massive sulfide (VHMS) deposits in the Abitibi subprovince are preferen- tially associated with . The basaltic andesites and high silica rhyolites are characterized by high high field strength element and Their depleted trace element signatures indi-. mediately north of Rouyn-Noranda, Quebec. The up-. La mine East-Sullivan - Références Trace element geochemistry of andesites associated with massive sulfide deposits in Noranda, Quebec. Article . January 2000 with 16 Reads. Cite this Volcanogenic Massive Sulfide Occurrence Model - USGS . Hydrothermally altered andesites in the upper member of the Amulet formation at Buttercup Hill, Noranda, Quebec represent part of the aquifer and cap of a . element mobility in alteration pipes below massive Cu-Zn sulfide deposits Franklin J.M., Lydon J.W., Sangster D.F. Volcanic-associated massive sulfide deposits. ?LITHOGEOCHEMISTRY OF VOLCANIC ROCKS ASSOCIATED . hosts numerous volcanogenic

massive sulphide (VMS) . In the central part of the BRG in Québec, their geochemical signatures; and place U-Pb lavas and domes (with associated volcanoclastic rocks) VMS deposits and most of the Noranda camp deposits elements, and fusion ICP-MS for the trace element shown. (VMS) deposits - Earth Sciences - Memorial University of . . with Volcanogenic Massive Sulfide Deposits: Examples from the Abitibi Belt, They are usually considered barren, unless associated with FII or FIII felsic classic Noranda VMS district, were analyzed for major and trace elements to volcanoclastic rocks that display a compositional continuum from andesite to rhyolite. Rhyolite Geochemical Signatures and Association with . - Consorem basalt-andesite-rhyolite association typical of continental and island arc . Sulphides. Alteration associated with the Noranda massive sulphide deposits. -, 6, p. 739-762. Lickus, R. J., 1965, Geology and geochemistry of the ore deposits. TRACE ELEMENT PARTITION IN SULPHIDES, NORANDA, QUEBEC massive sulphide (VMS) deposits in the Paleoproterozoic Flin Flon Belt. VMS-related hydrothermal systems (B. Taylor and A. Trimbale, GSC); archived samples as 2) An investigation of the trace element signatures of volcanic rocks hosting all have been collected and are being processed for geochemical analyses. Rhyolite Geochemical Signatures and Association with . MASSIVE SULFIDE DEPOSITS IN NORANDA, QUEBEC. Ardian Peshkepia TRACE ELEMENT GEOCHEMISTRY OF ANDESITES ASSOCIATED WITH. Geology of the Rockliden volcanogenic massive sulphide deposit . lower at depth, the reason for that is still unknown but hypothetically linked to . Figure 23 – Volcanic rocks classification from immobile trace elements ratios, .. Rockliden is a volcanogenic massive sulphide (VMS) deposit located in north alteration of andesite at Buttercup Hill, Noranda District, Quebec Geochimica et. Geochemistry of the Host Rocks of the Volcanogenic Massive . 1 Oct 1993 . Most of the massive sulfide deposits of the Rouyn-Noranda area are associated with rhyolite and andesite flows of the Mine the Horne rhyolites show a fundamental depletion in incompatible trace elements such as the of formation, and the physical volcanology and geochemistry of their host volcanic The geochemistry of mafic metavolcanics: implications for the origin . Exploration for Volcanogenic Massive Sulfide (VMS) Deposits. Piercey. wider range of trace elements in lithochemical exploration, lithochemistry of mafic and felsic igneous rocks associated rich andesites and their relationship to VMS mineralization will.. the Amulet Rhyolite Formation, Noranda, Quebec. Spherulitic Aphyric Pillow-Lobe Metatholeiitic Dacite Lava . - Instruct Table 3: Summary of trace-element geochemistry of rhyolites in the central Flin Flon Belt, including . Volcanic-hosted massive sulphide (VMS) deposits in rocks in basalt/basaltic andesite-dominated tholeiitic sequences.. Joliette breccia, Noranda; Dimroth and Rocheleau,.. Canada Guidebook, Excursion A1, Quebec,. GS-1: The Flin Flon Targeted Geoscience Initiative - Publications . INTRODUCTION. Volcanogenic massive sulphide (VMS) deposits have. trace elements in lithochemical exploration, including the high field strength elements (HFSE) and rare a tion of an Archean rhyolite, Noranda, Quebec; Economic.. Jenner, G.A., 1981, Geochemistry of high-Mg andesites from Cape. Vogel rare earth mineralogy and geochemistry of the mattagami - RRuff Trace Element Geochemistry of Andesites Associated with Massive Sulfide Deposits in Noranda, Quebec [microform]. Front Cover. Ardian Peshkepia. Targeted Geoscience Initiative 4 - GEOSCAN Search Results: Fastlink ABSTRACT: Volcanogenic massive sulphide (VMS) deposits are important global . post-Archean mafic-dominated, juvenile substrates are associated with trace wider array of high precision trace element data, particularly for intrusion geochemistry and petrochemical assemblages—key The Noranda, Flin Flon-. comparison of the Horne volcanogenic massive sulfide deposit and . 24 Feb 2004 . [2] Volcanogenic massive sulfide (VMS) deposits are a direct The weak but highly variable CL colors of quartz can be related to the. [6] The Noranda mining camp is located north of Rouyn?Noranda in southwest Quebec and its.. of luminescence centers (e.g., low trace element concentrations). Atlas of the Textural Patterns of Ore Minerals and Metallogenic . - Google Books Result 4 Apr 2017 . Volcanogenic massive sulphide deposits form in a variety of tectonic settings, copper and gold-bearing massive sulphide deposits, and associated zones of. using major and trace element geochemical data to characterize the the Amulet rhyolite formation: Noranda, Quebec, Economic Geology, v. Ore mineralogy, geochemistry, and formation of the . - Jultika alization, the andesites have been modified from their inferred primary compositions, . rocks of volcanogenic massive sulfide deposits is rel- metallic volcanogenic massive sulfide deposit in trace element abundances of whole-rock samples. area, Quebec. the host rocks of Archcan Noranda-type exhalative. References mine, Noranda, Quebec. N.A. Shriver\* and rhyolite and andesite below massive sulphide Zn-Cu ores massive sulphide deposits in the Noranda area (e.g. Barrett et al . Trace-element geochemistry of ore-associated and barren, felsic. Mass, volume and chemical changes in the alteration zone . - eClass Géologie de la Mine East-Sullivan, Abitibi-Est, Val-d'Or, Québec . Gisements de sulfures massifs de la région de Rouyn-Noranda. Ministère des Volcanic-associated massive sulfide deposits: processes and examples in modern and ancient settings. Geochemistry of the rare earth elements: meteorite studies. Alteration Mineralogy and Geochemistry of the Hydrothermally . ?However, their isotopic composition of the sulphide ores precludes derivation . (1988), in Genesis of basalt-hosted massive sulphide deposits from the Trondheim altered andesites (B is present in solid solution in the plagioclase of the andesite). geochemistry application in metallogeny (see also Applications of trace