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Geological Investigations in New Brunswick

(3 papers – pdf format)

1. Structural and Stratigraphic Study Around the Chester Deposit, Bathurst Mining Camp, New Brunswick: Structural Reinterpretation and Recognition of Volcanic Rocks in the Patrick Brook Formation

Dustin R.L. Dahn¹ and Sandra Kamo²

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²Jack Satterly Geochronology Laboratory - Department of Earth Sciences, University of Toronto

Geological mapping in the area surrounding the Chester deposit in the southern part of the Bathurst Mining Camp was conducted to address specific gaps in the understanding of the geology of this area. Previous studies in the Chester region have documented: 1) enigmatic felsic volcanic rocks apparently interbedded with fine-grained sedimentary rocks of the Patrick Brook Formation (Miramichi Group) and 2) a predominantly shallowly dipping penetrative foliation in volcanic and sedimentary rocks south of the Moose Lake – Tomogonops Fault ('flat-belt'). ...

2. Gold-Bearing Quartz Veins at the Williams Brook South Occurrence, A Description and Structural Analysis of Veins and Fractures

Dustin R.L. Dahn¹, Aaron L. Bustard¹, Anna M. Terekhova², and Jacob J. Hanley²

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²Mineral Exploration and Ore Fluids Laboratory - Department of Geology, Saint Mary's University

The Williams Brook South occurrence consists of gold-bearing quartz veins hosted by rhyolite and subordinate interbedded sedimentary rocks of the Wapske Formation (Tobique Group) in northwestern New Brunswick. The area investigated is exposed semi-continuously over approximately 150 m along the eastern bank of Williams Brook, 5 km north of Nictau Lake and approximately 90 km west of Bathurst. Lithochemical analysis indicates that the host rhyolite is similar to rhyolite at

the Williams Brook Au occurrence (4.5 km to the north-northeast), and consistent with a within-plate (A-type granite) ...

3. Sub-Carboniferous Geology in the Eastern Bathurst Mining Camp: where does the Brunswick Horizon Go?

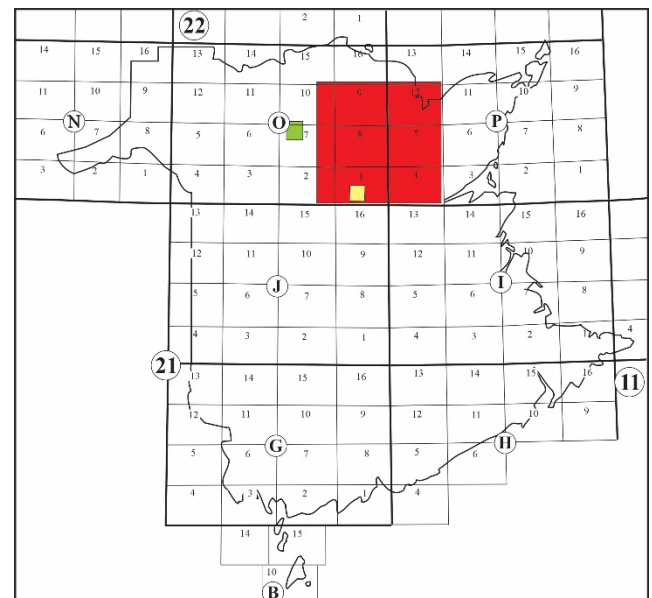
James A. Walker¹ and Steve R. McCutcheon²

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²Nackawick, New Brunswick

Drill core (~ 20,000 m in 45 drill holes), lithochemical analyses (n = 194), and results from Megatem II airborne magnetic and conductivity data and ground gravity data have made it possible to formulate a rudimentary map of the Ordovician geology beneath Carboniferous cover rocks in the eastern extension of the Bathurst Mining Camp (parts of NTS map sheets 21 P/04 and 21 P/05).

This area is divided into two domains. The southwestern domain has a structural grain that trends north-northeast. Quartz-feldspar crystal tuff and related volcanoclastic rocks, typical ...



shades on map denote study areas

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