

Mineral exploration and development highlights in northern New Brunswick

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In 1996, exploration expenditures in northern New Brunswick were approximately \$12.3 million, up \$3.6 million over the previous year. About \$10 million of this total was spent by half a dozen companies exploring for VMS deposits in the Bathurst Mining Camp of the Miramichi Zone. Another \$1.75 million was spent by two companies exploring for VMS deposits in the Tobique-Chaleur Zone and the remainder was largely spent by one company exploring for porphyry copper/skarn deposits in the Aroostook-Matapedia Zone.

The main players in the Bathurst Camp in 1996 were Noranda Mining and Exploration Inc. (including Brunswick Mining and Smelting), Inmet Mining Corporation, BHP Minerals Canada Ltd., Teck Exploration Ltd., and Stratabound Minerals Corp. These companies concentrated their exploration efforts on the lower, felsic-volcanic part of the Middle Ordovician Tetagouche Group, which hosts most of the known massive sulphide deposits in the Camp. All of them acquired additional claims during the year as a result of the ACOA-funded, multiparameter, airborne geophysical survey of the Camp, the results of which were released in July. However, Noranda has been the first company to discover a new massive sulphide occurrence/deposit as a direct result of this survey. Noranda has also been the first company to try us-

ing high-resolution seismic in the Camp as a VMS exploration tool.

Exploration in the Tobique-Chaleur Zone was focused on the Shingle Gulch-Sewell Brook area, near Plaster Rock, where the main player has been Chapleau Resources. Chapleau's exploration is directed toward delineating stratabound, ore-grade lenses contained in fragmental volcanic rocks (mostly felsic and mafic hyaloclastites) of the Lower Devonian Tobique Group.

In the Aroostook-Matapedia Zone, the exploration targets are small, high-level, late Silurian to early Devonian intrusions that cut calcareous rocks of the Matapedia and Chaleur groups; these intrusions host and/or are genetically related to known copper \pm gold mineralization in several localities, the best known one being McKenzie Gulch. Noranda is virtually the only company exploring in the Aroostook-Matapedia Zone.

On the development side, East-West Caribou Mining Limited took steps to reopen the Caribou VMS deposit in the northwestern part of the Bathurst Camp, which included preparations to open-pit the Restigouche VMS deposit for processing at the Caribou mill. Restigouche is located approximately 25 km west-southwest of Caribou.