

PRELIMINARY SERIES



**LEGEND**

Concentration of heavy metal, 0.001 ppm or less  
in stream waters. .... in spring waters. ....

Concentration of heavy metal, 0.002 to 0.005 ppm  
in stream waters. .... in spring waters. ....

Concentration of heavy metal, 0.006 ppm or greater  
in stream waters. .... in spring waters. ....

Location of known mineral occurrences  
(Symbols indicate principal metals)

Mining properties (see index below)

**Metal Symbols**

Arsenic.....As	Molybdenum.....Mo
Antimony.....Sb	Nickel.....Ni
Barium.....Ba	Silver.....Ag
Copper.....Cu	Tungsten.....W
Gold.....Au	Tin.....Sn
Manganese.....Mn	Zinc.....Zn
Lead.....Pb	Gossan (limonite, pyrite, etc.).....G

**DESCRIPTIVE NOTES**

**Geological**

South of a line following the Millstream River and westward through Tatouche Lake, the area is underlain mainly by the Ordovician Tatouche Group comprising a series of completely folded and sheared metasediments, metavolcanics, and metagabbro intrusives. These are intruded south of Bathurst by a granitic mass.

North of the Millstream River the rocks are mainly of Ordovician, Silurian, and Devonian age. The Elmston Group, of probable Ordovician age, is composed of folded and contorted metasediments and some metavolcanics which are intruded by a granitic stock in the vicinity of Antoinette Lake. The Silurian and Devonian rocks comprise both sedimentary and igneous rocks. The Silurian rocks are intruded by a granitic stock that has an associated metamorphic aureole in which the rocks are mainly hornfels and slate. Another granitic stock intrudes Silurian volcanic rocks along South Benjamin River.

East of Tatouche Lake the area is underlain by the Pennsylvanian Bathurst Formation. These rocks are mainly siltstones, sandstones, grites, and conglomerates that dip gently eastward.

Fluvial conglomerates and sandstones (Bathurst Formation), possibly of Triassic age, underlie Heron Island and fringe the coast in the Jacquet River area.

Glacial till, sand, and gravel mantle the whole district, and recent post-glacial sands and clays cover much of the area around Bathurst Harbour and occur in the above section at Jacquet River.

The principal mineral deposits in the area are massive, vein, and disseminated deposits containing essentially iron, zinc, and copper sulfides. Molybdenum occurrences are associated with the Bathurst, Nicholas Diney, and Antoinette Lake granitic intrusions.

The text of the paper accompanying this map should be consulted for further details on the geology and economic geology of the district.

- Index to Mining Properties and Prospects**
1. Anacosta Co. (Canada), Ltd.
  2. Great Northern Development Corp., Ltd.
  3. Tatouche Exploration Co., Ltd. (Orvan Brook)
  4. Anacosta Co. (Canada), Ltd. (Rocky Tern Group)
  5. Anacosta Co. (Canada), Ltd. (Armstrong 'A' deposit)
  6. Anacosta Co. (Canada), Ltd. (Armstrong 'B' deposit)
  7. Quebec Sturgeon River Mines, Ltd. (Hatchey and Shull deposits)
  8. Millstream iron deposit
  9. Battered copper deposit
  10. Sigatou River Mines, Ltd.
  11. Known mine
  12. East Ventures, Ltd.

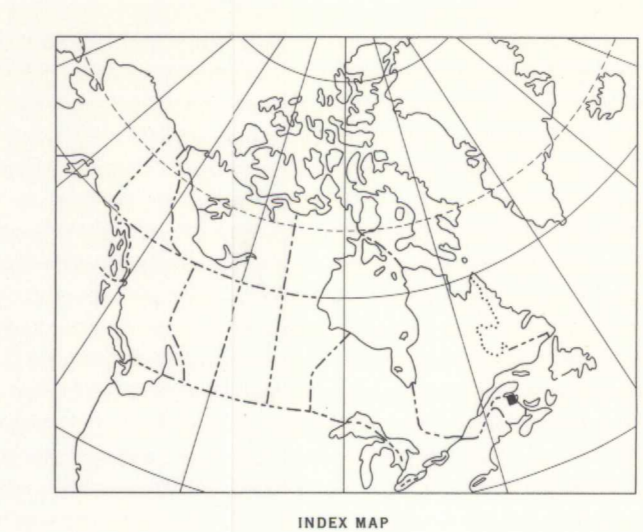
Field work by: W. M. Toyper, M. Zimada, G. Friedrick, M. Carter, K. Bygrave, M. Stufpalink, R. Bourassa, D. Pickett, L. W. Laffey, P. Martel, W. Warren, W. Taylor, R. Cormier, and R. T. Lever

Geological cartography by the Geological Survey of Canada, 1965

Roads, all weather	.....
Cart track	.....
Trail or portage	.....
Railway	.....
Station and stop	.....
Post office	.....
Power transmission line	.....
Horizontal control point	.....
Survey monument	.....
County or district boundary	.....
Township or parish boundary	.....
Indian reserve boundary	.....
Intermittent stream	.....
Stream (position approximate)	.....
Rapids, falls	.....
Foreshore, tidal flats	.....
Reef, rock or small island	.....
Marsh	.....
Wheat or silt	.....
Sand or gravel	.....
Height in feet above mean sea-level	.....

Base-map compiled and drawn by the Surveys and Mapping Branch, 1954, 1956

Approximate magnetic declination, 24° 03' West, decreasing 1.1" annually



MAP 32-1065  
PAPER 65-42  
**HEAVY METAL CONTENT OF STREAM AND SPRING WATERS  
BATHURST-JACQUET RIVER DISTRICT  
NEW BRUNSWICK**  
Scale 1:63,360  
1 inch to 1 mile  
Miles 0 1 2 3  
Kilometers 0 1 2 3

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NEW BRUNSWICK

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