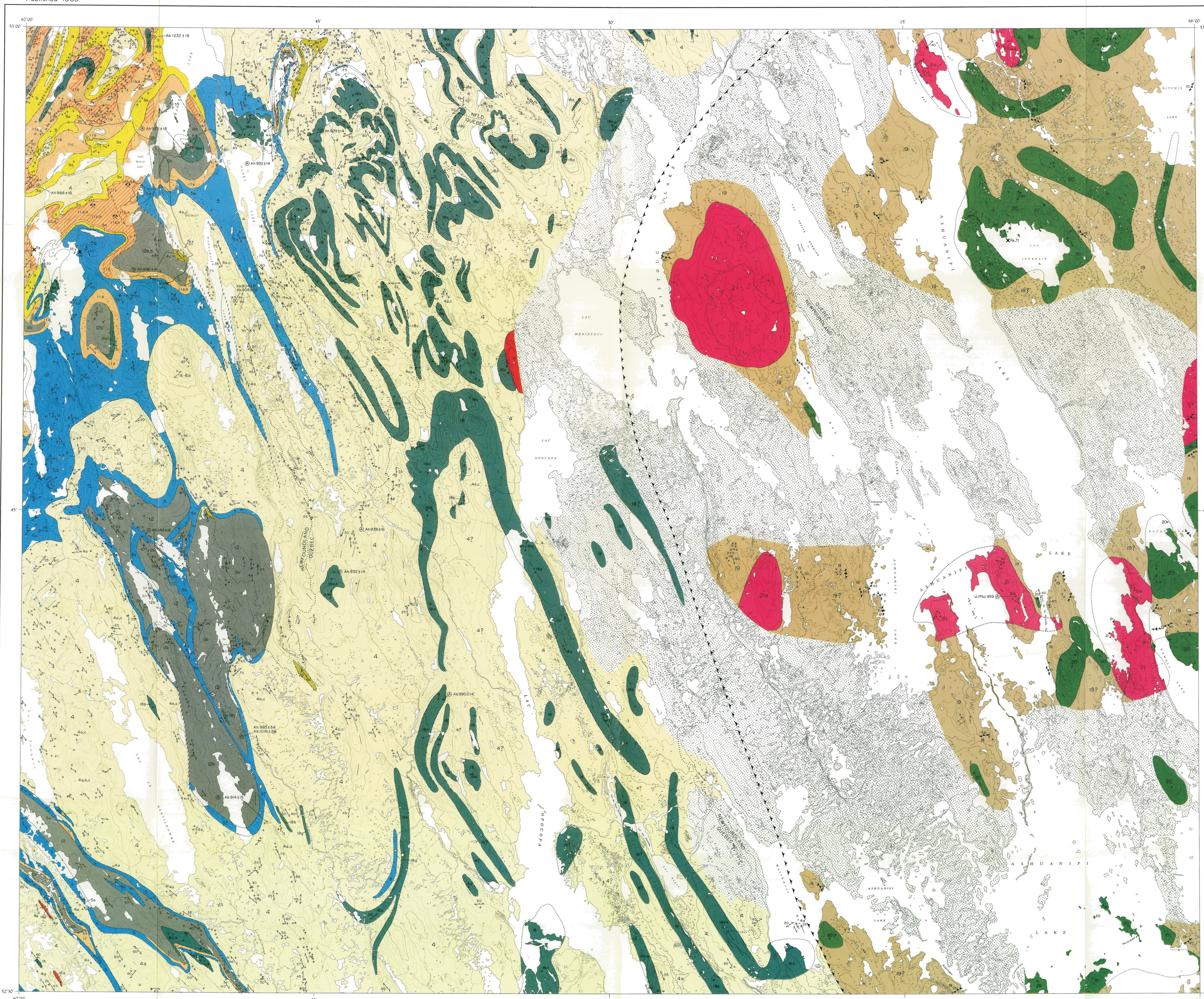
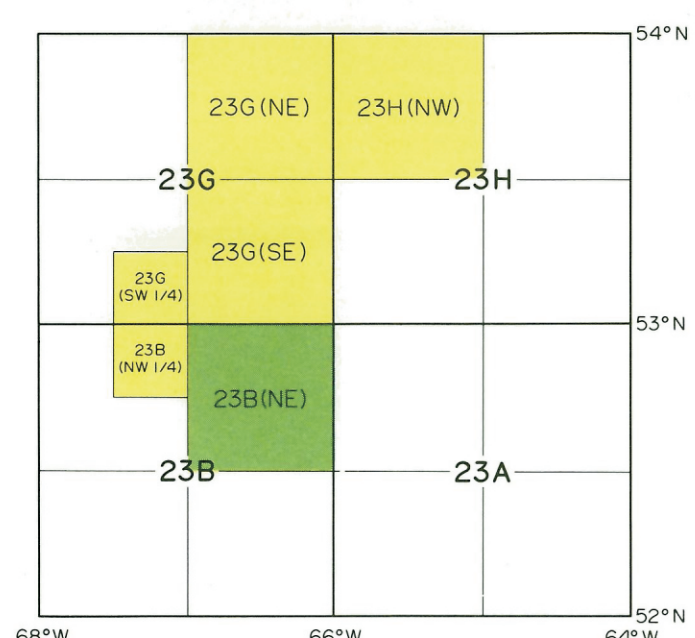


LEGEND

- Allochthonous Units**
- LOWER PROTEROZOIC (APHEBIAN)**
- 21 Granitoid intrusions: 21a, foliated to gneissic, biotite- or hornblende-bearing granodiorite to quartz monzonite and rare monzonite, generally fine- to medium-grained; 21b, foliated K feldspar-megacrystic granodiorite.
  - 20 Gabbroid intrusions: variably deformed and recrystallized meta-leucogabbro to melanocratic rocks, frequently with corona textures. Generally medium- to coarse-grained.
  - 19 Quartzofeldspathic Gneisses: upper amphibolite facies, banded, migmatitic rocks, composed of medium-grained, quartz-K feldspar-plagioclase leucosomes separated by thin, fine-grained restite seams of biotite, sillimanite (rarely kyanite), magnetite, local garnet and rare spinel.
- Autochthonous and Paraautochthonous Units**
- MIDDLE PROTEROZOIC (HELIKIAN)**
- 18 Shabogamo Intrusive Suite: 18a, metabasalt and melanite with relict igneous texture; 18b, amphibolite and hornblende-plagioclase ± biotite schist; 18c, actinolite-biotite-chlorite-plagioclase schist; 18d, metagabbro to granodiorite; 18e, meta-orthost; 18f, very fine-grained metabasalt; 18g, metapelite and talc-actinolite schist.
  - 17 Sims Formation: 17a, arkose; 17b, orthoquartzite.
- LOWER TO MIDDLE PROTEROZOIC**
- 16 Granitoid intrusions: 16a, grey, megacrystic granite (including the Sandpit pluton); 16b, pink, plagioclase-porphyratic quartz monzonite (Atkinson River pluton); 16c, microgranite, aplite; 16d, grey granodiorite; 16e, equigranular granite to quartz monzonite, generally pink.
  - 15 Blueberry Lake group: 15a, felsic volcanic rocks, predominantly rhyolite and rhyodacite; 15b, basaltic to intermediate volcanics; 15c, felsic crystal and crystal-litic tuffs; 15d, tuffaceous sandstone and greywacke, minor phyllite and slate; 15e, polymictic conglomerate; 15f, porphyritic laite.
- LOWER PROTEROZOIC (APHEBIAN)**
- 14 Montserrat Intrusive Suite: gabbro, metabasalt and amphibolite, locally gemmiferous.
- Knob Lake Group (units 3-13)**
- 13 Tamarack River Formation: 13a, green-grey dolomitic siltstone; 13b, red arkose and siltstone, dolomitic arkose and minor pebble conglomerate; 13c, red algal dolomite and arkose; 13d, green and red siltstone, mudstone and minor red sandstone; 13e, red arkose and siltstone.
  - 12 Meshik Formation: 12a, dark grey to black schist, phyllite and slate, commonly graphite-bearing; 12b, quartzofeldspathic schist and gneiss, commonly aluminosilicate and/or graphite-bearing.
  - 11 Sokoman Formation: 11a, carbonate iron formation; 11b, silicate and silicate-carbonate iron formation; 11c, oxide iron formation; 11d, ferrous quartzite; 11e, quartz-garnet amphibole ± pyroxene iron formation; 11f, cherty magnetite greywacke; 11g, cherty magnetite iron formation with tuff bands and fragments; 11h, leached iron formation, original lithotype unknown in some cases.
  - 10 Nimish Formation: mafic volcanics, conglomerate and pyroclastics.
  - 9 Wishart Formation: 9a, coarse-grained, white, crystalline quartzite; 9b, pelitic schist; 9c, quartz pebble conglomerate with pelitic schist matrix.
  - 8 Rose Bay ultramafic eruptions: actinolite-chlorite-biotite ± carbonate ± plagioclase schist, interpreted to be derived from tuffaceous volcanic and volcanoclastic sediments; locally contains recognizable volcanic fragments; occurs as lenticular bodies within units 5, 6, 7 and 11; chemical affinities to mellitites.
- McKay River formation (units 6 and 7)**
- 7 Mafic metavolcanic rocks: predominantly with greenschist mineralogy; 7a, with relict pillow structures; 7b, massive; 7c, with relict vesicular texture; 7d, plagioclase-porphyratic metavolcanics; 7e, agglomerate.
  - 6 Metatuffaceous Sediments and Conglomerate: 6a, chlorite actinolite-actinolite-quartz-epidote schist, may contain considerable carbonate; 6b, volcanogenic conglomerate with chlorite schist matrix; 6c, garnetiferous amphibolite, occurs interlayered with units 5, 11 and less commonly 4.
- 5 Denault Formation: 5a, dolomitic and calcitic marble with variable content of quartz and calcic minerals, including tremolite, diopside, talc and phlogopite; 5b, dolomitic marble with inter-banded chlorite schist.
  - 4 Atkasagen Formation: 4a, biotite-bearing quartzofeldspathic schist; 4b, biotite-bearing quartz-K feldspar schist; 4c, migmatitic quartzofeldspathic gneiss; 4d, porphyroclastic augen schist; 4e, metagreywacke-siltstone and slate; 4f, grey to black phyllite.
  - 3 Seward Subgroup: pink meta-arkose, conglomerate.
  - 2 Granitoid intrusions: 2a, coarse-grained, alkalic granite with variably developed cataclastic fabric; 2b, foliated megacrystic and equigranular granite and granodiorite.
- ARCHEAN**
- 1a, Ashuanipit Metamorphic Complex: banded ferromagnetite and granitoid gneisses, typically migmatitic and orthopyroxene-bearing, variably retrogressed in the vicinity of the Grenville Front; 1b, Eastern Basement Metamorphic Complex: granodiorite to quartzite gneiss, minor supracrustal gneiss; variably mylonitized and retrogressed; 1c, amphibolite.

Note: This legend is common to all the maps in this series. Units without color do not occur on this map.



MAP 85-24

**GEOLOGY OF THE  
OPOCOPA LAKE AREA,  
LABRADOR - QUEBEC**  
23B(NE)

SCALE 1:100,000 ÉCHELLE

Miles 1 2 3 4 5  
Kilometres 1 2 3 4 5 6

SYMBOLS

- Outcrop, large outcrop
  - Outcrop, large outcrop (compiled)
  - Angular, frost heaved float
  - Unconformity
  - Geological contact (defined, approximate, assumed)
  - Fault, reverse or normal (defined, approximate, assumed)
  - Thrust fault (defined, approximate, assumed)
  - Hudsonian lineament (may represent overturned fold axis and/or thrust fault)
  - Bedding, tops known (inclined, vertical, horizontal, overturned)
  - Bedding, tops unknown (inclined, vertical)
  - Primary igneous layering, tops known (inclined, vertical, horizontal)
  - Primary igneous layering, tops unknown (inclined, vertical, horizontal)
  - Columnar jointing, vertical
  - Strike and dip of pillows, tops known (inclined, vertical)
  - Strike and dip of pillows, tops unknown (inclined, vertical)
  - S<sub>1</sub> slaty cleavage or schistosity (inclined, vertical, horizontal)
  - S<sub>1</sub> foliation trend
  - S<sub>2</sub> crenulation or differentiated cleavage (inclined, vertical)
  - Gneissic banding (inclined, vertical)
  - Lineation or minor fold axis; inclined, horizontal
  - Antiform/synform, with plunge; known, approximate
  - Overturned antiform/synform, with plunge
  - Producing iron ore mine
  - Iron ore deposit
  - Structural trends (from air photographs)
  - Diamond drill hole
  - Mineral occurrences
- Age dating locality (age in millions of years)
- Method
- A - Ar/Ar    b - biotite    z - zircon  
R - Rb/Sr    m - muscovite    h - hornblende  
K - K/Ar    w - whole rock  
U - U/Pb  
S - Sm/Nd
- Drift covered area
- Topographic Symbols**
- Roads
- all weather, unsealed  
summer only, unsealed
- Earth filled dyke, with water flow control structure.  
Roads extend along dyke crests
- Rock quarry
- Symbols are common to all maps. Not all symbols appear on each map.

Note: Gabbro, Osookmanuan and Sandpit lakes form part of the Smallwood Reservoir system and have been extensively flooded. The map has been approximately revised from air photographs provided by the Churchill Falls (Labrador) Corporation. Outcrops shown within the lakes are compiled from mapping carried out prior to flooding.

Geological mapping by ground traversing in areas of abundant outcrop, and by helicopter-supported traversing elsewhere.

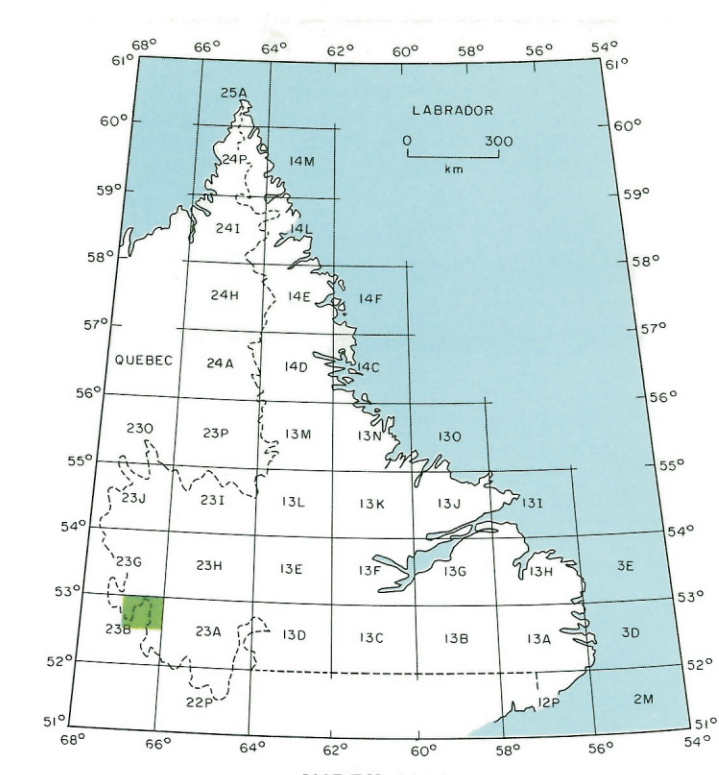
Geology in maps of this series as follows: 23B(NE), T. Rivers, 1977, 1979, 1980; 23G(SE), T. Rivers, 1977, 1979, T. Rivers and N. Massey, 1978; 23G(NE), T. Rivers, 1979; 23H(NW), R.J. Wardle, 1978; M.J. Ware, 1978; K. Howl, 1979; T. Rivers, 1979; R.J. Wardle and J.M. Britton, 1980; R.J. Wardle, 1982; 23B(NW), 23G(SW), T. Rivers, 1979, 1980, incorporating the previous mapping of Labrador Mining and Exploration Company, Iron Ore Company of Canada, Newfoundland and Labrador Corporation and others. Interpretation of 23B(NE), 23G(SE), 23B(NW) and 23G(SW) by T. Rivers; 23G(NE) by T. Rivers and R.J. Wardle; 23H(NW) by R. J. Wardle (northern half) and T. Rivers (southern half).

Geological cartography and colour separation by T. Patsanavage and D. Leonard, supervision by K. Byrne, Cartographic Section, Mineral Development Division, Department of Mines and Energy, Government of Newfoundland and Labrador.

Elevations given in feet above mean sea level.  
Approximate magnetic declination in 1980 was 29° 42' W, decreasing by 4.0' annually.

Field work upon which these maps are based was financed under the Canada/Newfoundland Mineral Development Subsidary Agreement (1977-1981) by contributions from the Government of Newfoundland and Labrador (10%) and the Departments of Regional Economic Expansion (45%) and Energy, Mines and Resources (45%) of the Government of Canada.

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INDEX MAP