

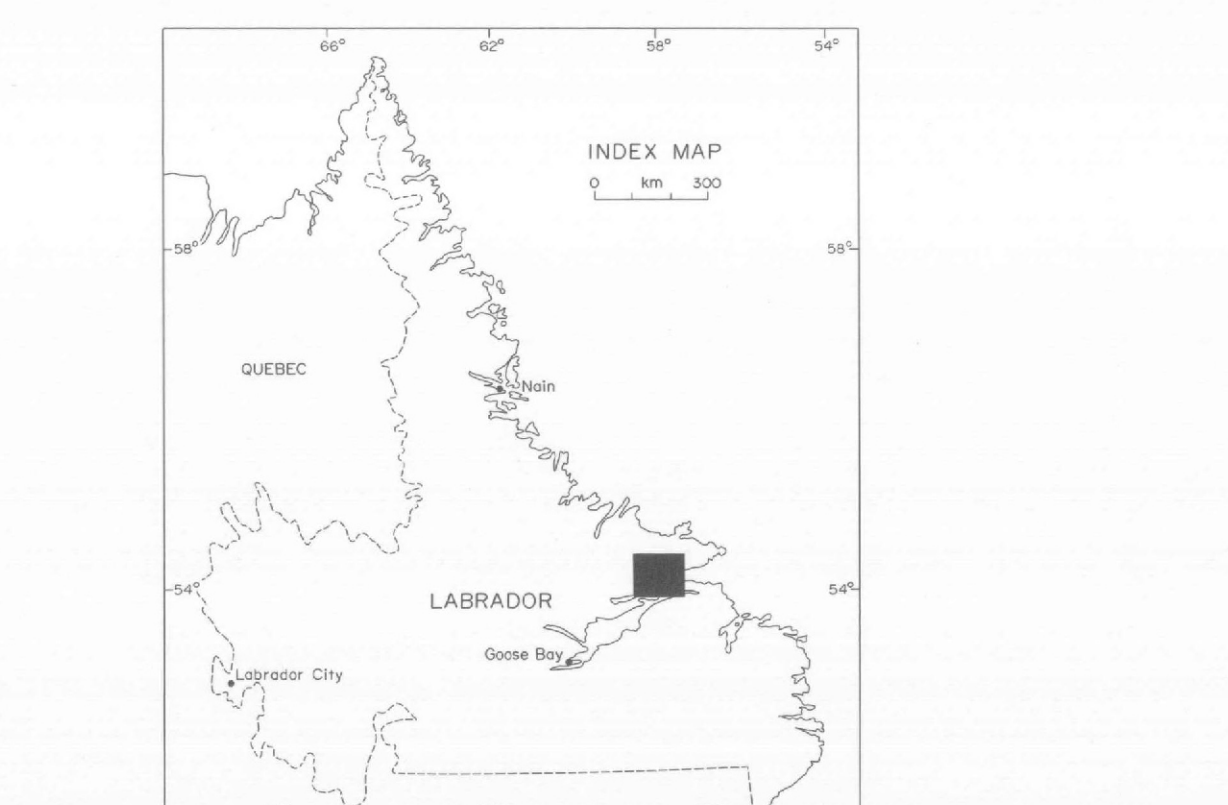
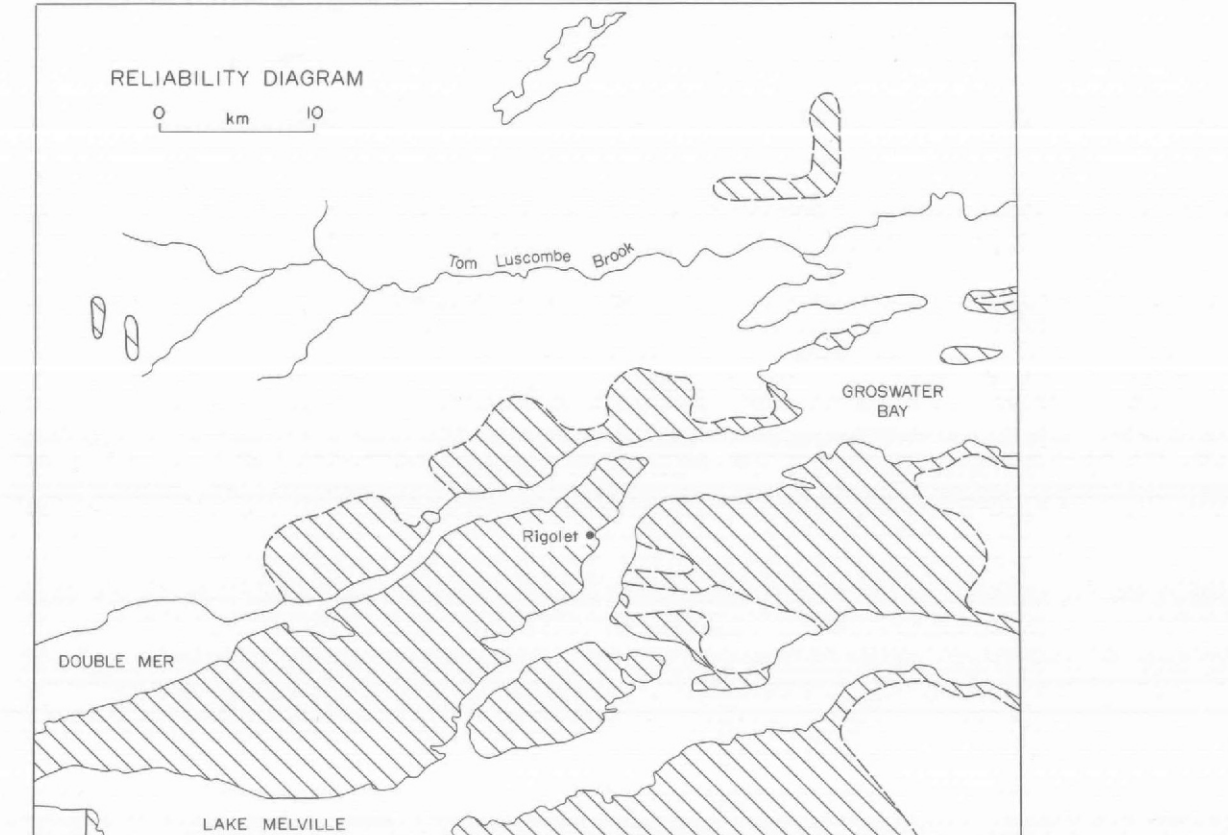
Published 1983

- LEGEND**
- PALEOZOIC**
- 12 Gabbro, olivine gabbro dikes, ophiolite texture, coarse grained, generally north-northeast trending.
- HADRYNIAN**
- 11a Double Mer Formation
- 11a Conglomerate: rounded, subrounded and locally angular clasts of (mostly) gabbro and gneiss rocks, in poorly cemented matrix.
- 11a Shale and arkose, well bedded, characteristically red and maroon weathering.
- 10 Fault and shear zone breccia and other cataclastic rocks. Extensively relictified, brecciated; commonly interlayered mafic rocks and microgneiss. Post-Derby Double Mer Formation in part.
- NEOHELKIAN-HADRYNIAN**
- 9a Equigranular diabase/megacrystic gabbro/megacrystic dikes, medium and coarse grained, ophiolite texture preserved.
- 9b Plagioclase porphyritic diabase/megacrystic dikes, medium grained, ophiolite texture commonly well preserved.
- 8 Microgranite, aplite and pegmatite dikes, and (irregular intrusions); various ages.
- HELKIAN (cf. ELSONIAN but probably includes earlier intrusions)**
- 7a 7b 7c 7d 7e 7f 7g 7h 7i 7j 7k 7l 7m 7n 7o 7p 7q 7r 7s 7t 7u 7v 7w 7x 7y 7z (includes Michael Gabbro)
- 7a Amphibolite or granite associated with megacrystic rocks, commonly garnetiferous, medium grained, foliated to gneissic.
- 7b Leucogabbro, leucocrinite, minor anorthosite, medium and coarse grained.
- 7c Monzogabbro grading into monzonite, medium and coarse grained.
- 7d Gabbro, norite, commonly olivine-bearing, minor ultramafite, medium to coarse grained.
- 7e Syenite grading into monzonite, quartz-bearing in part, medium to coarse grained.
- 6a 6b 6c 6d 6e 6f 6g 6h 6i 6j 6k 6l 6m 6n (includes Mealy Mountains Intrusive Suite)
- 6a Alkali feldspar granite, grading into quartz monzonite, coarse grained.
- 6b Leucogabbro, leucocrinite, anorthosite, fine grained to very coarse grained.
- 6c Monzonite to monzogabbro, coarse to very coarse grained.
- 6d Leucocratic, layered plagioclase-rich rock with minor garnet, pyroxene, hornblende and quartz, medium to coarse grained.
- 5a 5b 5c 5d 5e 5f 5g 5h 5i 5j 5k 5l 5m 5n 5o 5p 5q 5r 5s 5t 5u 5v 5w 5x 5y 5z
- 5a Diorite, quartz diorite, grading into monzonite, hornblende-bearing, medium to coarse grained.
- 5b Monzonite, quartz monzonite grading into diorite, gneissic or gneissic varieties, clinopyroxene (and rarely orthopyroxene) bearing, medium to coarse grained.
- 5c Alkali feldspar granite, quartz syenite, syenite and monzonite, clinopyroxene-bearing in part, medium to coarse grained, characteristically pink weathering.
- 5d K-feldspar megacrystic granite to granodiorite, medium to coarse grained.
- 5e Biotite-hornblende granite to alkali-feldspar granite, medium to coarse grained.
- HELKIAN (cf. KETILIDIAN)**
- 4a 4b 4c 4d 4e 4f 4g 4h 4i 4j 4k 4l 4m 4n 4o 4p 4q 4r 4s 4t 4u 4v 4w 4x 4y 4z
- 4a Amphibolite, schistose, lenses and layers, possibly remnants of former mafic dikes.
- 4b Biotite ± hornblende granodiorite, medium to coarse grained, weak to strongly foliated, generally not gneissic, includes granodiorite associated with 3d.
- 4c Biotite granite, medium to coarse grained, weak to strongly foliated, not gneissic.
- 4d Hornblende granite, grading into quartz syenite, medium to coarse grained, weak to strongly foliated.
- 4e Granodiorite to granite with K-feldspar megacrysts, medium to coarse grained, open fabric in part.
- 4f Granodiorite to granite with Unit 2 relicts, rare sillimanite and/or syenite, extremely garnetiferous. Usually with K-feldspar megacrysts; equivalent to 4p in part.
- HELKIAN and/or APHEBIAN**
- 3a 3b 3c 3d 3e 3f 3g 3h 3i 3j 3k 3l 3m 3n 3o 3p 3q 3r 3s 3t 3u 3v 3w 3x 3y 3z
- 3a Amphibolite, meliorite, minor quartzofeldspathic leucosome, fine to coarse grained, foliated.
- 3b Diorite, quartz diorite, hornblende ± biotite, commonly with irregular quartz-feldspathic leucosome patches.
- 3c Monzonite, monzoniorite, quartz-bearing with hornblende ± biotite, irregular quartz-feldspathic leucosome patches.
- 2a 2b 2c 2d 2e 2f 2g 2h 2i 2j 2k 2l 2m 2n 2o 2p 2q 2r 2s 2t 2u 2v 2w 2x 2y 2z
- 2a Amphibolite with quartz-feldspar layers; schistose or gneissic.
- 2b Calc-silicate rock, marble. Grossularite ± calcite ± diopside ± forsterite ± plagioclase assemblage, fine to coarse grained.
- 2c Kyanite-bearing quartz-feldspar schist and gneiss, fine to coarse grained, grades into muscovite schist.
- 2d Quartzite, meta-arkose, thin to thick bedded. Thin phyllosilicate partings. Fine to coarse grained.
- 2e Sillimanite ± orthopyroxene-bearing quartz-feldspar schist and gneiss, pegmatitic in part, rusty weathering. Fine to coarse grained.
- 2f Muscovite-rich quartz-feldspar schist; pelitic. Fine to medium grained, rusty weathering.
- 2g Biotite-rich quartz-feldspar schist; pelitic. Fine to medium grained; some could be relicts from partial melting.
- 2h Quartz-feldspar schist, psammite, mesopyroxene, fine to medium grained, some fragmental fabrics suggesting derivation from pyroclastic protolith in part.
- 2i Diatexite: coarse grained to pegmatitic, white weathering quartzofeldspathic rock with mafic relicts; heterogeneous varieties have abundant relict lenses and schlieren; homogeneous varieties have relicts more uniformly dispersed. Uraniferous locally.
- 2j Cordierite-bearing schist and gneiss, fine to medium grained.
- APHEBIAN-HELKIAN (includes many of above units reworked during Grosvenor Orogeny, as well as earlier gneiss remnants)**
- 1a 1b 1c 1d 1e 1f 1g 1h 1i 1j 1k 1l 1m 1n 1o 1p 1q 1r 1s 1t 1u 1v 1w 1x 1y 1z
- 1a Amphibolite, commonly with quartz-feldspar veins and segregations, fine to medium grained, massive, foliated or gneissic.
- 1b Biotite granodiorite, minor hornblende, fine to coarse grained, foliated to gneissic.
- 1c Biotite-hornblende diorite to quartz diorite, fine to coarse grained, foliated to gneissic.
- 1d Biotite granite, minor muscovite, fine to coarse grained, foliated to gneissic.
- 1e Biotite-hornblende quartz diorite to granodiorite, fine to coarse grained, foliated to gneissic.
- 1f Biotite granodiorite with K-feldspar phenocrysts, porphyroblasts or augen, seriate texture in part, foliated to gneissic.
- 1g Biotite tonalite, minor hornblende, fine to coarse grained, foliated to gneissic.



- SYMBOLS**
- Geological boundary: defined, approximate, assumed
- Assumed unconformity
- Bedding: inclined, vertical
- Inferred primary igneous layering
- Foliation: horizontal, inclined, vertical, dip unknown
- Foliation to discontinuous gneissosity: horizontal, inclined, vertical, dip unknown
- Gneissosity: horizontal, inclined, vertical, dip unknown
- Lineation: horizontal, inclined, inclined but plunge unknown
- Combined planar and linear measurements
- S, Z, M and W folds, axial trace indicated by fold limbs, plunge direction by arrow
- As above, plunge unknown
- Fold style reflecting individual structures
- Refolded folds
- Fault: approximate, assumed
- Fault or thrust: assumed
- Thrust defined, approximate, assumed
- Shear zone
- Antiform, synform: plunge indicated by arrow
- Overturned antiform, overturned synform
- Area of thick overburden
- Esker
- Mineral occurrence
- Data station
- Geochronology Abbreviations**
- Rb-Sr Rubidium-Strontium isochron
Sr Initial strontium ratio
K-Ar Potassium-argon date
W.R. Whole rock age
Musc. Muscovite age
Biot. Biotite age
? Age interpreted as anomalously old
* Age interpreted as reset during metamorphism
- Mineral Abbreviations**
- Chc Chalcopyrite, malachite
Mo Molybdenite
Py Pyrite
U High radioactivity and/or secondary uranium mineralization

- NOTES:**
- Granitoid terminology follows IUGS recommendations (Streckeisen, 1976: Earth Science Reviews, Volume 12, pages 1-33).
 - Age relationships are not implied by the order in which units are presented within each group, and are poorly documented between groups.
 - This is a combined legend for 13J SE, 13J SW, 13G NE, 13H NE and 13H NW.
 - Units are indicated in order of decreasing abundance at each data station.
 - Unit symbols separated by slash, e.g. 3d/1d, indicate alternative designations, preferred unit given first.
 - Map users are encouraged to reinterpret map units with the same letter as possible equivalents, e.g. 7a = 1a.



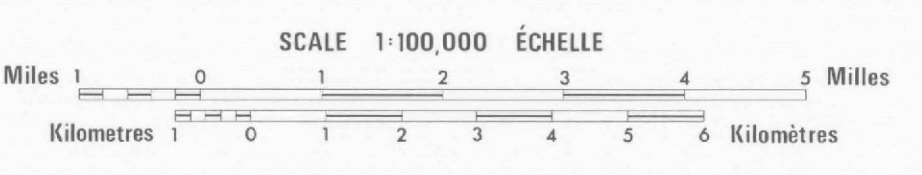
Geology on north side of Groswater Bay by C.F. Gover, 1979, with contributions from D.G. Bailey and R.A. Doherty. Geology of remainder of area by C.F. Gover, N. Noel and R.T. Gillespie, 1980. Data from Stevenson (1970; G.S.C. Paper 69-48) have also been incorporated into the map.

This preliminary map may be subject to revision and correction.

Geological cartography by Drafting Section, Mineral Development Division, Department of Mines and Energy, Government of Newfoundland and Labrador.

Copies of this map may be obtained from the Publications and Information Section, Mineral Development Division, Department of Mines and Energy, P.O. Box 4750, St. John's, Newfoundland, A1C 5T7.

RIGOLET



MAP 83-42

Base map enlarged from 1:250,000 scale map published by Surveys and Mapping Branch, Department of Energy, Mines and Resources, Ottawa.

Magnetic declination at longitude 58° 00' in 1983 was 33° 09' westerly; annual magnetic change 4.1' westerly.

Elevations in feet above mean sea level.

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