UPPER PROTEROZOIC OR PALEOZOIC **Double Mer Formation** 110 Conglomerate; rounded, subrounded and angular clasts of quartzofeldspathic and mafic metamorphic rocks, in a pebbly unsorted matrix, clast-supported. 11s Arkose, minor shale, well-bedded and cross-stratified, grain supported, characteristically red or maroon weathering. UPPER PROTEROZOIC AND EARLIER 10 Fault and shear zone breccia. Extensively hematized, epidotized, chloritized and silicified. Postdates Double Mer Formation in part. Includes earlier mylonite. 9 Minor mafic dykes, medium grained, equigranular. Deformed and metamorphosed. 8 Microgranite, aplite and pegmatite dykes, and irregular intrusions, various ages. MIDDLE PROTEROZOIC Includes Michael Gabbro 7a Amphibolite and retrograded metagabbro; commonly garnetiferous, medium grained, foliated to gneissic.

7u Ultramafic rocks, commonly olivine-bearing, medium to coarse grained. 6a 6b 6d 6g 6l 6m

accompanying report.

6a Mafic granulite, fine to medium grained, intensely foliated and lineated. 6b Granodioritic granulite, medium to coarse grained, strongly foliated and lineated.

71 Leucogabbro and leuconorite, medium and coarse grained, similar to 7r but lower colour

7r<sub>1.7</sub> Gabbro, norite, characteristically olivine-bearing, medium to coarse grained. Subscript,

6d Dioritic granulite, fine to coarse grained, strongly foliated and lineated. 6g Granitic granulite, generally fine grained, intensely foliated and lineated. 61 Leucomonzonitic granulite, fine to medium grained, strongly foliated and lineated.

6m Monzonitic granulite, medium to coarse grained, sparsely K-feldspar megacrystic, strongly foliated and lineated. Includes Double Mer Granite

5g Biotite/chlorite granite to alkali-feldspar granite, medium to coarse grained. 5m Monzonite, quartz monzonite grading into granite and syenite, medium to coarse grained. 5y Alkali feldspar granite, quartz syenite, syenite, clinopyroxene-bearing in part, medium to coarse grained.

4a 4d 4f 4g 4h 4m 4p 4r 4u Includes Walker Lake quartz monzonite and Crooked River granite

4d Diorite to quartz diorite, medium to coarse grained. 4f Biotite-muscovite leucogranite, fine to medium grained.

4g Biotite granite, medium to coarse grained. 4h Hornblende quartz monzonite, coarse grained. 4m Biotite monzonite, coarse grained, seriate to megacrystic texture.

4p Granodiorite to granite with K-feldspar megacrysts, medium to coarse grained. 4r Gabbro, coarse grained.

4u Muscovite granite, medium to coarse grained, kyanite bearing at one locality.

3d Diorite, quartz diorite, hornblende ± biotite, irregular quartzofeldspathic leucosome 3m Monzonite, monzodiorite, quartz-bearing with hornblende ± biotite, irregular quartzofeldspathic leucosome patches.

MIDDLE OR LOWER PROTEROZOIC

2a 2c 2k 2q 2s 2u 2r 2w 2x

2a Amphibolite with quartz-feldspar layers, schistose or gneissic. 2c Calc-silicate rocks, compositionally layered, medium grained.

2k Kyanite-bearing quartz-feldspar schist and gneiss, medium grained, grades into muscovite

2q Quartzite, ?meta-arkose, thinly bedded, interlayered with calc-silicate rock and psammitic gneiss. 2s Sillimanite-bearing quartz feldspar schist and gneiss, medium grained, rusty weathering.

2u Muscovite-rich quartz-feldspar schist; pelitic and semi-pelitic. Medium grained, rusty 2v Biotite-rich quartz-feldspar schist; pelitic. Medium grained; some could be restite from

2w Quartz-feldspar ± hornblende psammitic schist and gneiss, ?meta-greywacke; medium

MIDDLE OR LOWER PROTEROZOIC (includes many of above units mobilized during Grenvillian,

2x Metasedimentary diatexite; coarse grained to pegmatitic, white weathering.

1a 1b 1d 1f 1g 1h 1p

or earlier orogeny)

1a Mafic to ultramafic gneissose rocks, coarse grained, completely recrystallized.

1b Biotite granodiorite gneiss, minor hornblende, fine to coarse grained. 1d Biotite-hornblende diorite to quartz diorite gneiss, fine to coarse grained.

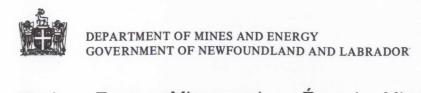
1f Muscovite-bearing granodioritic to granite gneiss, fine grained.

1g Biotite granite gneiss, minor muscovite, medium to coarse grained.

1h Hornblende-biotite quartz diorite to granodiorite gneiss, medium to coarse grained.

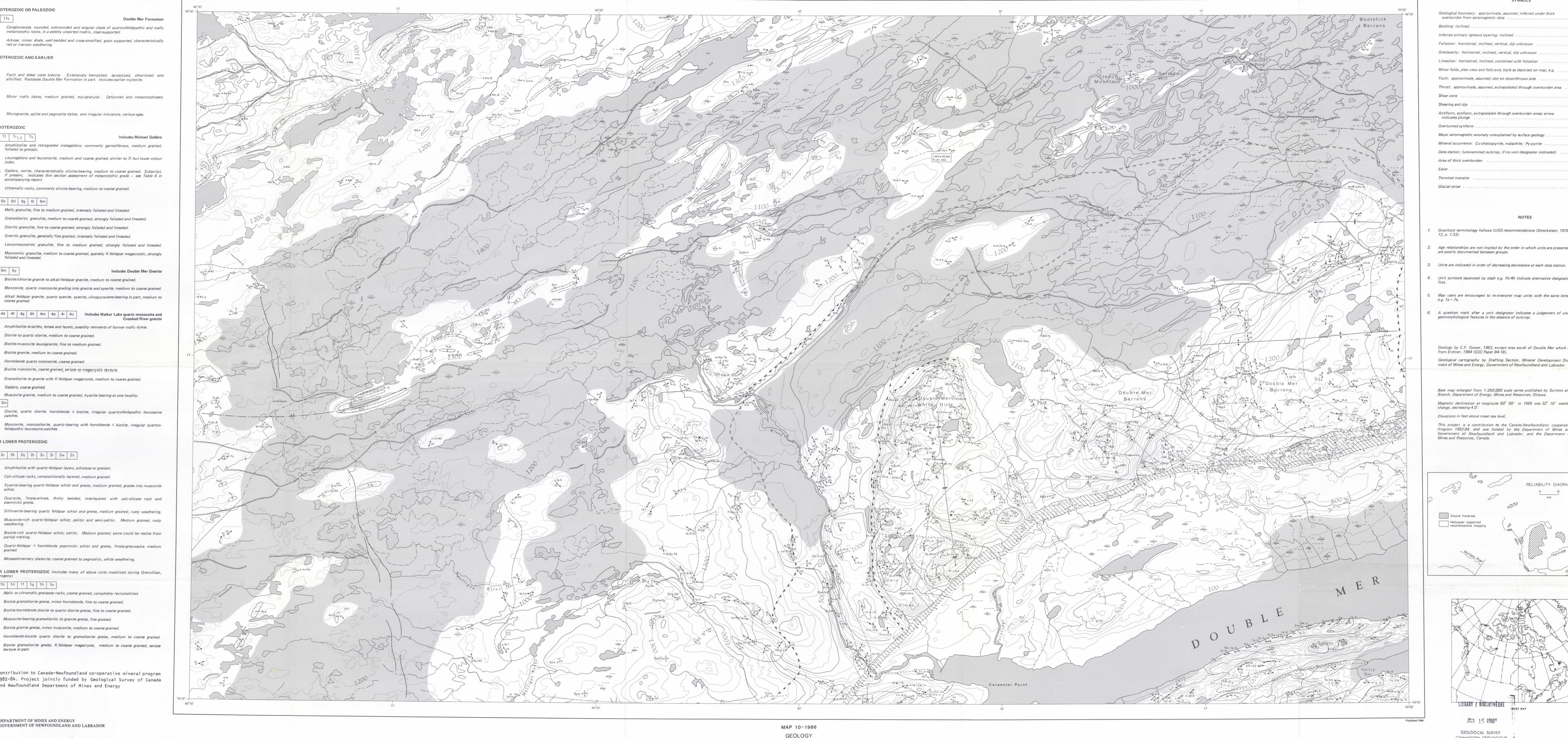
1p Biotite granodiorite gneiss, K-feldspar megacrysts, medium to coarse grained, seriate texture in part.

Contribution to Canada-Newfoundland co-operative mineral program 1982-84. Project jointly funded by Geological Survey of Canada and Newfoundland Department of Mines and Energy



Energy, Mines and Ressources Canada Energie, Mines et Ressources Canada





Geological boundary: approximate, assumed, inferred under thick overburden from aeromagnetic data ...... Bedding: inclined . . Inferred primary igneous layering: inclined . . Foliation: horizontal, inclined, vertical, dip unknown Gneissosity: horizontal, inclined, vertical, dip unknown Lineation: horizontal, inclined, combined with foliation Minor folds, plan view and fold axis, style as depicted on map, e.g. . Fault: approximate, assumed; dot on downthrown side Thrust: approximate, assumed, extrapolated through overburden area . Shearing and dip . Overturned synform . Major aeromagnetic anomaly unexplained by surface geology Mineral occurrence: Cu-chalcopyrite, malachite; Py-pyrite . Data station, (unexamined outcrop, if no unit designator indicated)

Granitoid terminology follows IUGS recommendations (Streckeisen, 1976; Earth Science Reviews,

Age relationships are not implied by the order in which units are presented within each group, and are poorly documented between groups.

Units are indicated in order of decreasing abundance at each data station.

Unit symbols separated by slash e.g. 1h/4h indicate alternative designations, preferred unit given

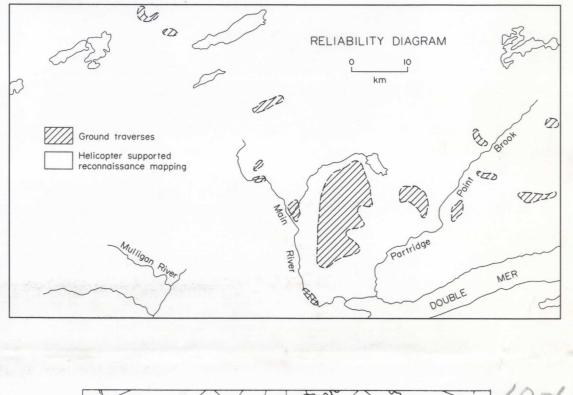
Map users are encouraged to re-interpret map units with the same letter as possible equivalents

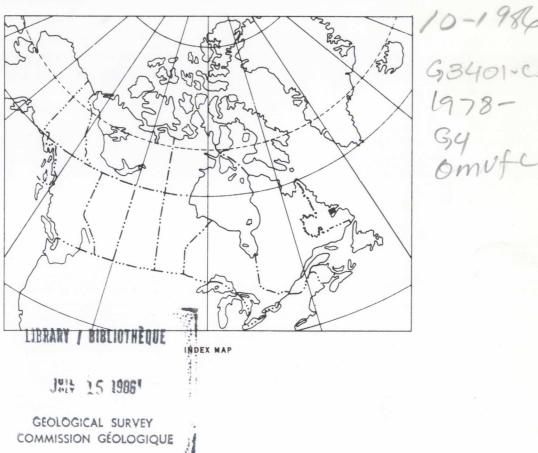
A question mark after a unit designator indicates a judgement of underlying rock type from geomorphological features in the absence of outcrop.

Geology by C.F. Gower, 1983, except area south of Double Mer which is compiled from Erdmer, 1984 (GSC Paper 84-18). Geological cartography by Drafting Section, Mineral Development Division, Depart-

Base map enlarged from 1:250,000 scale series published by Surveys and Mapping Branch, Department of Energy, Mines and Resources, Ottawa. Magnetic declination at longitude  $60^{\circ}$  00' in 1985 was  $32^{\circ}$  10' westerly; annual Elevations in feet above mean sea level.

This project is a contribution to the Canada-Newfoundland cooperative mineral Program 1982-84, and was funded by the Department of Mines and Energy, Government of Newfoundland and Labrador, and the Department of Energy, Mines and Resources, Canada.





1986: Geology, Double Mer White Hills, Labrador;

Recommended citation:

Geological Survey of Canada, Map 10-1986, scale 1:100 000

Gower, C.F.

MAP 10-1986 DOUBLE MER WHITE HILLS

LABRADOR