



EXPLANATION

gr
gpy
grd

Felsic series

gr, granite, medium- to coarse-grained, granitoid texture.

gpy, granophyric granite to granodiorite. Contains quartz, plagioclase, K-feldspar, apatite, and opaques. Texture varies from wholly granophyric to partially granitoid. Unit occurs as: 1) thin (1 meter or less) dikes having a granitoid texture, and 2) thick sub-horizontal sheets having sharp contacts with underlying units. Relative age uncertain; may be late-stage differentiate or partial melt product of volcanic rocks.

grd, granodiorite, medium- to coarse-grained. Contains quartz, plagioclase (50-60%), K-feldspar, augite, hornblende, biotite, and opaques. Texture varies from wholly granophyric to partially granitoid. Except for small dikes and stringers, which exhibit sharp contacts, contacts generally are gradational over three meters.

t

Troctolitic series

Troctolite, coarse-grained, contains cumulus plagioclase (An₄₀₋₅₀) and olivine (Fo₄₀) together with subpoikilitic augite (En₅₀, Fs₃₀, Wo₂₀) and opaques. Primary foliation of plagioclase is well developed. Unit closely resembles unit *tp* of the Tascorora intrusion as mapped in the Long Island Lake quadrangle and similar units in the Gabbro Lake quadrangle. Unit occurs extensively throughout the northwest part of the Alice Lake quadrangle, but was not mapped.

gan
og

Anorthositic series

gan, gabbroic anorthosite, coarse-grained. Contains 80-90% plagioclase (An₄₀₋₅₀) and variable amounts of augite, olivine, and iron oxides in a poikilitic texture. Primary foliation of plagioclase is well developed locally.

og, ophiitic gabbro, medium- to coarse-grained contains 60-70% cumulus plagioclase and both clinopyroxene and orthopyroxene to form an ophiitic texture. Relative age uncertain.

olg

Early mafic series

olig, olivine gabbro, medium- to coarse-grained. Contains 60-70% cumulus plagioclase (An₄₀₋₅₀), 5-10% cumulus olivine (Fo₄₀), 15-20% poikilitic augite, and 5-10% interstitial iron oxides. Contact relations of this unit are not known in the map area. Unit has sparse disseminated sulfides.

mv
nsb

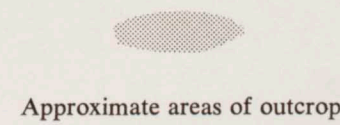
mv, metavolcanic rocks, fine- to medium-grained, granoblastic texture. Contains dominant cumulus plagioclase and varying amounts of poikilitic, green-brown hornblende, interstitial quartz, magnetite, biotite, and K-feldspar. Unit appears to have a sub-horizontal contact with underlying units. This unit represents metamorphic equivalents of several rock types in the North Shore Volcanic Group.

nsb, basalt, fine- to medium-grained, porphyritic. Contains cumulus plagioclase phenocrysts and varying amounts of pyroxene, hornblende, and interstitial oxides. Contact relations of this unit are not known in the map area.

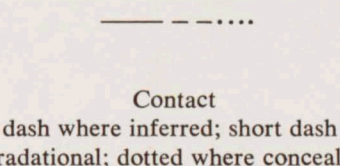
ms
gu

ms, Metasedimentary rocks, undivided, fine- to medium-grained, granoblastic texture. Contains plagioclase, staurolite, garnet, and minor sulfides. Relict bedding noted on a scale of 1-2 cm. Chemical analysis indicates a composition similar to that of the Virginia Formation.

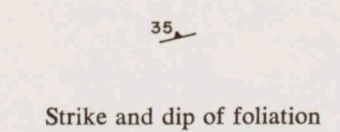
gu, granofels, fine-grained granoblastic texture.



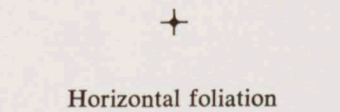
Approximate areas of outcrop



Contact
Long dash where inferred; short dash where gradational; dotted where concealed

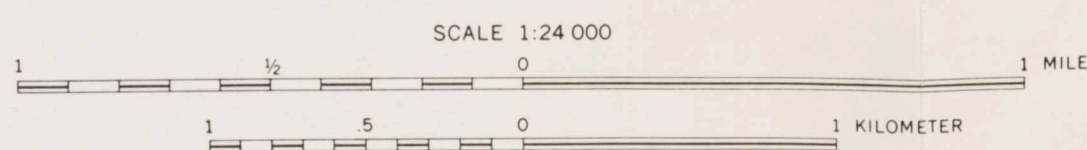


Strike and dip of foliation



Horizontal foliation

Base from U.S. Geological Survey topographic map, 1960



RECONNAISSANCE GEOLOGIC MAP OF CHEROKEE LAKE QUADRANGLE, COOK COUNTY, MINNESOTA

By
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1977