

EXPLANATION

- Qa**
Alluvium and colluvium
- Til**
Biotite latite
Pinkish-gray fine-grained rock containing phenocrysts of biotite and plagioclase scattered sparsely throughout groundmass. Forms dikes 8-10 feet wide. Locally intensely iron stained
- Tid**
Diabase
Dark-gray, almost black, fine-grained dike rock consisting principally of labradorite and augite
- Ts**
Shonkinite
Fine- to medium-grained dark to speckled black and gray massive rock containing sanidine, diopsidic augite, biotite, and subordinate olivine
- p**
Pegmatite
Massive iron-stained quartz-feldspar pegmatite containing lenses of gneissic granodiorite, quartzite, biotite-quartz-plagioclase gneiss, dikes of lamprophyre, and lenses of hornblende
- A**
Lamprophyre
Gray to black fine-grained weakly foliated minettes and vesigites that form narrow dikes
- gg**
Gneissic granodiorite and related rocks
*gg, pink or mottled pink-and-gray medium- to coarse-grained pegmatitic gneissic granodiorite ranging in composition from quartz diorite to quartz monzonite. Inclusions in the gneiss range in thickness from thin biotite folia to 200-foot-wide lenses of biotite-quartz-plagioclase gneiss, amphibolite, and microcline-quartz-plagioclase-biotite gneiss
a, apfite associated with gneissic granodiorite*
- hb**
Quartz diorite and hornblende
*Black and mottled black-and-white coarse-grained nearly massive intrusive rocks. Includes some d, quartz diorite
hb, hornblende*
- gd**
Granodiorite
Gray medium-grained foliated nearly equigranular rocks ranging in composition from quartz diorite to quartz monzonite. Includes some pegmatite
- gnm gnmm**
Microcline-quartz-plagioclase-biotite gneiss
*gnm, gray to buff medium-grained gneiss consisting of microcline-quartz-plagioclase and biotite, granitic in appearance. Locally interlayered with biotite gneiss and amphibolite
gnmm, mottled migmatitic microcline-quartz-plagioclase-biotite gneiss. Contains abundant pegmatites*
- gnq**
Quartz-plagioclase gneiss
Medium-gray fine-grained thin foliated quartz-plagioclase gneiss. Locally intercalated with quartzite, biotite gneiss, and microcline-quartz-plagioclase-biotite gneiss
- gnc**
Cordierite-bearing biotite gneiss
Light-gray to very dark blue-gray fine- to medium-grained migmatitic and cordierite-bearing biotite-quartz-plagioclase ± garnet, ± sillimanite gneiss interlayered with cordierite-biotite gneiss, cordierite-gedrite-biotite gneiss, and biotite-quartz gneiss
- gnh**
Hornblende gneiss and amphibolite
Interlayered gray to black fine- to medium-grained gneiss. Hornblende gneiss is predominantly amphibolite containing layers of biotite-quartz-plagioclase gneiss, calc-silicate gneiss, and microcline-quartz-plagioclase-biotite gneiss. Amphibolite is dark-gray to black fine- to medium-grained rock consisting of hornblende and plagioclase
- ggnb**
Garnetiferous biotite gneiss
Gray fine- to medium-grained garnetiferous biotite-quartz-plagioclase gneiss containing lenses and pods of amphibolite, sillimanitic biotite gneiss, and biotite gneiss. Includes abundant pegmatite
- gnb**
Biotite gneiss
Gray fine- to medium-grained migmatitic biotite-quartz-plagioclase gneiss. Locally contains thin lenses of hornblende and granodiorite

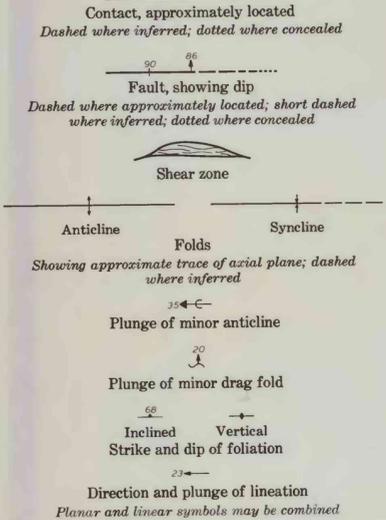
Age relations uncertain

Sequence uncertain

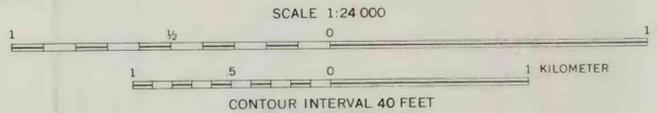
Order may not reflect age

QUATERNARY
TERTIARY (?)

PRECAMBRIAN



Base from U.S. Geological Survey, 1965



CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

GEOLOGIC MAP OF THE PRECAMBRIAN ROCKS IN THE WESTERN PART OF THE MORRISON QUADRANGLE, JEFFERSON COUNTY, COLORADO