UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

105°32'30" 31'15" 30'00" 105°28'45"

39°48'45" 39°47'30"

MARYLAND MOUNTAIN
SILVER HILL
NEGRO HILL
WINNEBAGO HILL
CENTRAL CITY
BATES HILL
Black Hawk
MAMMOTH HILL
GREGORY HILL
BOBTAIL HILL
SIGNAL HILL
JUSTICE HILL
BANTA HILL
NEVADA HILL
KINGS FLAT
QUARTZ HILL
ALPS HILL
Patch
Nevada Gulch
Prosser Gulch
Eureka Gulch
Gregory Gulch
Illinois Gulch
Willis Gulch
Russell Gulch
Lake Gulch
Leavenworth Gulch
Ellithorn Gulch
NORTH CLEAR CREEK
SOUTH CLEAR CREEK
LUCANIA TUNNEL
FACE (1937)

EXPLANATION

Pleistocene and Recent

Qal — Alluvium and colluvium

Intrusion breccia
Altered fragments of biotite gneiss, pegmatite, and microcline-quartz-plagioclase-biotite gneiss in a matrix of quartz monzonite (?)

Tp — Porphyry dikes and plutons
Purple, gray, and brown hypabyssal igneous rocks; includes quartz latonite porphyry, latonite porphyry, trachytic granite porphyry, quartz monzonite porphyry, alkali syenite porphyry, and leucocratic granodiorite porphyry

gb — Biotite-muscovite granite
Yellowish gray, weakly foliated, equigranular, fine-grained, intrusive granite; includes some pegmatite

od — Quartz diorite and hornblendite
Black or mottled black and white, medium- to coarse-grained, massive or weakly foliated intrusive rock; dominantly hornblendite, but includes diorite and minor quartz diorite

gd — Granodiorite and associated rocks
Dark-gray, foliated, medium-grained, nearly equigranular intrusive rocks; dominantly granodiorite but includes quartz diorite and quartz monzonite

p — Pegmatite
Light-gray to pink, generally coarse-grained granite composed chiefly of quartz, microcline, and albite-oligoclase, with varietal magnetite, biotite, and tourmaline; includes a few small bodies of medium-grained granite gneiss

Age relations uncertain

gmm — Calc-silicate gneiss and related rocks
Red and dark greenish-black massive rocks and green, brown, and white layered rocks of variable composition. The massive rocks are skarns that dominantly contain andradite-grossularite and rarely spessartite garnets, clinopyroxene, hornblende, and epidote. The layered rocks are light colored and contain essential grossularite, clinopyroxene, hornblende, epidote, plagioclase, quartz, and sceptite. Includes some amphibolite and quartzite

gmch — Cordierite-amphibole gneiss
Olive-gray, medium- to coarse-grained, layered gneisses; contains lavender or pink garnet, gedrite, cummingtonite, quartz, and feldspar

am — Amphibolite
Dark-gray to black, medium-grained rocks consisting dominantly of hornblende and plagioclase with minor quartz; includes both massive and layered varieties; locally intercalated with calc-silicate gneiss

gnb — Biotite gneiss
(Biotite-quartz-plagioclase gneiss and sillimanitic biotite-quartz gneiss)
Gray, medium-grained, magmatitic biotite gneisses; dominantly interlayered biotite-quartz-plagioclase gneiss and sillimanitic biotite quartz gneiss with rare lenses of garnetiferous biotite-quartz-plagioclase gneiss and quartz-rich biotite gneiss; includes many small bodies of pegmatite

gnm — Microcline gneiss
(Microcline-quartz-plagioclase-biotite gneiss)
Light-gray or yellowish-gray, medium-grained gneiss; generally has a well-defined layering; has a granitic appearance. Red pattern shows areas where gneiss contains abundant inclusions of amphibolite

Contact, showing dip
Dashed where approximately located; short dashed where inferred; or gradational; dotted where concealed

Fault, showing dip
Dashed where concealed

Anticline
Showing approximate trace of axial plane and plunge of axis. Short dashed where inferred; dotted where concealed

Syncline
Showing approximate trace of axial plane and plunge of axis. Short dashed where inferred; dotted where concealed

Overturned anticline
Showing approximate trace of axial plane

Plunge of minor anticline

Plunge of minor syncline

Plunge of minor fold axis

Horizontal fold axis

Plunge of drag fold

Plunge of recumbent fold

Plunge of boudinage

Generalized strike and plunge of crenulated foliation

Strike and dip of foliation

Strike of vertical foliation

Horizontal foliation

Direction and plunge of lineation

Horizontal lineation

Strike and dip of foliation and direction and plunge of lineations

Strike and dip of foliation and horizontal lineation

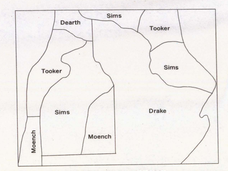
Shatterbelt
Irregularly fractured microcline-quartz-plagioclase-biotite gneiss that contains sulfide ore minerals and quartz gangue

Vein, showing dip
Dashed where approximately located; short dashed where inferred; dotted where concealed

Shaft

Adit

Note: Fold axes are based upon attitude of foliation



INDEX TO MAPPING

Base map by U. S. Geological Survey from aerial photographs

GEOLOGIC MAP OF THE CENTRAL CITY DISTRICT, GILPIN COUNTY, COLORADO

SCALE 1:6000
1/4 0 1/4 1/2 MILE
0.25 0 0.5 KILOMETER
CONTOUR INTERVAL 100 FEET
DATUM IS MEAN SEA LEVEL

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Geology by P. K. Sims, A. A. Drake, Jr., E. W. Tooker, and A. E. Dearth, 1952–5