

BLUE RIDGE THRUST SHEET

GRANDFATHER MOUNTAIN WINDOW
TABLEROCK THRUST SHEET

EXPLANATION

- Qal** Flood-plain deposits
Flood-plain and valley-bottom alluvium, including low-level terraces. Locally overlain by colluvial deposits
- Qf** Alluvial fan deposits
Alluvial fan, talus, and boulder-train deposits. Locally may include deposits of Tertiary age
- Qg** High-level gravels
Terrace and pediment deposits, deeply dissected and locally thoroughly weathered. Generally overlain by red colluvial clay. Areas of scattered gravel in float indicated by pattern of open circles. Locally may include deposits of Tertiary age
- Fb** Blastomylonite and related rocks
Very fine grained to aphanitic gray, greenish-gray, buff, or pink feldspathic blastomylonite containing porphyroclasts of potash feldspar and muscovite

Pg Granodiorite and pegmatite
Coarse-grained to very coarse grained white muscovite granodiorite containing various proportions of potassium feldspar

Cs Shady Dolomite
Thick-bedded to massive white, light gray, blue-gray, or buff-gray crystalline dolomite containing thin light-gray or greenish phyllitic partings

Ccu Chilhowee Group
Ccu, upper quartzite unit, thin- to thick-bedded medium- to fine-grained white, greenish-gray, or bluish-gray sandy quartzite and arkosic quartzite containing partings and thin interbeds of blue phyllite. Contains some massive beds of white and blue-gray vitreous quartzite with Scolothus.
Ccp, phyllite unit, lustrous blue phyllite containing interbeds of fine-grained light-gray or blue-gray quartzite.
Ccl, lower quartzite unit, thick- to thin-bedded fine- to medium-grained white, gray, or greenish quartzite and arkosic quartzite containing interbeds of green sericitic phyllite and a few thin beds of quartz pebble conglomerate in lower part.
Cct, thin tectonic slices of fine-grained white, gray, or light green quartzite and arkosic quartzite intercalated with gneisses along faults southeast of the Grandfather Mountain window

AUTOCHTHONOUS(?) ROCKS

Lm Linville Metadiabase
Blue-green, green, or gray medium- to fine-grained massive to schistose gneiss. Locally shows relict diabasic texture

GM Grandfather Mountain Formation
pCgs, fine-grained medium, dark, or greenish-gray thinly laminated siltstone, phyllite, and phyllitic schist, commonly calcareous, contains massive beds of graywacke and graywacke conglomerate and rarely thin beds of impure marble.
pCga, fine- to coarse-grained light-green, tan or gray sericitic arkose. Locally contains lenses of pebble and cobble conglomerate, especially in upper part.
pCgf, felsic volcanic rocks, chiefly fine- to medium-grained light gray to dark blue-gray felsic flows, crystal tuffs, and lufuaceous sedimentary rocks, locally with thin flows of porphyritic andesite. Includes small intrusive body of felsite near Rose Mountain.
pCgmv, mafic volcanic rocks, chiefly amygdaloidal andesite or basalt associated with blue or silvery lufuaceous phyllite and dark quartzite

pCbm Brown Mountain Granite
Massive white medium- to coarse-grained leucocratic granite

WCG Wilson Creek Gneiss
pCw, medium- to coarse-grained cataclastic granitic gneiss, strongly foliated and commonly phyllonitic. Ranges in composition from granite to quartz diorite but in most commonly quartz monzonite. Black overprint indicates areas of abundant phyllonitic pCwm, poorly foliated coarse-grained leucocratic quartz monzonite mapped locally near Rose Mountain

pCbr Blowing Rock Gneiss
Coarse-grained quartz monzonite augen gneiss containing microcline porphyroclasts 2-3 cm in diameter

pCgn Gneiss southeast of the Grandfather Mountain window
Fine- to medium-grained conspicuously layered nongranitic biotite gneiss interlayered with biotite-muscovite schist. Contains layers and pods of amphibolite and amphibole gneiss and bodies of muscovite pegmatite

pCms Mica schist, mica gneiss, and amphibolite
pCms, biotite-muscovite schist and gneiss interlayered with subordinate amounts of amphibolite and amphibole gneiss.
pCa, layered amphibolite and amphibole gneiss interlayered with subordinate amounts of mica schist and mica gneiss

INNER PIEDMONT BELT

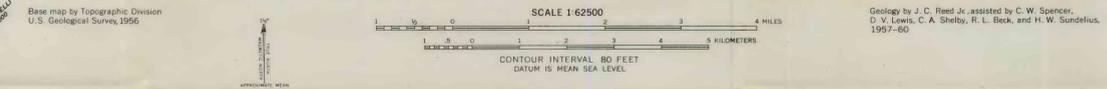
Qm Quartz Monzonite
Medium-grained light- to medium-gray massive to gneissic biotite quartz monzonite. Probably equivalent to the Tobacco Quartz Monzonite. Brown pattern shows areas where quartz monzonite contains abundant inclusions of amphibolite

HG Henderson Gneiss
Fine- to medium-grained strongly foliated and lineated biotite quartz monzonite gneiss. Commonly contains augen of feldspar jacketed by quartz and plagioclase and strongly aligned parallel to lineation

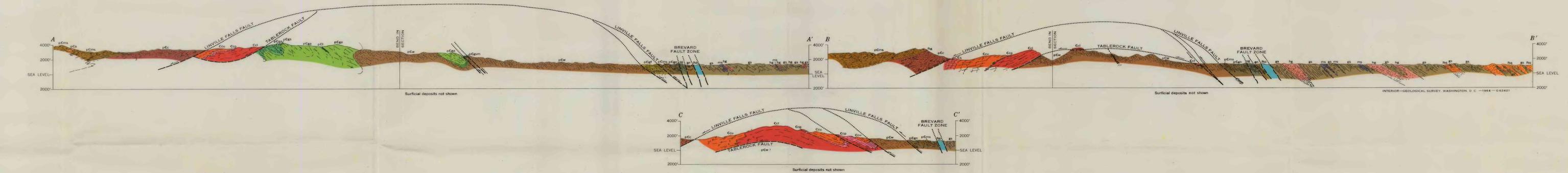
UR Ultramafic rocks
Fine- to medium-grained dark gray-green sericitic-chlorite schist containing conspicuous amphibole knots and a few relict grains of pyroxene and olivine

GS Gneiss and schist
GS, fine-grained well-layered light-, medium-, and dark-gray biotite-quartz-plagioclase gneiss. Commonly contains some interlayered mica schist, amphibolite, and amphibole gneiss and pods of muscovite pegmatite. Locally contains thin layers of micaceous quartzite. Brown pattern shows areas of abundant interlayered amphibolite, mica, muscovite and biotite-muscovite schist, commonly with garnet, with interlayered fine-grained biotite gneiss, amphibolite, and amphibole and quartz schist. Locally contains thin layers of gray micaceous quartzite

- PLANAR FEATURES**
- Horizontal
 - Inclined
 - Vertical
 - Overturned
 - Top uncertain
 - Generalized
- Strike and dip of bedding
- Horizontal
 - Inclined
 - Vertical
 - Generalized
- Strike and dip of compositional layering
- Horizontal
 - Inclined
 - Vertical
- Strike and dip of crystallization foliation in medium-grade metamorphosed rocks, cataclastic foliation in low-grade metamorphosed rocks, and cleavage in bedded rocks
- Strike and dip of foliation in phyllonite zones
- Inclined
 - Vertical
- Strike and dip of axial plane of medium- or small-scale fold
- Inclined
 - Nonisoclinal
- Strike and dip of axial plane of medium- or small-scale fold
- LINEAR FEATURES**
- May be combined with any of the above symbols of planar features
- Horizontal
 - Inclined
- Bearing and plunge of mineral alignment, stretching, streaking, or grooving
- Horizontal
 - Inclined
- Bearing and plunge of axis of minor fold or crenulation
- Bearing and plunge of intersection of S-planes
- Active
 - Inactive
- Small mine or prospect
- Gold
 - Iron
 - Mn
 - Mn, monazite
 - Pb, lead
 - Zn
 - Uranium
- Active
 - Inactive
- Quarry
- st. building stone
 - rm, road metal
- Active
 - Inactive
- Gravel or clay pit
- l, loam
 - g, gravel
- ST KY SI
Staurocite Kyanite Sillimanite
- Occurrences of selected metamorphic index minerals



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GEOLOGIC MAP AND SECTIONS OF THE LINVILLE FALLS QUADRANGLE, NORTH CAROLINA