EXPLANATION

PALEOZOIC AND YOUNGER ROCKS

QUATERNARY

Qal — Alluvium and talus
UNCONFORMITY

Qg — Quaternary gravels
Of several ages, but distinguished from recent alluvium and talus by position and consolidation
UNCONFORMITY

TERTIARY

Ths | Thsb — Servilleta formation (latest Pliocene–early Pleistocene)
Gravels and micaceous sand (Ths); in part covered by surface or near-surface flows of basalt (Thsb); concealed by later gravels except where dip and strike are shown or basalt lies at surface
UNCONFORMITY

Tsf — Santa Fe formation (late Miocene–early Pliocene)
Gravel, sand, silt, volcanic ash, clay, and intra-formational breccia, much of it buff-colored; partly covered by later gravels

Tp — Picuris tuff (Oligocene–Miocene?)
Coarse basal conglomerate; brick-red, yellow, green, and white clay; volcanic breccia, water-laid volcanic tuff with interbedded coarse and fine gravels and thin basaltic flows, compact marl beds, and thin shaly beds, partly covered by later gravels
UNCONFORMITY

CARBONIFEROUS (Pennsylvanian)

Cm — Magdalena group
Arkose, sandstone, and shale, thin quartzite and cherty limestone beds in places at the base
UNCONFORMITY

LATE PRE-CAMBRIAN ROCKS
Metamorphic and Igneous
(pC omitted from letter symbols)

Diabase dikes
(Of very late pre-Cambrian age?) Relatively unmetamorphosed, cutting all other igneous and metamorphic pre-Cambrian rocks

eg | egam — Embudo granite
Coarse-grained microcline granite or quartz monzonite consisting of darker biotite granite and light-colored well-foliated granite, both porphyritic in part, also pegmatitic leucogranite (eg); the leucogranite locally containing a zone of amphibolite gneiss (egam)

vs | vsam — Vadito formation
Schist member
Quartz-muscovite schist, quartz-muscovite phyllite and quartz-biotite granulite (vs) interbedded with partly porphyritic plagioclase amphibolites in flows and sills (vsam)

vc | vcf | vcam — Vadito formation
Conglomerate member
Coarse quartz conglomerate and fine-grained quartzite with minute scales of muscovite (vc) interbedded chiefly with felsites, meta-dacites and meta-andesites (vcf) also to a lesser extent with amphibolites (vcam)
UNCONFORMITY

Op — Ortega formation
Pilar phyllite member
Gray-black carbonaceous quartz-muscovite phyllite with a slaty cleavage

orp | orq | orqc | ors | oran — Ortega formation
Rinconada schist member
Muscovite-biotite-garnet phyllite with thin calcareous beds (orp); quartzite (orq) with a distinctive local cliff-forming bed (orqc); staurolite-rich schist and gneiss (ors); andalusite-biotite hornfels (oran)

Oq — Ortega formation
Coarse-grained quartzite with thin beds of sillimanite-kyanite gneiss

CONTACTS
Accurate, within the scale of the map
Approximate and diagrammatic due to poor exposures

SPECIAL SYMBOLS
(Strike and dip symbols represent only a small percentage of the field observations)
70 — Strike and dip of bedding
Strike of vertical beds
⊕ — Horizontal bedding
60 — Strike and dip of foliation and schistosity
Strike of vertical foliation and schistosity
48 / 30 — Strike and dip of foliation and strike of horizontal projection of lineation and angle of plunge
Fault
Inferred location of fault
Inferred location of fault between soft Tertiary rocks and old hard rocks with indeterminate contact
Silicified zone

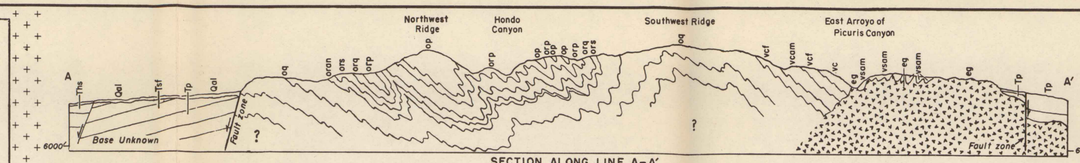
ISOGRADS
si = sillimanite
ky = kyanite
st = staurolite

METAMORPHIC ZONES
Si = sillimanite zone
Ky = kyanite zone
St = staurolite zone
? = uncertain

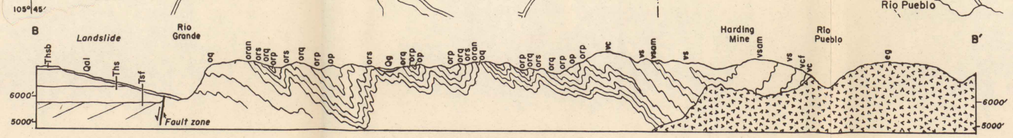
ORE DEPOSITS (Chief metals shown by their chemical symbols)
Cu = Copper
Bi = Bismuth
W = Tungsten
Pb = Lead

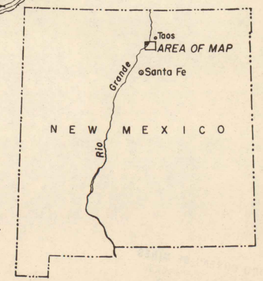
PEGMATITES
Areas where abundant

SECTION ALONG LINE A–A′



SECTION ALONG LINE B–B′





Base map from U.S. Soil Conservation Service planimetric sheets

GEOLOGIC MAP OF THE PICURIS RANGE, TAOS COUNTY, NEW MEXICO

SHOWING ISOGRADS AND METAMORPHIC ZONES AND DISTRIBUTION OF PEGMATITES AND ORE DEPOSITS

Geology by A. Montgomery, surveyed 1947–49
Drafted by N. Allen