

EXPLANATION FOR GEOLOGIC MAP (PLATE 1) AND CROSS SECTIONS (PLATE 3)
OF THE EASTERN TEHACHAPI MOUNTAINS, KERN COUNTY, CALIFORNIA

Quaternary

Tertiary

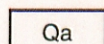
Late Cretaceous (?)

Late (?) Cretaceous

Early to mid-Cretaceous (?)

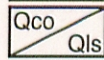
Middle Jurassic (?) to Early Cretaceous (?)

Mesozoic and Paleozoic (?)

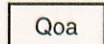


SEDIMENTARY AND VOLCANIC ROCKS

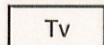
Alluvium



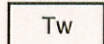
Colluvium / Landslide material



Older alluvium



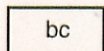
Volcanic rocks (felsite, dacite, and andesite)



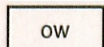
Witnet Formation (arkose and conglomerate)

PLUTONIC ROCKS AND ORTHOGNEISSES

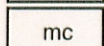
GROUP IV



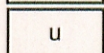
Bootleg Canyon sphen hornblende biotite granodiorite



Old West Ranch biotite monzogranite

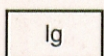


Mendiburu Canyon porphyritic hornblende biotite granodiorite



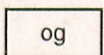
Undifferentiated granitic rocks

GROUP III

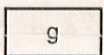


Brushy Ridge biotite leucogranite (± gar, ± musc) gneiss and other late deformation granite bodies

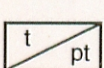
GROUP II



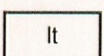
Highline olivine gabbro (—x— = plagiogranite dike)



Hornblende gabbro and diorite (± biotite, ± cumm., ± cpx, ± opx) of Tehachapi Intrusive Complex

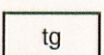


Biotite hornblende tonalite and quartz diorite (± cumm., ± cpx, ± opx) of Tehachapi Intrusive Complex, Pine Tree tonalite body designated by 'pt'

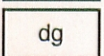


Garnet bearing leucotonalite phase of Tehachapi Intrusive Complex

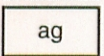
GROUP I



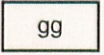
Mixed biotite (± muscovite, ± garnet, ± hornblende) tonalite gneiss



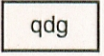
Antelope Canyon biotite hornblende diorite and quartz diorite gneiss



Biotite (± hornblende) granite augen gneiss of No Name Canyon and other granite augen gneiss bodies

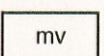


Paradise Valley muscovite garnet biotite granite gneiss

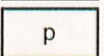


Biotite hornblende quartz diorite and diorite gneiss

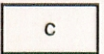
METASEDIMENTARY AND METAVOLCANIC ROCKS



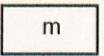
Oaks silicic metavolcanic rocks



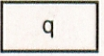
Pelitic schist containing garnet and sillimanite, locally interlayered with impure quartzite gneiss



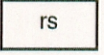
Interlayered calc-silicate rock and pure quartzite (± marble layers)



Marble (locally interlayered with other poorly exposed lithologies)



Compositionally laminated micaceous and feldspathic quartzite (± graphite)



Rand schist

CONTACTS

well-located, approximate, inferred, concealed

gradational contact

FAULTS

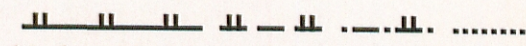
solid, dashed, dot-dashed, dotted as above; arrow represents local dip direction and dip of fault



nonspecific fault, if motion sense known shown by arrows (strike-slip) or U and D labels (vertical)



thrust fault, teeth on upper plate

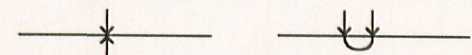


detachment fault, barbs on upper plate

FOLDS



antiform, overturned antiform, generation labeled



synform, overturned synform

trend and plunge of minor fold axis, rod or boudin

FABRIC ORIENTATION AND SYMBOLS

strike and dip of bedding, inclined, overturned, horizontal, ball indicates stratigraphic top observed

strike and dip of foliation or compositional layering, inclined, vertical, horizontal, primary igneous fabric

trend and plunge of Type 1 mineral lineation defined by elongation direction of prismatic minerals or elongate clumps of minerals; typ. no preferred shear direction parallel to lineation direction

strike and dip of mylonitic or ductile shear band foliation, cataclastic foliation

trend and plunge of Type 2 mineral lineation defined by mineral smears, or grooves and striae, typ. exhibits preferred shear direction when viewed parallel to lineation and perpendicular to foliation, barb tip points in direction of upper plate movement

local zone of extensive mylonitization, or cataclasis

OTHER SYMBOLS

strike and dip of mesoscale granitic dike

new roads not shown on base map, dirt, paved