



EXPLANATION

- QTu Volcanic rocks and alluvial gravels undivided  
*Shown only at west side of map area*
- KJp Plutonic rocks  
*Chiefly granodiorite, quartz monzonite, and granite, but includes some hornblende gabbro and rocks of intermediate composition*
- Ju Ultramafic rocks  
*Chiefly serpentine in and west of the Melones fault zone and talc-ankerite schist east of the Melones fault zone. Peridotite and dunite rare*

<p style="text-align: center;">Western fault block</p> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p><span style="background-color: brown; border: 1px solid black; padding: 2px;">Jpc</span> Peaselee Creek volcanics <i>Light-to dark-green bedded pyroclastic rocks; includes undifferentiated massive dark-gray porphyritic felsic lavas or hypabyssal intrusives (plagioclase and quartz phenocrysts)</i></p> <p><span style="background-color: green; border: 1px solid black; padding: 2px;">Jmf</span> Merced Falls slate <i>Dark-gray slate and siltstone; contains interbedded graywacke and minor conglomerate near Merced River</i></p> <p><span style="background-color: purple; border: 1px solid black; padding: 2px;">Jg</span> Gopher Ridge volcanics <i>Jg, mafic pyroclastic rocks including much lava and some pillow lava near the Calaveras River Jg1, felsic porphyritic massive and pyroclastic rocks Jgu, undifferentiated mafic and felsic pyroclastic and massive rocks</i></p> </div> <div style="width: 45%;"> <p><span style="background-color: red; border: 1px solid black; padding: 2px;">Jch</span> Copper Hill volcanics <i>Jch, mafic pyroclastic rocks, lava, and pillow lava Jch1, felsic porphyritic massive and pyroclastic rocks</i></p> <p><span style="background-color: olive; border: 1px solid black; padding: 2px;">Js</span> Salt Spring slate <i>Mostly dark-gray clay slate; but includes subordinate tuff, graywacke, and conglomerate</i></p> <p><span style="background-color: blue; border: 1px solid black; padding: 2px;">Jju</span> Volcanic rocks of uncertain stratigraphic position <i>Similar in lithology to Logtown Ridge formation, Peñon Blanco volcanics, and Brover Creek volcanic member of Mariposa formation</i></p> </div> </div>	<p style="text-align: center;">Central fault block and Melones fault zone</p> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p><span style="background-color: yellow; border: 1px solid black; padding: 2px;">Jm</span> Mariposa formation <i>Jm, mostly dark-gray clay slate; but includes subordinate tuff, graywacke and conglomerate Jmb, Brover Creek volcanic member, dark-green mafic volcanic breccia; includes some tuff and rare pillow lava</i></p> <p><span style="background-color: pink; border: 1px solid black; padding: 2px;">Jl</span> Logtown Ridge formation <i>Coarse mafic volcanic breccia, in part porphyritic (augite phenocrysts); subordinate tuff and lapilli tuff, minor pillow lava</i></p> <p><span style="background-color: green; border: 1px solid black; padding: 2px;">Jc</span> Cosumnes formation <i>Dark-gray clay slate, pyroclastic rocks, coarse conglomerate, and some graywacke</i></p> <p><span style="background-color: purple; border: 1px solid black; padding: 2px;">Jv</span> Mafic volcanic rocks, conglomerate, and slate</p> <p><span style="background-color: orange; border: 1px solid black; padding: 2px;">Jg</span> Green schist <i>Metavolcanic rocks of unknown age distinguished in the Melones fault zone and at the north end of the map area. Mostly schistose, but includes some massive rocks</i></p> </div> <div style="width: 45%;"> <p><span style="background-color: blue; border: 1px solid black; padding: 2px;">Jp</span> Peñon Blanco volcanics <i>Upper part is dark-green mafic volcanic breccia and tuff, in part porphyritic (pyroxene phenocrysts); lower part is dark-green mafic lava and some pillow lava</i></p> <p><span style="background-color: yellow; border: 1px solid black; padding: 2px;">Jeu</span> Epiclastic rocks of uncertain stratigraphic position <i>Lithologically similar to Cosumnes and Mariposa formations</i></p> </div> </div>
<p style="text-align: center;">Eastern fault block</p> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p><span style="background-color: blue; border: 1px solid black; padding: 2px;">Pcc</span> Undifferentiated argillaceous member and chert member <i>Pcc, argillaceous rocks and siltstone and some thin-bedded chert; includes minor lenticular limestone in southwestern part; thin-bedded chert and black carbonaceous slate containing minor lenticular mafic pyroclastics elsewhere Pcc1, limestone</i></p> <p><span style="background-color: purple; border: 1px solid black; padding: 2px;">Pcv</span> Upper volcanic member <i>Mafic pyroclastic rocks, in part porphyritic (augite phenocrysts). Minor pillow lava and black slate</i></p> <p><span style="background-color: brown; border: 1px solid black; padding: 2px;">Pcc</span> Clastic member <i>Thin-bedded dark-gray slate and graywacke, thin-bedded chert, and tuff; minor limestone lenses</i></p> </div> </div>	<p style="text-align: center;">Amador group</p> <div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p><span style="background-color: green; border: 1px solid black; padding: 2px;">Jc</span> Cosumnes formation <i>Dark-gray clay slate, pyroclastic rocks, coarse conglomerate, and some graywacke</i></p> <p><span style="background-color: purple; border: 1px solid black; padding: 2px;">Jv</span> Mafic volcanic rocks, conglomerate, and slate</p> <p><span style="background-color: orange; border: 1px solid black; padding: 2px;">Jg</span> Green schist <i>Metavolcanic rocks of unknown age distinguished in the Melones fault zone and at the north end of the map area. Mostly schistose, but includes some massive rocks</i></p> </div> </div>



Base adapted and enlarged from state of California map, scale 1:500,000, U. S. Geological Survey

Geology compiled and modified by L. D. Clark from L. D. Clark (1954); J. H. Eric, A. A. Stromquist, and C. M. Swinney (1955); W. Lindgren (1894); W. Lindgren, and H. W. Turner (1894); A. A. Stromquist, unpublished data; N. L. Tallafiero, and A. J. Solari (1949); H. W. Turner (1894 and 1897); H. W. Turner, and F. L. Ransome (1897); H. W. Turner, and W. S. T. Smith, unpublished data

GEOLOGIC MAP OF THE WESTERN SIERRA NEVADA BETWEEN THE MERCED AND COSUMNES RIVERS, CALIFORNIA

