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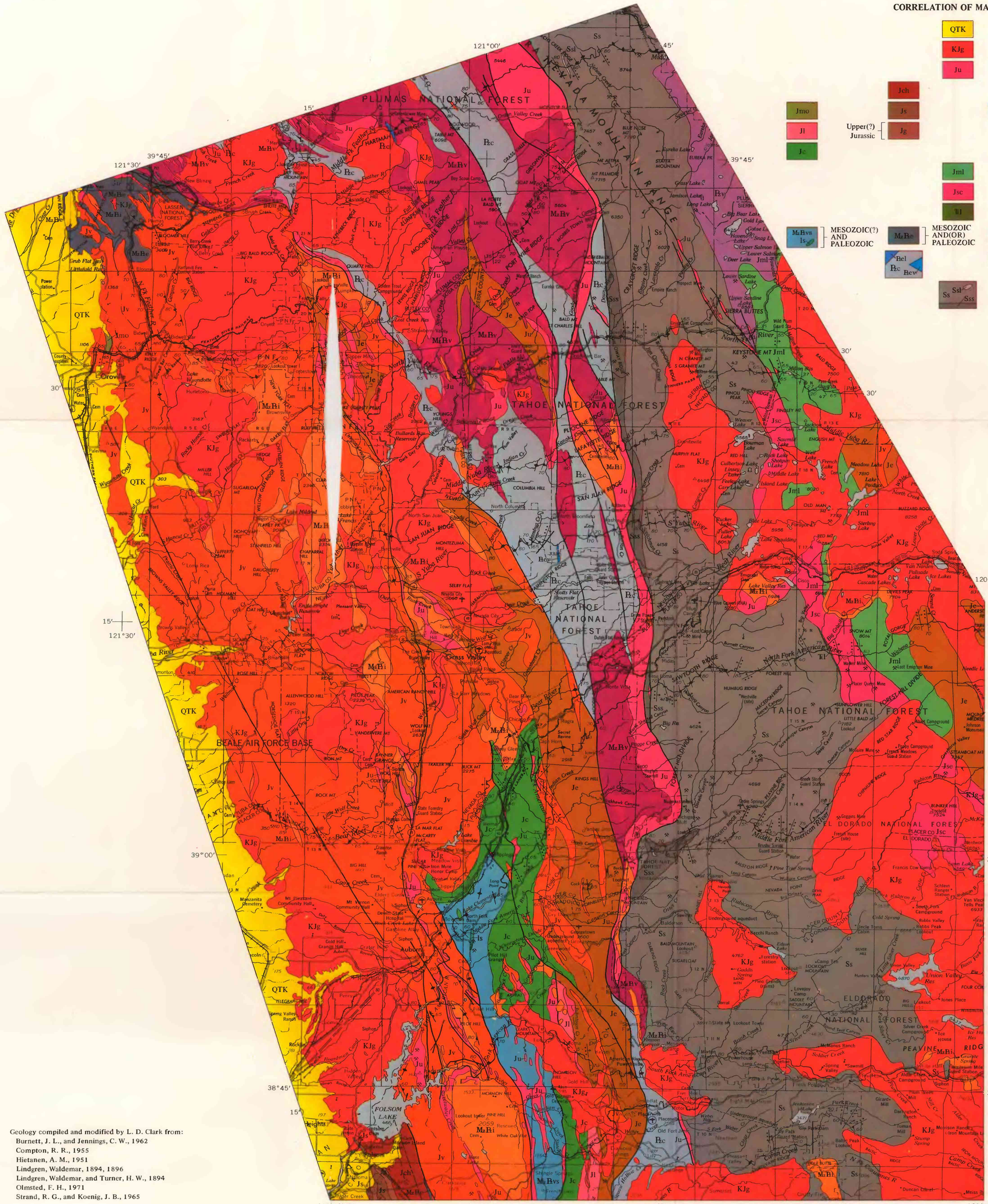
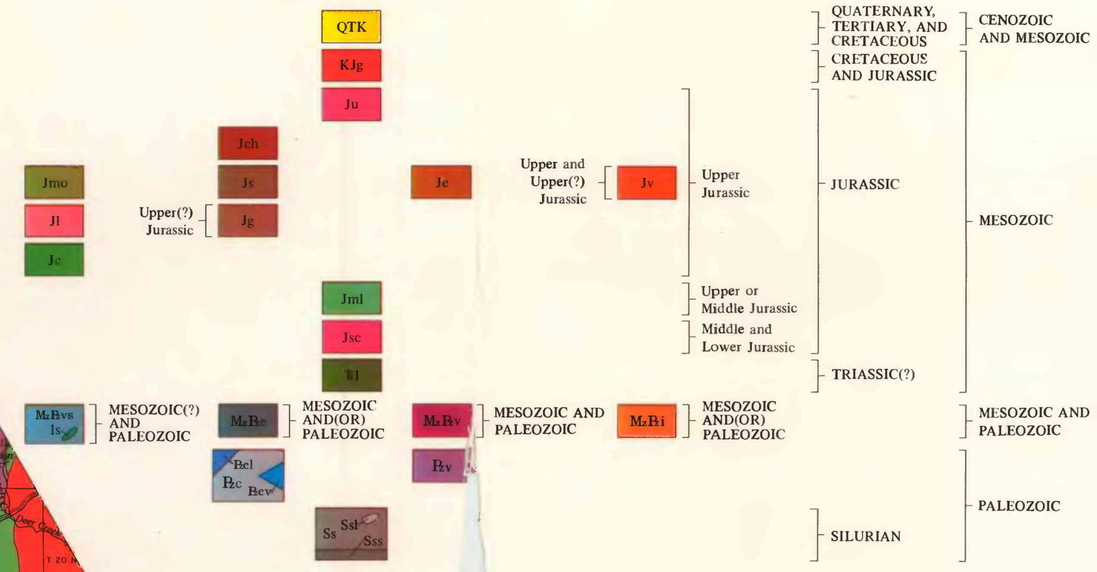
CALIFORNIA DIVISION OF MINES AND GEOLOGY



CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

QTK SEDIMENTARY AND VOLCANIC ROCKS – Gently dipping and nonmetamorphosed. Differentiated only along western border of map

KJg GRANITIC ROCKS – Mostly quartz diorite to granodiorite in composition

Ju ULTRAMAFIC ROCKS – Mostly serpentine. Includes some peridotite and dunite

Jch COPPER HILL VOLCANICS (Upper Jurassic) – Mafic pyroclastic rocks and lava. Locally includes lava with pillow structure

Jmo MONTE DE ORO FORMATION (Upper Jurassic) – Slate, graywacke, tuff(?), and conglomerate. Contains plant fossils. Recognized only northeast of Oroville

Js SALT SPRING SLATE (Upper Jurassic) – Dark-gray slate with subordinate tuff and graywacke. Recognized only in southwest corner of map area

Je EPICLASTIC ROCKS – Dark-gray slate with some interbedded conglomerate, thin-bedded chert. Probably includes mafic tuff in eastern part of map area

Jv VOLCANIC ROCKS – Chiefly mafic volcanic breccia and tuff. Includes pillow lava near Yuba and Bear Rivers

Jl LOGTOWN RIDGE FORMATION (Upper Jurassic) – Volcanic breccia. Locally porphyritic with pyroxene phenocrysts, tuff, and subordinate pillow lava. Mafic to intermediate composition

Jg GOPHER RIDGE VOLCANICS (Upper(?) Jurassic) – Mafic pyroclastic rocks. Mapped only in southwest corner of map area. Approximate correlative of Logtown Ridge Formation

Jc COSUMNES-TYPE ROCKS – Slate, conglomerate, graywacke, and tuff or tuffaceous graywacke. Includes porphyritic ellipsoidal lava along Interstate Highway 80

Jml MILTON FORMATION (Middle or Upper Jurassic) – Mostly mafic volcanic breccia and tuff. Includes dark-gray slate east of Sierra City. Includes sparse chert, conglomerate, and calcarenite near Milton Reservoir

Jsc SAILOR CANYON FORMATION (Lower and Middle Jurassic) – Chiefly slate and tuff with subordinate graywacke, sparse conglomerate, and calcarenite

Tl CHERT BRECCIA AND LIMESTONE – Poorly sorted breccia consisting of chert fragments overlain by limestone that is in part argillaceous. Mapped only near North Fork of American River south of Cisco

MzPze EPICLASTIC ROCKS – Chiefly dark-gray slate, but contains graywacke, conglomerate, and tuff. Near State Highway 49, possibly consists of flaser rocks derived from volcanic rocks

MzPzvs VOLCANIC AND SEDIMENTARY ROCKS – Chiefly mafic pyroclastic rocks. Northern part contains some thin-bedded chert. Southern part includes subordinate slate. Ls, fossiliferous limestone east of Auburn

MzPzv METAVOLCANIC ROCKS – Mostly mafic, schistose. Local amphibolite. Bedded near North Yuba River. Locally massive

MzPzi MAFIC INTRUSIVE AND METAMORPHIC ROCKS – Gabbroic and dioritic rocks and amphibolite. In part intrusive and in part the products of regional and of contact metamorphism

Pzc CALAVERAS FORMATION (Paleozoic) – Dark-gray phyllite and schist derived from shale with interbedded thin-bedded metachert. Includes subordinate volcanic rocks of probable andesitic composition. Locally includes:

Pzl Limestone. Two distinct lenses: one, near Middle Fork of the Feather River, is coarsely crystalline; the other, near Bear River west of Colfax, is fossiliferous

Pzcv Bedded pyroclastic rocks of probable andesitic composition, thin-bedded metachert, and subordinate limestone

Pzv VOLCANIC ROCKS – Mostly mafic pyroclastic rocks and some pillow lavas. Includes rhyolite along southwestern margin of unit

Ss SHOO FLY FORMATION (Silurian) – Chiefly feldspathic quartz-rich sandstone and tuffaceous sandstone having graywacke texture and slate or very fine tuff. Subordinate thin-bedded chert, mafic volcanic rocks, and calcarenite. Locally includes:

Ssl Dolomitic limestone. In part oolitic. Mapped only near Middle Fork of the Feather River

Sss Dark-gray slate with subordinate chert, conglomerate, and sandstone

Contact

Fault – Dotted where concealed. Most faults are probably steeply east dipping reverse faults

Strike and dip of beds and lava flows
- 80 Inclined
- Vertical
- 60 Overturned
- 50 Crumpled. Dip and strike generalized

Strike and dip of planar structures. Symbols may be combined with bedding symbols
- 70 Inclined schistosity
- Vertical schistosity
- 60 Inclined phyllitic or slaty cleavage
- Vertical phyllitic or slaty cleavage

Direction of tops of beds and flows. Plotted along strike with point of observation
- Graded beds
- Pillow lava

Geology compiled and modified by L. D. Clark from:
Burnett, J. L., and Jennings, C. W., 1962
Compton, R. R., 1955
Hietanen, A. M., 1951
Lindgren, Waldemar, 1894, 1896
Lindgren, Waldemar, and Turner, H. W., 1894
Olmsted, F. H., 1971
Strand, R. G., and Koenig, J. B., 1965

Base from U. S. Army Map Service 1:250,000
Chico, 1961, and Sacramento, 1964, California

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SCALE 1:316,800

5 0 5 10 15 20 MILES

5 0 5 10 15 20 KILOMETRES

Interior—Geological Survey, Reston, Va.—1976—G75119