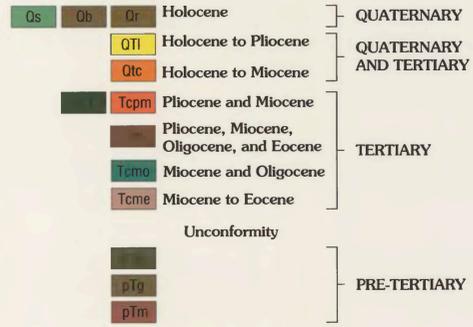


CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Qs Sand dunes (Holocene)** Windblown sand and dune sand
- Qb Flood-basin deposits (Holocene)** Clay, silt, and some sand
- Qr River deposits (Holocene)** Gravel, sand, silt, and minor amounts of clay; deposited along channels, flood plains, and natural levees of main streams
- QTI Lacustrine and marsh deposits (Holocene to Pliocene)** Clay, silt and some sand; in subsurface include three widespread clays: A clay (Pleistocene and Holocene?); C clay (Pleistocene); and modified E clay (Pleistocene), includes Corcoran Clay Member of Tulare Formation
- Qtc Continental rocks and deposits (Holocene to Miocene)** Heterogeneous mix of generally poorly sorted clay, silt, sand, and gravel; some beds of claystone, siltstone, sandstone, and conglomerate. Include some informal units: younger alluvium (Holocene), older alluvium (Holocene? and Pleistocene), and continental deposits (Pleistocene and Pliocene). Tulare Formation (Pleistocene and Pliocene on western side of valley, Laguna Formation (Pliocene) on eastern side, and Kern River Formation (Pleistocene? to Miocene) on southeastern part
- Tcpm Volcanic rocks and deposits (Pliocene and Miocene)** Tuff and volcanic breccia at south end of valley
- Tcpm Continental rocks and deposits (Pliocene and Miocene)** Gravel, sand, silt, clay, conglomerate, sandstone, siltstone, and claystone, contain andesitic material. Chanac Formation (Miocene) at southern end of valley
- Tcmo Marine rocks and deposits (Pliocene, Miocene, Oligocene, and Eocene)** Sand, clay, silt, sandstone, shale, mudstone, and siltstone. On western side of valley include the Tumbler Formation (Pliocene, Miocene, and Oligocene) and Kreyenhagen Formation (Eocene). On southeastern side include the Santa Margarita Formation of various authors, the Round Mountain Silt, the Olcese Sand, the Freeman Silt, and the Jewett Sand (including the Pyramid Hill Sand Member) (all Miocene) and the Vedder Sand (Oligocene)
- Tcmo Continental rocks and deposits (Miocene and Oligocene)** Gravel, conglomerate, sand, tuffaceous sand, clay, and sandy clay; contain rhyolitic material on eastern side of valley. Unnamed fanglomerates (Miocene) and Bena Gravel (Miocene) in the southern part
- Tcme Continental rocks and deposits (Miocene to Eocene)** Conglomerate, sandstone, consolidated fanglomerate, claystone, tuff and tuff breccia. Near Bakersfield include the Bealville Fanglomerate (Miocene and Oligocene) and the Walker Formation (Miocene to Eocene)
- Unconformity**
- pTg Marine rocks (Pre-Tertiary)** Sandstone, shale, siltstone, and some limestone on western side of valley; in places contain abundant secondary gypsum. Includes Panoche Formation (Cretaceous)
- pTg Granitic rocks (Pre-Tertiary)** Chiefly granitic rocks on eastern side of valley, in places consists of mafic intrusive rocks
- pTm Metamorphic rocks (Pre-Tertiary)** Metasedimentary, metavolcanic, and other metamorphic rocks on eastern side of valley

ALLUVIAL-FAN ZONE

- CR** West-side alluvium
- SN** East-side alluvium

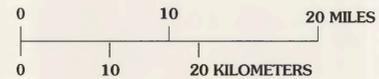
BASIN ZONE

- BW** West-side basin
- BE** East-side basin

TULARE-LAKE ZONE

- NEM** Northeast margin
- SWM** Southern / Western margin
- TLB** Tulare Lake bed

- STUDY AREA BOUNDARY** - < 20 feet to ground water
- BASIN LINE DELINEATING AREAS DOMINATED BY COAST RANGE AND SIERRA NEVADA. SUBZONE BOUNDARY LINE IN FLOOD BASIN DEPOSITS**
- SUBZONE BOUNDARY LINE** - Dashed where approximate



Base from U.S. Geological Survey, California State base 1968

Geology modified by R.W. Page, 1986, from California Division of Mines and Geology, 1959 a,b, 1965, 1966 a,b, and 1969

GEOLOGIC MAP OF THE TULARE BASIN (SOUTHERN SAN JOAQUIN VALLEY), CALIFORNIA

By
Roger Fujii and Walter C. Swain
1995