

ABBREVIATED EXPLANATION
Approximate stratigraphic relationships only; see Map Explanation (Plate 2) for more detailed information.

Miocene	Aluminum	Stream gravel	Flood plain deposits	Basin deposits
Artificial fill	Sand	Dune sand	Caney fill (offshore)	Paterson Alluvium
Older alluvium	Landslide deposits	Older Dunes Sand	Wetland sediments	San Luis Alluvium
Terrace deposits	Older Dunes Sand	Older Dunes Sand	Older caney fill (offshore)	Los Banos Alluvium
Marine terrace deposits	Albion fan deposits	Fan deposits of Antioch	Traverse terrace deposits of Pleistocene terrace	Relict beach (submarine canyon terrace)
Pleistocene	Fan deposits of Chubar	Fan deposits of Piacenza	Fan deposits of Gloria	Non-Pleistocene lacustrine deposits
Amnias Sand (landslide)	Roller facies	Roller facies	Fluvio-Pleistocene fluvial deposits	Fluvio-Pleistocene lacustrine deposits
Fluvio-Pleistocene continental deposits	Unlabeled Pliocene continental mudstone	Putnam Formation	Unlabeled Pliocene continental mudstone	Pancho Rico Formation
Pliocene	Ebbeggin Formation	Santa Cruz Mudstone	Santa Margarita Sandstone (Mt. Diablo intertidal)	Monterey Formation
Miocene	Monterey Formation	Lompoc Sandstone	Unlabeled Miocene sandstone	Red beds
Oligocene	Vaqueros Sandstone	San Juan Bautista Formation	Unlabeled Eocene sedimentary rocks	Carmelo Formation
Paleocene-Eocene	Los Mochales Formation	Tes Pinos Sandstone	Artesian sandstone	Palaioene Eocene sedimentary rock
Paleocene	Artesian sandstone	Palaioene Eocene sedimentary rock	Upper Cretaceous sedimentary rock	Franciscan Complex (part of K.F.S. mélange (Mf))
Cretaceous	Conglomerate	Sandstone	Chert	Gneissite
Jurassic	Bluestish and siltshist	Limestone	Gabbro	Hornblende Gabbro of Lager quarry

SYMBOLS

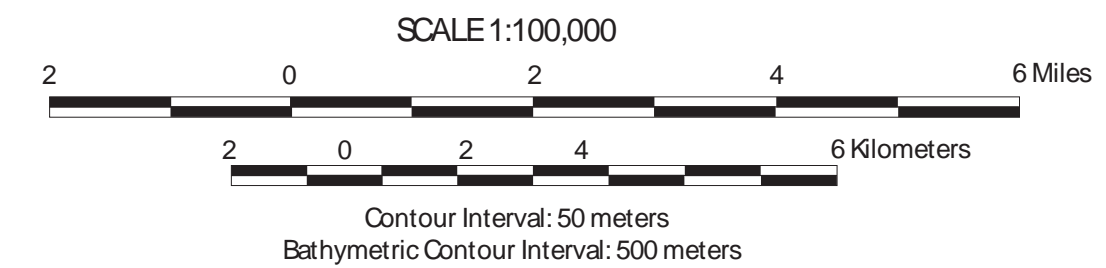
- Contact: solid where well located, dashed where approximately located or inferred, dotted where concealed; queried where uncertain.
- Faults: solid where well located, dashed where approximately located or inferred, dotted where concealed; queried where existence or continuation is uncertain. Arrows show direction of dip when known.
- Thrust faults: bars on upper plate: solid where well located, dashed where approximately located or inferred, dotted where concealed; queried where existence or continuation is uncertain. Arrows indicate direction of dip when known.
- Anticlinal fold: solid where well located, dashed where inferred, dotted where concealed; queried where existence or continuation is uncertain.
- Synclinal fold: solid where well located, dashed where inferred, dotted where concealed; queried where existence or continuation is uncertain.
- Strike and dip of stratified rocks: Number indicates dip angle in degrees when known.
- Vertical beds
- Overtuned beds
- Horizontal beds
- Strike and dip of foliations
- Arrows on landslides indicate direction of movement.

Topographic base from U.S. Geological Survey Monterey and Palo Alto 30'x60' quadrangles. Shaded topographic base from USGS digital elevation models. Shaded bathymetric base from Monterey Bay Aquarium Research Institute.



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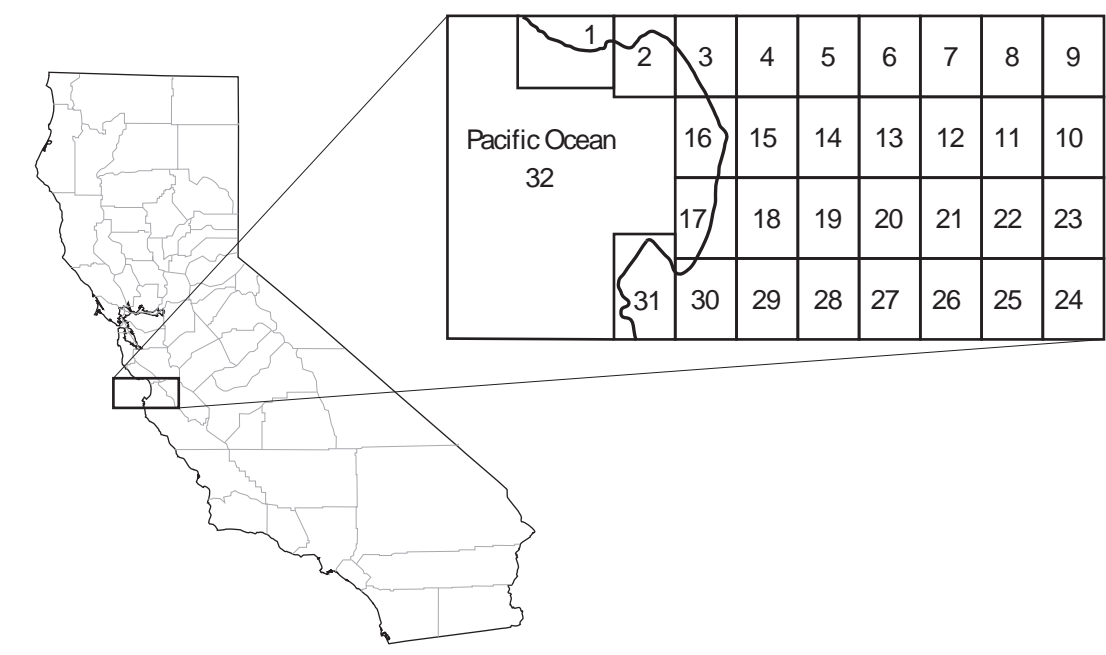
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GEOLOGIC MAP OF THE MONTEREY 30'x60' QUADRANGLE AND ADJACENT AREAS, CALIFORNIA

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2002
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Supported in part by U.S. Geological Survey National Cooperative Geologic Mapping Program STATEMAP Award no. 98HQAZ049

Geology Compiled 1998-2000

ABBREVIATED INDEX TO GEOLOGIC SOURCE DATA*

1. Santa Cruz Quadrangle Clark, C., 1981; Stanley, R.G., and McCaffrey, Robert, 1983.	13. Hollister Quadrangle Dibble, T.W., Jr., and Rogers, T.H., 1975; Rogers, T.H., 1993; Rosenberg, L.L., 1998.	26. Mount Johnson Dibble, T.W., Jr., and Ross, D.C., 1973; Ross, D.C., 1972.
2. Sequoia Quadrangle Brabb, E.H., 1989.	14. San Juan Bautista Quadrangle Allen, J.E., 1948; Bishop, C.C., 1971; Dibble, T.W., Jr., 1979; Dupre, W.R., and Traylor, J.C., Jr., 1980.	27. Gonzales Quadrangle Dibble, T.W., Jr., and Ross, D.C., 1973; Traylor, J.C., Jr., 1975.
3. Watsonville West Quadrangle Brabb, E.H., 1989; Dupre, W.R., and Traylor, J.C., Jr., 1980; Huh, N.T., Sama-Wojcicki, A.M., and Dupre, W.R., 1974.	15. Pinedale Quadrangle Dupre, W.R., and Traylor, J.C., Jr., 1980.	28. Chualar Quadrangle Brabb, E.H., 1973; Dibble, T.W., Jr., 1999; Traylor, J.C., Jr., 1975.
4. Watsonville East Quadrangle Brabb, E.H., 1989; Bryan, W.A., Smith, D.P., and Hart, E.W., 1981; Dupre, W.R., and Traylor, J.C., Jr., 1980; Dibble, T.W., Jr., 1978; Huh, N.T., Sama-Wojcicki, A.M., and Dupre, W.R., 1974; Gayman, R.W., 1997.	16. Moss Landing Quadrangle Clark, J.C., Dupre, W.R., and Traylor, J.C., Jr., 1980.	29. Specimens Quadrangle Clark, J.C., Brabb, E.H., Dupre, W.R., and Rosenberg, L.L., 1998.
5. Chittenden Quadrangle Allen, J.E., 1948; Armstrong, C.F., 1980; Bishop, C.C., 1971; Bryan, W.A., Smith, D.P., and Hart, E.W., 1981; Dibble, T.W., Jr., and Traylor, J.C., Jr., 1980; Gayman, R.W., 1997; Wagner, D.L., 2000.	17. Marina Quadrangle Dupre, W.R., and Traylor, J.C., Jr., 1980.	30. Seaside Quadrangle Clark, J.C., Dupre, W.R., and Rosenberg, L.L., 1997.
6. San Felipe Quadrangle Armstrong, C.F., and Wagner, D.L., 1978; Bryan, W.A., Smith, D.P., and Hart, E.W., 1981; Dibble, T.W., Jr., and Rogers, T.H., 1975; Gayman, R.W., 1997; Rogers, T.H., 1993; Rosenberg, L.L., 1998.	18. Salinas Quadrangle Dupre, W.R., and Traylor, J.C., Jr., 1980.	31. Monterey Quadrangle Clark, J.C., Dupre, W.R., and Rosenberg, L.L., 1997.
7. Three Sisters Quadrangle Bryan, W.A., 1980; Couch, L.H., 1970; Wagner, D.L., 1989.	19. National Quadrangle Dupre, W.R., and Traylor, J.C., Jr., 1980; Bowen, G.E., 1973; Ross, D.C., 1972.	32. Ombrose area Continental slope and Monterey submarine canyon system: Greene, H.G., 1970; Greene, H.G., 1999; McCulloch, D.S., and Greene, H.G., 1990. Continental Shelf (less than 150 meter water depth): Ettema, S.J., Arma, R.J., and Stevenson, A.S., in press; Ettema, S.J., Arma, R.J., Stevenson, A.S., and Wong, L.C., 2001.
8. Mariposa Peak Quadrangle Dinnel, J., Long, D.H., and Russell, P.C., 1992.	20. Mount Harlan Dibble, T.W., Jr., and Ross, D.C., 1973; Ross, D.C., 1972.	
9. Los Banos Valley Quadrangle Dibble, T.W., Jr., 1975; Letts, W.R., 1982.	21. Paces Quadrangle Dibble, T.W., Jr., 1979.	
10. Ruby Canyon Quadrangle Dibble, T.W., Jr., 1975.	22. Cherry Peak Quadrangle Dibble, T.W., Jr., 1979; Wilson, L.F., 1943.	
11. Queen Valley Quadrangle Anderson, P.C., 1983; Dibble, T.W., Jr., 1975; Powell, D.C., 1974.	23. Pancho Rico Quadrangle Dibble, T.W., Jr., 1979; Wilson, L.F., 1943.	
12. Ses Pinos Quadrangle	24. San Benito Quadrangle Anderson, P.C., 1983; Egan, Paul, 1965; Wilson, L.F., 1943.	
	25. Bikmore Canyon Quadrangle	

*See enclosed text for complete references.