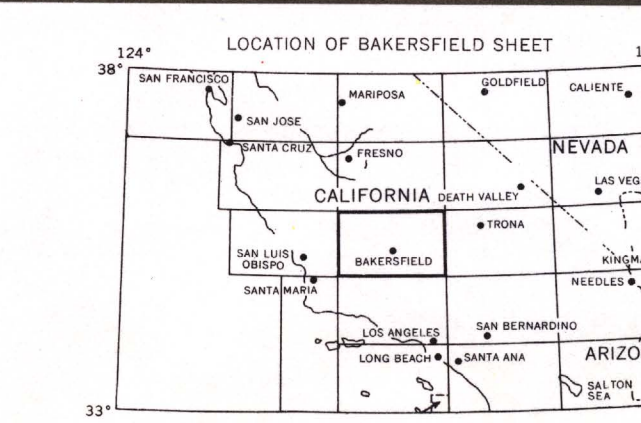


QUATERNARY	PLIOCENE	MIOCENE	OLIGOCENE	Eocene	PALEOCENE	CRAIOLITHIC	MESOZOIC	FRASIAN	PERMIAN	PALEOZOIC	PRECAMBRIAN																																																																						
Qd	Qp	Qm	Qo	Qe	Qc	Qb	Qa	Qv	Qw	Qx	Qy																																																																						
Dune sand	Alluvium	Stream channel deposits	Fan deposits	Basin deposits	Salt deposits	Quaternary lake deposits	Glacial deposits	Quaternary nonmarine terrace deposits	Pleistocene marine and marine terrace deposits	Pleistocene nonmarine	Plio-Pleistocene nonmarine	Undivided Pliocene nonmarine	Upper Pliocene nonmarine	Upper Pliocene marine	Middle and/or lower Pliocene nonmarine	Middle and/or lower Pliocene marine	Undivided Miocene nonmarine	Upper Miocene nonmarine	Upper Miocene marine	Middle Miocene nonmarine	Middle Miocene marine	Lower Miocene marine	Oligocene nonmarine	Oligocene marine	Eocene nonmarine	Eocene marine	Paleocene nonmarine	Paleocene marine	Cenozoic nonmarine	Tertiary nonmarine	Tertiary lake deposits	Tertiary marine	Undivided Cretaceous marine	Upper Cretaceous marine	Lower Cretaceous marine	Knoville Formation	Upper Jurassic marine	Middle and/or Lower Jurassic marine	Triassic marine	Pre-Cretaceous metamorphic rocks (ls = limestone or dolomite)	Pre-Cretaceous metasedimentary rocks	Paleozoic marine (ls = limestone or dolomite)	Permian marine	Undivided Carboniferous marine	Peninsularian marine	Mississippian marine	Devonian marine	Silurian marine	Pre-Silurian metamorphic rocks	Ordovician marine	Cambrian marine	Cambrian - Precambrian marine	Undivided Precambrian metamorphic rocks	Later Precambrian sedimentary and metamorphic rocks	Earliest Precambrian metamorphic rocks	Recent volcanic: Qv' - rhyolite; Qv'' - andesite; Qv''' - basalt; Qv'''' - pyroclastic rocks	Pliocene volcanic: Pp' - rhyolite; Pp'' - andesite; Pp''' - basalt; Pp'''' - pyroclastic rocks	Miocene volcanic: Mm' - rhyolite; Mm'' - andesite; Mm''' - basalt; Mm'''' - pyroclastic rocks	Oligocene volcanic: Oo' - rhyolite; Oo'' - andesite; Oo''' - basalt; Oo'''' - pyroclastic rocks	Eocene volcanic: Ee' - rhyolite; Ee'' - andesite; Ee''' - basalt; Ee'''' - pyroclastic rocks	Cenozoic volcanic: Cv' - rhyolite; Cv'' - andesite; Cv''' - basalt; Cv'''' - pyroclastic rocks	Tertiary intrusive (hypabyssal) rocks: Tt' - rhyolite; Tt'' - andesite; Tt''' - basalt	Tertiary volcanic: Tv' - rhyolite; Tv'' - andesite; Tv''' - basalt; Tv'''' - pyroclastic rocks	Franciscan Formation	Mesozoic granitic rocks: g' - granite and adamellite; g'' - granodiorite; g''' - tonalite and diorite	Mesozoic basic intrusive rocks	Mesozoic ultrabasic intrusive rocks	Jura-Trias metamorphic rocks	Pre-Cretaceous metamorphic rocks	Pre-Cenozoic granitic and metamorphic rocks	Paleozoic metamorphic rocks	Permian metamorphic rocks	Carboniferous metamorphic rocks	Devonian metamorphic rocks	Devonian and pre-Devonian? metamorphic rocks	Pre-Silurian metamorphic rocks	Pre-Silurian metamorphic rocks	Precambrian igneous and metamorphic rock complex	Undivided Precambrian granitic rocks	Undivided Precambrian gneiss, schist	Precambrian anorthosite

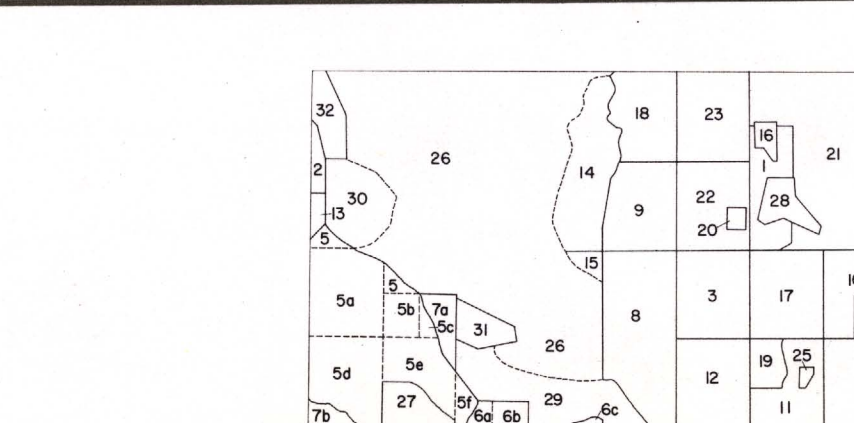
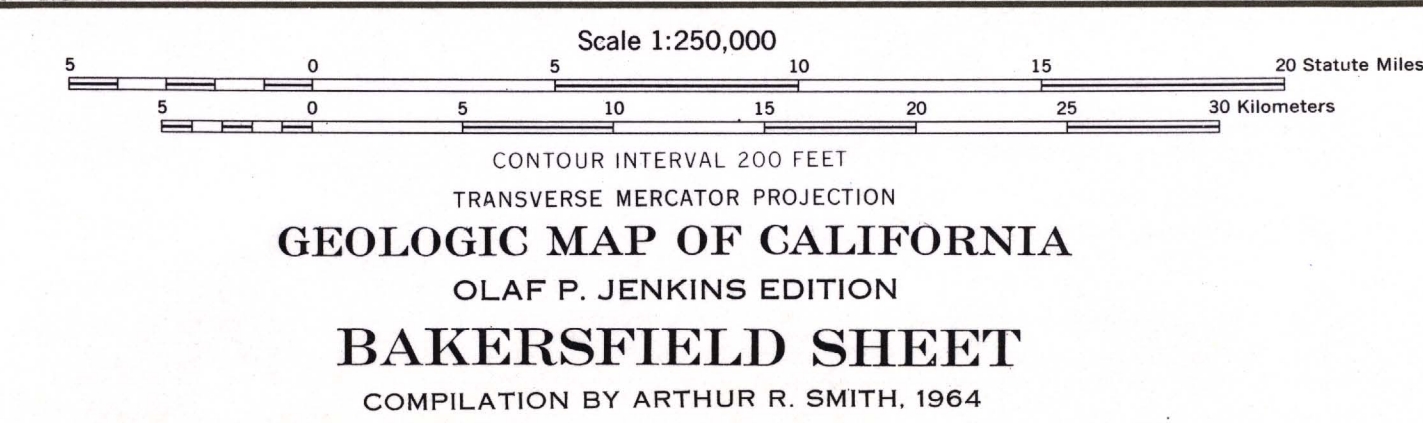
TOPOGRAPHIC BASE MAP  
Prepared by the Army Map Service (KC), Corps of Engineers, U.S. Army, Washington, D.C. Compiled in 1963 by photogrammetric methods and from United States Quadrangles, 1:24,000, 1:25,000, 1:48,000, 1:50,000, 1:62,500, U.S. Geological Survey and AMS, 1:93,156. Planimetric detail revised by photogrammetric methods. Horizontal and vertical control by USGS, USC&GS, USFS, USBR, 29th Engineer Battalion and City of Los Angeles. Map field checked 1962.  
Land Net prepared by U.S. Geological Survey  
Minor corrections and additions to culture by California Division of Mines and Geology, 1964.



--- Contact  
(Dashed where approximately located, gradational or inferred)

----- Fault  
(Dashed where approximately located, dotted where concealed)

----- Thrust fault  
(Bars on upper plate; dashed where approximately located, dotted where concealed)



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