DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

OPEN-FILE REPORT 87-276

Plate 1

119°30′ 119°00′ 118°00′ 117°45′ 36°00′ 35°00′ 34°45′

"granite" "schist" "diorite" "diorite (qtz. plag. opx)" "greenstone" "greenstone or greenschist"

Granitic rock undivided

Granitic rock undivided

Granitic rock undivided

Delano Wasco BAKERSHFIELD

PIXLEY NATIONAL WILDLIFE REFUGE

SEQUOIA NATIONAL FOREST

SEQUOIA NATIONAL FOREST

SEQUOIA NATIONAL FOREST

INYO NATIONAL FOREST

KERN COUNTY INYO COUNTY

SAN JOAQUIN VALLEY

SIERRA NEVADA MOUNTAINS

TEHACHAPI MOUNTAINS

MOJAVE DESERT

Breckenridge fault

Kern Canyon fault

Sierra Nevada fault

Garlock fault

White Wolf

Pleito thrust

San Emigdio fault

Pastoria fault

San Andreas fault

0 5 10 15 Kilometers

North

CORRELATION OF MAP UNITS

SUPERFICIAL DEPOSITS — QUATERNARY AND TERTIARY

PLUTONIC ROCKS

Granite	Granodiorite	Tonalite	Quartz diorite	Mafic and Ultramafic	
80 Kmc	83 Kc	90? Kwh			LATE CRETACEOUS
80 Kcc	89 Kas	90 Kmc			
80 Kmr	90 Kcr	91 Kdm			
81 Kge	90 Kcw				
91 Kap	90 Kff				
92? Kbr	90 Kbmo				
96 Ktj	91 Kal				
98 Kbm	91 Kji				
	96 Kle				
	98 Kgm				
105 Kpp	99 Kvi	100 Kma	100 Kcf	115 Kqm	EARLY CRETACEOUS
	100 Kpf	100 Kbv			
	107 Kpm	102 Kfs			
		111 Kwk			
		? KJap			JURASSIC
	177 Js			160-210 Jer	
		222? TRtj			TRIASSIC
		240 TRwp			
				270-305 Pzgm	PALEOZOIC

Best estimate of age (Ma) above, based on radiometric dating by K-Ar, Rb-Sr, and K-Ar methods (See "Description of Map Units" for more details)

Kac	Kcon	Kcb	Kca	KJbo	No radiometric age data (listed alphabetically)
Kba	Kds	Kw	Krc	KJbm	
Kbc	Kes	Kzr	Ybl ?	KJic	
Kbv	Khp	Kbt		KJmsc	
Kbim	Kso	Kbhl		KJp	
Kbmk	Kwl			KJgj	
Kbo				Yts	
Kb					
Kgg					
Kbw					
Kwl					
Khg					
Kpd					
Krr					
Kss					
Kac					
Kca					

MIXED PLUTONIC AND METAMORPHIC ROCKS

102 Kcmg	Kset	EARLY CRETACEOUS
110-120	Kjc	No radiometric age data
	Mgm	

METAMORPHIC ROCKS

													JURASSIC	MESOZOIC
													JURASSIC OR TRIASSIC	
Mzlm	Mzlv	Mzlg	Mzl	Mzlv	Mzlq	Mzl?	Mzlj	Mzp	Mzsp	Mzse	Mzp?	Mzys	Mzsc	PALEOZOIC
							Barb							

EXPLANATION

Contact, dashed where uncertain

Contact between areas of delineated granitic bodies and undivided granitic rocks (near north boundary of map area)

Fault, barbs on upper plate of thrust, dashed where questionable, dotted where concealed

Limit of reasonable extrapolation of basement in San Joaquin Valley based on thin section study of oil well cores and notes from driller's logs

Location of oil well in San Joaquin Valley with basement data from driller's log only

Generalized geologic map of the basement rocks of the southern Sierra Nevada, California

by

Donald C. Ross

1987

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature.