

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PRELIMINARY MAP OF THE MINING DISTRICTS IN THE
BASIN AND RANGE AREA OF CALIFORNIA

by

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U.S. Geological Survey

Open-File Report 83-95

1983

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature. Any use of trade names is for descriptive purposes only and does not imply endorsement by the USGS.

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INTRODUCTION

The Basin and Range province of California lies within the northeastern, southeastern, and east-central parts of the state (fig. 1). Mining districts within the province have been plotted on three map sheets at a scale of 1:500,000. Sheet one shows areas east of long 117° W. and south of lat 39° N. Sheet two shows areas between long 117° and 120° W. and south of lat 39° N. Sheet three shows areas north of lat 39° N. and west of long 120° W. The plot of the individual mines and the county and state borders was made by using the Cartographic Automatic Mapping (CAM) Program (Central Intelligence Agency, 1977) on a Zeta 3600S plotter. A Lambert conformal conic projection based on standard parallels 33 degrees and 45 degrees was used as the base map. County and state borders shown on the sheets are computer generated from digitized data.

Locations of individual mines (plotted as a plus for metallic minerals) were obtained from the Computerized Resource Information Bank (CRIB), a part of the U.S. Geological Survey's Mineral Data System (MDS) (Calkins and others, 1978). These plotted localities are not distinguished by size, deposit type, commodity, or production. The borders for the mineralized areas have been drawn to include all mines that are considered to be part of the area. The generalized boundaries without symbols were obtained from the literature and

transferred onto the map. The missing mines are in the process of being entered into the CRIB file. Names of prominent localities are used for areas where the district names are not present.

Table 1 summarizes information on the district names, locations, commodities, deposit types, host rocks, and references. It is organized alphabetically by county and district name. Locations of the districts are designated by Township and Range. Metallic and nonmetallic commodities are included in the table; while fossil fuel commodities are omitted due to insufficient data in the CRIB file. Commodities listed are not arranged in any significant size or order. The columns for deposit type and host rock contain information that pertains to the entire district. Numbers in the reference column refer to the references listed in Appendix A. These references are the source of information used in the compilation of data for each district. Some mines are relatively isolated and are not included within any mining district. Information on these mines is not given in Table 1.

REFERENCES CITED

Calkins, J. A., Keefer, E. K., Ofsharick, R. A., Mason, G. T.,

Tracy, Patricia, and Atkins, Mary, 1978, Description of CRIB, the GIPSY retrieval mechanism, and the interface to the General Electric MARK III Service: U.S. Geological Survey Circular 755-A, 49 p.

Central Intelligence Agency, 1977, CAM-Cartographic Automatic Mapping Program documentation (5th ed.): National Technical Information Service (NTIS) Report PB-270 304, 121 p.

Fenneman, N. M., 1946, Physical divisions of the United States, Edition of 1946: Washington, scale 1:7,000,000.

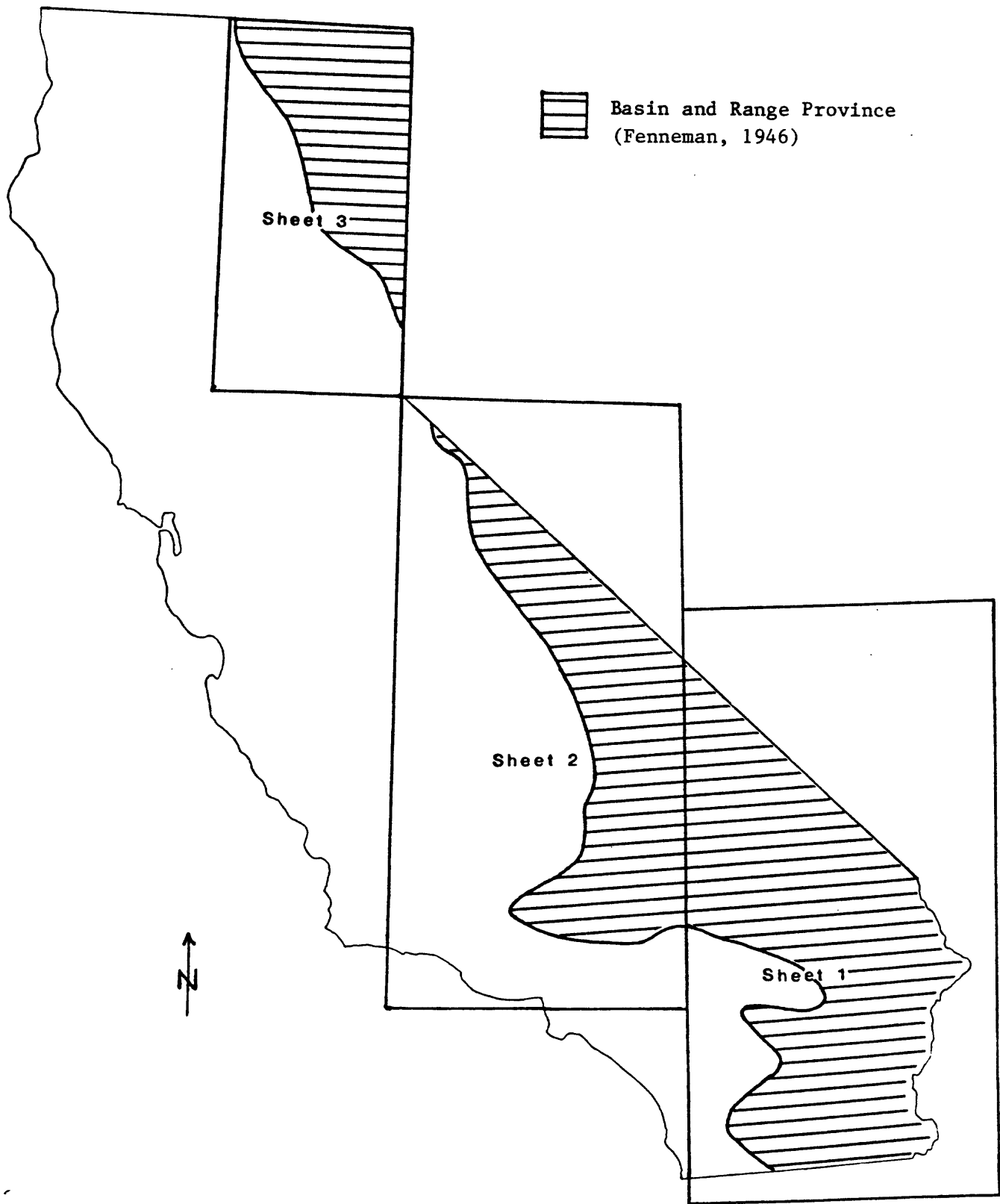


Figure 1. Index map of the Basin and Range province in California.

Table 1. District Descriptions

Mining district	Location			Commodities ²	Deposit type ----	Host rock	References ³
	Township	Range	Base ¹				
ALPINE COUNTY							
Mogul	10 N.	21 E.	MD	Au, Ag, Cu, Sb, Hg	Vein -----	Volcanic Rocks	9, 11
IMPERIAL COUNTY							
Cargo Muchacho	15 S.	21 E.	SB	Au, Ag, Cu, Pb, Zn, W	Vein -----	Arkosite, Quartz Diorite, Biotite Granite Quartz Monzonite, Gneiss	4, 9, 17, 26, 28, 35, 41, 42, 44
Chocolate Mountains Area	9 S.	15 E.	SB	Au, Ag, Pb, Cu, U, W	Vein -----	Schist, Alaskite Dike	9, 28, 35, 41
	10 S.	15 E.	do.		Shear Zone Contact ---	Hybrid Granitic, Quartz Monzonite	
	10 S.	17 E.	do.				
	11 S.	18 E.	do.				
	12 S.	18 E.	do.				
Coyote Mountains	15 S.	9 E.	SB	Au, Ni, Cu, W, Ba	Contact Metamorphic --	Tactite, Limestone, Quartz Diorite	28
	16 S.	9 E.	do.		Pegmatite -----	Pegmatite Dike	
	16 S.	10 E.	do.		Contact -----	Pyroxenite, Quartz Diorite	
	17 S.	9 E.	do.				
	17 S.	10 E.	do.				
	18 S.	9 E.					
Fish Creek Mountains	13 S.	9 E.	SB	Au, Cu, W, Sr, Mn, Gypsum	Bedded -----	Gypsum Beds	10, 27, 28, 35
	14 S.	9 E.	do.		Fault Filling -----	Gneiss, Tertiary, Sediments	
	14 S.	10 E.	do.		Contact -----	Pegmatite, Quartzite, Biotite Schist	
Mesquite (Paymaster)	12 S.	19 E.	SB	Au, U	Hydrothermal Altered Zone -----	Quartzite, Schist, Basic Dike	9, 28, 35, 41
	13 S.	18 E.	do.		Placer -----	Gravel	
	13 S.	19 E.	do.		Vein -----	Schist	
Palo Verde	9 S.	19 E.	SB	Mn, Ba, Fe	Fissure Filling/Vein -	Pyroclastic, Conglomerate, Andesite Fanglomerate	6, 28, 35, 37, 41
	9 S.	20 E.	do.				
	9 S.	21 E.	do.				
Paymaster	11 S.	20 E.	do.	Au, Ag, Cu, Pb, Zn, Mn, Fe, Ti	Placer -----	Fanglomerate	28, 35, 41
	11 S.	21 E.	do.		Contact -----	Schist, Granitic	
	12 S.	19 E.	do.		Vein -----	Gneiss, Granitic	
	12 S.	20 E.	do.		Fissure Filling -----	Conglomerate, Andesite	
	13 S.	20 E.	do.				
	13 S.	21 E.	do.				
Picacho (Southeastern Chocolate Mountains)	13 S.	22 E.	SB	Au, Ag, Pb, Cu	Placer -----	Gravel	9, 26, 28, 35, 41
	13 S.	23 E.	do.		Breccia Zone -----	Gneiss	
	14 S.	23 E.	do.		Vein/Shear Zone -----	Schist, Gneiss	
Potholes (Southeastern Chocolate Mountains)	15 S.	23 E.	SB	Au, Pb, Cu	Vein -----	Gneiss, Porphyroblastic Metagranite	9, 15, 28, 33, 35, 41
	15 S.	24 E.	do.		Placer -----	Gravel	
Tumco (Cargo Muchacho)	14 S.	20 E.	SB	Au, Cu, W	Vein -----	Gravel, Arkosite	4, 9, 17, 28, 35
	15 S.	20 E.					
INYO COUNTY							
Alabama	14 S.	36 E.	MD	Au, Fe, Cu	Vein -----	Felsite, Granite	29
	15 S.	35 E.	do.				
	15 S.	35 E.	do.				
Argus (Kelley)	23 S.	41 E.	MD	Au, Ag, Fe, Cu	Vein -----	Granite, Diorite, Andesite	9, 29
	23 S.	42 E.	do.				
Argus Range Area	23 S.	42 E.	MD	Au	Vein -----	Granite	29
	23 S.	43 E.	do.				
	24 S.	43 E.	do.				
Ballarat-South Park	21 S.	44 E.	MD	Au	Vein -----	Schist, Dolomitic Limestone, Gneiss	9, 29
	22 S.	44 E.	do.				
	22 S.	45 E.	do.				
Beveridge	13 S.	37 S.	MD	Au, Ag, C, Pb, Zn, Fe	Vein -----	Granite, Quartz Monzonite, Limestone Quartzite, Schist	29
	14 S.	37 E.	do.				
	14 S.	38 E.	do.				
Big Pine	8 S.	34 E.	MD	Au	Vein -----	Metasediments, Granitic Dikes	29
Bishop	8 S.	33 E.	MD	W, Cu, Sb	Contact Metasomatic --	Granite, Hornfels, Limestone, Marble	29
Bishop Creek (Buttermilk)	8 S.	31 E.	MD	Au, Ag, Cu, Zn	Vein -----	Quartzite, Granitic Rocks	9

Mining district	Location			Commodities ²	Deposit type ----	Host rock	References ³
	Township	Range	Base ¹				
INYO COUNTY (CONTINUED)							
Cerro Gordo	16 S.	38 E.	MD	Au, Ag, Cu, Pb, Zn	Vein -----	Limestone, Slate	14, 29
	16 S.	39 E.	do.		Replacement -----	Limestone	
	17 S.	39 E.	do.				
Chidago	7 S.	34 E.	MD	Au, Ag, Pb, Fe	Vein -----	Limestone	14, 29
Chloride Cliff (South Bullfrog)	30 N.	1 E.	SB	Au, Ag, Pb, Cu	Vein -----	Limestone, Schist, Quartzite	9, 14, 29
Darwin (Coso)	18 S.	40 E.	MD	Ag, Pb, Zn, Au, Cu, As,	Vein -----	Limestone, Tactite, Calc-hornfels	14, 16, 29
	19 S.	40 E.	do.	W, Sb, F, Fe	Replacement -----	Limestone	
	19 S.	41 E.	do.				
Deep Creek (Tungsten Hill)	7 S.	31 E.	MD	W	Contact Metasomatic --	Quartz Diorite, Limestone	29
Deep Spring	6 S.	37 E.	MD	Ag, Cu	Vein -----	Granite	14, 45
Echo Canyon-Lees Camp	27 N.	3 E.	SB	Au	Vein -----	Metamorphic Rocks	9, 29
	28 N.	3 E.	do.				
	29 N.	3 E.	do.				
Fish Springs (Tinemaha)	10 S.	34 E.	MD	Au, Ag, Pb, Cu	Vein -----	Granite	9, 29
Grapevine	11 S.	43 E.	MD	Au	Vein -----	Metamorphosed Sedimentary Rocks	9
Greenwater	24 N.	3 E.	SB	Cu	Unknown		13, 45
	24 N.	5 E.	do.				
Harrisburg	17 S.	45 E.	MD	Au	Vein -----	Dolomitic Limestone	9, 29, 45
	18 S.	45 E.	do.				
Kearsage	13 S.	34 E.	MD	Au, Ag	Vein -----	Quartz Monzonite	9
Lee	16 S.	40 E.	MD	Au, Ag, Pb, Zn, Cu	Vein -----	Limestone	29
	17 S.	40 E.	do.				
Modoc	19 S.	42 E.	MD	Au, Ag, Pb	Vein -----	Granitic Rocks, Schist, Limestone	9, 14, 29
					Replacement -----	Limestone	
Old Coso	20 S.	40 E.	MD	Au, Ag, Cu, Hg	Vein -----	Granite	29
	21 S.	40 E.	do.				
Panamint	21 S.	45 E.	MD	Cu, Ag	Vein -----	Schist, Limestone	14
Pine Creek	7 S.	30 E.	MD	W, Cu, Mo, Au	Contact Metasomatic --	Limestone, Hornfels, Quartz Diorite	29
Pine Mountain	6 S.	35 E.	MD	Au, Ag, Pb, Cu	Vein -----	Schist	29
					Replacement -----	Limestone, Schist	
Resting Spring	22 N.	7 E.	SB	Pb, Zn	Replacement(?) -----	Dolomite	14
Russ	14 S.	36 E.	MD	Au, Ag, Pb, Cu	Vein -----	Limestone	29
Saratoga	20 N.	8 E.	SB	Au, Ag, Pb, Zn, Cu	Replacement -----	Limestone	14
Skiddoo-Tucki Mountain	16 S.	44 E.	MD	Au	Vein -----	Quartz Monzonite	9, 29
	16 S.	45 E.	do.				
	17 S.	44 E.	do.				
	17 S.	45 E.	do.				
Slate Range (Arondo)	24 S.	44 E.	MD	Au	Vein -----	Granite, Schist	9
Swansea	16 S.	37 E.	MD	Ag, Pb, Zn, Cu	Fissure Filling -----	Limestone	29
Tibetts (Union)	12 S.	36 E.	MD	Au, Ag, Pb, Cu, W, Mo, Fe	Contact Metamorphic --	Quartz Monzonite, Limestone	14, 23
	13 S.	35 E.	do.		Vein -----	Granite, Limestone	
	13 S.	36 E.	do.				
Ubehebe	14 S.	41 E.	MD	Au, Ag, Pb, Cu, W	Vein -----	Granite, Limestone	9, 45
	15 S.	40 E.	do.		Contact Metasomatic --	do.	
	15 S.	41 E.	do.				

Mining district	Location			Commodities ²	Deposit type	Host rock	References ³
	Township	Range	Base ¹				
INYO COUNTY (CONTINUED)							
Wild Rose	18 S.	45 E.	MD	Au, Ag, Cu, Pb, Sb, Zn	Placer	Gravel	9, 29, 48
	19 S.	45 E.	do.		Vein	Schist, Gneiss, Granitic Rocks	
					Replacement	Limestone	
Willow	22 N.	3 E.	SB	Au, Cu	Vein	Gneiss, Schist	9, 29
KERN COUNTY							
El Paso Mountains (Goler, Carlock, Searles)	28 S.	39 E.	MD	Au, Cu, Pb, U, F, B, Mn, Mo, Ag, W, Zn	Placer	Gravel	38
	29 S.	37 E.	do.		Vein	Schist, Quartz Diorite, Quartzite	
	29 S.	38 E.	do.		Disseminated	Dikes	
	29 S.	39 E.	do.		Replacement	Limestone	
	29 S.	40 E.	do.				
	30 S.	37 E.	do.				
	30 S.	38 E.	do.				
Gorman Tin	9 N.	17 W.	SB	Sn, Ag, Cu, Zn, W, Fe, Mo, Pb	Contact Metamorphic	Tactite, Limestone, Granite	38
	9 N.	18 W.	do.		Gossan	Limestone	
Indian Wells Canyon	25 S.	37 E.	MD	W, Th, Au	Contact Metamorphic	Tactite, Limestone, Quartz Monzonite	38
	26 S.	37 E.	do.		Vein	Schist, Quartz Monzonite	
	26 S.	38 E.	do.				
Jawbone Canyon	29 S.	36 E.	MD	Au, Ag, Pb, Sb, Hg, W, U	Vein	Granitics	38
	29 S.	37 E.	do.		Placer	Gravel	
	30 S.	36 E.	do.		Contact Metamorphic	Tactite	
	31 S.	36 E.	do.		Veinlets	Rhyolite	
	31 S.	37 E.	do.				
Mojave (Rosamond)	9 N.	13 W.	SB	Al, Ag, U, Cu, Pb, Sb	Vein	Rhyolite Volcanic, Quartz Monzonite	38
	10 N.	12 W.	do.				
	10 N.	13 W.	do.				
	11 N.	12 W.	do.				
Rademacher	27 S.	40 E.	MD	Au, Ag, Cu, W	Vein	Granitic Rocks	38
	28 S.	40 E.	do.				
Rand (Randsburg, Stringer)	29 S.	40 E.	MD	Au, Ag, W, Mn	Vein	Schist, Quartz Monzonite	9, 38
	30 S.	40 E.	do.		Placer	Gravel	
Tehachapi	10 N.	15 W.	SB	Au, W, Sb, U	Vein	Granitic Rocks	9, 38
	10 N.	16 W.	do.		Contact Metamorphic	Tactite, Limestone, Granite	
	11 N.	14 W.	do.		Disseminated	Tuffaceous Sandstone	
	11 N.	15 W.	do.				
	32 S.	35 E.	MD				
LASSEN COUNTY							
Beckwourth Pass Area	22 N.	17 E.	MD	Au, Cu	Unknown		3
Diamond Mountain	29 N.	11 E.	MD	Au, Fe, Be	Placer	Gravel	3, 9
	29 N.	12 E.	do.		Vein	Quartz Diorite	
Hayden Hill	36 N.	9 E.	MD	Au, Ag, Mn	Vein	Rhyolite Tuff	3, 40
	37 N.	9 E.	do.				
	37 N.	10 E.	do.				
Honey Lake	26 N.	15 E.	MD	Au, Ag, Cu	Vein	Diorite	3
Mountain Meadows	28 N.	10 E.	MD	Au, Ag, Cu	Placer	Gravel	9
LOS ANGELES COUNTY							
Neenach	8 N.	16 W.	SB	Au, Ag, Cu	Vein	Metasediments, Quartz Monzonite	9, 13, 49

Mining district	Location			Commodities ²	Deposit type -----	Host rock	References ³
	Township	Range	Base ¹				
MODOC COUNTY							
Cedarville Area	42 N.	15 E.	MD	Hg	Shear Zone -----	Andesite, Agglomerates	20
Cowhead Lake Area	47 N.	16 E.	MD	Au, Ag	Unknown		1
Dorris Reservoir Area	43 N.	14 E.	MD	Au, Ag	Vein -----	Unknown	1
High Grade (Hoag)	47 N.	15 E.	MD	Au, Ag, Cu	Vein -----	Rhyolite, Andesite	1, 9, 19
	47 N.	16 E.	do.				
	48 N.	15 E.	do.				
	48 N.	16 E.	do.				
Upper Alkaline Lake Area	45 N.	16 E.	MD	Cu	Vein -----	Andesite	13, 40
West Valley Reservoir Area	39 N.	14 E.	MD	Hg	Disseminated -----	Volcanic Tuff	20
Willow Ranch Area	46 N.	14 E.	MD	Au, Ag	Vein -----	Andesite	3, 31
	47 N.	14 E.	do.				
Winters	41 N.	9 E.	MD	Au	Vein -----	Andesite	9, 40
MONO COUNTY							
Blind Spring Hill	2 S.	31 E.	MD	Au, Ag, Pb, Cu	Vein -----	Granite	14, 34
	2 S.	32 E.	do.				
Bodie	4 N.	27 E.	MD	Au, Ag	Vein -----	Andesite	7, 9, 12
Bridgeport Area	5 N.	24 E.	MD	Hg	Fracture Filling -----	Sandstone	20
	5 N.	25 E.	do.				
Bridgeport South Area	3 N.	25 E.	MD	Hg, Au, Mn	Vein -----	Granite, Diorite	20, 34
	3 N.	26 E.	do.		Fissure Filling -----	Andesite	
	4 N.	25 E.	do.				
Chidago (Clover Patch, Indian, Yellow Jacket)	3 S.	30 E.	MD	Au, Ag, Pb, Zn, Cu, W	Vein -----	Granite, Rhyolite, Quartzite, Limestone, Schist	9, 14, 32, 34
	3 S.	31 E.	do.				
	4 S.	31 E.	do.				
Homer (May Lundy, Lundy)	2 N.	25 E.	MD	Au, Ag, Pb, Cu	Vein -----	Granodiorite, Schist, Slate, Hornfels	9, 12, 34
Jordan (Mono Diggings, Dogtown Diggings)	2 N.	25 E.	MD	Au, Ag, Cu	Vein -----	Hornfels, Limestone, Schist, Slate, Granite	9, 34
					Placer -----	Gravel	
Keith (Castle Peak)	3 N.	25 E.	MD	Au	Vein -----	Granite, Quartzite, Hornfels, Schist	9, 12, 34
Mammoth (Lake)	4 S.	27 E.	MD	Au, Ag, Pb, An, Cu, As,	Vein -----	Latite	9, 34
	4 S.	28 E.	do.	Ba			
Masonic	6 N.	26 E.	MD	Au, Ag, Cu	Vein -----	Granite, Quartzite, Schist	9, 12, 34
Mono Lake Area	2 N.	25 E.	MD	Au	Vein -----	Slate	12, 34
Patterson	7 N.	24 E.	MD	Au, Ag, Pb, Cu, Mo	Vein -----	Andesite, Rhyolite	9, 12, 34
	7 N.	25 E.	do.				
Tioga	1 N.	25 E.	MD	Cu, Pb, Zn, Mo, Au	Vein -----	Metamorphics	14, 21, 22, 34
					Contact Metasomatic --	Tactite	
West Walker River Area	7 N.	23 E.	MD	W, Au, Ag, Pb, Mo, Cu,	Pegmatite -----	Quartz Monzonite	12, 14, 23, 34
	8 N.	22 E.	do.	Zn, Cd	Vein -----	Schist, volcanic rocks	
	9 N.	22 E.	do.		Contact Metasomatic --	Tactite	
	10 N.	22 E.	do.		Disseminated -----	Massive Sulfides	
White Mountains Area	2 S.	34 E.	MD	Au, Ag, Pb, Cu, W	Placer -----	Gravel	14, 34
	5 S.	33 E.	do.		Vein -----	Granitic Rocks, Schist, Limestone, Slate, Hornfels	

Mining district	Location			Commodities ²	Deposit type ----	Host rock	References ³
	Township	Range	Base ¹				
PLUMAS COUNTY							
Genesee	25 N.	11 E.	MD	Au, Cu, Ag	Placer -----	Gravel	2, 25
	25 N.	12 E.	do.		Vein -----	Hornfels, Schist, Slate, Meta-andesite	
	26 N.	11 E.	do.		Replacement -----	Granodiorite, Limestone	
	26 N.	12 E.	do.				
Lights Canyon	27 N.	10 E.	MD	Au, Ag, Cu, Pb, Zn, Fe	Placer -----	Gravel	13, 14, 24, 25
	27 N.	11 E.	do.		Vein -----	Diorite, Quartz Monzonite	
Red Rock	24 N.	16 E.	MD	Cu, U, Mo	Replacement veins ----	Granitic Rocks	39
RIVERSIDE COUNTY							
Arica (Onward)	2 S.	19 E.	SB	Au	Vein -----	Granite, Schist	9, 36
	2 S.	20 E.	do.				
Big Maria Mountains Area	3 S.	21 E.	SB	Au, Ag, Pb, Zn, Cu, Mn,	Replacement -----	Diorite Dike, Limestone	36, 43
	3 S.	23 E.	do.	Fe, W	Gossan -----	Dolomitic Limestone	
	4 S.	22 E.	do.		Vein -----	Granite, Schist	
	4 S.	23 E.	do.				
Bendigo (Riverside Mountain)	1 S.	22 E.	SB	Au, Ag, Pb, Fe, Cu, Mn	Replacement -----	Limestone, Schist	9, 36, 43
	1 S.	23 E.	do.		Vein -----	Granite, Schist, Limestone	
	1 S.	24 E.	do.				
Chuckwalla (Pacific)	6 S.	15 E.	SB	Au, Ag, Pb, W, Cu	Vein -----	Granite, Gneiss	9, 36, 43
	6 S.	16 E.	do.		Contact -----	Diorite Dike, Schist	
	7 S.	14 E.	do.				
	7 S.	15 E.	do.				
	7 S.	16 E.	do.				
	7 S.	17 E.	do.				
Cottonwood Mountains Area	5 S.	10 E.	SB	Au, Rare Earths	Unknown		36, 43
	5 S.	11 E.	do.				
Coxcomb Mountains Area	2 S.	16 E.	SB	Au	Unknown		36, 43
Dale (Virginia Dale, Pinto Basin)	2 S.	11 E.	SB	Au, Ag, Pb, Zn, Cu, U	Vein -----	Granite, Quartz Diorite, Banded Gneiss, Andesite, Schist	36
	2 S.	12 E.	do.				
	2 S.	13 E.	do.				
Desert Hot Springs Area	2 S.	5 E.	SB	Cu	Unknown		13
Dos Palmas	6 S.	11 E.	SB	Au, Mn, F	Replacement (?) -----	Schist	9, 36, 43
	6 S.	12 E.	do.		Vein -----	Gneiss, Schist, Granite	
	6 S.	14 E.	do.				
	7 S.	12 E.	do.				
Eagle Mountain	3 S.	13 E.	SB	Au, Ag, Pb, Cu, Fe	Replacement -----	Limestone, Granite	9, 36, 43
	3 S.	14 E.	do.		Vein -----	Granite, Metamorphic Rocks	
	4 S.	13 E.	do.				
Gold Park	2 S.	8 E.	SB	Au, Rare Earth	Vein -----	Quartz Monzonite, Gneiss	36, 43
	2 S.	9 E.	do.				
	2 S.	10 E.	do.				
Hexie	3 S.	9 E.	SB	Au	Vein -----	Granite, Schist, Diabase, Andesite	36, 43
	3 S.	10 E.	do.				
Little Maria Mountains Area	3 S.	20 E.	SB	Cu, W, Mn, F	Vein/Shear Zone -----	Schist, Granite, Quartzite, Limestone	36, 43
	4 S.	21 E.	do.				
Lost Horse	2 S.	7 E.	SB	Au, Fe	Vein -----	Quartz Monzonite, Gneiss	36, 43
	2 S.	8 E.	do.				
	3 S.	8 E.	do.				
McCoy Mountains (Ironwood)	4 S.	20 E.	SB	Au, Cu, Mn, U, Ag	Vein -----	Schist, Granite	36, 43
	6 S.	20 E.	do.				
Monument Mountain Area	4 S.	10 E.	SB	Au	Vein (?) -----	Unknown	36, 43
	4 S.	11 E.	do.				
Mule Mountain (Hodges)	7 S.	21 E.	SB	Au, Cu, Ag, Pb	Vein -----	Granodiorite	9, 36, 43
	8 S.	20 E.	do.				
	8 S.	21 E.	do.				

Mining district	Location			Commodities ²	Deposit type ---	Host rock	References ³
	Township	Range	Base ¹				
RIVERSIDE COUNTY (CONTINUED)							
Palen Mountains Area	3 S.	18 E.	SB	Cu, Fe, Mn, F, Au	Vein -----	Monzonite	36, 43
	4 S.	19 E.	do.		Contact -----	Limestone, Granite	
	5 S.	18 E.	do.				
Pinon	3 S.	8 E.	SB	Au, Bi	Vein -----	Granite, Quartzite	8, 9, 36, 43
	4 S.	9 E.	do.				
SAN BERNARDINO COUNTY							
Afton Area	10 N.	5 S.	SB	Au, Pb, Cu, Fe, Ti, Mn, F	Vein -----	Granitic Rocks, Gneiss, Migmatite	50
	11 N.	6 E.	do.				
	12 N.	6 E.	do.				
Alvord	11 N.	3 E.	SB	Au, Cu, Fe, Pb	Vein -----	Limestone, Granite, Schist	9, 50
	12 N.	3 E.	do.				
Arrowhead (Arrow)	8 N.	14 E.	SB	Au, Cu, Ag, Pb	Vein -----	Diorite Dike, Quartz Monzonite	9, 50
	9 N.	13 E.	do.				
	9 N.	14 E.	do.				
Atolia	30 S.	41 E.	MD	W, Hg, Au, Ag, Sb	Vein -----	Schist, Quartz Monzonite	23, 50
					Placer -----	Gravel	
Awawatz Mountain Area	15 N.	6 E.	SB	Au, Ag, Cu, Pb, Zn, Fe, Sr	Contact Metasomatic --	Limestone	50
	15 N.	7 E.	do.				
	16 N.	6 E.	do.				
Baldwin Lake (Bear Valley)	2 N.	2 E.	SB	Au, W, Ag, Pb, Cu, Fe	Vein -----	Limestone, Quartzite, Diabase, Monzonite	9, 50
	2 N.	3 E.	do.				
Belleville	8 N.	1 E.	SB	Cu, Au	Vein -----	Quartz Monzonite, Granite	50
Black Hawk (Silver Reef)	3 N.	1 E.	SB	Au, Ag, Pb, Zn, Cu	Vein -----	Limestone, Granite	9, 50
	3 N.	2 E.	do.				
	3 N.	3 E.	do.				
Calico	10 N.	1 E.	SB	Au, Ag, Pb, Zn, Cu, Ba	Vein -----	Rhyolite	14
Calumet	3 N.	13 E.	SB	Au, Ag, Cu, Fe	Vein -----	Granite, Gneiss	50
	3 N.	14 E.	do.				
Chubbuck	3 N.	16 E.	SB	Au, Ag, Cu, Pb, Zn	Vein -----	Schist, Quartzite, Marble, Granitic Rocks	50
Clark (Clark Mountain)	16 N.	13 E.	SB	Au, Cu, W, Pb, Ag, Zn	Vein -----	Gneiss, Quartz Monzonite, Limestone	9, 50
	17 N.	13 E.	do.				
Coolgardie	11 N.	3 W.	SB	Au	Placer -----	Gravel	9
					Vein -----	Granitic Rocks	
Dale	1 S.	12 E.	SB	Au, Ag, Pb, Cu, Sb, Bi, Fe, Mn	Vein -----	Diorite, Granodiorite, Andesite Porphyry	50
	1 S.	13 E.	do.				
El Mirage Lake Area	6 N.	6 W.	SB	Ag, Pb, Zn, Cu, W	Contact Metasomatic --	Limestone	23, 50
	6 N.	7 W.	do.		Vein -----	Granite, Limestone	
	7 N.	6 W.	do.		Replacement -----	Limestone	
	8 N.	6 W.	do.				
Emerson Lake (Dry Lake)	4 N.	5 E.	SB	Au, Ag, Pb, Cu	Vein -----	Gneiss, Granite	9, 50
	4 N.	6 E.	do.				
Fremont Peak	12 N.	5 W.	SB	Au, Ag, Cu	Vein -----	Gneiss, Limestone, Diabase, Granite	50
	32 S.	42 E.	MD				
Fry Mountain Area	5 N.	2 E.	SB	Au, Cu, As	Vein -----	Granite, Hornblende Diorite, Quartz Monzonite	50
	5 N.	3 E.	do.				
	6 N.	2 E.	do.				
	6 N.	3 E.	do.				
Galway Dry Lake Area	5 N.	4 E.	SB	Fe	Replacement -----	Marble	50
	6 N.	4 E.	do.		Vein -----	Granite	
Gold Reef	7 N.	15 E.	SB	Au, W, Ag, Cu, Fe	Vein -----	Andesite, Gneiss, Schist	9
	8 N.	15 E.	do.		Contact Metasomatic --	Limestone	
	8 N.	16 E.	do.				

Mining district	Location			Commodities ²	Deposit type	Host rock	References ³
	Township	Range	Base ¹				
SAN BERNARDINO COUNTY (CONTINUED)							
Goldstone	13 N.	1 E.	SB	Au, Cu, Ag	Vein	Limestone, Shales, Diorite Dike, Schist	9, 50
	14 N.	1 E.	do.				
Granite Mountain Area	8 N.	12 E.	SB	Fe	Replacement (?)	Metamorphic and Granitic Rocks	50
Grapevine	32 S.	47 E.	MD	Au, Cu, W	Vein	Diorite, Quartz Monzonite, Quartzite, Granodiorite	9, 50
	12 N.	1 E.	SB				
					Contact Metasomatic	Limestone, Granite	
Hackberry Mountain (Signal)	11 N.	17 E.	SB	Au, Cu, V	Vein	Gneiss, Schist	9, 50
	11 N.	18 E.	do.				
	12 N.	17 E.	do.				
	12 N.	18 E.	do.				
Halloran Springs	15 N.	9 E.	SB	Au, Cu, Ag, Pb, Fe	Vein	Quartz Monzonite, Basalt, Granite	9, 50
	15 N.	10 E.	do.				
	15 N.	11 E.	do.				
Hart	14 N.	18 E.	SB	Au	Vein	Rhyolite	9, 50
Hikorum	6 N.	10 E.	SB	Au, Cu	Vein	Quartz Monzonite, Granite	9, 50
	7 N.	11 E.	do.				
Holcomb Valley	2 N.	1 E.	SB	Au, Ag, Pb, Zn, Cu, Fe, W	Placer	Gravel	50
	3 N.	1 E.	do.		Vein	Quartz Monzonite, Limestone	
	3 N.	1 W.	do.		Contact Metasomatic	do.	
	3 N.	2 W.	do.				
Homer Mountain Area	11 N.	19 E.	SB	Pb, Ag, Cu	Vein	Unknown	50
Ibex	10 N.	20 E.	SB	Au, Mn, Cu	Vein	Gneiss, Schist	50
	10 N.	21 E.	do.				
	10 N.	22 E.	do.				
Iron Ridge Area	5 N.	4 E.	SB	Au, Ag, As, Fe	Vein	Quartzite, Gneiss	50
	6 N.	4 E.	do.		Replacement	Marble	
Ivanpah (Bullion, Koko Weef, Mescale)	14 N.	14 E.	SB	Au, Ag, Pb, Cu, Zn, Fe, W, Sn	Vein	Limestone, Quartz Monzonite	23, 50
	15 N.	13 E.	do.		Contact Metasomatic	do.	
	15 N.	14 E.	do.				
Kingston Range Area	19 N.	10 E.	SB	Au, Ag, Pb, Zn, Cu, Fe	Contact	Dolomite, Limestone, Amphibolite	50
Lava Bed Mountains Area	7 N.	4 E.	SB	Au, Ag, Pb, Cu	Vein	Quartz Porphyry	50
	7 N.	5 E.	do.				
	7 N.	6 E.	do.				
Lead Mountain Area	4 N.	10 E.	SB	Au, Ag, Pb, Mo, V, Cu	Vein	Rhyolite Porphyry	50
Marble Mountains Area	6 N.	13 E.	SB	Fe	Replacement	Marble	50
	6 N.	14 E.	do.				
Mopah Range Area	3 N.	21 E.	SB	Au, Cu	Vein	Granite	50
Morongo	1 S.	4 E.	SB	Au, W, Bi	Vein	Granite, Limestone, Schist	9, 18
					Contact Metamorphic	Limestone	
Morrow	29 S.	45 E.	SB	Au, Cu	Vein	Granite, Limestone	50
Mountain Pass	16 N.	13 E.	SB	Rare Earths, Cu, Pb, F, Mo, Zn, Ag, Sb, Ba	Vein	Gneiss, Shonkinite-syenite	30
	16 N.	14 E.	do.				
Old Dad (Solo)	12 N.	10 E.	SB	Au, Cu	Vein	Gneiss, Quartzite	50
	13 N.	10 E.	do.				
Old Woman (Dumby)	4 N.	17 E.	SB	Au, Pb, Zn, As, Ag, W, Cu Hg, Sb	Vein	Schist, Quartzite, Granitic Rocks	9, 50
	5 N.	17 E.	do.		Contact Metasomatic	Limestone, Granite	
	6 N.	17 E.	do.				
	7 N.	17 E.	do.				
Ord (Ord Mountain)	6 N.	2 E.	SB	Au, Ag, Pb, Cu, As, Fe, Mo, W, F	Vein	Quartz Monzonite, Hornblende Diorite, Andesite, Dacite, Rhyolite, Granite	9, 47, 50
	7 N.	1 E.	do.				
	7 N.	2 E.	do.		Contact Metasomatic	Metavolcanic, Granite	
	7 N.	1 W.	do.		Replacement	Limestone	

Mining district	Location			Commodities ²	Deposit type ----	Host rock	References ³
	Township	Range	Base ¹				
SAN BERNARDINO COUNTY (CONTINUED)							
Oro Grande (Silver Mountain)	6 N.	4 W.	SB	Au, Ag, Pb, Cu, Zn	Vein -----	Limestone, Quartz Monzonite, Andesitic-Tuff	9, 50
	7 N.	4 W.	do.				
Piute Mountain Area	7 N.	17 E.	SB	Fe, Au, Ag, Pb, Zn, Cu, Hg	Vein -----	Gneiss, Schist	5, 20
	7 N.	18 E.	do.				
	8 N.	18 E.	do.				
	9 N.	18 E.	do.				
Providence Mountain Area	10 N.	14 E.	SB	Au, Ag, Pb, Fe, Cu	Vein -----	Quartz Monzonite	50
	10 N.	15 E.	do.				
Rand	19 S.	41 E.	MD	Au, Ag, Cu	Vein -----	Schist, Quartz Monzonite	9, 50
Rodman Mountain Area	7 N.	3 E.	SB	Au, Ag, Cu	Vein -----	Diorite, Monzonite	50
Sacramento Mountain Area	7 N.	20 E.	SB	Au, Ag, Cu, Fe, Hg	Vein -----	Gneiss, Granite	50
	7 N.	21 E.	do.				
	7 N.	22 E.	do.				
	8 N.	22 E.	do.				
	9 N.	22 E.	do.				
Shadow Mountains	17 N.	11 E.	SB	Au, Ag, Pb, Cu	Vein -----	Granitic Gneiss	9, 50
Sheep Hole Mountains Area	2 N.	11 E.	SB	Au, Fe	Contact Metasomatic --	Quartz Diorite	50
	2 N.	12 E.	do.		Vein -----	Granite	
Ship Mountain Area	5 N.	15 E.	SB	Au, Cu, Ag, Fe	Vein -----	Limestone, Granite	50
Slate Range (Arondo)	25 S.	45 E.	MD	Au	Vein -----	Granite, Schist	9, 50
Soda Mountains Area	13 N.	7 E.	SB	Au, Ag, Cu	Vein -----	Granite	50
	14 N.	7 E.	do.				
	14 N.	8 E.	do.				
Spangler	27 S.	42 E.	MD	Au	Vein -----	Granitic Rock	9
Stedman	6 N.	8 E.	SB	Au, Ag, Cu, Pb, Mn	Vein -----	Rhyolite, Andesite Porphyry, Dacite	9
	7 N.	8 E.	do.				
Trojan (Providence)	11 N.	13 E.	SB	Au, Cu, Ag, Pb, Zn, W, Fe	Vein -----	Quartz Monzonite	9
	11 N.	14 E.	do.				
Turtle Mountains Area	2 N.	21 E.	SB	Au, Cu	Vein -----	Gneiss, Schist	50
Twenty Nine Palms	1 S.	9 E.	SB	Au, Th	Vein -----	Granite, Schist	9, 50
Vanderbilt (New York)	13 N.	14 E.	SB	Au, Ag, Pb, Cu, Zn	Vein -----	Gneiss, Pegmatite Dike, Granite, Dolomite	9, 50
	14 N.	15 E.	do.				
	14 N.	16 E.	do.				
Whipple (Cross Roads, Havasu Lake, Monument)	2 N.	23 E.	SB	Au, Cu, Mn, Ag	Vein -----	Limestone, Granite	50
	2 N.	25 E.	do.		Bedded -----	Fanglomerate	
	2 N.	26 E.	do.				
	3 N.	23 E.	do.				
	3 N.	24 E.	do.				
	3 N.	26 E.	do.				
SAN DIEGO COUNTY							
Benson Lake Area	12 S.	8 E.	SB	B	Evaporite -----	Dry Lake bed	46
Boulder Creek (Mineral Hill)	14 S.	3 S.	SB	Au, Ag, Te	Vein/Shear Zone -----	Schist, Quartz Diorite	9, 46
Campo Area	18 S.	5 E.	SB	Au, Mo	Vein (?) -----	Quartz, Porphyry	46
Clark Lake Area	10 S.	7 E.	SB	B	Evaporite -----	Dry Lake bed	46
Cuyamaca (Hensley)	13 S.	4 E.	SB	Au, W, Te	Vein -----	Schist, Granodiorite, Gneiss	9, 46
	14 S.	4 E.	do.				
	14 S.	5 E.	do.				
Deer Park	14 S.	4 E.	SB	Au, W, Mn	Vein -----	Schist, Diorite, Gneiss	46
	14 S.	5 E.	do.		Contact Metamorphic --	Tactite, Quartzite, Schist	

Mining district	Location			Commodities ²	Deposit type ----	Host rock	References ³
	Township	Range	Base ¹				
SAN DIEGO COUNTY (CONTINUED)							
Granite Mountain Area	13 S.	5 E.	SB	Au, W, Mn	Vein -----	Schist	46
	13 S.	6 E.	do.		Contact Metamorphic --	Tactite, Quartzite, Schist	
Jacumba Area	17 S.	7 E.	SB	W, Mn, Be, U, Th	Contact Metamorphic --	Tactite, Quartz Diorite	46
	17 S.	8 E.	do.		Pegmatite -----	Pegmatite Dike	
	18 S.	7 E.	do.				
Julian (Banner)	12 S.	3 E.	SB	Au, Li, Ni, Ag, Co, Cu,	Lenses, Lenticular veins		9, 46
	12 S.	4 E.	do.		Elongate veins -----	Schist	
	13 S.	3 E.	do.		Pegmatite -----	Pegmatite Dike	
	13 S.	4 E.	do.		Gossan -----	Norite	
Laguna Mountains	15 S.	4 E.	SB	Au	Vein/Shear Zone -----	Schist, Gneiss, Quartz Diorite	9, 46
	15 S.	5 E.	do.				
Metal Mountain	16 S.	6 E.	SB	Au, W, Ag, Pb, Zn	Vein -----	Schist	46
					Contact Metamorphic --	Tactite, Schist	
Montezuma	10 S.	4 E.	SB	Au, W, Sn, Cu, Ag, Mo	Vein -----	Schist, Diorite, Quartzite, Gneiss	46
	10 S.	5 E.	do.		Contact Metamorphic --	Tactite, Schist, Diorite	
	11 S.	4 S.	do.				
	11 S.	5 S.	do.				
	12 S.	4 E.	do.				
Pine Valley	15 S.	4 E.	SB	Au	Vein -----	Tonalite	46
	16 S.	4 E.	do.				
	16 S.	5 E.	do.				
San Felipe Creek Area	12 S.	5 E.	SB	Au, W,	Contact Metamorphic --	Tactite, Schist, Granitics	46
	12 S.	6 E.	do.				
Sweeney Pass Area	15 S.	7 E.	SB	Mn	Fracture Filling -----	Quartzite	46
SISKIYOU COUNTY							
Pumice Occurrences	39 N.	1 E.	MD	Pumice	Cinder Cone		CRIB
	43 N.	2 E.	do.				
	43 N.	4 E.	do.				
	44 N.	4 E.	do.				

¹Location

E.--East
MD--Mount Diablo Meridian
N.--North
S.--South
SB--San Bernardino Meridian
W.--West

²Commodities

Ag Silver	Cd Cadmium	Ni Nickel	Ti Titanium
As Arsenic	Cu Copper	Pb Lead	U Uranium
Au Gold	F Fluorine	Sb Antimony	V Vanadium
B Boron	Fe Iron	Sn Tin	W Tungsten
Ba Barium	Hg Mercury	Sr Strontium	Zn Zinc
Be Beryllium	Mn Manganese	Te Tellurium	
Bi Bismuth	Mo Molybdenum	Th Thorium	

³Refer to Appendix A for corresponding numbers.

APPENDIX A

References for Table 1

1. Averill, C. V., 1929, Modoc County, in 25th report of the state mineralogist: California Journal of Mines and Geology, v. 25, no. 1, p. 10-19.
2. _____ 1937, Mineral resources of Plumas County: California Journal of Mines and Geology, v. 33, no. 2, p. 79-143.
3. Averill, C. V., and Erwin, H. D., 1936, Mineral resources of Lassen County: California Journal of Mines and Geology, v. 32, no. 4, p. 405-444.
4. Bateman, P. C., and Irwin, W. P., 1954, Tungsten in southeastern California, in Jahns, R. H., ed., Geology of southern California: California Division of Mines and Geology Bulletin 170, ch. 8, pt. 4, p. 31-40.
5. Bradley, W. W., 1918, Quicksilver resources of California: California Division of Mines and Geology Bulletin 78, 389 p.
6. Bradley, W. W., Huguenin, Emile, Logan, C. A., Tucker, W. B., and Waring, C. A., 1918, Manganese and chromium in California: California Division of Mines and Geology Bulletin 76, 248 p.
7. Cain, E. M., 1956, The story of Bodie: San Francisco, Fearon Publishers, 196 p.
8. Chesterman, C. W., 1957, Bismuth, in Mineral commodities of California: California Division of Mines and Geology Bulletin 176, p. 79-81.
9. Clark, W. B., 1976, Gold districts of California: California Division of Mines and Geology Bulletin 193, 186 p.

10. Durrell, Cordell, 1953, Geological investigations of strontium deposits in southern California: California Division of Mines and Geology Special Report 32, 48 p.
11. Eakle, A. S., 1919, Alpine County, in 15th report of the State mineralogist: California Journal of Mines and Geology, v. 15, p. 5-28.
12. Eakle, A. S. and McLaughlin, R. P., 1919, Mono County, in 15th report of the state mineralogist: California Journal of Mines and Geology, v. 15, p. 135-180.
13. Eric, J. H., 1948, Tabulation of copper deposits in California: California Division of Mines and Geology Bulletin 144, pt. 3, p. 199-387.
14. Goodwin, J. G., 1957, Lead and zinc in California: California Journal of Mines and Geology, v. 53, no. 3 and 4, p. 353-724.
15. Haley, C. S., 1923, Gold placers of California: California Division of Mines and Geology Bulletin 92, 167 p.
16. Hall, W. E. and MacKevett, E. M., Jr., 1962, Geology and ore deposits of the Darwin quadrangle, Inyo County, California: U.S. Geological Survey Professional Paper 368, 87 p.
17. Henshaw, P. C., 1942, Geology and mineral deposits of the Cargo Muchacho Mountains, Imperial County, California: California Journal of Mines and Geology, v. 38, no. 2, p. 147-196.
18. Hess, F. L. and Larsen, E. S., 1922, Contact metamorphic tungsten deposits of the United States: U.S. Geological Survey Bulletin 725-D, p. 245-309.
19. Hill, J. M., 1915, Some mining districts in northeastern California and northwestern Nevada: U.S. Geological Survey Bulletin 594, 200 p.

20. Holmes, G. W., Jr., 1965, Mercury in California, in Mercury potential of the United States: U.S. Bureau of Mines Information Circular 8252, ch. 6, p. 87-206.
21. King, R. U., 1966, Molybdenum in mineral resources of California: California Division of Mines and Geology Bulletin 191, p. 262-269.
22. Kirkemo, Harold, Anderson, C. A., and Creasey, S. C., 1965, Investigations of molybdenum deposits in the conterminous United States, 1942-1960: U.S. Geological Survey Bulletin 1182-E, 90 p.
23. Lemmon, D. M., and Tweto, O. L., 1962, Tungsten in the United States, exclusive of Alaska and Hawaii: U.S. Geological Survey Mineral Investigations Resource Map MR-25, scale 1:3,168,000.
24. Logan, C. A., 1921, Plumas County, in 17th report of the state mineralogists: California Journal of Mines and Geology, v. 17, p. 455-473.
25. MacBoyle, Errol, 1920, Plumas County, in 16th report of the state mineralogist: California Journal of Mines and Geology, v. 16.
26. Merrill, F. J. H., 1916, The counties of San Diego, Imperial, in 14th report of the state mineralogist: California Journal of Mines and Geology, v. 14, p. 635-743.
27. Moore, B. N., 1936, Celestite and strontianite, in Mineral resources of the region around Boulder Dam: U.S. Geological Survey Bulletin 871, p. 154-155.
28. Morton, P. K., 1977, Geology and mineral resources of Imperial County, California: California Division of Mines and Geology County Report 7, 104 p.

29. Norman, L. A., Jr. and Stewart, R. M., 1951, Mines and mineral resources of Inyo County: California Journal of Mines and Geology, v. 47, no. 1, p. 17-223.
30. Olson, J. C., Shawe, D. R., Pray, L. C., and Sharp, W. N., 1954, Rare-earth mineral deposits of the Mountain Pass district, San Bernardino county, California: U.S. Geological Survey Professional Paper 261, 75 p.
31. Pabst, Adolf, 1938, Minerals of California: California Division of Mines and Geology Bulletin 113, 338 p.
32. Rinehart, C. D., and Ross, D. C., 1956, Economic geology of the Casa Diablo Mountain Quadrangle, California: California Division of Mines and Geology Special Report 48, 17 p.
33. Sampson, R. J., 1932, Placers of southern California: California Journal of Mines and Geology, v. 28, no. 2, supplement, p. 245-255.
34. Sampson, R. J., and Tucker, W. B., 1940, Mineral resources of Mono County: California Journal of Mines and Geology, v. 36, no. 2, p. 117-156.
35. _____ 1942, Mineral resources of Imperial County: California Journal of Mines and Geology, v. 38, no. 2, p. 105-145.
36. Saul, R. B., Gray, C. H., and Evans, J. R., 1968, Map of Riverside County, California showing location of mines and mineral resources: California Division of Mines and Geology Open-file Release 68-7, 1:250,000.
37. Trask, P. D., 1950, Geologic description of the manganese deposits of California: California Division of Mines and Geology Bulletin 152, 378 p.

38. Troxel, B. W., and Morton, P. K., 1962, Mines and Mineral Resources of Kern County, California: California Division of Mines and Geology County Report 1, 370 p.
39. Troxel, B. W., Stinson, M. C., and Chesterman, C. W., 1957, Uranium: California Division of Mines and Geology Bulletin 176, p. 669-687.
40. Tucker, W. B., 1919, Lassen County, in 15th report for the state mineralogist: California Journal of Mines and Geology, v. 15, p. 226-238.
41. _____ 1926, Los Angeles Field Division (Imperial County), in 22nd report of the state mineralogist: California Journal of Mines and Geology, vo. 22, no. 2, p 248-285.
42. _____ 1938, Los Angeles Field Division (Mineral development and mining activity in southern California during the year 1937): California Journal of Mines and Geology, v. 34, no. 1, p. 8-19.
43. Tucker, W. B., and Sampson, R. J., 1945, Mineral resources of Riverside County: California Journal of Mines and Geology, v. 41, no. 3, p. 121-182.
44. Walker, G. W., Lovering, T. G., and Stephens, H. G., 1956, Radioactive deposits in California: California Division of Mines and Geology Special Report 49, 38 p.
45. Waring, C. A., and Huguenin, Emile, 1919, Inyo County, in 15th Report of the state mineralogist: California Journal of Mines and Geology, v. 15, p. 29-134.
46. Weber, F. H., Jr., 1963, Geology and mineral resources of San Diego County, California: California Division of Mines and Geology County Report 3, 309 p.

47. _____ 1963, Geology and mineral deposits of the Ord Mountain district, San Bernardino County, California: California Division of Mines and Geology Special Report 77, 45 p.
48. White, D. E., 1940, Antimony deposits of the Wildrose Canyon area, Inyo County: U.S. Geological Survey Bulletin 992-K, p. 307-325.
49. Wiese, J. H., 1950, Geology and mineral resources of the Neenach Quadrangle, California: California Division of Mines and Geology Bulletin 153, 53 p.
50. Wright, L. A., Stewart, R. M., Gay, T. E., Jr., and Hazenbush, G. C., 1953, Mines and mineral deposits of San Bernardino county, California: California Journal of Mines and Geology, v. 49, nos. 1 and 2, p. 49-257.