A-38

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF CONSERVATION

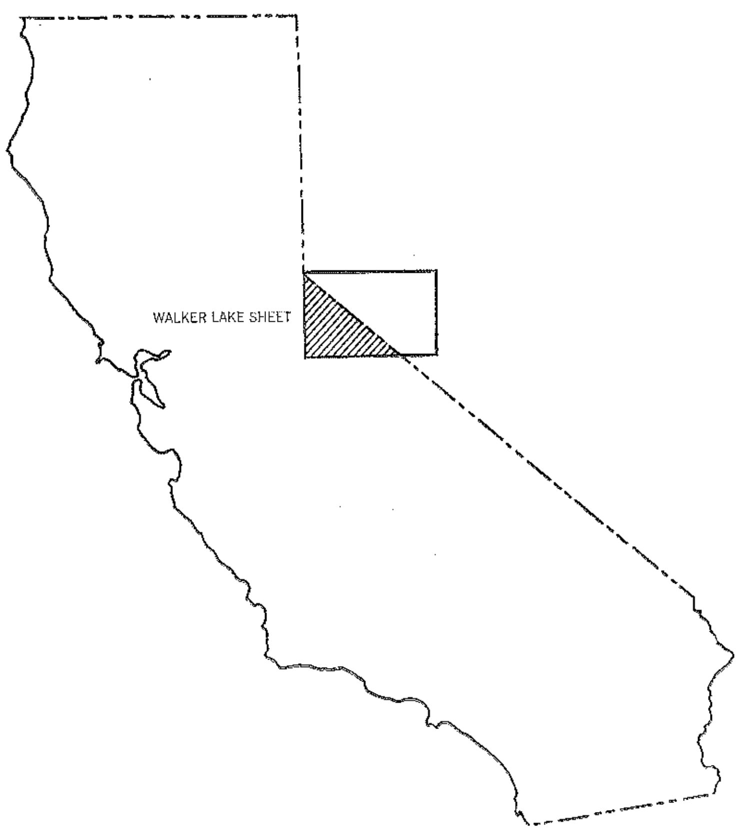
GEOLOGIC MAP OF CALIFORNIA

WALKER LAKE SHEET

Scale 1:250,000

1963

(Second printing, 1975)



CALIFORNIA DIVISION OF MINES AND GEOLOGY
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SACRAMENTO, CALIFORNIA 95814

WALKER L

INDEX TO CALIFORNIA GEOLOGIC MAP SHEETS

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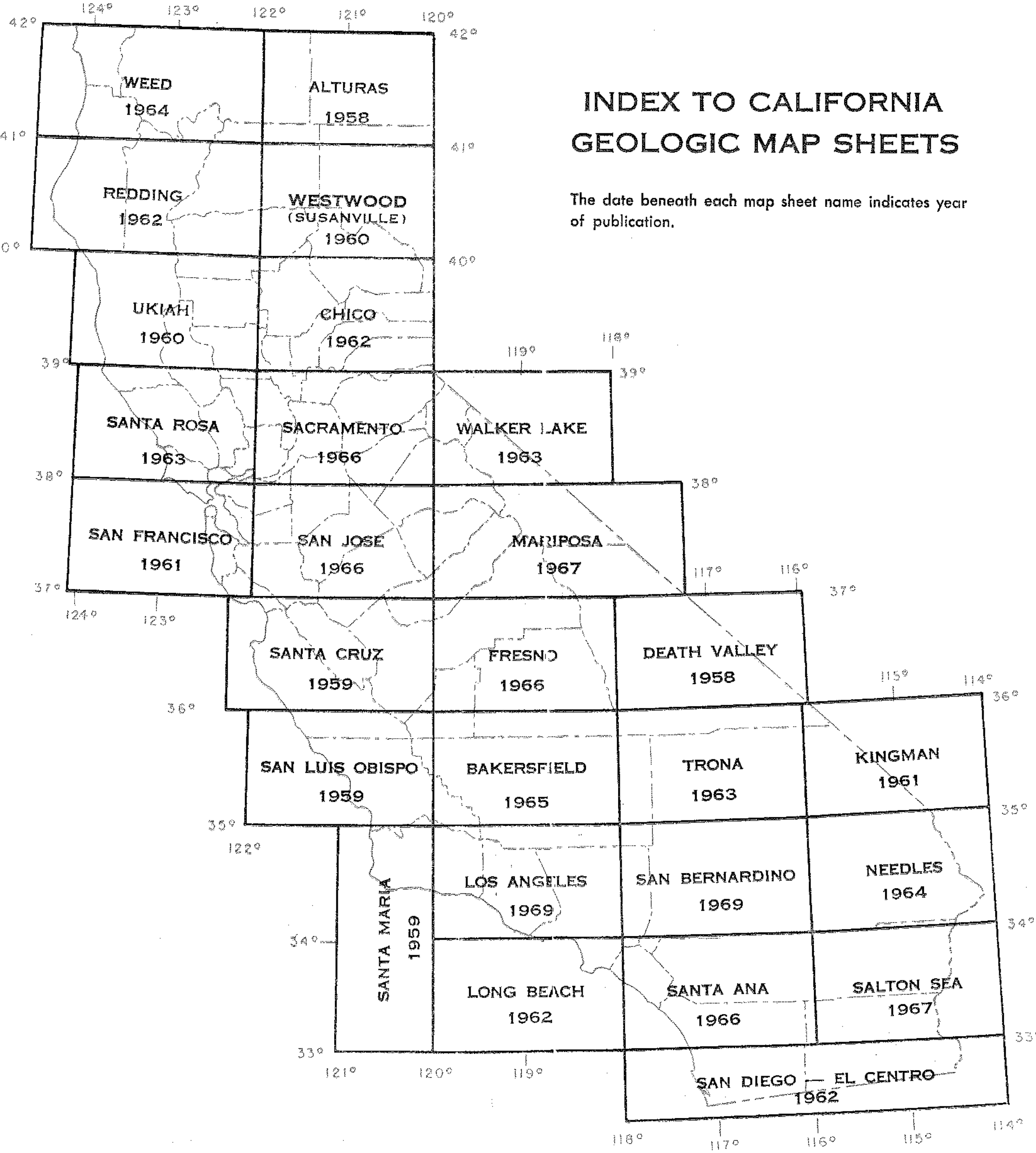

DIVISION OF MINES AND GEOLOGY
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STATE OF CALIFORNIA
THE RESOURCES AGENCY
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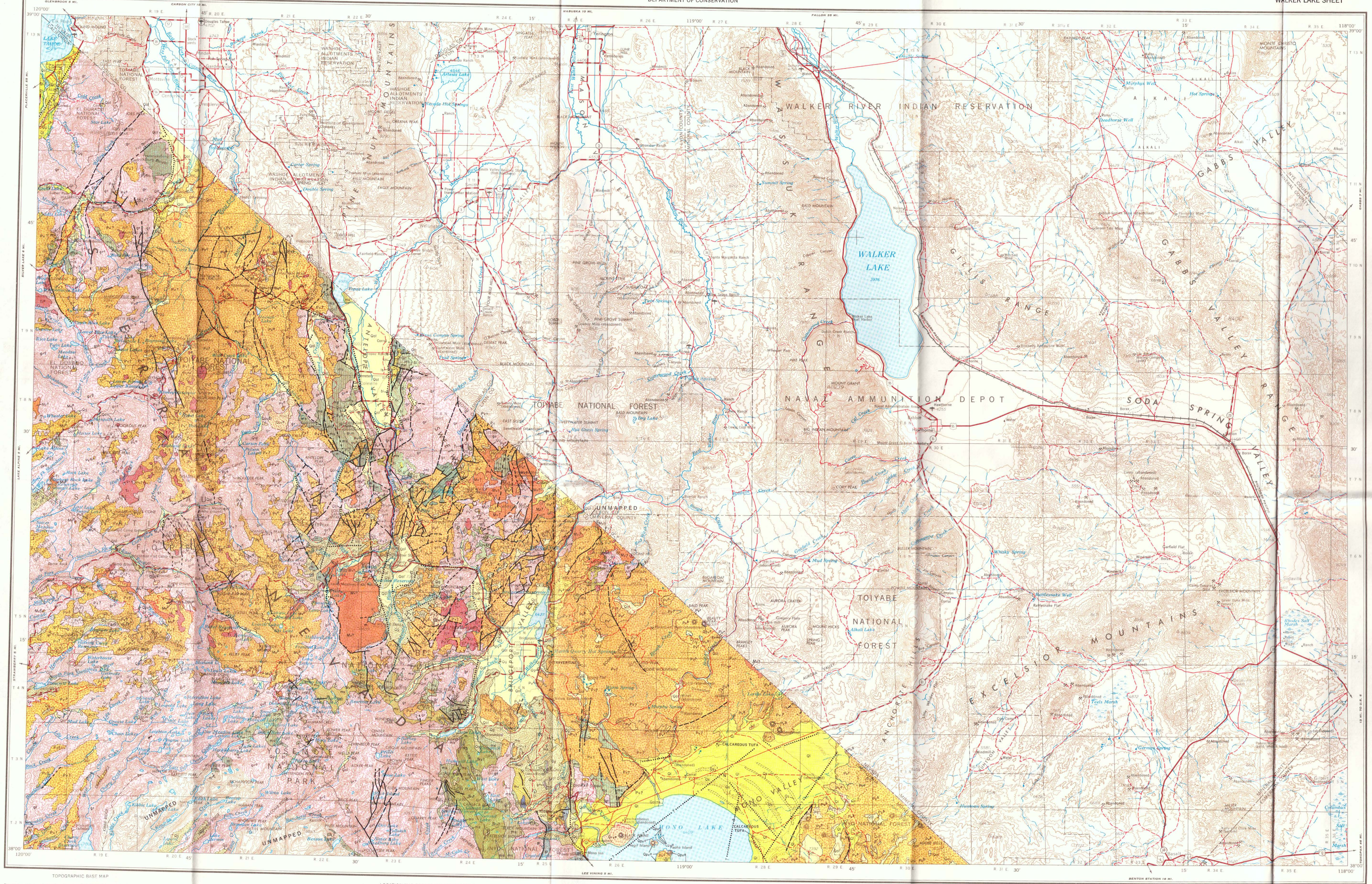


TOPOGRAPHIC BASE MAP

Prepared by the Army Map Service (KCLD), Corps of Engineers, U.S. Army, Washington, D.C. Compiled in 1959 by photogrammetric methods and from United States Quadrangles, 1:25,000, 1:48,000, 1:62,500, U.S. Geological Survey and AMS, 1954-56. Planimetric detail revised by photo-planimetric methods. Horizontal and vertical control by USGS, USC&GS and CE. Photography field annotated 1957.

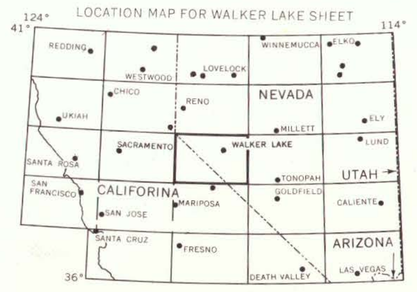
Corrections and additions to culture by California Division of Mines and Geology, 1963.

Land Net prepared by U.S. Geological Survey

Depth contours in Lake Tahoe in feet — compiled from soundings shown on U.S. Coast and Geodetic Survey Chart 5001

Contact
(Dashed where approximately located, gradational or inferred)

Fault
(Dashed where approximately located, gradational or inferred)



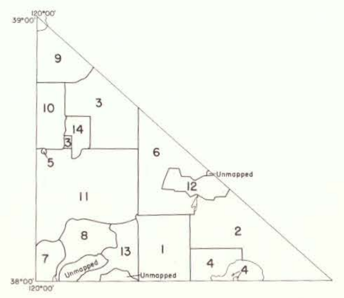
Scale 1:250,000

5 0 5 10 15 20 Statute Miles

5 0 5 10 15 20 25 30 Kilometers

CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS

GEOLOGIC MAP OF CALIFORNIA
OLAF P. JENKINS EDITION
WALKER LAKE SHEET
COMPILATION BY JAMES B. KOENIG, 1963
SECOND PRINTING, 1975



INDEX TO GEOLOGIC MAPPING
(COMPLETE INDEX ON EXPLANATORY DATA SHEET)

1. Chesterman, C. W., unpublished
2. Chesterman, C. W., and Gray, C. H., Jr., unpublished
   Frederick, F., unpublished
   Ferguson, H. G., unpublished
3. Curtis, G. H., unpublished
4. Dunn, J. R., unpublished
   Pakiser, L. C., Press, F., and Kane, M. F., 1960
5. Gilbert, F. L., unpublished
6. Halsey, J. H., unpublished
7. Koenig, J. B., unpublished
8. Koenig, J. B., and Burnett, J. L., unpublished
9. Koenig, J. B., and Matthews, R. A., unpublished
   Curtis, G. H., unpublished
   Lindgren, W., 1911
10. Parker, R. B., unpublished and 1961
11. Slemmons, D. B., unpublished
    Ransome, F. L., 1898
12. Stanford Geological Survey, unpublished
    Johnson, R. F., unpublished
13. Wahrhaftig, C., unpublished
14. Wilshire, H. G., unpublished and 1957

Williams & Heintz Map Corporation, Washington 27, D.C.

EXPLANATION

SEDIMENTARY AND METASEDIMENTARY ROCKS — IGNEOUS AND META-IGNEOUS ROCKS

CENOZOIC

QUATERNARY — Recent
- Qs Dune sand
- Qal Alluvium
- Qsc Stream channel deposits (Great Valley)
- Qf Fan deposits (Great Valley)
- Qb Basin deposits (Great Valley)
- Qrv Recent volcanic: Qrv[r] —rhyolite; Qrv[a] —andesite; Qrv[b] —basalt; Qrv[p] —pyroclastic rocks
- Qst Salt deposits
- Ql Quaternary lake deposits
- Qg Glacial deposits
- Qt Quaternary nonmarine terrace deposits

Pleistocene
- Qm Pleistocene marine and marine terrace deposits
- Qpv Pleistocene volcanic: Qpv[r] —rhyolite; Qpv[a] —andesite; Qpv[b] —basalt; Qpv[p] —pyroclastic rocks
- Qc Pleistocene nonmarine
- QP Plio-Pleistocene nonmarine
- Quaternary and/or Pliocene cinder cones

TERTIARY — Pliocene
- Pc Undivided Pliocene nonmarine
- Puc Upper Pliocene nonmarine
- Pu Upper Pliocene marine
- Pv Pliocene volcanic: Pv[r] —rhyolite; Pv[a] —andesite; Pv[b] —basalt; Pv[p] —pyroclastic rocks
- Pmlc Middle and/or lower Pliocene nonmarine
- Pml Middle and/or lower Pliocene marine

Miocene
- Mc Undivided Miocene nonmarine
- Muc Upper Miocene nonmarine
- Mu Upper Miocene marine
- Mv Miocene volcanic: Mv[r] —rhyolite; Mv[a] —andesite; Mv[b] —basalt; Mv[p] —pyroclastic rocks
- Mmc Middle Miocene nonmarine
- Mm Middle Miocene marine
- Ml Lower Miocene marine

Oligocene
- Φc Oligocene nonmarine
- Φ Oligocene marine
- Φv Oligocene volcanic: Φv[r] —rhyolite; Φv[a] —andesite; Φv[b] —basalt; Φv[p] —pyroclastic rocks

Eocene
- Ec Eocene nonmarine
- E Eocene marine
- Ev Eocene volcanic: Ev[r] —rhyolite; Ev[a] —andesite; Ev[b] —basalt; Ev[p] —pyroclastic rocks

Paleocene
- Epc Paleocene nonmarine
- Ep Paleocene marine

Undivided
- QTc Cenozoic nonmarine
- QTv Cenozoic volcanic: QTv[r] —rhyolite; QTv[a] —andesite; QTv[b] —basalt; QTv[p] —pyroclastic rocks
- Tc Tertiary nonmarine
- Ti Tertiary intrusive (hypabyssal) rocks: Ti[r] –rhyolite; Ti[a] –andesite; Ti[b] –basalt
- Tl Tertiary lake deposits
- Tv Tertiary volcanic: Tv[r] —rhyolite; Tv[a] —andesite; Tv[b] —basalt; Tv[p] —pyroclastic rocks
- Tm Tertiary marine

MESOZOIC

CRETACEOUS
- K Undivided Cretaceous marine
- Ku Upper Cretaceous marine
- Kl Lower Cretaceous marine
- KJf Franciscan Formation
- KJfv Franciscan volcanic and metavolcanic rocks
- gr Mesozoic granitic rocks: gr[a]-granite and adamellite; gr[g]-granodiorite; gr[t]-tonalite and diorite

JURASSIC
- Jk Knoxville Formation
- bi Mesozoic basic intrusive rocks
- Ju Upper Jurassic marine
- ub Mesozoic ultrabasic intrusive rocks
- Jml Middle and/or Lower Jurassic marine
- JTRv Jura-Trias metavolcanic rocks

TRIASSIC
- TR Triassic marine

UNDIVIDED
- m / ls Pre-Cretaceous metamorphic rocks (ls = limestone or dolomite)
- mv Pre-Cretaceous metavolcanic rocks
- ms Pre-Cretaceous metasedimentary rocks
- gr-m Pre-Cenozoic granitic and metamorphic rocks
- P / ls Paleozoic marine (ls = limestone or dolomite)
- Pv Paleozoic metavolcanic rocks

PALEOZOIC

PERMIAN
- P Permian marine
- Pv Permian metavolcanic rocks

CARBONIFEROUS
- C Undivided Carboniferous marine
- Cv Carboniferous metavolcanic rocks
- CP Pennsylvanian marine
- CM Mississippian marine

DEVONIAN
- D Devonian marine
- Dv Devonian metavolcanic rocks
- Dv? Devonian and pre-Devonian? metavolcanic rocks

SILURIAN
- S Silurian marine
- pSs Pre-Silurian metasedimentary rocks
- pS Pre-Silurian metamorphic rocks
- pSv Pre-Silurian metavolcanic rocks

ORDOVICIAN
- O Ordovician marine

CAMBRIAN
- Є Cambrian marine

PRECAMBRIAN
- Є? Cambrian – Precambrian marine
- pЄc Precambrian igneous and metamorphic rock complex
- pЄ Undivided Precambrian metamorphic rocks; pЄg = gneiss, pЄs = schist
- pЄgr Undivided Precambrian granitic rocks
- lpЄ Later Precambrian sedimentary and metamorphic rocks
- pЄan Precambrian anorthosite
- epЄ Earlier Precambrian metamorphic rocks

HEAVY BORDER ON BOXES INDICATES UNITS THAT APPEAR ON THIS SHEET

DIVISION OF MINES AND GEOLOGY
Ian Campbell, *State Geologist*

STATE OF CALIFORNIA
Edmund G. Brown, *Governor*
THE RESOURCES AGENCY
Hugo Fisher, *Administrator*

DEPARTMENT OF CONSERVATION
DeWitt Nelson, *Director*

EXPLANATORY DATA

WALKER LAKE SHEET

GEOLOGIC MAP OF CALIFORNIA

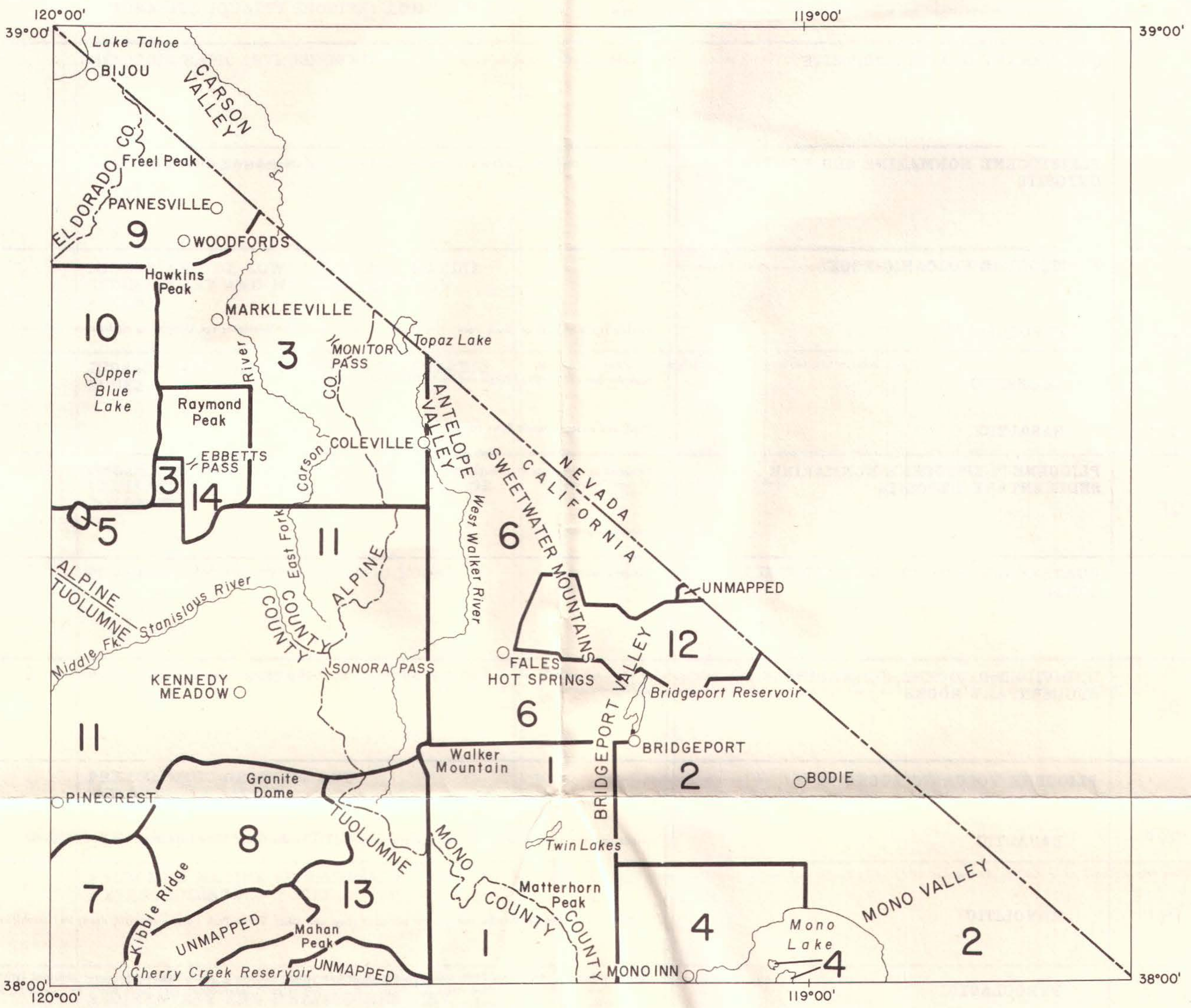
OLAF P. JENKINS EDITION

Compiled by James B. Koenig, 1963

(Second Printing, 1975)

INDEX TO GEOLOGIC MAPPING

USED IN THE COMPILATION OF THE WALKER LAKE SHEET



1. * Chesterman, C. W., Geologic map of the Matterhorn Peak quadrangle, scale 1:48,000, unpublished geologic mapping in progress, 1962.

2. * Chesterman, C. W., and Gray, C. H., Jr., Reconnaissance geologic maps of part of the Bodie, Bridgeport, Aurora, Trench Canyon and Huntoon Valley quadrangles, scale 1:62,500 and 1:48,000, California Div. Mines and Geology, reconnaissance mapping for the State Geologic Map, 1962. (In part after Henry G. Ferguson, Geologic map of the California portion, Hawthorne quadrangle, California-Nevada, scale 1:250,000, U. S. Geol. Survey, unpublished, 1934; and Francis Frederick, Geologic map of the Bodie district, scale 1:125,000, unpublished, 1935.)

3. Curtis, Garniss H., The geology of the Topaz Lake quadrangle and the eastern half of the Ebbetts Pass quadrangle, scale 1:62,500, University of California, Berkeley, unpublished Ph.D. thesis, 1951.

4. * Dunn, James R., Geology of the western Mono Lake area, scale 1:62,500, University of California, Berkeley, unpublished Ph.D. thesis, 1951. (Modified by Chesterman and Gray, see item 2.)
   Pakiser, L. C., Press, F., and Kane, M. F., 1960, Geophysical investigation of Mono Basin, California: Geol. Soc. America Bull., vol. 71, pp. 415-448, Pl. 1: Combined gravity and geologic map of Mono Basin, California, scale 1:205,000 (concealed faults in the Mono Lake area).

5. Gilbert, Frances L., Metamorphism in the Lake Alpine area, Alpine County, California, scale 1:7,500, University of California, Berkeley, unpublished M.A. thesis, 1959.

6. * Halsey, Jonathan H., Geology of parts of the Bridgeport, California and Wellington, Nevada quadrangles, scale 1:62,500, University of California, Berkeley, unpublished Ph.D. thesis, 1953.

7. Koenig, James B., Reconnaissance geologic map of the southwest portion of the Pinecrest quadrangle, scale 1:62,500, California Div. Mines and Geology, reconnaissance mapping for the State Geologic Map, 1962.

8. Koenig, James B. and Burnett, John L., Reconnaissance geologic map of part of the Pinecrest and Tower Peak quadrangles, scale 1:62,500, California Div. Mines and Geology, reconnaissance mapping for the State Geologic Map, 1962.

9. Koenig, James B. and Matthews, Robert A., Reconnaissance geologic map of part of the Freel Peak quadrangle, scale 1:62,500, California Div. Mines and Geology, reconnaissance mapping for the State Geologic Map, 1962.
   Curtis, Garniss H., The geology of the Topaz Lake quadrangle and the eastern half of the Ebbetts Pass quadrangle, scale 1:125,000, University of California, Berkeley, unpublished Ph.D. thesis, 1951.
   Lindgren, Waldemar, 1911, The Tertiary gravels of the Sierra Nevada of California: U.S. Geol. Survey Prof. Paper 73, 226 pp., Pl. 1: Map of the northern part of the **Sierra Nevada, California and Nevada**, scale 1:750,000.

10. Parker, Ronald B., Petrology and structure of pre-Tertiary rocks in western Alpine County, California, scale 1:48,000 and 1:6,000, University of California, Berkeley, unpublished Ph.D. thesis, 1959.
   Parker, Ronald B., 1961, Petrology and structural geometry of pre-granitic rocks in the Sierra Nevada, Alpine County, California: Geol. Soc. America Bull., vol. 72, pp. 1789-1805, Pl. 1: Geologic map of the western half of the Markleeville (15′) quadrangle, California, scale 1:75,000, and Pl. 2: Geologic map of the western roof pendant, scale 1:9,600.

11. Slemmons, D. B., Geology of the Sonora Pass region, scale 1:62,500, University of California, Berkeley, unpublished Ph.D. thesis, 1953.
   Slemmons, D. B., Geologic maps of the Dardanelles Cone and Sonora Pass quadrangles, and of part of the Pinecrest and Tower Peak quadrangles, scale 1:62,500, unpublished geologic mapping in progress, 1962. Additions and modifications by Gerhard Oertel (and summer field class), Geologic map of the Sonora Pass-Leavitt Meadows region, scale 1:24,000, Pomona College, unpublished, 1957; and Eugene Boudreau, Geologic map of the south half of the Dardanelles Cone quadrangle, scale 1:24,000, unpublished, 1962.
   Ransome, F. L., 1898, Some lava flows of the western slope of the Sierra Nevada, California: U.S. Geol. Survey Bull. 89, 74 pp., Pl. 11, scale 1:125,000.

12. Stanford Geological Survey (W. R. Dickinson in charge), Geology of the Swauger Creek-Masonic Mountain area, scale 1:31,680, Stanford University, unpublished map and report of summer field class, 1961. (Modified in part after Halsey, see item 6.)
   Johnson, R. F., Geology of the Masonic mining district, Mono County, California, scale 1:31,680, University of California, Berkeley, unpublished M.A. thesis, 1951.

13. Wahrhaftig, Clyde, Geologic map of part of the Tower Peak quadrangle, scale 1:48,000, unpublished geologic mapping in progress, 1962. (Additions by R. A. Brodersen, Petrology, structure, and age relationships of the Cathedral Peak porphyritic quartz monzonite, central Sierra Nevada, California, scale 1:62,500, University of California, Berkeley, unpublished Ph.D. thesis, 1962.)

14. Wilshire, H. G., The history of Tertiary volcanism near Ebbetts Pass, Alpine County, California, scale 1:31,680, University of California, Berkeley, unpublished Ph.D. thesis, 1956.
   Wilshire, H. G., 1957, Propylitization of Tertiary volcanic rocks near Ebbetts Pass, Alpine County, California: Univ. California Pubs. Geol. Sci., vol. 32, no. 4, pp. 243-272, Fig. 1: Geologic map of the Ebbetts Pass region, scale 1:58,500.

* Glacial geology modified after Eliot Blackwelder, 1931, Pleistocene glaciation in the Sierra Nevada and Basin Ranges: Geol. Soc. America Bull., vol. 42, pp. 865-922, Fig. 21: scale 1:168,960; and unpublished geologic maps of the Bridgeport (30′) quadrangle, scale 1:125,000, 1934.

For a complete list of published geologic maps of this area see Division of Mines and Geology Special Reports 52 and 52-A.

STRATIGRAPHIC NOMENCLATURE—WALKER LAKE SHEET

AGE	STATE MAP SYMBOL	STATE MAP UNIT State Map Units listed here are not necessarily in stratigraphic sequence; the sequence used has been standardized for all sheets of the Geologic Map of California	STRATIGRAPHIC UNITS AND CHARACTERISTIC LITHOLOGIES (The formally named formations grouped within an individual State Map Unit are listed in stratigraphic sequence from youngest to oldest.)
CENOZOIC — QUATERNARY — Recent	Qs	**RECENT DUNE SAND**	Sand dunes north and east of Mono Lake.
	Qal	**RECENT ALLUVIUM**	Stream and river alluvium; glacial outwash; Recent fan deposits.
Pleistocene	Ql	**QUATERNARY LAKE DEPOSITS**	Quaternary lake beds; playa deposits; calcareous tufa mounds along east shore and north of Mono Lake.
	Qg	**QUATERNARY GLACIAL DEPOSITS**	Glacial moraines and till of the Tioga, Tahoe, and Sherwin Stages.
	Qc	**PLEISTOCENE NONMARINE SEDIMENTARY DEPOSITS**	Older alluvium; Pleistocene fans and pediment sands and gravels; terrace gravels; travertine deposits east and south of Bridgeport.
		PLEISTOCENE VOLCANIC ROCKS:	
	Qpv^p	**PYROCLASTIC**	Basaltic lapilli and ash of Black Point. Pyroclastic debris, of probable Pleistocene age, comprising cinder cone near Aurora.
	Qpv^a	**ANDESITIC**	Andesite flows and tuffs of Negit and Paoha Islands in Mono Lake.
	Qpv^b	**BASALTIC**	Basalt and andesitic basalt flows (may be Pliocene in part).
	QP	**PLIOCENE-PLEISTOCENE NONMARINE SEDIMENTARY DEPOSITS**	Dissected fanglomerate of probable Plio-Pleistocene age, at south end of Carson Valley.
	☼	**QUATERNARY AND/OR PLIOCENE CINDER CONES**	Cinder cones.
TERTIARY — Pliocene	Pc	**UNDIVIDED PLIOCENE NONMARINE SEDIMENTARY ROCKS**	Sands, conglomerates and silts, in part of lacustrine origin, locally indurated and cemented. East of Mono Lake they contain fossils of upper Pliocene age (C. W. Chesterman, oral communication, 1962).
		PLIOCENE VOLCANIC ROCKS:	
	Pv^b	**BASALTIC**	Basalt and olivine basalt flows with minor intrusive rocks. The basalts east of Mono Lake may be in part Pleistocene.
	Pv^r	**RHYOLITIC**	Rhyolite and dacite flows, tuffs, and shallow intrusive plugs and dikes. Tryon Peak Flows—*rhyolite, dacite and minor basalt flows.*
	Pv^p	**PYROCLASTIC**	Andesitic breccias, mudflows, flows, tuffs, and fluvial and lacustrine sediments[1] (stratigraphically above unnamed latites, Pv^a, in the Sonora Pass-Dardanelles area). Welded latite and dacite tuff and tuff-breccia[2] interbedded with latite flows, Pv^a (west of Sonora Pass these tuffs are included in Pv^a—unnamed latite flows).
	Pv^a	**ANDESITIC**	Latite flows of Table Mountain and unnamed latite flows with interbedded latite welded tuffs[1,3]. Raymond Peak Andesites—*andesite flows and breccias*[1]. Silver Peak Andesites—*andesite flows, breccias and tuffs, and dacite flows*[1]. Unnamed andesite and dacite flows and andesite breccias[1].
	Pv?	**UNDIFFERENTIATED**	Andesitic breccias, mudflows, tuffs, flows, and interbedded sediments[1] (stratigraphically below latite flows and welded tuffs, Pv^a); locally includes volcanic rocks of different lithology. These andesitic rocks may range in age from middle Miocene to Pliocene. The position of the Mio-Pliocene boundary is a matter of controversy at present[4].
Miocene		**MIOCENE VOLCANIC ROCKS:**	
	Mv^p	**PYROCLASTIC**	Rhyolite and dacite tuffs, welded tuffs and minor tuffaceous sediments—possible source of detritus comprising the Valley Springs Formation in the foothills of the Sierra Nevada; dated by G. B. Dalrymple, University of California, Berkeley (written communication, 1962), by potassium-argon method as being 23-29 million years old at Eagle Creek and Leavitt Creek.
	Mv?	**UNDIFFERENTIATED**	Propylitized and silicified andesitic breccias, tuffs, flows, and intrusive plugs[5], and silicified rhyolitic flows, tuffs, and intrusive bodies.
Undivided		**TERTIARY INTRUSIVE (HYPABYSSAL) ROCKS:**	
	Ti	**UNDIFFERENTIATED**	Plugs, domes, sills, and dikes.
	Ti^r	**RHYOLITIC**	Rhyolite, dacite and minor andesite domes and plugs.
	Ti^a	**ANDESITIC**	Andesite domes, plugs, necks, dikes, and sills.
	Ti^b	**BASALTIC**	Basalt plug and dikes near Ebbetts Pass.

STRATIGRAPHIC NOMENCLATURE—Continued

AGE	STATE MAP SYMBOL	STATE MAP UNIT State Map Units listed here are not necessarily in stratigraphic sequence; the sequence used has been standardized for all sheets of the Geologic Map of California	STRATIGRAPHIC UNITS AND CHARACTERISTIC LITHOLOGIES (The formally named formations grouped within an individual State Map Unit are listed in stratigraphic sequence from youngest to oldest.)
MESOZOIC — JURASSIC-CRETACEOUS		**MESOZOIC GRANITIC ROCKS**	
	gr	**UNDIFFERENTIATED**	Granitic rocks, ranging in composition from granite to diorite, probably representing several plutons (in part sheared and metamorphosed).
	gr^a	**GRANITE AND ADAMELLITE (QUARTZ MONZONITE)**	Rocks similar to the Cathedral Peak Granite (mostly porphyritic quartz monzonite). Rocks similar to the Half Dome Quartz Monzonite. Tamarack Leuco-adamellite[6]. Burnside Lake Adamellite[6]. Stanislaus Meadow Adamellite[6]. Unnamed granite, adamellite, alaskite, aplite and pegmatite, and minor diorite.
	gr^g	**GRANODIORITE**	Rocks similar to the Sentinel Granodiorite. Ebbetts Pass Granodiorite (Wilshire, 1957). Unnamed granodiorite, and minor amounts of tonalite, diorite, aplite and pegmatite.
	gr^t	**TONALITE (QUARTZ DIORITE) AND DIORITE**	Carson Pass Tonalite[6]. Lookout Peak Tonalite[6]. Unnamed tonalite and diorite, and minor amounts of aplite and pegmatite.
	bi	**MESOZOIC BASIC INTRUSIVE ROCKS**	Gabbro, diorite, and minor pyroxenite (locally metamorphosed).
	ub	**MESOZOIC ULTRABASIC INTRUSIVE ROCKS**	Serpentine.
UNDIVIDED	Jml	**MIDDLE AND/OR LOWER JURASSIC MARINE SEDIMENTARY AND METASEDIMENTARY ROCKS**	Clastic metasediments of the Lobdel Lake area—dated as Lower Jurassic by S. W. Muller (Halsey, 1953).
	JTRv	**JURASSIC AND/OR TRIASSIC METAVOLCANIC ROCKS**	Meta-andesite. Metatuff. Metarhyolite. Schistose rocks of metavolcanic origin.
	m ls	**PRE-CRETACEOUS METAMORPHIC ROCKS, UNDIFFERENTIATED, ls = LIMESTONE AND/OR DOLOMITE**	Metamorphic rocks of undifferentiated lithology. Metamorphosed limestone.
	mv	**PRE-CRETACEOUS METAVOLCANIC ROCKS**	Meta-andesite. Metarhyolite. Greenstone. Schist derived from volcanic rocks. Metatuff. Metabreccia. (Probably largely of Jura-Triassic age. May include metasedimentary rocks locally.)
	ms	**PRE-CRETACEOUS METASEDIMENTARY ROCKS**	Hornfels. Quartzite. Calc-silicate rocks. Metasiltstone and metasandstone. Slate. Metachert. Limestone. (May include rocks of Jurassic age in Sweetwater Mountains, and rocks of Paleozoic age in vicinity of Mono Lake. Locally includes metavolcanic rocks.)
	gr-m	**PRE-CENOZOIC GRANITIC AND METAMORPHIC ROCKS**	Migmatite. Sheared, gneissic granite and diorite. Metadiorite, southwest of Antelope Valley.
PALEOZOIC	IP	**PALEOZOIC MARINE SEDIMENTARY AND METASEDIMENTARY ROCKS**	Hornfels. Quartzite. Metashale. Metasandstone. Calc-silicate rocks. (May include rocks of Ordovician, Pennsylvanian and Permian ages.)
CARBONIFEROUS	C?	**UNDIVIDED CARBONIFEROUS MARINE SEDIMENTARY AND METASEDIMENTARY ROCKS**	Marble and crystalline limestone—dated by S. W. Muller (Dunn, 1951).

NOTES

[1] The name Mehrten Formation has been at times extended to these volcanic rocks near the crest of the Sierra Nevada. Probably these rocks were the source of the detritus comprising the Mehrten Formation in the foothills of the Sierra Nevada. However, on the State Geologic Map the Mehrten Formation is restricted to the deposits in the foothills.

[2] Welded tuff from West Walker River Canyon dated as 10.7 million years by potassium-argon method (Curtis, G. H., 1961, Geochimica et Cosmochimica Acta, v. 23, p. 86).

[3] Dated by G. B. Dalrymple, University of California, Berkeley, by potassium-argon method as 8.6 million years on Bald Peak (written communication, 1962).

[4] Floras of Miocene age have been dated from this unit in the Niagara Creek, Ebbetts Pass, and Carson Pass areas (Axelrod, D. I., 1962, Geol. Soc. America Bull., v. 73, no. 2, p. 191, and written communication, 1962).

[5] D. I. Axelrod has suggested (Halsey, 1953) that these rocks may be equivalent to the propylitized andesites comprising the Alta Formation (Nevada) of Oligocene age.

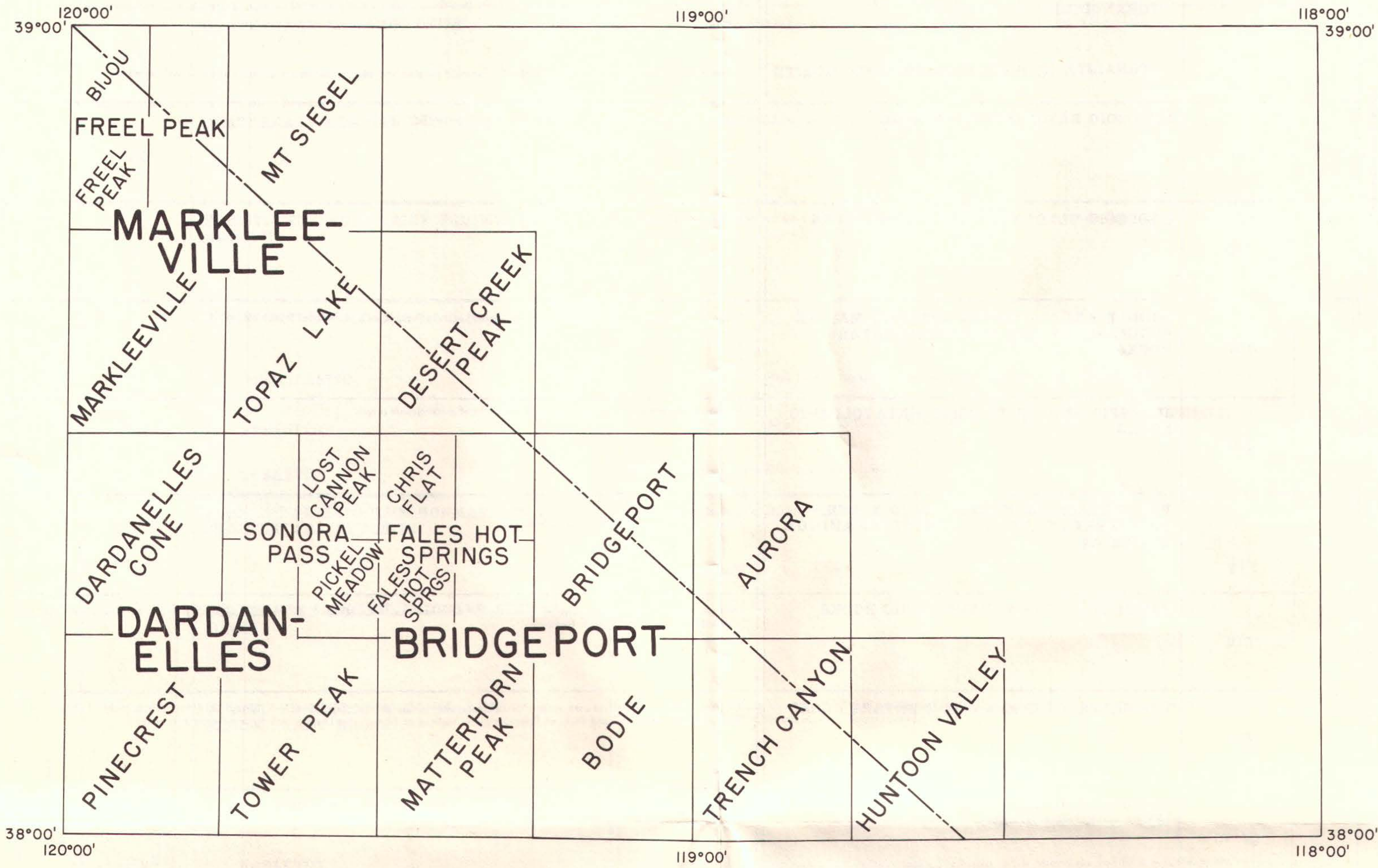
[6] These intrusive bodies were named by Parker, 1961, and described by him in his Ph.D. thesis (see bibliography).

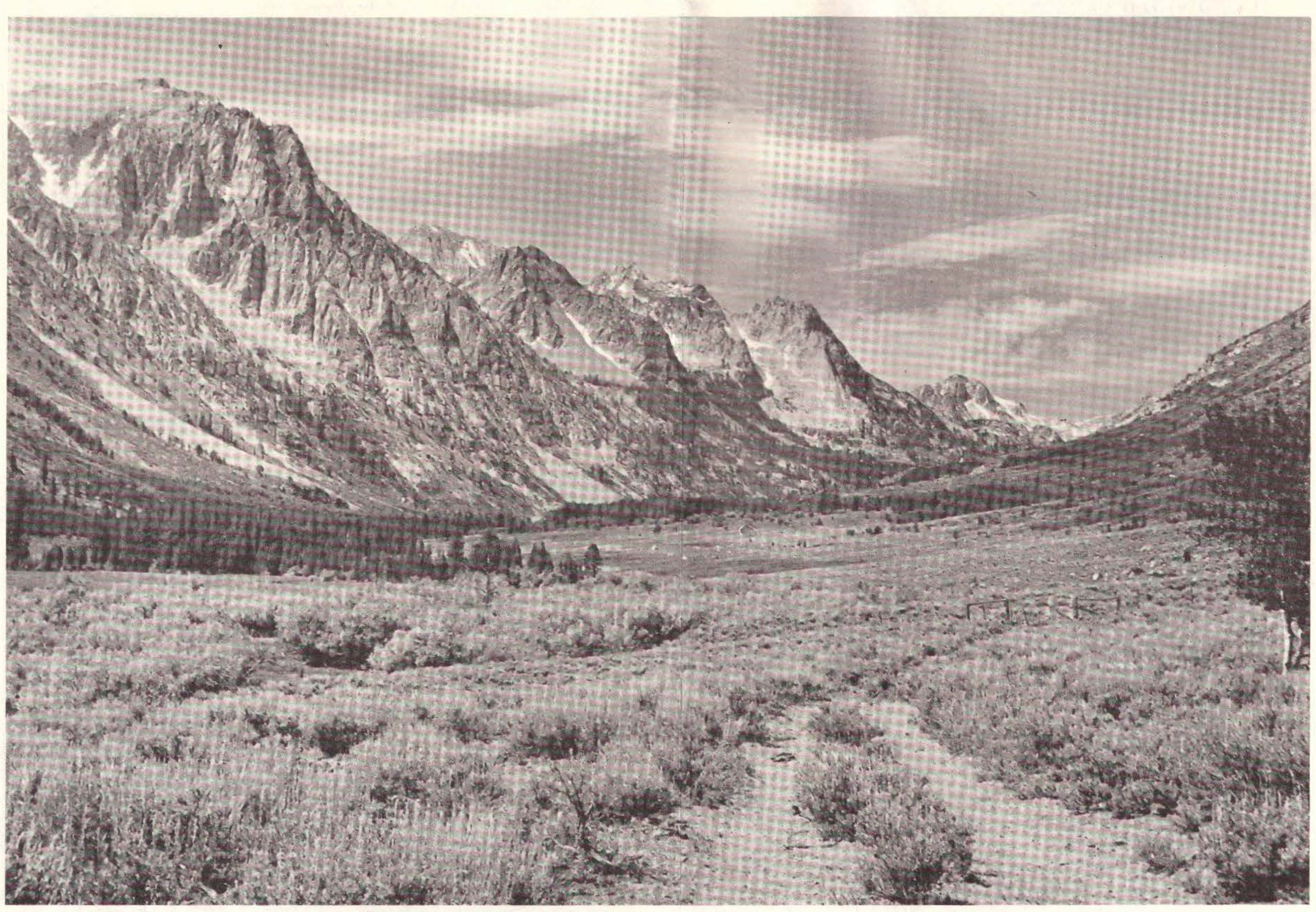
View northeast from Rock Island Pass, across Snow Lake, toward Kettle Peak (center) and Sawtooth Ridge (right). These peaks, and the outcrops in the foreground, are composed of porphyritic quartz monzonite. This rock, comprising the Cathedral Peak pluton, is characterized by phenocrysts of microcline feldspar up to 6 inches in length, and is exposed over a large area along the crest of the Sierra Nevada.

Photo by C. W. Chesterman, 1955

TOPOGRAPHIC QUADRANGLES

WITHIN THE WALKER LAKE SHEET
AVAILABLE FROM THE U.S. GEOLOGICAL SURVEY
1963





View southwest up Buckeye Creek, toward Hunewill Peak, with Buckeye Ridge forming the skyline at left. The valley of Buckeye Creek was formed by glacial activity, and is filled with alluvium and deposits of glacial origin. Granitic rocks are exposed along the lower slope of Buckeye Ridge, in part covered by talus. The middle and upper slopes of Buckeye Ridge are composed of metasedimentary hornfels and quartzite. The crest, at the far left, is capped by Tertiary andesite.

Photo by C. W. Chesterman, 1955

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