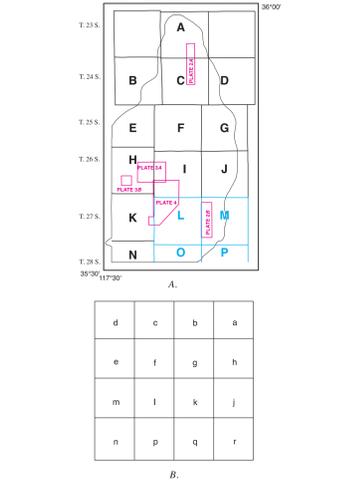
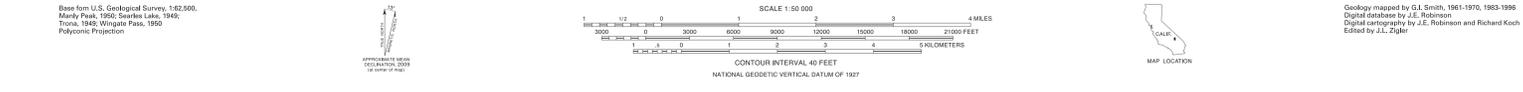


- ### DESCRIPTION OF MAP UNITS
- [Searles Lake Formation is a newly accepted name described in the text. Note that map unit names may change from map to map. Some unit exposures on the printed or plotted map are too small to distinguish the color for unit identification. These units are labeled where possible, and unlabelled units are attributed in the database.]
- wd** Windblown dune sand (uppermost Holocene)—Sand dunes, continuously modified today
 - ws** Windblown sand and collium (uppermost Holocene)—Windblown sand mixed with collium pebbles, forms sheets characterized by hummocky surfaces, some plant cover
 - ps** Silt and clay (uppermost Holocene)—Flats surface sediment
 - al** Alluvium (uppermost Holocene)—Gravel and sand deposited in active channels, remobilized during major storms
 - oal** Older alluvium (upper and middle Holocene)—Medium to coarse sand, some pebbles, tan to grayish-orange inactive alluvial and collium deposits that form nearly channel-free surfaces commonly 0.3 to 1 m above active alluvial channels
 - Searles Lake Formation (middle Holocene to upper Pleistocene)**
 - Unit D (middle Holocene)**
 - og** Gravel and sand—Uppermost part of unit D, composed of alluvial or nearshore coarse lacustrine deposits; includes areas near edges of dry Searles Lake characterized by zones of widely scattered lag gravels
 - sds** Silt and clay—Lacustrine silt; mostly halite, mixed with silt and clay near the edge; basal contact after Haines (1959, fig. 6)
 - sd** Sand and silt—Lacustrine deposits mostly; tan to gray-orange, firm puffy surfaces, saline efflorescences common; many deposits buried to depths of 0.5 m or more are firmly cemented by halite
 - Unit C (lower Holocene)**
 - sc** Sand and gravel—Alluvial deposits; tan, mostly fine gravel
 - Unit B (upper Pleistocene)**
 - sbc** Gravel, sand, silt, and clay—Lacustrine deposits; gravel and sand are light-gray; silt and clay are mostly green and finely laminated
 - Unit BC (upper Pleistocene)**
 - sb** Sand and gravel—Alluvial deposits; dark-brown, gravel fine to coarse, resting on undisturbed layers of unit B; includes near-shore lacustrine sand deposits that are tan, brown, or gray
 - Unit AB (upper Pleistocene)**
 - sa** Gravel, sand, silt, and clay—Lacustrine deposit; gravel is light-gray, sand is tan to orange, and silt and clay are light-green; massive to coarsely laminated
 - Unit A (upper Pleistocene)**
 - sa** Silt, sand, and gravel—Lacustrine deposit; silt and sand, mostly light-gray or yellow, gravel is light to dark-gray; moderately well indurated; unit includes surfaces on older deposits that are characterized by erosional shorelines of this age delineated by horizontal rows of lag boulders
 - scs** Gravel and sand—Alluvial deposits composed of very coarse, angular gravels that are commonly stained orange to orange-brown, indurated; largest outcrop areas are southwest of The Pinnacles and north of Pioneer Point
 - sg** Gravel Member, undivided (lower Holocene to upper Pleistocene)—Alluvial and collium deposits, mostly gravel, some sand; may include some deposits older or younger than Searles Lake Formation
 - sa** Tufa, undivided (upper Pleistocene)—Lacustrine deposit; tan to brown lithoid or nodular tufa, composed of argonite or calcite with organic impurities, forms towers, mounds, and sheets
 - Christmas Canyon Formation (middle Pleistocene)**
 - oos** Sand and silt—Lacustrine deposit; grayish-orange, well bedded, slightly deformed; includes Lava Creek B ash bed (0.64 Ma) in upper part
 - oog** Gravel and sand—Alluvial deposits; tan to red-brown, poorly sorted and bedded, most surfaces characterized by numerous boulders of vesicular basalt and other volcanic rocks, 20-40 cm diameter
 - Older gravel (middle to lower Pleistocene or Pliocene)**—Alluvial gravel; unit **og** composed of cobble- to boulder-sized fragments in finer matrix, fairly well bedded, tan to dark-gray, generally well indurated, does not contain vesicular basalt fragments; along east side of valley, unit of lacustrine gravels found as beds 1-3 m thick are interbedded with alluvial gravels
 - Older tufa (middle and lower Pleistocene or Pliocene)**—Lacustrine deposit; massive calcite tufa deposits, as large mounds, medium-gray
 - Sandstone and siltstone (lower Pleistocene or Pliocene)**—Mostly lacustrine deposits; fragments are coarse, angular to sub-rounded, some silt and gravel, slightly indurated and deformed; well bedded in outcrops just north of Garlock Fault, poorly bedded in outcrops in Searles Hills; included in unit south of Garlock Fault may be of different age
 - Volcanic rock (Pliocene or Miocene)**—Andesitic and basaltic flows, some tuffs and breccias
 - Bedrock Spring Formation (upper Miocene)**—Sandstone, arkosic, some siltstone and conglomeratic, volcanic breccia; contains vertebrate fossils of Hemipteran age
 - Siltstone and sandstone (lower Miocene?)**—Lacustrine deposit; light-tan to yellowish-gray, well bedded, some evaporite minerals; strongly deformed
 - Bedrock (pre-Tertiary)**—Undifferentiated bedrock; mostly plutonic and metamorphic rocks
- Strike and Dip of bedding:**
- Inclined**
 - High angle**—High angle. Bar-and-ball on downthrown block
 - Normal**—High angle. Bar-and-ball on downthrown block
 - Strike slip**—High angle, left lateral. Tick shows direction and angle of dip where known. Shows relative motion: U, upthrown; D, downthrown block
 - Thrust**—Low angle. Sawtooth on upper plate
 - Searles Lake Formation, unit D**
 - Salt facies boundary**—Irregular contact between salt facies (unit **sds**) and the surrounding halite-rich silt (unit **sd**) as delineated by Haines (1959)
 - Isopach contours**—Contour interval, 5 ft. Shows areal variation in thickness of unit D, based on core logs (Haines, 1957, 1959) and re-interpretation of stratigraphic data as described in this report
 - Core data**—Core hole locations and depths to base of unit D (base of unit **sd**), in feet
- Strike and Dip of bedding:**
- Inclined**
 - Overturned**
 - Horizontal**
 - Vertical**
 - Boundaries of larger scale maps**—Show locations of maps on plates 2-4; also see Index Map for plate locations



INDEX MAPS SHOWING LOCATION DESIGNATIONS USED TO DISCUSS LOCALITIES IN THE MAP AREA (PLATE 1). Map A shows locations of larger scale maps (maps 2-4), township and ranges labeled A-K, N (black), and unnumbered township and ranges labeled L, M, O, P (cyan). Locations are given as capital letters representing township and range combined with section numbers. For example, sec. 27, T. 27 S., R. 42 E. is abbreviated as sec. K27. Sections are subdivided into sixteenths (map B), which are assigned lower-case letters (i and o are omitted). For example, a locality in the southeast corner of section K27 is designated as sec. K27-i.



Geologic Map of Searles Valley, Inyo and San Bernardino Counties, California

By
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