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Geologic map of the San Juan Basin

Caswell Silver
1950, scale 1:633,600. https://doi.org/10.56577/FFC-1.map

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This is one of many related papers that were included in the 1950 NMGS Fall Field Conference Guidebook.

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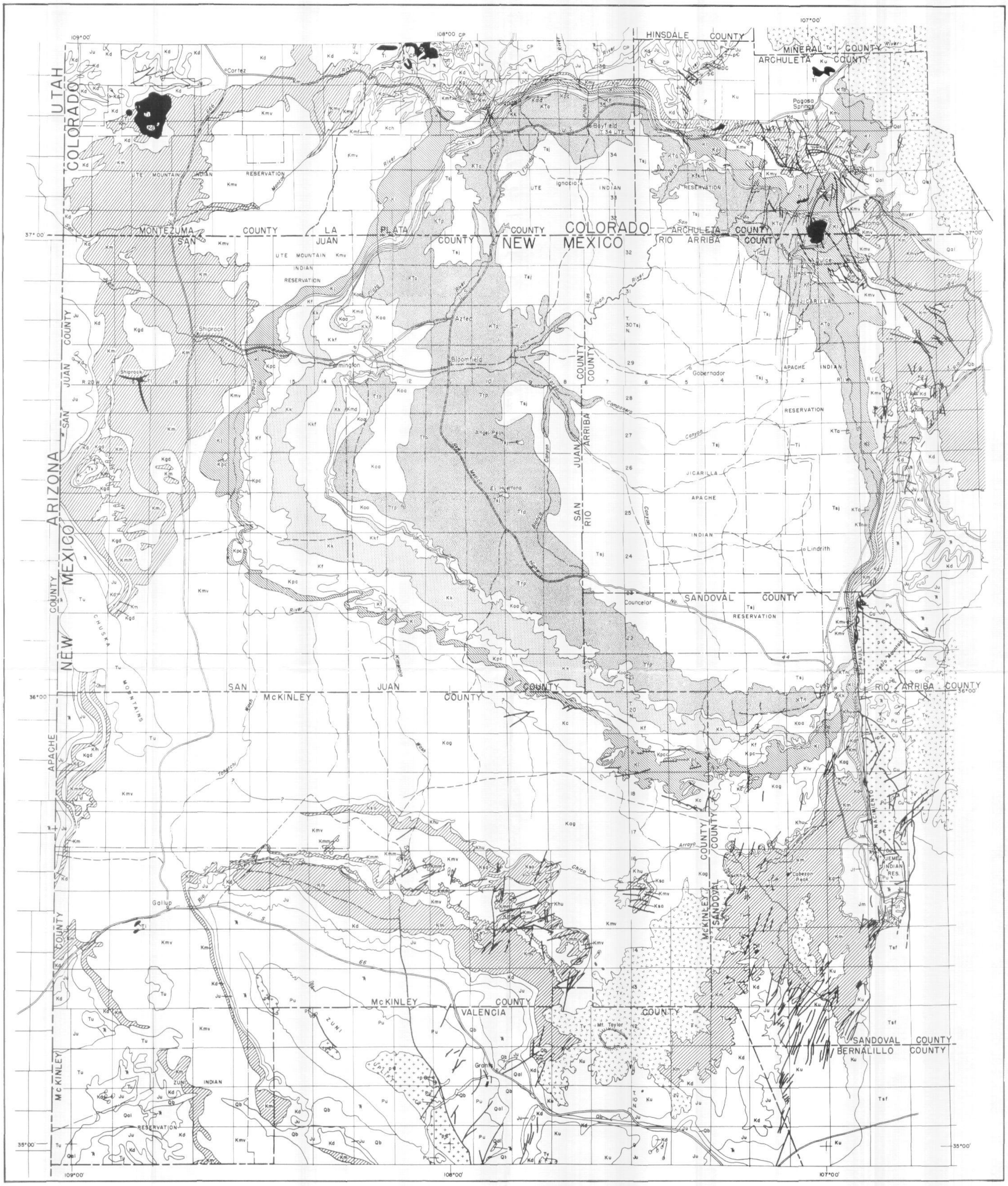
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GEOLOGIC MAP OF THE SAN JUAN BASIN



EXPLANATION

SEDIMENTARY ROCKS

QUATERNARY

- **Qal** — Alluvium. Mostly Recent. UNCONFORMITY

TERTIARY (Non-marine)

- **Tu** — Tertiary undivided. Chuska sandstone and Tohatchi shale in part. Indeterminate age
- **Tsf** — Santa Fe formation. Clay, sand, gravel, and interbedded volcanics. Miocene and Pliocene. UNCONFORMITY
- **Tsj** — San José formation. Shale, sand, and gray wacke. Eocene. UNCONFORMITY
- **Ttp** — Shale and sandstone locally containing faunas of Torrejon and Puerco age. Paleocene
- **KTa** / **KTn** — Animas formation (KTa) in north, Nacimiento formation (KTn) in east. In part equivalent to Ttp. Shale, sandstone, conglomerate, and andesitic debris. Very late Cretaceous and Paleocene. DISCONFORMITY

CRETACEOUS (Marine and non-marine)

- **Ku** — Undifferentiated
- **Kca** — Ojo Alamo sandstone. Shale, sandstone, conglomerate, and chert. Late Cretaceous. DISCONFORMITY
- **Kmd** — McDermott formation. Shale, sandstone, and volcanic material
- **Kk** / **Kkf** — Kirtland shale, containing the Farmington sandstone member.
- **Kfk** — Undifferentiated Fruitland and Kirtland formations.
- **Kf** — Fruitland formation. Shale, sandstone, and coal.
- **Kpc** — Pictured Cliffs sandstone.
- **Kl** — Lewis shale.
- **Kmv** — Mesaverde group. In northwest divided into upper, Cliff House sandstone (Kch); middle, Menefee coal, shale, and sandstone formation (Kmf); lower, Point Lookout sandstone (Kpl). In south divided into upper, Chacra sandstone (Kc); middle, Allison and Gibson members (Kag); lower, Upper Hosta sandstone (Khu). In northeast undifferentiated Mesaverde formation (Kmv). Some of mappable local units such as La Ventana sandstone (Klv) also shown.
- **Kmm** — Mancos shale (Km). Marine shale split to south and west by tongues of sandstone which are not always shown on map. The upper, Satan tongue (Ksa) and middle, Mulatto tongue (Kmm) are shown separated from the main body of Mancos shale (Km). The combined Dilco coal member (Kdi) and Gallup sandstone member (Kg) are shown to west as (Kgd).
- **Kd** — Dakota sandstone. Sandstone with conglomerate at base locally. In north may contain Lower Cretaceous equivalents. In south sometimes includes lowermost sandy units within the Mancos shale such as the Trea Hermanos sandstone. UNCONFORMITY
- **Ju** / **Jt** — Jurassic undifferentiated. Includes variegated shale and sandstone of the Morrison formation (Jm); limestone and gypsum of the Todilto formation (Jt); Entrada sandstone; and sandstone and shale possibly representing the Glen Canyon group. JURASSIC. UNCONFORMITY
- **Tr** — Triassic undifferentiated. Includes Chinle shale and many mappable local units to the east; to the west and south may include equivalents of the Shinarump conglomerate and Moenkopi formation. TRIASSIC. DISCONFORMITY

PERMIAN

- **Pu** — Permian undifferentiated. Limestone, gypsum, sandstone and evaporites of San Andres, Yeso, and Abo formations in the south; grades to red beds of the Rico and Cutler formations to the north.
- **CP** — Pennsylvanian and Permian undifferentiated.

PENNSYLVANIAN

- **Cu** — Pennsylvanian undifferentiated. Limestone, sandstone, and shale of the Magdalena group in the south and sandstone, shale, and limestone of the Hermosa and Moles formations in the north.
- **MDC** — Pre-Pennsylvanian undifferentiated. Limestone of the Mississippian Ouray and Leadville formations; limestone and shale of the Devonian Elbert formation; and the Cambrian Ignacio quartzite. NON-CONFORMITY

CRYSTALLINE ROCKS

- **Qb** — Quaternary basalt.
- **Tv** — Tertiary volcanics. Miocene and Pliocene
- **Ti** — Tertiary intrusives: Dikes, sills, and volcanic necks.
- **pC** — Pre-Cambrian. Granite, gneiss, schist, and quartzite.
- Fault

SCALE 0 5 10 15 20 25 30 MILES

Compiled for New Mexico Geological Society by CASWELL SILVER

Compiled from maps by the U. S. Geological Survey and from other sources.