

LEGEND

SEDIMENTARY ROCKS

(Areas of subaqueous deposits are shown by patterns of parallel lines; subaerial deposits by patterns of dots and circles; conglomerates are indicated by irregular patterns; and the patterns of the line patterns.)

Qgs
Gravel and sand (including semi-consolidated sandstones and conglomerates)

Tgt
Gravel, sand, and tuff (partially consolidated and interbedded with tertiary lavas)

UNCONFORMITY

Kc
Colorado shale (shale, thin sandstone, and calcareous shales; some beds of Mississippian age may be included)

Qfs
Beartooth quartzite (quartzite with thin beds of shale locally)

UNCONFORMITY

Cf
Ferro limestone and contact-metals (gray limestone and black limestone with many cherty layers; altered by igneous intrusions of Santa Rita and Hanover)

Bp
Bercha shale (green to black shale)

UNCONFORMITY

Sofm
Fusshelman and Montoya limestones (gray and pink limestone with many cherty layers; Montoya, Upper Ordovician in age)

Oep
El Paso limestone (gray limestone with many cherty layers; the beds in which contain a Eubolus fauna; and belong to Montoya limestone included at the top in Montoya)

UNCONFORMITY?
Cb
Bliss sandstone (quartzite, sandstone, and glauconitic sandstone)

IGNEOUS ROCKS

(Areas of igneous rocks are shown by patterns of triangles and circles.)

Ob
Basalt (flows, with interbedded gravel and sand)

Tir
Intrusive rhyolite and quartz latite (stocks and dikes)

Trl
Rhyolite and latite (lava flows)

Tan
Andesite and basalt (lava flows)

Kup
Undifferentiated porphyries

Kqp
Granodiorite, quartz monzonite, and allied porphyries

Kgd
Granodiorite and more basic rocks at Famos Altos

Kqp
Quartz-diorite porphyry

Kab
Andesite breccia, andesite, and diorite porphyry

grs
Granite, syenite, and allied porphyries (includes fragments of schist)

Faults

Concealed faults (covered by younger deposits)

Active mines
Copper unless otherwise indicated, also gold, silver, iron, and zinc

Inactive mines and prospects
Copper unless otherwise indicated, also gold, silver, iron, manganiferous, and barite

Economic data: Gold, silver, lead, copper, iron, and zinc have been extensively mined in igneous rocks and in limestone altered by intrusions; turquoise is mined in granite and quartz-monzonite porphyry; alunite occurs in porphyry; altered El Paso limestone. Underground water is available at moderate depths in the basin areas in the southeastern part of the quadrangle.

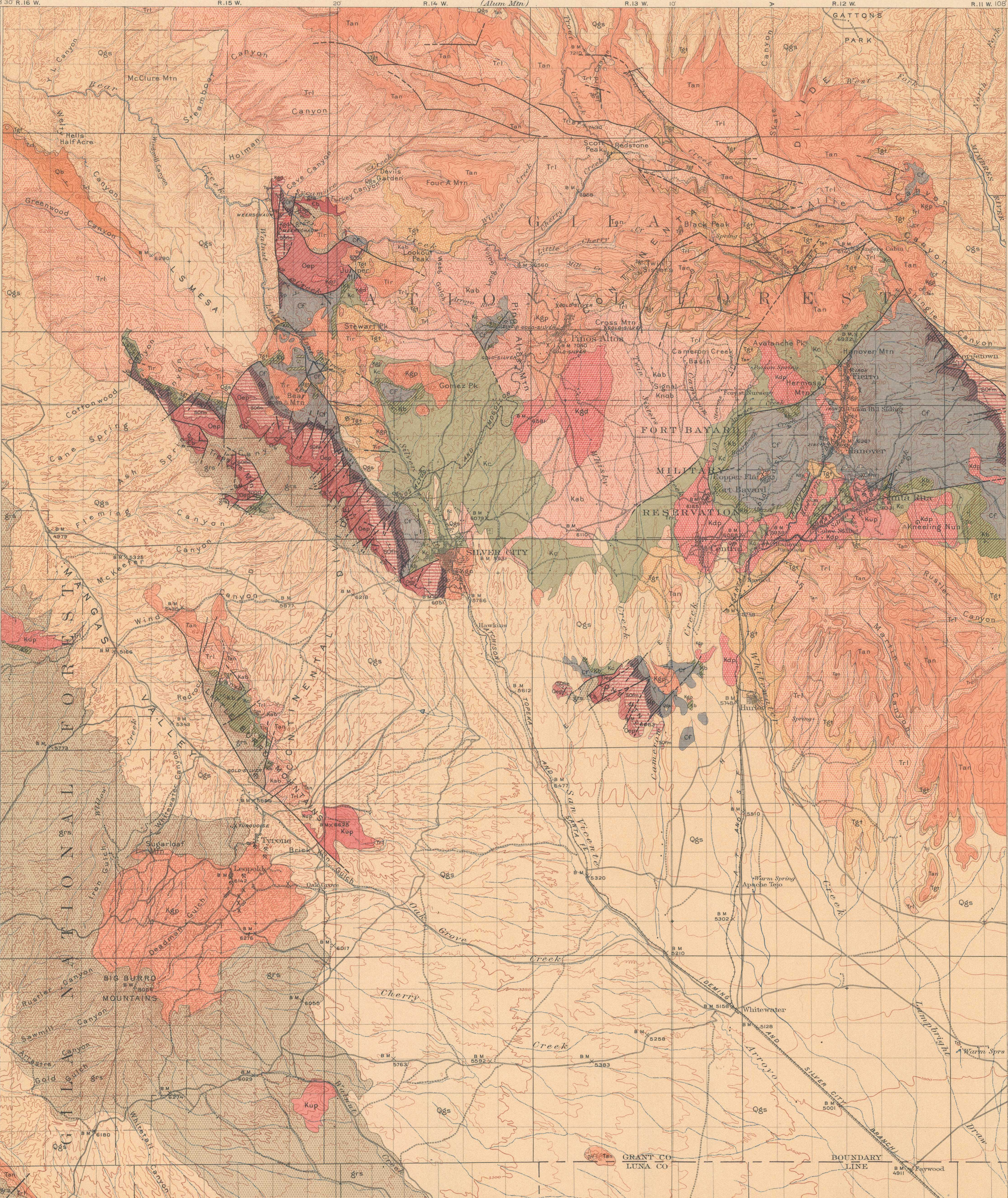
Stippled and dip of stratified rocks

Diagram of Township

Geology by Sidney Paige, assisted by John L. Rich. Surveyed in 1910.

Scale 1:250,000

Contour interval 100 feet. Datum is mean sea level. Edition of Dec. 1914.



E.C. Barnard, Geographer in charge.
Topography by A.B. Searle, J.H. Sinclair,
Gilbert Young, and Chas. Hartmann, Jr.
Control by Fred. McLaughlin.
Surveyed in 1907.



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Datum is mean sea level.
Edition of Dec. 1914.