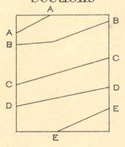
U. S. GEOLOGICAL SURVEY
CHARLES D. WALCOTT, DIRECTOR

ECONOMIC GEOLOGY SHEET

COLORADO
WALSENBURG QUADRANGLE

LEGEND
(continued)

Sections



⚒ Coal mines

Known productive formations

Kl

Coal
(Laramie formation contains semi-bituminous coal in its lower portion.)

Fire clay
(workable bed in the upper portion of the Dakota sandstone)

LEGEND

SEDIMENTARY ROCKS
(Areas of Sedimentary rocks are shown by patterns of parallel lines.)

NEOCENE

Nn — **Nussbaum formation** *(sandstone and conglomerate)*

EOCENE ?

Ech — **Cuchara formation** *(cavernous variegated sandstone, brown clay and sand at base)*

Epc — **Poison Canyon formation** *(conglomerate and sandstone with beds of yellow clay)*

CRETACEOUS

Kl — **Laramie formation** *(sandstone and shale containing seams of coal)*

Ktd — **Trinidad formation** *(massive and shaly sandstone)*

Kp — **Pierre shale** *(shale of various shades of gray with concretions)*

Ka — **Apishapa formation** *(coarsely laminated shale often bituminous; paper shale at base)*

Kt — **Timpas formation** *(calcareous shale with thin-bedded limestone)*

Kcr — **Carlile shale** *(gray shale capped by soft sandstone)*

Kgn — **Greenhorn limestone** *(thin-bedded limestone with shale partings)*

Kgs — **Graneros shale** *(gray and dark-colored shale with concretions)*

Kd — **Dakota sandstone** *(fine-grained massive sandstone, fireclay, coarse sandstone, and conglomerate)*

JURATRIAS

Jm — **Morrison formation** *(variegated shale and clay, limestone, and sandstone)*

CARBONIFEROUS ?

Cb — **Badito formation** *(fine-grained red sandstone and coarse conglomerate)*

IGNEOUS ROCKS
(Areas of Igneous rocks are shown by patterns of triangles and rhombs.)

EOCENE and NEOCENE

an — **Andesite** *(lava flow)*

llp bs gf — **Late lamprophyre, basalt, and granite-felsophyre** *(dikes and sheets)*

smp elp emp — **Silver Mt. monzonite-porphyry, early lamprophyre, and early monzonite-porphyry** *(stocks, dikes, and sheets)*

UNCLASSIFIED CRYSTALLINE ROCKS
(Areas of Archean rocks and metamorphic rocks of unknown origin are shown by patterns of short dashes.)

ARCHEAN

Ars — **Granite and schist**

Faults

Legend is continued on the left margin.

Henry Gannett, Chief Topographer.
E. M. Douglas, Topographer in charge.
Triangulation by A. H. Thompson.
Topography by R. O. Gordon and W. J. Lloyd.
Surveyed in 1894.

Scale 1/125000
1 1/2 0 1 2 3 4 5 Miles
1 1/2 0 1 2 3 4 5 Kilometers

Contour interval 50 feet.
Datum is mean sea level.
Edition of Sept. 1900.

Geology by R. C. Hills.
Surveyed 1895-1896.