DEPARTMENT OF THE INTERIOR
FRANKLIN K. LANE, SECRETARY
U. S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

# AREAL GEOLOGY

NEW MEXICO - COLORADO
BRILLIANT QUADRANGLE

(Spanish Peaks 125000) (Elmoro 125000)

104° 45' 40' 35' 104° 30'
37° 00'

LAS ANIMAS CO. COLFAX CO. — COLORADO / NEW MEXICO — CARPENTER LINE 1902 — BOUNDARY LINE — LAS ANIMAS CO. COLFAX CO.

T. 32 N. T. 31 N. T. 30 N. T. 29 N.
55' 50' 36° 45'

R. 21 E. R. 22 E. R. 23 E.

(Koehler) (Raton)

## EXPLANATION

### SEDIMENTARY ROCKS

(Areas of sedimentary deposits are shown by patterns of parallel lines)

**TERTIARY**

*Eocene*

Tr — **Raton formation** (sandstone, brown to buff shale, and coal beds; conglomerate at base)

*UNCONFORMITY*

**CRETACEOUS**

*Upper Cretaceous* — *Montana group*

Kv — **Vermejo formation** (dark shale, light-colored friable sandstone, and coal beds)

Ktd — **Trinidad sandstone** (massive, light-gray, lithopathic sandstone)

Kp — **Pierre shale** (drab to black fossiferous shale, containing limestone concretions in upper part)

### IGNEOUS ROCKS

**QUATERNARY**

Dikes and sheets, chiefly basalt; some andesite and lamprophyre

Scale 1/62500

1 1/2 0 1 2 3 4 Miles

1 1/2 0 1 2 3 4 5 Kilometers

Contour interval 50 feet.
*Datum is mean sea level.*
Edition of Sept. 1921.

R. B. Marshall, Chief Geographer.
Sledge Tatum, Geographer in charge.
Topography by E. P. Davis, C. C. Holder, and C. A. Ecklund.
Control by R. B. Robertson and C. C. Holder.
Surveyed in 1912-1913.

Geology by Willis T. Lee.
Surveyed in 1913.

APPROXIMATE MEAN DECLINATION, 1920.