



EXPLANATION

SEDIMENTARY ROCKS

Qal

Alluvium

Recent valley fill and stream deposits consisting of interbedded muds, sands, and gravels, 3 to 25 feet thick. Includes silted wash gravels in north central part of the quadrangle.

Qt

Talus

Ql

Landslide deposits

Slumped debris of mudstone, cobbles, boulders, and larger coherent rock masses resting mainly on mudstone canyon slopes.

Qb

Block rubble

Material, 5 to 40 feet thick, consisting mostly of porphyry blocks, heterogeneously sorted, lying on unevenly eroded surfaces. In places may include remnants of sills that have been undercut and let down. Forms hummocky topography.

Qs

Windblown sand and silt

Windblown silt and very fine sand, light-brown, 2 to 10 feet thick matting pediment and mesa surfaces, or resting on some valley slopes where it may be 30 feet thick.

Qtg

Stream terrace gravel

Gravel derived mainly from higher pediment gravels and composed mostly of igneous rocks. Rests on benches or terraces developed along the sides of drainage channels. In places, the terraces are incipient pediments.

Qps

Pediment gravel

Gravel, 2 to 35 feet thick, composed predominantly of igneous and subvolcanic meta-sedimentary rocks lying on extensive plane surfaces eroded at various levels and extending radially away from the mountain area.

UNCONFORMITY

Km

Mancos shale

Predominantly gray to black shaly mudstone. A medium to coarse-grained conglomeratic sandstone and sandy fossiliferous limestone (10-50 feet thick), about 175 feet above base is mapped separately (Kms). This unit may be equivalent in part to the "Juna Lopez sandstone member of the Mancos" of Rankin, C. H., 1944, stratigraphy of the Colorado group, Upper Cretaceous in Northwestern New Mexico: New Mexico School of Mines Bull. 20, 27 p.

Kd

Lakota sandstone

Yellowish lenticular sandstone and conglomerate with interbedded carbonaceous shale and coal. The coal is extremely lenticular and usually contains considerable amounts of sand and silt. The beds rarely exceed 2 feet in thickness but may thicken locally to as much as 5 feet. The average thickness of the Lakota sandstone in this area is about 130 feet.

UNCONFORMITY

Kbc

Burro Canyon formation

White, gray, and brownish sandstone and conglomerate with interbedded green and red shale. As mapped the Burro Canyon ranges from a feather edge (see below) to 80 feet in thickness in this area.

Jmb

Brushy Basin member of Morrison formation

Mostly greenish bentonitic mudstone but includes some sandstone and conglomerate lenses. May locally contain green mudstone equivalent to Burro Canyon age at top. About 150 feet of Brushy Basin beds are exposed in this quadrangle.

IGNEOUS ROCKS

Tkdp

Diorite porphyry

Sills and/or laccoliths

Contact (Dashed where approximately located; short dashes where indefinite or gradational; dotted where concealed)

Fault, showing dip (Dashed where approximately located; dotted where concealed. U, upthrown side; D, downthrown side)

High angle fault (Dashed where approximately located; dotted where concealed. U, upthrown side; D, downthrown side)

Fault, showing relative movement (Dashed where approximately located)

Shear zone

Anticline (Showing trace of axial plane and direction of plunge. Dashed where inferred)

Strike and dip of beds

Strike of vertical joints

Structure contours (Drawn on base of Mancos shale; dashed where approximately located; short dashes indicate projection above surface; and dots indicate projection under sill or laccolith. Contour interval 100 feet. Datum is mean sea level.)

YUCCA

Primary triangulation station

Roads, improved

Jeep and truck trails

Windmill

U. I. R. Ute Mountain Indian Reservation boundary

Reservoir and dam

HORIZONTAL AND VERTICAL CONTROL BY C. DUREN,
E. B. EKREN AND F. N. HOUSER, 1955
LAMBERT PROJECTION. 10,000-FOOT GRID
BASED ON COLORADO COORDINATE SYSTEM,
SOUTH ZONE

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN
DECLINATION, 1955

SCALE 1:20,000
1 MILE

PLANIMETRIC BASE MAP COMPILED
FROM AERIAL PHOTOGRAPHS
GEOLOGY BY E. B. EKREN AND
F. N. HOUSER, 1955

PRELIMINARY GEOLOGIC MAP OF THE SENTINEL PEAK NW QUADRANGLE, MONTEZUMA COUNTY, COLORADO
BY
E. B. EKREN AND F. N. HOUSER
1956