Cortez SW

EXPLANATION

QUATERNARY

Pleistocene and Recent

Qal

Alluvium

Qs

Eolian sand and silt

Qt

Talus

Ql

Landslide deposits

Qb

Block rubble

Consists chiefly of porphyry blocks lying on unevenly eroded surfaces. Forms hummocky topography.

Qfg

Fanglomerate

Composed mainly of cobbles and boulders from the Point Lookout sandstone of the Mesaverde group of Cretaceous age.

Qpg

Pediment deposits

Composed predominantly of pebbles, cobbles, and boulders of igneous rocks lying on erosion surfaces that extend radially from the mountain area.

UNCONFORMITY

TERTIARY OR CRETACEOUS

TKdp

Diorite porphyry

Medium gray; phenocrysts of hornblende and andesine; in the form of laccoliths in extreme southwest part of quadrangle.

CRETACEOUS

Upper Cretaceous

Km
Kms
Km

Mancos shale

Predominantly gray to black shaly mudstone. A medium- to coarse-grained glauconitic sandstone and sandy fossiliferous limestone (10-50 feet thick), about 475 feet above base, is mapped separately as Kms. This unit may be equivalent in part to the "Juana Lopez sandstone member of the Mancos" of Rankin (1944).

Kd

Dakota sandstone

Yellowish lenticular sandstone and conglomerate with interbedded carbonaceous shale and impure coal. Average thickness in this area is about 125 feet.

UNCONFORMITY

Lower Cretaceous

Kbc

Burro Canyon formation

Sandstone and conglomerate with interbedded green and red shale; ranges from 30 to 200 feet in thickness. Intertongues with mudstone of the Brushy Basin member of the Morrison formation.

JURASSIC

Upper Jurassic

Jmb
Jmw
Jms

Morrison formation

Brushy Basin member, Jmb, 150 to 300 feet thick, consists of varicolored bentonitic mudstone with a few conglomeratic sandstone lenses. Westwater Canyon member, Jmw, 75 to 100 feet thick, consists of pale yellow-brown fine- to medium-grained sandstone interbedded with green bentonitic mudstone. Salt Wash member, Jms, 150 to 250 feet thick, consists of tan-gray fine- to medium-grained sandstone interbedded with red-brown and purple mudstone; although this member contains uranium deposits in adjacent areas of the Colorado Plateau, none are known in this area. Adjacent members intertongue and intergrade to such an extent that in many places the contacts are arbitrary.

San Rafael group

Jjc

Junction Creek sandstone

Consists of three gradational units. The upper unit, 20 to 50 feet thick, is argillaceous fine-grained reddish sandstone; has obscure flat stratification. The middle unit, 150 to 200 feet thick, is pink to orange-red poorly sorted fine- to coarse-grained quartz sandstone with high-angle cross-stratification, and weathers to a "slick rim." The lower unit, 30 to 50 feet thick, has the same general lithology as the middle unit, but with low-angle cross-stratification and numerous horizontal truncations. The formation is 230 to 280 feet thick in this quadrangle. This unit correlates with the Bluff sandstone in Utah and Arizona. Contact with the underlying Summerville formation is gradational.

Js

Summerville formation

Brick-red mudstone and pink to red-brown argillaceous fine-grained well-sorted sandstone, 120 to 130 feet thick.

Je

Entrada sandstone

Consists of two units. Upper unit is sandstone, 70 to 80 feet thick, pale brown and light pink at top grading to white and finally to orange red in lower part; weathers to a "slick rim." The lower unit, 25 to 35 feet thick, is argillaceous very fine grained brick-red sandstone.

Jn

Navajo sandstone

Orange fine-grained eolian sandstone containing numerous prominent horizontal truncations.

JURASSIC AND JURASSIC(?)

Contact

(Dashed where approximately located; dotted where concealed)

U
D

High angle fault

(Dashed where approximately located; dotted where concealed; U, upthrown side, D, downthrown side)

Anticline

(Showing trace of axial plane and direction of plunge; dashed where approximately located)

30

Strike and dip of beds

Lineament

Observed in Mancos shale in southern part of quadrangle. This feature is believed indicative of faulting at depth.

40

Direction and amount of plunge of linear flow structure

6500

Structure contours

Drawn on base of Mancos shale. Long dashes where approximately located; short dashes indicate projection above surface; and dots indicate contouring on a phantom horizon projected through a sill or laccolith. Laccoliths in this quadrangle were intruded at or near the contact of the Dakota sandstone and Mancos shale; locally portions of upper beds of the Dakota sandstone were domed upward by the intrusives (section A-A'); datum is projected through the laccoliths in order to define the underlying structure. Contour interval is 100 feet. Datum is mean sea level.

△ Bean

Primary triangulation station

Roads, improved

Jeep and truck trails

Gravel pit

Well being drilled

× 5281

Benchmark, elevation to nearest foot

Spring

Irrigation ditch

Arrows indicate direction of flow

Reservoir and dam

Site of ancient Indian dwelling

Note: Land grid is dashed where approximately located.

LITERATURE CITED

Rankin, C. H., 1944, Stratigraphy of the Colorado group, Upper Cretaceous in northern New Mexico: N. Mex. School of Mines Bull. 20, 27 p.