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U.S. GEOLOGICAL SURVEY  
DIVISION OF RAW MATERIALS  
AUG 19 1966

EXPLANATION

Qal  
Alluvium

Silt, sand, and some interbedded gravel; 0 to 40 feet thick; forms alluvial plains and low terraces along Montezuma Canyon.

Qls  
Landslide deposits

Large sandstone blocks mixed with smaller rock fragments, sand, and clay; derived by sliding from adjacent upland in Montezuma Canyon. Landslide deposits on Brushy Basin member not shown.

ql  
Loess

Well-sorted red silt and very fine sand, largely wind deposited, reworked partly by water; 0 to 25 feet thick; forms agricultural soil on uplands.

Qpg  
Pediment gravel

Boulders, cobbles, and pebbles in sand matrix, forms upland surfaces near Monticello.

UNCONFORMITY

Km  
Mancoos shale

Gray marine shale, prominent Gryphea zone about 50 feet above base; forms low rounded hills on upland.

Kd  
Dakota sandstone

Light-brown and yellowish-brown sandstone with abundant plant fossils; interbedded, lenticular gray carbonaceous claystones and coal; thin conglomeratic sandstone at base locally; 80 to 120 feet thick; crops out at crest of "rim rock" cliff which separates upland from canyons.

UNCONFORMITY

Kbc  
Burro Canyon formation

Light-colored conglomeratic sandstone; interbedded greenish lenticular mudstone; silicified sandstone and limestone near top locally; 90 to 160 feet thick; forms face of "rim rock" cliff which separates upland from canyons.

UNCONFORMITY

Jmb  
Jms  
Morrison formation

Brushy Basin member, Jmb, variegated mudstone, some sandstone and conglomerate lenses; 260 to 360 feet thick; forms slope above steep-walled inner canyons; generally covered with landslides or colluvium. Salt Wash member, Jms, light-colored lenticular sandstone interbedded with red mudstone; 440 to 520 feet thick; forms series of steep cliffs and narrow benches of inner canyon; massive sandstone lenses near the middle of the member locally contain uranium-vanadium deposits.

UNCONFORMITY

Js  
Summerville formation

Orange-pink even-bedded sandstone, interbedded with reddish-brown siltstone and mudstone; 80 to 100 feet thick; forms step-like slope below steep canyon walls formed by the Salt Wash member of the Morrison formation.

Jec  
Entrada sandstone and Carmel formation undifferentiated

Light-colored massive crossbedded Entrada sandstone at top of unit forms steep cliff along base of canyon walls in Montezuma Canyon and its tributaries; irregularly bedded red mudstone and siltstone of Carmel formation crop out locally beneath cliff formed by the Entrada.

UNCONFORMITY

Jn  
Navajo sandstone

Light-colored massive, crossbedded sandstone; base not exposed; occurs only in a few scattered outcrops near creek level in Montezuma Canyon.

Contact

(Dashed where inferred or indefinite)

Fault

(Dashed where approximately located; dotted where concealed. Question marks indicate probable fault; U, upthrown side; D, downthrown side with throw in feet where measured)

Approximate strike and dip of beds

(Owing to low dips and lenticular nature of beds, attitudes were determined from preliminary structure contours drawn on the base of the Dakota sandstone; dip in degrees)

Horizontal beds

(Dip less than 1/4°, determined as above)

Structure contour

Drawn on base of Dakota sandstone, dashed where approximately located; short dashes indicate projection above land surface. Contour interval 100 feet. Datum mean sea level.

Adit

(Uranium-vanadium mine, except where indicated)

Small open cut or prospect

Gravel pit

Oil well



Mapped by the Geological Survey 1954

Topography by multiplex methods from aerial photographs taken 1953

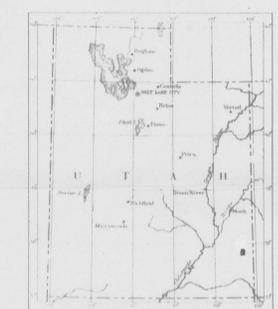


Geology mapped 1954

CONTOUR INTERVAL 40 FEET  
DATUM IS MEAN SEA LEVEL

PRELIMINARY GEOLOGIC MAP OF THE VERDURE 2SE QUADRANGLE, SAN JUAN COUNTY, UTAH

by  
Lyman C. Huff and Frank G. Lesure



INDEX MAP OF UTAH SHOWING AREA OF THIS REPORT

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