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- EXPLANATION**
- Qvf**
Valley fill
Predominantly wind-deposited sand and silt, in places as dunes; includes some alluvium and residual soil.
 - Qal**
Alluvium
Stream-deposited silt, sand, and gravel; locally with carbonaceous material and charcoal. Recent erosion has cut arroyos into most of the alluvium.
 - JK**
Kayenta formation
Thick-bedded, interbedded lavender, red, buff, and white sandstone with subordinate thin beds and lenses of siltstone and conglomerate.
 - Rw**
Wingate sandstone
Massive festoon crossbedded quartz sandstone, generally red, in places buff or white. The lower part of the formation is characterized by laminae of very coarse frosted quartz grains interbedded with the sandstone laminae.
 - Rcu**
Rcm
Rcl
Chinle formation
Upper Chinle, Rcu, crossbedded red and maroon sandstone underlain by a thick section of gray, purple, and red mudstone; Moss Back member, Rcm, massive tan to light-gray conglomeratic sandstone that caps North Long Point and Salt Creek Mesa and contains some uranium deposits in this area; lower Chinle, Rcl, blue, gray, and red mudstone.
 - UNCONFORMITY**
 - Rm**
Moenkopi formation
Red, buff, and brown shale and sandstone. Shale, dominant near the top and base of the formation, is interbedded with thin flaggy sandstone beds; some thick sandstone beds occur near the middle of the formation; individual sandstone beds are discontinuous and generally grade laterally into shale within half a mile.
 - Pch**
Pco
Pcc
Outlier formation
Hokinnini tongue, Pch, reddish to buff silty sandstone and a few interbeds of siltstone; sandstone characterized by scattered very coarse frosted quartz grains; Organ Rock tongue, Pco, massive red sandy siltstone; Cedar Mesa sandstone member, Pcc, massive festoon crossbedded light-gray sandstone.
 - PPr**
Rico formation
Interbedded thin impure sandy limestone, lisy sandstone, festoon crossbedded sandstone, and shale; contains some marine fossils. The contact with the overlying Cedar Mesa is drawn at the top of the uppermost fossiliferous limestone. In the Beef Basin area the formation is dominantly sandstone and can be separated from the Cedar Mesa only by the presence of a few thin purple to gray limestones near the top.
 - Contact**
(Dashed where approximately located; dotted where concealed)
 - U D**
Fault
(Dashed where approximately located; dotted where concealed; U, upthrown side, D, downthrown side; showing field estimate of amount of displacement in feet)
 - U D ? - ? - ?**
Doubtful or probable fault
(U, probable upthrown side; D, probable downthrown side)
 - Anticline**
(Showing trace of axial plane and direction of plunge of axis. Dashed where approximately located)
 - Syncline**
(Showing trace of axial plane and direction of plunge of axis. Dashed where approximately located)
 - Anticlinal bend**
(Showing trace of plane of inflection between gently dipping and more steeply dipping beds, and direction of plunge of intersection with structure contour horizon, dashed where approximately located)
 - Synclinal bend**
(Showing trace of plane of inflection between steeply dipping and more gently dipping beds, and direction of plunge of intersection with structure contour horizon; dashed where approximately located)
 - Strike and dip of beds**
 - 8000**
Structure contours
Drawn on base of the Moss Back member of the Chinle formation and the base of the Cedar Mesa sandstone member of the Outlier formation. Dashed where approximately located; short dashes indicate projection above surface. Contour interval 100 feet. Datum is mean sea level.
 - Uranium prospect**

QUATERNARY
JURASSIC(?)
TRIASSIC
PERMIAN
PENNSYLVANIAN AND PERMIAN(?)

Mapped by the Geological Survey 1954
Topography by multiple methods from
aerial photographs taken 1952



GEOLOGY BY R. Q. LEWIS, SR., R. H. CAMPBELL, AND R. E. THADEN, ASSISTED BY P. H. REITAN, F. A. GUSTAFSON, AND B. F. BROCK, 1954-55.



PRELIMINARY GEOLOGIC MAP OF ELK RIDGE 2NE QUADRANGLE, SAN JUAN COUNTY, UTAH
by
Richard Q. Lewis, Sr. and Russell H. Campbell

INDEX MAP OF UTAH SHOWING AREA OF THIS REPORT

U.S. GEOLOGICAL SURVEY
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