



EXPLANATION

- Oal Qc Valley fill and alluvium, Qal, covering deposits, undifferentiated, Qc
 - Je Entrada sandstone
 - Jc Carmel formation
 - Jn Navajo sandstone
 - Jk Kayenta formation
 - Jw Wingate sandstone
 - Rc Chinle formation
 - Rs Shinarump conglomerate
 - Rm Moenkopi formation
 - Pcw White Rim sandstone member of the Cutler formation
- Upper Middle Upper Lower
- JURASSIC (J)
- TRIASSIC (T)
- PERMIAN (P)
-
- Contact**
(Can be accurately located within 30 feet horizontally)
-
- Contact**
(Can be approximately located within 30 to 200 feet horizontally)
-
- Contact**
(Cannot be located accurately; probable error greater than 200 feet)
-
- Probable or doubtful fault
-
- Approximate strike and dip of beds
(Based on photo-interpretation)
-
- Inferred strike and dip of beds
(Based on photo-interpretation of areas where bedding is obscure)
-
- Strike of approximately vertical joints
(Based on photo-interpretation)
-
- Conspicuous resistant bed within a formation
(May be traceable only locally)
-
- County boundary
-
- Trail

Note: Between the top of the white, jointed, cross-bedded White Rim sandstone member and the lowest dark-colored beds of the Moenkopi formation is a unit, in part covered, that appears white to light gray on aerial photographs. On this map this unit is included in the Moenkopi formation. On Carlisle - 4 it is mapped as part of the White Rim sandstone member.

Maps of this series have been compiled mainly from photogeologic data but have not been checked in the field; hence they have not had the benefit of thorough evaluation with respect to maps compiled entirely from field data.

Planimetric base map compiled by U.S. Geological Survey from vertical aerial photographs. Planimetry and geology transferred from photographs by stereoscopic plotter.

| | | |
|----|----|----|
| 4 | 3 | 2 |
| 5 | 6 | 7 |
| 12 | 11 | 10 |
| 13 | 14 | 15 |

ORANGE CLIFFS QUADRANGLE

PHOTOGEOLOGIC MAP
ORANGE CLIFFS - 1
WAYNE AND SAN JUAN COUNTIES, UTAH
PHOTOGEOLOGY BY P. P. ORKILD
SCALE 1:24,000
AUGUST 1963

Roads as classified in this map series are as follows: Primary roads are maintained and graded, traversable by two-wheel-drive vehicles; secondary roads are traversable possibly by two-wheel-drive vehicles; trails are not traversable by four-wheel-drive vehicles except locally. When other information is lacking, roads are classified by their appearance on aerial photographs.

Stratigraphic column for this area modified from U.S. Geol. Survey Bull. 951, 1946. Geographic and geologic field data from U.S. Geol. Survey Bull. 951 (1946) and Bull. 908 (1940).

This map is preliminary and has not been edited or reviewed for conformity with U. S. Geological Survey standards and nomenclature.