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U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE
ATOMIC ENERGY COMMISSION

COMPILATION OF PHOTOGEOLOGY AND SURFACE GEOLOGY COLORADO PLATEAU AREA, UNITED STATES

TRACE ELEMENTS MEMORANDUM REPORT 546

111°07'30" 111°05'00" 111°02'30" 111°00'00"
38°37'30" 38°35'00" 38°32'30" 38°30'00"

HEEP MOUNTAIN

SAN RAFAEL SWELL
MAIN AXIS

STARVATION CREEK

EXPLANATION

SEDIMENTARY ROCKS

JURASSIC
- Upper: Js — Summerville formation
- Upper: Jcu — Curtis formation
- Upper: Je — Entrada sandstone
- Middle / Upper: Jc — Carmel formation
- Jn — Navajo sandstone

JURASSIC (?)
- Jk — Kayenta formation
- Jw — Wingate sandstone

TRIASSIC
- Upper: Trc — Chinle formation
- Upper: Trs — Shinarump conglomerate
- Lower: Trm3 — Upper unit, Moenkopi formation

IGNEOUS ROCKS

TERTIARY
- Ti — Diabase dikes
- Tis — Composite sills of diabase and syenite

Contact
(Can be accurately located within 30 feet horizontal)

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 contact

Fault
(U, upthrown side; D, downthrown side. Dashed where approximately located)

Probable or doubtful fault

Anticline
Showing trace of axial plane and direction of plunge
(Approximately located)

Syncline
Showing trace of axial plane and direction of plunge
(Approximately located)

Strike and dip of beds
(Based on field measurement)

Strike and dip of beds
(Based on photo-interpretation)

Strike of approximately vertical joints
(Based on photo-interpretation)

Uninterpretable linear feature on photograph
(May be geologically significant)

Secondary road

Trail

Note: On aerial photographs the Moenkopi formation in the San Rafael Swell region can be divided into three units; no correlation with subdivisions of the Moenkopi formation in other areas is implied. Only unit 3 is present in the area of this map.
In the west-central part of this map some of the apparently overlying the composite sill and may be Carmel formation may actually be the light-colored syenitic phase of the sill.
In the northwest part of this map, on Heep Mountain and other areas to the west, some ridges and slopes are covered with talus or wash of dark igneous rock. This dark material caps minor ridges at considerable distances from the hills and apparently predates present drainage.
The linear features shown south of Heep Mountain probably represent silicified zones of
The contact of the Navajo sandstone and Carmel formation does not join the
Stinking Spring Creek-13
of the position

Planimetric base map compiled from vertical aerial photographs by U. S. Geological Survey by radial-templet methods. Horizontal control extended west from Soil Conservation Service Map No. 241.

Stratigraphic column modified from U. S. Geol. Survey Bull. 806-C, 1929.

4	3	2	1
5	6	7	8
12	11	10	9
13	14	15	16

EMERY QUADRANGLE

TRUE NORTH 16°

PHOTOGEOLOGIC MAP
EMERY-16
EMERY COUNTY, UTAH

PHOTOGEOLOGY BY W. H. CONDON
PHOTOGEOLOGY UNIT, ALASKAN GEOLOGY BRANCH
SCALE 1:24,000
0 1 MILE

DECEMBER 1952