

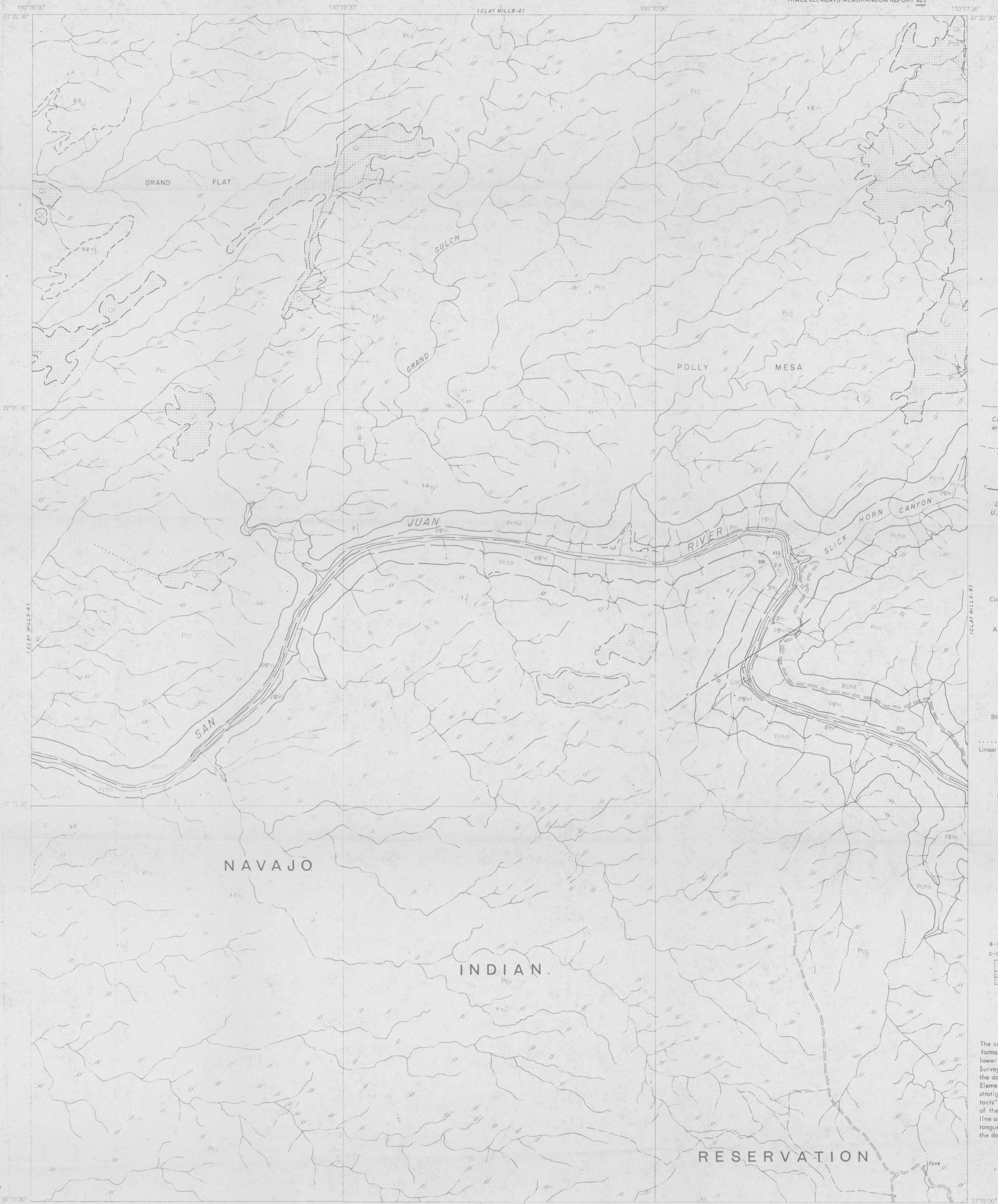
127mm  
(200)

DEPARTMENT OF THE INTERIOR  
U. S. GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE  
ATOMIC ENERGY COMMISSION

PHOTOGEOLOGIC MAP, CLAY HILLS-7  
UTAH - SAN JUAN COUNTY

TRACE ELEMENTS MEMORANDUM REPORT 825



EXPLANATION

- Qal  
Alluvium
- Oc  
Undifferentiated sand and residual mantle
- Pcc  
Cutler formation
- Pcha  
Cedar Mesa sandstone member
- PIPri  
Rico formation (lower unit)
- JPh  
Hermosa formation

QUATERNARY  
PERMIAN  
PENNSYLVANIAN  
PERMIAN(?)

Contact  
Can be located within 30 feet horizontally

Contact  
Can be located within 30 to 200 feet horizontally

Contact  
Cannot be located accurately, probable error greater than 200 feet horizontally

Resistant bed within a formation  
May be traceable only locally

Fault  
Dashed where approximately located  
U, upthrown side; D, downthrown side  
Questioned where probable

Strike and dip of beds  
Based on field measurement

Strike and dip of beds  
Computed by photogrammetric methods

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

Linear feature uninterpretable on photograph  
May be geologically significant

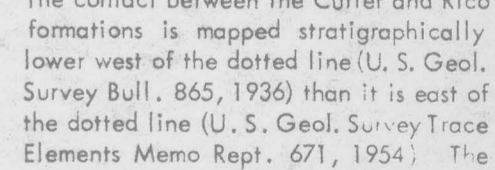
Photogrammetric measurement of stratigraphic thickness (in feet)

Dry hole

Reservation boundary

Secondary road

Trail



The contact between the Cutler and Rico formations is mapped stratigraphically lower west of the dotted line (U. S. Geol. Survey Bull. 865, 1936) than it is east of the dotted line (U. S. Geol. Survey Trace Elements Memo Rept. 671, 1954). The stratigraphic interval between these "contacts" has been mapped as the upper part of the Rico formation east of the dotted line and has been included in the Halgaito tongue of the Cutler formation west of the dotted line.

Base map compiled by U. S. Geological Survey from Soil Conservation Service map, Utah, 344 and from vertical aerial photographs.

The aerial photographs used for photogeologic interpretation were taken in September 1962.

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

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

CLAY HILLS QUADRANGLE



PHOTOGEOLOGY BY C. H. MARSHALL  
SCALE 1:24,000  
AUGUST 1954

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 mostly 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 Prof. Paper 188, 1938 and U. S. Geol. Survey Bull. 865, 1936; geographic and geologic field data from Prof. Paper 188, Bull. 865, and U. S. Geol. Survey Water-Supply Paper 535, 1924.

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