DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

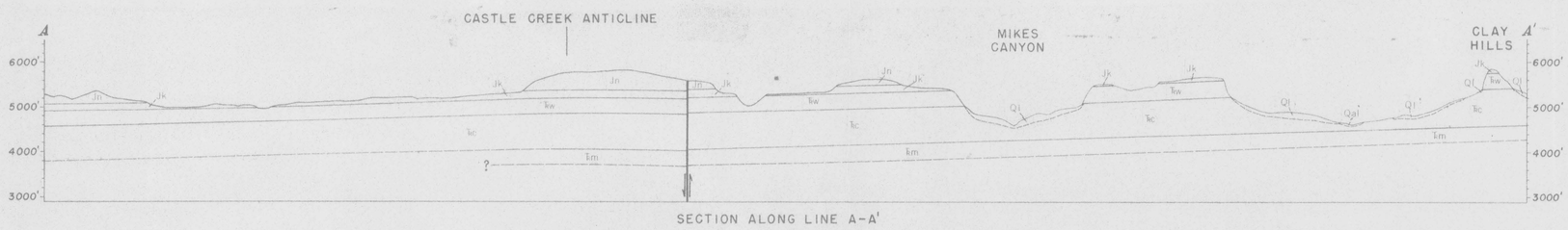
PREPARED IN COOPERATION WITH THE
U. S. ATOMIC ENERGY COMMISSION

TRACE ELEMENTS MEMORANDUM REPORT 1092

Clay Hills 2SW

(200) T67m no.1092

Geology by Thomas E. Mullens
and James N. Taggert, 1953



SECTION ALONG LINE A-A'

PRELIMINARY GEOLOGIC MAP OF THE CLAY HILLS 2 SW QUADRANGLE, SAN JUAN COUNTY, UTAH

BY

THOMAS E. MULLENS

EXPLANATION

QUATERNARY

Qal — Alluvium

Alluvial deposits on present flood plains.

Qd — Dune sand

Drifting and stabilized sand dunes.

Ql — Landslide deposit

Qtg — Terrace gravel

UNCONFORMITY

JURASSIC AND JURASSIC(?)

Jn — Navajo sandstone

Cross-stratified light-brown to white medium-grained sandstone with scattered lenses of gray limestone.

JURASSIC(?)

Jk — Kayenta formation

Irregularly bedded red, gray, and pale-purple sandstone, siltstone, and clay-pebble conglomerate. Locally as much as the upper 60 feet of the Kayenta grades laterally into Navajo sandstone; and as much as the lower 30 feet of the Kayenta grades laterally into Wingate sandstone.

Glen Canyon Group

Rw — Wingate sandstone

Cross-stratified light-gray, reddish-brown, and light-brown fine-grained sandstone. Locally forms vertical cliffs.

TRIASSIC

Upper Triassic

Rcu / Rcs — Chinle formation

Chinle undifferentiated, Rcu, reddish-orange very fine grained sandstone and siltstone in upper one-third, variegated siltstone and claystone and lenticular beds of sandstone and limestone in lower two-thirds.

Shinarump member, Rcs, lenticular grayish-green conglomeratic sandstone and greenish-gray mudstone. Although this formation contains uranium minerals in adjacent areas, none were found in this area.

UNCONFORMITY

Lower and Middle(?) Triassic

Rm — Moenkopi formation

Platy weathering brown siltstone and sandstone, abundant ripple marks.

PERMIAN

Pch / Pcd / Pco / Pcc — Cutler formation

Hoskinnini tongue, Pch, reddish-brown mudstone containing abundant disseminated rounded fine to coarse quartz grains; DeChelly sandstone member, Pcd, cross-stratified yellowish-gray medium-grained sandstone, present only in small outcrop in San Juan River Canyon; Organ Rock tongue, Pco, reddish-brown siltstone and fine-grained sandstone; Cedar Mesa sandstone member, Pcc, cross-stratified fine-grained light-gray to white sandstone, gradational upward to Organ Rock tongue through a zone of interbedded light-colored sandstone and reddish-brown siltstone 80 to 100 feet thick.

Contact

(Dashed where approximately located; short dashes where indefinite boundaries of surficial deposits)

U / D — High angle fault

(U, upthrown side; D, downthrown side)

Anticline

(Showing crest line. Dotted where concealed)

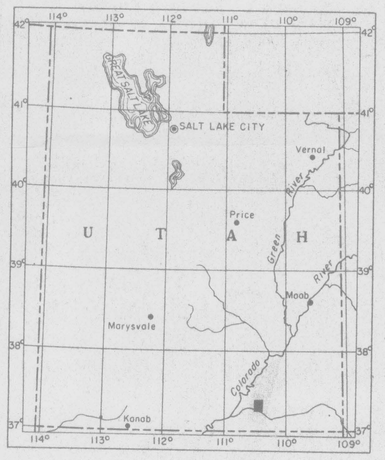
Indefinite syncline

(Showing position of trough)

Strike and dip of beds

C — C — Channel

(At base of Shinarump member of the Chinle formation)



INDEX MAP OF UTAH SHOWING AREA OF THIS REPORT