DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

TRACE ELEMENTS
MEMORANDUM REPORT 924

THIS MAP CONCERNS WORK DONE BY THE U.S.
GEOLOGICAL SURVEY ON BEHALF OF THE DIVISION OF
RAW MATERIALS OF THE U.S. ATOMIC ENERGY COMMISSION

Mapped by the Geological Survey 1954

Topography by multiplex methods from aerial photographs taken 1953

Dashed land lines indicate approximate locations

Symbols and other detail herein drawn for 1:62,500 scale publication

APPROXIMATE MEAN DECLINATION, 1954

SCALE 1:24000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION

Improved Unimproved

Geology by W.D. Carter and
J.L. Gualtieri, assisted by
J.C. Warman and W.R. Barton, 1955

PRELIMINARY GEOLOGIC MAP OF THE MT. PEALE 1 SE QUADRANGLE, SAN JUAN COUNTY, UTAH, AND MONTROSE COUNTY, COLORADO

EXPLANATION

SEDIMENTARY ROCKS

Qal — Alluvium

Light-red wind-deposited sand and silt on benches and mesa tops, reworked in part by water; Recent valley fill and stream deposits.

Ql — Landslide deposits

Pleistocene and Recent — QUATERNARY

UNCONFORMITY

Kd — Dakota sandstone

Yellowish lenticular sandstone and conglomerate with interbedded carbonaceous shale and impure coal. Forms ledges and cliffs capping mesas.

UNCONFORMITY

Kbc — Burro Canyon formation

White, gray, light orange-brown sandstone and conglomerate with interbedded green and purplish shale; overlain by light-green mudstone, siltstone, and shale with interbedded chert, impure limestone, and thin-bedded quartzite. Cliff-forming sandstone provides base for high mesas.

Upper Cretaceous; Lower Cretaceous — CRETACEOUS

Jmb / Jms — Morrison formation

Variegated shale and mudstone; white, gray, rusty-red, and buff sandstone; local thin limestone beds. Jmb, Brushy Basin shale member, consists largely of bentonitic shale, but includes sandstone and conglomerate lenses some of which contain uranium-vanadium deposits. Jms, Salt Wash sandstone member, with more numerous and thicker sandstone beds. Uppermost continuous sandstone contains major uranium-vanadium deposits of area.

Js — Summerville formation

Thin-bedded red, gray, green, and brown sandy shale and mudstone. Forms steep slopes.

Jec — Entrada sandstone and Carmel formation, undifferentiated

Orange, buff, and white, fine-grained, massive and crossbedded Entrada sandstone at the top. Red sandstone and mudstone of the Carmel formation at the base. Forms rounded slopes and steep cliffs.

Upper Jurassic; Middle and Upper Jurassic; San Rafael Group — JURASSIC

UNCONFORMITY

Jn — Navajo sandstone

Buff and gray crossbedded fine-grained sandstone. Forms rounded slopes and steep cliffs.

Jk — Kayenta formation

Irregularly bedded, red, buff, gray, and lavender shale, siltstone, and fine- to coarse-grained sandstone.

Glen Canyon Group — JURASSIC(?) AND JURASSIC(?)

Rw — Wingate sandstone

Fine-grained reddish-brown cliff-forming sandstone, thick-bedded, massive, and crossbedded.

Rc — Chinle formation

Red to orange-red siltstone with interbedded lenses of red sandstone, shale, and limestone-pebble and clay-pellet conglomerate. Lenses of quartz-pebble conglomerate and grit at base.

Upper Triassic — TRIASSIC

Contact

(Dashed where approximately located; dotted where concealed)

U D — High angle fault

(Dashed where approximately located; dotted where concealed; U, upthrown side; D, downthrown side)

13 — Strike and dip of beds

Horizontal beds

6100 — Structure contours

Drawn on the top of the Entrada sandstone (at places projected from the base of the Burro Canyon formation; average vertical separation 800 feet). Dashed where approximately located; short dashes indicate projection above surface. Contour interval 100 feet. Datum is mean sea level. Contours deleted in collapsed areas.

MINES AND PROSPECTS

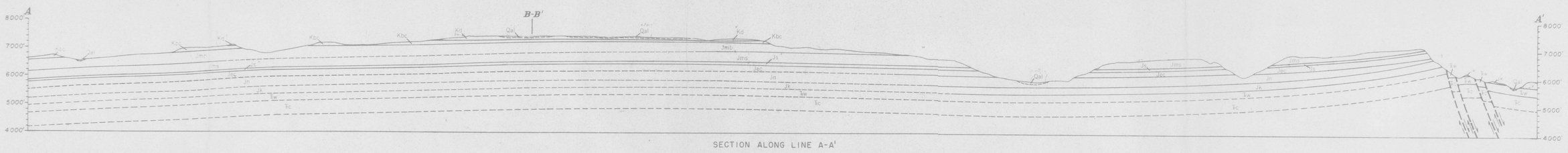
Uranium-vanadium deposits

(Unless otherwise noted, Cu denotes Copper prospect)

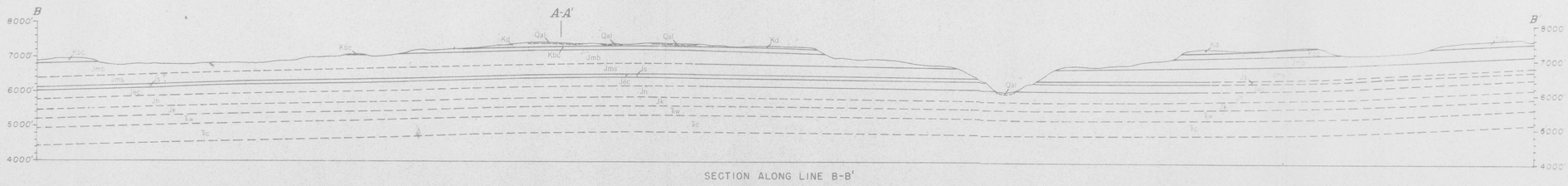
Adit

Mine

Shaft



SECTION ALONG LINE A-A'



SECTION ALONG LINE B-B'