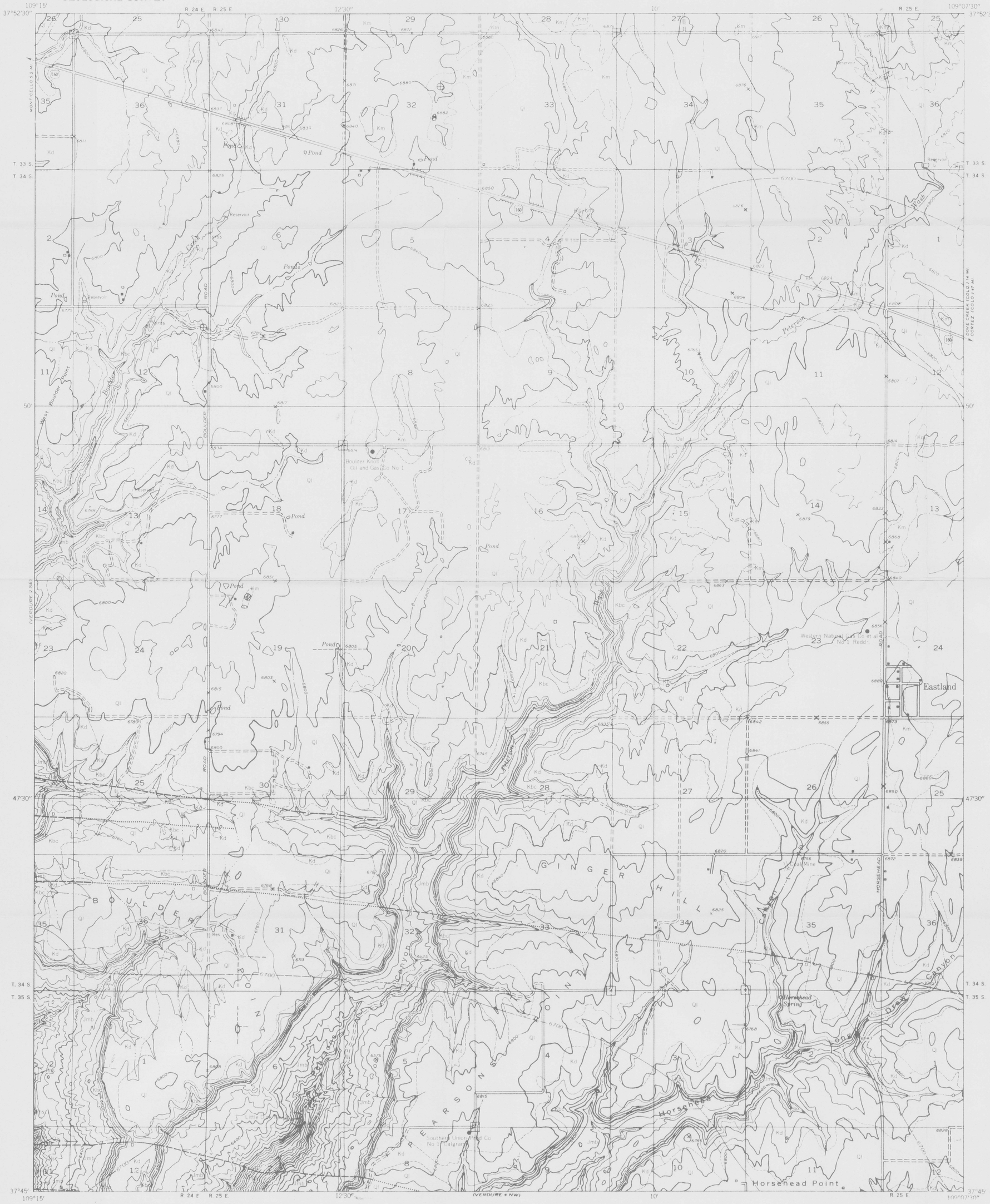
THIS MAP CONCERNS WORK DONE BY THE
U.S. GEOLOGICAL SURVEY ON BEHALF OF
THE DIVISION OF RAW MATERIALS OF THE
U.S. ATOMIC ENERGY COMMISSION

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

TRACE ELEMENTS
MEMORANDUM REPORT 990



Mapped by the Geological Survey 1954

Topography by multiplex methods from aerial photographs taken 1953

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

APPROXIMATE MEAN DECLINATION 1954

Geology mapped 1954-55.

PRELIMINARY GEOLOGIC MAP OF THE VERDURE ISW QUADRANGLE, SAN JUAN COUNTY, UTAH

by

Frank G. Lesure and Fredrick Stugard, Jr.

EXPLANATION

QUATERNARY

Pleistocene and Recent

Qal — Alluvium

Silt, sand, and some interbedded gravel; 1 to 15 feet thick.

Qls — Landslide deposits

Large sandstone blocks mixed with smaller rock fragments, sand, and clay; derived by sliding from adjacent upland in Montezuma Canyon. Landslide deposits on Brushy Basin member not shown.

Ql — Loess

Well-sorted red silt and very fine sand, largely wind deposited, reworked partly by water; 0 to 25 feet thick; forms agricultural soil on uplands.

UNCONFORMITY

CRETACEOUS

Upper Cretaceous

Km — Mancos shale

Gray marine shale, prominent Gryphea zone about 50 feet above base; forms low rounded hills on upland.

Kd — Dakota sandstone

Light-brown and yellowish-brown sandstone with abundant plant fossils; interbedded, lenticular gray carbonaceous claystones and coal; thin conglomeratic sandstone at base locally; 80 to 110 feet thick; crops out at crest of "rim rock" cliff which separates upland from canyons.

UNCONFORMITY

Lower Cretaceous

Kbc — Burro Canyon formation

Light-colored conglomeratic sandstone; interbedded greenish lenticular mudstone; silicified sandstone and limestone near top locally; 110 to 170 feet thick; forms face of "rim rock" cliff which separates upland from canyons.

UNCONFORMITY

JURASSIC

Upper Jurassic

Jmb / Jms — Morrison formation

Brushy Basin member, Jmb, variegated mudstone, some sandstone and conglomerate lenses; 340 to 410 feet thick; forms slope above steep-walled inner canyons; generally covered with landslides or colluvium. Salt Wash member, Jms, light-colored lenticular sandstone interbedded with red mudstone; base not exposed; forms series of steep cliffs and narrow benches of inner canyon; massive sandstone lenses near the middle of the member locally contain uranium-vanadium deposits.

Contact

(Dashed where inferred or indefinite)

Fault

(Dashed where approximately located; dotted where concealed. Question marks indicate probable fault; U, upthrown side; D, downthrown side)

Approximate strike and dip of beds

(Owing to low dips and lenticular nature of beds, attitudes were determined from preliminary structure contours drawn on the base of the Dakota sandstone; dip in degrees)

Horizontal beds

(Dip less than 1/4°, determined as above)

6700

Structure contour

Drawn on base of Dakota sandstone; dashed where approximately located; short dashes indicate projection above land surface. Contour interval 100 feet. Datum mean sea level.

Adit

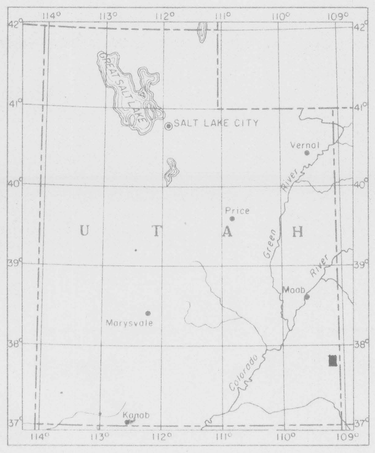
(Uranium-vanadium mine, except where indicated)

Small open cut or prospect

(Uranium-vanadium deposit)

Oil well

Section corner found in the field



INDEX MAP OF UTAH SHOWING AREA OF THIS REPORT