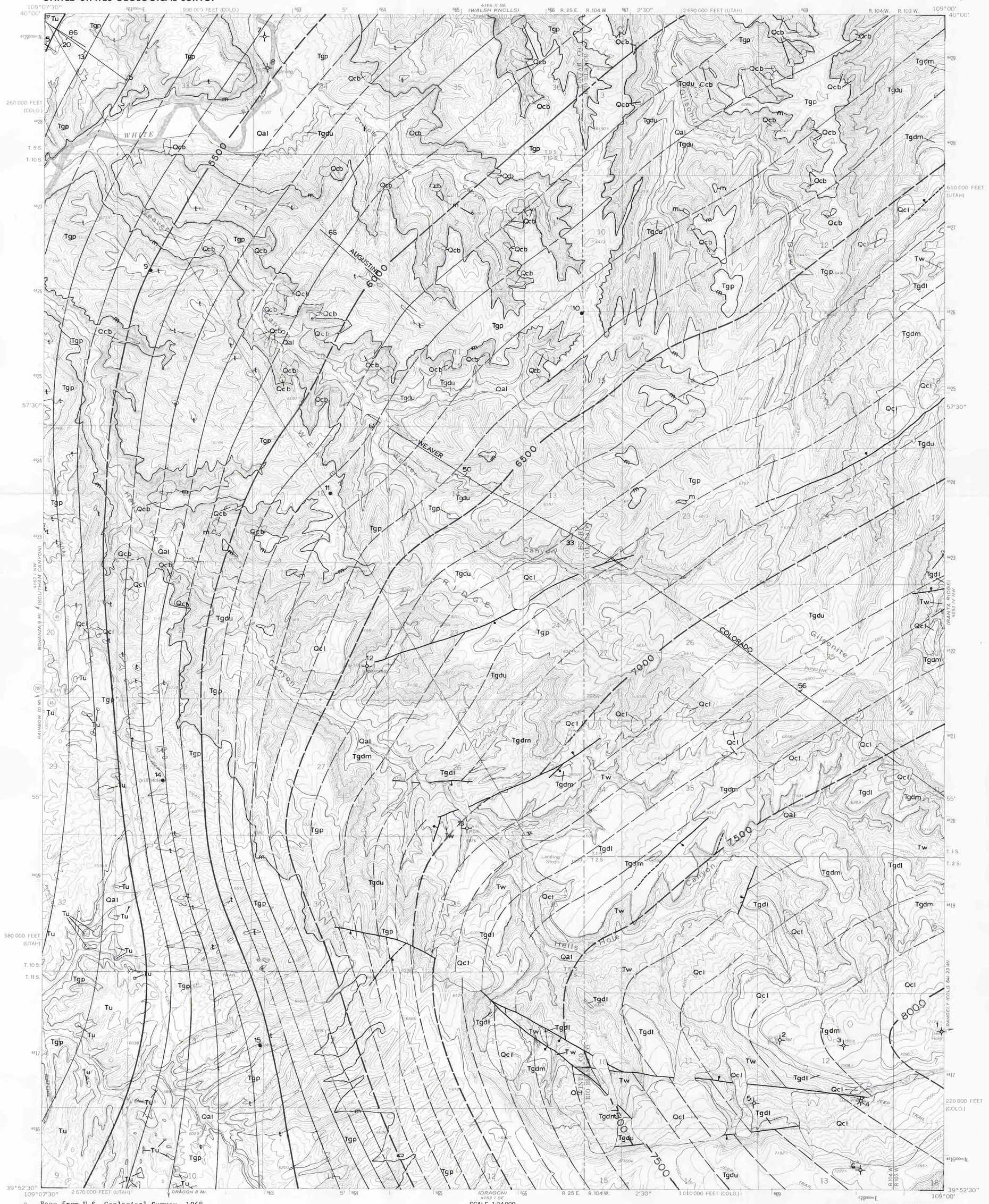
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

MISCELLANEOUS FIELD STUDIES
MAP MF-824
WEAVER RIDGE QUAD., UTAH-COLO.



CORRELATION OF MAP UNITS

Qal	Qcb	Qcl	Holocene Pleistocene	QUATERNARY
UNCONFORMITY				
Tu Tgp Tgp t Tgp m Tgp Tgdu Tgdm Tgdl Tw			Eocene	TERTIARY

DESCRIPTION OF MAP UNITS

Qal ALLUVIUM (HOLOCENE)--Unconsolidated gray and brown silt, sand and gravel of streambed, slope wash and fan deposits

Qcb COLLUVIUM (HOLOCENE)--Red, reddish-orange and pink talus composed of fragments weathered from outcrops of burned oil shale of the Mahogany ledge

Qcl COLLUVIUM (HOLOCENE AND PLEISTOCENE)--Clay to boulder size material in talus, landslide and slump deposits

Tu UINTA FORMATION (EOCENE)--Reddish-brown to yellowish-brown very fine grained sandstone and siltstone, and gray marlstone. Sandstone bedding is medium to massive; much of bedding contorted. Weathers to yellowish-orange rounded hills. Only lower part present in quadrangle. Equivalent to Uinta A of Osborn (1929)

GREEN RIVER FORMATION (EOCENE)

Tgp Parachute Creek Member--Gray and yellowish-brown marlstone and dark-gray and brown oil shale with numerous thin beds of yellowish-brown tuff and some thin beds of yellowish-brown siltstone. Small pods and lenses of nahcolite ($NaHCO_3$) in some core from upper part of the member. Nahcolite leached in some subsurface areas and on all outcrops. Most strata are laminar to thin bedded with many varved oil-shale sequences. A rich oil-shale sequence, the Mahogany zone (Mahogany ledge on outcrop), occurs about 500 feet (152 m) below the top of the member. Mahogany zone approximately 110 feet (33 m) thick in the northwestern corner of the quadrangle and thins southeastward in the quadrangle. Member weathers to steep gray and yellowish-brown slopes and bluish-gray and yellowish-brown ledges. Thickness about 1,000 feet (305 m). Includes strata formerly assigned to the Evacuation Creek Member of the Green River (Cashion and Donnell, 1974)

——t—— Base of a 2-50-foot (0.6-15-m) thick sequence contains interbedded yellowish-orange-weathering massive, contorted tuffaceous beds and yellowish-brown marlstone. This sequence occurs in the upper part of the nahcolite-bearing zone and is about 400 feet (122 m) above Mahogany oil-shale bed

——m—— Mahogany oil-shale bed--The richest bed in the Mahogany zone; approximately 9 feet (3 m) thick and occurs about 35 feet (10 m) below top of Mahogany zone

Tgdu Douglas Creek Member
Upper part--Yellowish-brown algal and oolitic limestone and sandstone and gray siltstone and marlstone. Weathers to yellowish-brown and gray ledges and steep slopes. Thickness 400-550 feet (122-152 m)

Tgdm Middle part--Gray shale, siltstone, and low-grade oil shale with sparse lenses of fluvial sandstone and some algal and oolitic limestone. Weathers to gray and brown slopes and minor ledges. Thickness 125-175 feet (38-53 m)

Tgdl Lower part--Yellowish-brown and gray oolitic and algal limestone and gray shale with very thin oil shale beds in upper part. Weathers to prominent benches and cliffs. Thickness 60-125 feet (18-38 m). Renegade Tongue of the Wasatch Formation which is mapped with the lower part (Tgdl) consists of maroon and gray shale and some gray sandstone, and lies between middle part and lower part of the Douglas Creek Member. The Renegade Tongue weathers to slopes and minor ledges. Thickness 30-50 feet (9-15 m)

Tw WASATCH FORMATION, MAIN BODY (EOCENE)--Maroon and gray claystone and mudstone and brown and gray sandstone and siltstone. Weathers to series of slopes and ledges

——— CONTACT--Boundaries of all units of Quaternary age and some units of Eocene age near southeastern margin of quadrangle; approximately located

———•——— FAULT--Dashed where indefinite. Ball and bar on downthrown side

56 GILSONITE VEIN--Showing measured width, in centimeters. Identified by name on map. Dashed where indefinite

—7500— STRUCTURE CONTOURS--Drawn on top of Mahogany oil-shale bed. Dashed where Mahogany oil-shale bed is eroded. Contour interval 100 feet; datum mean sea level

• CORE HOLE--Drilled to evaluate oil-shale beds. Oil-shale assay results shown by Stanfield, Smith, and Trudell (1964)

DRY HOLE

SHUT-IN GAS WELL

REFERENCES

Cashion, W. B., and Donnell, J. R., 1974, Revision of nomenclature of the upper part of the Green River Formation, Piceance Creek basin, Colorado, and eastern Uinta Basin, Utah: U.S. Geol. Survey Bull. 1394-G, 9 p.

Osborn, H. F., 1929, The titanotheres of ancient Wyoming, Dakota, and Nebraska, Volume 1: U.S. Geol. Survey Mon. 55, 701 p.

Stanfield, K. E., Smith, J. W., and Trudell, L. G., 1964, Oil yields of sections of Green River oil shale in Utah, 1952-62: U.S. Bur. Mines Rept. Inv. 6420, 217 p.

Base from U.S. Geological Survey, 1968

Geology mapped in 1967-1974

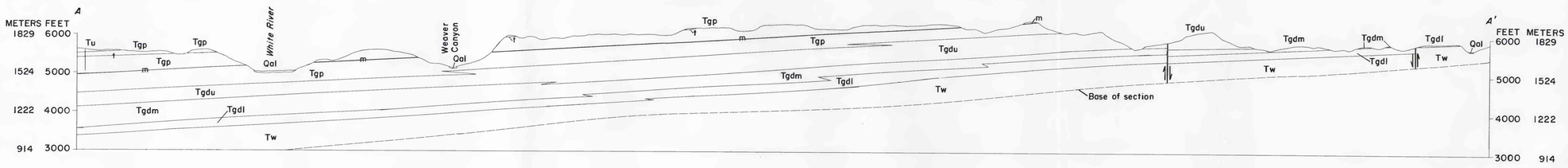
SCALE 1:24 000

1 MILE
1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
1 5 0 1 KILOMETER

CONTOUR INTERVAL 40 FEET
DOTTED LINES CROSSING RIVERS REPRESENT 20-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

UTM GRID AND 1968 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

QUADRANGLE LOCATION



LIST OF DRILL HOLES

Map No.	Operator and name of well	Depth of hole feet	Depth of hole meters	Formation or age reached
1	Mountain Fuel Supply 13	4,417	1,346.3	Mancos Shale.
2	Phillips Petroleum Co., Hells Hole Canyon 1	12,580	3,834.4	Madison Limestone.
3	Phillips Petroleum Co., Canyon B 1	7,913	2,411.9	Entrada Sandstone.
4	Roy Johnson, Gov't 1	2,495	760.5	Mesaverde Formation.
5	Johnson-Bunn Stanolind, Gov't Barrows 2	2,803	854.5	Mancos Shale.
6	Phillips Petroleum Co., Hells Hole 1C	3,320	1,012.0	Mancos Shale.
7	Phillips Petroleum Co., Watson B 1	13,583	4,126.4	Mississippian.
8	Johnson-Bunn, Watson 4	1,212	369.4	Not known.
9	General Petroleum Corp. 37-4	486	148.1	Green River Formation.
10	General Petroleum Corp. 42-12	266	81.1	Green River Formation.
11	General Petroleum Corp. 55-15	146	44.5	Green River Formation.
12	Oil, Inc. 2	4,524	1,379.0	Mancos Shale.
13	Oil, Inc. Federal "E" 1-35	3,985	1,214.6	Mancos Shale.
14	General Petroleum Corp. 35-28	450	137.2	Green River Formation.
15	Skyline Oil Co. Watson 3	470	143.3	Green River Formation.

GEOLOGIC MAP OF THE WEAVER RIDGE QUADRANGLE, UINTAH COUNTY, UTAH AND RIO BLANCO COUNTY, COLORADO

By
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1977

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