DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

MISCELLANEOUS FIELD STUDIES
MAP MF-570

Base from U.S. Geological Survey, 1952

Geology mapped in 1969-70

SCALE 1:24 000

1 0 ½ 1 MILE

1 0 1 5 1 KILOMETER

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

APPROXIMATE MEAN DECLINATION, 1952

COLORADO

QUADRANGLE LOCATION

PRELIMINARY GEOLOGIC MAP OF THE SEGAR MOUNTAIN QUADRANGLE, RIO BLANCO COUNTY, COLORADO

By
Robert B. O'Sullivan

1974

CORRELATION OF MAP UNITS

Qal	Holocene	QUATERNARY
Tuh, Tgb, Tgt, Tgd, Tu	Eocene	TERTIARY
Tgp, M, Tgp, Tga		
Tw		

DESCRIPTION OF MAP UNITS

Qal ALLUVIAL DEPOSITS (HOLOCENE)--Unconsolidated deposits of valley fill

Tu UINTA FORMATION (EOCENE)--Mostly brown and gray tuffaceous and argillaceous sandstone and siltstone and some light-gray marlstone. Uinta Formation is as much as 1,200 feet (365.8 m) thick in sec. 31, T. 1 S., R. 95 W., but top of formation is present surface of erosion. Uinta Formation (Cashion and Donnell, 1974) replaces the formerly used term Evacuation Creek Member of Green River Formation in Piceance Creek basin

Tuh Upper marker bed--Light-gray marlstone, variable silty and sandy, 10-15 feet (3-4.5 m) thick; forms conspicuous marker bed near top of Uinta Formation; only the base of marker bed is shown

GREEN RIVER FORMATION (EOCENE)--Tongues of Green River Formation described in Duncan and others (1973)

Tgb Black Sulphur Tongue--Light-gray silty marlstone, 30-60 feet (9.1-18.3 m) thick; grades northward into Uinta Formation. Only the base is shown

Tgt Thirteenmile Creek Tongue--Mostly light-gray marlstone, variable silty; light-brown sandstone in beds as much as 25 feet (7.6 m) thick; locally ostracodal beds. 60-200 feet (18.2-61 m) thick. Only the base is shown

Tgd Dry Fork Tongue--Light-gray silty marlstone; 20 feet (6.1 m) thick; exposed only in northwestern part of quadrangle. Only the base is shown

Tgp Parachute Creek Member--Mostly massive to platy marlstone that weathers light gray; several beds of dark-brown, gray, and bluish-gray oil shale; numerous thin yellowish-brown tuff beds; some light-gray and light-brown sandstone beds as much as 18 feet (5.5 m) thick, particularly in the lower part of the member. Near the NE 1/4 sec. 15, T. 1 S., R. 95 W., member is 436 feet (133 m) thick and thickens westward and southward

M Mahogany oil-shale ledge--Near the NE 1/4 sec. 15, T. 1 S., R. 95 W., the Mahogany is 10.5 feet (3.2 m) thick and contains an estimated 10 to 15 gallons of oil per ton; thickens and becomes richer westward and southward. Only the top is shown

Tga Anvil Points Member--Mostly light-gray, light-tan, and dark-brown fine- to coarse-grained, locally conglomeratic, sandstone and interbedded gray and tan siltstone and shale; minor light-tan and yellowish-gray ostracodal limestone. In Puckett Gulch, member is 1,933 feet (589.2 m) thick and thins westward

Tw WASATCH FORMATION (EOCENE)--Gray and tan fine- to coarse-grained sandstone and gray, greenish-gray, reddish-brown, and red shale and silty shale. Only upper part of formation is poorly exposed in northeast part of quadrangle

Contact--Dashed where approximately located

U/D Fault--Dotted where concealed. U, upthrown side; D, downthrown side

7000 Structure contours--Drawn on top of Mahogany ledge (drawn by A. C. Austin, 1971, modified locally by R. B. O'Sullivan). Approximately located. Contour interval 100 feet (30.5 m)

Drill hole

1. Petroleum Inc. 1 Helmke-Government; TD (total depth) 3,275 feet (998.2 m)
2. Apache Oil Corp. 1 Government; TD 3,910 feet (1,191.8 m)
3. General Petroleum Corp. 27-8 Government; TD 3,429 feet (1,045.2 m)
4. General Petroleum Corp. 52-18 Government; TD 3,700 feet (1,127.8 m)
5. General Petroleum Corp. 24-12 Government; TD 3,736 feet (1,138.7 m)

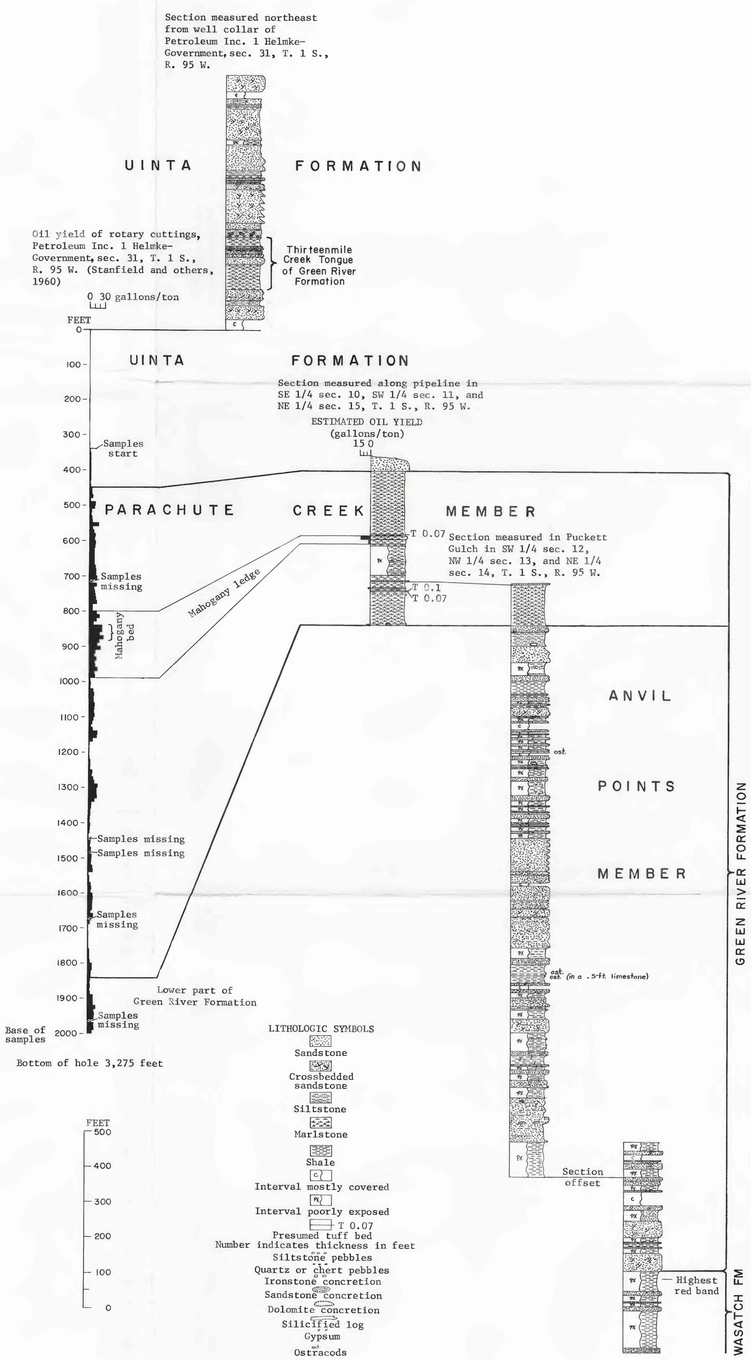
REFERENCES

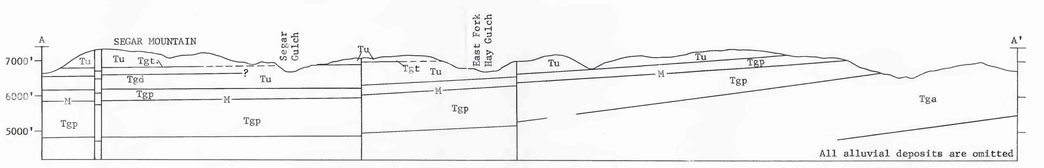
Austin, A. C., 1971, Structure contours and overburden on the top of the Mahogany zone, Green River Formation, in the northern part of the Piceance Creek basin, Rio Blanco County, Colorado: U.S. Geol. Survey Mineral Inv. Map MF-309.

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.

Duncan, D. C., Hail, W. J., Jr., O'Sullivan, R. B., and Pipiringos, G. N., 1974, Four newly named tongues of Eocene Green River Formation, northern Piceance Creek basin, Colorado: U.S. Geol. Survey Bull 1394-F.

Stanfield, K. E., Smith, J. W., Smith, H. N., and Robb, W. A., 1960, Oil yields of sections of Green River oil shale in Colorado, 1954-57: U.S. Bur. Mines Rept. Inv. 5614.





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