

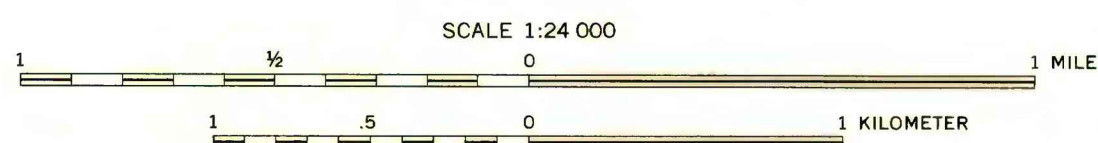
105 07 30

47 07 30



Base from U. S. Geological Survey

Geology mapped in 1980 and 1981



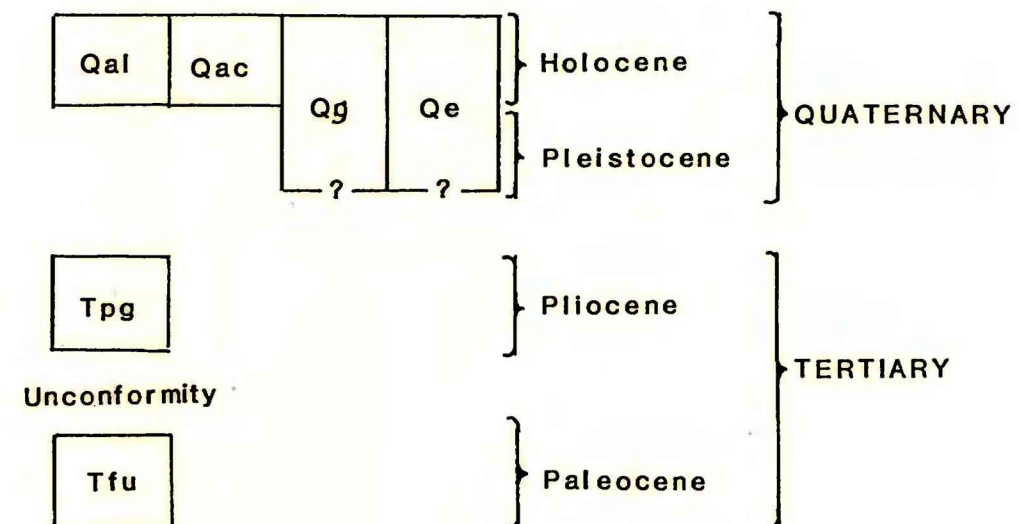
GEOLOGIC MAP OF THE UPPER CRACKER BOX SCHOOL QUADRANGLE, DAWSON COUNTY, MONTANA

By

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1994

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Qal Alluvium (Holocene)**—Light-brown and gray, well-stratified and well-sorted clay, silt, sand, and gravel. As much as 6 m (20 ft) thick under the flood plain of Clear Creek to less than a few meters under flood plains of tributaries. Unit limited to areas characterized by meander or braided patterns on aerial photographs. Surface of unit may be subject to occasional flooding.
- Qac Alluvium and colluvium (Holocene)**—Light-brown and gray, poorly sorted and well-stratified clay, silt, sand, and gravel deposited by slope wash and gravity processes. As much as 10 m (33 ft) thick, but generally less than 5 m (16 ft). The color and texture of the colluvium reflect the parent material upslope. May interfinger with alluvium; includes local alluvial fans and much windblown clay, silt, and sand. Soil profiles from well-developed to poorly developed.
- Qe Eolium (Holocene to Pleistocene)**—Light- to moderate-brown windblown sand and silt deposits. As much as 5 m (16 ft) thick, but generally less than 2 m (6 ft).
- Qg Sand and gravel, undivided (Holocene to Pleistocene)**—Light-brown to light-gray, well-stratified to poorly stratified and well-sorted to poorly sorted sand and gravel. Thickness as much as 5 m (16 ft), but generally less than 3 m (10 ft).
- Tpg Sand and gravel, undivided (Pliocene)**—Light-brown to light-gray, well-stratified and well-sorted sand and gravel. Thickness locally as much as 24 m (80 ft), but generally less than 13 m (43 ft). Unit generally limited to altitudes above 860 m (2,820 ft). May contain some Pleistocene sand and gravel.
- Tfu Tongue River Member (Collier and Knechtel, 1939) of Fort Union Formation (Paleocene)**—Yellowish- and light-brown shale and sandstone containing numerous lignite beds. Estimated thickness in quadrangle is more than 122 m (400 ft).

- W Water**
- Contact**—Dashed where approximately located

REFERENCE

Hance, J.H., 1910, The Glendive lignite field, Dawson County, Montana: U.S. Geological Survey Bulletin 471-D, p. 271-283.

JOHNSON COULES EAST 88-610	BRACKWAY NE 88-631	YOUNGQUIST MINE 88-627	CIRCLE 88-630	WOODWORTH HILL 88-626	OLSON COULES NORTH 88-620	JOHNSON RESERVOIR NW 88-613	JOHNSON RESERVOIR NE 88-611
BEAUTY CREEK 88-636	BRACKWAY 88-623	CIRCLE SW 88-629	QUICK RESERVOIR 88-618	MOUNT ANTELOPE 88-616	OLSON COULES SOUTH 88-621	DEER CREEK CHURCH 88-628	JOHNSON RESERVOIR 88-609
BERRY SCHOOL 88-632	WATKINS 88-621	SHEEP MOUNTAIN 88-622	BEARHACK CREEK 88-634	DIAMOND G BUTTE 88-607	UNION SCHOOL 88-617	LINDSEY 88-614	WOODROW 88-625
HEITZ SCHOOL 88-608	WATKINS SE 88-624	SHEEP MTN 88-629	BECKER DAM 88-633	NORTH COULES 88-619	DIAMOND G BUTTE 88-635	LINDSEY SW 88-615	UPPER CRACKER BOX SCHOOL 88-612

INDEX TO QUADRANGLES IN THE CIRCLE 30' x 60' QUADRANGLE. MAPPED
QUADRANGLE SHOWN BY STRIPES; NUMBERS ARE OPEN-FILE NUMBERS

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