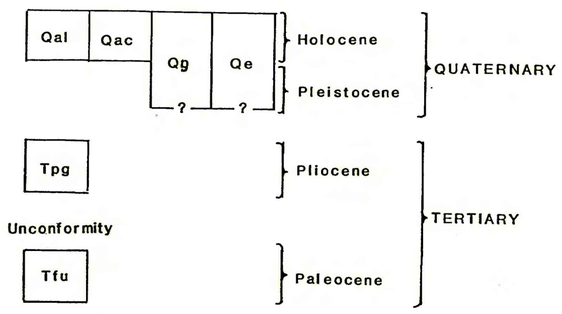
Prepared in cooperation with the
MONTANA BUREAU OF MINES AND GEOLOGY




Base from U. S. Geological Survey

Geology mapped in 1980 and 1981

## 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. Unit limited to areas characterized by meander or braided patterns on aerial photographs. Surface of unit may be subject to occasional flooding. Thickness ranges from as much as 6 m (20 ft) under the flood plains of Redwater River and Horse Creek to less than a few meters under the flood plains of tributaries

Qac **Alluvium and colluvium (Holocene)**--Light-brown and gray, poorly sorted and poorly stratified clay, silt, sand, and gravel deposited by gravity and slope wash. The color and texture of the colluvium reflect the parent material upslope. May interfinger with alluvium; includes alluvial fans and much windblown clay, silt, and sand. Soil profiles range from well-developed to poorly developed As much as 10 m (33 ft) thick, but generally less than 5 m (16 ft)

Qe **Eolium (Holocene to Pleistocene)**--Light- to moderate-brown windblown sand and silt deposits as much as 5 m (16 ft), but generally less than 2 m (6 ft) thick

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. Generally limited to altitudes less than 3 m (10 ft). As much as 5 m (16 ft) thick, but generally less than 3 m (10 ft)

Tpg **Sand and gravel, undivided (Pliocene)**--Light-brown to light-gray, well-stratified and well-sorted to poorly sorted sand and gravel. Thickness as much as 10 m (33 ft), but generally less than 3 m (10 ft)

Tfu **Tongue River Member (Collier and Knechtel, 1939) of Fort Union Formation (Paleocene)**--Yellowish- or light-brown shale and sandstone containing numerous lignite beds. Maximum exposed thickness estimated to be more than 100 m (330 ft)

w **Water**

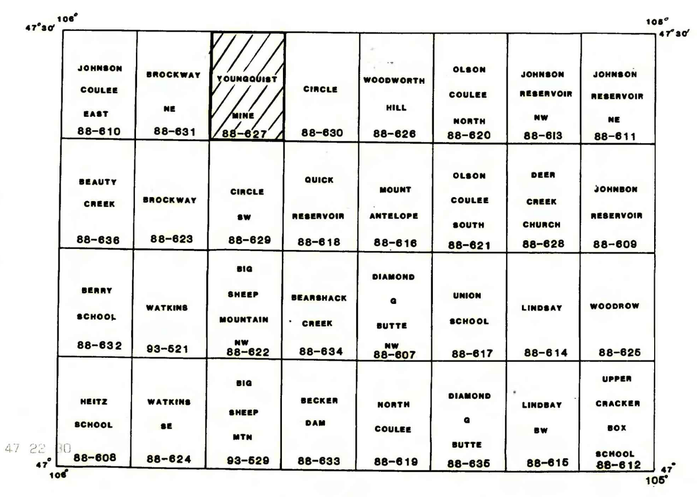
**Contact**--Dashed where approximately located

**Abandoned coal mine**

**Gravel pit**

## REFERENCE

Collier, A.J., and Knechtel, M.N., 1939, The coal resources of McCone County, Montana: U.S. Geological Survey Bulletin 905, 80 p.




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

SCALE 1:24 000

1 ½ 0 1 MILE

1 .5 0 1 KILOMETER



# GEOLOGIC MAP OF THE YOUNGQUIST MINE QUADRANGLE, MCCONE COUNTY, MONTANA

By

R.B. Colton, J.P. McGraw, and D.K. Bozeman

1994