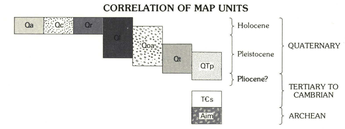
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

BULLETIN 1816
PLATE 1

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

Qa **Younger alluvium (Holocene)**—Sand, silt, clay, and gravel within channel or meander belt of creeks and rivers; clay, silt, and sand in Lake DeSmet. Mapped with older alluvium in upper parts of valleys. Estimated maximum thickness 15 m

Qc **Colluvium (Holocene)**—Nonsorted and poorly sorted sand, silt, clay, and sparse gravel derived locally through mass wasting, slope wash and talus. Only larger and thicker masses mapped; at sides and heads of valleys mapped with older alluvium. Estimated maximum thickness 3 m

Qr **Residuum (Holocene)**—Silt, clay, and fine sand on upland flats and in small closed basins formed by weathering in place; includes some windblown sediment. Estimated maximum thickness 3 m

Qls **Landslide deposits (Holocene and Pleistocene)**—Surficial deposits and bedrock that have fallen, slumped, or flowed down moderate to steep slopes, especially those weakened by water and undercutting. Estimated maximum thickness 9 m

Qoa **Older alluvium (Holocene and Pleistocene)**—Sand, silt, clay, and minor gravel transported by creeks and rivers and deposited in valleys; includes buried fossil soils (paleosols) found at five localities and dated at three localities. Estimated maximum thickness 26 m

Qt **Terrace gravels (Pleistocene)**—Remnants of pebble and cobble gravels graded to and lying 5–130 m above rivers and creeks; matrix of sand and silt locally cemented by calcium carbonate dated at two places by uranium-to-thorium ratio method. Estimated maximum thickness 7 m

QTp **Pediment gravels (Pleistocene and Pliocene?)**—Boulder gravels in a coarse sand matrix which is at most places yellowish-brown from hydrous iron oxides; subround and round pebbles, cobbles, and boulders of igneous, metamorphic, and resistant sedimentary rocks on beveled bedrock surfaces 30–180 m above creeks. Estimated maximum thickness 15 m

TCs **Sedimentary rocks (Tertiary to Cambrian)**—Continental and marine rocks ranging from fine clastic coal-bearing, conglomeratic Wasatch Formation of Eocene age to Flathead Sandstone of Cambrian age

Aim **Igneous and metamorphic rocks (Archean)**—Quartz diorite, quartz monzonite, diabase, gneiss, schist, and quartzite

Contact

Area of subsidence over abandoned coal mines

C1 × Calcrete sampled for uranium/thorium dating

D7 × Paleosol not sampled

P13 × Paleosol sampled for uranium-trend dating

W-5312 × Wood sampled for ^{14}C dating

Base from U.S. Geological Survey and U.S. Bureau of Land Management, 1979
Projection and 10,000-meter grid, zone 13, Universal Transverse Mercator
25,000-foot grid ticks based on Wyoming coordinate system, east central zone. 1927 North American datum

APPROXIMATE MEAN DECLINATION, 1988

SCALE 1:100 000

1 ½ 0 1 2 3 4 5 MILES

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 20 METERS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

WYOMING
QUADRANGLE LOCATION

Surficial geology mapped by E. N. Hinrichs, 1981 and 1982. Assisted by D. W. Rodgers, 1981

MAP SHOWING SURFICIAL GEOLOGY OF THE SHERIDAN 30′ × 60′ QUADRANGLE, WYOMING AND MONTANA