

EXPLANATION

- Qal Alluvium—Unconsolidated sil. sand and gravel
- Qtu Cady Terrace—Unconsolidated sil. and sand, commonly capped by pebbles and cobbles. This is the most extensive and highest of a series of terraces about 100 to 160 feet above the Snake River.
- Qm Undifferentiated terrace deposits—Fragmentary terrace deposits along the Big Horn and Snake Rivers and Little Dry Creek. Sil. and sand deposits with gravel caps.
- Qs Undifferentiated pediment and interstream bench deposits—Sloping surfaces of or on bedrock and usually mantled with rock fragments.
- Ttu Fort Union Formation—Light gray to buff sandstone, locally conglomeratic; interbedded with gray and carbonaceous shale; thin coal beds in basal section.

QUATERNARY
TERTIARY
PALEOZOIC

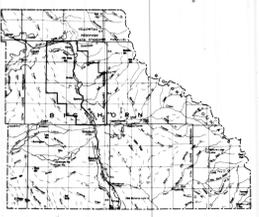
- Kl Lower Formation—Massive buff and gray sandstone, locally crossbedded and lenticular, alternating with gray shale. Large spherical concretions common. Occasional bone fragments common at base and top. Thickness about 600 feet.
- Km Metcalf Formation—Poorly consolidated sandstone, carbonaceous siltstone and shale, bentonite in lower half. Upper half consists of sandstone, lower, ledge-forming, thin interbeds of gray shale. Thickness about 900 feet.
- Kmb Probably equivalent to Bearpaw Shale—Lenses of sandstone, brown-weathering resistant, gray sandstone, interbedded with thin gray shale. Sandstone lenses with distinct banding appearance and have prominent bedding plane markings on weathered surfaces. Carbonaceous siltstone, uppermost 100 feet is buff to white-weathering fluted sandstone with thin gray and carbonaceous shale. Thickness about 450 feet.
- Kms Poorly consolidated gray to buff sandstone, interbedded with brown carbonaceous siltstone and shale with locally coaliferous plane remains. Numerous thin bentonite beds. Valley-forming sequence. Thickness about 450 feet.
- Kmw Meander Formation—Sandstone, buff to gray, interbedded with gray shale, some carbonaceous shale in uppermost beds. Thickness about 1250 feet.
- Kmvi Probably Judith River Formation equivalent—Lowermost 500 feet consists of buff to gray sandstone, ledge-forming and massive in part, thin interbeds of gray shale. Lenticular limestone block sand deposits found locally in lower beds. Overlain by about 120 feet of gray shale. Lower carbonaceous siltstone and buff sandstone. Uppermost 140 feet is mostly buff, massive sandstone. Uppermost bed has numerous concretions and weathered dark reddish brown. Thickness about 760 feet.
- Kmwv Chagater shale equivalent—Dark gray shale with thin interbeds of gray sandstone. Thickness about 150-200 feet.
- Kmwvi Probably Sage Sandstone equivalent—Sandstone, buff to light gray, alternates with thin, gray, sandy shale. Chert pebbles conglomeratic, lenticular at top. Thickness about 300-330 feet.
- Kc Cady Shale—Shale, light to dark gray, carbonaceous in lower half, locally fossiliferous. Uppermost beds consist of sandstone, shale and thin bentonite beds. Thickness about 2230 feet.
- Kch Uppermost 330 feet of the Cady Shale—Fossiliferous, buff to olive sandstone at base, about 50 feet thick, may be equivalent of the Elbow Sandstone Member of the Telegraph Creek Formation. Overlain by gray shale and olive to buff glauconitic sandstone, bentonite beds near top.

- Kka Lowermost 1900 feet of Cady Shale—Mainly gray shale, carbonaceous in lower part. Spherulitic concretions at several levels are commonly fossiliferous.
- Kk Fossiliferous—Uppermost 80 feet is nonresistant gray sandstone with large sandstone concretions, equivalent to the Telegraph Sandstone Member. Underlain by black chert pebbles conglomeratic and sandy concretionary siltstone and shale. Remainder of formation is gray sandstone and shale with bentonite and chert pebbles conglomeratic material. Upper Sandstone Member is about 80 feet above base and 7 feet Sacco bentonite bed, which is toward the top, is about 200 feet above the base. Thickness about 600 feet.
- Km Mowry Shale—Dark gray, commonly siliceous, shale, weathering bluish white. Numerous interbedded bentonite beds 3 feet or less in thickness. Resistant, forms scars. Numerous sandstone shales and thin shales. Clay lenses bentonite bed equivalent, 5 foot thick, lies about 50 feet below top. Thickness about 330 feet.
- Kt Thermopile Shale—Black to dark gray shale. Many very thin bentonite beds in upper part. Light gray sandstone in middle of formation probably is Muddy Sandstone Member. Round siltstone concretions near and at base. Thickness about 500 feet.
- Klm Chislev and Morrison Formations—Chislev Formation consists of "bumpy beds" with thin sandstone beds, sandstone and dark gray shale, weathering bluish white, equivalent to the Emery Tongue of the Park City Formation. Lowermost 130 feet is mostly red shale with some brown, dolomite, thin phosphatic and blue gray chert at top. Unit is probably equivalent to the Phosphatic Formation to the west. Formation thickness is about 370 feet.
- Km Morrison Formation consists of pale green and carbonaceous shale, sandstone, and white, lenticular, ledge-forming sandstone beds. Combined thickness of Chislev and Morrison Formations about 620 feet.
- Ks Sandstone Formation—Gray-green sandstone, siltstone and shale with thin fossiliferous limestones. Resistant glauconitic, crossbedded sandstone at top. Thickness about 370 feet.
- Kp Gypsum Spring Formation—Red-brown silty shale with interbedded gypsum, limestone and dolomite. Massive, white gypsum bed at base. Thickness about 200 feet.
- Kc Chugwater Formation—Red to maroon shale and siltstone; thin sandstone beds near top; few thin gypsum and dolomite lenses. Thickness about 600 feet.
- Kpy Goose Egg Formation—Uppermost 50 feet is greenish-gray shale, some dolomite and gypsum equivalent to the Unwoody Formation. Middle unit is about 90 feet of gray, resistant cherty dolomite limestone and dolomite equivalent to the Emery Tongue of the Park City Formation. Lowermost 130 feet is mostly red shale with some brown, dolomite, thin phosphatic and blue gray chert at top. Unit is probably equivalent to the Phosphatic Formation to the west. Formation thickness is about 370 feet.
- Pt Lowermost Sandstone—Sandstone, light gray, crossbedded, cherty, interbedded with white dolomite, green shale and chert. Thickness about 105 feet.
- Pa Ansdon Formation—Interbedded shale, dolomite and sandstone with white to tan cherty dolomite in upper part; red shale with lenses of siltstone, iron ore in middle and Devon Sandstone Member at base. Thickness about 170 feet.
- Mm Madison Limestone—Gray and cream to brown limestone and dolomite. Thickness about 780 feet. Lowermost beds not exposed in map area.

MULTIPLY FEET BY 0.3048 TO OBTAIN METERS

LOWER CRETACEOUS
UPPER JURASSIC
MIDDLE JURASSIC
TRIASIC
PERMIAN
MISSISSIPPIAN
CARBONIFEROUS

Note from U.S. Geological Survey, Bear Creek Ranch and Creek Station, 1907; Kane and Lovell, 1904; Adams Creek, Central Canyon, Embury, St. Charles, North Indian Reservoir, Sheep Canyon, and Spence, 1906



EXPLANATION OF MAP SYMBOLS

- CONTACT - Dashed where approximately located or inferred
- FAULT - U, upthrown side; D, downthrown side. Dashed where approximately located or inferred
- THURST FAULT - Dashed on upper plate. Dashed where approximately located or inferred
- ARTICULINE - Showing crestline. Dashed where approximately located or inferred
- SYMBLINE - Showing troughline. Dashed where approximately located or inferred
- STRIKE AND DIP OF BEDS
 - Inclined
 - Overturned
 - Vertical
- SLIP OF BEDS AT FLEXION CONTACT
- SANDSTONE BEDS OR CHANNELS
- TERRACED SANDSTONE
- MINE OR QUARRY
- CLAY PIT OR STRIP MINE
- GRAVEL PIT
- WATER WELL - Abandoned
- PROSPECTS
- OIL AND GAS WELL SYMBOLS
 - Dry hole
 - Oil well
 - Gas well
 - Injection well

Wells drilled prior to 1925 and after 1960 are only approximately located; all wells not plotted within the base line of this map.

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GEOLOGIC MAP OF THE SHEEP MOUNTAIN-LITTLE SHEEP MOUNTAIN AREA, BIG HORN COUNTY, WYOMING

by Robert L. Rioux

1994

