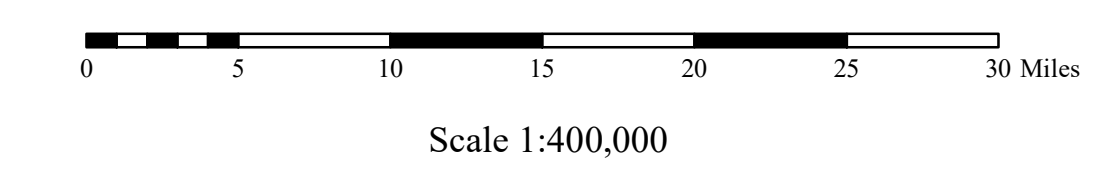


Hydrogeology - Powder, Tongue, and Northeast River Basins Wyoming, Montana, Nebraska, and South Dakota

compiled by
Timothy T. Bartos and James E. Stafford



Magnetic Declination = 8° 39' E
at center of map
(October 31, 2017)

Explanation

- Interstate highway
- U.S. highway
- State highway
- City or town
- Township boundary
- County boundary
- State boundary
- Lake or reservoir
- River or creek
- Normal fault—dotted where concealed
- Thrust fault—dotted where concealed

Hydrogeology

Hydrogeologic Units - Compiled from Plates 4, 5, and 6

- CENOZOIC**
 - Quaternary
 - Quaternary unconsolidated deposit aquifer
 - Quaternary-Tertiary
 - Unconfined Quaternary-Tertiary glacial deposits
 - Tertiary
 - Unconfined Upper Miocene
 - Unconfined Lower Miocene
 - Unconfined Lower Miocene and Upper Oligocene
 - White River aquifer and confining unit
 - Unconfined Wagon Bed
 - Unconfined gross volcanic
 - Wind River aquifer
 - Wasatch aquifer
 - Unconfined Indian Meadows
 - Fort Union aquifer
 - MESOZOIC**
 - Cretaceous
 - Lance aquifer
 - Fox Hills aquifer
 - Harpor confining unit
 - Fox Hills aquifer and Lewis confining unit
 - Meteorite aquifer and Lewis and Harpor confining units
 - Porre confining unit
 - Mesa Verde aquifer
 - Cody confining unit
 - Nobles confining unit
 - Nobles and Carlie confining units
 - Carlie confining unit
 - Frontier aquifer
 - Frontier aquifer and Thermopsis confining unit
 - Greenhorn confining unit and unconfined Belle Fourche
 - Mowry confining unit
 - Mowry and Thermopsis confining units
 - Skull Creek confining unit
 - Cretaceous-Jurassic
 - Clovely and Inyan Kara aquifers, and Morrison confining unit
 - Clovely and Sundance aquifers, and Morrison and Ogypus Spring confining units
 - Clovely and Sundance aquifers, and Morrison confining unit
- MESOZOIC (continued)**
 - Ogypus Spring confining unit
 - Triassic
 - Chugwater confining unit and unconfined Thimbleweed
 - Chugwater confining unit
 - MESOZOIC AND PALEOZOIC**
 - Triassic-Permian
 - Spearfish aquifer
 - Close Egg confining unit
 - PALEOZOIC**
 - Unconfined
 - Missoula, Minneka, Madison, and Pahasapa aquifers, Ojueche confining unit, and unconfined Englewood and Dethy
 - Permian
 - Phosphoria aquifer and confining unit
 - Missoula aquifer and Ojueche confining unit
 - Permian-Pennsylvanian
 - Hartsville aquifer
 - Missoula aquifer
 - Permian-Mississippian
 - Tensleep aquifer and unconfined Arden
 - Mississippian-Devonian
 - Madison aquifer
 - Carney aquifer
 - Pahasapa aquifer and unconfined Englewood
 - Mississippian-Ordovician
 - Madison and Big Horn aquifers
 - Ordovician-Cambrian
 - Highgate, Deadwood, and Flathead aquifers, Wainwright confining unit, and unconfined Ordovician-Cambrian
 - Ordovician
 - Highgate aquifer
 - Cambrian
 - undifferentiated Cambrian
 - PRECAMBRIAN**
 - Precambrian basal confining unit

Map Projection: Universal Transverse Mercator (UTM), zone 12
False Easting: 500000, False Northing: 0
Central Meridian: -100.0 degrees West
Linear Unit: Meter
Horizontal Datum: North American Datum of 1983 (NAD 83)

Map layout by James E. Stafford
Map edited by Suzanne C. Lahr

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