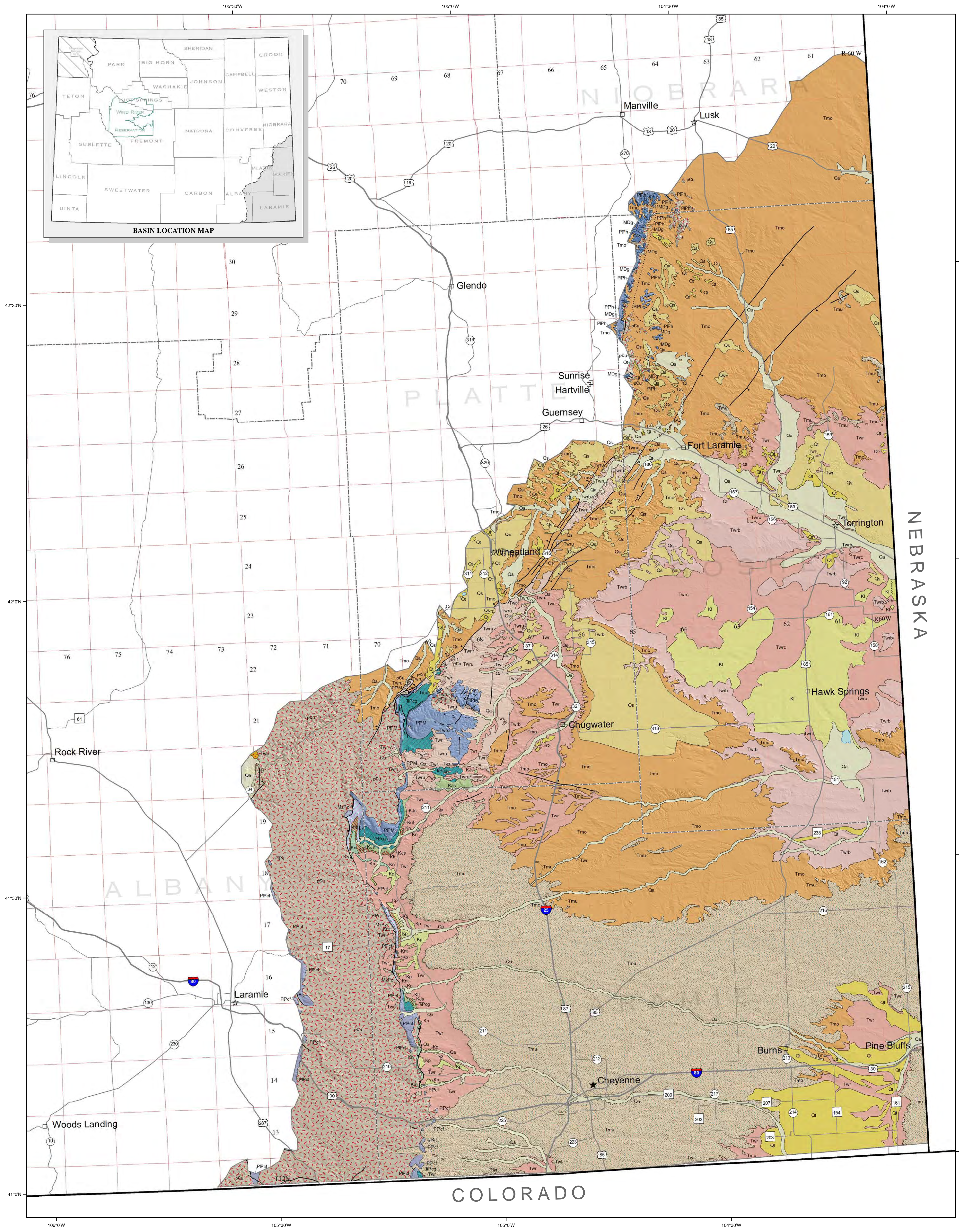


GEOLOGIC MAP OF THE DENVER BASIN, WYOMING



EXPLANATION

- MAP SYMBOLS**
- Formation contact
 - Normal fault — Dotted where concealed; bar and ball on downthrown block; no designation on fault trace indicates undetermined motion
 - Thrust fault — Dotted where concealed; sawteeth on upthrown (tectonically higher) block
 - Slate capital
 - County seat
 - City or town
 - Lake or reservoir
 - Interstate highway
 - U.S. highway
 - State highway
 - County or other road
 - County boundary
 - State boundary

GEOLOGIC UNITS

(Geology enlarged from 1:500,000 scale to improve readability)

- CENOZOIC**
- Quaternary**
- Qa Alluvium and colluvium
 - Qf Gravel, pediment, and fan deposits
 - Qs Dune sand and loess
 - Qp Playa lake and other lacustrine deposits
- Tertiary**
- Tmu Upper Miocene rocks
 - Tmo Lower Miocene and upper Oligocene rocks
 - Twr White River Formation
 - Twu Upper conglomerate member
 - Twb Brule Member
 - Twc Chadron Member
 - Twd Wagon Bed Formation
- MESOZOIC**
- Cretaceous**
- Kl Lance Formation
 - Ksh Fox Hills Sandstone
 - Kp Pierre Shale
 - Kn Niobrara Formation
 - Niobrara and Frontier Formations, and Mowry and Thermopolis Shales
 - Frontier Formation and Mowry and Thermopolis Shales
- Cretaceous and Jurassic**
- KJ Cloverly and Morrison Formations
 - KJs Cloverly, Morrison, and Sundance Formations
- MESOZOIC AND PALEOZOIC**
- MaPz Mesozoic and Paleozoic rocks, undifferentiated
- Triassic and Permian**
- TPog Chugwater and Goose Egg Formations
 - TPg Goose Egg Formation
- PALEOZOIC**
- Permian and Pennsylvanian**
- PPc Casper Formation
 - PPf Casper and Fountain Formations
- Permian, Pennsylvanian, and Mississippian**
- PPM Wells and Amsden Formations
 - PPh Hartville Formation
- Mississippian and Devonian**
- MDg Guernsey Formation—locally includes dolomite and sandstone of Devonian and Cambrian(?) age
- PRECAMBRIAN**
- Prc Precambrian rocks, undifferentiated

DATA REFERENCE

Love, J.D., and Christiansen, A.C., comps., 1985, Geologic map of Wyoming. U.S. Geological Survey, 3 sheets, scale 1:500,000.

BASE MAP REFERENCES

- Bureau of Indian Affairs, 2005, Boundaries—Indian Lands, Raw Data Release, December, 2005: National Atlas of the United States, at <http://nationalatlas.gov/>.
- Bureau of Land Management, 2011, Cadastral National Spatial Data Infrastructure (CadNSDI) Public Land Survey System (PLSS) for Wyoming, at http://www.geocommunicator.gov/geocomm/lsis_home/home/index.htm.
- National Oceanic and Atmospheric Administration, 1985, Digital magnetic declination: National Geophysical Data Center, at <http://www.ngdc.noaa.gov/geomagmodels/struts/calcDeclination>.
- Stoeser, D.B., Green, G.N., Morath, L.C., Heran, W.D., Wilson, A.B., Moore, D.W., and Van Gosen, B.S., 2005, Preliminary integrated geologic map databases for the United States—Central states—Montana, Wyoming, Colorado, New Mexico, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Iowa, Missouri, Arkansas, and Louisiana: U.S. Geological Survey Open-File Report 2005-1351, 18 p.
- U.S. Census Bureau, 1996, Cities, towns, census designated places of Wyoming at 1:100,000, at <http://wygl.wygis.org/wygeolib/catalog/main/home.page>.
- U.S. Census Bureau, 1997, Wyoming roads at 1:100,000, at <http://pincy.wygis.org/wygeolib/catalog/main/home.page>.
- U.S. Geological Survey, 2002, The National Elevation Dataset: Photogrammetric Engineering and Remote Sensing, v. 68, no. 1, at <http://ned.usgs.gov/>.
- Wyoming Geographic Information Science Center, 1997, Internet mapping service: Basemap data for Wyoming: Spatial Data and Visualization Center, at <http://wygl.wygis.org/wygeolib/catalog/main/home.page>.

DISCLAIMERS

Users of these maps are cautioned against using the data at scales different from those at which the maps were compiled. Using this data at a larger scale will not provide greater accuracy and is, in fact, a misuse of the data.

The Wyoming State Geological Survey (WSGS) and the State of Wyoming make no representation or warranty, expressed or implied, regarding the use, accuracy, or completeness of the data presented herein, or of a map printed from these data. The act of distribution shall not constitute such a warranty. The WSGS does not guarantee the digital data or any map printed from the data to be free of errors or inaccuracies.

The WSGS and the State of Wyoming disclaim any responsibility or liability for interpretations made from these digital data or from any map printed from these digital data, and for any decisions based on the digital data or printed maps. The WSGS and the State of Wyoming retain and do not waive sovereign immunity.

The use of or reference to trademarks, trade names, or other product or company names in this publication is for descriptive or informational purposes only, or is pursuant to licensing agreements between the WSGS or State of Wyoming and software or hardware developers/vendors, and does not imply endorsement of those products by the WSGS or the State of Wyoming.

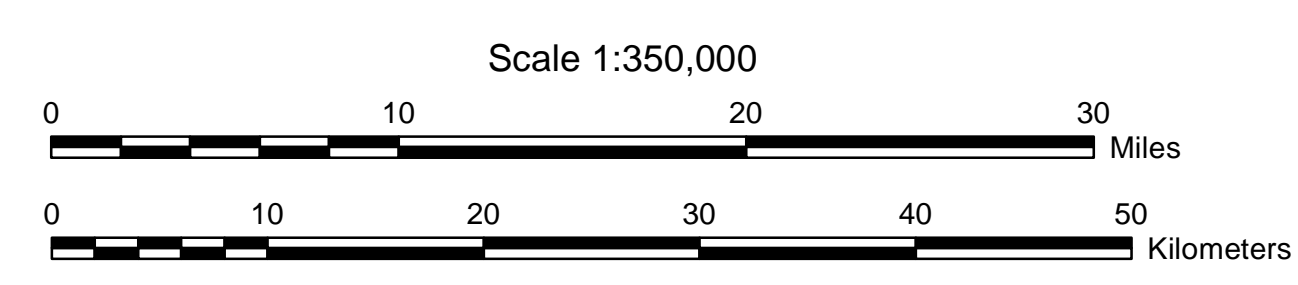
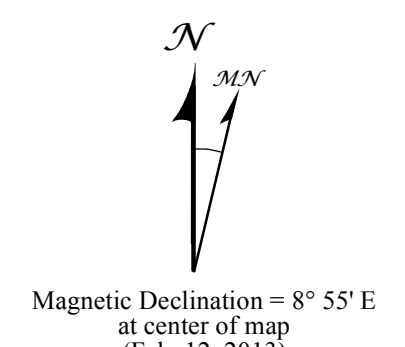
NOTICE TO USERS OF INFORMATION FROM THE WYOMING STATE GEOLOGICAL SURVEY

The WSGS encourages the fair use of its material. We request that credit be expressly given to the "Wyoming State Geological Survey" when citing information from this publication. Please contact the WSGS at 307-766-2286, ext. 224, or by email at wsgs.sales@wyo.gov if you have questions about citing materials, preparing acknowledgments, or extensive use of this material. We appreciate your cooperation.

Individuals with disabilities who require an alternative form of this publication should contact the WSGS. For the TTY relay operator call 1-800-877-9975.

For more information about the WSGS or to order publications and maps, go to www.wsgs.wyo.edu, call 307-766-2286, ext. 224, or email wsgs.sales@wyo.gov.

Map Projection: Lambert Conformal Conic
 False Easting: 500,000, False Northing: 200,000
 Central Meridian: -107.5 degrees West
 Standard Parallel 1: 41 degrees North
 Standard Parallel 2: 45 degrees North
 Latitude of Origin: 41 degrees North
 Linear Unit: Meter
 Horizontal Datum: North American Datum of 1983 (NAD 83)
 Ellipsoid: Geodetic Reference System 80



Geology modified from Love and Christiansen (1985)
 Digital cartography and layout by Phyllis A. Ranz
 Edited by Suzanne C. Luhr