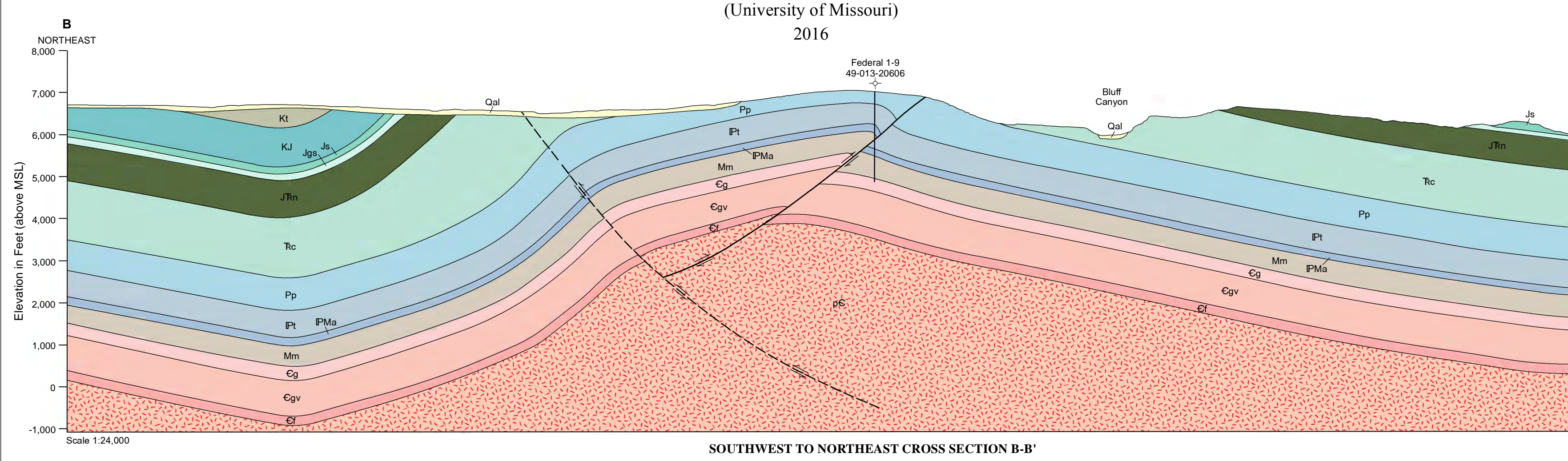


Base map from U.S. Geological Survey 1:24,000-scale topographic map of the Schoettlin Mountain, Wyoming Quadrangle, 1958.
Base hillshade derived from a U.S. Geological Survey file of the National Elevation Dataset (NED), 1/3 arc-second resolution (10 meter) Digital Elevation Model (DEM), 2013, azimuth 319°, sun angle 45°, vertical exaggeration 2.0.
Projection: Universal Transverse Mercator (UTM), zone 12, North American Datum of 1983 (NAD 83).
1,000-meter grid ticks: UTM, zone 12.
10,000-foot grid ticks: Wyoming State Plane Coordinate System, west central zone.
Wyoming State Geological Survey
P.O. Box 1347 - Laramie, WY 82073-1347
Phone: 307-766-2286 - Fax: 307-766-2605
Email: wsgs.sales@wyo.gov

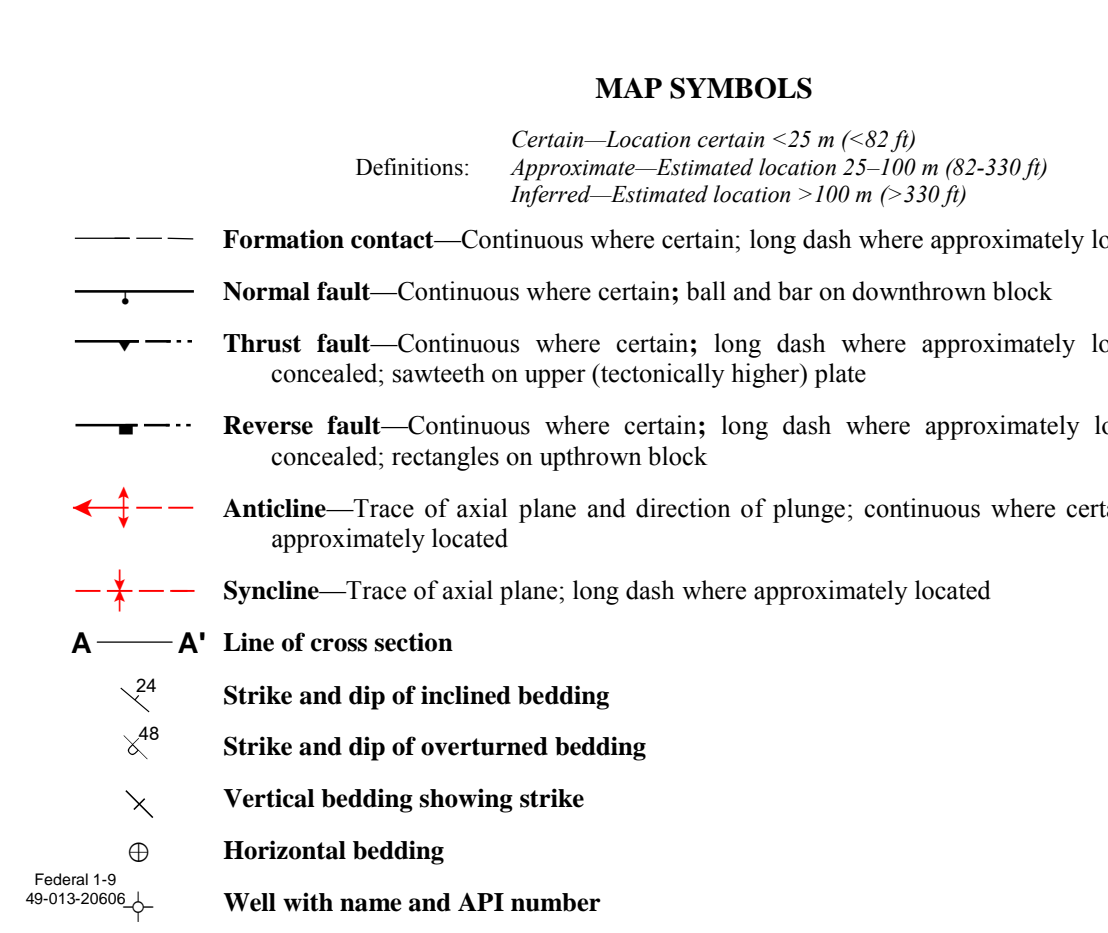
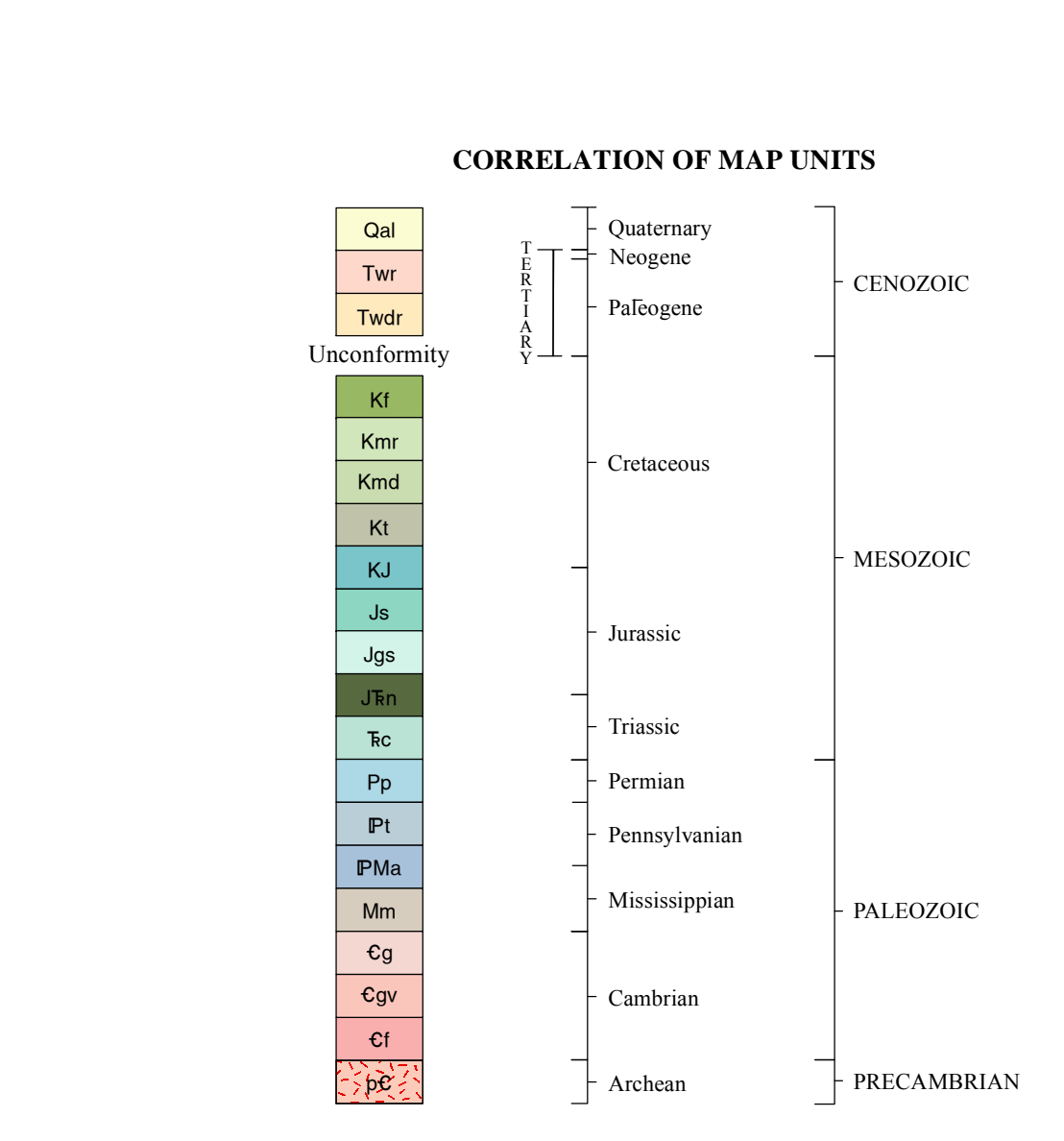
Digital cartography by Robin W. Lyons, Phyllis A. Ranz, and James E. Stafford
Map editing and design by Richard W. Jones and Suzanne C. Luhn
Mapping from William S. Alward thesis, published 2010.
Prepared in cooperation with and research supported by the U.S. Geological Survey, National Cooperative Geologic Mapping Program, under USGS award number G09AC00120. The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the U.S. Government.

PRELIMINARY GEOLOGIC MAP OF THE SCHOETTILIN MOUNTAIN QUADRANGLE,
FREMONT COUNTY, WYOMING

by
William S. Alward and Robert L. Bauer
(University of Missouri)
2016



SOUTHWEST TO NORTHEAST CROSS SECTION B-B'



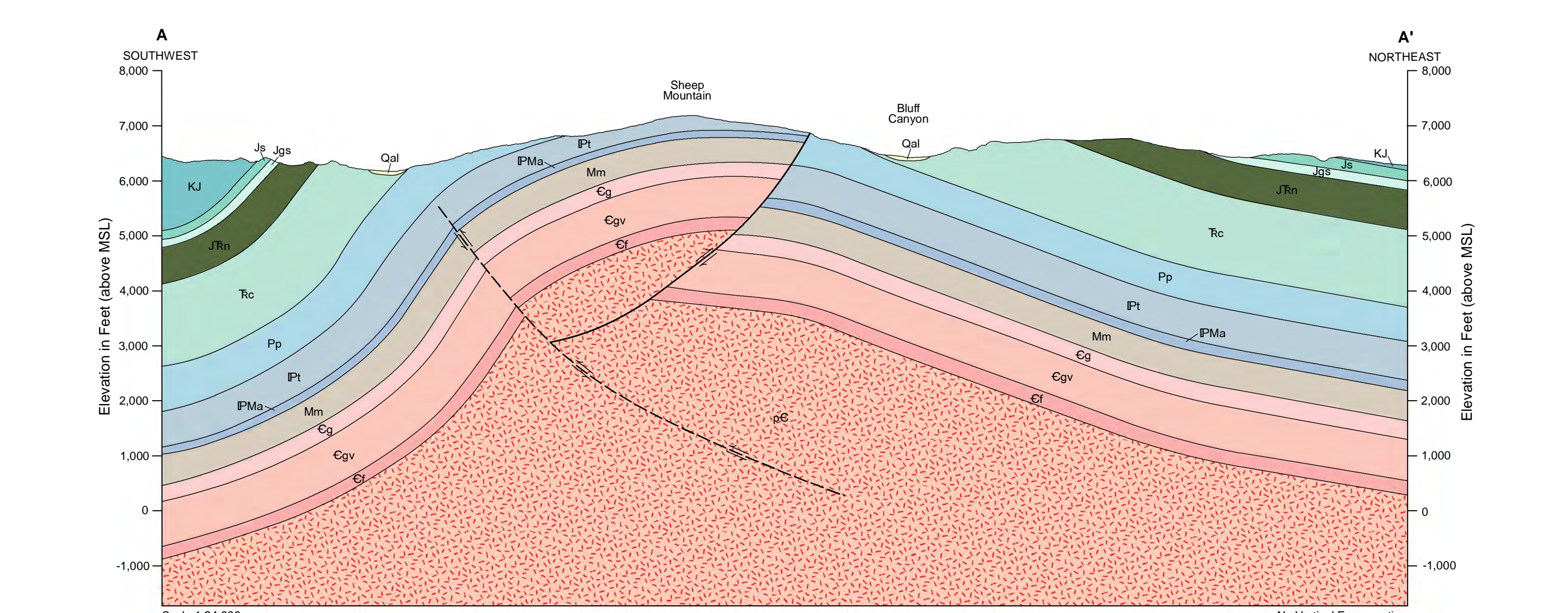
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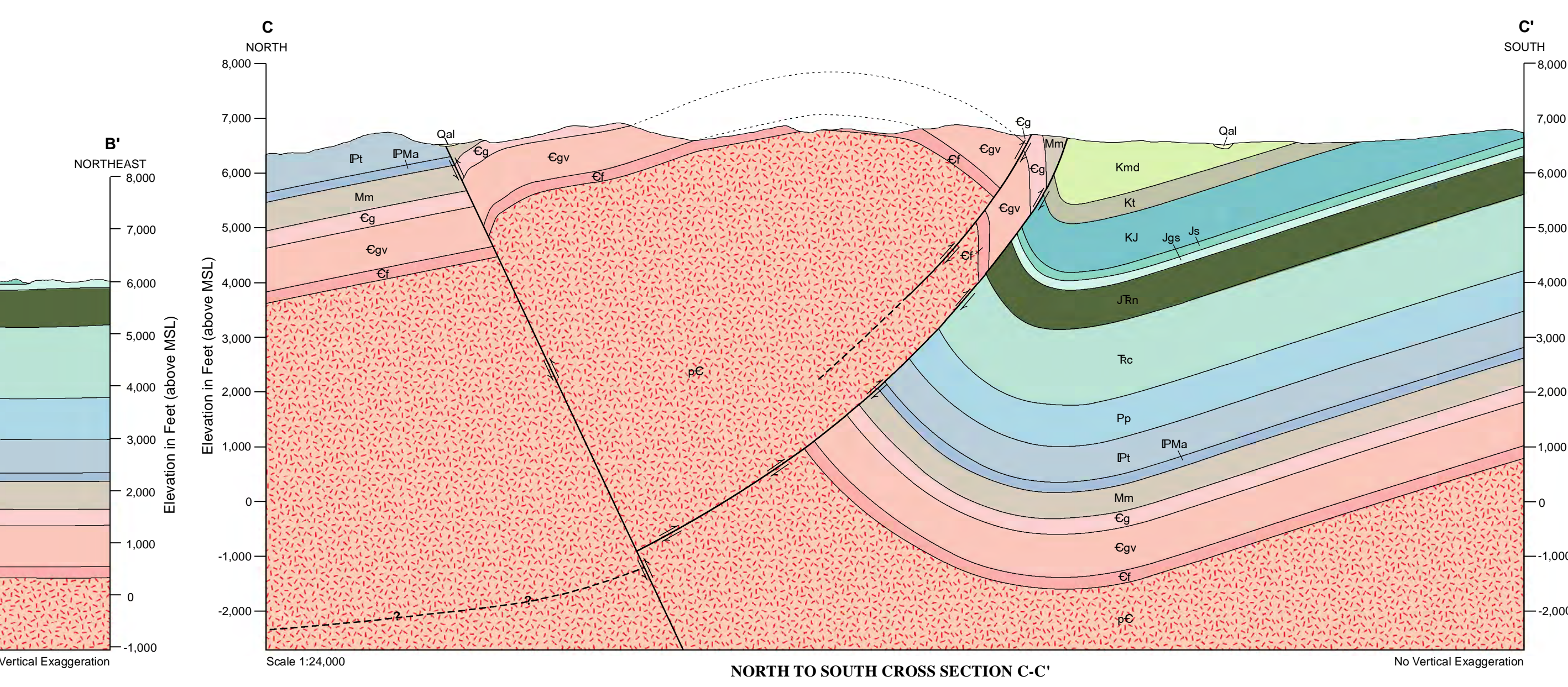
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EXPLANATION	DESCRIPTION OF MAP UNITS
Quaternary	Qal Alluvium —Deposits reworked by fluvial mechanisms during Quaternary time
Tertiary	Twr White River Formation —Alternating succession of light-gray crossbedded conglomerates and massive white mudstones
	Twdr Wind River Formation —Deep-red palcosols and mudstones that commonly fill paleo-valleys
Cretaceous	KJ Frontier Formation —Light-brown fine-grained sandstones interbedded with thick successions of shale and mudstone
	Kmr Mowry Shale —Highly fissile, platy shale, that ranges in color from black to light gray; typically displays a banded vegetation pattern in outcrop
	Kmd Muddy Sandstone —Quartz arenite to locally a siltstone; generally forms resistant ridges or dip slopes in the study area; thickness approximately 25 to 50 ft (8 to 15 m)
	Kl Thermopolis Shale —Valley former throughout the study area composed of organic rich black shales
Lower Cretaceous and Upper Jurassic	KJ Cloverly/Morrison Formations
	Cloverly Formation —Reddish to purple mudstones
	Morrison Formation —Fine- to medium-grained, highly crossbedded sandstone
Jurassic	Jn Sundance Formation —Consists of a basal reddish siltstone which transitions upward into glauconitic, olive-green mudstones; the uppermost Sundance contains fossiliferous limestone and green mudstones
	Jgs Gypsum Spring Formation —Interbedded red siltstone and alabaster gypsum capped by a thin carbonate succession
Lower Jurassic and Upper Triassic	Jn Nugget Sandstone —Upper part is highly crossbedded, white quartz arenite; middle is weakly cemented and friable sandstone valley former; lower is thinly bedded, reddish-brown sandstone with abundant mud cracks and ripple marks
Triassic	Tc Chugwater Group —Consists of Popo Agie, Crow Mountain, Alcova Limestone, and Red Peak members
	Popo Agie and Crow Mountain —hermitic stained, fine-grained sandstones with interbedded purplish-red claystones
	Alcova Limestone —thin, 10 ft (3 m) thick marker bed characterized by algal laminations and irregular bedding surfaces
	Red Peak —thick, massive beds of red sandstone separated by thinly bedded red siltstones and mudstones
Permian	Pp Phosphoria Formation —Interbedded grayish-blue carbonates, calcareous white mudrock, and grayish-blue massive chert layers; forms characteristic, long, grassy dip slopes
Pennsylvanian	Pt Tensleep Sandstone —Thick, porous, fine- to medium-grained white sandstone that weathers to a dark grayish black; approximately 500 ft (150 m) thick. Unit contains large-scale crossbeds with thin ripple-marked interbeds
Lower Pennsylvanian and Upper Mississippian	PMa Ansdan Formation —This valley former is comprised of a basal red sandstone overlain by a purplish-red, massive crystalline limestone
Mississippian	Mm Madison Limestone —Thickly bedded carbonate succession with locally abundant zones of continuous and discontinuous layer parallel chert replacement
Cambrian	Cg Gallatin Limestone —Tan-colored carbonate cliff-former characterized by discontinuous beds of intraformation, edgewise conglomerates that consist of elongate, fine-grained rip-up clasts
	Cgv Gro Ventre Formation —Interbedded siltstone, mudstone, and sandstone that ranges in color from dark gray to light brown. The Gro Ventre Formation forms long, grassy slopes
	Cf Flathead Sandstone —Deep-red arkosic sandstone; typically coarsest at the base and generally fines upward with local development of low-angle crossbedding
Archean	Pc Precambrian basement —Archean granitic gneiss; exposed basement is highly fractured in outcrop

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SOUTHWEST TO NORTHEAST CROSS SECTION A-A'



NORTH TO SOUTH CROSS SECTION C-C'