



Geology - Interpreting the past to provide for the future



Prepared in cooperation with the
U.S. GEOLOGICAL SURVEY



EXPLANATION
LIST OF MAP UNITS
(For a description of map units, see accompanying text)

- Quaternary surficial deposits
- Qal Alluvium
 - Qtg Terrace deposits
- Tertiary sedimentary rocks
- QTg Upland gravels (Pleistocene-Pliocene (?))
- Lower Proterozoic
- Xgqm Quartz monzonite
 - Xgqmw Alaskitic facies of quartz monzonite
 - Xgr Small granite intrusive
 - Xggr Luxullianite
 - Xggrg Rambler Granite (1730 ± 15 Ma)
 - Xgsfi Small felsic intrusives
 - Xgyfi Younger felsic intrusives
 - Xgfgd Horse Creek Foliated Granodiorite (1777 ± 4 Ma)
 - Xke Keystone Quartz Diorite (1781 ± 7 Ma)
 - Xkel Transition zone between Keystone Quartz Diorite and quartz-biotite schist
 - Xmsmc Mullen Creek Mafic Complex (1778 ± 2 Ma)—gray letters indicate approximate rock types within the complex; exact contacts between rock types could not be determined due to poor exposures and gradational nature of the contacts
 - mb Metabasalt
 - g Gabbro and metagabbro
 - ma Amphibolite, orthoamphibolite, and amphibolitized metaigneous rocks
 - mpx Metaproxenite—mapped outcrops are labeled in black
 - md Metadiabase
 - mhy Hybrid rocks
 - Xvm Metafelsite
 - Xvma Mylonitic biotite augen gneiss
 - Xvmb Migmatitic biotite schist and gneiss
 - Xvmag Amphibolite gneiss
 - Xvmp Pelitic schist and gneiss
 - Xvmqb Quartz-biotite schist
 - Xmn Mafic intrusive rocks (~1700-2300 Ma)
 - Xqm Mylonitic quartzite
 - Xf French Slate

MAP SYMBOLS

- Formation Contact
- Fault - Dashed where approximately located and dotted where concealed; arrows indicate relative horizontal movement where known; letters indicate relative vertical movement where known
- Thrust fault - Sawtooth on upper plate
- Syncline - Trace of axial plane and direction of plunge compiled from source map or determined by field dip measurements and by photo interpretation.
- Chevron fold showing plunge
- Minor open antiformal fold showing bearing and plunge
- Minor open synformal fold showing bearing and plunge
- Isoclinal fold with plunge
- Shear zone
- Shear orientation with inclination
- Vertical shear
- Breccia
- Mylonite
- Alteration
- Quartz vein—arrow indicates inclination
- Pegmatite vein (~1510-1620 Ma)—Middle and Lower Proterozoic
- Metabasalt dikes—approximately same age as other mafic intrusive rocks (Xmn)
- Diabase dikes and sills—approximately same age as other mafic intrusive rock (Xmn)
- Foliation with inclination
- Vertical foliation
- Igneous layering with inclination
- Vertical igneous layering
- Igneous layering interpreted to be overturned
- Joint with inclination
- Vertical joint
- Prospect
- Trench
- Adit
- Shaft
- Dredge tailings
- Cabin remains

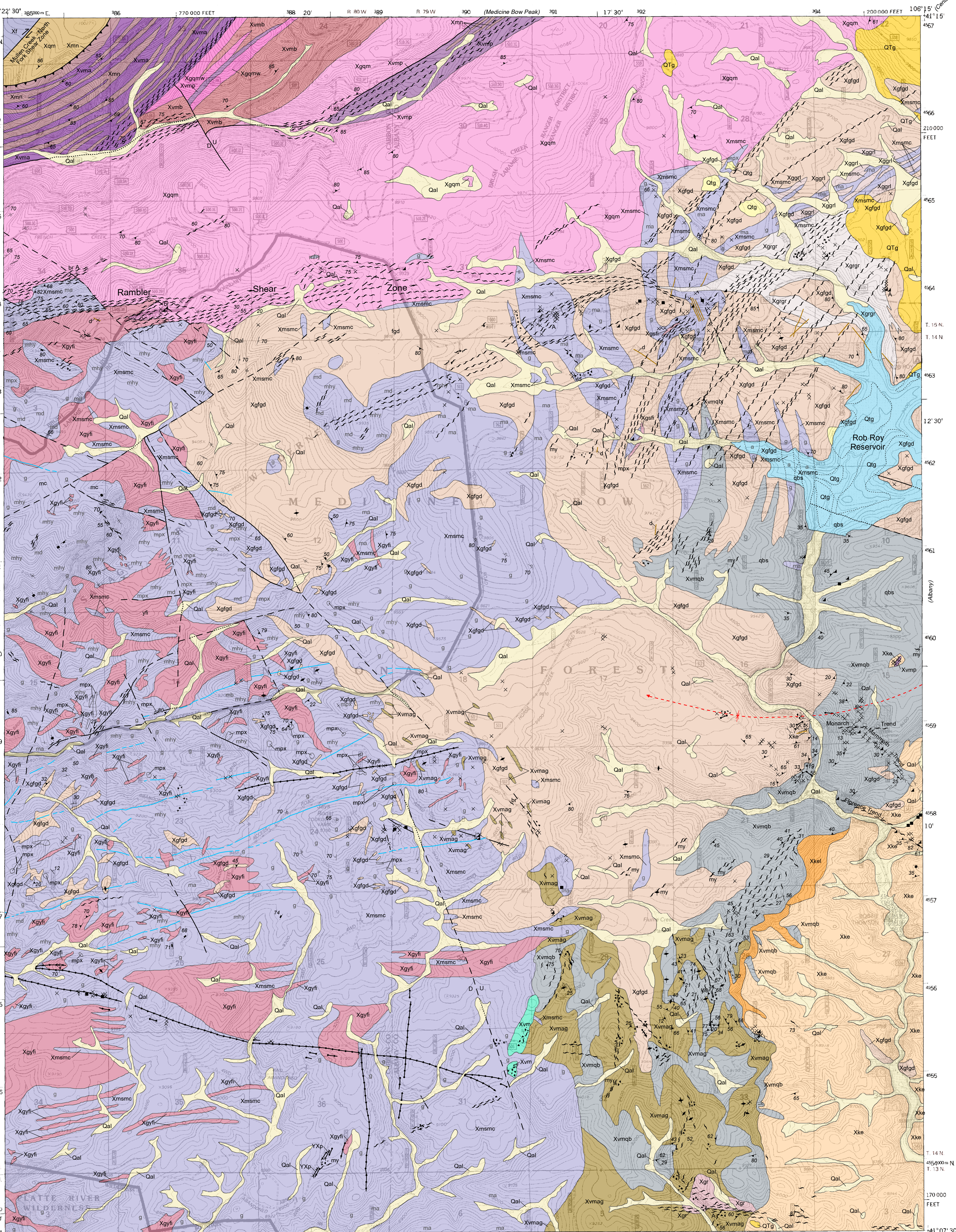
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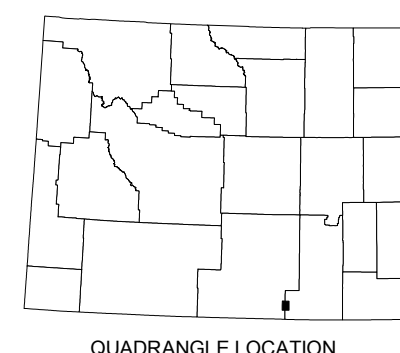
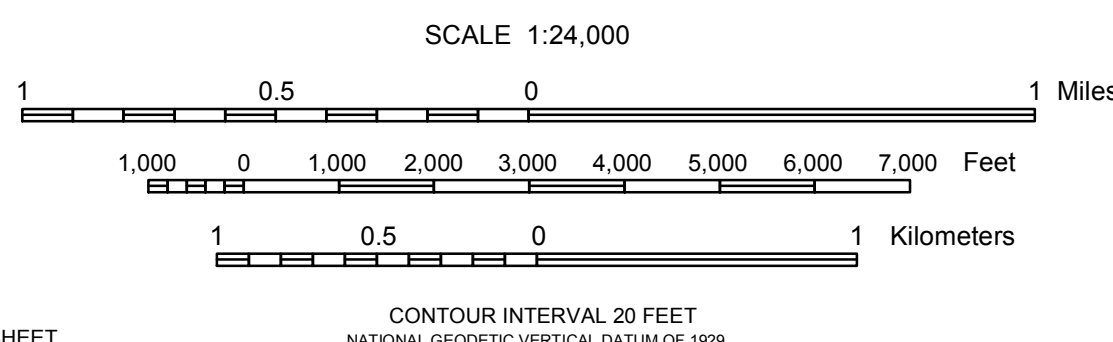


Base map from U.S. Geological Survey 1:24,000 - scale topographic map of the Keystone, Wyoming Quadrangle, 1992 (Revised by U.S. Forest Service)

Projection: Universal Transverse Mercator (UTM), zone 13 North American Datum of 1927 (NAD 27)
10,000-foot grid ticks Wyoming State Plane Coordinate System, East Central Zone

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UTM GRID CONVERGENCE (GN)
1959 MAGNETIC DECLINATION (MN) AT CENTER OF SHEET
DIAGRAM IS APPROXIMATE



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PRELIMINARY GEOLOGIC MAP OF THE KEYSTONE
QUADRANGLE, ALBANY AND CARBON COUNTIES, WYOMING

by
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