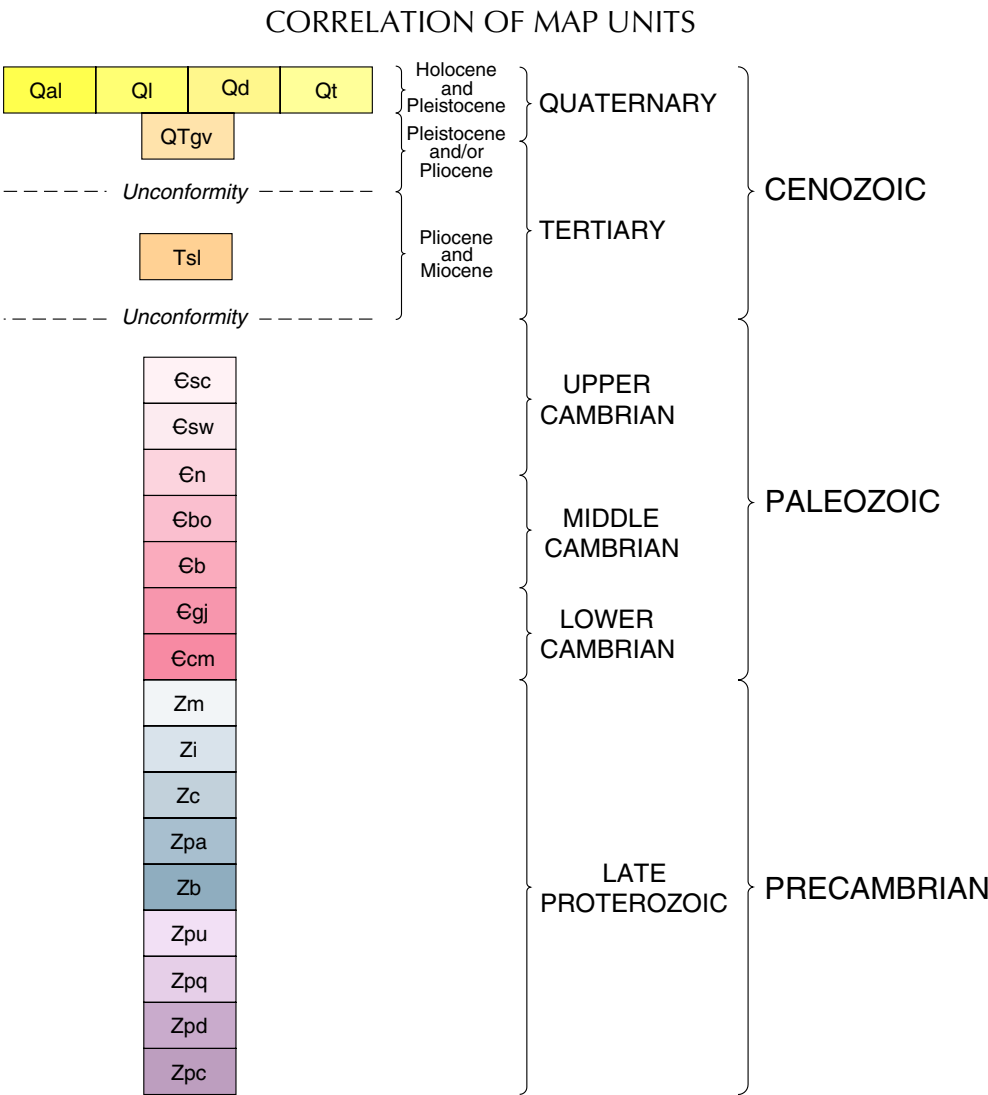
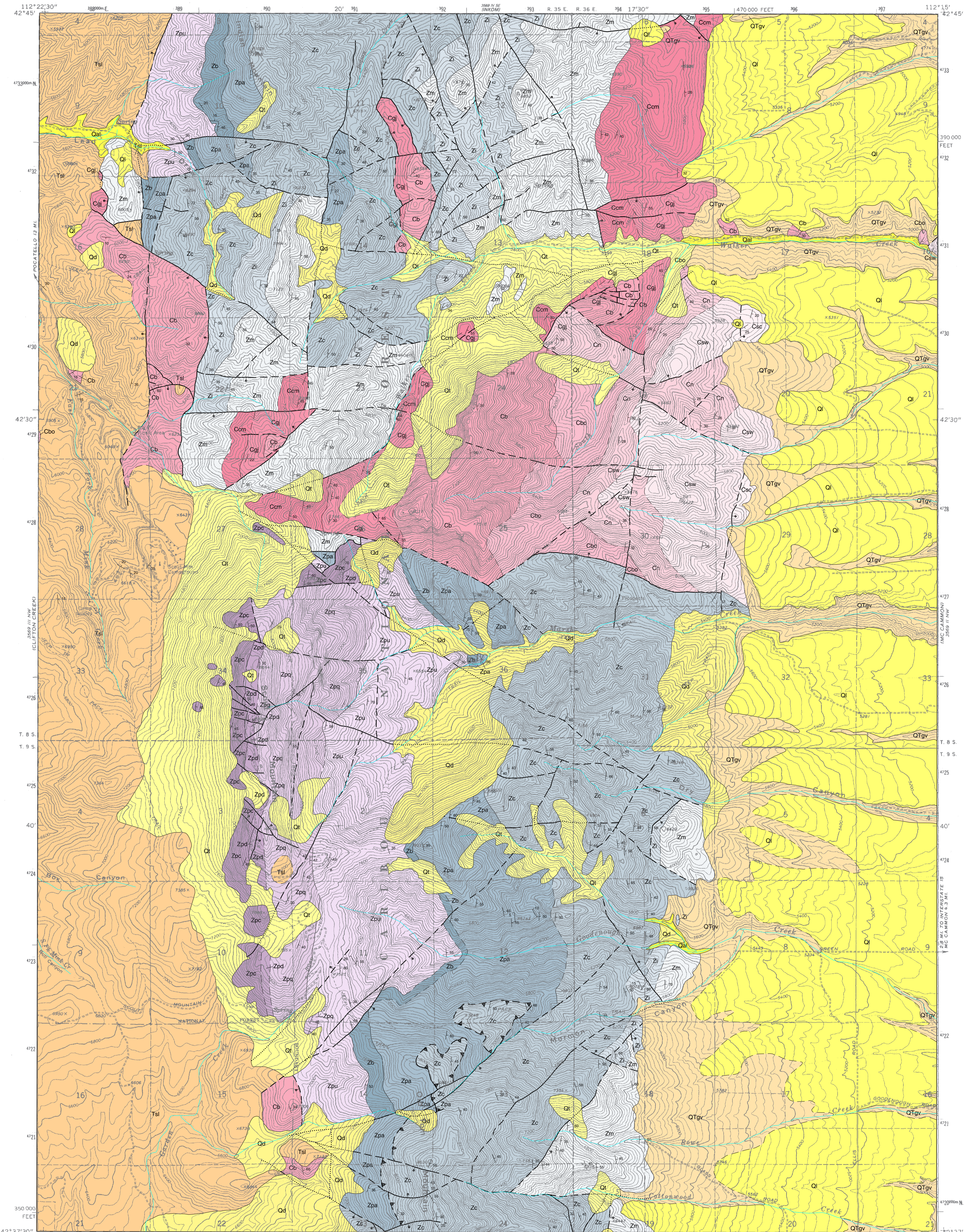


GEOLOGIC MAP OF THE SCOUT MOUNTAIN QUADRANGLE, BANNOCK COUNTY, IDAHO

Lucian B. Platt
1998



- DESCRIPTION OF MAP UNITS
- Qal** Alluvium (Holocene and Pleistocene)—Tan unconsolidated sand and gravel in valley bottoms and alluvial fans. Grades laterally into and locally includes colluvium. Maximum thickness greater than 5 meters.
 - Qi** Loess (Holocene and Pleistocene)—Tan and buff unbedded silt, shown only where it obscures underlying rocks; small accumulations not shown. Thickness generally 5-10 meters.
 - Qd** Unconsolidated debris (Holocene and Pleistocene)—Very coarse to fine, angular to rounded rock debris, sand, and mud; unconsolidated and generally unstratified; includes colluvium on hillsides and slumped material; includes in a few places alluvium too small to show separately. Thickness generally 2-5 meters.
 - Qt** Talus (Holocene and Pleistocene)—Large angular blocks at the base of cliffs and steep hillsides.
 - QTgv** Gravel (Pleistocene and/or Pliocene)—Coarse gravel to sand; consolidated and weakly cemented. Thickness exceeds 70 meters.
 - Tsl** Salt Lake Formation (Pliocene and Miocene)—Heterogeneous unit including pink to tan conglomerate, tuffaceous sandstone, and mudstone interfingering with white to pale green felsic tuff. Diamictite near exposures of older rock; weathers characteristic pink near exposures of carbonate rocks. Exposed thickness about 1 kilometer.
 - Eac** St. Charles Limestone (Upper Cambrian)—Dark and medium gray limestone with minor intraformational conglomerate and chert; a few dolomite beds near the top. Thickness 300 meters.
 - Esw** Worm Creek Quartzite (Upper Cambrian)—Gray to tan quartzite with interbedded limestone and dolomite; characterized by chalky-weathering feldspar grains in most quartzite beds. Upper contact placed at the highest quartzite beds. Thickness about 250 meters.
 - En** Nounan Formation (Upper and Middle Cambrian)—Gray interbedded limestone, dolomite, and limy siltstone. Thickness 200-300 meters.
 - Ebo** Blooming Formation (Middle Cambrian)—Green mudstone and shale interbedded with thin limestone beds; siltstone and some nodular limestone in upper part; mostly nodular to platy limestone in lower part. Thickness 500-600 meters.
 - Eb** Blacksmith and Bancroft Limestones, undifferentiated (Middle Cambrian)—Gray limestone some medium- to thick-bedded mottled limestone in upper part; in lower part some thin-bedded oolitic limestone similar to Bancroft Limestone of Oriol and Armstrong (1971); may include the limestone part of the Leadbell Shale of Oriol and Armstrong (1971); equivalent to the Elkhead Limestone of Trimble and Carr (1976). Thickness 300-500 meters.
 - Egl** Gibson Jack Formation (Lower Cambrian)—Dark gray shale; minor green mudstone and tan to brown sandstone. A few meters of limestone near the middle. Thickness 500-600 meters.
 - Ecm** Camelback Mountain Quartzite (Lower Cambrian)—Tan to light brown, medium- to fine-grained quartzite; weathers white, pink, tan, and brown; medium to thick bedded. Approximately 600 meters.
 - Zm** Mutual Formation (Late Proterozoic)—Purple and maroon quartzite and pebbly quartzite; minor light-colored quartzite, argillite, and conglomerate beds. Thickness about 800 meters.
 - Zi** Inkorn Formation (Late Proterozoic)—Green siltstone and mudstone; a few micaceous sandstone beds. Can be distinguished from other fine-grained units by its green color and lack of any carbonate. Thickness about 300 meters.
 - Zc** Caddy Canyon Quartzite (Late Proterozoic)—Tan, vitreous, white-weathering quartzite; minor grit and conglomerate beds; a few green phyllitic siltstone beds and purple shale lenses near the top. Approximately 1 kilometer thick.
 - Zpa** Papoose Creek Formation (Late Proterozoic)—Gray to brown, very fine-grained quartzite to siltite weathering tan to olive; mud cracks and irregular bedding on a scale of millimeters are distinctive. Thickness 900 meters.
 - Zb** Blackrock Canyon Limestone (Late Proterozoic)—Tan sandstone and siltstone weathers gray to brown; interbedded with dark gray limestone beds typically 10 meters thick. Total thickness about 100 meters.
 - Zpu** Pocatello Formation (Late Proterozoic)
 - Upper Member (Late Proterozoic)—Medium and dark gray, finely laminated argillite and siltstone weathers distinctive silvery gray; a few thin limestone or dolomite beds in the bottom 10 meters. Equivalent to the "varved slate" of Ludlum (1942). Approximately 600 meters thick.
 - Zpq** Scout Mountain Member, upper quartzite part (Late Proterozoic)—Gray quartzite weathering tan, white and purple; minor beds of grit and conglomerate. Thickness about 300 meters.
 - Zpd** Scout Mountain Member, middle diamictite late (Late Proterozoic)—Cobbles, pebbles, and sandstone, very poorly sorted; typically tan to greenish gray, weathering to brown. Forms a savaile between resistant upper and lower parts of the Scout Mountain Member. Includes the slightly metamorphosed mafic lava in the Bannock Volcanic Member of Trimble (1976) because this rock type is too sparsely exposed to be mapped separately. Thickness approximately 100 meters.
 - Zpc** Scout Mountain Member, lower cobble conglomerate part (Late Proterozoic)—Massive, tan to gray cobble conglomerate with interstitial and interbedded sandstone; weathers light gray to light brown. Includes, on the west side of Scout Mountain, three isolated outcrops of grayish green, poorly sorted, feldspathic sandstone. Thickness at least 300 meters with no known base.

- SYMBOLS
- Contact: dashed where approximately located.
 - Fault: dashed where approximately located; dotted where concealed; bar and ball on downthrown side.
 - Thrust fault: dashed where approximately located; teeth on upper plate.
 - Strike and dip of beds.
 - Strike and dip of fracture cleavage.

REFERENCES

Ludlum, J. C., 1942, Pre-Cambrian formations at Pocatello, Idaho: *Journal of Geology*, v. 50, p. 85-95.

Oriel, S.S., and F.C. Armstrong, 1971, Uppermost Precambrian and lowest Cambrian rocks in southeastern Idaho: *U.S. Geological Survey Professional Paper* 394, 52 p.

Trimble, D.E., 1976, Geology of the Michaud and Pocatello quadrangles, Bannock and Power counties, Idaho: *U.S. Geological Survey Bulletin* 1400, 88 p.

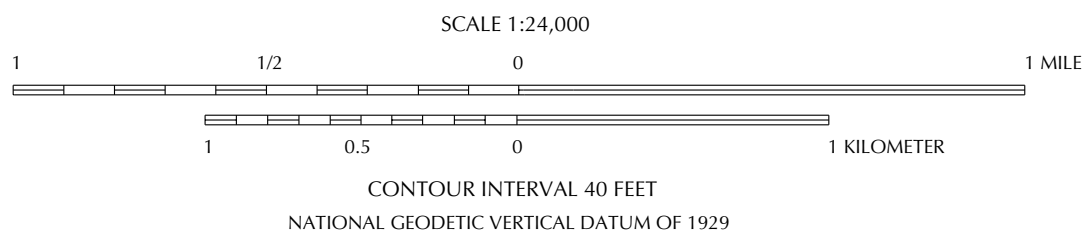
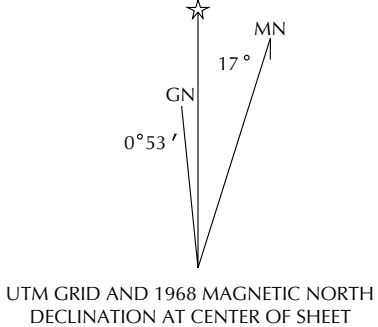
Trimble, D.E., and W.J. Carr, 1976, Geology of the Rockland and Abnon quadrangles, Power County, Idaho: *U.S. Geological Survey Bulletin* 1399, 115 p.

Control by USGS and USC&GS.

Base map USGS Digital Raster Graphic.

Topography by photogrammetric methods from aerial photographs taken 1967. Field checked 1968.

Polyconic projection, 1927 North American datum 100,000-foot grid based on Idaho coordinate system, east zone. 1000-meter Universal Transverse Mercator grid ticks, zone 12.



Field work conducted in 1977-1978, 1986
Reviewed by Kevin Hefferan, University of Wisconsin-Stevens Point.
Digital cartography by Jane S. Freed at the Idaho Geological Survey's Digital Mapping and Information Lab.

