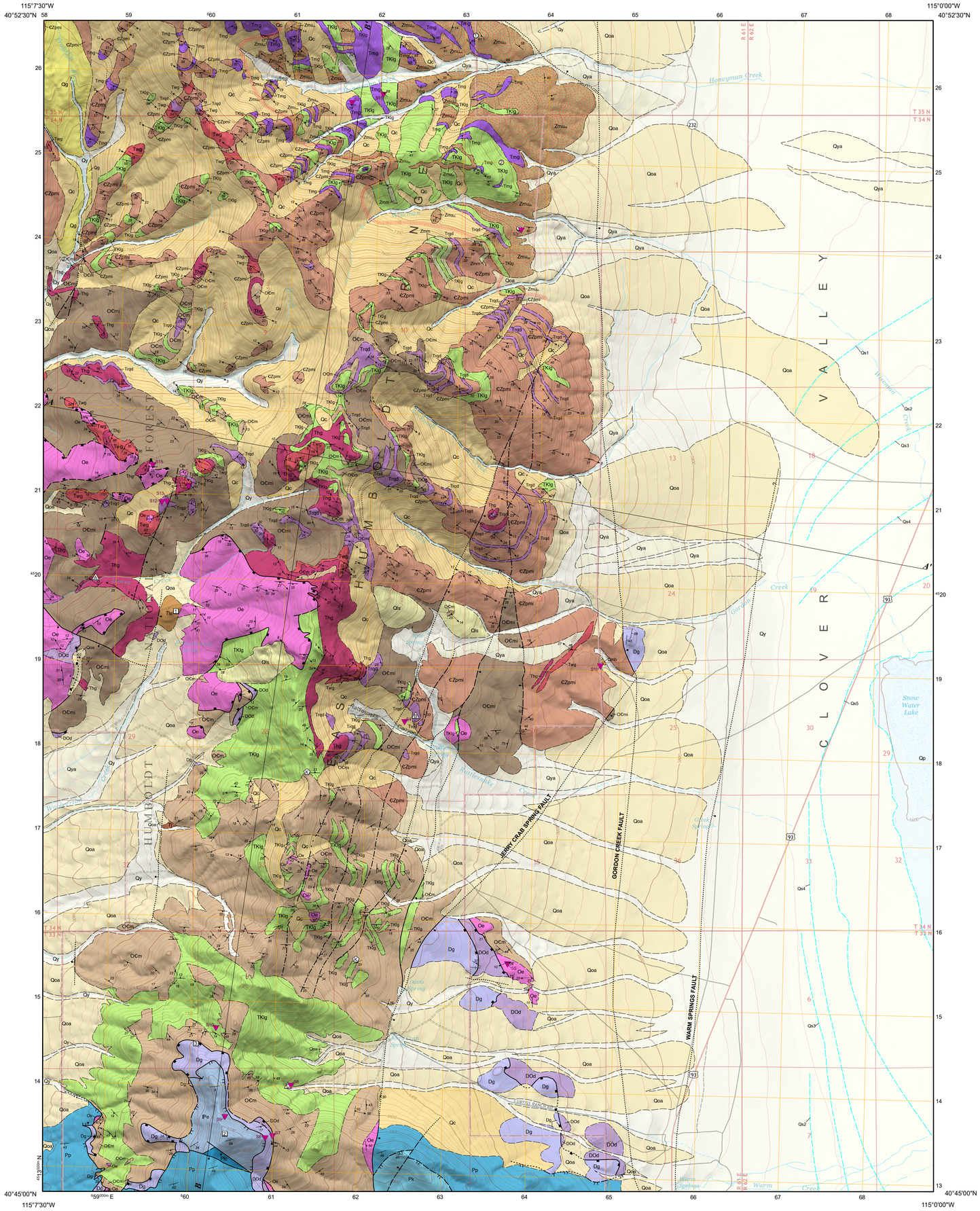
Partially funded by the National Science Foundation, Department of Geology and Geophysics at the University of Wyoming, Anne Seldon Lowe Scholarship, U.S. Geological Survey, Rocky Mountain Association of Geologists, Wyoming Geological Association, Colorado Scientific Society, Geological Society of Nevada, and the USGS National Cooperative Geologic Mapping Program under STATEMAP award number G17AC00212.



GEOLOGIC MAP OF THE GORDON CREEK QUADRANGLE, ELKO COUNTY, NEVADA

Karri R. Sicard[1,2] and Arthur W. Snoke[1]

[1]University of Wyoming, Laramie, WY

[2]Jacobs Engineering Group Inc., Fairbanks, AK

2020

Contact Dashed where approximately located, dotted where concealed.

Normal fault Solid where certain and location accurate, dashed where approximately located, dotted where concealed; queried if identity or existence uncertain. Ball on downthrown side. *In cross section, approximately located faults shown as solid, arrows show relative motion.*

Plastic-to-brittle low-angle fault (detachment fault) Solid where certain and location accurate, dashed where approximately located, dotted where concealed. Rectangles on upper plate.

Brittle low-angle fault (detachment fault) Solid where certain and location accurate, dashed where approximately located, dotted where concealed. Hachures on upper plate.

67% leucogranite concentration isopleth In McCoy Creek Group migmatite complex.

Lineament Fracture zones or small displacement faults located from aerial imagery. Dot-dashed where approximately located, three dot-dashed where concealed.

Former shoreline Approximately located, Qs1 (oldest) to Qs5 (youngest)

Strike and dip of bedding
47 Inclined — Vertical

Strike and dip of compositional layering or foliation in metamorphic rocks
20 Inclined

Bearing and plunge of lineation Includes elongation (stretching) lineations in mylonitic rocks as well as mineral lineations in other rocks. Symbol may be combined with the foliation symbol.
15

Overturned contact

Kyanite-bearing schist

Conodont sample locality

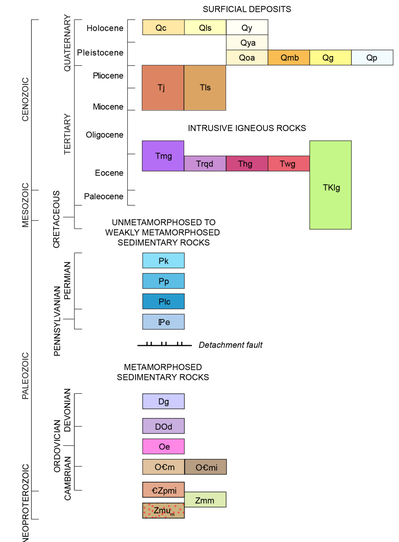
U-Pb sample locality

Thermobarometric sample locality

Field Trip Stop Location
S1

A — A′ **Line of cross section**

Mylonitic shear zone (Cross section A–A' only).



QUATERNARY SURFICIAL DEPOSITS

- Qy — Youngest alluvium (upper Holocene)
- Qls — Landslide deposit (Holocene)
- Qc — Colluvium (Holocene)
- Qya — Younger alluvium (Holocene and Pleistocene)
- Qmb — Megabreccia composed of Upper Devonian metamorphosed Guilmette Formation (Pleistocene)
- Qoa — Older alluvium (Pleistocene)
- Qg — Glacial deposits (Pleistocene)
- Qp — Pluvial lake deposits (Pleistocene)

TERTIARY ROCKS

- Tj — Jasperoid breccia (Neogene)
- Tls — Landslide deposit (Neogene)
- Qu & Ts(?) — Quaternary and Tertiary basin deposits, undivided (cross section A–A' only)

UNMETAMORPHOSED TO WEAKLY METAMORPHOSED SEDIMENTARY ROCKS

- Pk — Kaibab Limestone (Permian)
- Pp — Pequop Formation (Lower Permian)
- Plc — Limestone and conglomerate (Lower Permian)
- IPe — Ely Limestone (Pennsylvanian)

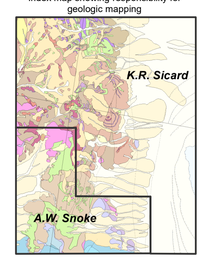
METAMORPHOSED SEDIMENTARY ROCKS

- Dg — Metamorphosed Guilmette Formation (Upper Devonian)
- DOd — Dolomitic marble (Devonian to Ordovician, undivided)
- Oe — Metamorphosed Eureka Quartzite (Ordovician)
- OCm — Marble of Verdi Peak (Ordovician to Cambrian, undivided)
- OCmi — Marble of Verdi Peak (Ordovician to Cambrian, undivided) with deformed igneous intrusions (mappable intrusive bodies have been delineated)
- Dg-OCm — Upper Devonian to Ordovician metasedimentary rocks, undivided (Dg, DOd, Oe, OCm) (in cross section A–A' only)
- CZpmi — Metamorphosed Prospect Mountain Quartzite (Cambrian and Neoproterozoic protolith age) and McCoy Creek Group quartzite and schist (Neoproterozoic protolith age), undivided and with deformed igneous intrusions (mappable intrusive bodies have been delineated)
- Zmm — McCoy Creek Group marble (Neoproterozoic)
- Zmu$_{mg}$ — McCoy Creek Group paragneiss, undivided, migmatitic phase (Neoproterozoic protolith age)

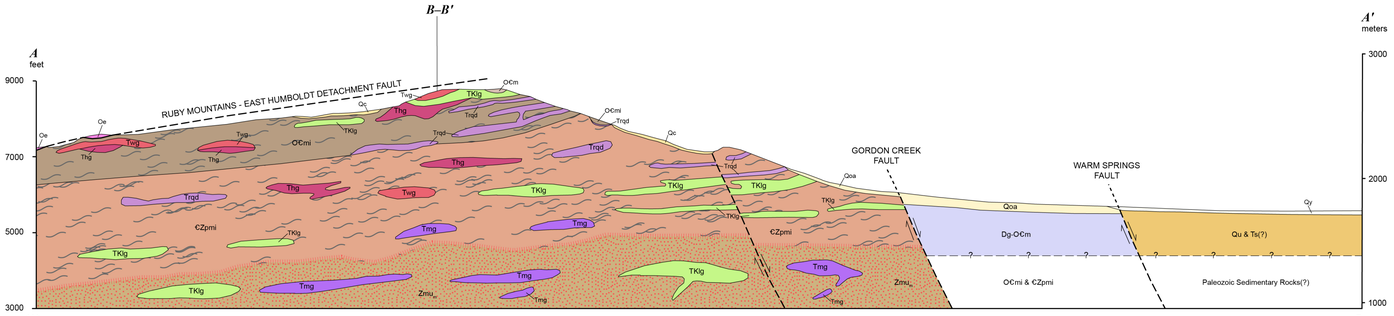
INTRUSIVE IGNEOUS ROCKS

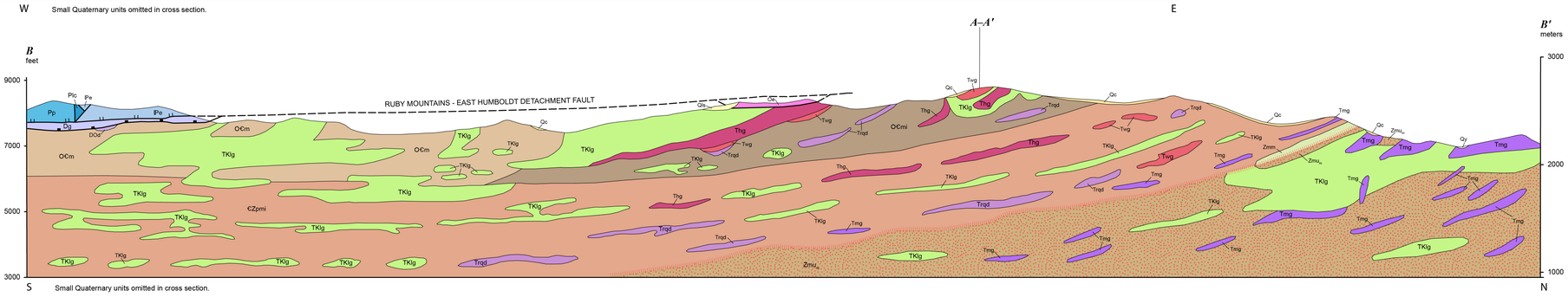
- Tmg — Biotite monzogranite (lower Oligocene to middle Eocene?)
- Twg — Muscovite leucogranite orthogneiss of Woods Creek (middle Eocene?)
- Thg — Biotite granodiorite–monzogranite orthogneiss of Horse Creek (middle Eocene?)
- Trqd — Quartz diorite of Rattlesnake Canyon (middle Eocene)
- TKlg — Leucogranite (lower Oligocene? to Cretaceous)

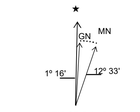
Index map showing responsibility for geologic mapping



See accompanying text for full unit descriptions and references for this map.







UTM GRID AND
2017 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

Adjoining 7.5' quadrangle names

1	2	3
4	5	6
7	8	9

1 Tent Mountain
2 Humboldt Peak
3 Tobar
4 Secret Valley
5 Gordon Creek
6 Snow Water Lake
7 Ruby City Creek
8 Arizona Spring
9 Spruce Mountain NW

Suggested citation:
Sicard, K.R., and Snoke, A.W., 2020, Geologic map of the Gordon Creek quadrangle, Elko County, Nevada: Nevada Bureau of Mines and Geology Map 188, scale 1:24,000, 28 p.

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PEER-REVIEWED MAP
Office review by Christopher D. Henry (NBMG) and Seth Dee (NBMG)
Field review by Christopher D. Henry (NBMG), Andrew V. Zuza (NBMG), Charles Thorman (USGS), and Thomas Anderson (University of Pittsburgh)

Compilation by Karri R. Sicard and Arthur W. Snoke
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2667

Scale 1:24,000

0 0.5 1 kilometer

0 0.5 1 mile

0 1000 2000 3000 4000 5000 feet

CONTOUR INTERVAL 40 FEET

Projection: Universal Transverse Mercator, Zone 11, North American Datum 1983 (m)

Base map: U.S. Geological Survey Gordon Creek 7.5' quadrangle (2018)