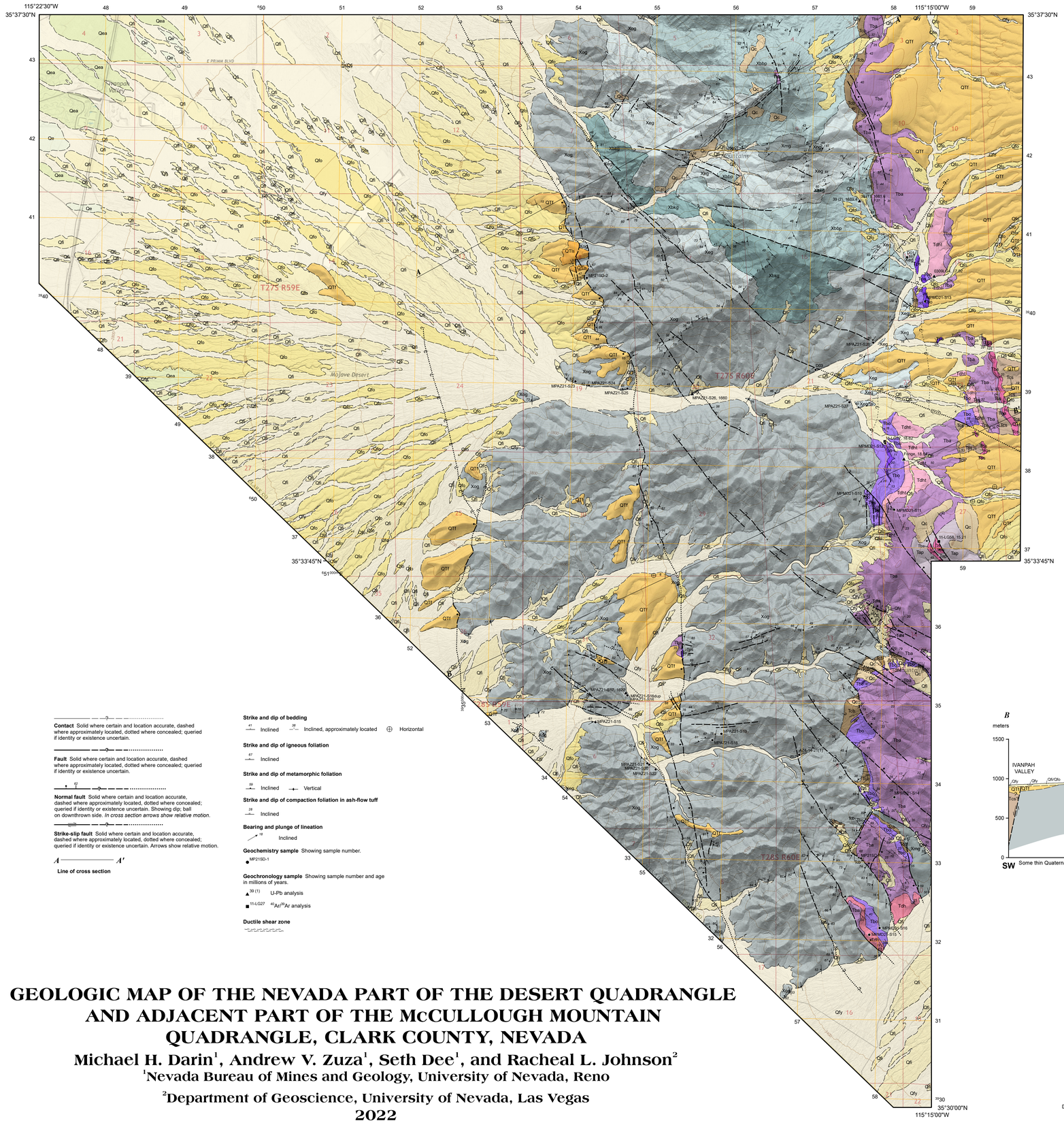
Research supported by the U.S. Geological Survey Earth MRI Initiative (Cooperative Agreement #G19AC00255)



QUATERNARY DEPOSITS

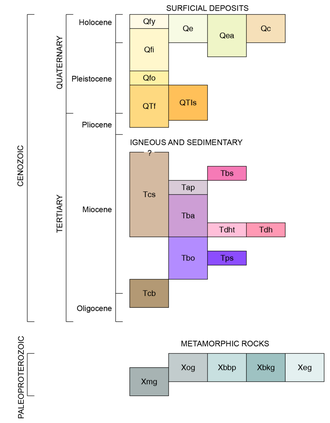
- Qe — Eolian sand (Holocene to late Pleistocene)
- Qea — Mixed eolian sand and alluvium (Holocene to late Pleistocene)
- Qc — Colluvium (Holocene to late Pleistocene)
- Qfy — Young alluvial-fan deposits (Holocene)
- Qfi — Intermediate-aged alluvial-fan deposits (early Holocene to late Pleistocene)
- Qfo — Older alluvial-fan deposits (middle to early Pleistocene)
- QTls — Old landslide deposits (early Pleistocene to Pliocene?)
- QTf — Oldest alluvial-fan deposits (early Pleistocene to Pliocene?)

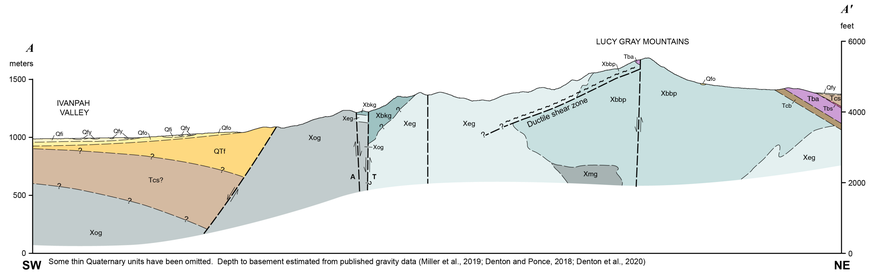
TERTIARY IGNEOUS AND SEDIMENTARY ROCKS

- Tbs — Tuff of Bridge Spring (middle Miocene)
- Tcs — Conglomerate and sandstone (middle to early Miocene)
- Tap — Porphyritic andesite (middle to early Miocene)
- Tba — Basaltic andesite (middle to early Miocene)
- Tdh — Hornblende dacite (early Miocene)
- Tdht — Dacitic tuff breccias (early Miocene)
- Tps — Peach Springs Tuff (early Miocene)
- Tbo — Olivine basalt (early Miocene)
- Tcb — Basal conglomerate (early Miocene to late Oligocene)

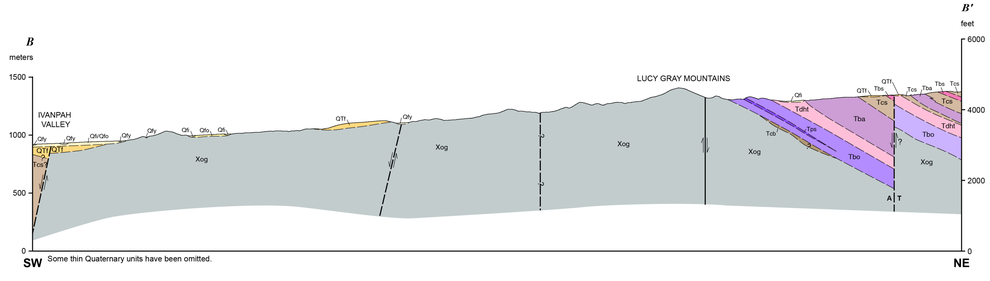
PALEOPROTEROZOIC ORTHOGNEISS AND MIGMATITE GNEISS

- Xbbp — Beer Bottle Pass pluton
- Xeg — Equigranular granitic gneiss
- Xbkg — Biotite K-feldspar orthogneiss
- Xog — Orthogneiss, undivided
- Xmg — Migmatite gneiss





Some thin Quaternary units have been omitted. Depth to basement estimated from published gravity data (Miller et al., 2019; Denton and Ponce, 2018; Denton et al., 2020)



Some thin Quaternary units have been omitted.

Contact Solid where certain and location accurate, dashed where approximately located, dotted where concealed; queried if identity or existence uncertain.

Fault Solid where certain and location accurate, dashed where approximately located, dotted where concealed; queried if identity or existence uncertain.

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

Strike-slip fault Solid where certain and location accurate, dashed where approximately located, dotted where concealed; queried if identity or existence uncertain. Arrows show relative motion.

A — A′ **Line of cross section**

Strike and dip of bedding
41 Inclined — 38 Inclined, approximately located — Horizontal

Strike and dip of igneous foliation
67 Inclined

Strike and dip of metamorphic foliation
59 Inclined — Vertical

Strike and dip of compaction foliation in ash-flow tuff
28 Inclined

Bearing and plunge of lineation
18 Inclined

Geochemistry sample Showing sample number.
MP215D-1

Geochronology sample Showing sample number and age in millions of years.
39 (1) U-Pb analysis
TI-LG27 $^{40}Ar/^{39}Ar$ analysis

Ductile shear zone

GEOLOGIC MAP OF THE NEVADA PART OF THE DESERT QUADRANGLE AND ADJACENT PART OF THE McCULLOUGH MOUNTAIN QUADRANGLE, CLARK COUNTY, NEVADA

Michael H. Darin[1], Andrew V. Zuza[1], Seth Dee[1], and Racheal L. Johnson[2]
[1]Nevada Bureau of Mines and Geology, University of Nevada, Reno
[2]Department of Geoscience, University of Nevada, Las Vegas

2022

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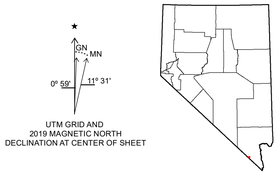

Adjoining 7.5' quadrangle names

1	2	3
4	5	6
7	8	9

1 State Line Pass
2 Roach
3 McCullough Pass
4 Ivanpah Lake
5 Desert
6 McCullough Mountain
7 Mineral Hill
8 Nipton
9 Crescent Peak

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

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 Desert 7.5' quadrangle (2021)
U.S. Geological Survey McCullough Mountain 7.5' quadrangle (2021)

Nevada Bureau of Mines and Geology
Mackay School of Earth Sciences and Engineering
College of Science
University of Nevada, Reno

Field work done in 2020–2022
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OPEN-FILE REPORT
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Cartography and map production in ESRI ArcGIS v10.8 (GeMS) by Irene M. Edgerton
Cartographic and style review by Jennifer Vican
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For sale by:
Nevada Bureau of Mines and Geology
2175 Raggio Pkwy.
Reno, Nevada 89512
ph. (775) 682-8766
www.nbmg.unr.edu; nbmg@unr.edu

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