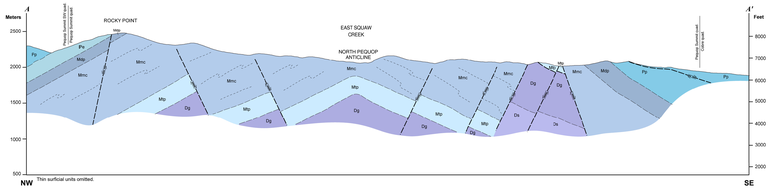
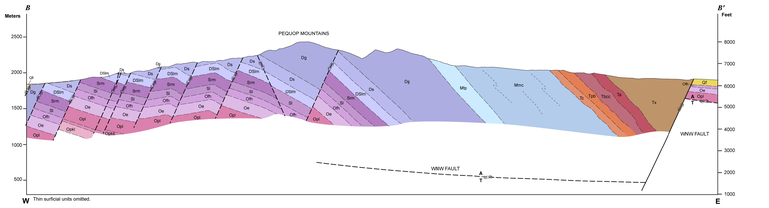
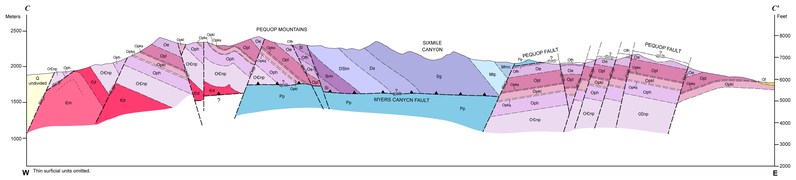
Geologic maps of the northern Pequop Mountains, Elko County, Nevada
Plate 1

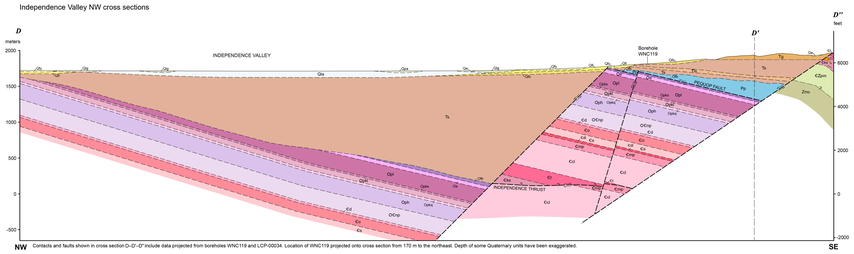
Pequop Summit cross sections



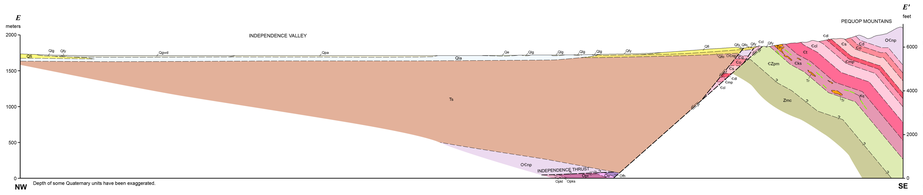




Independence Valley NW cross sections

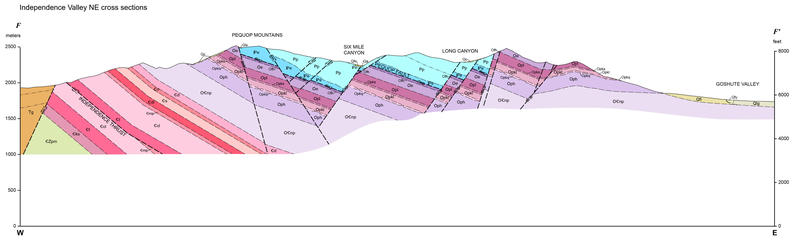


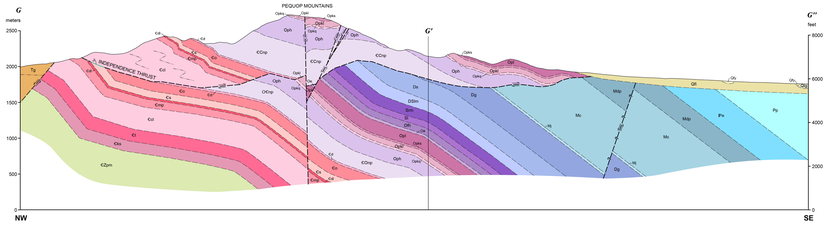
Contacts and faults shown in cross section D–D''–D' include data projected from boreholes WNC119 and LCP-00034. Location of WNC119 projected onto cross section from 170 m to the northeast. Depth of some Quaternary units have been exaggerated.

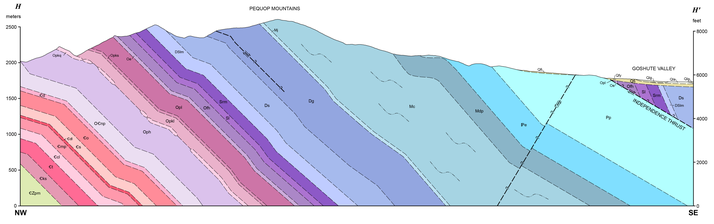


Depth of some Quaternary units have been exaggerated.

Independence Valley NE cross sections







Unit colors vary dependent on source map.

QUATERNARY DEPOSITS

- Qdf — **Man-made deposits**
- Qa — **Active alluvium (late Holocene)**
- Qc — **Colluvium and talus (Holocene to Pleistocene)**
- Qls — **Landslide deposits (Holocene to Pleistocene)**
  - Qfh — **Fish Haven Dolomite in Quaternary landslide deposit**
  - Qtu — **Eureka Quartzite in Quaternary landslide deposit**
  - Qlp — **Lehman Formation in Quaternary landslide deposit**
- Qfy — **Young alluvial-fan deposits (Holocene)**
- Qe — **Eolian sand (Holocene)**
- Qgwd — **Ground water discharge deposits (Holocene)**
- Qps — **Playa and alluvial deposits (Holocene)**
- Qls — **Lacustrine and alluvial deposits (Holocene to late Pleistocene)**
- Qlg — **Lacustrine gravels (late Pleistocene)**
- Qif — **Intermediate-aged alluvial-fan deposits (late Pleistocene)**
- Qlo — **Older lacustrine gravels (late to middle Pleistocene?)**
- Qfo — **Older alluvial-fan deposits (middle Pleistocene?)**
- Qf — **Fan deposits, undivided (Pleistocene)**
- Qfb — **Boulder deposit in oldest alluvial-fan deposits (middle Pleistocene? to Pliocene?)**
- Qff — **Oldest alluvial-fan deposits (middle Pleistocene? to Pliocene?)**

TERTIARY VOLCANIC AND SEDIMENTARY ROCKS

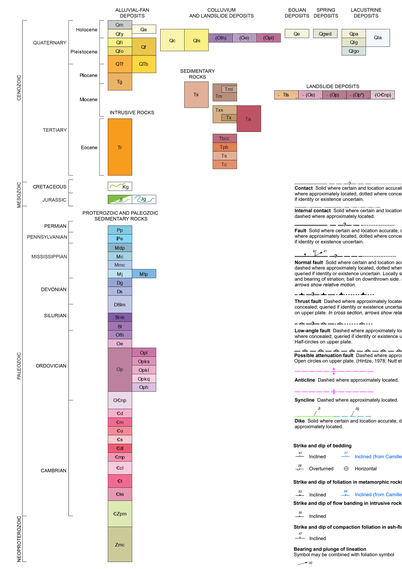
- Tg — **Tertiary fanglomerate (Pliocene? to Miocene)**
- Tls — **Tertiary landslide deposit (Miocene)**
  - ꞒOtu — **Block of Eureka Quartzite in Tertiary landslide deposit (Miocene)**
  - ꞒOp — **Block of undivided Pogonip limestone in Tertiary landslide deposit (Miocene)**
  - ꞒOp[ ] — **Block of undivided Pogonip jasperoid in Tertiary landslide deposit (Miocene)**
  - ꞒOnp — **Block of Notch Peak Limestone in Tertiary landslide deposit (Miocene)**
- Ts — **Tertiary tuffaceous sediments (Pliocene? to Miocene)**
- Tbs — **Tuff and tuffaceous sedimentary deposits (Eocene)**
- Tsl — **Limestone (Eocene)**
- Tv — **Sedimentary breccia (Eocene)**
  - Tvs — **Tuff and tuffaceous sedimentary rocks (Eocene)**
- Ta — **Andesite-dacite lava and breccia (Eocene)**
- Tbm — **Tuff of Big Cottonwood Canyon (Eocene)**
- Tpb — **Plagioclase-biotite tuff (Eocene)**
- Tc — **Conglomerate (Eocene)**

EOCENE, CRETACEOUS(?), AND JURASSIC INTRUSIVE ROCKS

- Tr — **Rhyolite dikes (Eocene)**
- Tg — **Granitic sills and pods (Cretaceous)**
- Td — **Mafic dikes and sills (Jurassic)**
- Ꞓg — **Granitic (or rhyolitic) sills (Jurassic)**

PALEOZOIC AND NEOPROTEROZOIC SEDIMENTARY ROCKS

- Pp — **Pequop Formation (Permian)**
- IPe — **Ely Limestone (Pennsylvanian)**
- Mdp — **Diamond Peak Formation (Upper Mississippian)**
- Mc — **Chainman Shale (Lower Mississippian)**
- Mmc — **Sandstone of Melandco or Chainman Shale**
- Mtp — **Tripon Pass Limestone (Lower Mississippian)**
- Ml — **Joana Limestone (Lower Mississippian)**
- Dg — **Guilmette Formation (Upper Devonian to lowermost Upper Devonian/uppermost Middle Devonian?)**
- Ds — **Simonson Dolomite (Devonian)**
- DSm — **Lone Mountain Formation (Devonian to Silurian)**
- Sr — **Roberts Mountain Formation (Silurian)**
- Sl — **Laketown Dolomite (Silurian)**
- OSfh — **Fish Haven Dolomite (Upper Ordovician)**
- Ou — **Eureka Quartzite (Middle Ordovician)**
- Op — **Pogonip Group**
  - Olp — **Lehman Formation (Lower Ordovician)**
  - **Kanosh Formation**
    - Oplks — **Kanosh shale (Lower Ordovician)**
    - Oplkl — **Kanosh limestone (Lower Ordovician)**
    - Oplkq — **Kanosh quartzite (Lower Ordovician)**
  - Oplh — **House Limestone (Lower Ordovician)**
- ꞒOnp — **Notch Peak Formation (Lower Ordovician to Upper Cambrian)**
- Ꞓd — **Dunderberg Shale (Cambrian)**
- Ꞓm — **Marble**
- Ꞓo — **Oasis Formation (Cambrian)**
- Ꞓs — **Shafter Formation (Cambrian)**
- Ꞓd — **Decoy Limestone (Cambrian)**
- Ꞓmp — **Morgan Pass Formation (Cambrian)**
- Ꞓcl — **Cliffside Limestone (Cambrian)**
- Ꞓt — **Toano Limestone (Cambrian)**
- Ꞓks — **Killian Springs Formation (Cambrian)**
- Ꞓps — **Prospect Mountain Quartzite (Lower Cambrian to Neoproterozoic)**
- Ꞓnc — **McCoy Creek Group (Neoproterozoic) (in cross section only)**



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

Internal contact Solid where certain and location accurate, dashed where approximately located.

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. Locally showing dip and bearing of striation; ball on downthrown side. *In cross section, arrows show relative motion.*

Thrust fault Dashed where approximately located, dotted where concealed; queried if identity or existence uncertain. Sawteeth on upper plate. *In cross section, arrows show relative motion.*

Low-angle fault Dashed where approximately located; dotted where concealed; queried if identity or existence uncertain. Half-circles on upper plate.

Possible attenuation fault Dashed where approximately located. Open circles on upper plate. (Hintze, 1978; Nutt et. al, 1996)

Anticline Dashed where approximately located.

Syncline Dashed where approximately located.

Dike Solid where certain and location accurate, dashed where approximately located.

Strike and dip of bedding
Inclined — Inclined (from Camilleri, 2010)
Overturned — Horizontal

Strike and dip of foliation in metamorphic rocks
Inclined — Inclined (from Camilleri, 2010)

Strike and dip of flow banding in intrusive rocks
Inclined

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

Bearing and plunge of lineation
Symbol may be combined with foliation symbol

Bearing and plunge of minor fold

Paleocurrent direction from imbricated clasts

Borehole
ZLH0001

Samples
PP-02

Chemical analysis and age dates
KEB-1

A — A' **Line of cross section**

Scale 1:24,000

0 0.5 1 kilometer

0 0.5 1 mile

0 1000 2000 3000 4000 5000 feet

CONTOUR INTERVAL 20, 40 FEET

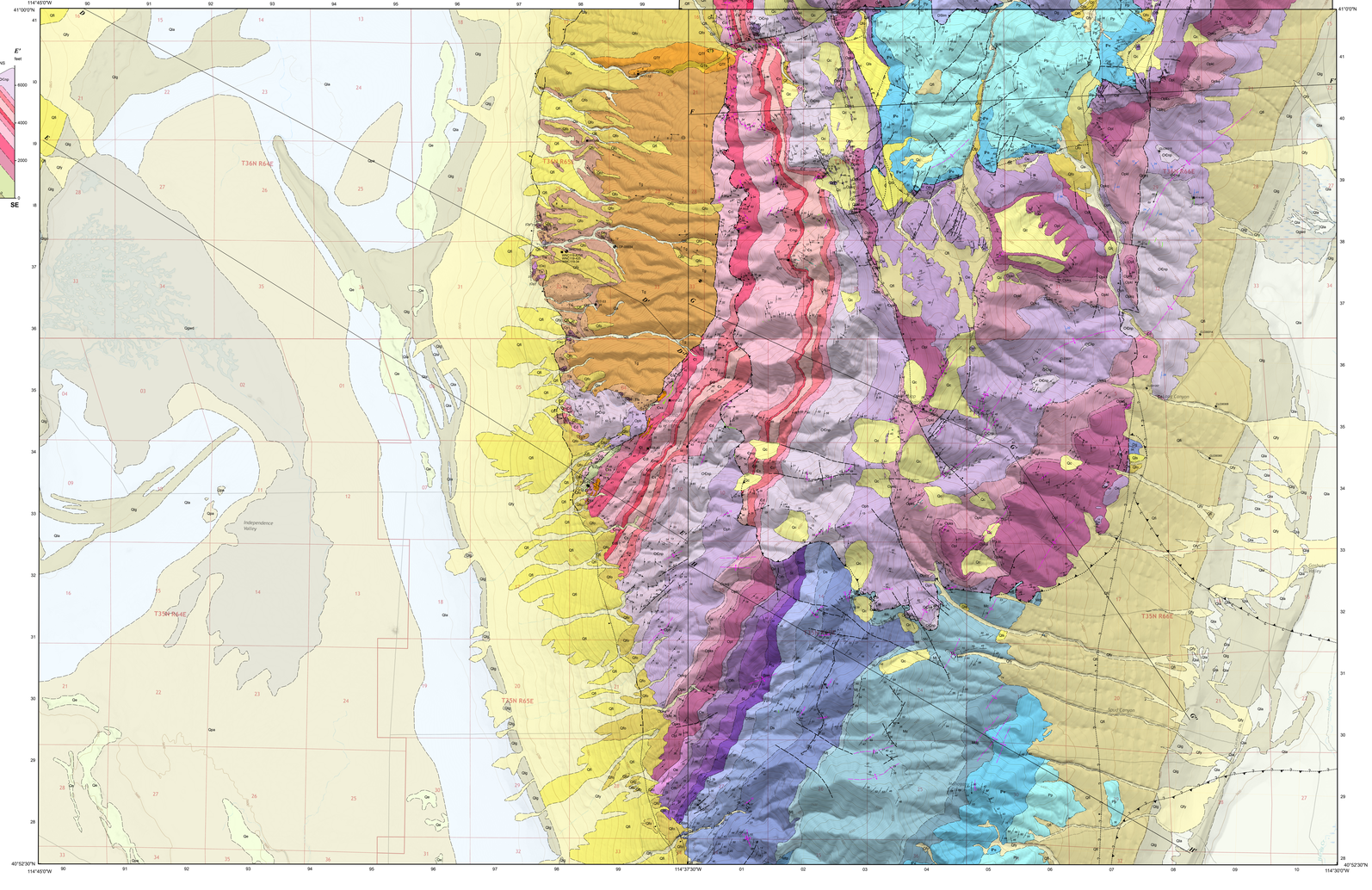
Projection: Universal Transverse Mercator, Zone 11, North American Datum 1983 (m)

Base map: U.S. Geological Survey Pequop Summit 7.5' quadrangle (2014)
U.S. Geological Survey Pequop Summit SW 7.5' quadrangle (2014)
U.S. Geological Survey Independence Valley NW 7.5' quadrangle (2014)
U.S. Geological Survey Independence Valley NE 7.5' quadrangle (2018)

Adjoining 7.5' quadrangle names

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

1 Wells Peak
2 Tuscarora
3 Pequop
4 Valley Pass
5 Moor Summit
6 Pequop Summit SW
7 Pequop Summit
8 Cobre
9 Snow Water Lake NE
10 Independence Valley NW
11 Independence Valley NE
12 Bull Creek
13 Ventosa
14 Independence Valley SW
15 Independence Valley SE
16 Shafter

MN
GN
1° 38'
12° 20'

UTM GRID AND 2018 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET