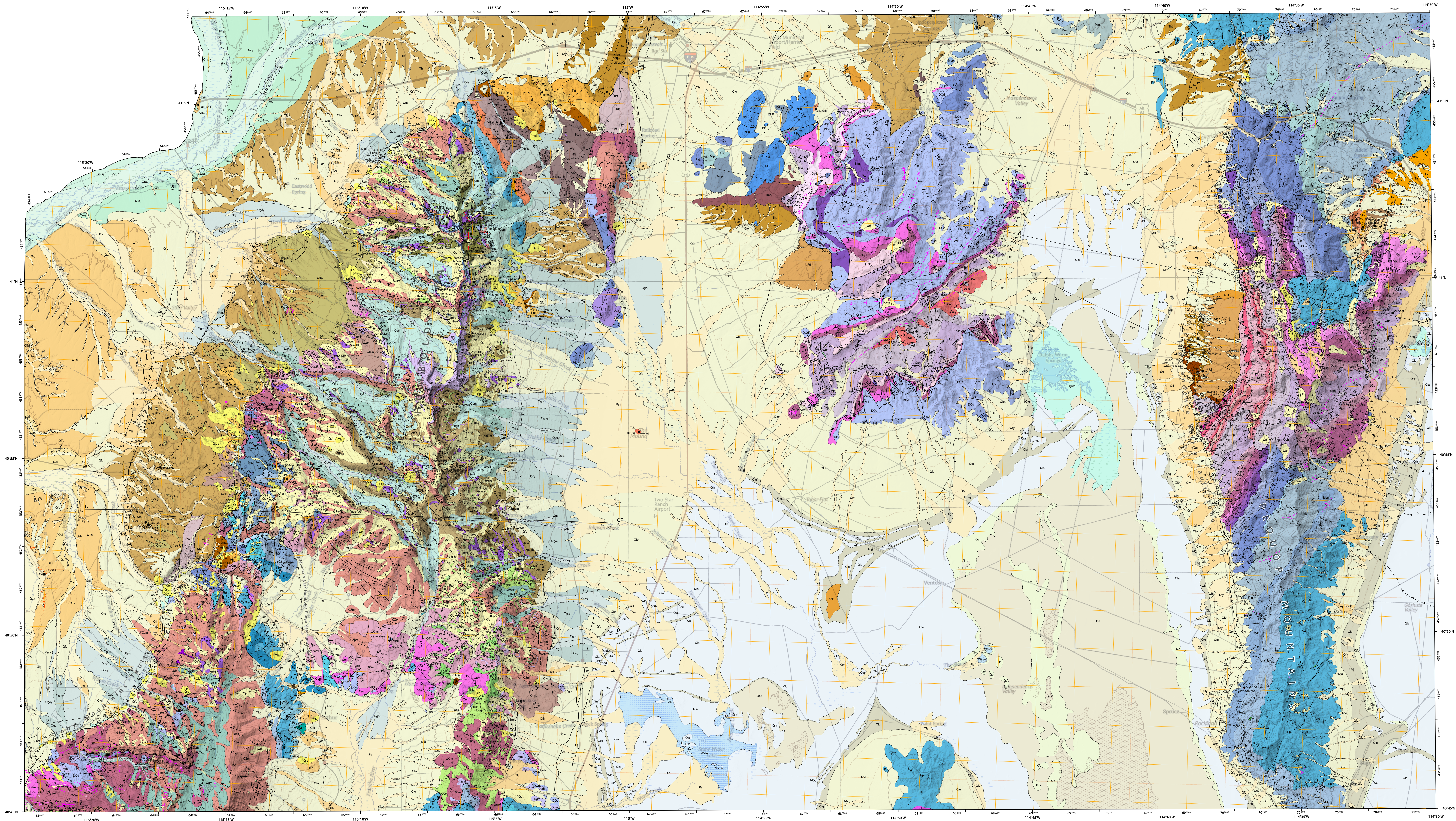


GEOLOGIC MAP OF THE RUBY MOUNTAINS–EAST HUMBOLDT RANGE–WOOD HILLS–PEQUOP MOUNTAINS METAMORPHIC CORE COMPLEX REGION, ELKO COUNTY, NEVADA

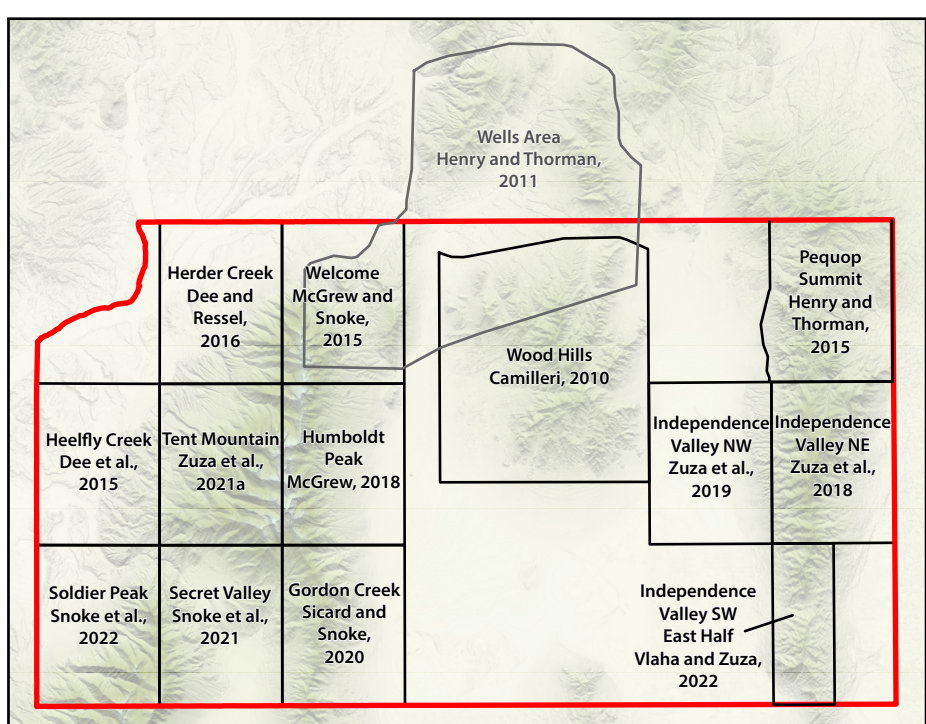
Andrew V. Zuzo, Seth Dee, and Christopher D. Henry

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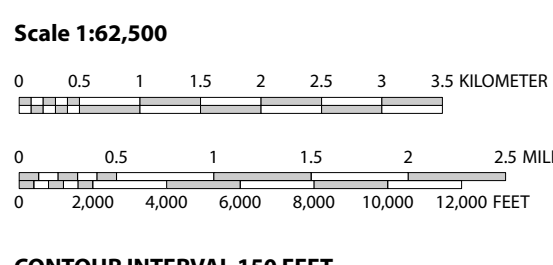
2025



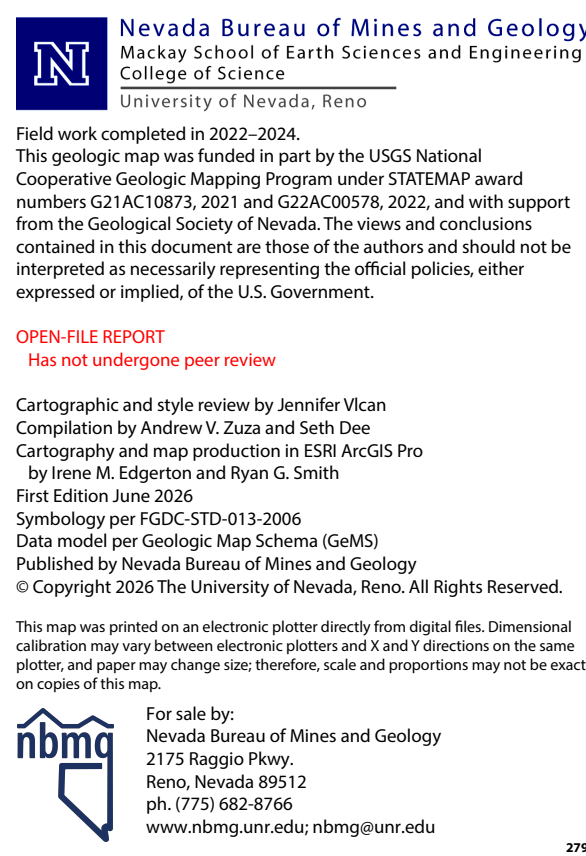
Pike Peak	Twin Butte	Tabor Flat	Metopis	Osley Peak	Wells Peak	Holborn	Peepp	Valley Pass
Morgan Mt	Overly	Harrier Creek	Welch	Wells	Mount Summit	Peepp Summit SW	Peepp Summit NE	Calder
Hulbeck	Heffly Creek	Tart Mountain	Humboldt Peak NW	Joker	Snow Water Lake NE	Independence Valley NW	Independence Valley NE	Hardy Creek
Hulbeck	Silver Peak	Secret Valley	Gordon Creek	Snow Water Lake	Ventura	Independence Valley NW	Independence Valley NE	Shafter
Lamarillo	Vard Peak	Ruby City Creek	Archer Spring	Spring Mountain NW	Chalk Spring	Humboldt Canyon NW	Piney Lake	Deary



Suggested citation:
Zuzo, A. V., Dee, S., and Henry, C. D., 2025. Geologic map of the Ruby Mountains–East Humboldt Range–Wood Hills–Peepp Mountains metamorphic core complex region, Elko County, Nevada. Nevada Bureau of Mines and Geology Open File Report 2025-08, scale 1:62,500, 29 p.



CONTOUR INTERVAL 150 FEET
The shaded area indicates the area covered by the map. The map is titled 'GEOLOGIC MAP OF THE RUBY MOUNTAINS–EAST HUMBOLDT RANGE–WOOD HILLS–PEQUOP MOUNTAINS METAMORPHIC CORE COMPLEX REGION, ELKO COUNTY, NEVADA'.



Geologic map of the Ruby Mountains–East Humboldt Range–Wood Hills–Peepp Mountains metamorphic core complex region, Elko County, Nevada. Nevada Bureau of Mines and Geology Open File Report 2025-08, scale 1:62,500, 29 p.

GEOLOGIC UNITS	
See accompanying text for full descriptions and discussion for this map.	
QUATERNARY DEPOSITS	CENOZOIC AND MESOZOIC INTRUSIVE ROCKS
Water	Jarvis-type rhyolite dike (middle Miocene)
Hilltop Deposits	Basalt dikes (middle Miocene)
Collium (Holocene)	Biotite monzogranite orthogneiss (early Oligocene to middle Eocene)
Landslide deposits (Holocene to late Pleistocene)	Rhyolite dikes (Eocene)
Mega-scale debris deposit (middle Pleistocene?)	Leucogranite (Eocene)
Groundwater discharge, talus, and Playa Deposits	Granodiorite (Eocene)
Groundwater discharge deposits (Holocene to Pleistocene)	Granitic orthogneiss (Eocene)
Playa and alluvial deposits (Holocene)	Hornblende-biotite quartz diorite (middle Eocene)
Evian sand (Holocene)	Leucogranite and leucogranitic orthogneiss (Oligocene to Cretaceous)
Lacustrine Deposits	Leucogranite, undeformed (Late Cretaceous)
Lacustrine and alluvial deposits (Holocene to late Pleistocene)	Mafic dikes and sills (Jurassic)
Lacustrine gravels (late Pleistocene)	Granitic (or rhyolitic) sills (Jurassic)
Alluvial Deposits	UNDEFORMED PALEOZOIC SEDIMENTARY ROCKS
Active floodplain alluvium (late Holocene)	Thayer Formation (Early Triassic)
Young alluvium (Holocene)	Park City Group, undeformed (late Permian)
Young alluvial fan deposits, undisturbed (Holocene)	Permian sedimentary rocks, undisturbed (Permian)
Recently abandoned floodplain alluvium (middle to early Holocene)	Permian sedimentary rocks, undisturbed (Permian)
Young alluvial fan deposits (middle to early Holocene)	Permian sedimentary rocks, undisturbed (Permian)
Abandoned floodplain alluvium (late Pleistocene)	Limestone and conglomerate (early Permian)
Older floodplain alluvium (late Pleistocene?)	Ferguson Mountain and Elly Limestone, undisturbed (Pennsylvanian to early Permian)
Intervalline-age alluvial fan deposits (late Pleistocene)	Elly Limestone (Pennsylvanian)
Older alluvial fan deposits (middle Pleistocene?)	Diamond Peak Formation (Late Mesozoic)
Older alluvial fan deposits (middle Pleistocene?)	Chamman Shale and Diamond Peak Formation, undisturbed (Mesozoic)
Older alluvial fan deposits (middle Pleistocene?)	Chamman Shale (Early Mesozoic)
Older alluvial fan deposits (middle Pleistocene?)	Sandstone of Mesozoic (Early Mesozoic)
Older alluvial fan deposits (middle Pleistocene?)	Trippan Pass Limestone (Early Mesozoic)
Older alluvial fan deposits (middle Pleistocene?)	Joan Limestone (Early Mesozoic)
Older alluvial fan deposits (middle Pleistocene?) to Pliocene?	Gulmette Formation (Devonian)
Older alluvium (middle Pleistocene?) to Pliocene?	Silurian Dolomite (Devonian)
Glacial and related Deposits	Dolomite (Devonian to Silurian)
Glacial outwash deposits, Angel Lake-age (late Pleistocene)	Lone Mountain Dolomite (Devonian to Silurian)
Glacial moraine deposits, undisturbed, Angel Lake and Laramie age (late to middle Pleistocene)	Roberts Mountain Formation (Silurian)
Glacial moraine deposits, Angel Lake-age (late Pleistocene)	Lakewood Dolomite (Silurian)
Glacial outwash deposits, Laramie-age (middle Pleistocene)	Brecciated Lakewood Dolomite, Fish Haven Dolomite, and Eureka Quartzite, undisturbed (Silurian to Ordovician)
Glacial moraine deposits, Laramie-age (middle Pleistocene)	Fish Haven Dolomite (Late Ordovician)
Quaternary Tuffs	Eureka Quartzite (Middle Ordovician)
Vitic ash (early Pleistocene)	Pegging Group
Quaternary and Tertiary Fault Breccia	Laramie Formation (Early Ordovician)
Fault breccia (Quaternary to Miocene)	Kanosh Formation
TERTIARY VOLCANIC AND SEDIMENTARY ROCKS	Kanosh Shale (Early Ordovician)
Tertiary tuffaceous sedimentary rock (middle Miocene)	Kanosh limestone (Early Ordovician)
Landslide deposit (late Miocene)	Kanosh quartzite (Early Ordovician)
Humboldt Formation, Unit 2 (middle Miocene)	Kanosh Formation, undisturbed (Early Ordovician)
Humboldt Formation, Unit 1 (middle Miocene)	Kanosh Formation and Laramie Formation, undisturbed (Early Ordovician)
Humboldt Formation, undisturbed (middle to late Miocene)	House Limestone (Early Ordovician)
Basalt lava, Unit 2 (middle Miocene)	Megabreccia, Unit 2 (middle Miocene)
Megabreccia, Unit 2 (middle Miocene)	Jarvis-type rhyolite, mostly porphyritic (middle Miocene)
Jarvis-type rhyolite, mostly porphyritic (middle Miocene)	Jarvis-type rhyolite, coarsely porphyritic (middle Miocene)
Basalt lava, Unit 1 (middle Miocene)	CLUSTER CREEK SEQUENCE, NORTHERN EAST HUMBOLDT RANGE
Older sedimentary deposits, Unit 3 (middle Miocene)	Older sedimentary deposits, Unit 3 (middle Miocene)
Older sedimentary deposits, Unit 2 (middle Miocene)	Older sedimentary deposits, Unit 2 (middle Miocene)
Megabreccia, Unit 1 (middle Miocene)	Older sedimentary deposits, Unit 1 (late Oligocene? to middle Miocene)
Older sedimentary deposits, Unit 1 (late Oligocene? to middle Miocene)	Older sedimentary sequence, undisturbed (middle to early? Miocene)
Older sedimentary sequence, undisturbed (middle to early? Miocene)	VOLCANIClastic sedimentary deposits (late Oligocene to late Eocene)
Sedimentary breccia (middle Eocene)	Tuff and tuffaceous sedimentary rock (middle Eocene)
Tuff and tuffaceous sedimentary rock (middle Eocene)	Andesite lava and breccia (middle Eocene)
Andesite lava and breccia (middle Eocene)	Tuff of Big Cottonwood Canyon (middle Eocene)
Tuff of Big Cottonwood Canyon (middle Eocene)	Playa-lake-biotite tuff (middle Eocene)
Playa-lake-biotite tuff (middle Eocene)	Conglomerate (Eocene or older)
Conglomerate (Eocene or older)	

MAP SYMBOLS

Contour Solid where certain and location accurate, long dashed where approximately located, short dashed where inferred, dotted where concealed. Quoted if identity or distance uncertain.	Slice alteration
Form line Dashed where approximately located.	Strike and dip of bedding
Fault Solid where certain and location accurate, dashed where approximately located, dotted where concealed, quoted if identity or distance uncertain.	Strike and dip of foliation in igneous rocks
Normal fault Solid where certain and location accurate, dashed where approximately located, dotted where concealed, quoted if identity or distance uncertain. Arrow shows direction of plunge.	Strike and dip of foliation in metamorphic rocks
Brittle low-angle fault (detachment fault) Solid where certain and location accurate, dashed where approximately located, dotted where concealed. Arrow shows direction of plunge.	Strike and dip of foliation in mylonitic shear zone
Thrust fault Solid where certain and location accurate, dashed where approximately located, dotted where concealed. Arrow shows direction of plunge.	Strike and dip of compaction foliation in ash-flow tuff
Low-angle fault Dashed where approximately located, dotted where concealed. Half circles on upper plate.	Fracturing and phasing of flexion
Low-angle normal fault Solid where certain and location accurate, dashed where approximately located, dotted where concealed. Arrow shows direction of plunge.	Basal fold showing bearing and plunge
Anticline Solid where certain and location accurate, dashed where approximately located, dotted where concealed. Arrow shows direction of plunge.	Cochronology sample Label shows sample name.
Syncline Solid where certain and location accurate, dashed where approximately located, dotted where concealed. Arrow shows direction of plunge.	Densitometer Label shows sample name.
Overturned anticline Solid where certain and location accurate, dashed where approximately located, dotted where concealed. Arrow shows direction of plunge.	
Overturned syncline Solid where certain and location accurate, dashed where approximately located, dotted where concealed. Arrow shows direction of plunge.	
Landslide scarp Solid where certain and location accurate.	
Line of cross section	
Geologic line Geologic units appearing as thin narrow features.	
Line of cross section	