

EXPLANATION OF MINERAL RESOURCE POTENTIAL
[The wilderness study area has low resource potential for metals not shown below, nonmetals, and geothermal energy, with certainty level B]

- H/C** Geologic terrane having high energy resource potential for oil and gas, at certainty level C
- M/B** Geologic terrane having high energy resource potential for oil and gas (certainty level C) and moderate mineral resource potential for commodities as indicated below
- M/C** Zinc and antimony (certainty level B)
- M/C** Gold (certainty level C)
- M/C** Gold and silver; tungsten; bismuth, copper, molybdenum, lead, and zinc

CORRELATION OF MAP UNITS

Qu	} QUATERNARY
Unconformity	
Tsv	} TERTIARY
Unconformity	
Pe	} PENNSYLVANIAN
Mcj	
Unconformity	} MISSISSIPPIAN
Dg	
DSOd	} DEVONIAN
Ope	
Cu	} SILURIAN
	} ORDOVICIAN
	} CAMBRIAN

DESCRIPTION OF MAP UNITS

- Qu Alluvium and colluvium (Quaternary)—Unconsolidated boulders to sandy debris
- Tsv Sedimentary and volcanic rocks (Tertiary)—Includes sandstone, conglomerate, and freshwater limestone of the Miocene to Pliocene Horse Camp Formation; Oligocene ignimbrite, tuffaceous volcanic rocks, and volcanoclastic sedimentary rocks; and freshwater carbonate and sandy conglomeratic rocks of the Sheep Pass Formation, which is of Eocene age in this area. These rocks were all deposited in structural basins
- Pe Ely Limestone (Pennsylvanian)—Mainly thin- and thick-bedded, cherty, fossiliferous limestone. Upper parts contain yellow and pink, flaggy, shaly limestone. Minor unnamed Permian(?) silty limestone unit may be present locally at top. Base is gradational with Chaiman Shale
- Mcj Chaiman Shale (Upper Mississippian) and Joana Limestone (Lower Mississippian), undivided—Upper part (Chaiman Shale), crossbedded quartz sandstone layers and lower dark siltstone, black shale, and minor limestone. Lower part (Joana Limestone), fossiliferous and cherty limestone that is massive, silty, or thin bedded. Jasperoid may occur along structures at the contact between Chaiman Shale and Joana Limestone as well as within the Joana Limestone
- Dg Guilmette Formation (Upper and Middle Devonian)—Thick, cliff-forming limestone inter-layered with less prevalent dolomite and minor shaly limestone beds. Commonly in fault contact with overlying units. Base mapped at bottom of limestone cliff. Base commonly faulted
- DSOd Simonson (Middle and Lower Devonian), Sevy (Lower Devonian to Upper Silurian), Laketown (Silurian), and Ely Springs (Upper Ordovician) Dolomites, undivided—Dark-gray, dark-brown, and light-buff to blue-gray dolomite. Dolomite-cemented quartzite sandstone present near base of Simonson Dolomite. Simonson, Laketown, and Ely Springs Dolomites are fossiliferous
- Ope Eureka Quartzite (Middle Ordovician) and Pogonip Group (Middle and Lower Ordovician), undivided—Clean, white quartzite with black or red staining (Eureka Quartzite). Marble tectonite and calcareous phyllite (Pogonip Group) in the southern part of the wilderness study area and shaly limestone, limestone, and minor dolomite in the northern part of the area
- Cu Metacarbonate rocks (Upper Cambrian)—Upper units are of low metamorphic grade, coarse-grained dolomite and porphyroblastic marble. Lower units are low- to medium-grade calcareous schist and porphyroblastic marble

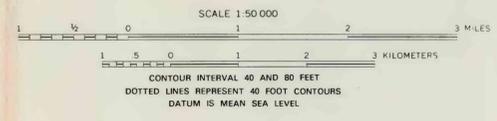
- Contact
- High-angle normal fault—Dashed where approximately located, dotted where concealed. Bar and ball on downthrown side; arrow shows direction of movement
- Low-angle fault
- Normal fault—Decorations on upper plate
- Normal fault—Brittily deformed rocks on upper plate, ductilely deformed rocks on lower plate. Decorations on upper plate
- Thrust fault(?)—Teeth on upper plate. In southwest corner of map area
- Strike and dip of bedding
- Strike and dip of foliation

	U/A	H/B	H/C	H/D
LEVEL OF RESOURCE POTENTIAL	UNKNOWN	M/B MODERATE POTENTIAL	M/C MODERATE POTENTIAL	M/D MODERATE POTENTIAL
	POTENTIAL	L/B LOW POTENTIAL	L/C LOW POTENTIAL	L/D LOW POTENTIAL
				N/D NO POTENTIAL
	A	B	C	D
	LEVEL OF CERTAINTY			

- | | |
|--|--|
| H High mineral resource potential | A Available data not adequate |
| M Moderate mineral resource potential | B Data indicate geologic environment and suggest level of resource potential |
| L Low mineral resource potential | C Data indicate geologic environment, give good indication of level of resource potential, but do not establish activity of resource-forming processes |
| U Unknown mineral resource potential | D Data clearly define geologic environment and level of resource potential and indicate activity of resource-forming processes in all or part of the area |
| N No known mineral resource potential | |
- Diagram showing relationships between levels of mineral resource potential and levels of certainty. Shading shows levels that apply to this study area

Base from U.S. Geological Survey, 1:62,500 Current, Blue Eagle Springs, Forest Home, and Toy Canyon, 1964

Geology mapped by Karen Lund and L.S. Beard, 1984 and 1985; B. News, 1984; A.R. Pyke, D. Schneider, and R. Demmon, 1985; R.B. Scott, 1963-65



MINERAL RESOURCE POTENTIAL AND GEOLOGIC MAP OF THE BLUE EAGLE WILDERNESS STUDY AREA, NYE COUNTY, NEVADA