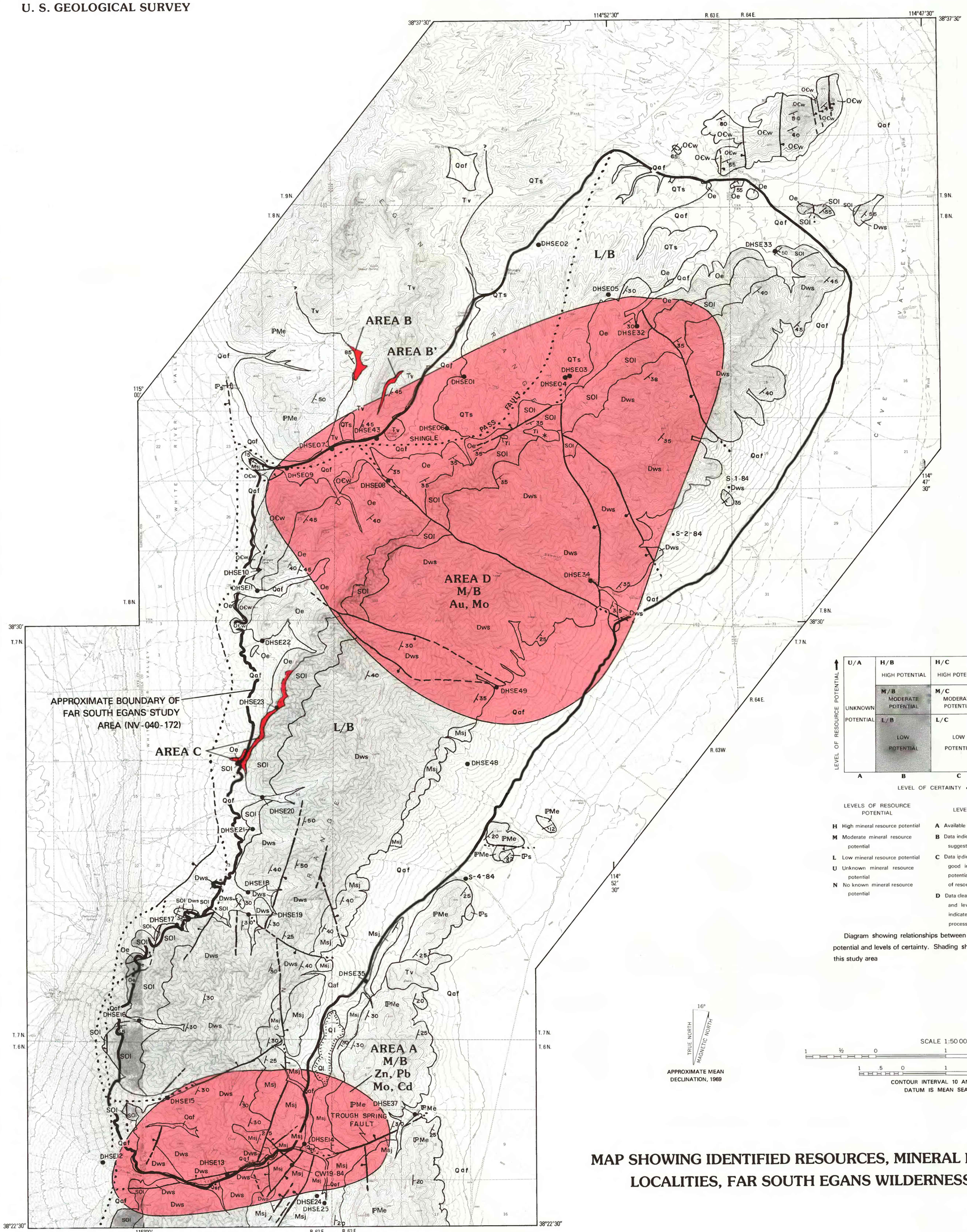
DEPARTMENT OF THE INTERIOR
U. S. GEOLOGICAL SURVEY

BULLETIN 1728-C
PLATE 1



Base from U.S. Geological Survey, 1:24,000 Cave Valley Well, 1971; Shingle Pass, 1968; Shingle Pass SE, 1969, and Sunnyside, 1969

Geology from Kellogg (1963) and reconnaissance mapping by D.C. Hedlund and R.C. Davies, 1984

EXPLANATION OF IDENTIFIED RESOURCES AND MINERAL RESOURCE POTENTIAL

- **Area of identified resources**—Areas B, B', perlite; area C, high-silica quartzite
- **M/B** — **Geologic terrane having moderate mineral resource potential for metals shown (areas A and D), with certainty level B**
- **L/B** — **Geologic terrane having low mineral resource potential for all metals, oil, gas, and coal, with certainty level B**

CORRELATION OF MAP UNITS

Intrusive rocks	Sedimentary rocks		
	Qaf	Holocene and Pleistocene	QUATERNARY
	Ql		
	QTs	Pleistocene Pliocene and Miocene	TERTIARY
QTi	Tv	Oligocene	
	IPs	Middle and Lower Pennsylvanian and Upper Mississippian	PENNSYLVANIAN
	IPMe		MISSISSIPPIAN
	Msj	Upper and Lower Mississippian	
	Dws	Upper, Middle, and Lower Devonian	DEVONIAN
	SOl	Upper Ordovician	SILURIAN
	Oe	Middle and Lower Ordovician	ORDOVICIAN
	O€w	Lower Ordovician and Upper Cambrian	CAMBRIAN

DESCRIPTION OF MAP UNITS

- **Qaf** — **Alluvium, alluvial-fan, and lacustrine deposits (Holocene and Pleistocene)**
- **Ql** — **Landslide deposits (Holocene and Pleistocene)**—Bouldery debris and blocks of Scotty Wash Sandstone on Chainman Shale
- **QTs** — **Cave Valley Formation of Kellogg (1964) (Pleistocene and Pliocene) and older sandstone and tuffaceous sediments (Miocene)**—Lacustrine deposits, poorly exposed siltstone, sandstone, and conglomerate of the Cave Valley Formation overlie diverse tuffaceous sedimentary rocks derived from the erosion of mid-Tertiary volcanic rocks north and west of Shingle Pass
- **Ti** — **Rhyodacite and rhyolite plugs (Oligocene)**—Pale-red, porphyritic hornblende-biotite-quartz rhyodacite plug and smaller very light gray aphyric rhyolite plug
- **Tv** — **Ash-flow tuffs, rhyodacite, and dacite porphyry flows (Oligocene)**—Includes some perlitic vitrophyres (v)
- **IPMe** — **Ely Limestone (Middle and Lower Pennsylvanian, Upper Mississippian)**—Chiefly medium-bedded, silty, highly fossiliferous limestone. An unnamed calcisiltite unit (IPs) overlies the Ely Limestone
- **Msj** — **Scotty Wash Sandstone (Upper Mississippian), Chainman Shale (Upper and Lower Mississippian), and Joana Limestone (Lower Mississippian)**
- **Dws** — **West Range Limestone (Upper Devonian), Guilmette Formation (Upper and Middle Devonian), Simonson Dolomite (Middle Devonian), and Sevy Dolomite (Middle and Lower Devonian)**
- **SOl** — **Laketown Dolomite (Silurian) and Ely Springs Dolomite (Silurian and Upper Ordovician)**—Undivided
- **Oe** — **Eureka Quartzite, Lehman Formation, Kanosh Shale, Shingle Limestone, and Parker Spring Formation (Middle Ordovician), and House Limestone (Lower Ordovician)**—Undivided
- **O€w** — **Whipple Cave Formation (Lower Ordovician and Upper Cambrian), Dunderberg Formation, and Emigrant Springs Limestone (Upper Cambrian)**

- **Contact**—Dashed where approximately located
- **Fault**—Dashed where approximately located; dotted where concealed. Ball and bar on downthrown side
- **Strike and dip of beds**
- **Strike and dip of compaction foliation in ash-flow tuff**
- **Locality of sample used for potassium-argon age determination**
- **Locality of stream-sediment and rock sample**—Showing number
- **Locality and number of jasperoid sample**

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

LEVELS OF RESOURCE POTENTIAL

- **H** High mineral resource potential
- **M** Moderate mineral resource potential
- **L** Low mineral resource potential
- **U** Unknown mineral resource potential
- **N** No known mineral resource potential

LEVELS OF CERTAINTY

- **A** Available data not adequate
- **B** Data indicate geologic environment and suggest level of resource potential
- **C** Data indicate geologic environment, give good indication of level of resource potential, but do not establish activity of resource-forming processes
- **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

Diagram showing relationships between levels of mineral resource potential and levels of certainty. Shading shows levels that apply to this study area

16° TRUE NORTH / MAGNETIC NORTH

APPROXIMATE MEAN DECLINATION, 1969

SCALE 1:50 000

1 ½ 0 1 2 3 MILES

1 .5 0 1 2 3 KILOMETERS

CONTOUR INTERVAL 10 AND 40 FEET
DATUM IS MEAN SEA LEVEL

MAP SHOWING IDENTIFIED RESOURCES, MINERAL RESOURCE POTENTIAL, SIMPLIFIED GEOLOGY, AND SAMPLE LOCALITIES, FAR SOUTH EGANS WILDERNESS STUDY AREA, LINCOLN AND NYE COUNTIES, NEVADA