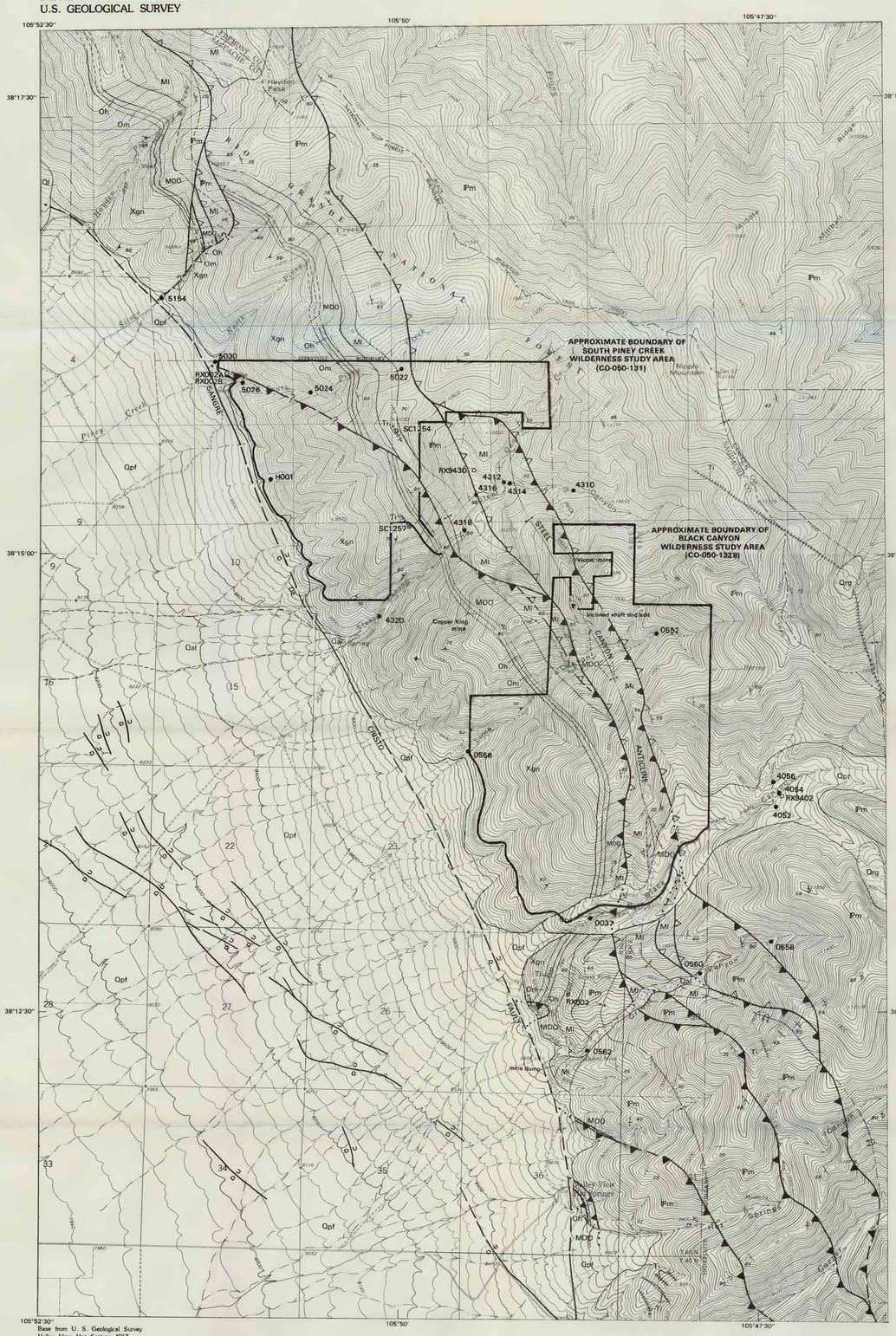


Base from U. S. Geological Survey Valley View Hot Springs, 1967; Coaldale, 1980

CORRELATION OF MAP UNITS

Qal, Qrg, Ql	Holocene	QUATERNARY
Qpf, Qpt	Pleistocene	
Ti	Oligocene(?)	TERTIARY
Pm	Middle Pennsylvanian	PENNSYLVANIAN
Ml	Early Mississippian	MISSISSIPPIAN, DEVONIAN, AND ORDOVICIAN
MDO		
Oh	Middle Ordovician	ORDOVICIAN
Om	Early Ordovician	
Xgn		EARLY PROTEROZOIC

LIST OF MAP UNITS

- **Qal** — **Alluvium (Holocene)**
- **Ql** — **Landslide deposits (Holocene)**
- **Qrg** — **Rock-glacier deposits (Holocene)**
- **Qpf** — **Alluvial-fan deposits of Pinedale age (Pleistocene)**
- **Qpt** — **Glacial till of Pinedale age (Pleistocene)**
- **Ti** — **Intrusive igneous rocks (Oligocene?)**
- **Pm** — **Minturn Formation (Middle Pennsylvanian)**
- **Ml** — **Leadville Limestone (Early Mississippian)**
- **MDO** — **Sedimentary rocks (Mississippian?, Devonian, and Ordovician**—Includes Chaffee Formation (Early Mississippian? and Late Devonian) and Fremont Dolomite (Late Ordovician)
- **Oh** — **Harding Sandstone (Middle Ordovician)**
- **Om** — **Manitou Limestone (Early Ordovician)**
- **Xgn** — **Gneiss (Early Proterozoic)**

Contact—Dashed where approximately located, dotted where concealed

Normal fault—Dashed where approximately located, dotted where concealed; queried where location uncertain; U, upthrown side; D, downthrown side

Thrust or reverse fault—Dashed where approximately located, dotted where concealed; queried where location uncertain; sawteeth on upthrown side

Backthrust—Dashed where approximately located; sawteeth on upthrown side

Local reversal of movement where east-moving thrust oversteps underlying fold

Anticline

Overturned anticline

Syncline

Strike and dip of bedding
- **Inclined**
- **Vertical**
- **Overturned**

Strike and dip of foliation
- **Inclined**
- **Vertical**

Mines and prospects
- **Adit**
- **Inclined shaft, abandoned**

Geochemical - sample locality and number
- 4310 **Stream sediment**
- RX9402 **Rock**

Iron-mineralized rocks

EXPLANATION OF MINERAL RESOURCE POTENTIAL

Geologic terrane having high resource potential (commodity 3, certainty level D), moderate resource potential (commodity 4, certainty level C), and identified resources (commodity 2)

Geologic terrane having moderate resource potential (commodities 4 and 5) with certainty level C or D

Area of identified resources (commodity 1)

Commodities

1. **Iron (Orient mine)**
2. **Limestone and dolomite for agricultural and industrial use**
3. **High-purity limestone and dolomite**
4. **Iron, gold, silver, copper, lead, and zinc**
5. **Low temperature (<100°C) geothermal water**

L/C,D **Geologic terrane having low resource potential for commodities 4 and 5, and for oil, gas, uranium, and coal, with certainty level C or D**—Applies to entire study area except as shown above

LEVEL OF RESOURCE POTENTIAL ↑	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

LEVEL OF CERTAINTY →

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

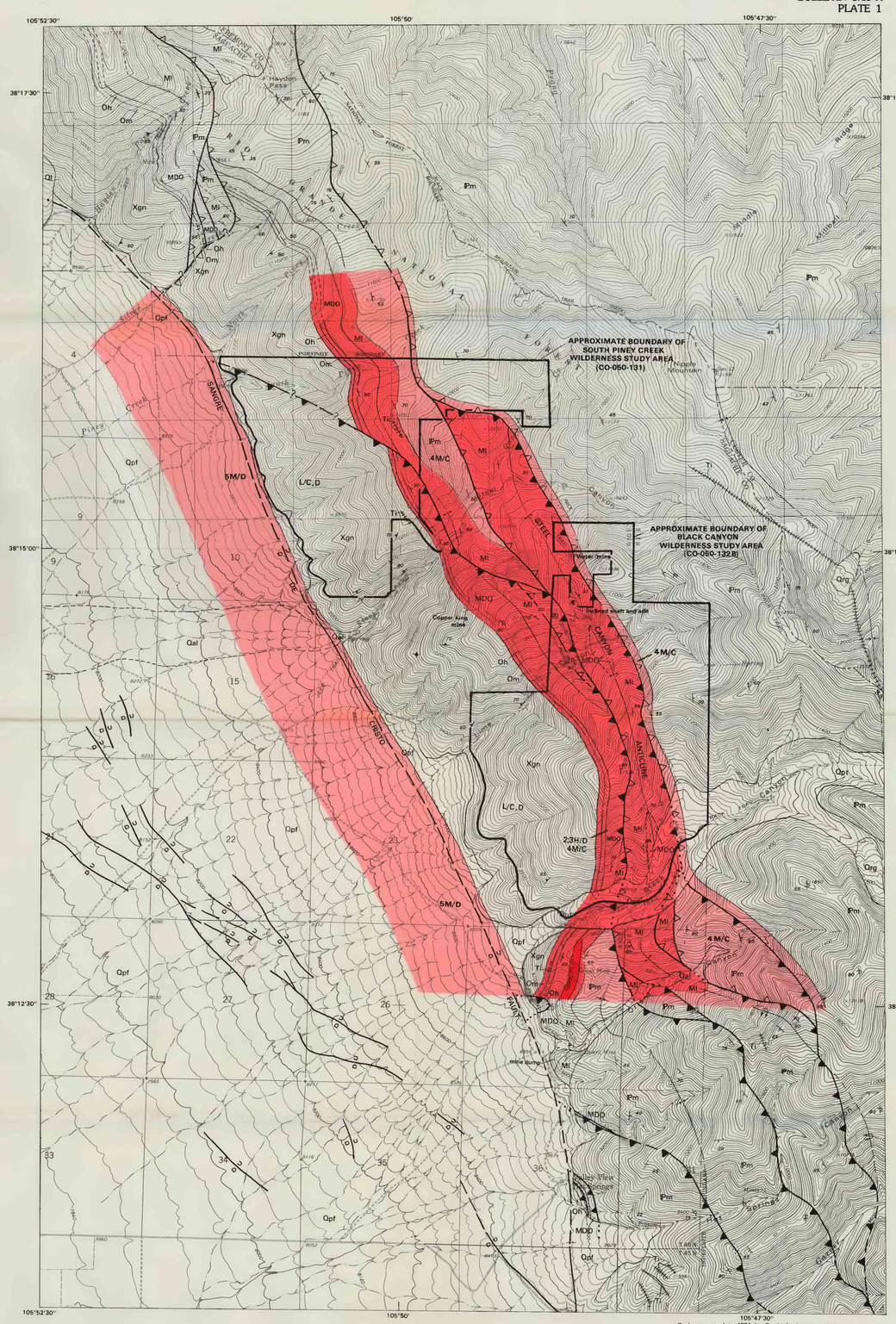
- A Available data not adequate
- B Data indicate geologic environment and suggest level of resource potential
- C Data indicate geologic environment, indicate resource potential, but do not establish activity of resource-forming processes
- D Data define geologic environment and level of resource potential and indicate activity of resource-forming processes in all or part of the area

SCALE 1:24 000

1 ½ 0 1 MILE

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929



Geology mapped in 1984 by D. A. Lindsey, assisted by T. J. Lindsey; mines from Hannigan (1984); geochemical-sample data from Adrian and others (1984), supplemented by J. R. Hassemer in 1984

A. GEOLOGY, GEOCHEMICAL SAMPLING SITES, AND MINES AND PROSPECTS

B. MINERAL RESOURCE POTENTIAL AND IDENTIFIED RESOURCES

GEOLOGIC AND MINERAL RESOURCE POTENTIAL MAPS OF THE BLACK CANYON AND SOUTH PINEY CREEK WILDERNESS STUDY AREAS, SAGUACHE COUNTY, COLORADO