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The basis for the classification is fundamentally geologic. It takes into consideration what is known about the geology of an area; the distribution of known deposits and promising prospects; the kind and mode of occurrence of mineral deposits in comparable areas; and, to the extent that new types of demands and new technology can be anticipated, extent that new types of resources for which use or demand is only now being expected occurrence of resources for which use or demand is only now emerging.

The Colorado mineral belt, the source of most of the State's metal output in the past, is the most productive area for production in the United States and is distinguished from the mountains from this belt by the absence of igneous and metamorphic rocks. In this belt, the principal mineral districts are the following: Lead, Iron, Silver, Gold, and Copper. The Colorado mineral belt is a broad, low-lying area, extending from the base of the Rocky Mountains to the Gulf of Mexico. It is bounded on the north by the Rocky Mountains, on the south by the Gulf of Mexico, on the east by the Mississippi River, and on the west by the Rocky Mountains. The Colorado mineral belt is a broad, low-lying area, extending from the base of the Rocky Mountains to the Gulf of Mexico. It is bounded on the north by the Rocky Mountains, on the south by the Gulf of Mexico, on the east by the Mississippi River, and on the west by the Rocky Mountains. The Colorado mineral belt is a broad, low-lying area, extending from the base of the Rocky Mountains to the Gulf of Mexico. It is bounded on the north by the Rocky Mountains, on the south by the Gulf of Mexico, on the east by the Mississippi River, and on the west by the Rocky Mountains.

Mineral deposits are not confined to the Colorado mineral belt, but also occur in many other localities and are of wide variety. Some and roadless areas on the eastern and northern slopes of the Front Range and vanadium as well as lead, copper and thorium. Areas southeast of the Canon and in the West Mountains have potential for vanadium and rare earths. Recent recognition of zinc sulfide and vanadium in the Colorado mountains (Sheridan and Krombein, 1977) leads to a "high potential" classification of some areas. These areas are in a belt south of U.S. Highway 160 in the Park Range of northern Colorado.

The brief time available for this evaluation makes it inherently incomplete. No detailed search for all known mineral occurrences could be made. The state of geologic knowledge is at present quite uneven. The inherent errors are mostly on the side of conservatism, and increased knowledge will inevitably have many areas to a classification of greater mineral-rare potential. Demands for new mineral commodities stemming from changing technology will also tend to move the classifications in the same direction.

Maps showing distribution of individual mineral commodities or commodity groups are available in a report by the U.S. Geological Survey (1964). A map showing the occurrence of almost all kinds of metallic and nonmetallic mineral commodities is also available (Mineral Classification Branch, U.S. Geological Survey, 1971), as is a map showing the character and magnitude of the production from the various metallic mining districts (Marsh and Queen, 1974).

The compilation was delivered to the U.S. Forest Service as an administrative report in December 1977. It is being made available in open file in response to public request.

References

- Henderson, C. W., 1926, Mining in Colorado, a History of Discoveries and Development, published by the U.S. Geological Survey Professional Paper 138, 263 p.
- Murk, W. M., and Queen, R. W., 1974, Paper showing localities and amounts of metallic minerals produced in Colorado and the Geological Survey Mineral Investigations Resources Map H-58, scale 1:500,000.
- Mineral Classification Branch, U.S. Geological Survey, 1971, Reported occurrences of metallic minerals in Colorado: U.S. Geological Survey Mineral Investigations Resources Paper H-51, scale 1:500,000.
- Sheridan, D. M., and Raymond, W. H., 1977, Preliminary data on some potential deposits of zinc-copper-lead sulfides and silver in the Grand Canyon, Colorado: U.S. Geological Survey Open-File Report 77-40, 7 p.
- Steeve, T. A., 1948, ore deposits in the central San Juan Mountains, Colorado, in Ridge, J. A., ed., ore deposits of the Four Corners States, 1933-1967 (Gronat Association of Mining, Metallurgical, and Petroleum Engineers, 706-713).
- Tweto, Oden, 1968, Ecology setting and interrelationships of mineral deposits in the San Juan Mountains, Colorado and south-central Colorado, in Ridge, J. A., ed., ore deposits of the Four Corners States, 1933-1967 (Gronat Association of Mining, Metallurgical, and Petroleum Engineers, 713-788).
- U.S. Bureau of Mining, Metallurgical, and Fuelwork Engineers, 1951-1958.
- 1976, Preliminary geologic map of Colorado: U.S. Geological Survey Miscellaneous Field Studies Map H-78, scale 1:500,000.
- U.S. Forest Service, 1977, Roadless and undeveloped area inventory, RARE II, National Forests, Colorado.
- U.S. Geological Survey, 1965, Mineral and water resources of Colorado: 88th Congress, 2d Session, 1965, Committee on Interior and Insular Affairs, Senate, 302 p.

U.S. Geological Survey
OPEN FILE REPORT
This map is preliminary and has not
been edited or reviewed for conformity
with Geological Survey standards or
nomenclature.

MAP SHOWING APPRAISAL OF MINERAL RESOURCE POTENTIAL OF RARE II PROPOSED ROADLESS AREAS IN NATIONAL FORESTS, COLORADO (EXCLUSIVE OF COAL, OIL, GAS, AND CONSTRUCTION MATERIALS)

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Compiled December 1977 by Ogden Tweto and Thomas A. Steven from published and unpublished data. Data were also supplied by R. B. Taylor, G. R. Scott, G. L. Snyder, D. M. Sheridan, W. H. Raymond, and others of the U.S. Geological Survey.

STATE of COLORADO