

74-269



EXPLANATION
MINERAL

- WITHDRAWN LANDS**
- Lands withdrawn pending classification for coal
 - Lands withdrawn pending classification for coal and phosphate
 - Lands withdrawn for oil shale
 - Lands withdrawn pending classification for phosphate
 - Naval Oil Shale Reserve
 - Naval Petroleum Reserve
- CLASSIFIED LANDS**
- Coal
 - Phosphate
 - Sodium
- LANDS VALUABLE PROSPECTIVELY FOR RETENTION OF FEDERAL MINERAL RIGHTS**
(Hachures, where present, are on valuable side of boundaries.)
- Asphaltic materials
 - Coal
 - Geothermal resources
 - Oil and gas
 - Phosphate
 - Potassium
 - Sodium
- KNOWN LEASING AREAS**
(Defined and undefined)
- Known geologic structure of producing oil and gas fields
 - Known geothermal resources area
 - Known coal leasing area
 - Known oil shale leasing area
 - Known phosphate leasing area
 - Known potassium leasing area
 - Known sodium leasing area

Symbols show reported locations of mines, prospects, and occurrences of selected minerals. Inactive mines are not distinguished, nor is the size or grade of the mineral occurrence indicated. Each mineral occurrence is located to the nearest 40-acre tract within a section. Multiple occurrences of the same mineral within a quarter are not differentiated from a single occurrence. Several different minerals at the same locality are shown by symbols in parenthesis with a leader and dot:

Beryllium, tungsten, and columbium-tantalum at the same locality

Certain symbols such as those for gold, silver, copper, lead, zinc, tungsten, and molybdenum; chromium, cobalt, nickel, and platinum; and uranium and vanadium may be combined in a single symbol to show several different minerals at the same locality. Examples of combined symbols are:

Copper, gold, lead, and zinc Chromium, cobalt, and nickel Uranium and vanadium

Areas of numerous or widespread occurrences of one or more minerals are shown by a dotted outline. Symbols are shown inside the outlined area or by a leader. An isolated occurrence of a different mineral within such an area is shown by a dot and a leader. Examples are:

Bentonite occurs throughout area Local occurrence of fluorapatite at dot within an area of widespread occurrence of beryllium, tungsten, and columbium-tantalum

Mine (leasable minerals only) Mine or prospect where mineral is unknown Pit (bentonite or clay) Gravel Quarry pit

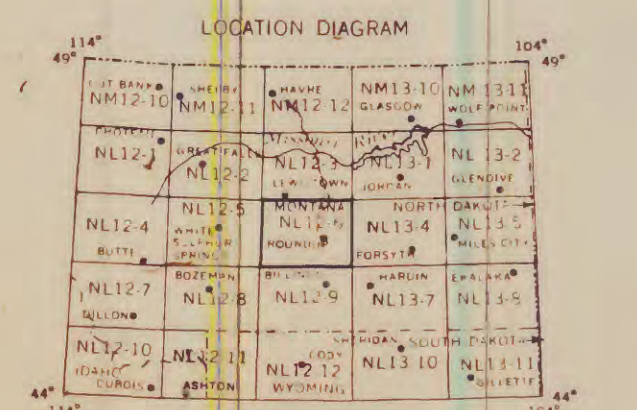
- | | | |
|------------------------|-----------------------|---------------------------|
| METALS | METALS | NONMETALS |
| Aluminum | Titaniferous iron | Fuller's earth |
| Antimony | Titanium | Ges and ornamental stones |
| Arsenic | Tungsten | Graphite |
| Beryllium | Uranium | Gypsum |
| Bismuth | Vanadium | Hellum |
| Cadmium | Zinc | Indium |
| Cesium and Rubidium | Zirconium and Hafnium | Kaolin |
| Chromium | | Kyanite group |
| Cobalt | | Limestone |
| Columbium and Tantalum | | Lithium minerals |
| Copper | | Magnesite |
| Germanium | | Magnesium sulfate |
| Gold | | Meerschaum |
| Iron | | Mica |
| Lead | | Mineral pigments |
| Manganese | | Nephelite |
| Mercury | | Olivine |
| Molybdenum | | Quartz |
| Nickel | | Serpentine |
| Platinum group | | Calcium chloride |
| Rare earths | | Carbon dioxide |
| Silver | | Clay, refractory |
| Selenium | | Diatomite |
| Tellurium | | Dunortierite |
| Thorium | | Feldspar |
| Tin | | Fluorspar |

WATER

- Lands classified or withdrawn for waterpower or reservoir sites

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

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LEASABLE MINERAL AND WATERPOWER LAND CLASSIFICATION MAP
ROUNDUP QUADRANGLE, MONTANA

SHOWING

LANDS WITHDRAWN, CLASSIFIED, AND VALUABLE PROSPECTIVELY FOR LEASABLE MINERALS

AND OCCURRENCES OF OTHER SELECTED MINERALS.

LANDS WITHDRAWN OR CLASSIFIED FOR WATERPOWER AND RESERVOIR SITES

Compiled by Andrew F. Bateman, Jr. and Elizabeth G. Allen

1974

Not all classification categories or mineral occurrences shown in the explanation are present in this quadrangle. Categories shown apply only to any public lands included within boundaries. The leasable minerals in public domain lands named in the various mineral leasing acts as amended over the years are coal, oil, gas, and oil shale; phosphates, or phosphate rock; chlorides, sulfates, carbonates, borates, silicates or nitrates of potassium and of sodium; sulphur in Louisiana and New Mexico; and native asphalt, solid and semisolid bitumen, and bituminous rock (including oil-impregnated rock or sands from which oil is recoverable only by special treatment after the deposit is mined or quarried). All minerals are leasable on federal acquired lands and restricted allotted and tribal Indian lands.

There are no lands on this sheet withdrawn for leasable mineral nor classified or withdrawn for waterpower or reservoir sites.

No land in this quadrangle is classified as valuable for asphaltic materials, geothermal resources; oil shale, phosphate, potassium, or sodium.

Dashed line projected into unsurveyed areas are taken from U. S. Forest Service maps.

All information on this map compiled as of May 1, 1974.