
By Andrew W. Berg and Fred V. Carrillo

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As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

This publication has been cataloged as follows:

Berg, Andrew W

MILS, the mineral industry location system of the Federal Bureau of Mines.

(Information circular - Bureau of Mines ; 8815)
Supt. of Docs. no.: 1 28,27:8815.

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MILS: THE MINERAL INDUSTRY LOCATION SYSTEM
OF THE FEDERAL BUREAU OF MINES

by

Andrew W. Berg\textsuperscript{1} and Fred V. Carrillo\textsuperscript{2}

ABSTRACT

The Bureau of Mines Mineral Industry Location System (MILS) is part of the computerized Minerals Availability System (MAS), a comprehensive data base of known mineral deposits. MILS, the location subsystem of MAS, has become widely used by the minerals industry and organizations with land-use planning and land management responsibilities.

Information on more than 135,000 mineral locations and processing plants in the United States is contained in the data base. This information includes the name, location, mineral commodity, type of operation, bibliography, and cross-references for each property or prospect.

Computer-drawn map overlays at various scales showing clustered MILS locations and computer printouts keyed to those overlays are available for inspection and reproduction at the Bureau's Field Operations Centers at Juneau, Alaska, Denver, Colo., Pittsburgh, Pa., and Spokane, Wash.

INTRODUCTION

The Mineral Industry Location System (MILS) is the location subsystem of the Federal Bureau of Mines Minerals Availability System (MAS). The objective of the MAS program is systematic measurement and classification of domestic and foreign mineral deposits according to their respective extraction technologies, economics, and commercial availability. MAS deals with complete mineral deposit evaluations and provides a rapid and systematic procedure to monitor the present and potential availability of mineral supplies to the United States.

Within MAS, the Mineral Industry Location System (MILS) locates and provides related information on mineral industry sites throughout the world. A "mineral industry location" is defined as metallic or nonmetallic occurrences, prospects, mines (both past and present producers), geothermal wells, and mineral processing plants such as mills, smelters, and refineries.

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Responsibility for development of MAS-MILS data for California, Idaho, Montana, Nevada, Oregon, Washington, and Hawaii, as well as offshore sites and deep-seabed deposits, resides with the Bureau's Western Field Operations Center (WFOC) at Spokane. Responsibility for the remaining States west of the Mississippi River resides with the Intermountain Field Operations Center (IFO) at Denver. Responsibility for all States east of the Mississippi River resides with the Eastern Field Operations Center (EFOC) at Pittsburgh. Alaskan locations are the responsibility of the Alaska Field Operations Center (AFOC) at Juneau (fig. 1).

Because of differing startup dates, Field Operations Centers are at different levels of development regarding MAS-MILS input from their areas. To date, the MILS data base in Denver contains more than 4,500 locations for the AFOC area, 30,000 locations for the IFOC area, 39,000 locations for the EFOC area, and 58,000 locations for the WFOC area. Examples discussed in the following pages are from the WFOC area.

For Bureau use and open file availability, a comprehensive library of MILS data is maintained at WFOC for California, Idaho, Montana, Nevada, Oregon, Washington, and Hawaii. Map overlays of MILS locations and their related computer printouts provide a rapid means of identifying mineral properties in various geographic areas. These often provide a convenient starting point for a wide variety of mineral-related projects.

Principal users of MILS data include mining or minerals exploration companies as well as public and private organizations with land-use planning and land management responsibilities.

INPUT

Sources of Data

MILS data, for entry into the system, are derived from a variety of sources. Publications of the Bureau of Mines (USBM), the U.S. Geological Survey (USGS), and State geology departments are reviewed for mineral locations and related data. Unpublished data from the USBM and location information from mining companies comprise important additional sources of information. Various periodicals dealing with the mining industry, along with inspection reports of the Mine Safety and Health Administration (MSHA) on currently operating properties, are a constant source of current information to be incorporated into the MILS system.

Categories of Information

Each MILS property is assigned a numeric code which indicates the State, county, and a numeric sequence number within that county. For example, the Coeur Project property in Idaho is identified by the number 016-079-0040. This indicates the State of Idaho (016), county of Shoshone (079), and numeric sequence number (0040) in that county.

The information collected for each MILS property, when complete, consists of 12 categories or groups, as described in the following paragraphs.
FIGURE 1. - Field Operations Center jurisdiction areas.
Identification

The identification group contains the primary property name, type of operation, and current operational status.

Location

Data entered in the location category include latitude, longitude, point of reference, elevation, and the year in which the property was last field-checked.

Universal Transverse Mercator (UTM)

Universal Transverse Mercator (UTM) coordinates are produced automatically by computer from the latitude-longitude entry, along with zone and hemisphere.

Topographic

The topographic group includes the name of the 1:250,000-scale quadrangle map that includes the MILS location. Name and scale of the largest scale USGS topographic quadrangle map on which the location was plotted for entry into MILS are also entered.

Basin

Under the basin category, the name of the drainage basin in which the mineral property is located and its corresponding USGS River Basin Code are entered.

Holdings

Holdings indicate the type of ownership or control of the mineral deposit or processing plant. Examples are fee ownership, private lease, or located claim. Three types can be entered in order of importance.

Reference

The MILS subsystem is cross-referenced to MSHA identification numbers, USBM mineral property files, USBM mine map repository, USGS Computerized Resources Information Bank (CRIB) system, and the soon-to-be-implemented USBM drill core library at Reno. The cross-references provide access to a wide variety of additional data.

Commodity

Mineral commodities are identified in order of decreasing importance.

Public Land Survey (PLS)

The PLS group provides for entry of the meridian, township, range, section, and section subdivision.
Names

Often a mineral property has had more than one official name. If several names are encountered in studying a property's literature, the "names" group permits their entry.

Bibliography

The bibliography group allows a user of MILS data to consult sources for additional information. The system can accommodate as many as 999 lines of bibliographic citations.

Owners

The name of the owner or operator and the home office location are entered in this group.

Completed computer input forms for the Coeur Project example are illustrated in appendix A. The completed forms can be mailed to the Minerals Availability Field Office in Denver for entry into the system or entered at the Field Operations Centers on remote computer terminals.

Precision

The system provides for an entry reflecting the degree of accuracy by which the location selected by the evaluator represents the actual location of the property. Location information from published sources is sometimes vague. Alternatives to entering such vague locations are either to leave properties out of the system or to apply a low degree of precision. The latter course is usually followed. When better location information becomes available from additional sources or field investigations, the entry is changed to a higher degree of precision.

Updating Procedures

Additions and corrections to the data base are made as new or additional information becomes available. This permits the data base to reflect, on a current basis, the latest and best information. Entry by remote terminal at Field Operations Centers permits daily updating.

OUTPUT AVAILABLE

Open File at the Western Field Operations Center

1:250,000-Scale Topographic Quadrangles

Standard base maps used for clear plastic overlays in MILS are USGS 1:250,000-scale quadrangles. The conterminous United States are covered by 473 of these quadrangles. The WFOC area is covered by 107 1:250,000-scale quadrangles (fig. 2). Computer-generated MILS data supply cluster point locations,3 which are plotted on the overlays. The computer printout keyed

3See definition of cluster point locations, page 7.
FIGURE 2. - Index for 1:250,000-scale quadrangle maps covering six Western States.
to these cluster numbers contains the corresponding data for each property represented on the overlay. Appendix B (fig. B-2) shows a reduced reproduction of the 1:250,000-scale map for the Wallace, Idaho, quadrangle. Figure B-1 shows the location symbols that appear on the corresponding computer-drawn MILS overlay. Appendix B also includes a typical page from the corresponding computer printout for the Wallace quadrangle (fig. B-3). The 1:250,000-scale overlays and their corresponding printouts are the most frequently requested MILS product.

1:500,000-Scale State Overlays

State MILS overlays at a scale of 1:500,000 are available. These overlays can be used with USGS State geologic maps as well as land status or other map types. An example of a State overlay is shown in figure B-4. Figure B-5 is a reproduction of a printout page keyed to that overlay. Such overlay and printout sets may be useful to organizations with land-use planning, exploration, or jurisdictional responsibilities on a statewide basis.

Commodity Overlays

Another useful overlay is one displaying clustered locations for a specific commodity or commodities in MILS. For this purpose a WFOC area base map has been prepared at a scale of 1:1,750,000. Figure B-6 illustrates an overlay and base map for lead and zinc. Figure B-7 is a computer printout page keyed to that overlay. Overlays and printouts for most major metal commodities are available at this scale from the WFOC open file library.

Cluster Point Locations

Plotting all individual sites on plastic overlays at most map scales could result in excessive clumping of points. To avoid this problem, cluster points are used. A cluster point represents all MILS locations lying within 1/4 inch (0.63 cm) of the point on the overlay (fig. B-1). Circle radii distances on the ground represented by the 1/4-inch (0.63-cm) cluster radius at various map scales follow:

<table>
<thead>
<tr>
<th>Scale</th>
<th>Cluster radius</th>
<th>Ground distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:24,000</td>
<td>1/4 inch (0.63 cm)</td>
<td>0.10 mile (0.16 km)</td>
</tr>
<tr>
<td>1:62,500</td>
<td>1/4 inch (0.63 cm)</td>
<td>0.25 mile (0.40 km)</td>
</tr>
<tr>
<td>1:250,000</td>
<td>1/4 inch (0.63 cm)</td>
<td>1.00 mile (1.61 km)</td>
</tr>
<tr>
<td>1:500,000</td>
<td>1/4 inch (0.63 cm)</td>
<td>2.00 miles (3.22 km)</td>
</tr>
<tr>
<td>1:1,750,000</td>
<td>1/4 inch (0.63 cm)</td>
<td>7.00 miles (11.26 km)</td>
</tr>
<tr>
<td>1:2,500,000</td>
<td>1/4 inch (0.63 cm)</td>
<td>10.00 miles (16.10 km)</td>
</tr>
<tr>
<td>1:3,168,000</td>
<td>1/4 inch (0.63 cm)</td>
<td>12.00 miles (19.31 km)</td>
</tr>
</tbody>
</table>

As the map scale becomes larger, the location density per cluster point can decrease to a minimum of one site. Even at the small scale of 1:1,750,000, with a cluster radius distance on the ground of 7 miles (11.26 km), a cluster point may represent only one site within certain areas or for certain commodities.
Density Plot Overlays

An additional method of displaying MILS data on an overlay is the density plot. By this method each MILS location is represented by a single computer-generated point on the overlay corresponding to its location coordinates. This point generation can be programmed for all locations (fig. C-1), or for any selected data category within the system.

A density plot for gold at a scale of 1:1,750,000 is illustrated by a reduced reproduction (fig. C-2). Future uses for density plots could include areal geochemical studies and the definition of metallogenic provinces. Density plots are available on an open file basis for gold, lead, silver, and zinc, and for all MILS locations in the WFHC area.

Indexes

Indexes have been prepared to provide efficient access to the voluminous MILS data on open file. Two frequently used indexes are the State Alphabetic (fig. D-1) and the State/County Alphabetic (fig. D-2).

If a property name and county are known, reference to the appropriate alphabetic indexes will quickly tell the investigator if the property is in the MILS system. If the property name is known, but not the county, then the State alphabetic listing will quickly determine if the property is in the system. These listings also provide secondary names, location, 1:250,000-scale quadrangle name, 7.5- or 15-minute map name, and sequence number.

Reproduction of Open File Data

On receipt of a request for MILS open file data, the open file originals from the Field Operations Center library are taken to a local reproduction firm. Payment for reproduction is arranged between the requestor and the firm selected. In 1979 charges for these services varied somewhat between Field Operations Centers but were about $0.90 per square foot for plastic overlays and $0.09 per page for copies of the computer printout.

Special Requests

Magnetic Tape

A magnetic computer tape containing MILS data for the entire United States is available to organizations that wish to use it with their own computer facilities. This tape can be ordered at cost ($80.00 in late 1979) from the Office of Minerals Availability, Bureau of Mines, 2401 E. Street NW, Washington, DC 20241. Payment should be made by check or money order to the Bureau of Mines. Additional information regarding the MILS computer tape may be obtained by calling 202-634-1292.
Special Areas or Data

The variety of uses for MILS data has created a demand for overlay configurations that differ from those currently maintained on open file at the Field Operations Centers. A Bureau of Land Management area, National Forest, or State land area might be required. Additionally, a need for a different set of information using overlays over standard map scales could develop for a specific problem. These kinds of output can be obtained on a special-request basis through the appropriate Field Operations Center.

Special requests require consideration of some of the output options that exist for MILS (fig. 3). For example, a special request for "producers" should specify whether "current producers" as well as "past producers" are required. In the "type of operation" category, a special request for all mines must include, at least, all surface, surface-underground, and underground mines to be reasonably inclusive.

Special requests are potentially costly, as programming and computer time on a custom basis are involved; therefore, quotations are obtained for the requestor before the work is undertaken.

Special Request Listings

Another type of special request is a list with limited specific data. The user might, for example, desire an alphabetic list of locations by township and range, a list with only the property name and commodity, or a wide variety of combinations limited only by the contents of the data base.
**FIGURE 3.** Examples of some output options for MILS.
FIELD OPERATIONS CENTERS

A request for information about the MILS system or the implementation of a MILS request should be directed to the appropriate Field Operations Center. Addresses of the four centers follow.

Alaska Field Operations Center
Bureau of Mines
P.O. Box 550
Juneau, Alaska 99802

Intermountain Field Operations Center
Bureau of Mines
Building 20, Denver Federal Center
Denver, Colo. 80225

Eastern Field Operations Center
Bureau of Mines
4800 Forbes Avenue
Pittsburgh, Pa. 15213

Western Field Operations Center
Bureau of Mines
E. 315 Montgomery
Spokane, Wash. 99207
### MINERALS AVAILABILITY SYSTEM (MILS ENTRY FORM)

<table>
<thead>
<tr>
<th>SEQUENCE NUMBER</th>
<th>SITE NUMBER</th>
<th>IDENTIFIER</th>
<th>ID</th>
<th>NAME (primary)</th>
<th>TYPE of operation</th>
<th>CURRENT status</th>
<th>DATE</th>
<th>PAGE OF 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>21456312170402</td>
<td></td>
<td></td>
<td></td>
<td>COEUR PROJECT</td>
<td>UNDERGROUND</td>
<td>PRODUCER</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LOCATION**
- **LATITUDE**: 2728
- **LONGITUDE**: 3536
- **POINT OF REFERENCE**: 4990
- **Elevation**: 3860
- **DATE**: 69YFC 72
- **ZONE**: 94
- **NORTHING**: 3031
- **EASTING**: 36

**UTM**
- **UTM Zone**: 94
- **NORTHING**: 3031
- **EASTING**: 36

**TOPOG**
- **Wallace**: WALLACE
- **PRIVATE**: 2

**BASEN**
- **RIVER**: 4445
- **RBC**: 45
- **HUC**: 56

**HOL**
- **FEE OWNERSHIP**: 76

**REFER**
- **WPOG**: MILS 1
- **M**: 1000479
- **A**: 1M 777

**COMM**
- **1**: 5400
- **2**: 1700
- **3**: 3400
- **4**: 2100
- **5**: 500

**PLS**
- **1**: 3455
- **2**: 35P-TWN 35P-RC
- **3**: P-SC 5253
- **4**: P-SURVEY 56

**FIGURE A-1. - MILS entry form 1.**
FIGURE A-2. - MILS entry form 2.
APPENDIX B.--COMPUTER CLUSTER OVERLAYS AND PRINTOUTS

Editor's Note.--In the following figure B-1, a single symbol represents all sites at a particular location.
Figure B-1. Clustered MILS locations for the Wallace 1:250,000 quadrangle.
FIGURE B-2. - Wallace 1:250,000-scale quadrangle.
NAME - COEUR PROJECT
REFERENCE NUMBER - 0160790040
STATE - IDAHO
COUNTY - SHOSHONE
ELEVATION - 0951 METERS
LATITUDE - 47° 29' 25" N
PRECISION - 100 METERS
LONGITUDE - 115° 59' 33" W
REFERENCE POINT - MAIN ENT.
UTM: ZONE 11 NORTHING 5259920
EASTING 575890
PUBLIC LAND SURVEY TOWNSHIP - 04R N
RANGE - 004 E
DESCRIPTION SECTION - 19
RIVER BASIN - 76U
COEUR D'ALENE RIVER
7621
DOMAIN - PRIVATE
STATUS - PRODUCER
OPERATION TYPE - UNDERGROUND
MESA ID NO. 10 00479
YEAR FIELD CHECKED -
MAP NAME - WALLACE
TYPE - 15 MIN USGS TOPO
1:250,000 MAP NAME - WALLACE
238 MINERAL PROPERTY FILE - 37.17b
PRIMARY NAME - 167 COEUR PROJECT
COMMODITIES - SILVER COPPER LEAD
ZINC GOLD
FRYKLUND V C 1964
USGS PRO PPR 445 P 70
MILL CAPACITY 450 TPD PRODUCING 100,000 to 500,000 TONS ANNUALLY

260

NAME - RAINROW MINE
REFERENCE NUMBER - 0160790361
STATE - IDAHO
COUNTY - SHOSHONE
ELEVATION - 0899 METERS
LATITUDE - 47° 29' 26" N
PRECISION - 100 METERS
LONGITUDE - 115° 59' 15" W
REFERENCE POINT - MAIN ENT.
UTM: ZONE 11 NORTHING 5265865
EASTING 576271
PUBLIC LAND SURVEY TOWNSHIP - 04R N
RANGE - 004 E
DESCRIPTION SECTION - 19
RIVER BASIN - 76U
COEUR D'ALENE RIVER
7621
DOMAIN - UNDETERMINED
STATUS - EXPLORED PROSPECT
OPERATION TYPE - UNDERGROUND
MESA ID NO. 10 167 RAINROW MINE
YEAR FIELD CHECKED -
MAP NAME - WALLACE
TYPE - 15 MIN USGS TOPO
1:250,000 MAP NAME - WALLACE
238 MINERAL PROPERTY FILE - 00,000
PRIMARY NAME - 167 RAINROW MINE
COMMODITIES - LEAD ZINC SILVER
HORBS ET AL 1965 USGS PROF PAPER 478.

261

NAME - CUNNINGHAM MINE
REFERENCE NUMBER - 0160790304
STATE - IDAHO
COUNTY - SHOSHONE
ELEVATION - 1736 METERS
LATITUDE - 47° 30' 13" N
PRECISION - 100 METERS
LONGITUDE - 115° 49' 40" W
REFERENCE POINT - MAIN ENT.
UTM: ZONE 11 NORTHING 5261578
EASTING 588280
PUBLIC LAND SURVEY TOWNSHIP - 04R N
RANGE - 00S E
DESCRIPTION SECTION - 16
RIVER BASIN - 76U
COEUR D'ALENE RIVER
7621
DOMAIN - UNDETERMINED
STATUS - RAW PROSPECT
OPERATION TYPE - UNDERGROUND
MESA ID NO. 10 168 CUNNINGHAM MINE
YEAR FIELD CHECKED -
MAP NAME - BURKE
TYPE - 15 MIN USGS TOPO
1:250,000 MAP NAME - WALLACE
238 MINERAL PROPERTY FILE - 00,000
PRIMARY NAME - 168 CUNNINGHAM MINE
COMMODITIES - LEAD SILVER
HOBBS AND OTHERS 1965 USGS PROF PAPER 478.

FIGURE B.3. - MILS printout page for Wallace 1:250,000-scale quadrangle.
FIGURE B-4. - Clustered MILS locations for Idaho reduced from 1:500,000 scale.
3660
1293 NAME - CALADAY  REFERENCE NUMBER - 0160790245
STATE - IDAHO  COUNTY - SHOSHONE  ELEVATION - 1097 METER
LATITUDE - 47°22'44"N  PRECISION - 500 METERS
LONGITUDE - 115°56'26"W  REFERENCE POINT - MAIN ENT.
UTM: ZONE 11  Northing 5256860  Easting 579850
PUBLIC LAND SURVEY TOWNSHIP - 048 N  RANGE - 004 E
DESCRIPTION  SECTION - 16 NONE
RIVER BASIN - 76AA LOCHSA RIVER  7627 DOMAIN - PRIVATE
STATUS - EXPLORED PROSPECT  OPERATION TYPE - UNDERGROUND
MESA ID NO.  YEAR FIELD CHECKED -
MAP NAME - WALLACE  TYPE - 15 MIN USGS TOPO
1:250,000 MAP NAME - WALLACE  238 MINERAL PROPERTY FILE - 00.000
PRIMARY NAME - 1293 CALADAY
COMMODITIES - UNDETERMINED
3 MI SE OF OSBURN
USBM LIAISON OFF REPT MNG OP 1972

3661
1293 NAME - COEUR PROJECT  REFERENCE NUMBER - 0160790040
STATE - IDAHO  COUNTY - SHOSHONE  ELEVATION - 0951 METER
LATITUDE - 47°29'25"N  PRECISION - 100 METERS
LONGITUDE - 115°59'33"W  REFERENCE POINT - MAIN ENT.
UTM: ZONE 11  Northing 5259920  Easting 578090
PUBLIC LAND SURVEY TOWNSHIP - 048 N  RANGE - 004 E
DESCRIPTION  SECTION - 19 E 1/2
RIVER BASIN - 76U COEUR D'ALENE RIVER  7621 DOMAIN - PRIVATE
STATUS - PRODUCER  OPERATION TYPE - UNDERGROUND
MESA ID NO.  YEAR FIELD CHECKED -
MAP NAME - WALLACE  TYPE - 15 MIN USGS TOPO
1:250,000 MAP NAME - WALLACE  238 MINERAL PROPERTY FILE - 37.176
PRIMARY NAME - 1293 COEUR PROJECT
OTHER NAMES -
COMMODITIES - SILVER  COPPER  LEAD
ZINC  GOLD
FRYLUND V C 1964 USGS PRO  PPR  445 P 70

3662
1293 NAME - GALENA MINE  REFERENCE NUMBER - 0160790010
STATE - IDAHO  COUNTY - SHOSHONE  ELEVATION - 0951 METER
LATITUDE - 47°28'40"N  PRECISION - 100 METERS
LONGITUDE - 115°57'58"W  REFERENCE POINT - MAIN ENT.
UTM: ZONE 11  Northing 5258560  Easting 577900
PUBLIC LAND SURVEY TOWNSHIP - 048 N  RANGE - 004 E
DESCRIPTION  SECTION - 29 E 1/2
RIVER BASIN - 76U COEUR D'ALENE RIVER  7621 DOMAIN - PRIVATE
STATUS - PRODUCER  OPERATION TYPE - UNDERGROUND
MEAS ID NO.  YEAR FIELD CHECKED -
MAP NAME - WALLACE  TYPE - 15 MIN USGS TOPO
1:250,000 MAP NAME - WALLACE  238 MINERAL PROPERTY FILE - 64.013
PRIMARY NAME - 1293 GALENA MINE
COMMODITIES - LEAD  ZINC  COPPER
ANTIMONY  SILVER
MINE-TONNES/YR - ORE =254016  LEACH =  1975
PLANT - TYPE=FLUTATION  TONNES/YR - INPUT=254016  OUTPUT=  1975
FRYLUND V C 1964 USGS PP 445 (GOOD)
IDA BUN & GEOL BULL 16 (GOOD)

FIGURE B-5. - MILS printout page for Idaho.
FIGURE B-6. - Clustered MILS lead and zinc locations reduced from 1:1,750,000 scale.
2239  
**NAME** - CAPITOL SILVER LEAD MINE NO. 2  
**REFERENCE NUMBER** - 0160790293  
**STATE** - IDAHO  
**COUNTY** - SHOSHONE  
**ELEVATION** - 1496 METERS  
**LATITUDE** - 47 33 25 N  
**PRECISION** - 100 METERS  
**LONGITUDE** - 115 58 20 W  
**REFERENCE POINT** - MAIN ENTRANCE  
**UTM**: ZONE 11  
NORTHING 5267351  
EASTING 577323  
**PUBLIC LAND SURVEY TOWNSHIP** - 049 N  
**SECTION** - 32 NE 1/4 NW 1/4 NE 1/4  
**RIVER BASIN** - UNIDENTIFIED CODE  
**DOMAIN** - UNDETERMINED  
**STATUS** - EXPLORED PROSPECT  
**OPERATION TYPE** - UNDERGROUND  
**MESA ID NO.** -  
**YEAR FIELD CHECKED** -  
**MAP NAME** - WALLACE  
**TYPE** - 15 MIN USGS TOPO  
**1:250,000 MAP NAME** - WALLACE  
**238 MINERAL PROPERTY FILE** - 00.000  
**PRIMARY NAME** - 608 CAPITAL SILVER LEAD MINE NO. 2  
**COMMODITIES** - LEAD  
**SILVER**  
HOBBS AND OTHERS 1965 USGS PROF PAPER 478

2240  
**NAME** - COEUR D ALENE MINE  
**REFERENCE NUMBER** - 0160790295  
**STATE** - IDAHO  
**COUNTY** - SHOSHONE  
**ELEVATION** - 0871 METERS  
**LATITUDE** - 47 29 53 N  
**PRECISION** - 100 METERS  
**LONGITUDE** - 116 00 45 W  
**REFERENCE POINT** - MAIN ENTRANCE  
**UTM**: ZONE 11  
NORTHING 5260767  
EASTING 574376  
**PUBLIC LAND SURVEY TOWNSHIP** - 048 N  
**SECTION** - 24 NE 1/4 NE 1/4 SW 1/4  
**RIVER BASIN** - 76U COEUR D ALENE RIVER  
**7621 DOMAIN** - UNDETERMINED  
**STATUS** - EXPLORED PROSPECT  
**OPERATION TYPE** - UNDERGROUND  
**MESA ID NO.** -  
**YEAR FIELD CHECKED** -  
**MAP NAME** - CALDER  
**TYPE** - 15 MIN USGS TOPO  
**1:250,000 MAP NAME** - SPOKANE  
**207 MINERAL PROPERTY FILE** - 00.000  
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**COMMODITIES** - LEAD  
**SILVER**  
HOBBS AND OTHERS 1965 USGS PROF PAPER 478

2241  
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**STATE** - IDAHO  
**COUNTY** - SHOSHONE  
**ELEVATION** - 0951 METERS  
**LATITUDE** - 47 29 25 N  
**PRECISION** - 100 METERS  
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**REFERENCE POINT** - MAIN ENTRANCE  
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EASTING 575890  
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**SECTION** - 19 E 1/2  
**RIVER BASIN** - 76U COEUR D ALENE RIVER  
**7621 DOMAIN** - PRIVATE  
**STATUS** - PRODUCER  
**OPERATION TYPE** - UNDERGROUND  
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**PRIMARY NAME** - 608 COEUR PROJECT  
**COMMODITIES** - LEAD  
**SILVER**  
**COPPER**  
**ZINC**  
**GOLD**  
FRYKLUND V C 1964 USGS PRO PPR 445 P 70
**MILL CAPACITY 450 TPD PRODUCING 100,000 to 500,000 TONS ANNUALLY**

FIGURE B-7. - Printout page of lead and zinc occurrences in six Western States.
FIGURE C-1. - Density plot of MILS locations reduced from 1:7,500,000 scale.
FIGURE C-2. - Density plot of gold occurrences reduced from 1:1,750,000 scale.
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* 'S' indicates secondary name, with primary name listed to the right.

FIGURE D-1. - Page of State alaphabetic index of Idaho MILS locations.
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* 'S' indicates secondary name, with primary name listed to the right.

FIGURE D-2. - Page of county alphabetic index for Shoshone County MILS locations.