

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

Status and Metal Content
of Significant Metallic Mineral Deposits
in the Pacific Northwest:
A Contribution to the Interior Columbia Basin
Ecosystem Management Project

by

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Open File Report 95-688

Prepared in cooperation with the U.S. Forest Service and Bureau of Land
Management.

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1996

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Introduction

Subject

This report summarizes the location, past production, remaining resources, and status of significant known metallic mineral deposits in the Interior Columbia Basin of the northwestern United States (See [Appendices A and B](#)--tables of metal production and resources of significant metallic mineral deposits of the Interior Columbia Basin and the Pacific Northwest). A companion report (Box and others, 1996) provides assessments of undiscovered metallic mineral resources of the Interior Columbia Basin. Together, these reports provide an assessment of the past, present, and probable future resources of metallic mineral deposits in the Interior Columbia Basin.

Study Area

The Interior Columbia Basin covers most of the northwestern region of United States that lies east of the crest of the Cascade Mountain Range. The ICBEMP study area is divided into the Eastside and Upper Columbia study areas, which have somewhat different study-completion schedules. The Eastside area covers eastern Washington and Oregon. The Upper Columbia area covers most of Idaho and northwestern Montana, and extends into western Wyoming, northern Utah, and northern Nevada ([Figure 1](#)). A larger ICBEMP Landscape Characterization area includes the entire ICBEMP study area, and extends beyond it to the east and south ([Figure 1](#)), in order to provide information on peripheral phenomena that may influence the ICBEMP area. Geologic and mineral-resource studies for the ICBEMP cover the northwestern United States, from 39° N. to 49° N., and from 108° W. to the Pacific Coast, near 125° W. ([Plates 1 and 2](#), [Figures 3, 4, 5, and 6](#), and [Appendix B](#)).

For purposes of ecosystem analysis and reporting, the ICBEMP study area is divided into Ecological Reporting Units (ERUs). ERU areas ([Figure 2](#)) are centered on Ecoregions, as defined and described by Bailey (1976, 1978), and ERU boundaries are defined by drainage-area boundaries.

Purpose

The purpose of this report is to provide to the Interior Columbia Basin Ecosystem Management Project (ICBEMP) with information on the location, quantity, and character of significant known metallic mineral resources in the northwestern United States. This information is provided in digital format, so that it can be used interactively with many other types of information that are relevant to an analysis of past, present, and future ecosystem conditions.

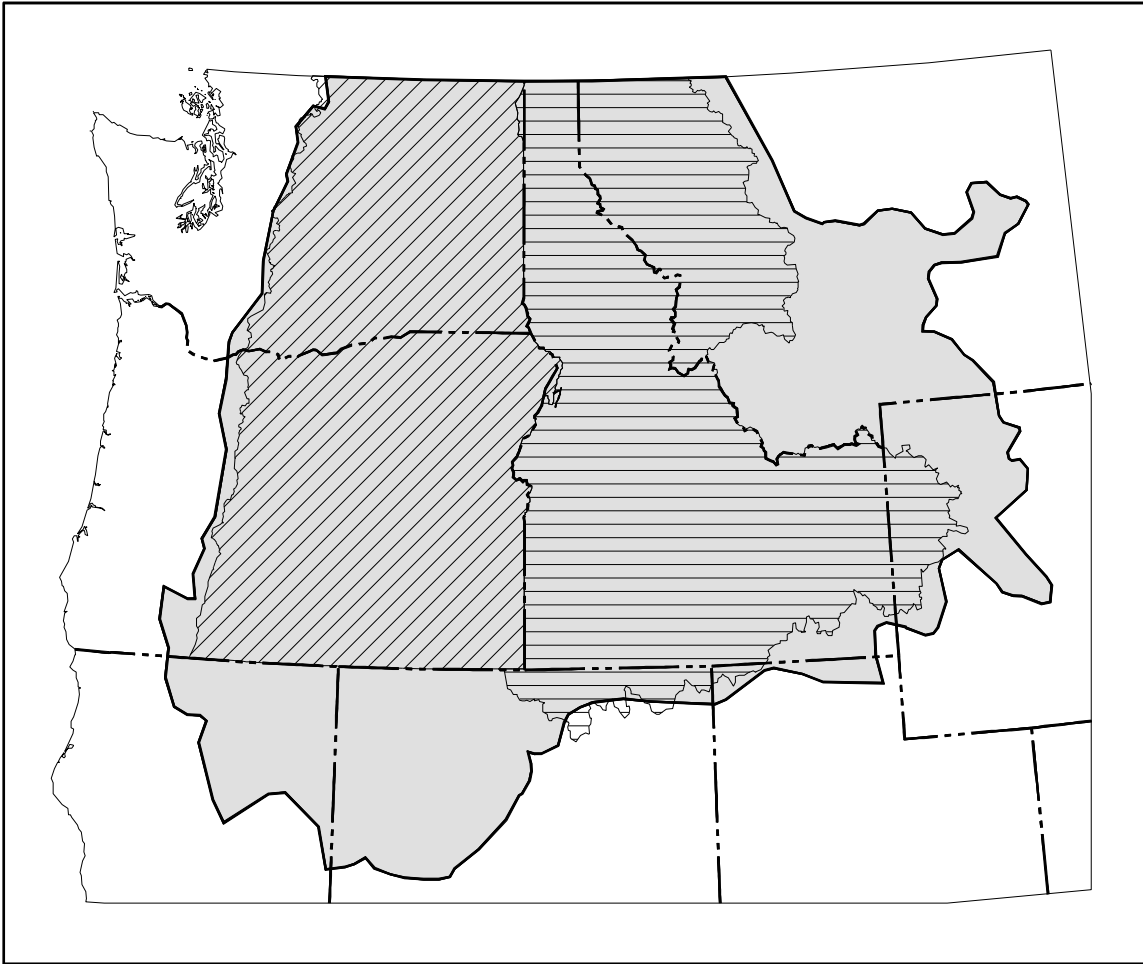


Figure 1. Index map showing the geographic extent of the Interior Columbia Basin Ecosystem Management Project. Shown on the map are the Landscape Characterization Area (grey shading) which is the study area used by most Science Integration Team staff areas, the Eastside EIS area (diagonal hatching), and the Upper Columbia EIS area (horizontal hatching).

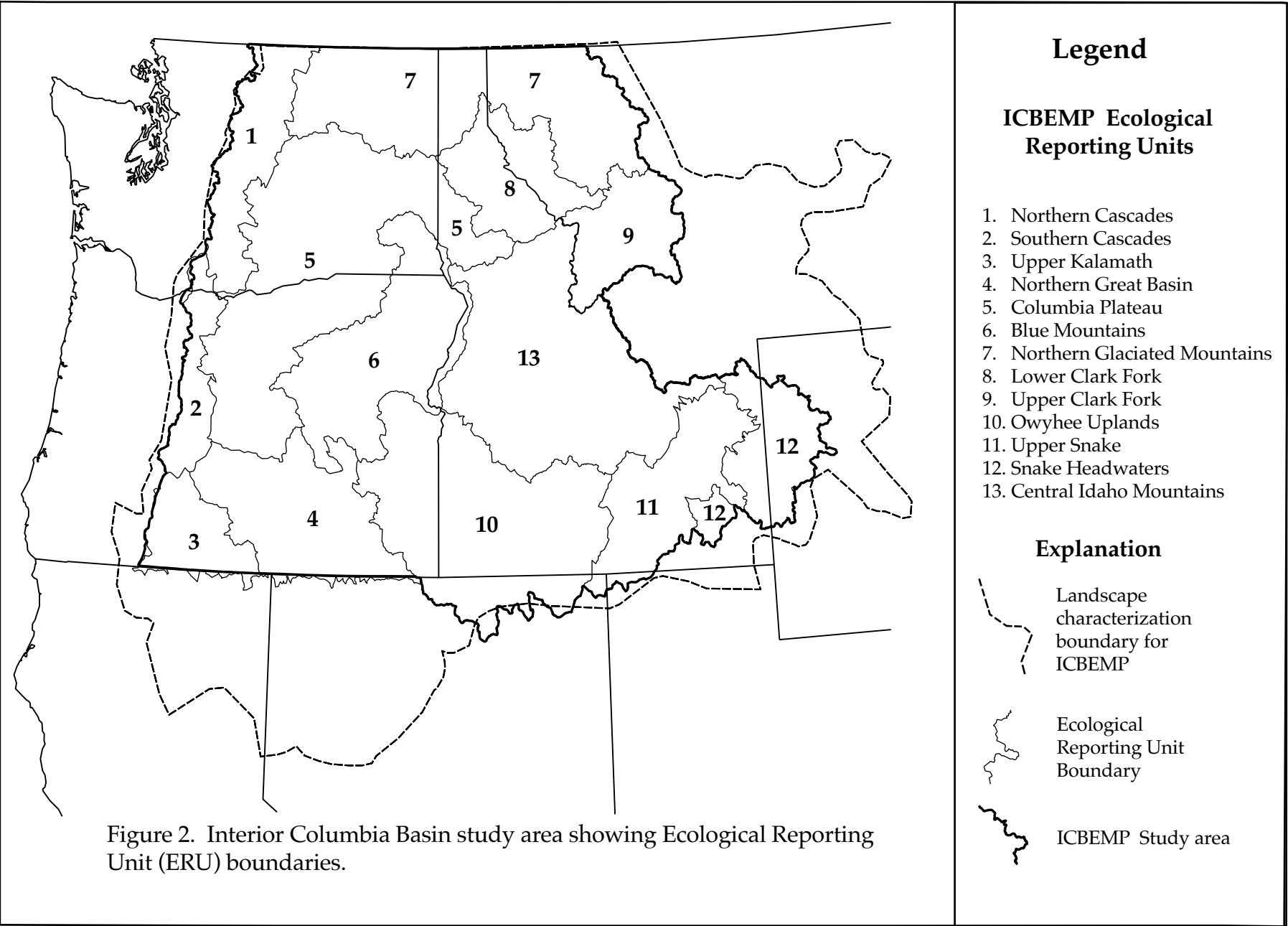


Figure 2. Interior Columbia Basin study area showing Ecological Reporting Unit (ERU) boundaries.

Objectives

The ICBEMP is an intense, short term project, whose objective is to plan and develop a set of regionally-consistent, land-management alternatives. These alternatives, derived from basin-wide analyses of regional data, will form a framework for land-management decisions at the local level. This framework will be modified as better data and understanding of the basin are developed.

GIS Database and Digital Products

The ICBEMP will develop a flexible, basin-wide, digital database that will evolve and improve as higher resolution data become available. All data are being compiled in a GIS-compatible format for digital display, analysis, and distribution. The ICBEMP is producing scientific assessments of current and historic landscape conditions; aquatic and terrestrial habitats; species distributions and populations; and economic and social conditions. The project aims to produce science-based assessments of potential future ecosystem conditions likely to result from a range of possible disturbances and management practices on public lands in the basin. Although scientific assessments are being conducted for the entire basin, management decisions based on the assessments will apply only to Federally owned lands that are administered by the U.S. Forest Service (USFS) and the U.S. Bureau of Land Management (BLM).

Digital products associated with this report include: 1) Metal production and resources of significant metallic mineral deposits of the Pacific Northwest, a spreadsheet from which [Appendix B](#) was printed; and 2) Interior Columbia Basin, significant deposits, metallic minerals, a GIS file from which [Plate 2](#) was printed. GIS documentation, instructions for obtaining digital parts of this report electronically from the World Wide Web, and information on obtaining other ICBEMP data are given in [Appendix D](#).

Explanation of Production and Resource Data Presentation

Definitions

There are over 21,000 MRDS records for metallic mines, prospects, and mineral occurrences located within the northwestern United States map area, covered by [Table 2](#) and [Figures 3, 4, 5](#) and [6](#). However, only 410 (or 2 percent) of those are known to have produced, and(or) to contain significant quantities of metal ([Appendix B](#)), and 143 of the significant known deposits are located within the ICBEMP study area ([Appendix A](#)).

A mineral deposit is defined as a mineral concentration of sufficient size and grade that it might, under the most favorable circumstances, be considered to have economic potential (Cox and others, 1986). For a deposit

to be considered “discovered,” the location, quantity, and quality of its potentially economic material must be known. Known deposits are well-explored bodies that someone thought, at least in the exploration phase, might be economic to develop (Singer, 1995).

Ore is “naturally occurring material from which a mineral or minerals of economic value can be extracted at a reasonable profit” (Bates and Jackson, 1987, p. 465). Some significant deposits have not been mined because they would not yield a reasonable profit, given prevailing metal prices, recovery technology, and production costs. Others have not been mined because of land-management constraints.

Deposits known to contain as much or more metal than the tonnages shown in [Table 1](#) are considered significant known deposits. Over 99 percent of total discovered world metal production and resources are from (or in) deposits that contain as much or more metal than the minimum tonnages shown in [Table 1](#) (Donald A. Singer, written communication, 1992; Singer, 1995). Thus, deposits that are known to have produced and(or) to contain as much or more metal than the minimum tonnages shown in [Table 1](#) are classified as significant sources of metal. For other metals not shown in [Table 1](#), deposits of one million or more tonnes of ore are classified as significant deposits. Future exploration may change the classification of a mineral occurrence from that of an undiscovered or insignificant mineral prospect to that of a known significant deposit.

Table 1. Minimum metal contents of significant deposits:
sum of production and remaining resources.

Gold	2 tonnes of Au
Silver	85 tonnes of Ag
Copper	50,000 tonnes of Cu
Lead	30,000 tonnes of Pb
Zinc	50,000 tonnes of Zn

Deposits of this size or larger contain more than 99 percent of the metal that has been discovered (Donald A. Singer, written communication, 1992; Singer, 1995).

Column Headings

Metal contents of significant metallic mineral deposits of the Pacific Northwest are reported in the spreadsheet of [Appendix B](#), in which each row pertains to an individual deposit, and each column pertains to deposit

attribute. Sources of the data in [Appendix B](#) are cited in the [spread sheet \(B-34 to B-44\)](#), and full reference citations are listed in [Appendix C](#). Deposit locations (by latitude and longitude) were obtained mostly from the Mineral Resources Documentation System (MRDS) of the U.S. Geological Survey. Deposit locations, shown on [Plate 2](#), and data summarized in [Appendix A](#), [Tables 3, 4 and 5](#), and [Figures 3, 4, 5 and 6](#) were extracted from the spread sheet in [Appendix B](#). Maps of favorable areas for undiscovered deposits ([Figures 3, 4, 5 and 6](#)) are from Box and others (1996).

Column headings of the spreadsheet in [Appendix B](#) are described below.

Index -- An index number is assigned to each row, and is displayed on both ends of the row (Rows 38 and 360 do not exist).

Deposit -- The deposit name is given. Alternative names are given in parentheses. The deposit name is followed by the word “district” in cases where production and resources are given for a group of orebodies or mines, rather than for an individual orebody or mine.

District -- The name of the mining district in which the deposit is located. If the deposit is not located in a named mining district, this cell is blank.

County -- The name of the county in which the deposit is located.

State -- The name of the state in which the deposit is located is abbreviated, using standard two-letter U.S. postal abbreviations.

Latitude -- Latitude is given in decimal degrees, rounded to 3 decimal places.

Longitude -- Longitude is given in decimal degrees, rounded to 3 decimal places.

Ecological Reporting Unit --The name of the ERU (as named on [Figure 2](#)) where the deposit is located (See [Plates 1 and 2](#)).

ERU no. -- The number of the ERU (as numbered in [Figure 2](#)) in which the deposit is located.

Deposit Type -- Names of deposit types indicate how the deposit has been classified. Deposit-type names correspond to deposit-type descriptions given in a companion report by Box and others (1996). Most deposit types are named for descriptive and grade-tonnage mineral deposit models from Cox and Singer (1986) and Bliss (1992). Unclassified deposits do not fit any of the available descriptive and grade-tonnage models.

Alternative Deposit Type -- Some deposits have attributes of more than one deposit type, and the proper classification of some deposits is arguable. The predominant or favored deposit type is listed first, and the subordinate or less-favored deposit type is given as an alternative.

Status -- Activity status of a deposit is classified as in production (P), on standby (S), in feasibility analysis (F), inactive (I), under exploration (e), depleted (x), and(or) being reclaimed (r). See [Table 5](#), below for a full explanation of criteria for activity status classification.

perm. tract coverage code -- The permissive-tract coverage code links the information in [Appendix B](#) with GIS (ARC/INFO) coverages that contain permissive and favorable tracts for deposits of various types, as outlined by Box and others (1996). Such coverages exist for all codes

that begin with the letters mr (as in mrporcu), but no coverages were made for placer gold (placer Au), or unclassified (unclass) deposits.

perm. tract no. -- The permissive tract number identifies a permissive tract for which estimates of undiscovered resources were made for the specified deposit type (See Box and others, 1996).

dep. loc. no. -- The deposit location number identifies the location of a deposit on the appropriate GIS (ARC/INFO) permissive-tract coverage and tract.

Production with qualitative descriptions -- Production is reported in tonnes of metal produced. Production data are given for gold (Au), silver (Ag), copper (Cu), lead (Pb), zinc (Zn), cobalt (Co), molybdenum (Mo), palladium (Pd), platinum (Pt), and chromium (Cr). Qualitative descriptions indicate reasons for a lack of numerical data (no = none, neg = negligible, unk = unknown, sig = significant but not quantified).

Resources with qualitative descriptions -- Remaining resources are given in tonnes of metal contained. In general, the most inclusive available data are reported. Thus, the maximum tonnages and minimum grades of geologic resources are reported in preference to proven reserves. Nickel (Ni) resources are given in addition to resources of the metals reported under production. Qualitative descriptions indicate reasons for a lack of numerical data (no = none, neg = negligible, unk = unknown, sig = significant but not quantified).

Production, numerical information only -- Production is given as above, but is reported as zero if there was no production of a particular metal, or if numerical production data are unavailable for any reason. This allows the table to be used for numerical operations.

Resources, numerical information only -- Same as above.

References -- Sources of production and resource information are cited. Published references are fully identified in the list of references cited.

Comments -- The comments column includes information about the grade and(or) tonnage of the production and resources of the deposit (See [Units, Rounding, and Abbreviations](#) section of this report). The comments column also contains information about which mines are included in the production and resource data for districts that are treated as deposits.

Status Source -- Sources of information about the status of deposits are cited in the status source column. Published sources are fully identified in the list of references cited.

Units, Rounding, and Abbreviations

Metric units are used in this report. Production and resources of significant known deposits are reported in metric tonnes of metal contained. Data that were not reported in metric units in the source references have been converted to metric units, using the following conversion factors. A tonne (metric ton, or mt) is 2,204.6 pounds, or 1.10 short tons (st). A tonne contains

32,150.7 troy ounces, and grams per tonne (g/mt) equal 34.286 times troy ounces per short ton (oz/st). Metric tonnages given in [Appendix A](#) and [Appendix B](#) are not rounded to 3 significant figures, but metric tonnages reported in tables within the body of the text are rounded to 3 significant figures.

In the [comments column of Appendix B](#), most information is given in metric units, but some is cited in English units, as it was reported in the source literature.

Abbreviations used in the spread sheet of [Appendix B](#) stand for the following words or phrases:

M = million

t = tons, type unspecified

mt = tonnes (metric tons)

st = short tons

lt = long tons

g = grams

@ = at average grade of

P = Production

R = Resources (includes proven and probable mineable reserves, as well as measured, indicated, and inferred resources not yet produced)

no = known not to have been produced

neg = negligible (produced or present, but in insignificant, unquantified amounts)

unk = unknown

sig = significant, but cannot be quantified.

Metal Contents of Significant Known Deposits

Zientek and others (1996) compared total discovered metal (production and resources) of the ICBEMP area (from [Appendix A](#)) to total discovered metal of the United States and the world (as compiled by Singer, 1995). Those comparisons, summarized in [Table 2](#), indicate that the total metal resources (production and remaining resources) of the Interior Columbia Basin amount to 9 percent of US gold, and 0.9 percent of world gold; 26 percent of US silver, and 5 percent of world silver; 15 percent of US copper, and 3 percent of world copper; 13 percent of US lead, and 3 percent of world lead; 6 percent of US zinc, and 1 percent of world zinc.

[Appendix B](#) includes data on known significant metallic mineral deposits in the entire northwestern U.S.A. [Appendix A](#) and [Table 2](#) summarize metal production and resources of deposits that are located within the ICBEMP area. After over 100 years of exploration and mining history, the following percentages of discovered metals remain in known significant deposits of the Interior Columbia Basin: gold, 56 percent; silver, 37 percent; copper, 73 percent; lead, 12 percent; and zinc, 18 percent ([Table 2](#)).

Table 2. Comparison of discovered metal resources of the Interior Columbia Basin (ICB), the United States (US), and the world.

metal	ICB metal production (mt)	ICB metal remaining (mt)	ICB total discovered metal (mt)	<i>ICB percent of discovered metal remaining</i>	<i>US discovered metal</i>	<i>World discovered metal</i>	<i>ICB percent of US discovered metal</i>	<i>ICB percent of world discovered metal</i>
gold	773	1,100	1,870	59	19,600	194,000	10	1
silver	61,100	36,200	97,300	37	365,000	1,740,000	27	6
copper	11,200,000	30,800,000	42,000,000	73	291,000,000	1,520,000,000	14	3
lead	7,940,000	406,000	8,350,000	5	68,200,000	394,000,000	12	2
zinc	7,330,000	1,900,000	9,230,000	21	131,000,000	713,000,000	7	1

Data from Appendices A and B (this report), Zientek and others (1995), and Singer (1995).

Gold Production and Resources by ERU

As shown in [Appendix A](#) and [Table 3](#), most of the known past gold production of the Interior Columbia Basin came from the following ERU areas: 1) Central Idaho Mountains (where the Boise Basin district was the largest gold producer) --233 mt Au, or 30 percent of the total gold production of the ICBEMP area; 2) Upper Clark Fork (where the Butte district was the largest gold producer)--163 tonnes Au, or 21 percent; 3) Northern Glaciated Mountains (where the Republic district was the largest gold producer)--107 tonnes Au, or 14 percent; 4) Blue Mountains--101 tonnes Au, or 13 percent; 5) Owyhee Uplands (where DeLamar was the largest producer)--76 tonnes Au, or 10 percent, and 6) Northern Cascades--63 tonnes Au, or 8 percent.

Most of the gold resources that are known to remain in significant deposits of the ICBEMP are located in the following ERU areas: 1) Upper Clark Fork, 485 tonnes Au (44 percent); 2) Owyhee Uplands, 263 tonnes Au (24 percent); 3) Central Idaho Mountains, 184 tonnes Au (17 percent); and 4) Northern Glaciated Mountains, 119 tonnes Au (11 percent).

Silver Production and Resources by ERU

Most of the known past silver production of the Interior Columbia Basin came from the following ERU areas: 1) Lower Clark Fork (where the Coeur d'Alene district was the largest producer)--approximately 31,300 tonnes Ag, or 51 percent of the total silver production of the ICBEMP area; 2) Upper Clark Fork (where the Butte district was the largest producer)--23,200 tonnes Ag, or 38 percent; 3) Northern Glaciated Mountains (where the Republic district was the largest producer)--2,840 tonnes Ag, or 5 percent; 4) Owyhee Uplands (where DeLamar was the largest producer)--2,840 tonnes Ag, or 5 percent; and 5) Central Idaho Mountains, 612 tonnes Au, or 1 percent.

Most of the silver resources that are known to remain in known significant deposits of the ICBEMP are located in the following ERU areas: 1) Lower Clark Fork, approximately 12,200 tonnes Ag (34 percent); 2) Upper Clark Fork, 11,200 tonnes Ag (31 percent); 3) Northern Glaciated Mountains, 9,020 tonnes Ag (25 percent); 4) Owyhee Uplands, 1,730 tonnes Ag (5 percent); and 5) Central Idaho Mountains, 669 tonnes Ag (2 percent).

Copper Production and Resources by ERU

Most of the known past copper production of the Interior Columbia Basin came from the following ERU areas 1) Upper Clark Fork (where the Butte district was the largest producer)--approximately 10,400,000 tonnes Cu, or 93 percent of the total copper produced in the ICBEMP area; 2) Northern Glaciated Mountains--333,000 tonnes Cu, or 3 percent; 3) Lower Clark Fork--171,000 tonnes Cu, or 2 percent; 4) Blue Mountains--105,000 tonnes Cu, or 1 percent; and 5) Northern Cascades--96,200 tonnes Cu, or 1 percent.

Table 3. Metal production and resources of significant deposits of known status in the Interior Columbia Basin, and their locations by Ecological Reporting Unit (ERU)

ERU Name	Au	Ag	Cu	Pb	Zn	Co	Mo	
			Production (mt metal)					
Blue Mtns.	101	167	105,000					
<i>percent of total</i>	<i>13</i>	<i>0</i>	<i>1</i>					
Central Idaho Mtns.	233	612	762	76,700	76,000	14	49,800	
<i>percent of total</i>	<i>30</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>100</i>	<i>59</i>	
Columbia Plateau	12							
<i>percent of total</i>	<i>2</i>	<i>0</i>						
Lower Clark Fork	16	31,300	171,000	7,070,000	3,310,000			
<i>percent of total</i>	<i>2</i>	<i>51</i>	<i>2</i>	<i>89</i>	<i>45</i>			
Northern Cascades	63	133	96,200		18,100			
<i>percent of total</i>	<i>8</i>	<i>0</i>	<i>1</i>		<i>0</i>			
Northern Glaciated Mtns.	107	2,840	333,000	185,000	441,000			
<i>percent of total</i>	<i>14</i>	<i>5</i>	<i>3</i>	<i>2</i>	<i>6</i>			
Owyhee Uplands	76	2,840	98,100	10				
<i>percent of total</i>	<i>10</i>	<i>5</i>	<i>1</i>	<i>0</i>	<i>0</i>			
Upper Clark Fork	163	23,200	10,400,000	608,000	3,480,000		34,000	
<i>percent of total</i>	<i>21</i>	<i>38</i>	<i>93</i>	<i>8</i>	<i>48</i>		<i>41</i>	
Upper Klamath								
<i>percent of total</i>	<i>0</i>	<i>0</i>	<i>0</i>					
Upper Snake	2	11						
<i>percent of total</i>	<i>0</i>	<i>0</i>	<i>0</i>					
TOTAL (rounded)	773	61,100	11,200,000	7,940,000	7,330,000	14	83,800	
<i>total percent</i>	<i>100</i>	<i>100</i>	<i>101</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	
			Resources (mt metal)					
Blue Mtns.	10	492	62,000		174,000			
<i>percent of total</i>	<i>1</i>	<i>1</i>	<i>0</i>		<i>9</i>			
Central Idaho Mtns.	184	669	1,310,000	11,400	18,700	131,000	1,050,000	
<i>percent of total</i>	<i>17</i>	<i>2</i>	<i>4</i>	<i>3</i>	<i>1</i>	<i>100</i>	<i>34</i>	
Columbia Plateau		577			20,400			
<i>percent of total</i>		<i>2</i>			<i>1</i>			
Lower Clark Fork	6	12,200	1,160,000	312,000	423,000		446,000	
<i>percent of total</i>	<i>1</i>	<i>34</i>	<i>4</i>	<i>77</i>	<i>22</i>		<i>14</i>	
Northern Cascades	9	278	885,000		8,170		10,800	
<i>percent of total</i>	<i>1</i>	<i>1</i>	<i>3</i>		<i>0</i>		<i>0</i>	
Northern Glaciated Mtns.	119	9,020	2,000,000	81,900	444,000		444,000	
<i>percent of total</i>	<i>11</i>	<i>25</i>	<i>6</i>	<i>20</i>	<i>23</i>		<i>14</i>	
Owyhee Uplands	263	1,730	104,000					
<i>percent of total</i>	<i>24</i>	<i>5</i>	<i>0</i>					
Upper Clark Fork	485	11,200	25,300,000	534	811,000		1,130,000	
<i>percent of total</i>	<i>44</i>	<i>31</i>	<i>82</i>	<i>0</i>	<i>43</i>		<i>37</i>	
Upper Klamath	19							
<i>percent of total</i>	<i>2</i>							
Upper Snake	2	51						
<i>percent of total</i>	<i>0</i>	<i>0</i>						
TOTAL (rounded)	1,100	36,200	30,800,000	406,000	1,900,000	131,000	3,080,000	
<i>total percent</i>	<i>101</i>	<i>101</i>	<i>99</i>	<i>100</i>	<i>99</i>	<i>100</i>	<i>99</i>	

Most of the copper resources that are known to remain in known significant deposits of the ICBEMP are located in the following ERU areas: 1) Upper Clark Fork, approximately 25,300,000 tonnes Cu (82 percent); 2) Northern Glaciated Mountains, 2,000,000 tonnes Cu (6 percent); 3) Central Idaho Mountains, 1,310,000 tonnes Cu (4 percent); 4) Lower Clark Fork, 1,160,000 tonnes Cu (4 percent); and 5) Northern Cascades, 885,000 tonnes Cu (3 percent).

Lead Production and Resources by ERU

Most of the known past lead production of the Interior Columbia Basin came from the following ERU areas: 1) Lower Clark Fork (where the Coeur d'Alene district was the largest producer)--approximately 7,070,000 tonnes Pb, or 89 percent of the total lead produced in the ICBEMP area; 2) Upper Clark Fork--608,000 tonnes Pb, or 8 percent; 3) Northern Glaciated Mountains--185,000 tonnes Pb, or 2 percent; and 4) Central Idaho Mountains--76,700 tonnes Pb, or 1 percent.

Most of the lead resources that are known to remain in known significant deposits of the ICBEMP are located in the following ERU areas: 1) Lower Clark Fork, approximately 312,000 tonnes Pb (77 percent); 2) Northern Glaciated Mountains, 81,900 tonnes Pb (20 percent); 3) Central Idaho Mountains, 11,400 tonnes Pb (3 percent).

Zinc Production and Resources by ERU

Most of the known past zinc production of the Interior Columbia Basin came from the following ERU areas: 1) Upper Clark Fork (where the Butte district was the largest producer)--approximately 3,480,000 tonnes Zn, or 48 percent of the total zinc produced in the ICBEMP area; 2) Lower Clark Fork (where the Coeur d'Alene district was the largest producer)--3,310,000 tonnes Zn, or 45 percent; 3) Northern Glaciated Mountains--441,000 tonnes Zn, or 6 percent; and 4) Central Idaho Mountains--76,000 tonnes Zn, or 1 percent.

Most of the zinc resources that are known to remain in known significant deposits of the ICBEMP are located in the following ERU areas: 1) Upper Clark Fork, approximately 811,000 tonnes Zn (43 percent); 2) Northern Glaciated Mountains, 444,000 tonnes Zn (23 percent); 3) Lower Clark Fork, 423,000 tonnes Zn (22 percent); and 4) Blue Mountains, 174,000 tonnes Zn (9 percent).

Cobalt Production and Resources by ERU

Approximately 14 tonnes of cobalt were produced, and 131,000 tonnes of cobalt are contained in remaining known resources of significant known deposits of the ICBEMP area ([Table 4](#)). All of the past production came from the inactive Blackbird mine, located in the Central Idaho Mountains ERU. The known remaining resources are in inactive mines and deposits, located in the Central Idaho Mountains ERU.

Table 4. Summary of metal production and resources of major metallic mineral deposits of the ICBEMP area, compared to total production and resources of all significant deposits of known status in the ICBEMP area.

	Au	Ag	Cu	Pb	Zn	Co	Mo
District	Production (mt metal)						
Butte district	82	21,200	10,400,000	598,000	3,450,000		34,000
Coeur d'Alene district	2	31,300	171,000	7,020,000	3,300,000		
Republic district	105	278					
Boise Basin district	32						
subtotal for major depos.	221	52,800	10,600,000	7,620,000	6,750,000	0	34,000
ICB Total	773	61,100	11,200,000	7,940,000	7,330,000	14	83,800
percent of ICB total	28	86	95	96	92	0	41
	Resources (mt metal)						
Butte District	199	11,200	24,800,000		811,000		1,070,000
Coeur d'Alene district		3,030	42,100	312,000	423,000		
Republic district	65	130					
Blackbird mine			227,000			113,000	
subtotal for major depos.	264	14,400	25,100,000	312,000	1,230,000	113,000	1,070,000
ICB Total	1,100	36,200	30,800,000	406,000	1,900,000	131,000	3,080,000
percent of ICB total	24	40	82	77	65	86	35

Molybdenum Production and Resources by ERU

Most of the known past molybdenum production of the Interior Columbia Basin came from the following ERU areas: 1) Central Idaho Mountains (where the Thompson Creek mine was the largest producer)--approximately 49,800 tonnes Mo, or 59 percent of the total production of the ICBEMP area; and 2) Upper Clark Fork (where the Butte district was the largest producer)--34,000 tonnes Mo, or 41 percent.

Most of the molybdenum resources that are known to remain in known significant deposits of the ICBEMP are located in the following ERU areas: 1) Upper Clark Fork, approximately 1,130,000 tonnes Mo (37 percent); 2) Central Idaho Mountains, 1,050,000 tonnes Mo (34 percent); 3) Lower Clark Fork, 446,000 tonnes Mo (14 percent); and 4) Northern Glaciated Mountains, 444,000 tonnes Mo (14 percent).

Largest Known Metallic Mineral Districts of the ICBEMP Area

In [Table 4](#) production and resources of the largest district in each status category are compared to the sum of production and resources of all deposits in that status category. These comparisons show that most of the past production and known remaining resources of copper, lead, and zinc, cobalt, and molybdenum are from and(or) in the largest deposits. For gold and silver, however, the sums of production and remaining resources of all significant deposits are much larger than the production and resources of the largest single deposits. Thus, copper, lead, zinc, cobalt, and molybdenum tend to be concentrated in relatively few very large deposits, but gold and silver tend to be distributed among a larger number of relatively smaller concentrations of precious metals.

A few major mining districts account for most of the past production and most of the remaining resources known in significant deposits of the Interior Columbia Basin ([Table 4](#)). Over 90 percent of the copper, lead, and zinc that have been produced in the ICBEMP area, have come from the Butte and Coeur d'Alene mining districts. About 86 percent of the silver, and 28 percent of the gold produced in the ICBEMP area, have come from the Butte, Coeur d'Alene, Republic, and Boise Basin districts.

The Coeur d'Alene district contains 77 percent of the known remaining lead resources; and the Butte district contains 80 percent of the known remaining zinc resources of the ICBEMP area. The Butte, Coeur d'Alene, and Blackbird districts contain 82 percent of the known copper resources of the ICBEMP. The Butte, Coeur d'Alene, and Republic districts contain 40 percent of the remaining silver resources; and the Butte and Republic districts contain 24 percent of the remaining gold resources of the ICBEMP area. The Blackbird deposit contains 86 percent of the known remaining cobalt resources, and the Butte district contains 35 percent of the known remaining molybdenum resources of the ICBEMP.

Total production and resources of the Butte mining district (from porphyry copper, porphyry-related polymetallic veins, and gold placers) amounts to about 35,200,000 tonnes of copper, 4,260,000 tonnes of zinc, 598,000 tonnes of lead, 32,400 tonnes of silver, and 281 tonnes of gold ([Appendices A and B](#), and [Table 4](#)). This qualifies the Butte district as a supergiant copper deposit, a supergiant silver deposit, and a giant zinc deposit, according to the deposit-size classification system of Singer (1995), in which supergiant deposits are in the largest 1 percent, and giant deposits are in the largest 10 percent of deposits known in the world.

Total production and resources of the Coeur d'Alene mining district amount to about 34,300 tonnes of silver, 7,330,000 tonnes of lead, 3,720,000 tonnes of zinc, 213,000 tonnes of copper, and 2 tonnes of gold ([Appendices A and B](#), and [Table 4](#)). This qualifies the Coeur d'Alene district as a supergiant silver deposit, a giant lead deposit, and a giant zinc deposit, according to the deposit-size classification system of Singer (1995), in which supergiant deposits are in the largest 1 percent, and giant deposits are in the largest 10 percent of deposits known in the world.

Explanation of Deposit-status Information Presentation

Impacts of mineral deposits on ecosystems vary with their development status (or stage). The status notations in [Appendices A and B](#), and [Tables 5, 6 and 7](#) indicate the current status of known significant deposits, as follows:

M = Mine (Deposit that has been mined or is being mined);

D = Deposit (Deposit with established resources that have not been mined);

P = Producing (Deposit is currently in production, or production facilities are under construction);

S = Standby (Formerly producing mine is on standby status, and could quickly be put back into production);

F = Feasibility (Deposit has announced resources and is undergoing delineation, feasibility, design, or permitting);

I = Inactive (Not in production, on standby, or undergoing feasibility);

e = exploration (Deposit is undergoing exploration, but no resource estimation has been announced);

x = depleted;

r = reclamation (Deposit is undergoing reclamation).

Rules for deposit-status classification are summarized in [Table 5](#), and the current status of each significant deposit is noted in [Appendices A and B](#). Summaries based on groupings of deposits by status are given in [Tables 3 and 4](#).

Table 5. Rules for classification of status of mineral deposits.

Status will be:	If:	Comments
P	Deposit is currently in production or under construction. Source of information is Randol mining directory, state directories of mining enterprises, trade journals, newsletters (e.g. SEG), personal knowledge	Explicit knowledge of production status takes precedence over status inferred from production records in table or reserve status.
S	Formerly producing mine that is on care and maintenance. Deposit should have demonstrated reserves, and could quickly be put back into production pending changes in economic conditions. Source of information is Randol mining directory, etc.	Qualitative determination. Unless mine is abandoned, most owners maintain property to some degree. Relied upon designation by owner (reflected in source of information). Knowledge of standby status takes precedence over status inferred from production records in table or reserve status.
F D F M	Unmined deposit (F D) or inactive mining property (F M) that has announced resources/reserves that is in an active, ongoing process of delineation, definition, feasibility, design, and/or permitting. Includes all pre- and post-feasibility categories in Randol. If there are announced resources, includes the E category in Randol. Other sources of information include state directories of mining enterprises, trade journals, newsletters (e.g. SEG), personal knowledge.	Qualitative determination. All properties that have announced resources/reserves have undergone this process. Attempt to highlight those properties that are currently or recently being evaluated. These deposits should represent current "targets" by exploration and mining companies. Knowledge of feasibility study status takes precedence over status inferred from production records in table or reserve status.
I M	Inactive mine. Mine not currently in production based on information listed under "P". Status as mine determined from recorded production in table.	
I D	Inactive deposit. Deposit with recorded resources/reserves which has never had significant production.	These deposits presumably went partially through a determination of economic feasibility. However, based on current information in Randol, trade journals, etc., the evaluation process has been suspended.
e x r	Suffix for I M and I D. "e" indicates recent exploration activity (but with no announced resources); "x" indicates depleted resources; "r" indicates undergoing reclamation.	This information noted only if explicitly noted in an information source. No attempt has been made to indicate this status for all deposits.

Table 6. Summary of metal production and resources of the ICBEMP area, by status within each Ecological Reporting Unit (ERU).

ERU name, Status of deposits	Production						
	Au	Ag	Cu	Pb	Zn	Co	Mo
Blue Mountains, <i>IM</i>	101	167	105,000	0	0	0	0
Central Idaho Mountains, <i>F</i>	14	81	0	0	0	0	0
Central Idaho Mountains, <i>IM</i>	208	260	93	38,800	63,500	14	0
Central Idaho Mountains, <i>P and S</i>	13	271	669	37,900	12,500	0	49,800
Columbia Plateau, <i>IM</i>	12	0	0	0	0	0	0
Lower Clark Fork, <i>F</i>	0	310	214	88,600	519	0	0
Lower Clark Fork, <i>IM</i>	13	13,700	62,000	6,370,000	3,250,000	0	0
Lower Clark Fork, <i>P and S</i>	2	17,200	109,000	614,000	62,500	0	0
Northern Cascades, <i>IM</i>	63	133	96,200	0	18,100	0	0
Northern Glaciated Mtns., <i>F</i>	0	0	0	165,000	382,000	0	0
Northern Glaciated Mtns., <i>IM</i>	77	279	258	11	0	0	0
Northern Glaciated Mtns., <i>P and S</i>	29	2,560	333,000	20,000	58,800	0	0
Owyhee Uplands, <i>F</i>	4	480	0	0	0	0	0
Owyhee Uplands, <i>IM</i>	22	287	98,100	10	0	0	0
Owyhee Uplands, <i>P and S</i>	50	2,070	0	0	0	0	0
Upper Clark Fork, <i>F</i>	2	4	138	0	0	0	0
Upper Clark Fork, <i>IM</i>	146	21,600	7,100,000	608,000	348,000	0	0
Upper Clark Fork, <i>ID</i>	0	0	0	0	0	0	0
Upper Clark Fork, <i>P and S</i>	14	1,540	3,330,000	0	0	0	34,000
Upper Klamath, <i>F</i>	0	0	0	0	0	0	0
Upper Snake, <i>IM</i>	2	11	0	0	0	0	0
<i>Total</i>	<i>773</i>	<i>61,100</i>	<i>11,200,000</i>	<i>7,940,000</i>	<i>7,330,000</i>	<i>14</i>	<i>83,800</i>
ERU name, Status of deposits	Resources						
	Au	Ag	Cu	Pb	Zn	Co	Mo
Blue Mountains, <i>IM</i>	5	7	7,960	0	0	0	0
Blue Mountains, <i>ID</i>	5	485	54,000	0	174,000	0	0
Central Idaho Mountains, <i>F</i>	44	76	0	0	0	0	0
Central Idaho Mountains, <i>IM</i>	34	76	227,000	11,400	18,700	113,000	0
Central Idaho Mountains, <i>ID</i>	0	0	1,080,000	0	0	17,400	891,000
Central Idaho Mountains, <i>P and S</i>	107	517	0	0	0	0	160,000
Columbia Plateau, <i>ID</i>	0	577	0	0	20,400	0	0
Lower Clark Fork, <i>F</i>	6	8,920	1,040,000	0	0	0	0
Lower Clark Fork, <i>IM</i>	0	771	26,000	241,000	409,000	0	0
Lower Clark Fork, <i>ID</i>	0	240	70,500	0	0	0	446,000
Lower Clark Fork, <i>P and S</i>	0	2,260	16,100	70,600	13,700	0	0
Northern Cascades, <i>F</i>	0	0	490,000	0	0	0	0
Northern Cascades, <i>IM</i>	9	40	30,000	0	8,170	0	0
Northern Cascades, <i>ID</i>	0	238	366,000	0	0	0	10,800
Northern Glaciated Mtns., <i>F</i>	86	8,240	1,220,000	60,100	350,000	0	0
Northern Glaciated Mtns., <i>IM</i>	17	132	486	20	0	0	0
Northern Glaciated Mtns., <i>ID</i>	0	0	714,000	0	0	0	444,000
Northern Glaciated Mtns., <i>P and S</i>	16	645	74,000	21,800	94,400	0	0
Owyhee Uplands, <i>F</i>	60	444	0	0	0	0	0
Owyhee Uplands, <i>IM</i>	24	42	104,000	0	0	0	0
Owyhee Uplands, <i>P and S</i>	180	1,240	0	0	0	0	0
Upper Clark Fork, <i>F</i>	281	0	0	0	0	0	0
Upper Clark Fork, <i>IM</i>	4	4,460	1,240,000	534	109,000	0	0
Upper Clark Fork, <i>ID</i>	0	0	469,000	0	0	0	60,600
Upper Clark Fork, <i>P and S</i>	199	6,740	23,600,000	0	702,000	0	1,070,000
Upper Klamath, <i>F</i>	19	0	0	0	0	0	0
Upper Snake, <i>IM</i>	2	51	0	0	0	0	0
<i>rounded Total</i>	<i>1,100</i>	<i>36,200</i>	<i>30,800,000</i>	<i>405,000</i>	<i>1,900,000</i>	<i>130,000</i>	<i>3,080,000</i>

Table 7. Summary of status of metal production and resources of all significant known deposits of the ICBEMP area.

<i>Status of Deposits</i>	<i>Number of Deposits</i>	<i>Au Sum</i>	<i>Ag Sum</i>	<i>Cu Sum</i>	<i>Pb Sum</i>	<i>Zn Sum</i>	<i>Co Sum</i>	<i>Mo Sum</i>
				Production (mt metal)				
<i>IM</i>	88	644	36,500	7,470,000	7,010,000	6,810,000	14	0
<i>P and S</i>	22	109	23,700	3,770,000	672,000	134,000	0	83,800
<i>F</i>	20	20	875	352	254,000	383,000	0	0
<i>ID</i>	13	0	0	0	0	0	0	0
Total	143	773	61,100	11,200,000	7,940,000	7,330,000	14	83,800
				Resources (mt metal)				
<i>IM</i>	88	95	5,580	1,630,000	253,000	545,100	113,000	0
<i>P and S</i>	22	502	11,400	23,700,000	92,300	810,000	0	1,230,000
<i>F</i>	20	495	17,700	2,750,000	60,100	350,000	0	0
<i>ID</i>	13	5	1,540	2,750,000	0	194,000	17,400	1,850,000
Total	143	1,100	36,200	30,800,000	405,000	1,900,000	130,000	3,080,000
Res/ Prod		1.42	0.59	2.75	0.05	0.26	9,286.71	36.75

Summary of the Status of ICBEMP Metal Production and Resources

Table 6 summarizes metal production and resources of the Interior Columbia Basin by status within each ERU. Table 7 summarizes metal production and resources of the entire ICBEMP area by status. Deposit-status maps, derived from information in Appendix B, and summarized in Tables 6 and 7, show the locations of mines and deposits in various stages of development and production status. Figure 3 shows locations of historic mines that are no longer in production. Figure 4 shows locations of mines that are currently in production. Figure 5 shows locations of significant deposits that are undergoing mine-feasibility studies, and Figure 6 shows locations of significant deposits that have undergone feasibility studies but were not put into production.

Status of Gold Production and Resources

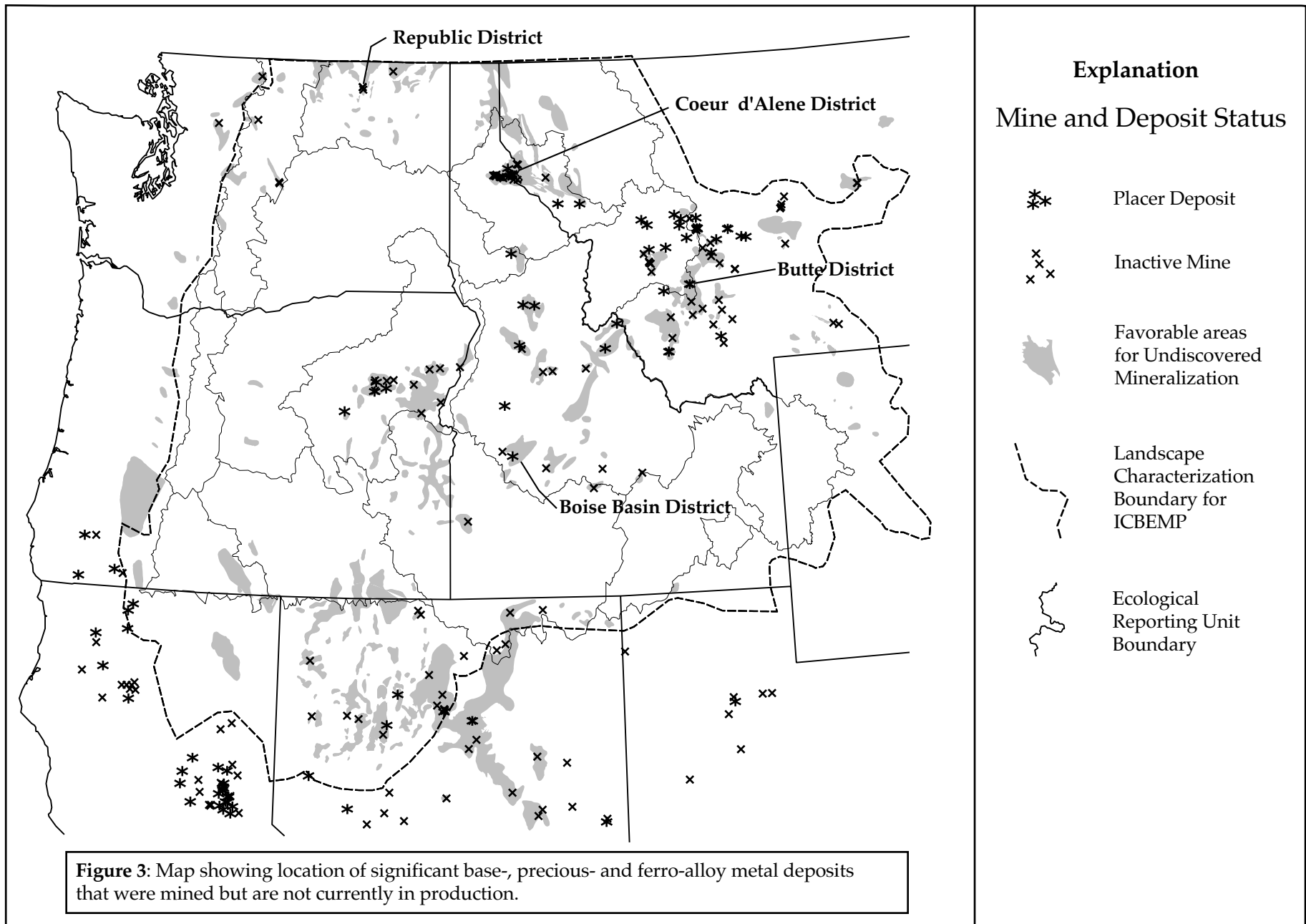
Approximately 773 tonnes of gold were produced, and 1,100 tonnes of gold are contained in remaining known resources of significant deposits of known status in the ICBEMP area (Table 7). Thus, remaining known gold resources are 142 percent of known past production. About 83 percent of past gold production came from mines that are now inactive, 14 percent from mines that are either in production or on standby status, and 3 percent from past producers that are undergoing feasibility studies for additional mining.

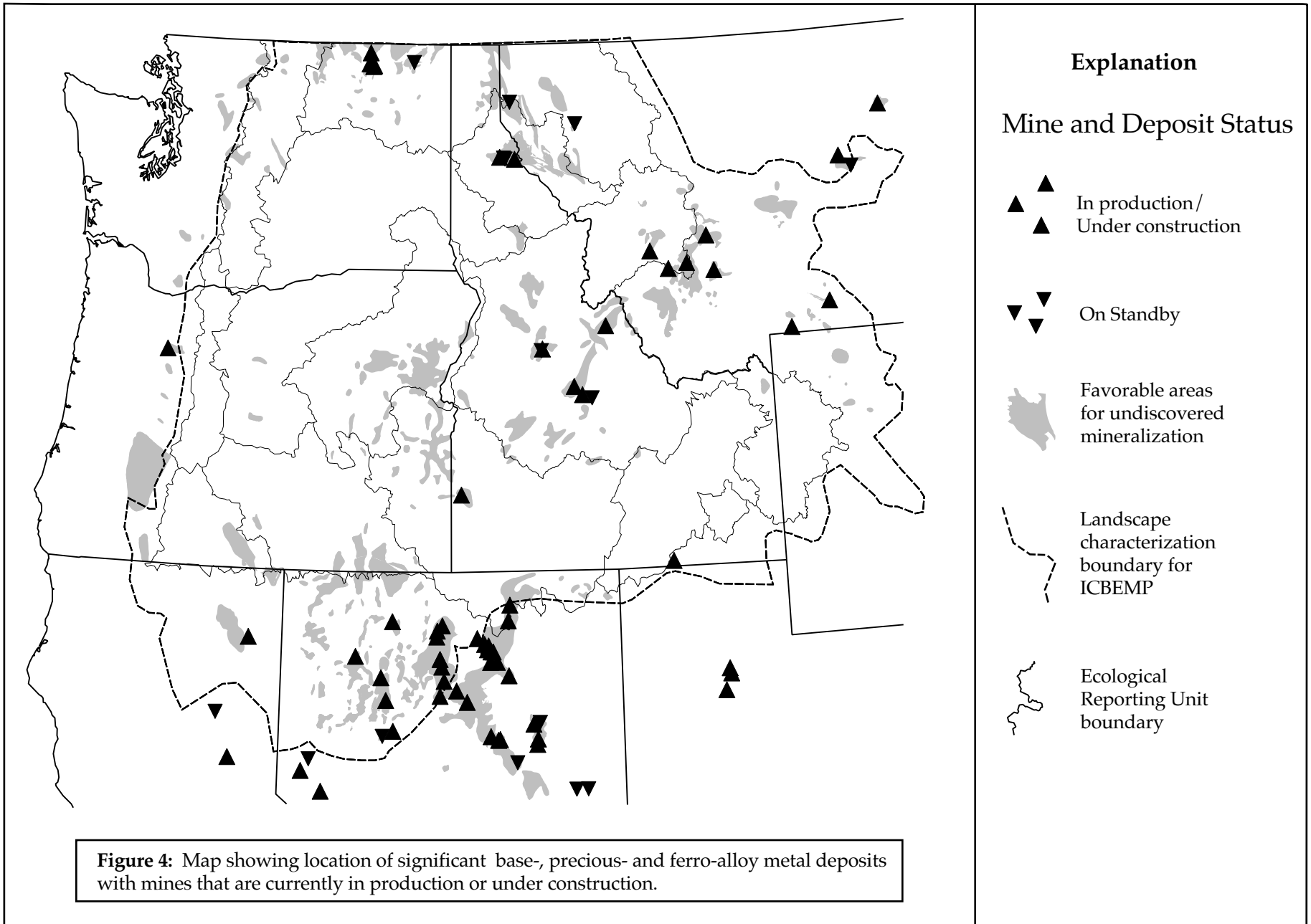
About 46 percent of gold resources remaining in deposits of known status are contained in deposits that are either in production or on standby status; 45 percent are contained in deposits that are undergoing economic mining feasibility studies; and 9 percent are located at inactive mines and deposits.

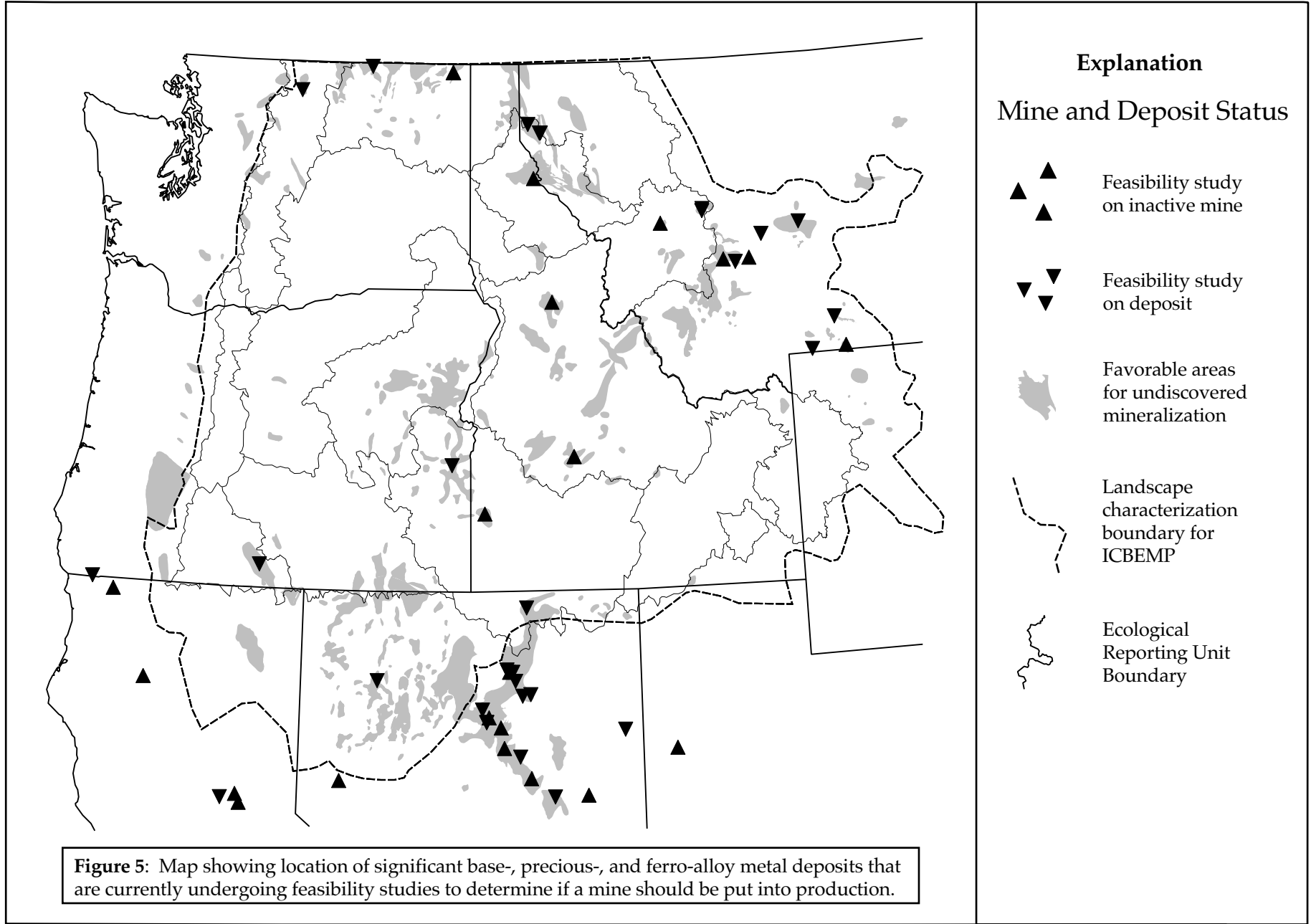
Status of Silver Production and Resources

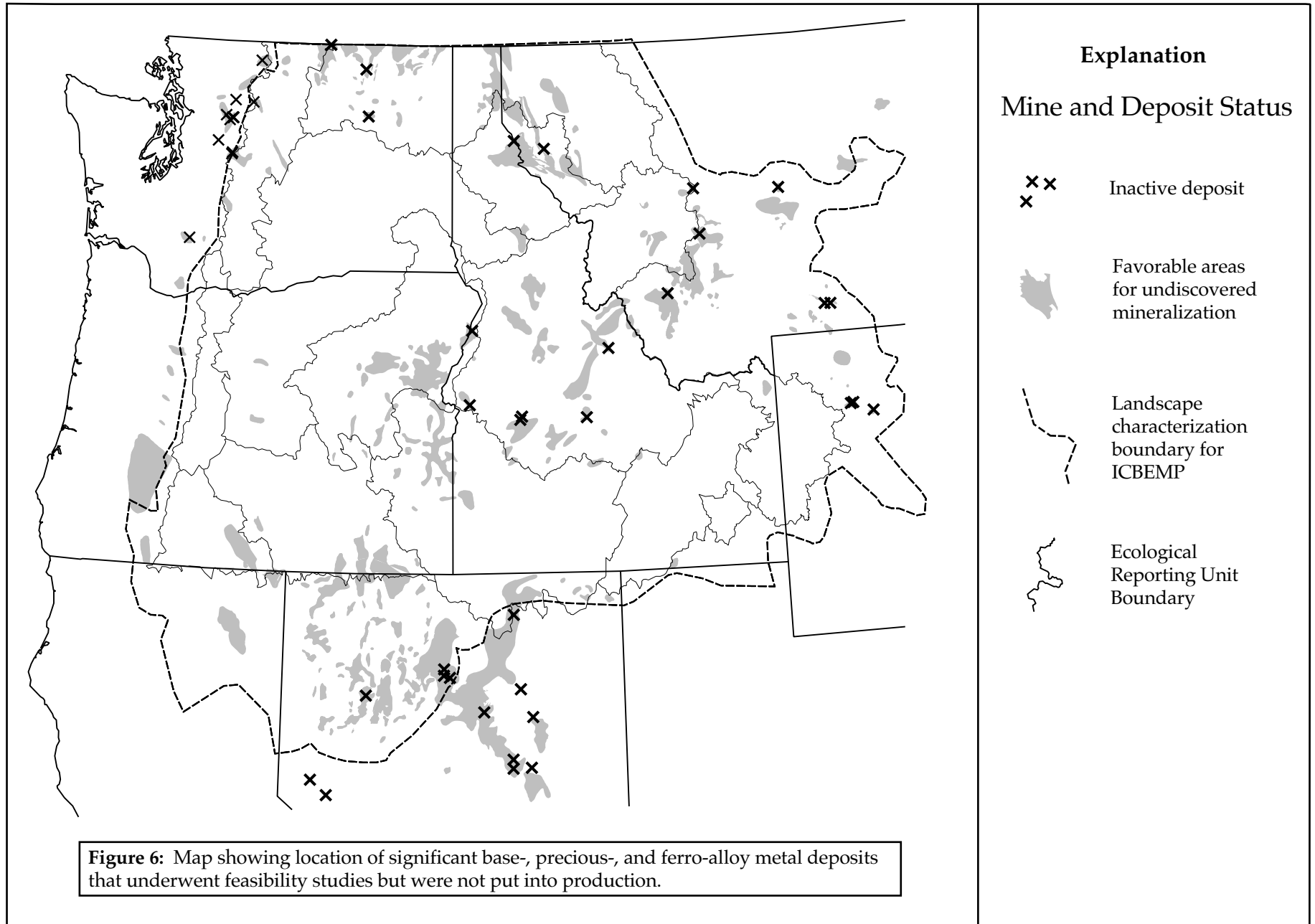
Approximately 61,100 tonnes of silver were produced, and 36,200 tonnes of silver are contained in remaining known resources of significant deposits of known status in the ICBEMP area (Table 7). Thus, known silver resources are 59 percent of known past production. About 60 percent of past production came from mines that are now inactive, 39 percent from deposits that are either in production or on standby status, and 1 percent from past producers that are undergoing economic feasibility studies for additional mining.

About 49 percent of silver resources remaining in deposits of known status are contained in deposits that are undergoing economic mining feasibility studies, 32 percent are located at mines that are either in production or on standby status, 15 percent are located at inactive mines, and 4 percent are contained in inactive deposits with no significant past production.









Status of Copper Production and Resources

Approximately 11,200,000 tonnes of copper were produced, and 30,800,000 tonnes of copper are contained in remaining copper resources of significant deposits of known status in the ICBEMP area (Table 7). Thus, known copper resources are 275 percent of known past production. In Appendices A and B, the entire Butte porphyry copper system is treated as a single deposit. Since the Continental Pit is in production, the entire Butte porphyry copper system is designated as in production status, even though the Berkely Pit is inactive, and is filling with water. With this caveat, the data in Appendices A and B, and Table 7 indicate that at least 66 percent of past production came from mines that are now inactive, and less than 34 percent came from mines that are either in production or on standby status. No more than 77 percent of remaining copper resources of deposits of known status are located at mines that are either in production or on standby status; 9 percent are contained in deposits that are undergoing economic mining feasibility studies; 9 percent are contained in inactive deposits; and at least 5 percent are located at inactive mines.

Status of Lead Production and Resources

Approximately 7,940,000 tonnes of lead were produced, and 405,000 tonnes of lead are contained in remaining lead resources of significant deposits of known status in the ICBEMP area (Table 7). Thus, lead resources remaining in deposits of known status are only 5 percent of known past production. About 88 percent of past lead production came from mines that are now inactive, and 8.5 percent came from mines that are either in production or on standby status. About 62 percent of known remaining lead resources are located at mines that are now inactive, 23 percent are located at mines that are either in production or on standby status, and 15 percent are contained in deposits undergoing economic mining feasibility studies.

Status of Zinc Production and Resources

Approximately 7,330,000 tonnes of zinc were produced, and 1,900,000 tonnes of zinc are contained in remaining zinc resources of significant deposits of known status in the ICBEMP area (Table 7). Thus, known zinc resources are 2.6 percent of known past production. About 93 percent of past zinc production came from mines that are now inactive, 2 percent came from mines that are either in production or on standby status, and 5 percent came from deposits now undergoing economic mining feasibility studies. About 43 percent of known remaining zinc resources are located at mines that are in production or on standby status, 29 percent are at inactive mines, 18 percent are located in deposits that are undergoing economic mining feasibility studies, and 10 percent are located in inactive deposits that have not been mined.

Status of Cobalt Production and Resources

Cobalt mines and deposits of the Central Idaho Mountains ERU are being explored for additional copper-cobalt resources, but exploration has not yet reached the economic mining feasibility stage.

Status of Molybdenum Production and Resources

Approximately 83,800 tonnes of molybdenum were produced, and 3,080,000 tonnes of molybdenum are contained in remaining molybdenum resources of significant deposits of known status in the ICBEMP area. Thus, known resources of molybdenum are about 37 times past production. About 59 percent of past molybdenum production was from mines that are now inactive, and 41 percent was from mines that are either in production or on standby status. About 60 percent of remaining known molybdenum resources are contained in inactive deposits, and 40 percent are located at mines that are in production or on standby status.

Acknowledgements

This compilation of the metal content and status of significant known metallic deposits in the Pacific Northwest and the Interior Columbia Basin is based on data compiled by generations of geologists, mining engineers, mineral economists, and mining journalists. It has been gathered from a wide array of reports, compilations, and publications (See list of references cited). Patrick Geehan, BLM coordinator for the ICBEMP, recognized the need for and importance of knowledge of the status and metal content of mineral deposits to ecosystem planning and management. Keith R. Long and Douglas Causey helpfully reviewed this report.

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Appendix A. Table of metal production and resources of significant deposits of the Interior Columbia Basin by Ecological Reporting Unit (ERU).

Index	Deposit	ERU	Ecological Reporting Unit	State	District	Deposit Type	Status	Au P	Au R	Au P+R	Ag P	Ag R	Ag P+R
1	Kelsey	1	Northern Cascades	WA	unnamed	Porphyry Cu	ID	0	0	0	0	0	0
9	Red Mountain	1	Northern Cascades	WA	Chiwawa	Porphyry Cu, breccia pipe	ID	0	0	0	0	238	238
17	Mazama	1	Northern Cascades	WA	Mazama	Porphyry Cu	FD	0	0	0	0	0	0
21	Holden	1	Northern Cascades	WA	Railroad Creek	Massive sulfide, Kuroko	IM	19	6	24	62	10	72
69	Cannon	1	Northern Cascades	WA	Wenatchee	Epithermal vein, Comstock	IM x	32	4	35	52	30	82
70	Lovitt	1	Northern Cascades	WA	Wenatchee	Epithermal vein, Comstock	IM e	13	0	13	19	0	19
218	Quartz Mountain	3	Upper Klamath	OR		Hot spring Au-Ag	FD	0	19	19	0	0	0
111	Pierce City district	5	Columbia Plateau	ID	Pierce City (Orofino Creek)	Placer Au	IM	12	0	12	0	0	0
412	Hercules	5	Columbia Plateau	ID	Heath	Unclassified	ID	0	0	0	0	577	577
164	Red Ledge	6	Blue Mountains	ID	Seven Devils	Massive sulfide, Kuroko	ID	0	5	5	0	485	485
171	Iron Dyke	6	Blue Mountains	OR	Seven Devils	Massive sulfide, Kuroko	IM r	1	3	4	15	7	22
172	Cornucopia district	6	Blue Mountains	OR	Cornucopia	Polymetallic vein, Blue Mountains Au-Ag	IM	13	0	13	62	0	62
173	Sanger	6	Blue Mountains	OR	Eagle	Low sulfide Au-quartz vein	IM	2	0	2	0	0	0
180	Rock Creek district	6	Blue Mountains	OR	Rock Creek	Polymetallic vein, Blue Mountains Au-Ag	IM	2	0	2	19	0	19
182	Granite district	6	Blue Mountains	OR	Granite	Placer Au	IM	3	0	3	47	0	47
183	Cracker Cr. district	6	Blue Mountains	OR	Cracker Cr.	Polymetallic vein, Blue Mountains Au-Ag	IM	20	3	23	12	0	12
184	Granite district	6	Blue Mountains	OR	Granite	Polymetallic vein, Blue Mountains Au-Ag	IM	3	0	3	1	0	1
185	Virtue	6	Blue Mountains	OR	Virtue	Low sulfide Au-quartz vein	IM	5	0	5	0	0	0
186	Sumpter Placer district	6	Blue Mountains	OR	Sumpter Placer	Placer Au	IM	9	0	9	2	0	2
187	Greenhorn district	6	Blue Mountains	OR	Greenhorn	Polymetallic vein, Blue Mountains Au-Ag	IM	5	0	5	4	0	4
188	Greenhorn district	6	Blue Mountains	OR	Greenhorn	Placer Au	IM	3	0	3	1	0	1
189	Connor Creek	6	Blue Mountains	OR	Connor Cr.	Low sulfide Au-quartz vein	IM	2	0	2	0	0	0
192	Canyon Placer district	6	Blue Mountains	OR	Canyon Placer	Placer Au	IM	29	0	29	3	0	3
193	Mormon Basin	6	Blue Mountains	OR	Mormon Basin	Low sulfide Au-quartz vein	IM	4	0	4	1	0	1
2	Buckhorn Mountain (Crown Jewel)	7	Northern Glaciated Mtns.	WA	Meyers Creek	Skarn Au	FD	0	50	50	0	0	0
3	Orient	7	Northern Glaciated Mtns.	WA	Orient	Epithermal vein, Comstock	IM	1	3	4	1	2	3
4	Yellowhead	7	Northern Glaciated Mtns.	WA	Metaline	Mississippi Valley, minor	FM	0	0	0	0	0	0
5	Pend Oreille	7	Northern Glaciated Mtns.	WA	Metaline	Mississippi Valley, minor	FM	0	0	0	0	0	0
6	Kettle River	7	Northern Glaciated Mtns.	WA	Republic	Epithermal vein, Comstock	P	2	0	2	0	0	0
8	Van Stone	7	Northern Glaciated Mtns.	WA	Bossburg	Mississippi Valley, minor	S	0	0	0	0	0	0
10	Lamefoot	7	Northern Glaciated Mtns.	WA	Republic	Overlook	P	0	15	15	0	0	0
11	Key East - Key West	7	Northern Glaciated Mtns.	WA	Republic	Overlook	P	4	0	4	0	0	0
12	Overlook zone	7	Northern Glaciated Mtns.	WA	Republic	Overlook	P	23	0	23	0	0	0
13	Golden Eagle	7	Northern Glaciated Mtns.	WA	Republic	Epithermal vein, Comstock	FD	0	36	36	0	0	0
14	Knob Hill-Golden Promise	7	Northern Glaciated Mtns.	WA	Republic	Epithermal vein, Comstock	IM x	69	14	83	278	130	408
15	Last Chance	7	Northern Glaciated Mtns.	WA	Republic	Epithermal vein, Comstock	IM x	5	0	5	0	0	0
16	Republic	7	Northern Glaciated Mtns.	WA	Republic	Epithermal vein, Comstock	IM x	2	0	2	0	0	0
18	Troy (Spar Lake)	7	Northern Glaciated Mtns.	MT	Cabinet Mountains area	Sediment-hosted Cu, Revett	S	0	0	0	2,344	0	2,344
22	J-F	7	Northern Glaciated Mtns.	MT	Cabinet Mountains area	Sediment-hosted Cu, Revett	FD	0	0	0	0	630	630
25	Rock Lake (Montanore)	7	Northern Glaciated Mtns.	MT	Cabinet Mountains area	Sediment-hosted Cu, Revett	FD	0	0	0	0	7,613	7,613
26	Mt Tolman	7	Northern Glaciated Mtns.	WA	Sanpoil,Keller	Porphyry Mo, Low-F	ID	0	0	0	0	0	0
34	Hog Heaven district	7	Northern Glaciated Mtns.	MT	Hog Heaven (Flathead)	Hot spring Au-Ag	S	0	1	1	213	645	858
24	Rock Creek	8	Lower Clark Fork	MT	Cabinet Mountains area	Sediment-hosted Cu, Revett	FD	0	0	0	0	8,924	8,924
35	Eagle Creek	8	Lower Clark Fork	ID		Sediment-hosted Cu, Revett	ID	0	0	0	0	240	240
37	Jack Waite	8	Lower Clark Fork	ID	Eagle	Polymetallic vein, Coeur d' Alene	IM	0	0	0	17	0	17
39	Liver Peak	8	Lower Clark Fork	MT		Porphyry Mo, Low-F	ID	0	0	0	0	0	0
40	Murray district	8	Lower Clark Fork	ID	Murray (Coeur d'Alene)	Placer Au	IM	6	0	6	0	0	0
41	Interstate-Callahan	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	62	0	62
42	Hercules	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	932	0	932
43	Tamarack-Custer	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	272	0	272
44	Bunker Hill	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM r	0	0	0	4,106	463	4,569
45	Page Group	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	454	0	454

Appendix A. Table of metal production and resources of significant deposits of the Interior Columbia Basin by Ecological Reporting Unit (ERU).

Index	Deposit	ERU	Ecological Reporting Unit	State	District	Deposit Type	Status	Au P	Au R	Au P+R	Ag P	Ag R	Ag P+R
46	Sherman	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	122	0	122
47	Senator Stewart	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	206	0	206
48	Caledonia	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	252	0	252
49	Tiger-Poorman	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	83	0	83
50	Hecla	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	1,269	47	1,316
51	Standard Mammoth	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	1,055	0	1,055
53	Last Chance	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	268	0	268
54	Dayrock	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	203	0	203
55	Helena-Frisco	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	191	0	191
56	Silver Summit	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	620	0	620
57	Crescent	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	751	123	874
58	Polaris	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	229	0	229
59	Sunshine Unit	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	P	0	0	0	9,019	1,191	10,210
61	Mineral Point	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	182	0	182
62	Coeur	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	S	0	0	0	1,127	309	1,436
63	Sidney	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	60	0	60
64	Galena	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	S	1	0	1	4,175	472	4,647
65	Gold Hunter	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	FM	0	0	0	310	0	310
66	Lucky Friday	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	P	1	0	1	2,904	287	3,191
67	Star-Morning	8	Lower Clark Fork	ID	Coeur d'Alene	Polymetallic vein, Coeur d' Alene	IM	0	0	0	2,273	0	2,273
68	Snowstorm	8	Lower Clark Fork	ID	Coeur d'Alene	Sediment-hosted Cu, Revett	IM	0	0	0	138	138	276
74	Cedar Creek-Trout Creek district	8	Lower Clark Fork	MT	Cedar Creek-Trout Creek	Placer Au	IM	4	0	4	0	0	0
76	Ninemile Cr. dist.	8	Lower Clark Fork	MT	Ninemile Creek	Placer Au	IM	4	0	4	0	0	0
411	Golden Chest	8	Lower Clark Fork	ID	Murray	Unclassified	FD	0	6	7	0	0	0
78	Heddeleston	9	Upper Clark Fork	MT	Heddeleston	Porphyry Cu	ID	0	0	0	0	0	0
79	McDonald Meadows	9	Upper Clark Fork	MT	Seven-Up Pete	Hot spring Au-Ag	FD	0	255	255	0	0	0
81	Seven-Up Pete	9	Upper Clark Fork	MT	Seven-Up Pete	Epithermal vein, quartz-adularia	FD	0	26	26	0	0	0
84	Lincoln district	9	Upper Clark Fork	MT	Lincoln	Placer Au	IM	11	0	11	1	0	1
86	Elk Creek-Coloma district	9	Upper Clark Fork	MT	Elk Creek-Coloma	Placer Au	IM	2	0	2	0	0	0
89	McClellan district	9	Upper Clark Fork	MT	McClellan	Placer Au	IM	11	0	11	2	0	2
90	Garnet district (Dewey mine)	9	Upper Clark Fork	MT	Garnet (First Chance)	Polymetallic replacement	FM	2	0	2	4	0	4
91	First Chance district	9	Upper Clark Fork	MT	First Chance (Garnet)	Placer Au	IM	10	0	10	0	0	0
92	Finn district	9	Upper Clark Fork	MT	Finn	Placer Au	IM	3	0	3	0	0	0
99	Bald Butte	9	Upper Clark Fork	MT	Marysville	Porphyry Mo, Low-F	ID	0	0	0	0	0	0
100	Bald Butte	9	Upper Clark Fork	MT	Marysville	Polymetallic vein (porphyry-related)	IM	6	0	6	9	0	9
103	Ophir district	9	Upper Clark Fork	MT	Ophir	Placer Au	IM	6	0	6	2	0	2
109	Pioneer district	9	Upper Clark Fork	MT	Pioneer	Placer Au	IM	8	4	12	1	0	1
110	Henderson Placers district	9	Upper Clark Fork	MT	Henderson Placers	Placer Au	IM	3	0	3	0	0	0
114	Black Pine district	9	Upper Clark Fork	MT	Black Pine (Combination)	Polymetallic vein (porphyry-related)	IM	0	0	0	86	0	86
120	Hope	9	Upper Clark Fork	MT	Philipsburg	Polymetallic replacement	IM	0	0	0	124	0	124
121	Scratch Awl - True Fissure	9	Upper Clark Fork	MT	Philipsburg	Polymetallic replacement	IM	0	0	0	187	0	187
122	Trout	9	Upper Clark Fork	MT	Philipsburg	Polymetallic replacement	IM	0	0	0	156	0	156
123	Granite-Bimetallic	9	Upper Clark Fork	MT	Philipsburg	Polymetallic vein (porphyry-related)	IM	2	0	2	1,400	0	1,400
128	Southern Cross	9	Upper Clark Fork	MT	Georgetown (Southern Cross)	Polymetallic vein (porphyry-related)	IM e	8	0	8	10	0	10
129	Cable	9	Upper Clark Fork	MT	Georgetown (Cable)	Skarn Au	P	5	0	5	4	0	4
132	Butte district	9	Upper Clark Fork	MT	Butte	Placer Au	IM	11	0	11	0	0	0
133	Butte district	9	Upper Clark Fork	MT	Butte	Porphyry Cu	P	4	199	203	1,532	6,742	8,274
134	Butte district	9	Upper Clark Fork	MT	Butte	Polymetallic vein (porphyry-related)	IM	66	0	66	19,670	4,465	24,135
135	Beal Mountain	9	Upper Clark Fork	MT	Siberia (German Gulch)	Polymetallic vein (porphyry-related)	P	5	0	5	5	0	5
141	Butte Highlands	9	Upper Clark Fork	MT	Highland	Skarn Au	IM e	2	0	2	0	0	0
208	Grassy Mountain	10	Owyhee Uplands	OR		Hot spring Au-Ag	FD	0	31	31	0	77	77
211	Hailey gold belt	10	Owyhee Uplands	ID	Camas	Polymetallic vein, Idaho Batholith Au-Ag	IM	4	0	4	36	0	36

Appendix A. Table of metal production and resources of significant deposits of the Interior Columbia Basin by Ecological Reporting Unit (ERU).

Index	Deposit	ERU	Ecological Reporting Unit	State	District	Deposit Type	Status	Au P	Au R	Au P+R	Ag P	Ag R	Ag P+R
212	Stone Cabin	10	Owyhee Uplands	ID	Florida Mountain	Hot spring Au-Ag	F M	4	24	28	480	367	847
213	DeLamar	10	Owyhee Uplands	ID	DeLamar	Hot spring Au-Ag	P	29	33	61	2,068	1,245	3,313
214	War Eagle Project	10	Owyhee Uplands	ID	French,Carson	Epithermal vein, Comstock	I M	5	12	17	0	0	0
226	Jarbidge district	10	Owyhee Uplands	NV	Jarbidge	Epithermal vein, Comstock	I M	7	0	7	15	0	15
227	Rio Tinto	10	Owyhee Uplands	NV	Mountain City	Massive sulfide, Besshi	I M	0	0	0	9	0	9
230	Cobb Creek	10	Owyhee Uplands	NV		Unclassified	F D	0	5	5	0	0	0
235	Wright Window	10	Owyhee Uplands	NV	Burns Basin	Sediment-hosted Au	I M	1	4	5	0	0	0
238	Burns Basin-Jerritt Canyon	10	Owyhee Uplands	NV	Burns Basin	Sediment-hosted Au	P	21	147	168	0	0	0
240	Tuscarora district	10	Owyhee Uplands	NV	Tuscarora	Epithermal vein, Comstock	I M	5	8	13	227	42	269
210	Champagne	11	Upper Snake	ID	Lava Creek	Hot spring Au-Ag	I M r	2	2	4	11	51	62
138	Tenmile district	13	Central Idaho Mountains	ID	Tenmile	Placer Au	I M	3	0	3	0	0	0
139	Elk City district	13	Central Idaho Mountains	ID	Elk City	Polymetallic vein, Idaho Batholith Au-Ag	F M	4	7	12	0	0	0
140	Elk City district	13	Central Idaho Mountains	ID	Elk City	Placer Au	I M	28	0	28	0	0	0
148	Gibbonsville district	13	Central Idaho Mountains	ID	Gibbonsville	Placer Au	I M	3	0	3	0	0	0
159	Warren and Marshall districts	13	Central Idaho Mountains	ID	Warren and Marshall	Placer Au	I M	25	0	25	0	0	0
160	Warren district	13	Central Idaho Mountains	ID	Warren	Polymetallic vein, Idaho Batholith Au-Ag	I M	3	0	3	2	0	2
161	Mackinaw district	13	Central Idaho Mountains	ID	Mackinaw	Placer Au	I M	8	0	8	0	0	0
162	Beartrack	13	Central Idaho Mountains	ID	Mackinaw	Polymetallic vein/dissemin., Idaho Batholith Au-	P	0	63	63	0	0	0
167	Blackbird	13	Central Idaho Mountains	ID	Blackbird	Sedimentary exhalative Blackbird Cu-Co	I M	0	0	0	0	0	0
174	Yellow Jacket	13	Central Idaho Mountains	ID	Yellow Jacket	Polymetallic vein, Cu-Pb-Au	I M	0	2	2	0	0	0
175	Iron Creek	13	Central Idaho Mountains	ID	Blackbird	Sedimentary exhalative Blackbird Cu-Co	I D	0	0	0	0	0	0
176	Dewey, Sunnyside	13	Central Idaho Mountains	ID	Thunder Mountain	Hot spring Au-Ag	I M	1	11	12	0	0	0
177	Homestake	13	Central Idaho Mountains	ID	Stibnite	Polymetallic vein/dissemin., Idaho Batholith Au-	I M x	2	0	2	1	0	1
178	West End	13	Central Idaho Mountains	ID	Stibnite	Polymetallic vein/dissemin., Idaho Batholith Au-	P	2	5	7	1	0	1
179	Yellow Pine	13	Central Idaho Mountains	ID	Stibnite	Polymetallic vein/dissemin., Idaho Batholith Au-	S	10	13	23	51	0	51
190	Florence district	13	Central Idaho Mountains	ID	Florence	Placer Au	I M	31	0	31	0	0	0
191	Sunbeam-Grouse Creek	13	Central Idaho Mountains	ID	Yankee Fork	Hot spring Au-Ag	P	1	26	27	13	517	530
194	Thompson Creek	13	Central Idaho Mountains	ID	Bayhorse	Porphyry Mo, Low-F	P	0	0	0	0	0	0
195	Clayton Silver	13	Central Idaho Mountains	ID	Bayhorse	Polymetallic replacement	S	0	0	0	206	0	206
196	Idaho Almaden	13	Central Idaho Mountains	ID	Weiser	Hot spring Hg	I M	0	20	20	0	0	0
197	Little Falls	13	Central Idaho Mountains	ID		Porphyry Mo, Low-F	I D	0	0	0	0	0	0
198	Little Boulder Creek	13	Central Idaho Mountains	ID	Bayhorse Creek	Porphyry Mo, Low-F	I D	0	0	0	0	0	0
200	Cumo	13	Central Idaho Mountains	ID	Grimes Pass	Porphyry Mo, Low-F	I D	0	0	0	0	0	0
203	Boise Basin district	13	Central Idaho Mountains	ID	Boise Basin	Polymetallic vein, Idaho Batholith Au-Ag	I M	21	0	21	0	0	0
204	Boise Basin district	13	Central Idaho Mountains	ID	Boise Basin	Placer Au	I M	72	0	72	0	0	0
205	Atlanta	13	Central Idaho Mountains	ID	Atlanta	Polymetallic vein, Idaho Batholith Au-Ag	F M	9	9	18	81	0	81
206	Atlanta	13	Central Idaho Mountains	ID	Atlanta	Polymetallic vein/dissemin., Idaho Batholith Au-	F M	0	28	28	0	76	76
207	Rocky Bar district	13	Central Idaho Mountains	ID	Rocky Bar	Polymetallic vein, Idaho Batholith Au-Ag	I M	8	0	8	0	0	0
209	Triumph	13	Central Idaho Mountains	ID	Warm Springs	Sedimentary exhalative Zn-Pb	I M	2	1	3	258	76	334

Appendix A. Table of metal production and resources of significant deposits of the Interior Columbia Basin by Ecological Reporting Unit (ERU).

Deposit	ERU	Cu P	Cu R	Cu P+R	Pb P	Pb R	Pb P+R	Zn P	Zn R	Zn P+R	Co P	Co R	Co P+R	Mo P	Mo R	Mo P+R
Kelsey	1	0	334,662	334,662	0	0	0	0	0	0	0	0	0	0	10,796	10,796
Red Mountain	1	0	30,844	30,844	0	0	0	0	0	0	0	0	0	0	0	0
Mazama	1	0	489,780	489,780	0	0	0	0	0	0	0	0	0	0	0	0
Holden	1	96,192	29,946	126,138	0	0	0	18,129	8,167	26,296	0	0	0	0	0	0
Cannon	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lovitt	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Quartz Mountain	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pierce City district	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hercules	5	0	0	0	0	0	0	0	20,408	20,408	0	0	0	0	0	0
Red Ledge	6	0	54,000	54,000	0	0	0	0	174,000	174,000	0	0	0	0	0	0
Iron Dyke	6	15,100	7,961	23,061	0	0	0	0	0	0	0	0	0	0	0	0
Cornucopia district	6	90,200	0	90,200	0	0	0	0	0	0	0	0	0	0	0	0
Sanger	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rock Creek district	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Granite district	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cracker Cr. district	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Granite district	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Virtue	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sumpter Placer district	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Greenhorn district	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Greenhorn district	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Connor Creek	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Canyon Placer district	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mormon Basin	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Buckhorn Mountain (Crown Jewel)	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Orient	7	258	486	744	11	20	31	0	0	0	0	0	0	0	0	0
Yellowhead	7	0	0	0	207	59,466	59,673	1,067	341,149	342,216	0	0	0	0	0	0
Pend Oreille	7	0	0	0	165,109	635	165,744	381,020	8,382	389,402	0	0	0	0	0	0
Kettle River	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Van Stone	7	0	0	0	6,018	21,773	27,791	58,786	94,348	153,134	0	0	0	0	0	0
Lamefoot	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Key East - Key West	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overlook zone	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Golden Eagle	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Knob Hill-Golden Promise	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Last Chance	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Republic	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Troy (Spar Lake)	7	333,000	74,011	407,011	0	0	0	0	0	0	0	0	0	0	0	0
J-F	7	0	56,000	56,000	0	0	0	0	0	0	0	0	0	0	0	0
Rock Lake (Montanore)	7	0	1,159,402	1,159,402	0	0	0	0	0	0	0	0	0	0	0	0
Mt Tolman	7	0	713,700	713,700	0	0	0	0	0	0	0	0	0	0	444,080	444,080
Hog Heaven district	7	0	0	0	13,963	0	13,963	0	0	0	0	0	0	0	0	0
Rock Creek	8	0	1,043,352	1,043,352	0	0	0	0	0	0	0	0	0	0	0	0
Eagle Creek	8	0	70,500	70,500	0	0	0	0	0	0	0	0	0	0	0	0
Jack Waite	8	24	0	24	53,325	0	53,325	12,815	0	12,815	0	0	0	0	0	0
Liver Peak	8	0	0	0	0	0	0	0	0	0	0	0	0	0	446,342	446,342
Murray district	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interstate-Callahan	8	48	0	48	45,004	0	45,004	139,223	0	139,223	0	0	0	0	0	0
Hercules	8	1,706	0	1,706	348,971	0	348,971	4,362	0	4,362	0	0	0	0	0	0
Tamarack-Custer	8	924	0	924	153,455	0	153,455	70,950	0	70,950	0	0	0	0	0	0
Bunker Hill	8	8,822	0	8,822	2,373,298	241,294	2,614,592	1,063,256	409,188	1,472,444	0	0	0	0	0	0
Page Group	8	1,236	0	1,236	245,652	0	245,652	246,556	0	246,556	0	0	0	0	0	0

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Deposit	ERU	Cu P	Cu R	Cu P+R	Pb P	Pb R	Pb P+R	Zn P	Zn R	Zn P+R	Co P	Co R	Co P+R	Mo P	Mo R	Mo P+R
Sherman	8	240	0	240	53,842	0	53,842	3,876	0	3,876	0	0	0	0	0	0
Senator Stewart	8	218	0	218	68,459	0	68,459	147	0	147	0	0	0	0	0	0
Caledonia	8	1,682	0	1,682	30,289	0	30,289	0	0	0	0	0	0	0	0	0
Tiger-Poorman	8	1	0	1	51,153	0	51,153	58	0	58	0	0	0	0	0	0
Hecla	8	2,253	0	2,253	645,965	0	645,965	33,488	0	33,488	0	0	0	0	0	0
Standard Mammoth	8	248	0	248	315,384	0	315,384	6,684	0	6,684	0	0	0	0	0	0
Last Chance	8	125	0	125	196,170	0	196,170	0	0	0	0	0	0	0	0	0
Dayrock	8	360	0	360	70,270	0	70,270	3,521	0	3,521	0	0	0	0	0	0
Helena-Frisco	8	358	0	358	96,707	0	96,707	79,364	0	79,364	0	0	0	0	0	0
Silver Summit	8	4,535	0	4,535	67	0	67	54	0	54	0	0	0	0	0	0
Crescent	8	3,380	0	3,380	1,479	0	1,479	264	0	264	0	0	0	0	0	0
Polaris	8	997	0	997	1,670	0	1,670	13	0	13	0	0	0	0	0	0
Sunshine Unit	8	44,836	6,451	51,287	63,461	0	63,461	3,825	0	3,825	0	0	0	0	0	0
Mineral Point	8	4,541	0	4,541	58	0	58	0	0	0	0	0	0	0	0	0
Coeur	8	14,485	3,236	17,721	150	0	150	215	0	215	0	0	0	0	0	0
Sidney	8	232	0	232	39,918	0	39,918	77,634	0	77,634	0	0	0	0	0	0
Galena	8	40,499	6,409	46,908	10,093	0	10,093	669	1,237	1,906	0	0	0	0	0	0
Gold Hunter	8	207	0	207	88,546	0	88,546	519	0	519	0	0	0	0	0	0
Lucky Friday	8	9,034	0	9,034	540,248	70,549	610,797	57,787	12,482	70,269	0	0	0	0	0	0
Star-Morning	8	3,790	0	3,790	1,574,789	0	1,574,789	1,507,816	0	1,507,816	0	0	0	0	0	0
Snowstorm	8	26,215	26,000	52,215	0	0	0	0	0	0	0	0	0	0	0	0
Cedar Creek-Trout Creek district	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ninemile Cr. dist.	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Golden Chest	8	7	0	7	11	0	11	0	0	0	0	0	0	0	0	0
Heddeleston	9	0	469,019	469,019	0	0	0	0	0	0	0	0	0	0	46,586	46,586
McDonald Meadows	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seven-Up Pete	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lincoln district	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elk Creek-Coloma district	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
McClellan district	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Garnet district (Dewey mine)	9	138	0	138	0	0	0	0	0	0	0	0	0	0	0	0
First Chance district	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finn district	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bald Butte	9	0	0	0	0	0	0	0	0	0	0	0	0	0	14,000	14,000
Bald Butte	9	0	0	0	222	0	222	0	0	0	0	0	0	0	0	0
Ophir district	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pioneer district	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Henderson Placers district	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Black Pine district	9	1,058	3,888	4,946	130	477	607	0	0	0	0	0	0	0	0	0
Hope	9	1,361	0	1,361	181	0	181	0	0	0	0	0	0	0	0	0
Scratch Awl - True Fissure	9	680	0	680	6,804	0	6,804	24,948	0	24,948	0	0	0	0	0	0
Trout	9	0	0	0	2,268	0	2,268	6,804	0	6,804	0	0	0	0	0	0
Granite-Bimetallic	9	91	11	102	454	57	511	0	0	0	0	0	0	0	0	0
Southern Cross	9	473	0	473	0	0	0	0	0	0	0	0	0	0	0	0
Cable	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Butte district	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Butte district	9	3,330,550	23,594,000	26,924,550	0	0	0	0	702,000	702,000	0	0	0	34,000	1,071,000	1,105,000
Butte district	9	7,100,000	1,235,000	8,335,000	598,000	0	598,000	3,450,000	109,000	3,559,000	0	0	0	0	0	0
Beal Mountain	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Butte Highlands	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grassy Mountain	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hailey gold belt	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix A. Table of metal production and resources of significant deposits of the Interior Columbia Basin by Ecological Reporting Unit (ERU).

Deposit	ERU	Cu P	Cu R	Cu P+R	Pb P	Pb R	Pb P+R	Zn P	Zn R	Zn P+R	Co P	Co R	Co P+R	Mo P	Mo R	Mo P+R
Stone Cabin	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DeLamar	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
War Eagle Project	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jarbidge district	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rio Tinto	10	98,116	103,900	202,016	0	0	0	0	0	0	0	0	0	0	0	0
Cobb Creek	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wright Window	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burns Basin-Jerritt Canyon	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tuscarora district	10	2	0	2	10	0	10	0	0	0	0	0	0	0	0	0
Champagne	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tenmile district	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elk City district	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elk City district	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gibbonsville district	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Warren and Marshall districts	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Warren district	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mackinaw district	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beartrack	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Blackbird	13	91	226,800	226,891	0	0	0	0	0	0	14	113,400	113,414	0	0	0
Yellow Jacket	13	2	0	2	4	0	4	0	0	0	0	0	0	0	0	0
Iron Creek	13	0	150,956	150,956	0	0	0	0	0	0	0	17,418	17,418	0	0	0
Dewey, Sunnyside	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Homestake	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
West End	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Pine	13	21	0	21	0	0	0	8	0	8	0	0	0	0	0	0
Florence district	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sunbeam-Grouse Creek	13	7	0	7	11	0	11	0	0	0	0	0	0	0	0	0
Thompson Creek	13	0	0	0	0	0	0	0	0	0	0	0	0	49,805	160,376	210,181
Clayton Silver	13	641	0	641	37,871	0	37,871	12,485	0	12,485	0	0	0	0	0	0
Idaho Almaden	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Little Falls	13	0	0	0	0	0	0	0	0	0	0	0	0	0	27,216	27,216
Little Boulder Creek	13	0	0	0	0	0	0	0	0	0	0	0	0	0	121,653	121,653
Cumo	13	0	930,920	930,920	0	0	0	0	0	0	0	0	0	0	742,220	742,220
Boise Basin district	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Boise Basin district	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Atlanta	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Atlanta	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rocky Bar district	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Triumph	13	0	0	0	38,840	11,442	50,282	63,477	18,700	82,177	0	0	0	0	0	0

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	District	County	State	Latitude	Longitude	Ecological Reporting Unit	ERU no.	Deposit Type	Alternative Deposit Types	Status
1	Kelsey	unnamed	Okanogan	WA	48.995	-119.478	Northern Cascades	1	Porphyry Cu		ID
2	Buckhorn Mountain (Crown Jewel)	Meyers Creek	Okanogan	WA	48.956	-118.983	Northern Glaciated Mtns.	7	Skarn Au		FD
3	Orient	Orient	Stevens	WA	48.884	-118.159	Northern Glaciated Mtns.	7	Epithermal vein, Comstock	Hot spring Au-Ag	IM
4	Yellowhead	Metaline	Pend Oreille	WA	48.883	-117.371	Northern Glaciated Mtns.	7	Mississippi Valley, minor		FM
5	Pend Oreille	Metaline	Pend Oreille	WA	48.882	-117.360	Northern Glaciated Mtns.	7	Mississippi Valley, minor		FM
6	Kettle River	Republic	Ferry	WA	48.879	-118.626	Northern Glaciated Mtns.	7	Epithermal vein, Comstock	Hot spring Au-Ag	P
7	Slate Creek district	Slate Creek	Whatcom	WA	48.768	-120.742	outside ICBEMP		Polymetallic vein (porphyry-related)		IM
8	Van Stone	Bosburg	Stevens	WA	48.761	-117.757	Northern Glaciated Mtns.	7	Mississippi Valley, minor		S
9	Red Mountain	Chiwawa	Chelan	WA	48.075	-120.849	Northern Cascades	1	Porphyry Cu, breccia pipe		ID
10	Lamefoot	Republic	Ferry	WA	48.734	-118.646	Northern Glaciated Mtns.	7	Overlook	Veinlets in argillite; replacements in dolomite	P
11	Key East - Key West	Republic	Ferry	WA	48.710	-118.551	Northern Glaciated Mtns.	7	Overlook	Veinlets in argillite; replacements in dolomite	P
12	Overlook zone	Republic	Ferry	WA	48.699	-118.569	Northern Glaciated Mtns.	7	Overlook	Veinlets in argillite; replacements in dolomite	P
13	Golden Eagle	Republic	Ferry	WA	48.680	-118.759	Northern Glaciated Mtns.	7	Epithermal vein, Comstock	Hot spring Au-Ag	FD
14	Knob Hill-Golden Promise	Republic	Ferry	WA	48.673	-118.758	Northern Glaciated Mtns.	7	Epithermal vein, Comstock	Hot spring Au-Ag	IM x
15	Last Chance	Republic	Ferry	WA	48.668	-118.755	Northern Glaciated Mtns.	7	Epithermal vein, Comstock	Hot spring Au-Ag	IM x
16	Republic	Republic	Ferry	WA	48.638	-118.745	Northern Glaciated Mtns.	7	Epithermal vein, Comstock	Hot spring Au-Ag	IM x
17	Mazama	Mazama	Okanogan	WA	48.615	-120.382	Northern Cascades	1	Porphyry Cu		FD
18	Troy (Spar Lake)	Cabinet Mountains area	Lincoln	MT	48.230	-115.860	Northern Glaciated Mtns.	7	Sediment-hosted Cu, Revett		S
19	Gold Mountain		Snohomish	WA	48.216	-121.334	outside ICBEMP		Porphyry Cu		ID
20	Glacier Peak	Sampson	Snohomish	WA	48.198	-120.979	outside ICBEMP		Porphyry Cu		ID
21	Holden	Railroad Creek	Chelan	WA	48.197	-120.780	Northern Cascades	1	Massive sulfide, Kuroko		IM
22	J-F	Cabinet Mountains area	Sanders	MT	48.193	-115.883	Northern Glaciated Mtns.	7	Sediment-hosted Cu, Revett		FD
23	Silverton district	Silverton	Snohomish	WA	48.130	-121.546	outside ICBEMP		Polymetallic vein (porphyry-related)	Placer Au	IM
24	Rock Creek	Cabinet Mountains area	Sanders	MT	48.080	-115.660	Lower Clark Fork	8	Sediment-hosted Cu, Revett		FD
25	Rock Lake (Montanore)	Cabinet Mountains area	Sanders	MT	48.080	-115.640	Northern Glaciated Mtns.	7	Sediment-hosted Cu, Revett		FD
26	Mt Tolman	Sanpoil,Keller	Ferry	WA	48.057	-118.692	Northern Glaciated Mtns.	7	Porphyry Mo, Low-F		ID
27	Sunrise	Sultan Basin	Snohomish	WA	48.009	-121.504	outside ICBEMP		Porphyry Cu, breccia pipe		ID
28	Mystery	Monte Cristo	Snohomish	WA	47.981	-121.369	outside ICBEMP		Polymetallic vein (porphyry-related)		IM
29	Pride of the Mountains	Monte Cristo	Snohomish	WA	47.981	-121.369	outside ICBEMP		Polymetallic vein (porphyry-related)		IM
30	New Discovery	Monte Cristo	Snohomish	WA	47.980	-121.358	outside ICBEMP		Polymetallic vein (porphyry-related)		IM
31	Justice	Monte Cristo	Snohomish	WA	47.980	-121.379	outside ICBEMP		Polymetallic vein (porphyry-related)		ID
32	New York-Seattle	Silver Creek	Snohomish	WA	47.949	-121.430	outside ICBEMP		Polymetallic vein (porphyry-related)		IM
33	Zortman - Landusky	Little Rocky Mountains	Phillips	MT	47.929	-108.586	outside ICBEMP		Alkaline Au-Te		P
34	Hog Heaven district	Hog Heaven (Flathead)	Flathead	MT	47.923	-114.582	Northern Glaciated Mtns.	7	Hot spring Au-Ag		S
35	Eagle Creek		Shoshone	ID	47.698	-115.863	Lower Clark Fork	8	Sediment-hosted Cu, Revett		ID
36	North Fork	Snoqualmie	King	WA	47.669	-121.636	outside ICBEMP		Porphyry Cu, breccia pipe		ID
37	Jack Waite	Eagle	Shoshone	ID	47.668	-115.744	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
39	Liver Peak		Sanders	MT	47.642	-115.267	Lower Clark Fork	8	Porphyry Mo, Low-F		ID
40	Murray district	Murray (Coeur d'Alene)	Shoshone	ID	47.617	-115.917	Lower Clark Fork	8	Placer Au		IM
41	Interstate-Callahan	Coeur d'Alene	Shoshone	ID	47.544	-115.887	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
42	Hercules	Coeur d'Alene	Shoshone	ID	47.543	-115.808	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
43	Tamarack-Custer	Coeur d'Alene	Shoshone	ID	47.536	-115.848	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	District	County	State	Latitude	Longitude	Ecological Reporting Unit	ERU no.	Deposit Type	Alternative Deposit Types	Status
44	Bunker Hill	Coeur d'Alene	Shoshone	ID	47.536	-116.138	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM r
45	Page Group	Coeur d'Alene	Shoshone	ID	47.528	-116.201	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
46	Sherman	Coeur d'Alene	Shoshone	ID	47.525	-115.820	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
47	Senator Stewart	Coeur d'Alene	Shoshone	ID	47.525	-116.171	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
48	Caledonia	Coeur d'Alene	Shoshone	ID	47.524	-116.168	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
49	Tiger-Poorman	Coeur d'Alene	Shoshone	ID	47.523	-115.813	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
50	Hecla	Coeur d'Alene	Shoshone	ID	47.520	-115.814	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
51	Standard Mammoth	Coeur d'Alene	Shoshone	ID	47.519	-115.836	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
52	Clipper-Three Brothers	Middle Fork Snoqualmie	King	WA	47.518	-121.344	outside ICBEMP		Porphyry Cu		ID
53	Last Chance	Coeur d'Alene	Shoshone	ID	47.517	-116.149	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
54	Dayrock	Coeur d'Alene	Shoshone	ID	47.512	-115.900	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
55	Helena-Frisco	Coeur d'Alene	Shoshone	ID	47.510	-115.850	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
56	Silver Summit	Coeur d'Alene	Shoshone	ID	47.506	-116.025	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
57	Crescent	Coeur d'Alene	Shoshone	ID	47.506	-116.073	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
58	Polaris	Coeur d'Alene	Shoshone	ID	47.502	-116.052	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
59	Sunshine Unit	Coeur d'Alene	Shoshone	ID	47.501	-116.068	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		P
60	Condor-Hemlock	Middle Fork Snoqualmie	King	WA	47.497	-121.360	outside ICBEMP		Porphyry Cu		ID
61	Mineral Point	Coeur d'Alene	Shoshone	ID	47.489	-116.006	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
62	Coeur	Coeur d'Alene	Shoshone	ID	47.489	-115.992	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		S
63	Sidney	Coeur d'Alene	Shoshone	ID	47.488	-116.192	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
64	Galena	Coeur d'Alene	Shoshone	ID	47.477	-115.965	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		S
65	Gold Hunter	Coeur d'Alene	Shoshone	ID	47.472	-115.785	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		FM
66	Lucky Friday	Coeur d'Alene	Shoshone	ID	47.471	-115.780	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		P
67	Star-Morning	Coeur d'Alene	Shoshone	ID	47.468	-115.812	Lower Clark Fork	8	Polymetallic vein, Coeur d' Alene		IM
68	Snowstorm	Coeur d'Alene	Shoshone	ID	47.467	-115.733	Lower Clark Fork	8	Sediment-hosted Cu, Revett		IM
69	Cannon	Wenatchee	Chelan	WA	47.396	-120.325	Northern Cascades	1	Epithermal vein, Comstock		IM x
70	Lovitt	Wenatchee	Chelan	WA	47.382	-120.315	Northern Cascades	1	Epithermal vein, Comstock		IM e
71	Canyon Resources (Kendall)	Kendall	Fergus	MT	47.294	-109.459	outside ICBEMP		Alkaline Au-Te		P
72	Spotted Horse	Warm Springs (Maiden)	Fergus	MT	47.176	-109.210	outside ICBEMP		Alkaline Au-Te		IM
73	Maginnis	Warm Springs (Maiden)	Fergus	MT	47.176	-109.219	outside ICBEMP		Alkaline Au-Te		IM
74	Cedar Creek-Trout Creek district	Cedar Creek-Trout Creek	Mineral	MT	47.144	-114.967	Lower Clark Fork	8	Placer Au		IM
75	Gilt Edge	Warm Springs (Gilt Edge)	Fergus	MT	47.144	-109.226	outside ICBEMP		Alkaline Au-Te		S
76	Ninemile Cr. dist.	Ninemile Creek	Missoula	MT	47.133	-114.550	Lower Clark Fork	8	Placer Au		IM
77	Block P	Barker	Judith Basin	MT	47.084	-110.632	outside ICBEMP		Polymetallic vein (porphyry-related)		IM
78	Heddleston	Heddleston	Lewis and Clark	MT	47.026	-112.360	Upper Clark Fork	9	Porphyry Cu		ID
79	McDonald Meadows	Seven-Up Pete	Lewis and Clark	MT	47.000	-112.525	Upper Clark Fork	9	Hot spring Au-Ag	Epithermal vein, quartz-adularia	FD
80	Silver Dyke	Neihart (Montana)	Cascade	MT	46.984	-110.694	outside ICBEMP		Polymetallic vein (porphyry-related)		IM
81	Seven-Up Pete	Seven-Up Pete	Lewis and Clark	MT	46.972	-112.530	Upper Clark Fork	9	Epithermal vein, quartz-adularia		FD
82	Big Ben	Neihart	Cascade	MT	46.966	-110.712	outside ICBEMP		Porphyry Mo, Climax		ID
83	Big Seven	Neihart (Montana)	Cascade	MT	46.949	-110.705	outside ICBEMP		Polymetallic vein (porphyry-related)		IM

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	District	County	State	Latitude	Longitude	Ecological Reporting Unit	ERU no.	Deposit Type	Alternative Deposit Types	Status
84	Lincoln district	Lincoln	Lewis and Clark	MT	46.942	-112.751	Upper Clark Fork	9	Placer Au		I M
85	Broadwater	Neihart (Montana)	Cascade	MT	46.934	-110.724	outside ICBEMP		Polymetallic vein (porphyry-related)		I M
86	Elk Creek-Coloma district	Elk Creek-Coloma	Missoula	MT	46.894	-113.385	Upper Clark Fork	9	Placer Au		I M
87	Stemple-Virginia Creek district	Stemple-Virginia Creek	Lewis and Clark	MT	46.886	-112.342	outside ICBEMP		Placer Au		I M
88	Jay Gould	Stemple-Gould	Lewis and Clark	MT	46.882	-112.459	outside ICBEMP		Polymetallic vein (porphyry-related)	Polymetallic replacement	I M
89	McClellan district	McClellan	Lewis and Clark	MT	46.882	-112.631	Upper Clark Fork	9	Placer Au		I M
90	Garnet district (Dewey mine)	Garnet (First Chance)	Granite	MT	46.827	-113.343	Upper Clark Fork	9	Polymetallic replacement	Polymetallic vein (porphyry-related)	F M
91	First Chance district	First Chance (Garnet)	Granite	MT	46.825	-113.337	Upper Clark Fork	9	Placer Au		I M
92	Finn district	Finn	Powell	MT	46.797	-112.667	Upper Clark Fork	9	Placer Au		I M
93	Piegan-Gloster	Marysville	Lewis and Clark	MT	46.762	-112.341	outside ICBEMP		Polymetallic vein (porphyry-related)		I M
94	Marysville-Silver Creek district	Marysville-Silver Creek	Lewis and Clark	MT	46.750	-112.333	outside ICBEMP		Placer Au		I M
95	Sheep Creek		Meagher	MT	46.750	-110.680	outside ICBEMP		Sedimentary exhalative Blackbird Cu-Co	Sedimentary exhalative Zn-Pb	F D
96	Cruse-Belmont-Empire	Marysville	Lewis and Clark	MT	46.749	-112.321	outside ICBEMP		Polymetallic vein (porphyry-related)	Polymetallic replacement	I M
97	Drumlummon	Marysville	Lewis and Clark	MT	46.743	-112.296	outside ICBEMP		Polymetallic vein (porphyry-related)		I M
98	Penobscot	Marysville	Lewis and Clark	MT	46.731	-112.356	outside ICBEMP		Polymetallic vein (porphyry-related)		I M
99	Bald Butte	Marysville	Lewis and Clark	MT	46.723	-112.346	Upper Clark Fork	9	Porphyry Mo, Low-F		I D
100	Bald Butte	Marysville	Lewis and Clark	MT	46.723	-112.346	Upper Clark Fork	9	Polymetallic vein (porphyry-related)		I M
101	York	York	Lewis and Clark	MT	46.721	-111.750	outside ICBEMP		Unclassified	Disseminated Au	I M
102	Missouri River-York district	Missouri River-York	Lewis and Clark	MT	46.717	-111.750	outside ICBEMP		Placer Au		I M
103	Ophir district	Ophir	Powell	MT	46.632	-112.542	Upper Clark Fork	9	Placer Au		I M
104	Miller	Big Belt Mountains	Broadwater	MT	46.621	-111.414	outside ICBEMP		Unclassified	Disseminated Au	F D
105	White Creek district	White Creek	Broadwater	MT	46.610	-111.503	outside ICBEMP		Placer Au		I M
106	Confederate Gulch district	Confederate Gulch	Broadwater	MT	46.599	-111.416	outside ICBEMP		Placer Au		I M
107	Helena-Last Chance Placer district	Helena-Last Chance Placer	Lewis and Clark	MT	46.591	-111.979	outside ICBEMP		Placer Au		I M
108	Whitlatch-Union	Helena	Lewis and Clark	MT	46.548	-112.093	outside ICBEMP		Polymetallic vein (porphyry-related)		I M
109	Pioneer district	Pioneer	Powell	MT	46.519	-112.946	Upper Clark Fork	9	Placer Au		I M
110	Henderson Placers district	Henderson Placers	Granite	MT	46.502	-113.262	Upper Clark Fork	9	Placer Au		I M
111	Pierce City district	Pierce City (Orofino Creek)	Clearwater	ID	46.501	-115.875	Columbia Plateau	5	Placer Au		I M
112	Rimini district	Rimini (Vaughn)	Lewis and Clark	MT	46.486	-112.247	outside ICBEMP		Polymetallic vein (porphyry-related)	Polymetallic disseminated	I M
113	Castle Mtn. district	Castle Mountain	Meagher	MT	46.470	-110.680	outside ICBEMP		Polymetallic replacement		I M
114	Black Pine district	Black Pine (Combination)	Granite	MT	46.448	-113.366	Upper Clark Fork	9	Polymetallic vein (porphyry-related)		I M
115	Clancy district	Clancy	Jefferson	MT	46.422	-112.089	outside ICBEMP		Placer Au		I M

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116	Basin Creek (Paupers Dream)	Rimini (Vaughn)	Lewis and Clark/Jefferson	MT	46.420	-112.290	outside ICBEMP		Epithermal vein, quartz-adularia	Hot-Spring Au-Ag	I D
117	Alta	Wickes (Colorado)	Jefferson	MT	46.372	-112.093	outside ICBEMP		Polymetallic vein (porphyry-related)		I M
118	Montana Tunnels	Wickes (Colorado)	Jefferson	MT	46.371	-112.126	outside ICBEMP		Unclassified	Diatreme Au	P
119	Margaret	St. Helens	SkamaNia	WA	46.356	-122.081	outside ICBEMP		Porphyry Cu		I D
120	Hope	Philipsburg	Granite	MT	46.344	-113.274	Upper Clark Fork	9	Polymetallic replacement		I M
121	Scratch Awl - True Fissure	Philipsburg	Granite	MT	46.332	-113.266	Upper Clark Fork	9	Polymetallic replacement	Polymetallic vein (porphyry-related)	I M
122	Trout	Philipsburg	Granite	MT	46.329	-113.267	Upper Clark Fork	9	Polymetallic replacement	Polymetallic vein (porphyry-related)	I M
123	Granite-Bimetallic	Philipsburg	Granite	MT	46.316	-113.242	Upper Clark Fork	9	Polymetallic vein (porphyry-related)		I M
124	Diamond Hill	Indian Creek (Hassel)	Broadwater	MT	46.313	-111.675	outside ICBEMP		Skarn Au		F M
125	Comet	Boulder or Cateract or Basin or	Jefferson	MT	46.310	-112.167	outside ICBEMP		Polymetallic vein (porphyry-related)		F M
126	Elkhorn (old)	Elkhorn	Jefferson	MT	46.273	-111.942	outside ICBEMP		Polymetallic replacement		I M
127	Elkhorn (Swan Gold?)	Elkhorn	Jefferson	MT	46.273	-111.942	outside ICBEMP		Skarn Au		F D
128	Southern Cross	Georgetown (Southern Cross)	Deer Lodge	MT	46.210	-113.235	Upper Clark Fork	9	Polymetallic vein (porphyry-related)	Polymetallic replacement	I M e
129	Cable	Georgetown (Cable)	Deer Lodge	MT	46.200	-113.216	Upper Clark Fork	9	Skarn Au		P
130	Keating	Radersburg	Broadwater	MT	46.188	-111.661	outside ICBEMP		Polymetallic vein (porphyry-related)	Polymetallic replacement	I M
131	Ohio-Keating	Radersburg	Broadwater	MT	46.185	-111.668	outside ICBEMP		Polymetallic vein (porphyry-related)		I M
132	Butte district	Butte	Silver Bow	MT	46.025	-112.529	Upper Clark Fork	9	Placer Au		I M
133	Butte district	Butte	Silver Bow	MT	46.020	-112.530	Upper Clark Fork	9	Porphyry Cu		P
134	Butte district	Butte	Silver Bow	MT	46.020	-112.530	Upper Clark Fork	9	Polymetallic vein (porphyry-related)		I M
135	Beal Mountain	Siberia (German Gulch)	Silver Bow	MT	45.954	-112.881	Upper Clark Fork	9	Polymetallic vein (porphyry-related)	Polymetallic disseminated	P
136	French Creek dist.	French Creek	Deer Lodge	MT	45.952	-113.022	outside ICBEMP		Placer Au		I M
137	Golden Sunlight	Whitehall	Jefferson	MT	45.906	-112.014	outside ICBEMP		Alkaline Au-Te		P
138	Tenmile district	Tenmile	Idaho	ID	45.833	-115.667	Central Idaho Mountains	13	Placer Au		I M
139	Elk City district	Elk City	Idaho	ID	45.825	-115.471	Central Idaho Mountains	13	Polymetallic vein, Idaho Batholith Au-Ag	Polymetallic disseminated	F M
140	Elk City district	Elk City	Idaho	ID	45.820	-115.455	Central Idaho Mountains	13	Placer Au		I M
141	Butte Highlands	Highland	Silver Bow	MT	45.797	-112.516	Upper Clark Fork	9	Skarn Au		I M e
142	Renova district	Renova	Madison	MT	45.794	-112.000	outside ICBEMP		Unclassified	Epithermal vein	I M
143	Silver Star-Iron Rod district	Silver Star - Iron Rod	Madison	MT	45.696	-112.314	outside ICBEMP		Polymetallic replacement		I M
144	Pony district	Pony (Mineral Hill and South Boulder)	Madison	MT	45.664	-111.956	outside ICBEMP		Polymetallic vein (porphyry-related)		I M
145	Cannivan	Quartz Hill	Beaverhead	MT	45.655	-112.956	outside ICBEMP		Porphyry Mo, Low-F		I D
146	Rochester district	Rochester (Rabbit)	Madison	MT	45.620	-112.505	outside ICBEMP		Polymetallic vein (porphyry-related)		I M
147	Hecla district	Hecla (Bryant) 1873-1965	Beaverhead	MT	45.605	-112.913	outside ICBEMP		Polymetallic replacement		I M
148	Gibbonsville district	Gibbonsville	Lemhi	ID	45.555	-113.925	Central Idaho Mountains	13	Placer Au		I M
149	Norris district	Norris (Upper and Lower Hot Spring)	Madison	MT	45.534	-111.771	outside ICBEMP		Polymetallic vein (porphyry-related)		I M
150	Sheridan-Twin Bridges district	Sheridan-Twin Bridges	Madison	MT	45.481	-112.130	outside ICBEMP		Polymetallic vein (porphyry-related)		I M

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151	East Boulder Project	Stillwater	Sweet Grass	MT	45.454	-110.138	outside ICBEMP		Magmatic, Merensky PGE		F D
152	Stillwater Mine	Stillwater	Stillwater	MT	45.389	-109.871	outside ICBEMP		Magmatic, Merensky PGE		P
153	Mouat-Sampson (Mountain View)	Stillwater	Stillwater	MT	45.388	-109.906	outside ICBEMP		Magmatic, Bushveld Cr		I M
154	West Fork B (Crescent Creek)	Stillwater	Sweet Grass	MT	45.382	-110.009	outside ICBEMP		Magmatic, PGE-enriched stratiform chromitite		I D
155	Mouat Ni-Cu	Stillwater	Stillwater	MT	45.377	-109.899	outside ICBEMP		Magmatic, Stillwater Ni-Cu		I D
156	Benbow Cr	Stillwater	Stillwater	MT	45.364	-109.806	outside ICBEMP		Magmatic, Bushveld Cr		I M
157	Argenta district	Argenta (Montana)	Beaverhead	MT	45.335	-112.904	outside ICBEMP		Polymetallic replacement	Polymetallic vein (porphyry-related)	I M
158	Virginia City-Alder Creek district	Virginia City-Alder Creek	Madison	MT	45.324	-112.002	outside ICBEMP		Placer Au		I M
159	Warren and Marshall districts	Warren and Marshall	Idaho	ID	45.306	-115.745	Central Idaho Mountains	13	Placer Au		I M
160	Warren district	Warren	Idaho	ID	45.258	-115.700	Central Idaho Mountains	13	Polymetallic vein, Idaho Batholith Au-Ag		I M
161	Mackinaw district	Mackinaw	Lemhi	ID	45.236	-114.157	Central Idaho Mountains	13	Placer Au		I M
162	Beartrack	Mackinaw	Lemhi	ID	45.233	-114.113	Central Idaho Mountains	13	Polymetallic vein/dissemin., Idaho Batholith Au-Ag		P
163	Virginia City district	Virginia City	Madison	MT	45.232	-111.960	outside ICBEMP		Polymetallic vein (porphyry-related)		I M
164	Red Ledge	Seven Devils	Adams	ID	45.226	-116.664	Blue Mountains	6	Massive sulfide, Kuroko	Submassive sulfide; stockwork; dissemination	I D
165	Bannack district	Bannack	Beaverhead	MT	45.159	-112.983	outside ICBEMP		Placer Au		I M
166	Bannack district	Bannack	Beaverhead	MT	45.155	-112.985	outside ICBEMP		Skarn Au		I M
167	Blackbird	Blackbird	Lemhi	ID	45.121	-114.339	Central Idaho Mountains	13	Sedimentary exhalative Blackbird Cu-Co		I M
168	Mineral Hill	Sheepeater (Jardine)	Park	MT	45.080	-110.620	outside ICBEMP		Homestake stratiform gold		P
169	New World	New World	Park	MT	45.060	-109.960	outside ICBEMP		Skarn Au		F M
170	Crevice Mountain	Sheepeater (Jardine)	Park	MT	45.046	-110.597	outside ICBEMP		Homestake stratiform gold		F D
171	Iron Dyke	Seven Devils	Baker	OR	45.026	-116.849	Blue Mountains	6	Massive sulfide, Kuroko	Massive sulfide fragments in laharc breccia	I M r
172	Cornucopia district	Cornucopia	Baker	OR	45.010	-117.217	Blue Mountains	6	Polymetallic vein, Blue Mountains Au-Ag		I M
173	Sanger	Eagle	Baker	OR	44.994	-117.408	Blue Mountains	6	Low sulfide Au-quartz vein	Polymetallic vein, Blue Mountains Au-Ag	I M
174	Yellow Jacket	Yellow Jacket	Lemhi	ID	44.982	-114.527	Central Idaho Mountains	13	Polymetallic vein, Cu-Pb-Au		I M
175	Iron Creek	Blackbird	Lemhi	ID	44.962	-114.115	Central Idaho Mountains	13	Sedimentary exhalative Blackbird Cu-Co	Sed-hosted Cu, reduced facies	I D
176	Dewey, Sunnyside	Thunder Mountain	Valley	ID	44.958	-115.142	Central Idaho Mountains	13	Hot spring Au-Ag		I M
177	Homestake	Stibnite	Valley	ID	44.950	-115.320	Central Idaho Mountains	13	Polymetallic vein/dissemin., Idaho Batholith Au-Ag		I M x
178	West End	Stibnite	Valley	ID	44.947	-115.308	Central Idaho Mountains	13	Polymetallic vein/dissemin., Idaho Batholith Au-Ag		P
179	Yellow Pine	Stibnite	Valley	ID	44.927	-115.332	Central Idaho Mountains	13	Polymetallic vein/dissemin., Idaho Batholith Au-Ag		S
180	Rock Creek district	Rock Creek	Baker	OR	44.853	-118.070	Blue Mountains	6	Polymetallic vein, Blue Mountains Au-Ag		I M
181	Bornite		Marion	OR	44.850	-122.310	outside ICBEMP		Porphyry Cu-Au, breccia pipe		P
182	Granite district	Granite	Grant	OR	44.847	-118.413	Blue Mountains	6	Placer Au		I M
183	Cracker Cr. district	Cracker Cr.	Baker	OR	44.842	-118.195	Blue Mountains	6	Polymetallic vein, Blue Mountains Au-Ag		I M
184	Granite district	Granite	Grant	OR	44.823	-118.391	Blue Mountains	6	Polymetallic vein, Blue Mountains Au-Ag		I M
185	Virtue	Virtue	Baker	OR	44.793	-117.697	Blue Mountains	6	Low sulfide Au-quartz vein	Polymetallic vein, Blue Mountains Au-Ag	I M
186	Sumpter Placer district	Sumpter Placer	Baker	OR	44.744	-118.206	Blue Mountains	6	Placer Au		I M

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187	Greenhorn district	Greenhorn	Baker/Grant	OR	44.710	-118.408	Blue Mountains	6	Polymetallic vein, Blue Mountains Au-Ag		I M
188	Greenhorn district	Greenhorn	Baker	OR	44.700	-118.417	Blue Mountains	6	Placer Au		I M
189	Connor Creek	Connor Cr.	Baker	OR	44.566	-117.201	Blue Mountains	6	Low sulfide Au-quartz vein	Polymetallic vein, Blue Mountains Au-Ag	I M
190	Florence district	Florence	Idaho	ID	45.517	-116.033	Central Idaho Mountains	13	Placer Au		I M
191	Sunbeam-Grouse Creek	Yankee Fork	Custer	ID	44.439	-114.736	Central Idaho Mountains	13	Hot spring Au-Ag	Epithermal vein, Comstock	P
192	Canyon Placer district	Canyon Placer	Grant	OR	44.433	-118.958	Blue Mountains	6	Placer Au		I M
193	Mormon Basin	Mormon Basin	Baker/Malheur	OR	44.425	-117.555	Blue Mountains	6	Low sulfide Au-quartz vein	Polymetallic vein, Blue Mountains Au-Ag	I M
194	Thompson Creek	Bayhorse	Custer	ID	44.327	-114.587	Central Idaho Mountains	13	Porphyry Mo, Low-F		P
195	Clayton Silver	Bayhorse	Custer	ID	44.283	-114.410	Central Idaho Mountains	13	Polymetallic replacement		S
196	Idaho Almaden	Weiser	Washington	ID	44.240	-116.714	Central Idaho Mountains	13	Hot spring Hg	Hot spring Au-Ag	IM
197	Little Falls		Boise	ID	44.083	-115.750	Central Idaho Mountains	13	Porphyry Mo, Low-F		ID
198	Little Boulder Creek	Bayhorse Creek	Custer	ID	44.056	-114.558	Central Idaho Mountains	13	Porphyry Mo, Low-F		ID
199	Stinkingwater	Stinkingwater Cu district	Park	WY	44.040	-109.639	outside ICBEMP		Porphyry Cu		ID
200	Cumo	Grimes Pass	Boise	ID	44.038	-115.783	Central Idaho Mountains	13	Porphyry Mo, Low-F		ID
201	Silver Creek	Stinkingwater Cu district	Park	WY	44.028	-109.689	outside ICBEMP		Porphyry Cu		ID
202	Kirwin	Kirwin Cu-Mo district	Park	WY	43.917	-109.283	outside ICBEMP		Porphyry Cu		ID
203	Boise Basin district	Boise Basin	Boise	ID	43.917	-116.083	Central Idaho Mountains	13	Polymetallic vein, Idaho Batholith Au-Ag	Epithermal vein, Comstock	IM
204	Boise Basin district	Boise Basin	Boise	ID	43.857	-115.900	Central Idaho Mountains	13	Placer Au		IM
205	Atlanta	Atlanta	Elmore	ID	43.771	-115.118	Central Idaho Mountains	13	Polymetallic vein, Idaho Batholith Au-Ag		FM
206	Atlanta	Atlanta	Elmore	ID	43.771	-115.118	Central Idaho Mountains	13	Polymetallic vein/dissem., Idaho Batholith Au-Ag	Polymetallic stockwork, disseminated Au-Ag	FM
207	Rocky Bar district	Rocky Bar	Elmore	ID	43.694	-115.299	Central Idaho Mountains	13	Polymetallic vein, Idaho Batholith Au-Ag		IM
208	Grassy Mountain		Malheur	OR	43.669	-117.360	Owyhee Uplands	10	Hot spring Au-Ag		FD
209	Triumph	Warm Springs	Blaine	ID	43.665	-114.284	Central Idaho Mountains	13	Sedimentary exhalative Zn-Pb	Polymetallic replacement and veins	IM
210	Champagne	Lava Creek	Butte	ID	43.594	-113.571	Upper Snake	11	Hot spring Au-Ag	Epithermal vein, Comstock	IM r
211	Hailey gold belt	Camas	Blaine	ID	43.417	-114.450	Owyhee Uplands	10	Polymetallic vein, Idaho Batholith Au-Ag		IM
212	Stone Cabin	Florida Mountain	Owyhee	ID	43.025	-116.756	Owyhee Uplands	10	Hot spring Au-Ag	Epithermal vein, Comstock	FM
213	DeLamar	DeLamar	Owyhee	ID	43.020	-116.831	Owyhee Uplands	10	Hot spring Au-Ag	Epithermal vein, Comstock	P
214	War Eagle Project	French,Carson	Owyhee	ID	43.007	-116.711	Owyhee Uplands	10	Epithermal vein, Comstock	Polymetallic vein Au-Ag	IM
215	Greenback	Greenback	Josephine	OR	42.654	-123.306	outside ICBEMP		Low sulfide Au-quartz vein		IM
216	Galice district	Galice	Josephine	OR	42.644	-123.506	outside ICBEMP		Placer Au		IM
217	South Pass-Atlantic City and Lew dist.	South Pass-Atlantic City and Lew	Fremont	WY	42.500	-108.700	outside ICBEMP		Low sulfide Au-quartz vein, Archean		IM
218	Quartz Mountain		Lake	OR	42.300	-120.800	Upper Klamath	3	Hot spring Au-Ag		FD
219	Upper Applegate	Upper Applegate	Jackson	OR	42.230	-122.939	outside ICBEMP		Placer Au		IM
220	Ashland district	Ashland	Jackson	OR	42.182	-122.791	outside ICBEMP		Low sulfide Au-quartz vein		IM
221	Waldo district	Waldo	Josephine	OR	42.115	-123.563	outside ICBEMP		Placer Au		IM

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222	Black Pine (Tallman)	Black Pine	Cassia	ID	42.078	-113.042	outside ICBEMP		Sediment-hosted Au		P
223	Turner-Albright	Waldo	Josephine	OR	42.007	-123.757	outside ICBEMP		Massive sulfide, Cyprus		F D
224	Gray Eagle	Happy Camp	Siskiyou	CA	41.863	-123.371	outside ICBEMP		Massive sulfide, Kuroko		F M
225	National district	National	Humboldt	NV	41.840	-117.590	outside ICBEMP		Epithermal vein, Comstock		I M
226	Jarbridge district	Jarbridge	Elko	NV	41.840	-115.410	Owyhee Uplands	10	Epithermal vein, Comstock		I M
227	Rio Tinto	Mountain City	Elko	NV	41.810	-115.980	Owyhee Uplands	10	Massive sulfide, Besshi		I M
228	Buckskin National	National	Humboldt	NV	41.790	-117.540	outside ICBEMP		Hot spring Au-Ag		I M
229	Cottonwood-Ft. Jones district	Cottonwood-Ft. Jones	Siskiyou	CA	41.789	-122.568	outside ICBEMP		Placer Au		I M
230	Cobb Creek		Elko	NV	41.775	-116.025	Owyhee Uplands	10	Unclassified		F D
231	Greenhorn Creek district	Greenhorn Creek	Siskiyou	CA	41.700	-122.648	outside ICBEMP		Placer Au		I M
232	Big Springs	Birch Creek	Elko	NV	41.550	-115.980	outside ICBEMP		Sediment-hosted Au		P
233	Scott River district	Scott River	Siskiyou	CA	41.462	-122.634	outside ICBEMP		Placer Au		I M
234	Winters Creek	Burns Basin	Elko	NV	41.450	-115.950	outside ICBEMP		Sediment-hosted Au		I D
235	Wright Window	Burns Basin	Elko	NV	41.400	-116.069	Owyhee Uplands	10	Sediment-hosted Au		I M
236	Klamath River Placer district	Klamath River Placer	Humboldt	CA	41.381	-123.541	outside ICBEMP		Placer Au		I M
237	Salmon River	Salmon River	Siskiyou	CA	41.379	-123.180	outside ICBEMP		Placer Au		I M
238	Burns Basin-Jerritt Canyon	Burns Basin	Elko	NV	41.340	-116.010	Owyhee Uplands	10	Sediment-hosted Au		P
239	Sleeper	Slumbering Hills	Humboldt	NV	41.330	-118.050	outside ICBEMP		Hot spring Au-Ag		P
240	Tuscarora district	Tuscarora	Elko	NV	41.320	-116.220	Owyhee Uplands	10	Epithermal vein, Comstock		I M
241	Twin Creeks (Chimney-Rabbit Creeks)	Potosi	Humboldt	NV	41.280	-117.170	outside ICBEMP		Sediment-hosted Au		P
242	Tecoma district	Tecoma	Box Elder	UT	41.267	-114.000	outside ICBEMP		Polymetallic replacement	Distal disseminated Ag-Au	I M
243	Black Bear	Liberty	Siskiyou	CA	41.252	-123.161	outside ICBEMP		Low sulfide Au-quartz vein		I M
244	Gold Circle district	Gold Circle	Elko	NV	41.250	-116.790	outside ICBEMP		Epithermal vein, Comstock		I M
245	Getchell	Potosi	Humboldt	NV	41.210	-117.260	outside ICBEMP		Sediment-hosted Au		P
246	Western Hog Ranch	Leadville	Washoe	NV	41.160	-119.450	outside ICBEMP		Hot spring Au-Ag		I M r
247	Pinson	Potosi	Humboldt	NV	41.130	-117.270	outside ICBEMP		Sediment-hosted Au		P
248	Ivanhoe	Ivanhoe	Elko	NV	41.110	-116.560	outside ICBEMP		Hot spring Au-Ag		P
249	Hayden Hill		Lassen	CA	41.080	-120.576	outside ICBEMP		Hot spring Au-Ag	Epithermal vein, Comstock	P
250	Dee Gold Mine	Bootstrap	Elko	NV	41.030	-116.430	outside ICBEMP		Sediment-hosted Au		P
251	Bootstrap	Bootstrap	Elko	NV	41.020	-116.420	outside ICBEMP		Sediment-hosted Au		F x
252	Meikle	Carlin	Elko	NV	41.010	-116.360	outside ICBEMP		Sediment-hosted Au		P
253	Preble - Kramer Hill	Potosi	Humboldt	NV	41.000	-117.390	outside ICBEMP		Sediment-hosted Au		I M r
254	Goldstrike-Post	Lynn	Eureka	NV	40.970	-116.360	outside ICBEMP		Sediment-hosted Au		P
255	North Star	Lynn	Eureka	NV	40.960	-116.380	outside ICBEMP		Sediment-hosted Au		P
256	Trinity River Basin district	Trinity River Basin	Trinity	CA	40.956	-123.014	outside ICBEMP		Placer Au		I M
257	Bobcat	Lynn	Eureka	NV	40.950	-116.380	outside ICBEMP		Sediment-hosted Au		F D
258	Genesis - Blue Star	Lynn	Eureka	NV	40.930	-116.320	outside ICBEMP		Sediment-hosted Au		P
259	Carlin	Lynn	Eureka	NV	40.930	-116.280	outside ICBEMP		Sediment-hosted Au		P
260	Lantern	Lynn	Eureka	NV	40.920	-116.360	outside ICBEMP		Sediment-hosted Au		F D
261	Bullion Monarch Mine	Lynn	Eureka	NV	40.920	-116.340	outside ICBEMP		Sediment-hosted Au		F M x
262	Pete	Lynn	Eureka	NV	40.920	-116.280	outside ICBEMP		Sediment-hosted Au		F D

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	District	County	State	Latitude	Longitude	Ecological Reporting Unit	ERU no.	Deposit Type	Alternative Deposit Types	Status
263	Globe	Dedrick-Canyon Creek	Trinity	CA	40.880	-123.367	outside ICBEMP		Low sulfide Au-quartz vein		I M
264	Crofoot - Lewis	Sulphur	Humboldt	NV	40.860	-118.690	outside ICBEMP		Hot spring Au-Ag		P
265	Lone Tree	Battle Mountain	Humboldt	NV	40.830	-117.210	outside ICBEMP		Distal disseminated Ag-Au		P
266	Stonehouse	Battle Mountain	Humboldt	NV	40.830	-117.210	outside ICBEMP		Distal disseminated Ag-Au		P
267	Rosebud	Rosebud	Pershing	NV	40.800	-118.650	outside ICBEMP		Distal disseminated Ag-Au		F D
268	Tusc	Maggie Creek	Eureka	NV	40.800	-116.230	outside ICBEMP		Sediment-hosted Au		F D
269	Maggie Creek	Maggie Creek	Eureka	NV	40.790	-116.330	outside ICBEMP		Sediment-hosted Au		P
270	Gold Quarry	Maggie Creek	Eureka	NV	40.790	-116.210	outside ICBEMP		Sediment-hosted Au		P
271	Mammoth	West Shasta	Shasta	CA	40.763	-122.454	outside ICBEMP		Massive sulfide, Kuroko		I M
272	Eight South	Battle Mountain	Humboldt	NV	40.742	-117.160	outside ICBEMP		Distal disseminated Ag-Au		I M
273	Sierra district	Sierra	Pershing	NV	40.739	-117.928	outside ICBEMP		Placer Au		I M
274	Marigold	Battle Mountain	Humboldt	NV	40.730	-117.180	outside ICBEMP		Distal disseminated Ag-Au		P
275	East Hill - UNR - Top	Battle Mountain	Humboldt	NV	40.729	-117.175	outside ICBEMP		Distal disseminated Ag-Au		I D
276	Balaklala	West Shasta	Shasta	CA	40.725	-122.498	outside ICBEMP		Massive sulfide, Kuroko		I M
277	Gladstone	French Gulch	Shasta	CA	40.724	-122.584	outside ICBEMP		Low sulfide Au-quartz vein		I M
278	Brown Bear	Deadwood	Trinity	CA	40.720	-122.730	outside ICBEMP		Low sulfide Au-quartz vein		F M
279	Milkmaid-Franklin	French Gulch	Shasta	CA	40.719	-122.669	outside ICBEMP		Low sulfide Au-quartz vein		I M
280	Iron Mountain	West Shasta	Shasta	CA	40.673	-122.524	outside ICBEMP		Massive sulfide, Kuroko		I M r
281	Reid	Old Diggings	Shasta	CA	40.666	-122.429	outside ICBEMP		Low sulfide Au-quartz vein		I M
282	Trenton - Valmy	Battle Mountain	Humboldt	NV	40.645	-117.178	outside ICBEMP		Distal disseminated Ag-Au		I D
283	Emigrant	Rain	Elko	NV	40.620	-115.970	outside ICBEMP		Sediment-hosted Au		F D
284	Little and Big Cottonwood dist.	Little and Big Cottonwood	Salt Lake	UT	40.620	-111.670	outside ICBEMP		Polymetallic replacement		I M
285	Park City district	Park City	Summit	UT	40.620	-111.510	outside ICBEMP		Polymetallic replacement		I M
286	Buckingham		Lander	NV	40.617	-117.075	outside ICBEMP		Porphyry Mo, Low-F		I D
287	Rain - SMZ	Railroad	Elko	NV	40.610	-116.010	outside ICBEMP		Sediment-hosted Au		P
288	Barney's Canyon	Barney's Canyon	Salt Lake	UT	40.610	-112.160	outside ICBEMP		Sediment-hosted Au		P
289	Buffalo Valley	Battle Mountain	Lander	NV	40.600	-117.250	outside ICBEMP		Skarn Au		I M
290	Gnome	Rain	Elko	NV	40.600	-116.110	outside ICBEMP		Sediment-hosted Au		F D
291	Melco	MelCo	Salt Lake	UT	40.600	-112.170	outside ICBEMP		Sediment-hosted Au		I M
292	Florida Canyon	Imlay	Pershing	NV	40.580	-118.240	outside ICBEMP		Hot spring Au-Ag		P
293	Fortitude - Surprise	Battle Mountain	Lander	NV	40.550	-117.130	outside ICBEMP		Skarn Au		I M x
294	Northeast Extension (Silver K)	Battle Mountain	Lander	NV	40.550	-117.130	outside ICBEMP		Skarn Au		I M x
295	Igo district	Igo	Shasta	CA	40.549	-122.538	outside ICBEMP		Placer Au		I M
296	Bingham Canyon district	Bingham Canyon	Salt Lake	UT	40.542	-112.147	outside ICBEMP		Placer Au		I M
297	Reona	Battle Mountain	Lander	NV	40.540	-117.140	outside ICBEMP		Distal disseminated Ag-Au	Skarn Au	P
298	Copper Canyon	Battle Mountain	Lander	NV	40.540	-117.120	outside ICBEMP		Porphyry Cu, skarn-related		I M x
299	Bingham Canyon	Bingham Canyon	Salt Lake	UT	40.540	-112.140	outside ICBEMP		Porphyry Cu	Polymetallic replacement; skarn Cu	P
300	Midas	Harrison Gulch	Shasta	CA	40.390	-122.985	outside ICBEMP		Low sulfide Au-quartz vein		I M
301	Tomboy-Minnie	Battle Mountain	Lander	NV	40.530	-117.120	outside ICBEMP		Skarn Au		I M x
302	Battle Mtn. district	Battle Mountain placers	Lander	NV	40.517	-117.133	outside ICBEMP		Placer Au		I M
303	Dark Star		Elko	NV	40.458	-115.844	outside ICBEMP		Sediment-hosted Au		I D

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Index	Deposit	District	County	State	Latitude	Longitude	Ecological Reporting Unit	ERU no.	Deposit Type	Alternative Deposit Types	Status
304	Pipon Range - Cord Ranch		Elko	NV	40.458	-115.844	outside ICBEMP		Sediment-hosted Au		ID
305	Seven Troughs district	Seven Troughs	Pershing	NV	40.450	-118.790	outside ICBEMP		Epithermal vein, Comstock		IM
306	Wind Mountain	San Emidio	Washoe	NV	40.430	-119.390	outside ICBEMP		Hot spring Au-Ag		IM
307	Hilltop Mine	Hilltop	Lander	NV	40.420	-116.810	outside ICBEMP		Distal disseminated Ag-Au		FD
308	Trinity district	Trinity	Pershing	NV	40.410	-118.590	outside ICBEMP		Epithermal vein, Comstock		IM
309	Horse Canyon	Lewis	Lander	NV	40.410	-116.920	outside ICBEMP		Skarn Au		P
310	Crescent Valley		Lander	NV	40.400	-116.650	outside ICBEMP		Placer Au		IM
311	Ophir district	Ophir	Tooele	UT	40.380	-112.270	outside ICBEMP		Skarn Zn-Pb		IM
312	Tag Mine-Wildcat Prospect	Trinity	Pershing	NV	40.370	-118.530	outside ICBEMP		Unclassified		ID
313	Cove - McCoy	McCoy	Lander	NV	40.340	-117.210	outside ICBEMP		Distal disseminated Ag-Au	Skarn Au	P
314	Rochester-Spring Valley district	Rochester-Spring Valley	Pershing	NV	40.337	-118.110	outside ICBEMP		Placer Au		IM
315	Mercur	Mercur	Tooele	UT	40.320	-112.240	outside ICBEMP		Sediment-hosted Au		P
316	Robertson		Lander	NV	40.310	-116.694	outside ICBEMP		Unclassified		FM
317	Tenabo	Bullion	Lander	NV	40.310	-116.640	outside ICBEMP		Distal disseminated Ag-Au		IM
318	Lights Creek	Lights Creek	Plumas	CA	40.300	-120.750	outside ICBEMP		Porphyry Cu		IM
319	Coeur Rochester	Rochester	Pershing	NV	40.280	-118.150	outside ICBEMP		Unclassified	Distal disseminated Ag-Au	P
320	Cortez Gold Mine	Bullion - Cortez	Lander	NV	40.260	-116.740	outside ICBEMP		Sediment-hosted Au		P
321	Pipeline		Lander	NV	40.255	-116.740	outside ICBEMP		Sediment-hosted Au		FD
322	South Pipeline		Lander	NV	40.248	-116.740	outside ICBEMP		Sediment-hosted Au		FD
323	Crescent Mills district	Crescent Mills	Plumas	CA	40.121	-120.937	outside ICBEMP		Low sulfide Au-quartz vein		IM
324	Relief Canyon	Antelope Springs	Pershing	NV	40.210	-118.170	outside ICBEMP		Unclassified		IM
325	Buckhorn	Buckhorn	Eureka	NV	40.180	-116.490	outside ICBEMP		Hot spring Au-Ag		FM x
326	Zeke	Buckhorn	Eureka	NV	40.156	-116.483	outside ICBEMP		Unclassified		ID
327	Cortez		Eureka	NV	40.150	-116.580	outside ICBEMP		Sediment-hosted Au		IM
328	Kinsley Consolidated	Kinsley	Elko	NV	40.130	-114.340	outside ICBEMP		Unclassified		FD
329	Bellview		White Pine	NV	40.086	-115.639	outside ICBEMP		Unclassified		ID
330	Rich Gulch	Virgilia	Plumas	CA	40.062	-121.088	outside ICBEMP		Low sulfide Au-quartz vein		S
331	Saddle (Toiyabe project)		Lander	NV	40.030	-116.710	outside ICBEMP		Sediment-hosted Au		IM
332	White Pine	White Pine	White Pine	NV	39.980	-115.480	outside ICBEMP		Distal disseminated Ag-Au		S
333	Bald Mountain	Bald Mountain	White Pine	NV	39.960	-115.590	outside ICBEMP		Sediment-hosted Au		P
334	Little Bald Mountain	Bald Mountain	White Pine	NV	39.920	-115.550	outside ICBEMP		Sediment-hosted Au		IM r
335	Tintic district	Tintic	Utah-Juab	UT	39.910	-112.100	outside ICBEMP		Polymetallic replacement		IM e
336	Tonkin Springs	Tonkin Springs	Eureka	NV	39.900	-116.430	outside ICBEMP		Sediment-hosted Au		FM
337	Dixie Comstock	Dixie Valley	Churchill	NV	39.870	-118.020	outside ICBEMP		Unclassified	Stockwork	P
338	Crypto	Fish Springs	Juab	UT	39.860	-113.450	outside ICBEMP		Skarn Zn-Pb		FM
339	Golden Butte	Cherry Creek	White Pine	NV	39.830	-115.050	outside ICBEMP		Sediment-hosted Au		IM r
340	Magalia district	Magalia	Butte	CA	39.824	-121.387	outside ICBEMP		Placer Au		IM
341	Fondaway Canyon		Churchill	NV	39.800	-118.200	outside ICBEMP		Sediment-hosted Au		S
342	Gold Pick	Antelope	Eureka	NV	39.800	-116.330	outside ICBEMP		Sediment-hosted Au		P
343	Mount Hope		Eureka	NV	39.788	-116.158	outside ICBEMP		Porphyry Mo, Climax		FD
344	Gold Canyon	Roberts	Eureka	NV	39.760	-116.170	outside ICBEMP		Sediment-hosted Au		P

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345	Alligator Ridge	Alligator Ridge	White Pine	NV	39.760	-115.520	outside ICBEMP		Sediment-hosted Au		P
346	Plumas-Eureka	Johnsville	Plumas	CA	39.758	-120.708	outside ICBEMP		Low sulfide Au-quartz vein		I M
347	Gold Bar	Roberts	Eureka	NV	39.750	-116.200	outside ICBEMP		Sediment-hosted Au		P
348	La Porte district	La Porte	Plumas	CA	39.713	-120.945	outside ICBEMP		Placer Au		I M
349	Yankee Mine	Bald Mountain	White Pine	NV	39.690	-115.530	outside ICBEMP		Sediment-hosted Au		P
350	Poker Flat district	Poker Flat	Sierra	CA	39.675	-120.792	outside ICBEMP		Placer Au		I M
351	Olinghouse-Frank Free Canyons dist.	Olinghouse-Frank Free Canyons Alluvial Fans	Washoe	NV	39.649	-119.416	outside ICBEMP		Placer Au		I M
352	Cherokee Cr. dist.	Cherokee Creek	Butte	CA	39.640	-121.547	outside ICBEMP		Placer Au		I M
353	Sierra City district	Sierra City	Sierra	CA	39.619	-120.610	outside ICBEMP		Low sulfide Au-quartz vein		I M
354	Detroit	Detroit	Juab	UT	39.550	-112.990	outside ICBEMP		Polymetallic replacement	Distal disseminated Ag-Au	I M
355	Forbestown district	Forbestown	Butte	CA	39.535	-121.268	outside ICBEMP		Low sulfide Au-quartz vein		I M
356	Archimedes	Ruby Hill	Eureka	NV	39.523	-115.988	outside ICBEMP		Unclassified		I D
357	Brush Creek	Alleghany	Sierra	CA	39.512	-120.889	outside ICBEMP		Low sulfide Au-quartz vein		I M e
358	Alleghany district	Alleghany	Sierra	CA	39.509	-120.838	outside ICBEMP		Placer Au		I M
359	Eureka district	Eureka	Eureka	NV	39.500	-115.980	outside ICBEMP		Polymetallic replacement		F M x
361	Gooseberry	Ramsey	Storey	NV	39.480	-119.460	outside ICBEMP		Epithermal vein, Comstock		S
362	Oroville district	Oroville	Butte	CA	39.479	-121.573	outside ICBEMP		Placer Au		I M
363	Sixteen-to-one	Alleghany	Sierra	CA	39.464	-120.847	outside ICBEMP		Low sulfide Au-quartz vein		P
364	Oriental	Alleghany	Sierra	CA	39.460	-120.858	outside ICBEMP		Low sulfide Au-quartz vein		I M
365	Rainbow	Alleghany	Sierra	CA	39.457	-120.835	outside ICBEMP		Low sulfide Au-quartz vein		I M
366	Plumbago	Alleghany	Sierra	CA	39.453	-120.812	outside ICBEMP		Low sulfide Au-quartz vein		I M
367	Talapoosa Mines	Talapoosa	Lyon	NV	39.450	-119.270	outside ICBEMP		Epithermal vein, Comstock		F M
368	Wonder district	Wonder	Churchill	NV	39.450	-118.050	outside ICBEMP		Epithermal vein, Comstock		I M
369	Windfall	Eureka	Eureka	NV	39.450	-115.980	outside ICBEMP		Distal disseminated Ag-Au		I M
370	Easy Junior - Nighthawk Ridge		White Pine	NV	39.450	-115.880	outside ICBEMP		Unclassified		S
371	Moore's Flat dist.	Moore's Flat	Nevada	CA	39.419	-120.850	outside ICBEMP		Placer Au		I M
372	Pan		White Pine	NV	39.411	-115.676	outside ICBEMP		Unclassified		I D
373	Ratto Canyon	Eureka	Eureka	NV	39.400	-115.990	outside ICBEMP		Sediment-hosted Au		I M
374	Austin Gold Venture		Lander	NV	39.380	-117.090	outside ICBEMP		Sediment-hosted Au		I M r
375	Brown's Valley district	Brown's Valley	Yuba	CA	39.378	-121.235	outside ICBEMP		Low sulfide Au-quartz vein		I M
376	N. Bloomfield dist.	North Bloomfield	Nevada	CA	39.370	-120.916	outside ICBEMP		Placer Au		I M
377	Dinero		Nevada	CA	39.346	-120.717	outside ICBEMP		Low sulfide Au-quartz vein		I M
378	Alpha-Omega dist.	Alpha-Omega	Nevada	CA	39.335	-120.750	outside ICBEMP		Placer Au		I M
379	San Juan Ridge district	San Juan Ridge	Nevada	CA	39.333	-120.750	outside ICBEMP		Placer Au		I M
380	Comstock Lode district	Comstock Lode	Storey	NV	39.320	-119.590	outside ICBEMP		Epithermal vein, Comstock		P
381	Lowell Hill district	Lowell Hill	Nevada	CA	39.266	-120.795	outside ICBEMP		Placer Au		I M
382	Dutch Flat-Gold Run district	Dutch Flat-Gold Run	Placer	CA	39.261	-120.765	outside ICBEMP		Placer Au		I M
383	Ely	Robinson	White Pine	NV	39.260	-115.000	outside ICBEMP		Porphyry Cu, skarn-related		F M
384	Mt. Hamilton	White Pine	White Pine	NV	39.250	-115.570	outside ICBEMP		Distal disseminated Ag-Au		F D

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Index	Deposit	District	County	State	Latitude	Longitude	Ecological Reporting Unit	ERU no.	Deposit Type	Alternative Deposit Types	Status
385	Star Pointer	Robinson	White Pine	NV	39.250	-114.980	outside ICBEMP		Distal disseminated Ag-Au		I M
386	Hammonton district	Hammonton	Yuba	CA	39.245	-121.384	outside ICBEMP		Placer Au		I M
387	Fire Angel	Eldorado	Lyon	NV	39.230	-119.456	outside ICBEMP		Unclassified		ID
388	Silver City Placers district	Silver City placers	Lyon	NV	39.227	-119.617	outside ICBEMP		Placer Au		I M
389	Idaho-Maryland	Grass Valley	Nevada	CA	39.224	-121.038	outside ICBEMP		Low sulfide Au-quartz vein		F M
390	Treasure Hill	White Pine	White Pine	NV	39.220	-115.480	outside ICBEMP		Distal disseminated Ag-Au		I M
391	Grass Valley dist.	Grass Valley-remainder	Nevada	CA	39.218	-121.036	outside ICBEMP		Low sulfide Au-quartz vein		I M
392	Golden Center	Grass Valley	Nevada	CA	39.215	-121.069	outside ICBEMP		Low sulfide Au-quartz vein		I M
393	You Bet district	You Bet	Nevada	CA	39.213	-120.891	outside ICBEMP		Placer Au		I M
394	Michigan Bluff district	Michigan Bluff	Placer	CA	39.209	-120.674	outside ICBEMP		Placer Au		I M
395	Empire-Star	Grass Valley	Nevada	CA	39.206	-121.045	outside ICBEMP		Low sulfide Au-quartz vein		I M
396	Fairview district	Fairview	Churchill	NV	39.180	-118.130	outside ICBEMP		Epithermal vein, Comstock		I M
397	Western World		Yuba	CA	39.175	-121.292	outside ICBEMP		Massive sulfide, Kuroko		F D
398	Iowa Hill district	Iowa Hill	Placer	CA	39.162	-120.827	outside ICBEMP		Placer Au		I M
399	Green Springs	White Pine	White Pine	NV	39.140	-115.550	outside ICBEMP		Sediment-hosted Au		I M r
400	Herman		Placer	CA	39.127	-120.564	outside ICBEMP		Low sulfide Au-quartz vein		I M
401	Forest Hill district	Forest Hill	Placer	CA	39.114	-120.707	outside ICBEMP		Placer Au		I M
402	Rising Sun	Colfax	Placer	CA	39.107	-120.968	outside ICBEMP		Low sulfide Au-quartz vein		F M
403	Bruner district	Bruner	Nye	NV	39.080	-117.800	outside ICBEMP		Epithermal vein, quartz-adularia	Epithermal vein, Sado	I M
404	Ward	Ward	White Pine	NV	39.080	-114.880	outside ICBEMP		Skarn Zn-Pb		S
405	Taylor	Taylor	White Pine	NV	39.080	-114.680	outside ICBEMP		Distal disseminated Ag-Au		S
406	Osceola district	Osceola	White Pine	NV	39.080	-114.400	outside ICBEMP		Unclassified	Vein Au	I M
407	MacArthur	Yerington	Lyon	NV	39.050	-119.240	outside ICBEMP		Porphyry Cu		P
408	Osceola district	Osceola	White Pine	NV	39.041	-114.414	outside ICBEMP		Placer Au		I M
409	Bear Prospect	Yerington	Lyon	NV	39.030	-119.180	outside ICBEMP		Porphyry Cu		ID
410	Rawhide-Regent district	Rawhide - Regent	Mineral	NV	39.030	-118.420	outside ICBEMP		Epithermal vein, Comstock		I M
411	Golden Chest	Murray	Shoshone	ID	47.633	-115.833	Lower Clark Fork	8	Unclassified	Polymetallic vein and dissemin., Coeur d'Alene-like, but with Au and W	F D
412	Hercules	Heath	Washington	ID	44.770	-116.860	Columbia Plateau	5	Unclassified	Epithermal submarine volcanic-related Ag-Zn veins and disseminations	ID

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	perm. tract coverage code	perm. tract no.	dep. loc. no.	PRODUCTION with qualitative descriptions										RESOURCES with qualitative descriptions											
					Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr		
1	Kelsey	mrporcu	W118	1	no	no	no	no	no						unk	unk	334,662	neg	neg			10,796				
2	Buckhorn Mountain (Crown Jewel)	mrskrnau	W128	1	no	no	no	no	no						50	unk		unk	unk							
3	Orient	mrcomau	W02	1	1.39	0.99	258	11	neg						2.6	1.9	486	20	neg							
4	Yellowhead	mrmvtzn	W08	1	neg	neg	neg	207	1,067						neg	neg		59,466	341,149							
5	Pend Oreille	mrmvtzn	W08	2	neg	neg	neg	165,109	381,020						neg	neg		635	8,382							
6	Kettle River	mrcomau	W02	2	1.98	unk	neg	neg	neg						neg	neg		neg	neg							
7	Slate Creek district	mrpopmv	X13	1	4.66																					
8	Van Stone	mrmvtzn	W08	3	neg	neg	neg	6,018	58,786						neg	neg		21,773	94,348							
9	Red Mountain	mrporcu	PC26	2											238	30,844										
10	Lamefoot	mroverau	X12	1	no	no	no	no	no					15	unk		neg	neg								
11	Key East - Key West	mroverau	X12	2	4.00	unk	neg	neg	neg					unk	unk		neg	neg								
12	Overlook zone	mroverau	X12	3	23.00	unk	neg	neg	neg					unk	unk		neg	neg								
13	Golden Eagle	mrcomau	W02	3	no	no	no	no	no					36	unk		neg	neg								
14	Knob Hill-Golden Promise	mrcomau	W02	4	69.46	278	neg	neg	neg					14	130		neg	neg								
15	Last Chance	mrcomau	W02	5	4.51	unk	unk	unk	unk					unk	unk	0	unk	unk								
16	Republic	mrcomau	W02	6	2.11	unk	neg	neg	neg					neg	neg		neg	neg								
17	Mazama	mrporcu	PC26	3												489,780										
18	Troy (Spar Lake)	mrrevcu	W13	1	no	2,344	333,000	no	no					neg	unk	74,011	neg	neg								
19	Gold Mountain	mrporcu	PC26	4												199,600										
20	Glacier Peak	mrporcu	PC26	5												5,757,000						13,020				
21	Holden	mrkucru	PC16	1	18.68	62	96,192		18,129					5.6	9.7	29,946		8,167								
22	J-F	mrrevcu	W13	2										neg	630	56,000	neg	neg								
23	Silverton district	mrpopmv	X13	2	3.57																					
24	Rock Creek	mrrevcu	W13	3	no	no	no	no	no					neg	8,924	1,043,352	neg	neg								
25	Rock Lake (Montanore)	mrrevcu	W13	4		no	no	no	no					neg	7,613	1,159,402	neg	neg								
26	Mt Tolman	mrpormo	W139	1	no	no	no	no	no					neg	neg	713,700	neg	neg				444,080				
27	Sunrise	mrporcu	PC26	6										4.9	119	248,800						27,439				
28	Mystery	mrpopmv	X13	3										0.02	0.36	8,022	30,853	46,279								
29	Pride of the Mountains	mrpopmv	X13	4										0.08	725	21,135	117,241	140,381								
30	New Discovery	mrpopmv	X13	5										12	90	1,588	9,301	29,946								
31	Justice	mrpopmv	X13	6										4.1	55	272	5,608	8,031								
32	New York-Seattle	mrpopmv	X13	7										37		127,042										
33	Zortman - Landusky	mralkau	C01	1	87.53	373	unk	unk	unk					35	315		neg	neg								
34	Hog Heaven district	mrhsprau	C05	1	0.15	213		13,963						1.3	645											
35	Eagle Creek	mrrevcu	W13	5										neg	240	70,500	neg	neg								
36	North Fork	mrporcu	PC26	7												199,580										
37	Jack Waite	mrcdaag	X1	1	neg	17	24	53,325	12,815					unk	unk		unk	unk								
39	Liver Peak	mrpormo	W142	2	no	no	no	no	no					neg	neg	unk	neg	neg	neg	neg	neg	446,342				
40	Murray district	placer Au		1	6.02	unk	no	no	no					unk	unk		neg	neg								
41	Interstate-Callahan	mrcdaag	X1	2	neg	62	48	45,004	139,223					unk	unk		unk	unk								
42	Hercules	mrcdaag	X1	3	neg	932	1,706	348,971	4,362					unk	unk		unk	unk								
43	Tamarack-Custer	mrcdaag	X1	4	neg	272	924	153,455	70,950					unk	unk		unk	unk								

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

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					Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr
44	Bunker Hill	mrcdaag	X1	5	neg	4,106	8,822	2,373,298	1,063,256						unk	463		241,294	409,188					
45	Page Group	mrcdaag	X1	6	neg	454	1,236	245,652	246,556						unk	unk		unk	unk					
46	Sherman	mrcdaag	X1	7	neg	122	240	53,842	3,876						unk	unk		unk	unk					
47	Senator Stewart	mrcdaag	X1	8	neg	206	218	68,459	147						unk	unk		unk	unk					
48	Caledonia	mrcdaag	X1	9	neg	252	1,682	30,289	neg						unk	unk		unk	unk					
49	Tiger-Poorman	mrcdaag	X1	10	neg	83	0.79	51,153	58						unk	unk		unk	unk					
50	Hecla	mrcdaag	X1	11	neg	1,269	2,253	645,965	33,488						unk	47		unk	unk					
51	Standard Mammoth	mrcdaag	X1	12	neg	1,055	248	315,384	6,684						unk	unk		unk	unk					
52	Clipper-Three Brothers	mrporcu	PC26	8													16,400							
53	Last Chance	mrcdaag	X1	13	neg	268	125	196,170	neg						unk	unk		unk	unk					
54	Dayrock	mrcdaag	X1	14	neg	203	360	70,270	3,521						unk	unk		unk	unk					
55	Helena-Frisco	mrcdaag	X1	15	neg	191	358	96,707	79,364						unk	unk		unk	unk					
56	Silver Summit	mrcdaag	X1	16	neg	620	4,535	67	54						unk	unk		unk	unk					
57	Crescent	mrcdaag	X1	17	neg	751	3,380	1,479	264						unk	123		unk	unk					
58	Polaris	mrcdaag	X1	18	neg	229	997	1,670	13						unk	unk		unk	unk					
59	Sunshine Unit	mrcdaag	X1	19	neg	9,019	44,836	63,461	3,825						unk	1,191	6,451	unk	unk					
60	Condor-Hemlock	mrporcu	PC26	9													788,700				22,077			
61	Mineral Point	mrcdaag	X1	20	neg	182	4,541	58	neg						unk	unk		unk	unk					
62	Coeur	mrcdaag	X1	21	neg	1,127	14,485	150	215						unk	309	3,236	unk	unk					
63	Sidney	mrcdaag	X1	22	neg	60	232	39,918	77,634						unk	unk		unk	unk					
64	Galena	mrcdaag	X1	23	0.52	4,175	40,499	10,093	669						unk	472	6,409	unk	1,237					
65	Gold Hunter	mrcdaag	X1	24	neg	310	207	88,546	519						unk	unk		unk	unk					
66	Lucky Friday	mrcdaag	X1	25	1.41	2,904	9,034	540,248	57,787						unk	287		70,549	12,482					
67	Star-Morning	mrcdaag	X1	26	neg	2,273	3,790	1,574,789	1,507,816						unk	unk		unk	unk					
68	Snowstorm	mrrevcu	W13	6	neg	138	26,215	neg	neg						neg	138	26,000	neg	neg					
69	Cannon	mrcomau	PC10 1	7	31.50	52									3.5	30								
70	Lovitt	mrcomau	PC10 1	8	12.78	19											0				0			
71	Canyon Resources (Kendall)	mralkau	C01	2	28.77	11	unk	unk	unk						10	unk		neg	neg					
72	Spotted Horse	mralkau	C01	3	5.45	0.46	0.91	unk	unk						neg	neg		neg	neg					
73	Maginnis	mralkau	C01	4	2.92	0.75	unk	unk	unk						neg	neg		neg	neg					
74	Cedar Creek-Trout Creek district	placer Au		2	3.73	0.1	no	no	no						unk	unk		neg	neg					
75	Gilt Edge	mralkau	C01	5	2.18	0.10	unk	unk	unk						neg	neg		neg	neg					
76	Ninemile Cr. dist.	placer Au		3	3.50	unk	no	no	no						unk	unk		neg	neg					
77	Block P	mrpopmv	X13	9	0.10	80	343	19,391	8,096															
78	Heddleston	mrporcu	C100	10													469,019				46,586			
79	McDonald Meadows	mrhsprau	C05	2											255									
80	Silver Dyke	mrpopmv	X13	10	0.05	99	3,381	7,424	3.8															
81	Seven-Up Pete	mrcomau	C13	9											26									
82	Big Ben	mrpormo	C09	3																		98,100		
83	Big Seven	mrpopmv	X13	11	0.55	72	29	237																

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					Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr
84	Lincoln district	placer Au		4	10.63	0.9	no	no	no						unk	unk		neg	neg					
85	Broadwater	mrpopmv	X13	12	0.05	172	28	7,709	12,053															
86	Elk Creek-Coloma district	placer Au		5	2.36	unk	no	no	no						unk	unk		neg	neg					
87	Stemple-Virginia Creek district	placer Au		6	7.62	unk	no	no	no						unk	unk		neg	neg		0			
88	Jay Gould	mrpopmv	X13	13	3.92	18																		
89	McClellan district	placer Au		7	10.57	1.6	no	no	no						unk	unk		neg	neg					
90	Garnet district (Dewey mine)	mrpolypb	C07	1	1.87	3.7	138	no	no						unk	unk		unk	unk					
91	First Chance district	placer Au		8	9.56	unk	no	no	no						unk	unk		neg	neg					
92	Finn district	placer Au		9	2.52	unk	no	no	no						unk	unk		neg	neg					
93	Piegan-Gloster	mrpopmv	X13	14	5.86	12	0.85																	
94	Marysville-Silver Creek district	placer Au		10	5.12	unk	no	no	no						unk	unk		neg	neg					
95	Sheep Creek	mrbirdco	C14	1	no	no	no	no	no						unk	sig	274,428	sig	unk	4,500				
96	Cruse-Belmont-Empire	mrpopmv	X13	15	2.41	4.8	1.8																	
97	Drumlummon	mrpopmv	X13	16	15.02	233																		
98	Penobscot	mrpopmv	X13	17	2.57	2.7	0.94	8.5	0.25															
99	Bald Butte	mrpormo	W138	4																	14,000			
100	Bald Butte	mrpopmv	X13	18	5.61	9.3		222																
101	York	unclass		1	0.42										sig	sig								
102	Missouri River-York district	placer Au		11	8.24	unk	no	no	no						unk	unk		neg	neg					
103	Ophir district	placer Au		12	5.60	1.9	no	no	no						unk	unk		neg	neg					
104	Miller	unclass		2											10									
105	White Creek district	placer Au		13	2.49	unk	no	no	no						unk	unk		neg	neg					
106	Confederate Gulch district	placer Au		14	17.57	unk	no	no	no						unk	unk		neg	neg					
107	Helena-Last Chance Placer district	placer Au		15	29.23	unk	no	no	no						unk	unk		neg	neg					
108	Whitlatch-Union	mrpopmv	X13	19	8.24	16																		
109	Pioneer district	placer Au		16	7.66	0.8	no	no	no						4.4	unk		neg	neg					
110	Henderson Placers district	placer Au		17	2.50	unk	no	no	no						unk	unk		neg	neg					
111	Pierce City district	placer Au		18	11.97	unk	no	no	no						unk	unk		neg	neg					
112	Rimini district	mrpopmv	X13	20	1.61	119	131	18,813	5,000															
113	Castle Mtn. district	mrpolypb	C07	2		67		12,670	66															
114	Black Pine district	mrpopmv	X13	21	0.10	86	1,058	130									3,888	477						
115	Clancy district	placer Au		19	3.14	1.1	no	no	no						unk	unk		neg	neg					

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					Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr
151	East Boulder Project	mrmerepg	X8	1	no	no	no	no	no	no	no	no	no	no	no	16	20,776					448	142	
152	Stillwater Mine	mrmerepg	X8	2	0.75	no	recovered	no	no	no	no	42 (estimate)	12 (estimate)	no	3.8	4,480						234	69	
153	Mouat-Sampson (Mountain View)	mrbusher	X9	1	no	no	no	no	no	no	no	no	no	246,200										
154	West Fork B (Crescent Creek)	mrbusher	X9	2	no	no	no	no	no	no	no	no	no	no								6	2	2,740,600
155	Mouat Ni-Cu	mrstilni	X2	1	no	no	no	no	no	no	no	no	no	no		381,640								278,336
156	Benbow Cr	mrbushcr	X9	3	no	no	no	no	no	no	no	no	no	19,600										
157	Argenta district	mrpolypb	C07	9	2.70	21	329	9,901	1,094															2,789,500
158	Virginia City-Alder Creek district	placer Au		25	76.97	unk	no	no	no						unk	unk		neg	neg					
159	Warren and Marshall districts	placer Au		26	25.09	unk	no	no	no						unk	unk		neg	neg					
160	Warren district	mrpmvau	X11	2	2.92	1.8	neg	neg	neg						unk	unk		neg	neg					
161	Mackinaw district	placer Au		27	7.78	unk	no	no	no						unk	unk		neg	neg					
162	Beartrack	mrpmvau	X11	3	neg	neg	no	no	no						63	unk		neg	neg					
163	Virginia City district	mrpopmv	X13	34	5.31	116	37	118																
164	Red Ledge	mrkurcu	W46	2	no	no	no	no	no						5.0	485	54,000	neg	174,000					
165	Bannack district	placer Au		28	4.10	0.2	no	no	no						unk	unk		neg	neg					
166	Bannack district	mrskrnau	C02	6	3.12	8.9	105	157																
167	Blackbird	mrbirdco	X7	1	0.43	neg	91	neg	neg	14					unk	neg	226,800	neg	neg	113,400				
168	Mineral Hill	mrhomeau	C04	1	9.80	1.0									5.6	1.4								
169	New World	mrskrnau	C02	7	2	22	890	1,470	420						83	330	81,300	neg	neg					
170	Crevice Mountain	mrhomeau	C04	2											12.4	sig								
171	Iron Dyke	mrkurcu	W46	3	1.09	15	15,100	neg	unk						2.5	7.1	7,961	neg	unk					
172	Cornucopia district	mrpmvau	X10	4	13.00	62	90,200	neg	neg						unk	unk		neg	neg					
173	Sanger	mrlsaqu	W115	1	2.20	neg	neg	neg	neg						unk	neg		neg	neg					
174	Yellow Jacket	mrpmvau	X13	5	neg	neg	2.0	3.5	neg						1.9	unk		unk	neg					
175	Iron Creek	mrbirdco	X7	2	no	no	no	no	no						unk	neg	150,956	neg	neg	17,418				
176	Dewey, Sunnyside	mrhsprau	W129	3	0.61	neg	neg	neg	neg						11	neg		neg	neg					
177	Homestake	mrpmvau	X11	6	2.39	0.52	neg	neg	neg						neg	neg		neg	neg					
178	West End	mrpmvau	X11	7	2.20	0.80	neg	neg	neg						4.9	unk		neg	neg					
179	Yellow Pine	mrpmvau	X11	8	9.62	51	21	neg	7.7						13	unk		neg	neg					
180	Rock Creek district	mrpmvau	X10	9	2.26	19	neg	neg	neg						unk	unk		neg	neg					
181	Bornite	mrporcu	PC26	13	no	no	no	no	no						1.5	40	51,511	unk	unk					
182	Granite district	placer Au	X10	10	3.31	47	neg	neg	neg						unk	unk		neg	neg					
183	Cracker Cr. district	mrpmvau	X10	11	20.22	12	neg	neg	neg						2.9	unk		neg	neg					
184	Granite district	mrlsaqu		29	2.89	0.7	no	no	no						unk	unk		neg	neg					
185	Virtue	mrpmvau	W115	2	4.59	neg	neg	neg	neg						unk	neg		neg	neg					
186	Sumpter Placer district	placer Au		30	9.26	2.3	no	no	no						unk	unk		neg	neg					

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					Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr
187	Greenhorn district	mrpmvau	X10	12	4.78	4.0	neg	neg	neg							unk	unk		neg	neg				
188	Greenhorn district	placer Au		31	2.50	0.5	no	no	no							unk	unk		neg	neg				
189	Connor Creek	mrlsaqu	W115	3	1.91	neg	neg	neg	neg							unk	neg		neg	neg				
190	Florence district	placer Au		32	31.10	unk	no	no	no							unk	unk		neg	neg				
191	Sunbeam-Grouse Creek	mrhsprau	W129	4	1.26	13	7.4	11	neg							26	517		neg	neg				
192	Canyon Placer district	placer Au		33	29.06	3.1	no	no	no							unk	unk		neg	neg				
193	Mormon Basin	mrlsaqu	W115	4	3.87	1.1	neg	neg	neg							unk	unk		neg	neg				
194	Thompson Creek	mrpormo	W138	6																			160,376	
195	Clayton Silver	mrpolypb	W120	10	neg	206	641	37,871	12,485							neg	unk		unk	unk				
196	Idaho Almaden	mrhsprau	W111	5	no	no	no	no	no							20	unk		neg	neg				
197	Little Falls	mrpormo	W138	7																			27,216	
198	Little Boulder Creek	mrpormo	W138	8																			121,653	
199	Stinkingwater	mrporcu	C09	14														206,500						
200	Cumo	mrpormo	W138	9														930,920					742,220	
201	Silver Creek	mrporcu	C09	15														120,000						
202	Kirwin	mrporcu	C09	16														480,000						
203	Boise Basin district	mrpmvau	X11	13	20.82	sig	neg	neg	neg							unk	unk		neg	neg				
204	Boise Basin district	placer Au		34	71.50	unk	no	no	no							unk	unk		neg	neg				
205	Atlanta	mrpmvau	X11	14	9.20	81	no	no	no							8.5	unk	neg	neg	neg				
206	Atlanta	mrpmvau	X11	15	no	no	no	no	no							28	76	neg	neg	neg				
207	Rocky Bar district	mrpmvau	X11	16	8.40	unk	neg	neg	neg							unk	unk		neg	neg				
208	Grassy Mountain	mrhsprau	W108	6	no	no	no	no	no							31	77		neg	neg				
209	Triumph	mrsexzn	W16	2	2.35	258	neg	38,840	63,477							0.69	76		11,442	18,700				
210	Champagne	mrhsprau	W129	7	2.08	11	neg	neg	neg							2.3	51		neg	neg				
211	Hailey gold belt	mrpmvau	X11	17	4.01	36	neg	neg	neg							unk	unk		neg	neg				
212	Stone Cabin	mrhsprau	W111	8	4.12	480	neg	neg	neg							24	367		neg	neg				
213	DeLamar	mrhsprau	W111	9	28.86	2,068	neg	neg	neg							33	1,245		neg	neg				
214	War Eagle Project	mrcomau	W103	11	4.81	unk	neg	neg	neg							12	unk		neg	neg				
215	Greenback	mrlsaqu	W108	5	5.45																			
216	Galice district	placer Au		35	2.29	unk	no	no	no							unk	unk		neg	neg				
217	South Pass-Atlantic City and Lew dist.	mrhomeau	C16	3	10.39	sig	neg	no	no							sig	sig		unk	unk				
218	Quartz Mountain	mrhsprau	PW101	10												19								
219	Upper Applegate	placer Au		36	6.09	unk	no	no	no							unk	unk		neg	neg				
220	Ashland district	mrlsaqu	W108	6	3.78																			
221	Waldo district	placer Au		37	6.65	0.4	no	no	no							unk	unk		neg	neg				

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					Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr
222	Black Pine (Tallman)	mrcarbau	C31	1	no	no	no	no	no						14	unk		neg	neg					
223	Turner-Albright	mrcypcu	PC15a	1											11	60	45,497		101,358					
224	Gray Eagle	mrkurcu	PC15	4	8.21	23	50,540																	
225	National district	mrcomau	W17	12	5.50	15	1.6	6.4																
226	Jarbidge district	mrcomau	W17	13	6.75	15																		
227	Rio Tinto	mrbescu	W47	1	0.20	9.4	98,116										103,900							
228	Buckskin National	mrhsprau	W21	11	3.44	0.94								1.6	15									
229	Cottonwood-Ft. Jones district	placer Au		38	7.73	unk	no	no	no					unk	unk		neg	neg						
230	Cobb Creek	unclass		5										4.5										
231	Greenhorn Creek district	placer Au		39	15.07	unk	no	no	no					unk	unk		neg	neg						
232	Big Springs	mrcarbau	W27	2	11.24	0.26								8.3	0.10									
233	Scott River district	placer Au		40	5.00	unk	no	no	no					unk	unk		neg	neg						
234	Winters Creek	mrcarbau	W27	3			no	no	no					6.4										
235	Wright Window	mrcarbau	W27	4	1.10		no	no	no					3.9										
236	Klamath River Placer district	placer Au		41	4.30	unk	no	no	no					unk	unk		neg	neg						
237	Salmon River	placer Au		42	43.69	unk	no	no	no					unk	unk		neg	neg						
238	Burns Basin-Jerritt Canyon	mrcarbau	W27	5	21.25	0.46	no	no	no					147										
239	Sleeper	mrhsprau	W21	12	44.97	52								53	209									
240	Tuscarora district	mrcomau	W17	14	5.06	227	2.0	10						7.9	42									
241	Twin Creeks (Chimney-Rabbit Creeks)	mrcarbau	W27	6	62.43	15	no	no	no					264										
242	Tecoma district	mrpolypb	C26	11	1.91	93																		
243	Black Bear	mrlsaqu	W108	7	4.50																			
244	Gold Circle district	mrcomau	W17	15	3.90	51	0.32	8.6																
245	Getchell	mrcarbau	W27	7	54.94	4.1	no	no	no					41										
246	Western Hog Ranch	mrhsprau	W21	13	5.97	0.72								18										
247	Pinson	mrcarbau	W27	8	3.16	2.9	no	no	no					15										
248	Ivanhoe	mrhsprau	W21	14	2.06									90										
249	Hayden Hill	mrhsprau	PW101	15	3.61	unk	no	no	no					45	282		neg	neg						
250	Dee Gold Mine	mrcarbau	W27	9	12.76	9.5	no	no	no					8.4										
251	Bootstrap	mrcarbau	W27	10	6.88		no	no	no					30										
252	Meikle	mrcarbau	W27	11			no	no	no					206										
253	Preble - Kramer Hill	mrcarbau	W27	12	373.89		no	no	no															
254	Goldstrike-Post	mrcarbau	W27	13	126.70	2.9	no	no	no					705										
255	North Star	mrcarbau	W27	14	0.13		no	no	no					11										
256	Trinity River Basin district	placer Au		43	54.43	unk	no	no	no					unk	unk		neg	neg						
257	Bobcat	mrcarbau	W27	15			no	no	no					1.8										
258	Genesis - Blue Star	mrcarbau	W27	16	0.73		no	no	no					47										
259	Carlin	mrcarbau	W27	17	237.98	8.5	no	no	no					19										
260	Lantern	mrcarbau	W27	18			no	no	no					14										
261	Bullion Monarch Mine	mrcarbau	W27	19			no	no	no					3.1										
262	Pete	mrcarbau	W27	20			no	no	no					15										

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	Ni	Production, numerical information only										Resources, numerical information only										
			Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Ni
1	Kelsey		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	334,662	0	0	0	10,796	0	0	0	0
2	Buckhorn Mountain (Crown Jewel)		0.00	0.00	0	0	0	0	0	0	0	0	50.00	0.00	0	0	0	0	0	0	0	0	0
3	Orient		1.39	0.99	258	11	0	0	0	0	0	0	2.60	1.90	486	20	0	0	0	0	0	0	0
4	Yellowhead		0.00	0.00	0	207	1,067	0	0	0	0	0	0.00	0.00	0	59,466	341,149	0	0	0	0	0	0
5	Pend Oreille		0.00	0.00	0	165,109	381,020	0	0	0	0	0	0.00	0.00	0	635	8,382	0	0	0	0	0	0
6	Kettle River		1.98	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
7	Slate Creek district		4.66	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
8	Van Stone		0.00	0.00	0	6,018	58,786	0	0	0	0	0	0.00	0.00	0	21,773	94,348	0	0	0	0	0	0
9	Red Mountain		0.00	0.00	0	0	0	0	0	0	0	0	0.00	238.00	30,844	0	0	0	0	0	0	0	0
10	Lamefoot		0.00	0.00	0	0	0	0	0	0	0	0	15.00	0.00	0	0	0	0	0	0	0	0	0
11	Key East - Key West		4.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
12	Overlook zone		23.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
13	Golden Eagle		0.00	0.00	0	0	0	0	0	0	0	0	35.70	0.00	0	0	0	0	0	0	0	0	0
14	Knob Hill-Golden Promise		69.46	278.00	0	0	0	0	0	0	0	0	14.00	130.00	0	0	0	0	0	0	0	0	0
15	Last Chance		4.51	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
16	Republic		2.11	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
17	Mazama		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	489,780	0	0	0	0	0	0	0	0
18	Troy (Spar Lake)		0.00	2,344.00	333,000	0	0	0	0	0	0	0	0.00	0.00	74,011	0	0	0	0	0	0	0	0
19	Gold Mountain		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	199,600	0	0	0	0	0	0	0	0
20	Glacier Peak		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	5,757,000	0	0	0	13,020	0	0	0	0
21	Holden		18.68	62.00	96,192	0	18,129	0	0	0	0	0	5.60	9.70	29,946	0	8,167	0	0	0	0	0	0
22	J-F		0.00	0.00	0	0	0	0	0	0	0	0	0.00	630.00	56,000	0	0	0	0	0	0	0	0
23	Silverton district		3.57	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
24	Rock Creek		0.00	0.00	0	0	0	0	0	0	0	0	0.00	8,924.00	1,043,352	0	0	0	0	0	0	0	0
25	Rock Lake (Montanore)		0.00	0.00	0	0	0	0	0	0	0	0	0.00	7,613.00	1,159,402	0	0	0	0	0	0	0	0
26	Mt Tolman		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	713,700	0	0	0	444,080	0	0	0	0
27	Sunrise		0.00	0.00	0	0	0	0	0	0	0	0	4.90	119.00	248,800	0	0	0	27,439	0	0	0	0
28	Mystery		0.00	0.00	0	0	0	0	0	0	0	0	0.02	0.36	8,022	30,853	46,279	0	0	0	0	0	0
29	Pride of the Mountains		0.00	0.00	0	0	0	0	0	0	0	0	0.08	725.00	21,135	117,241	140,381	0	0	0	0	0	0
30	New Discovery		0.00	0.00	0	0	0	0	0	0	0	0	12.00	90.00	1,588	9,301	29,946	0	0	0	0	0	0
31	Justice		0.00	0.00	0	0	0	0	0	0	0	0	4.10	55.00	272	5,608	8,031	0	0	0	0	0	0
32	New York-Seattle		0.00	0.00	0	0	0	0	0	0	0	0	37.00	0.00	127,042	0	0	0	0	0	0	0	0
33	Zortman - Landusky		87.53	373.00	0	0	0	0	0	0	0	0	35.00	315.00	0	0	0	0	0	0	0	0	0
34	Hog Heaven district		0.15	213.00	0	13,963	0	0	0	0	0	0	1.30	645.00	0	0	0	0	0	0	0	0	0
35	Eagle Creek		0.00	0.00	0	0	0	0	0	0	0	0	0.00	240.00	70,500	0	0	0	0	0	0	0	0
36	North Fork		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	199,580	0	0	0	0	0	0	0	0
37	Jack Waite		0.00	17.00	24	53,325	12,815	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
39	Liver Peak		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	446,342	0	0	0	0
40	Murray district		6.02	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
41	Interstate-Callahan		0.00	62.00	48	45,004	139,223	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
42	Hercules		0.00	932.00	1,706	348,971	4,362	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
43	Tamarack-Custer		0.00	272.00	924	153,455	70,950	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	Ni	Production, numerical information only										Resources, numerical information only										
			Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Ni
44	Bunker Hill		0.00	4,106.00	8,822	2,373,298	1,063,256	0	0	0	0	0	0.00	463.00	0	241,294	409,188	0	0	0	0	0	0
45	Page Group		0.00	454.00	1,236	245,652	246,556	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
46	Sherman		0.00	122.00	240	53,842	3,876	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
47	Senator Stewart		0.00	206.00	218	68,459	147	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
48	Caledonia		0.00	252.00	1,682	30,289	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
49	Tiger-Poorman		0.00	83.00	1	51,153	58	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
50	Hecla		0.00	1,269.00	2,253	645,965	33,488	0	0	0	0	0	0.00	47.00	0	0	0	0	0	0	0	0	0
51	Standard Mammoth		0.00	1,055.00	248	315,384	6,684	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
52	Clipper-Three Brothers		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	16,400	0	0	0	0	0	0	0	0
53	Last Chance		0.00	268.00	125	196,170	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
54	Dayrock		0.00	203.00	360	70,270	3,521	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
55	Helena-Frisco		0.00	191.00	358	96,707	79,364	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
56	Silver Summit		0.00	620.00	4,535	67	54	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
57	Crescent		0.00	751.00	3,380	1,479	264	0	0	0	0	0	0.00	123.00	0	0	0	0	0	0	0	0	0
58	Polaris		0.00	229.00	997	1,670	13	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
59	Sunshine Unit		0.00	9,019.00	44,836	63,461	3,825	0	0	0	0	0	0.00	1,191.00	6,451	0	0	0	0	0	0	0	0
60	Condor-Hemlock		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	788,700	0	0	0	22,077	0	0	0	0
61	Mineral Point		0.00	182.00	4,541	58	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
62	Coeur		0.00	1,127.00	14,485	150	215	0	0	0	0	0	0.00	309.00	3,236	0	0	0	0	0	0	0	0
63	Sidney		0.00	60.00	232	39,918	77,634	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
64	Galena		0.52	4,175.00	40,499	10,093	669	0	0	0	0	0	0.00	472.00	6,409	0	1,237	0	0	0	0	0	0
65	Gold Hunter		0.00	310.00	207	88,546	519	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
66	Lucky Friday		1.41	2,904.00	9,034	540,248	57,787	0	0	0	0	0	0.00	287.00	0	70,549	12,482	0	0	0	0	0	0
67	Star-Morning		0.00	2,273.00	3,790	1,574,789	1,507,816	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
68	Snowstorm		0.00	138.00	26,215	0	0	0	0	0	0	0	0.00	138.00	26,000	0	0	0	0	0	0	0	0
69	Cannon		31.50	52.00	0	0	0	0	0	0	0	0	3.50	30.00	0	0	0	0	0	0	0	0	0
70	Lovitt		12.78	19.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
71	Canyon Resources (Kendall)		28.77	11.00	0	0	0	0	0	0	0	0	10.00	0.00	0	0	0	0	0	0	0	0	0
72	Spotted Horse		5.45	0.46	1	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
73	Maginnis		2.92	0.75	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
74	Cedar Creek-Trout Creek district		3.73	0.10	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
75	Gilt Edge		2.18	0.10	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
76	Ninemile Cr. dist.		3.50	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
77	Block P		0.10	80.00	343	19,391	8,096	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
78	Heddeleston		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	469,019	0	0	0	46,586	0	0	0	0
79	McDonald Meadows		0.00	0.00	0	0	0	0	0	0	0	0	255.00	0.00	0	0	0	0	0	0	0	0	0
80	Silver Dyke		0.05	99.00	3,381	7,424	4	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
81	Seven-Up Pete		0.00	0.00	0	0	0	0	0	0	0	0	26.00	0.00	0	0	0	0	0	0	0	0	0
82	Big Ben		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	98,100	0	0	0	0
83	Big Seven		0.55	72.00	29	237	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	Ni	Production, numerical information only										Resources, numerical information only										
			Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Ni
84	Lincoln district		10.63	0.90	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
85	Broadwater		0.05	172.00	28	7,709	12,053	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
86	Elk Creek-Coloma district		2.36	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
87	Stemple-Virginia Creek district		7.62	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
88	Jay Gould		3.92	18.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
89	McClellan district		10.57	1.60	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
90	Garnet district (Dewey mine)		1.87	3.70	138	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
91	First Chance district		9.56	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
92	Finn district		2.52	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
93	Piegan-Gloster		5.86	12.00	1	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
94	Marysville-Silver Creek district		5.12	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
95	Sheep Creek		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	274,428	0	0	4,500	0	0	0	0	0
96	Cruse-Belmont-Empire		2.41	4.80	2	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
97	Drumlummon		15.02	233.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
98	Penobscot		2.57	2.70	1	9	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
99	Bald Butte		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	14,000	0	0	0	0
100	Bald Butte		5.61	9.30	0	222	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
101	York		0.42	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
102	Missouri River-York district		8.24	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
103	Ophir district		5.60	1.90	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
104	Miller		0.00	0.00	0	0	0	0	0	0	0	0	10.00	0.00	0	0	0	0	0	0	0	0	0
105	White Creek district		2.49	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
106	Confederate Gulch district		17.57	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
107	Helena-Last Chance Placer district		29.23	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
108	Whitlatch-Union		8.24	16.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
109	Pioneer district		7.66	0.80	0	0	0	0	0	0	0	0	4.40	0.00	0	0	0	0	0	0	0	0	0
110	Henderson Placers district		2.50	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
111	Pierce City district		11.97	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
112	Rimini district		1.61	119.00	131	18,813	5,000	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
113	Castle Mtn. district		0.00	67.00	0	12,670	66	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
114	Black Pine district		0.10	86.00	1,058	130	0	0	0	0	0	0	0.00	0.00	3,888	477	0	0	0	0	0	0	0
115	Clancy district		3.14	1.10	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	Ni	Production, numerical information only										Resources, numerical information only										
			Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Ni
116	Basin Creek (Paupers Dream)		0.00	0.00	0	0	0	0	0	0	0	0	6.60	0.00	0	0	0	0	0	0	0	0	0
117	Alta		4.11	588.00	4,016	59,827	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
118	Montana Tunnels		16.18	258.00	0	53,125	141,667	0	0	0	0	0	19.00	339.00	0	69,890	186,374	0	0	0	0	0	0
119	Margaret		0.00	0.00	0	0	0	0	0	0	0	0	126.00	827.00	1,884,400	0	0	0	57,580	0	0	0	0
120	Hope		0.00	124.00	1,361	181	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
121	Scratch Awl - True Fissure		0.00	187.00	680	6,804	24,948	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
122	Trout		0.00	156.00	0	2,268	6,804	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
123	Granite-Bimetallic		1.56	1,400.00	91	454	0	0	0	0	0	0	0.00	0.00	11	57	0	0	0	0	0	0	0
124	Diamond Hill		0.81	0.00	0	0	0	0	0	0	0	0	17.00	0.00	0	0	0	0	0	0	0	0	0
125	Comet		5.80	470.00	1,014	12,943	10,653	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
126	Elkhorn (old)		0.62	460.00	0	6,353	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
127	Elkhorn (Swan Gold?)		0.00	0.00	0	0	0	0	0	0	0	0	16.00	0.00	0	0	0	0	0	0	0	0	0
128	Southern Cross		8.46	10.00	473	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
129	Cable		4.67	4.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
130	Keating		6.37	1.80	1,255	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
131	Ohio-Keating		1.93	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
132	Butte district		11.29	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
133	Butte district		4.22	1,531.50	3,330,550	0	0	34,000	0	0	0	0	199.07	6,742.10	23,594,000	0	702,000	0	1,071,000	0	0	0	0
134	Butte district		66.06	19,670.00	7,100,000	598,000	3,450,000	0	0	0	0	0	0.00	4,465.48	1,235,000	0	109,000	0	0	0	0	0	0
135	Beal Mountain		5.44	5.40	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
136	French Creek dist.		4.67	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
137	Golden Sunlight		65.46	40.00	25	0	0	0	0	0	0	0	55.00	25.00	0	0	0	0	0	0	0	0	0
138	Tenmile district		3.45	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
139	Elk City district		4.44	0.00	0	0	0	0	0	0	0	0	7.20	0.00	0	0	0	0	0	0	0	0	0
140	Elk City district		27.84	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
141	Butte Highlands		2.00	0.09	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
142	Renova district		2.07	9.40	193	1,825	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
143	Silver Star-Iron Rod district		3.61	3.60	37	157	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
144	Pony district		9.33	7.80	651	6,804	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
145	Cannivan		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	177,600	0	0	0	0
146	Rochester district		3.27	3.50	1,175	347	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
147	Hecla district		0.57	416.00	3,752	51,022	1,738	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
148	Gibbonsville district		3.01	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
149	Norris district		4.76	11.00	123	192	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
150	Sheridan-Twin Bridges district		2.96	19.00	240	2,910	344	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	Ni	Production, numerical information only										Resources, numerical information only												
			Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Ni		
151	East Boulder Project		0.00	0.00	0	0	0	0	0	0	0	0	16.00	0.00	20,776	0	0	0	0	448	142	0	35,616		
152	Stillwater Mine	35,616	0.75	0.00	0	0	0	0	0	42	12	0	3.80	0.00	4,480	0	0	0	0	234	69	0	6,720		
153	Mouat-Sampson (Mountain View)	6720	0.00	0.00	0	0	0	0	0	0	0	246,200	0.00	0.00	0	0	0	0	0	0	0	0	2,740,600	0	
154	West Fork B (Crescent Creek)		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	6	2	0	278,336	0	
155	Mouat Ni-Cu		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	381,640	0	0	0	0	0	0	0	0	407,960	
156	Benbow Cr	407960	0.00	0.00	0	0	0	0	0	0	0	19,600	0.00	0.00	0	0	0	0	0	0	0	0	0	2,789,500	0
157	Argenta district		2.70	21.00	329	9,901	1,094	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
158	Virginia City-Alder Creek district		76.97	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
159	Warren and Marshall districts		25.09	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
160	Warren district		2.92	1.80	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
161	Mackinaw district		7.78	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
162	Beartrack		0.00	0.00	0	0	0	0	0	0	0	0	63.00	0.00	0	0	0	0	0	0	0	0	0	0	
163	Virginia City district		5.31	116.00	37	118	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
164	Red Ledge		0.00	0.00	0	0	0	0	0	0	0	0	5.00	485.00	54,000	0	174,000	0	0	0	0	0	0	0	
165	Bannack district		4.10	0.20	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
166	Bannack district		3.12	8.90	105	157	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
167	Blackbird		0.43	0.00	91	0	0	14	0	0	0	0	0.00	0.00	226,800	0	0	113,400	0	0	0	0	0	0	
168	Mineral Hill		9.80	1.00	0	0	0	0	0	0	0	0	5.60	1.40	0	0	0	0	0	0	0	0	0	0	
169	New World		1.90	22.00	890	1,470	420	0	0	0	0	0	83.00	330.00	81,300	0	0	0	0	0	0	0	0	0	
170	Crevice Mountain		0.00	0.00	0	0	0	0	0	0	0	0	12.40	0.00	0	0	0	0	0	0	0	0	0	0	
171	Iron Dyke		1.09	15.00	15,100	0	0	0	0	0	0	0	2.50	7.10	7,961	0	0	0	0	0	0	0	0	0	
172	Cornucopia district		13.00	62.00	90,200	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
173	Sanger		2.20	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
174	Yellow Jacket		0.00	0.00	2	4	0	0	0	0	0	0	1.90	0.00	0	0	0	0	0	0	0	0	0	0	
175	Iron Creek		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	150,956	0	0	17,418	0	0	0	0	0	0	
176	Dewey, Sunnyside		0.61	0.00	0	0	0	0	0	0	0	0	11.00	0.00	0	0	0	0	0	0	0	0	0	0	
177	Homestake		2.39	0.52	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
178	West End		2.20	0.80	0	0	0	0	0	0	0	0	4.90	0.00	0	0	0	0	0	0	0	0	0	0	
179	Yellow Pine		9.62	51.00	21	0	8	0	0	0	0	0	13.00	0.00	0	0	0	0	0	0	0	0	0	0	
180	Rock Creek district		2.26	19.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
181	Bornite		0.00	0.00	0	0	0	0	0	0	0	0	1.50	40.00	51,511	0	0	0	0	0	0	0	0	0	
182	Granite district		3.31	47.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
183	Cracker Cr. district		20.22	12.00	0	0	0	0	0	0	0	0	2.90	0.00	0	0	0	0	0	0	0	0	0	0	
184	Granite district		2.89	0.70	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
185	Virtue		4.59	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	
186	Sumpter Placer district		9.26	2.30	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0	

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	Ni	Production, numerical information only										Resources, numerical information only										
			Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Ni
187	Greenhorn district		4.78	4.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
188	Greenhorn district		2.50	0.50	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
189	Connor Creek		1.91	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
190	Florence district		31.10	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
191	Sunbeam-Grouse Creek		1.26	13.00	7	11	0	0	0	0	0	0	26.00	517.00	0	0	0	0	0	0	0	0	0
192	Canyon Placer district		29.06	3.10	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
193	Mormon Basin		3.87	1.10	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
194	Thompson Creek		0.00	0.00	0	0	0	0	49,805	0	0	0	0.00	0.00	0	0	0	0	160,376	0	0	0	0
195	Clayton Silver		0.00	206.00	641	37,871	12,485	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
196	Idaho Almaden		0.00	0.00	0	0	0	0	0	0	0	0	20.00	0.00	0	0	0	0	0	0	0	0	0
197	Little Falls		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	27,216	0	0	0	0
198	Little Boulder Creek		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	121,653	0	0	0	0
199	Stinkingwater		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	206,500	0	0	0	0	0	0	0	0
200	Cumo		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	930,920	0	0	0	742,220	0	0	0	0
201	Silver Creek		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	120,000	0	0	0	0	0	0	0	0
202	Kirwin		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	480,000	0	0	0	0	0	0	0	0
203	Boise Basin district		20.82	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
204	Boise Basin district		71.50	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
205	Atlanta		9.20	81.00	0	0	0	0	0	0	0	0	8.50	0.00	0	0	0	0	0	0	0	0	0
206	Atlanta		0.00	0.00	0	0	0	0	0	0	0	0	28.00	76.00	0	0	0	0	0	0	0	0	0
207	Rocky Bar district		8.40	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
208	Grassy Mountain		0.00	0.00	0	0	0	0	0	0	0	0	31.00	77.00	0	0	0	0	0	0	0	0	0
209	Triumph		2.35	258.00	0	38,840	63,477	0	0	0	0	0	0.69	76.00	0	11,442	18,700	0	0	0	0	0	0
210	Champagne		2.08	11.00	0	0	0	0	0	0	0	0	2.30	51.00	0	0	0	0	0	0	0	0	0
211	Hailey gold belt		4.01	36.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
212	Stone Cabin		4.12	480.00	0	0	0	0	0	0	0	0	24.00	367.00	0	0	0	0	0	0	0	0	0
213	DeLamar		28.86	2,068.00	0	0	0	0	0	0	0	0	32.50	1,245.00	0	0	0	0	0	0	0	0	0
214	War Eagle Project		4.81	0.00	0	0	0	0	0	0	0	0	12.00	0.00	0	0	0	0	0	0	0	0	0
215	Greenback		5.45	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
216	Galice district		2.29	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
217	South Pass-Atlantic City and Lew dist.		10.39	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
218	Quartz Mountain		0.00	0.00	0	0	0	0	0	0	0	0	19.00	0.00	0	0	0	0	0	0	0	0	0
219	Upper Applegate		6.09	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
220	Ashland district		3.78	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
221	Waldo district		6.65	0.40	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	Ni	Production, numerical information only										Resources, numerical information only										
			Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Ni
222	Black Pine (Tallman)		0.00	0.00	0	0	0	0	0	0	0	0	14.00	0.00	0	0	0	0	0	0	0	0	0
223	Turner-Albright		0.00	0.00	0	0	0	0	0	0	0	0	11.00	60.00	45,497	0	101,358	0	0	0	0	0	0
224	Gray Eagle		8.21	23.00	50,540	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
225	National district		5.50	15.00	2	6	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
226	Jarbridge district		6.75	15.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
227	Rio Tinto		0.20	9.40	98,116	0	0	0	0	0	0	0	0.00	0.00	103,900	0	0	0	0	0	0	0	0
228	Buckskin National		3.44	0.94	0	0	0	0	0	0	0	0	1.60	15.00	0	0	0	0	0	0	0	0	0
229	Cottonwood-Ft. Jones district		7.73	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
230	Cobb Creek		0.00	0.00	0	0	0	0	0	0	0	0	4.50	0.00	0	0	0	0	0	0	0	0	0
231	Greenhorn Creek district		15.07	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
232	Big Springs		11.24	0.26	0	0	0	0	0	0	0	0	8.30	0.10	0	0	0	0	0	0	0	0	0
233	Scott River district		5.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
234	Winters Creek		0.00	0.00	0	0	0	0	0	0	0	0	6.40	0.00	0	0	0	0	0	0	0	0	0
235	Wright Window		1.10	0.00	0	0	0	0	0	0	0	0	3.90	0.00	0	0	0	0	0	0	0	0	0
236	Klamath River Placer district		4.30	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
237	Salmon River		43.69	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
238	Burns Basin-Jerritt Canyon		21.25	0.46	0	0	0	0	0	0	0	0	147.00	0.00	0	0	0	0	0	0	0	0	0
239	Sleeper		44.97	52.00	0	0	0	0	0	0	0	0	53.00	209.00	0	0	0	0	0	0	0	0	0
240	Tuscarora district		5.06	227.00	2	10	0	0	0	0	0	0	7.90	42.00	0	0	0	0	0	0	0	0	0
241	Twin Creeks (Chimney-Rabbit Creeks)		62.43	15.00	0	0	0	0	0	0	0	0	264.00	0.00	0	0	0	0	0	0	0	0	0
242	Tecoma district		1.91	93.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
243	Black Bear		4.50	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
244	Gold Circle district		3.90	51.00	0	9	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
245	Getchell		54.94	4.10	0	0	0	0	0	0	0	0	41.00	0.00	0	0	0	0	0	0	0	0	0
246	Western Hog Ranch		5.97	0.72	0	0	0	0	0	0	0	0	18.00	0.00	0	0	0	0	0	0	0	0	0
247	Pinson		3.16	2.90	0	0	0	0	0	0	0	0	15.00	0.00	0	0	0	0	0	0	0	0	0
248	Ivanhoe		2.06	0.00	0	0	0	0	0	0	0	0	90.00	0.00	0	0	0	0	0	0	0	0	0
249	Hayden Hill		3.61	0.00	0	0	0	0	0	0	0	0	45.00	282.00	0	0	0	0	0	0	0	0	0
250	Dee Gold Mine		12.76	9.50	0	0	0	0	0	0	0	0	8.40	0.00	0	0	0	0	0	0	0	0	0
251	Bootstrap		6.88	0.00	0	0	0	0	0	0	0	0	30.00	0.00	0	0	0	0	0	0	0	0	0
252	Meikle		0.00	0.00	0	0	0	0	0	0	0	0	206.00	0.00	0	0	0	0	0	0	0	0	0
253	Preble - Kramer Hill		373.89	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
254	Goldstrike-Post		126.70	2.90	0	0	0	0	0	0	0	0	705.00	0.00	0	0	0	0	0	0	0	0	0
255	North Star		0.13	0.00	0	0	0	0	0	0	0	0	11.00	0.00	0	0	0	0	0	0	0	0	0
256	Trinity River Basin district		54.43	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
257	Bobcat		0.00	0.00	0	0	0	0	0	0	0	0	1.80	0.00	0	0	0	0	0	0	0	0	0
258	Genesis - Blue Star		0.73	0.00	0	0	0	0	0	0	0	0	47.00	0.00	0	0	0	0	0	0	0	0	0
259	Carlin		237.98	8.50	0	0	0	0	0	0	0	0	19.00	0.00	0	0	0	0	0	0	0	0	0
260	Lantern		0.00	0.00	0	0	0	0	0	0	0	0	14.00	0.00	0	0	0	0	0	0	0	0	0
261	Bullion Monarch Mine		0.00	0.00	0	0	0	0	0	0	0	0	3.10	0.00	0	0	0	0	0	0	0	0	0
262	Pete		0.00	0.00	0	0	0	0	0	0	0	0	15.00	0.00	0	0	0	0	0	0	0	0	0

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	Ni	Production, numerical information only										Resources, numerical information only										
			Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Ni
263	Globe		3.55	0.83	0	0	0	0	0	0	0	0	2.20	0.57	0	0	0	0	0	0	0	0	0
264	Crofoot - Lewis		16.58	30.00	0	0	0	0	0	0	0	0	30.00	0.00	0	0	0	0	0	0	0	0	0
265	Lone Tree		9.98	0.00	0	0	0	0	0	0	0	0	125.00	0.00	0	0	0	0	0	0	0	0	0
266	Stonehouse		0.00	0.00	0	0	0	0	0	0	0	0	9.10	0.00	0	0	0	0	0	0	0	0	0
267	Rosebud		0.00	0.00	0	0	0	0	0	0	0	0	18.00	172.00	0	0	0	0	0	0	0	0	0
268	Tusc		0.00	0.00	0	0	0	0	0	0	0	0	29.00	0.00	0	0	0	0	0	0	0	0	0
269	Maggie Creek		12.50	0.00	0	0	0	0	0	0	0	0	0.87	0.00	0	0	0	0	0	0	0	0	0
270	Gold Quarry		45.00	0.00	0	0	0	0	0	0	0	0	611.00	0.00	0	0	0	0	0	0	0	0	0
271	Mammoth		4.12	245.00	132,477	0	142,297	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
272	Eight South		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
273	Sierra district		6.24	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
274	Marigold		10.07	0.30	0	0	0	0	0	0	0	0	21.00	0.00	0	0	0	0	0	0	0	0	0
275	East Hill - UNR - Top		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
276	Balaklala		2.01	72.00	58,800	0	27,300	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
277	Gladstone		10.40	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
278	Brown Bear		12.05	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
279	Milkmaid-Franklin		3.77	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
280	Iron Mountain		10.50	1,073.00	155,400	0	41,241	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
281	Reid		3.77	0.00	0	0	0	0	0	0	0	0	4.80	0.00	0	0	0	0	0	0	0	0	0
282	Trenton - Valmy		0.00	0.00	0	0	0	0	0	0	0	0	18.00	0.00	0	0	0	0	0	0	0	0	0
283	Emigrant		0.00	0.00	0	0	0	0	0	0	0	0	20.00	0.00	0	0	0	0	0	0	0	0	0
284	Little and Big Cottonwood dist.		0.75	409.00	4,469	81,912	145	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
285	Park City district		45.10	7,879.00	58,488	1,228,118	674,757	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
286	Buckingham		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	440,980	0	0	0	752,260	0	0	0	0
287	Rain - SMZ		4.23	0.00	0	0	0	0	0	0	0	0	36.00	0.00	0	0	0	0	0	0	0	0	0
288	Barney's Canyon		14.18	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
289	Buffalo Valley		1.77	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
290	Gnome		0.00	0.00	0	0	0	0	0	0	0	0	4.10	0.00	0	0	0	0	0	0	0	0	0
291	Melco		6.75	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
292	Florida Canyon		17.43	4.40	0	0	0	0	0	0	0	0	27.00	0.00	0	0	0	0	0	0	0	0	0
293	Fortitude - Surprise		59.41	156.00	0	0	0	0	0	0	0	0	4.50	39.00	0	0	0	0	0	0	0	0	0
294	Northeast Extension (Silver K)		0.00	0.00	0	0	0	0	0	0	0	0	4.10	21.00	1,540	0	0	0	0	0	0	0	0
295	Igo district		3.58	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
296	Bingham Canyon district		2.26	0.40	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
297	Reona		0.00	0.00	0	0	0	0	0	0	0	0	25.00	0.00	0	0	0	0	0	0	0	0	0
298	Copper Canyon		0.00	0.00	54,783	0	0	0	0	0	0	0	7.80	144.00	72,197	0	0	0	0	0	0	0	0
299	Bingham Canyon		590.63	7,891.00	11,984,762	2,036,303	855,241	0	732,400	0	0	0	312.00	2,163.00	4,578,200	0	0	0	344,700	0	0	0	0
300	Midas		7.82	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
301	Tomboy-Minnie		0.00	0.00	0	0	0	0	0	0	0	0	11.00	34.00	32	0	0	0	0	0	0	0	0
302	Battle Mtn. district		4.85	0.30	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
303	Dark Star		0.00	0.00	0	0	0	0	0	0	0	0	3.60	0.00	0	0	0	0	0	0	0	0	0

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	Ni	Production, numerical information only										Resources, numerical information only										
			Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Ni
304	Pipon Range - Cord Ranch		0.00	0.00	0	0	0	0	0	0	0	0	7.60	0.00	0	0	0	0	0	0	0	0	0
305	Seven Troughs district		5.00	17.00	0	5	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
306	Wind Mountain		6.13	35.00	0	0	0	0	0	0	0	6.10	35.00	0	0	0	0	0	0	0	0	0	0
307	Hilltop Mine		0.00	0.00	0	0	0	0	0	0	0	24.00	0.00	0	0	0	0	0	0	0	0	0	0
308	Trinity district		0.00	166.00	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0
309	Horse Canyon		1.55	0.00	0	0	0	0	0	0	0	4.20	0.00	0	0	0	0	0	0	0	0	0	0
310	Crescent Valley		0.00	0.00	0	0	0	0	0	0	0	1.60	0.00	0	0	0	0	0	0	0	0	0	0
311	Ophir district		0.27	358.00	12,706	74,332	3,782	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0
312	Tag Mine-Wildcat Prospect		0.00	0.00	0	0	0	0	0	0	0	2.00	0.00	0	0	0	0	0	0	0	0	0	0
313	Cove - McCoy		43.92	734.00	0	0	0	0	0	0	0	83.00	4,256.00	0	0	0	0	0	0	0	0	0	0
314	Rochester-Spring Valley district		15.89	6.40	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0
315	Mercur		96.70	6.80	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0
316	Robertson		1.16	0.00	0	0	0	0	0	0	0	23.00	0.00	0	0	0	0	0	0	0	0	0	0
317	Tenabo		0.12	0.00	0	0	0	0	0	0	0	6.30	0.00	0	0	0	0	0	0	0	0	0	0
318	Lights Creek		0.00	0.00	71,600	0	0	0	0	0	0	0.00	0.00	1,066,000	0	0	0	0	0	0	0	0	0
319	Coeur Rochester		0.00	1,242.00	0	0	0	0	0	0	0	35.00	413.00	0	0	0	0	0	0	0	0	0	0
320	Cortez Gold Mine		27.44	2.90	0	0	0	0	0	0	0	4.80	39.00	0	0	0	0	0	0	0	0	0	0
321	Pipeline		0.00	0.00	0	0	0	0	0	0	0	85.00	0.00	0	0	0	0	0	0	0	0	0	0
322	South Pipeline		0.00	0.00	0	0	0	0	0	0	0	104.00	0.00	0	0	0	0	0	0	0	0	0	0
323	Crescent Mills district		7.56	0.00	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0
324	Relief Canyon		4.40	1.20	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0
325	Buckhorn		4.96	22.00	0	0	0	0	0	0	0	3.80	0.00	0	0	0	0	0	0	0	0	0	0
326	Zeke		0.00	0.00	0	0	0	0	0	0	0	3.50	14.00	0	0	0	0	0	0	0	0	0	0
327	Cortez		34.22	0.21	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0
328	Kinsley Consolidated		0.00	0.00	0	0	0	0	0	0	0	3.20	0.00	0	0	0	0	0	0	0	0	0	0
329	Bellview		0.00	0.00	0	0	0	0	0	0	0	1.30	0.00	0	0	0	0	0	0	0	0	0	0
330	Rich Gulch		2.40	0.00	0	0	0	0	0	0	0	46.00	0.00	0	0	0	0	0	0	0	0	0	0
331	Saddle (Toiyabe project)		1.64	0.79	0	0	0	0	0	0	0	1.70	0.00	0	0	0	0	0	0	0	0	0	0
332	White Pine		0.80	0.01	0	0	0	0	0	0	0	2.00	0.00	0	0	0	0	0	0	0	0	0	0
333	Bald Mountain		12.82	1.60	0	0	0	0	0	0	0	19.00	0.00	0	0	0	0	0	0	0	0	0	0
334	Little Bald Mountain		0.85	0.05	0	0	0	0	0	0	0	1.00	0.00	0	0	0	0	0	0	0	0	0	0
335	Tintic district		86.10	8,459.00	115,193	1,034,013	204,081	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0
336	Tonkin Springs		3.37	0.10	0	0	0	0	0	0	0	14.00	0.00	0	0	0	0	0	0	0	0	0	0
337	Dixie Comstock		0.00	0.00	0	0	0	0	0	0	0	5.90	0.00	0	0	0	0	0	0	0	0	0	0
338	Crypto		0.02	83.00	2	7,844	1	0	0	0	0	0.00	0.00	0	843,700	0	0	0	0	0	0	0	0
339	Golden Butte		1.30	0.53	0	0	0	0	0	0	0	2.80	0.00	0	0	0	0	0	0	0	0	0	0
340	Magalia district		2.05	0.00	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0
341	Fondaway Canyon		0.40	0.00	0	0	0	0	0	0	0	18.00	0.00	0	0	0	0	0	0	0	0	0	0
342	Gold Pick		0.00	0.00	0	0	0	0	0	0	0	10.00	0.00	0	0	0	0	0	0	0	0	0	0
343	Mount Hope		0.00	0.00	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	510,000	0	0	0	0	0
344	Gold Canyon		0.00	0.00	0	0	0	0	0	0	0	4.10	0.00	0	0	0	0	0	0	0	0	0	0

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	Ni	Production, numerical information only										Resources, numerical information only										
			Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Ni
345	Alligator Ridge		24.40	3.50	0	0	0	0	0	0	0	0	21.00	0.00	0	0	0	0	0	0	0	0	0
346	Plumas-Eureka		12.05	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
347	Gold Bar		14.19	0.10	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
348	La Porte district		90.51	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
349	Yankee Mine		0.81	0.00	0	0	0	0	0	0	0	0	2.10	0.00	0	0	0	0	0	0	0	0	0
350	Poker Flat district		23.33	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
351	Olinghouse-Frank Free Canyons dist.		0.06	0.00	0	0	0	0	0	0	0	0	2.20	1.00	0	0	0	0	0	0	0	0	0
352	Cherokee Cr. dist.		22.60	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
353	Sierra City district		25.66	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
354	Detroit		3.73	0.00	76	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
355	Forbestown district		3.01	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
356	Archimedes		0.00	0.00	0	0	0	0	0	0	0	0	46.90	485.00	0	0	326,500	0	0	0	0	0	0
357	Brush Creek		6.03	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
358	Alleghany district		5.42	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
359	Eureka district		4.60	98.00	943	27,478	6,474	0	0	0	0	0	16.00	553.00	0	115,903	259,998	0	0	0	0	0	0
361	Gooseberry		0.54	30.00	0	0	0	0	0	0	0	0	18.00	58.00	0	0	0	0	0	0	0	0	0
362	Oroville district		61.16	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
363	Sixteen-to-one		37.76	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
364	Oriental		4.29	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
365	Rainbow		3.77	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
366	Plumbago		3.78	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
367	Talapoosa Mines		0.02	0.00	0	0	0	0	0	0	0	0	25.00	343.00	0	0	0	0	0	0	0	0	0
368	Wonder district		2.30	213.00	3	2	0	0	0	0	0	0	5.20	602.00	0	0	0	0	0	0	0	0	0
369	Windfall		3.76	0.00	0	0	0	0	0	0	0	0	2.80	0.00	0	0	0	0	0	0	0	0	0
370	Easy Junior - Nighthawk Ridge		0.36	0.03	0	0	0	0	0	0	0	0	4.30	0.00	0	0	0	0	0	0	0	0	0
371	Moore's Flat dist.		8.06	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
372	Pan		0.00	0.00	0	0	0	0	0	0	0	0	7.50	0.00	0	0	0	0	0	0	0	0	0
373	Ratto Canyon		0.00	0.00	0	0	0	0	0	0	0	0	6.20	0.00	0	0	0	0	0	0	0	0	0
374	Austin Gold Venture		5.97	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
375	Brown's Valley district		6.24	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
376	N. Bloomfield dist.		27.72	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
377	Dinero		3.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
378	Alpha-Omega dist.		7.00	0.20	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
379	San Juan Ridge district		15.41	0.00	0	0	0	0	0	0	0	0	98.00	0.00	0	0	0	0	0	0	0	0	0
380	Comstock Lode district		256.20	5,953.00	35	25	0	0	0	0	0	0	36.00	399.00	0	0	0	0	0	0	0	0	0
381	Lowell Hill district		6.24	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
382	Dutch Flat-Gold Run district		15.30	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
383	Ely		83.20	8.50	2,528,000	0	0	0	0	0	0	0	94.00	0.00	1,262,733	0	0	0	20,551	0	0	0	0
384	Mt. Hamilton		0.00	0.00	0	0	0	0	0	0	0	0	12.00	120.00	0	0	0	0	0	0	0	0	0

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	Ni	Production, numerical information only										Resources, numerical information only										
			Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Au	Ag	Cu	Pb	Zn	Co	Mo	Pd	Pt	Cr	Ni
385	Star Pointer		3.07	3.00	0	0	0	0	0	0	0	0	0.94	0.00	0	0	0	0	0	0	0	0	0
386	Hammonton district		129.00	0.00	0	0	0	0	0	0	0	0	16.00	0.00	0	0	0	0	0	0	0	0	0
387	Fire Angel		0.00	0.00	0	0	0	0	0	0	0	0	4.60	0.00	0	0	0	0	0	0	0	0	0
388	Silver City Placers district		2.95	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
389	Idaho-Maryland		105.46	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
390	Treasure Hill		0.00	544.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
391	Grass Valley dist.		110.92	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
392	Golden Center		3.77	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
393	You Bet district		20.16	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
394	Michigan Bluff district		7.36	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
395	Empire-Star		195.85	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
396	Fairview district		1.60	159.00	13	1,217	0	0	0	0	0	0	6.70	160.00	0	0	0	0	0	0	0	0	0
397	Western World		0.00	0.00	0	0	0	0	0	0	0	0	1.40	18.00	33,276	0	0	0	0	0	0	0	0
398	Iowa Hill district		15.55	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
399	Green Springs		1.97	0.28	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
400	Herman		3.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
401	Forest Hill district		37.66	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
402	Rising Sun		3.08	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
403	Bruner district		1.60	7.00	3	0	0	0	0	0	0	0	12.00	0.00	0	0	0	0	0	0	0	0	0
404	Ward		0.00	8.20	927	640	10,480	0	0	0	0	0	0.00	98.00	14,300	24,000	112,000	0	0	0	0	0	0
405	Taylor		0.00	88.00	0	0	0	0	0	0	0	0	0.00	122.00	0	0	0	0	0	0	0	0	0
406	Osceola district		2.80	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
407	MacArthur		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	119,700	0	0	0	0	0	0	0	0
408	Osceola district		2.95	0.00	0	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0
409	Bear Prospect		0.00	0.00	0	0	0	0	0	0	0	0	0.00	0.00	1,814,000	0	0	0	0	0	0	0	0
410	Rawhide-Regent district		15.16	110.00	0	0	0	0	0	0	0	0	45.00	631.00	0	0	0	0	0	0	0	0	0
411	Golden Chest		0.36	0.21	7.00	11	0	0	0	0	0	0	6.40	0.00	0	0	0	0	0	0	0	0	0
412	Hercules		0.00	0.00	0.00	0	0	0	0	0	0	0	0.00	577.00	0	0	20,408	0	0	0	0	0	0

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	References	Comments	Status source
1	Kelsey	Derkey and others, 1990; Randol, 1992	R @ 107,956,800 mt @ 0.31% Cu, .01% Mo	
2	Buckhorn Mountain (Crown Jewel)	Randol, 1992; Derkey, 1993; Hickey, 1992; Theodore and others, 1991	R @ 6.38 g Au/mt	Randol, 1994
3	Orient	Fulkerson and Kinston, 1958; Mosier and others, 1986	P and R @ 6.50 g Au/mt, 4.6 g Ag/mt, 0.1% Cu	
4	Yellowhead	Derkey and others, 1990; Morton, 1992	P @ 1.9% Pb, 9.8% Zn; Rv @ 1.9% Pb, 10.9 % Zn	J.A. Morton, pers. comm., 1994
5	Pend Oreille	Derkey and others, 1990; Morton, 1992	P @ 1.3% Pb, 3.0% Zn; Rv @ 0.5% Pb, 6.6% Zn	Randol, 1994
6	Kettle River	Derkey, 1993; Randol, 1990; Derkey and others, 1990	P @ 8.91 g Au/mt	Randol, 1994
7	Slate Creek district	Tooker and Vercoutere, 1986		
8	Van Stone	Derkey and others, 1990; Randol, 1990	R @ 1.5% Pb, 6.5% Zn	Randol, 1994
9	Red Mountain	Stotelmeyer and others, 1982		
10	Lamefoot	Carden and others, 1992	R @ 5.62 g Au/mt	Randol, 1994
11	Key East - Key West	Derkey, 1993	P @ 4.46 g Au/mt	Randol, 1994
12	Overlook zone	Randol, 1992	P @ 2.43 g Au/mt	Randol, 1994; Washington Geology, 3/92
13	Golden Eagle	Mining Engineering, 9/95	R @ 3.5 g Au/mt	Mining Engineering, 9/95
14	Knob Hill-Golden Promise	Randol, 1992; Derkey and others, 1990	R @ 29.49 g Au/mt, 136.5g Ag/mt	Randol, 1994;
15	Last Chance	Derkey and others, 1990		
16	Republic	Derkey and others, 1990		
17	Mazama	Derkey and others, 1990	R = 50 M st @ 0.36% Cu	Randol, 1994
18	Troy (Spar Lake)	Kirkham, 1989; Pay Dirt, 2/93, p. 8A		Randol, 1994
19	Gold Mountain	Hollister, 1979	R = 44 M st @ 0.5% Cu	
20	Glacier Peak	Derkey and others, 1990	R = 1,900 M st @ 0.334%; In Glacier Peak Wilderness	
21	Holden	Stotelmeyer and others, 1982; Derkey and others, 1990		
22	J-F	Spanski, 1992	R = 14 M mt @ 0.4% Cu, 45 g/t Ag	
23	Silverton district	Tooker and Vercoutere, 1986		
24	Rock Creek	McColloch, 1993	R = 143,760,000 st @ 0.8% Cu and 2.2 oz Ag/st	Randol, 1994
25	Rock Lake (Montanore)	McColloch, 1993	R = 142 M st @ 0.9% Cu and 1.9 oz Ag/st	Randol, 1994; Hughes, 1993b
26	Mt Tolman	Carten and others, 1993	R = 793 M mt @ 0.056% Mo, 0.09% Cu	
27	Sunrise	Derkey and others, 1990	R = 71 M st @ 0.319%	
28	Mystery	Johnson and others, 1983		
29	Pride of the Mountains	Johnson and others, 1983		
30	New Discovery	Johnson and others, 1983		
31	Justice	Johnson and others, 1983		
32	New York-Seattle	Johnson and others, 1983		
33	Zortman - Landusky	Ryzak, 1990	Resources include Ruby, OK, Ross, Mint, Independent, Alabama, Pinkeye Pearl, and others. Production includes Queen Rose, Gold Bug, August, Little Ben, Susie, Swift, Niseka, and others. Geologic resources, 1/1/90.	Randol, 1994
34	Hog Heaven district	Greg Hahn, writ. comm., 1988; Engineering and Mining Journal, 2/89, p 71.	Includes West Flathead	Randol, 1994
35	Eagle Creek	Spanski, 1992	R =15 M mt @ 0.47% Cu and 16 g Ag/mt	
36	North Fork	Hollister, 1979	R = 44 M st @ 0.5% Cu	
37	Jack Waite	Mitchell and Bennett, 1983	P @ 35.8 g Ag/mt, 11.4% Pb, 2.8% Zn	
39	Liver Peak	Harrison and others, 1986; J.E. Elliott, pers. comm., 1995	R = 363.88 M mt @ 0.123% Mo	
40	Murray district	Shenon, 1938		
41	Interstate-Callahan	Mitchell and Bennett, 1983	P @ 47.9 g Ag/mt, 3.5% Pb, 10.8% Zn	
42	Hercules	Mitchell and Bennett, 1983	P @ 291.8 g Ag/mt, 10.9% Pb, 0.1% Zn	
43	Tamarack-Custer	Mitchell and Bennett, 1983	P @ 106.4 g Ag/mt, 6.0% Pb, 2.8% Zn	

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Index	Deposit	References	Comments	Status source
44	Bunker Hill	Mitchell and Bennett, 1983; Bennett and Springer, 1991; Randol, 1990	P @ 113 g Ag/mt, 6.5% Pb, 2.9% Zn; R @ 54.9 g Ag/mt, 2.8% Pb, 4.8% Zn	
45	Page Group	Mitchell and Bennett, 1983	P @ 116 g Ag/mt, 6.3% Pb, 6.3% Zn	
46	Sherman	Mitchell and Bennett, 1983	P @ 204 g Ag/mt, 9.0% Pb, 0.6% Zn	
47	Senator Stewart	Mitchell and Bennett, 1983	P @ 217.5 g Ag/mt, 7.2% Pb	
48	Caledonia	Mitchell and Bennett, 1983	P @ 1,054 g Ag/mt, 0.7% Cu, 12.7% Pb	
49	Tiger-Poorman	Mitchell and Bennett, 1983	P @ 80.7 g Ag/mt, 5.0% Pb	
50	Hecla	Mitchell and Bennett, 1983	P @ 181.9 g Ag/mt, 9.3% Pb, 0.5% Zn; R @ 182 g Ag/mt	
51	Standard Mammoth	Mitchell and Bennett, 1983	P @ 309.0 g Ag/mt, 7.6% Pb, 0.2% Zn	
52	Clipper-Three Brothers	Derkey and others, 1990; Gualtieri and others, 1975	R = 0.23 M st @ 0.9% Cu (Clipper) + 2 M st @ 0.8% Cu (3 Brothers)	
53	Last Chance	Mitchell and Bennett, 1983	P @ 103.8 g Ag/mt, 7.6% Zn	
54	Dayrock	Mitchell and Bennett, 1983	P @ 175.3 g Ag/mt, 6.1% Cu, 0.3% Pb	
55	Helena-Frisco	Mitchell and Bennett, 1983	P @ 78.5 g Ag/mt, 4.0% Pb, 3.3% Zn	
56	Silver Summit	Mitchell and Bennett, 1983	P @ 855.6 g Ag/mt, 0.6% Cu,	
57	Crescent	Mitchell and Bennett, 1983; Bennett and Springer, 1991; Randol, 1992	P @ 860.4 g Ag/mt, 0.2% Pb; R @ 802.3g Ag/mt	
58	Polaris	Mitchell and Bennett, 1983	P @ 787.6 g Ag/mt, 0.3% Cu, 0.6% Pb	
59	Sunshine Unit	Mitchell and Bennett, 1983; Bennett and Springer, 1991; Randol, 1990	P @ 849.3 g Ag/mt, 0.4% Cu, 0.6% Pb; R @ 902 g Ag/mt, 0.5% Cu	Randol, 1994
60	Condor-Hemlock	Derkey and others, 1990; Gualtieri and others, 1975	R = 27.5 M st @ 0.616% Cu (Condor); 100 M st @ 0.78% Cu (Hemlock)	
61	Mineral Point	Mitchell and Bennett, 1983	P @ 455.8 g Ag/mt, 1.1% Cu	
62	Coeur	Mitchell and Bennett, 1983; Bennett and Springer, 1991; Randol, 1992	P @ 551.7 g Ag/mt, 0.7% Cu; R @ 668.6 g Ag/mt, 0.7% Cu	Randol, 1994
63	Sidney	Mitchell and Bennett, 1983	P @ 61.8 g Ag/mt, 4.1% Pb, 8.0% Zn	
64	Galena	Mitchell and Bennett, 1983; Bennett and Springer, 1991; Randol, 1992	P @ 767 g Ag/mt; 0.7% Cu, 0.2% Pb; R @ 572 g Ag/mt, 0.6% Cu, 0.1% Zn	Randol, 1994
65	Gold Hunter	Mitchell and Bennett, 1983; Randol, 1994	P @ 104.7 g Ag/mt, 3.0% Pb (mined to 1200' L, expl. intercept at 4100' L)	Hughes, 1993a
66	Lucky Friday	Mitchell and Bennett, 1983; Bennett and Springer, 1991; Randol, 1992	P @ 564.2 g Ag/mt, 0.2% Cu, 10.5% Pb, 1.1% Zn; 528.0 g Ag/mt, 13.0% Pb, 2.3% Zn	Randol, 1994
67	Star-Morning	Mitchell and Bennett, 1983; Bennett and Springer, 1991	P @ 94.8 g Ag/mt, 6.6% Pb, 6.3% Zn	
68	Snowstorm	Mitchell and Bennett, 1983; E. Bennett, pers. comm., 1993	P @ 4.5 g Ag/mt, 2.9% Cu; Resource at least equal to past production, Earl Bennett, pers. comm., 1994)	Randol, 1994
69	Cannon	Bartholomew, 1986; Washington Geology, 1986-93		Randol, 1994
70	Lovitt	Derkey and others, 1990		Randol, 1994
71	Canyon Resources (Kendall)	Krohn and Weist, 1977; Kurisoo, 1991		Randol, 1994; Hughes, 1993a
72	Spotted Horse	Woodward and Giles, 1993; Robertson, 1950		Randol, 1994; J.E. Elliott, pers. comm., 1995
73	Maginnis	Woodward and Giles, 1993; Robertson, 1950		
74	Cedar Creek-Trout Creek district	Koschmann and Bergendahl, 1968	Contained Ag estimated from fineness	
75	Gilt Edge	Woodward and Giles, 1993		Randol, 1994
76	Ninemile Cr. dist.	Koschmann and Bergendahl, 1968		
77	Block P	Witkind, 1973	Barker, Wright-Edwards, and other mines	
78	Heddleston	Hunt and others, 1970; Anonymous, 1968	R(Mo) = 221.8 mt @ 0.02% Mo	
79	McDonald Meadows	Pay Dirt 12/91, p. 9A		Randol, 1994; Hughes, 1993b
80	Silver Dyke	Robertson, 1951.		
81	Seven-Up Pete	Pay Dirt 2/91, p. 13A	Columbia, Last Chance, & Rover mines	Randol, 1994
82	Big Ben	Carten and others, 1993	R = 109 M mt @ 0.09% Mo (0.0365% Mo cutoff)	
83	Big Seven	Robertson, 1951.	Produced from 1902 to 1943	

Appendix B. Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest.

Index	Deposit	References	Comments	Status source
84	Lincoln district	Koschmann and Bergendahl, 1968	Contained Ag estimated from fineness	
85	Broadwater	Robertson, 1951		
86	Elk Creek-Coloma district	Koschmann and Bergendahl, 1968		
87	Stemple-Virginia Creek district	Koschmann and Bergendahl, 1968		
88	Jay Gould	Pardee and Schrader, 1933; McClernan, 1983	Stemple	
89	McClellan district	Koschmann and Bergendahl, 1968	Contained Ag estimated from fineness	
90	Garnet district (Dewey mine)	Pardee, 1918		Randol, 1994
91	First Chance district	Koschmann and Bergendahl, 1968		
92	Finn district	Koschmann and Bergendahl, 1968		
93	Piegan-Gloster	McClernan, 1983		
94	Marysville-Silver Creek district	Koschmann and Bergendahl, 1968		
95	Sheep Creek	American Mines Handbook, 1994	Contains significant Co resource	Randol, 1994
96	Cruse-Belmont-Empire	Pardee and Schrader, 1933; McClernan, 1983; Mining Journal, 10/86, p. 323		Randol, 1994; J.E. Elliott, pers. comm., 1995
97	Drumlummon	Pardee and Schrader, 1933		Randol, 1994; J.E. Elliott, pers. comm., 1995
98	Penobscot	Knopf, 1913; McClernan, 1983		
99	Bald Butte	Carten and others, 1993	R =14 M mt @ 0.1% Mo	
100	Bald Butte	Knopf, 1913; McClernan, 1983		
101	York	Pardee and Schrader, 1933; Baitis, 1988		
102	Missouri River-York district	Koschmann and Bergendahl, 1968		
103	Ophir district	Koschmann and Bergendahl, 1968		
104	Miller	Pegasus Gold annual report, 1992; American Mines Handbook, 1994	Miller Mountain, Durant mines	Randol, 1994
105	White Creek district	Koschmann and Bergendahl, 1968		
106	Confederate Gulch district	Koschmann and Bergendahl, 1968; Orris and Bliss, 1985; Lyden, 1948		
107	Helena-Last Chance Placer district	Koschmann and Bergendahl, 1968; Orris and Bliss, 1985; McClernan, 1983; Lyden, 1948		
108	Whitlatch-Union	Pardee and Schrader, 1933	Owyhee, McIntyre mines	
109	Pioneer district	Koschmann and Bergendahl, 1968; Orris and Bliss, 1985		
110	Henderson Placers district	Koschmann and Bergendahl, 1968		
111	Pierce City district	Bergendahl, 1964		
112	Rimini district	Pardee and Schrader, 1933; Knopf, 1913; McCulloch, 1992	Includes Lee Mountain and Valley Forge mines; production from 1865 to 1928	
113	Castle Mtn. district	Winters, 1968; Krohn and Weist, 1977; Roby, 1950	Includes the Cumberland, Judge, Jumbo, and Yellowstone mines	
114	Black Pine district	Lawson and others, 1987; McCulloch and others, 1988; McCulloch, 1989,1992,1993	Combination mine	Randol, 1994
115	Clancy district	Koschmann and Bergendahl, 1968; Orris and Bliss, 1985; Roby and others, 1960	Production includes multiple mines of district	

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Index	Deposit	References	Comments	Status source
116	Basin Creek (Paupers Dream)	McCulloch, 1992	Porphyry Dike, Venus mines	Randol, 1994; J.E. Elliott, pers. comm., 1995
117	Alta	Becraft and others, 1963		
118	Montana Tunnels	Frishman and others, 1992; Foster and Childs, 1993; Engineering and Mining Journal, 5/91, p44.		Randol, 1994
119	Margaret	Derkey and others, 1990		
120	Hope	Krohn and Weist, 1977	Potosi, Porter, Take All, Field, Prince, Imperial, and other mines	
121	Scratch Awl - True Fissure	Krohn and Weist, 1977		
122	Trout	Krohn and Weist, 1977	Pocahontas, Speckled Trout, Gem, Algonquin mines	
123	Granite-Bimetallic	Krohn and Weist, 1977	Blaine, Ruby, Granite Mountain mines	
124	Diamond Hill	Krohn and Weist, 1977; Pegasus Gold Annual Report, 1992		Randol, 1994
125	Comet	Knopf, 1913; Becraft and others, 1963		Randol, 1994
126	Elkhorn (old)	Frishman and others, 1992; Roby and others, 1960; Weed and Barrell, 1901; Klepper and others, 1957	Production from 1875 to 1952	
127	Elkhorn (Swan Gold?)	Foster and Childs, 1993; American Mines Handbook, 1994		Randol, 1994; Hughes, 1993b
128	Southern Cross	Earl 1972; Emmons and Calkins, 1913; Mining Record, 12/86, p.1.		Randol, 1994
129	Cable	Emmons and Calkins, 1913; Earl, 1972		Randol, 1994
130	Keating	Klepper and others, 1971		
131	Ohio-Keating	Klepper and others, 1971		
132	Butte district			
133	Butte district	Long, 1995	Production from block cave, Berkeley Pit, Continental Pit, and pit-waste leach. Resource also includes Continental East and South, and Pittmont Deep orebodies.	Randol, 1994
134	Butte district	Long, 1995	Resource includes selective Cu, Zn, and Mn veins, and underground phase 2 Alice/Rainbow, Syndicate, and Syndicate West vein zones.	
135	Beal Mountain	McCulloch, 1992		Randol, 1994
136	French Creek dist.	Koschmann and Bergendahl, 1968		
137	Golden Sunlight	Roby and others, 1960; Foster and Childs, 1993; Placer Dome Annual Report, 1990; McCulloch and others, 1988		Randol, 1994
138	Tenmile district	Bergendahl, 1964; Ross, 1941; Shenon and Reed, 1934		
139	Elk City district	Shenon and Reed, 1934; Randol, 1990; Bliss, 1994a	R @ 0.86 g Au/mt	Randol, 1994
140	Elk City district	Thompson and Ballard, 1924		
141	Butte Highlands	Sahinen, 1950; Northern Miner, v. 79, no. 34, p. 1-2	Includes Highland, Nevin Hill, Only Chance, Tilton, Diamond T., Murphy, J. B. Thompson mines	Randol, 1994
142	Renova district	Frishman and others, 1992; Krohn and Weist, 1977; Winchell, 1914	Includes the Mayflower and West Mayflower mines; produced from 1863 to 1937	
143	Silver Star-Iron Rod district	Sahinen 1939.	Includes Broadway, Bowery, Delaware, Maryland, and Victoria mines; produced from 1867 to 1932	
144	Pony district	Krohn and Weist, 1977	Production for 1863 to 1937. Includes the Boss Tweed-Clipper and Mammoth mines.	
145	Cannivan	Carten and others, 1993	R @ 185 M mt @ 0.096% Mo	
146	Rochester district	Sahinen, 1939; Winchell, 1914	Production from 1868 to 932, includes Watseca mine.	
147	Hecla district	Geach, 1972	Includes Cleve-Avon, Lion Mountain, and Trapper mines	
148	Gibbonsville district	Bergendahl, 1964; Ross, 1941		
149	Norris district	Tansley and others, 1933; Winchell, 1914.	Production for 1863 to 1937. Includes the Revenue or Monitor-Revenue and other mines	
150	Sheridan-Twin Bridges district	Tansley and others, 1933; Lorain, 1937		

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Index	Deposit	References	Comments	Status source
151	East Boulder Project	Johnson and others, 1993	R = 32.7 M st @ 0.14 oz Pt/st, 0.61 oz Pd/mt, 0.016 oz Au/mt. Geologic resources for the J-M Reef are likely to exceed 516 mt Pt, 1,667 mt Pd, and 40 mt Au.	Hughes, 1993b
152	Stillwater Mine	Zientek, 1993; Randol, 1990 and 1992; USBM, 1994; Coombes, 1990, 1992	R = 12.362 M st @ 0.18 oz Pt/st, 0.61 oz Pd/st, 0.01 oz Au/st (est.). Geologic resources for the J-M Reef are likely to exceed 516 mt Pt, 1,667 mt Pd, and 40 mt Au.	Randol, 1994
153	Mouat-Sampson (Mountain View)	Zientek, 1993	P = 920,000 lt of concentrate @ 38.5% Cr ₂ O ₃ ; R = 19.2M st @ 23% Cr ₂ O ₃	Randol, 1994
154	West Fork B (Crescent Creek)	Zientek, 1993	R = 3.8 M st @ 0.02 oz Pt/st, 0.05 oz Pd/st, 11.8% Cr ₂ O ₃	
155	Mouat Ni-Cu	Zientek, 1993	R = 145 M st @ 0.29% Cu and 0.31% Ni	
156	Benbow Cr	Zientek, 1993	P = 67,791 lt of concentrate @ 41.5% Cr ₂ O ₃ ; reserves @ 1.2 M st @ 22.7% Cr ₂ O ₃ ; resources = 19.8 M st @ 22.5% Cr ₂ O ₃ ;	
157	Argenta district	Geach, 1972; Foster and Childs, 1993		
158	Virginia City-Alder Creek district	Koschmann and Bergendahl, 1968		
159	Warren and Marshall districts	Koschmann and Bergendahl, 1968		
160	Warren district	Reed, 1937; Bliss, 1994a		
161	Mackinaw district	Koschmann and Bergendahl, 1968		
162	Beartrack	Bartels and others, 1990; Randol, 1990 and 1992	R @ 1.89 g Au/mt	Randol, 1994; Hughes, 1993a
163	Virginia City district	Shawe and Wier, 1989	Includes the Kearsarge, Oro Cash, Prospect, U.S. Grant, Easton-Pacific, and other mines.	
164	Red Ledge	Fifarek and others, 1994	R @ 0.9 g Au/mt, 80.8 g Ag/mt, 0.9%Cu, 2.9% Zn	Randol, 1994
165	Bannack district	Koschmann and Bergendahl, 1968; Orris and Bliss, 1985		
166	Bannack district	Geach, 1972		
167	Blackbird	Bergendahl, 1964; Stephen Peters, pers. comm., 1995	Measured R = 5 M st @ 1.0% Cu and 0.5 % Co; Indicated R = 25 M st (includes measured R)	Randol, 1994
168	Mineral Hill	Hammarstrom and others, 1993; McCulloch, 1992		Randol, 1994
169	New World	Kirk and others, 1993	Includes McLaren, Miller Creek, Homestake, Fisher Mtn., Como, Crown Butte, and Noranda orebodies	Randol, 1994; Hughes, 1993b
170	Crevice Mountain	J.E. Elliott, writ. comm., 1993		Elliott, writ. comm., 1993
171	Iron Dyke	Juhas and others, 1980; Bussey and LeAnderson, 1994	P @ 7.0 g Au/mt, 29 g Ag/mt, 3.0% Cu; R @ 8.57 g Au/mt, 24 g Ag/mt, 2.7% Cu	Randol, 1994
172	Cornucopia district	Brooks and Ramp, 1968; Bliss, 1994b	P @ 8 to 16 g Au/mt, 60 to 75 g Ag/mt	
173	Sanger	Brooks and Ramp, 1968; Swartley, 1914		
174	Yellow Jacket	Randol, 1990; Fisher and Johnson, 1987; Anderson, 1953	R @ 3.63g Au/mt	
175	Iron Creek	Randol, 1992	R = 29 M mt @ 0.5% Cu, 0.06% Co	
176	Dewey, Sunnyside	Fisher and Johnson, 1987; Randol, 1990; Mining Engineering, 1994	R @ 1.4 g Au/mt	
177	Homestake	Randol, 1990	P @ 2.40 g Au/mt	Randol, 1994
178	West End	Randol, 1992	R @ 1.68 g Au/mt	Randol, 1994
179	Yellow Pine	Cooper, 1951; Fisher and Johnson, 1987; Randol, 1992	R @ 1.27 g Au/mt	Randol, 1994
180	Rock Creek district	Brooks and Ramp, 1968; Bliss, 1994b	P @ 17 g Au/mt, 146 g Ag/mt	
181	Bornite	American Mines Handbook, 1994		Randol, 1994
182	Granite district	Koschmann and Bergendahl, 1968		
183	Cracker Cr. district	Brooks, 1969; Randol, 1992; Hewett, 1931; Bliss, 1994b	P @ 17 to 22 g Au/mt, 22 to 170 g Ag/mt; R @ 10.63 g Au/mt	
184	Granite district	Brooks and Ramp, 1968; Bliss, 1994b	P @ 5.8 to 18 g Au/mt, 91 to 290 g Ag/mt	
185	Virtue	Brooks and Ramp, 1968		
186	Sumpter Placer district	Brooks and Ramp, 1968		

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187	Greenhorn district	Brooks and Ramp, 1968; Bliss, 1994b	P @ 17 to 83 g Au/mt, 6.2 to 250 g Ag/mt	
188	Greenhorn district	Brooks and Ramp, 1968		
189	Connor Creek	Brooks, 1969; Brooks and Ramp, 1968	P @ 17.1 g Au/mt	
190	Florence district	Brooks, 1969		
191	Sunbeam-Grouse Creek	Skillings, 4/2/94, p. 15; Allen and Moye, 1990; Fisher and Johnson, 1987	R @ 1.89 g Au/mt, 37.7 g Ag/mt	Randol, 1994; Hughes, 1993b
192	Canyon Placer district	Koschmann and Bergendahl, 1968; Brooks and Ramp, 1968		
193	Mormon Basin	Brooks and Ramp, 1968		
194	Thompson Creek	Randol, 1992; Earl Bennett, pers. comm., 1994	R @ 0.11% Mo	Randol, 1994
195	Clayton Silver	Fisher and Johnson, 1987; USGS and USBM, 1986		Randol, 1994
196	Idaho Almaden	Randol, 1992	R @ 0.96 g Au/mt	
197	Little Falls	Kiilsgaard and Bennett, 1987	R = 90.7 M mt @ 0.030% Mo	
198	Little Boulder Creek	Hall, 1987	R @ 135.2 M mt @ 0.09% Mo	
199	Sinkingwater	Harris and others, 1985	R = 59 M mt @ 0.35% Cu	
200	Cumo	Kiilsgaard and others, 1989	R = 1,260 M mt @ 0.059% Mo, 0.074% Cu	
201	Silver Creek	Harris and others, 1985	R = 24 M mt @ 0.5% Cu	
202	Kirwin	Harris and others, 1985	R = 64 M mt, ave. 0.75% Cu	
203	Boise Basin district	Kiilsgaard and others, 1989; Fisher and Johnson, 1987; T. Kiilsgaard, writ. comm., 1994	P @ 3.4 to 44.6 g Au/mt, 1.0 to 257 g Ag/mt	
204	Boise Basin district	Koschmann and Bergendahl, 1968		
205	Atlanta	Kiilsgaard and Bacon, in press	R @ 11.7 g Au/mt	Randol, 1994
206	Atlanta	Kiilsgaard and Bacon, in press; Mining Record, v. 104, no. 48	R @ 2.5 g Au/mt, 6.7 g Ag/mt	Randol, 1994
207	Rocky Bar district	Anderson, 1943		
208	Grassy Mountain	Ferns and Ramp, 1989; Randol, 1990 and 1992	R @ 2.13 g Au/mt, 5.1 g Ag/mt	Randol, 1994
209	Triumph	Kiilsgaard, 1950	P and R @ 2.43 g Au/mt, 267 g Ag/mt, 4.0% Pb, 6.6% Zn	Randol, 1994
210	Champagne	Randol, 1990	P @ 1.3 g Au/mt, 28.4 g Ag/mt	Randol, 1994
211	Hailey gold belt	Bergendahl, 1964	P @ 4.3 to 11.3 g Au/mt, 39.4 to 10,100 g Ag/mt	
212	Stone Cabin	Randol, 1990 and 1992		Randol, 1994
213	DeLamar	Halsor and others, 1988; Randol, 1990 and 1992; Mosier and others, 1986	P(vein) = 1,306.2 mt Ag, 18.66 mt Au (from 1863 to 1914); P (vnlet, dissem.) = 761.95 mt Ag, 10.2 mt Au (from 1977 to 1992); R (1992) @ 0.86 g Au/mt, 32.8 g Ag/mt	Randol, 1994
214	War Eagle Project	Piper and Laney, 1926; Randol, 1992		
215	Greenback	Hotz, 1971		
216	Galice district	Orris and Bliss, 1985		
217	South Pass-Atlantic City and Lew dist.	Hausel, 1989		
218	Quartz Mountain	Ferns, 1989		Randol, 1994
219	Upper Applegate	Brooks and Ramp, 1968; Orris and Bliss, 1985		
220	Ashland district	Hotz, 1971		
221	Waldo district	Tooker and Vercoutere, 1986; Brooks and Ramp, 1968		

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222	Black Pine (Tallman)	Randol, 1992	R @ 0.96 g Au/mt	Randol, 1994
223	Turner-Albright	Strickler, 1986		Randol, 1994
224	Gray Eagle	Singer, 1992		Randol, 1994
225	National district	USBM Minerals Yearbook		
226	Jarbidge district	Koschmann and Bergendahl, 1968; USBM Minerals Yearbook		
227	Rio Tinto	Coats and Stephens, 1968		
228	Buckskin National	Major Mines of Nevada, 1992		Randol, 1994
229	Cottonwood-Ft. Jones district	Tooker and Vercoutere, 1986		
230	Cobb Creek	Pan Orvana Resources Inc., 1988 Annual Report		Randol, 1994
231	Greenhorn Creek district	Clark, 1970		
232	Big Springs	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993		Randol, 1994
233	Scott River district	Tooker and Vercoutere, 1986		
234	Winters Creek			
235	Wright Window	Nevada Mineral Industry, 1992		
236	Klamath River Placer district	Tooker and Vercoutere, 1986		
237	Salmon River	Clark, 1970		
238	Burns Basin-Jerritt Canyon	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993		Randol, 1994; Stephen Peters, pers. comm., 1995
239	Sleeper	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993; Mining Record, 3/24, 1993	nearing depletion in 1994	Randol, 1994
240	Tuscarora district	Roberts and others, 1971; USBM Minerals Yearbook		
241	Twin Creeks (Chimney-Rabbit Creeks)	Major Mines of Nevada, 1993; Skillings, 7/24, 1993; Engineering and Mining Journal, 3/94, p. 70		Randol, 1994; Stephen Peters, pers. comm., 1995
242	Tecoma district	Douglas, 1990	P from 1.36 M t of ore	
243	Black Bear	Hotz, 1971		
244	Gold Circle district	USBM Minerals Yearbook		
245	Getchell	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993		Randol, 1994; Stephen Peters, pers. comm., 1995
246	Western Hog Ranch	Nevada Mineral Industry, 1992; Nevada Division of Minerals, 1994	closed in 1993	Randol, 1994
247	Pinson	American Mines Handbook, 1994		Randol, 1994
248	Ivanhoe	Nevada Mineral Industry, 1992		Randol, 1994
249	Hayden Hill	Tooker and Vercoutere, 1986; Burnett, 1991		Randol, 1994
250	Dee Gold Mine	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993		Randol, 1994; Stephen Peters, pers. comm., 1995
251	Bootstrap	Nevada Mineral Industry, 1992		Randol, 1994; Stephen Peters, pers. comm., 1995
252	Meikle	Nevada Mineral Industry, 1992; American Barrick, 1993 Annual Report		Randol, 1994; Stephen Peters, pers. comm., 1995
253	Preble - Kramer Hill	Nevada Mineral Industry, 1992		Randol, 1994; Stephen Peters, pers. comm., 1995
254	Goldstrike-Post	Major Mines of Nevada, 1991, 1993; American Barrick, 1993 Annual Report		Randol, 1994; Stephen Peters, pers. comm., 1995
255	North Star	Nevada Mineral Industry, 1992		Randol, 1994; Stephen Peters, pers. comm., 1995
256	Trinity River Basin district	Orris and Bliss, 1985		
257	Bobcat	Nevada Mineral Industry, 1993		Randol, 1994; Stephen Peters, pers. comm., 1995
258	Genesis - Blue Star	Nevada Mineral Industry, 1990		Randol, 1994; Stephen Peters, pers. comm., 1995
259	Carlin	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993		Randol, 1994; Stephen Peters, pers. comm., 1995
260	Lantern	Nevada Mineral Industry, 1992		Randol, 1994; Stephen Peters, pers. comm., 1995
261	Bullion Monarch Mine	Nevada Mineral Industry, 1992		Randol, 1994; Stephen Peters, pers. comm., 1995
262	Pete	Nevada Mineral Industry, 1992		Randol, 1994; Stephen Peters, pers. comm., 1995

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263	Globe	Hotz and others, 1972; Peters, 1983		
264	Crofoot - Lewis	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993		Randol, 1994
265	Lone Tree	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993; Mining Record, 8/4/93; Engineering and Mining Journal, 3/94, p. 70		Randol, 1994
266	Stonehouse	Nevada Mineral Industry, 1992		Jeff Doebrich, pers. comm., 1995
267	Rosebud	Nevada Mineral Industry, 1992		Randol, 1994
268	Tusc	Nevada Mineral Industry, 1992		Randol, 1994; Stephen Peters, pers. comm., 1995
269	Maggie Creek	Nevada Mineral Industry, 1992		Randol, 1994; Stephen Peters, pers. comm., 1995
270	Gold Quarry	Nevada Mineral Industry, 1992		Randol, 1994; Stephen Peters, pers. comm., 1995
271	Mammoth	Kinkel and others, 1956		
272	Eight South	T.G. Theodore, writ. comm., 1994	P and R included with Marigold deposit	
273	Sierra district	Johnson, 1973a		
274	Marigold	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993		Randol, 1994; Stephen Peters, pers. comm., 1995
275	East Hill - UNR - Top	T.G. Theodore, writ. comm., 1994	R included with Marigold deposit	
276	Balaklala	Mosier and others, 1983		
277	Gladstone	Clark, 1970		
278	Brown Bear	Hotz, 1971	10,000 oz P over 5 years	Randol, 1994;
279	Milkmaid-Franklin	Lydon and O'Brien, 1974		
280	Iron Mountain	Kinkel and others, 1956		Randol, 1994
281	Reid	Hotz, 1971; Mining Magazine, 1984, v. 151, no. 2, p. 89		
282	Trenton - Valmy	T.G. Theodore, writ. comm., 1994		
283	Emigrant	Nevada Mineral Industry, 1992		Randol, 1994; Stephen Peters, pers. comm., 1995
284	Little and Big Cottonwood dist.	Butler and others, 1920	P from 0.39 M t of ore	
285	Park City district	Bromfield, 1989	P from 15.16 M t of ore	
286	Buckingham	Carten and others, 1993	R = 1,287 M mt @ 0.058% Mo, 0.034% Cu	
287	Rain - SMZ	Nevada Mineral Industry, 1992		Randol, 1994; Stephen Peters, pers. comm., 1995
288	Barney's Canyon	Gunter and others, 1990	P from 8.61 M t of ore	Randol, 1994; Stephen Peters, pers. comm., 1995
289	Buffalo Valley	Nevada Mineral Industry, 1992		Randol, 1994; Bookstrom
290	Gnome	Nevada Mineral Industry, 1992		Randol, 1994; Stephen Peters, pers. comm., 1995
291	Melco	Gunter and others, 1990	P from 2.81 M t of ore	
292	Florida Canyon	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993		Randol, 1994
293	Fortitude - Surprise	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993; American Mines Handbook, 1989-94		Randol, 1994; Jeff Doebrich, pers. comm., 1995
294	Northeast Extension (Silver K)	Orris and others, 1987		Jeff Doebrich, pers. comm., 1995
295	Igo district	Tooker and Vercoutere, 1986		
296	Bingham Canyon district	Johnson, 1973b		
297	Reona	California Mining Journal, Dec, 1992	intrusive hosted stockwork	Randol, 1994
298	Copper Canyon	Theodore and Blake, 1975		Randol, 1994
299	Bingham Canyon	Stein and others, 1989; Engineering and Mining Journal, 8/89, v. 190, p. 36; Carten and others, 1993	P includes significant Pb and Zn from Lark and U.S. mines, and other polymetallic replacement deposits. P(Mo) + R(Mo) = 1.26 M mt Mo	Randol, 1994
300	Midas	Bliss and Jones, 1988		
301	Tomboy-Minnie	Orris and others, 1987		Jeff Doebrich, pers. comm., 1995
302	Battle Mtn. district	Johnson, 1973a		
303	Dark Star	American Mines Handbook, 1994		

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304	Pipon Range - Cord Ranch	Nevada Mineral Industry, 1992		Randol, 1994
305	Seven Troughs district	Koschmann and Bergendahl, 1968; USBM Minerals Yearbook		
306	Wind Mountain	Nevada Mineral Industry, 1992; Amax Gold Inc. Annual Report, 1989; California Mining Journal, 10/89; Major Mines of Nevada, 1993		
307	Hilltop Mine	Nevada Mineral Industry, 1992		Randol, 1994
308	Trinity district	Nevada Mineral Industry, 1992		
309	Horse Canyon	Canadian Mining Journal, 2/88, p. 15; Mining Journal, 12/27/85, p. 475		Randol, 1994; Jeff Doebrich, pers. comm., 1995
310	Crescent Valley	American Mines Handbook, 1994	insufficient information	Randol, 1994
311	Ophir district	Rubright, 1978	P from 1.55 M t of ore	Randol, 1994
312	Tag Mine-Wildcat Prospect	Pay Dirt, 1989		
313	Cove - McCoy	Nevada Mineral Industry, 1992		Randol, 1994
314	Rochester-Spring Valley district	Johnson, 1973a	Contained Ag estimated from fineness	
315	Mercur	Stein and others, 1989		Randol, 1994
316	Robertson	Coral Gold Corp. Annual Report, 1989; Major Mines of Nevada, 1989; Coral Gold Corp. 3rd Quarter Report, 10/93; American Mines Handbook, 1994	adjacent to Tenabo	Randol, 1994
317	Tenabo	Nevada Mineral Industry, 1992		
318	Lights Creek	Storey, 1978	P from Engels and Superior mines; R for Moonlight Valley and Superior deposits	
319	Coeur Rochester	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993		Randol, 1994
320	Cortez Gold Mine	Nevada Mineral Industry, 1992	Includes Gold Acres, Little Gold Acres, and Horse Canyon deposits; all were mined and reported together (but are not located together)	Randol, 1994
321	Pipeline	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993		Randol, 1994; Stephen Peters, pers. comm., 1995
322	South Pipeline	Nevada Mineral Industry, 1992; Mining Record, 9/8/93		Randol, 1994
323	Crescent Mills district	Clark, 1970		
324	Relief Canyon	Nevada Mineral Industry, 1992		Randol, 1994
325	Buckhorn	Nevada Mineral Industry, 1992; Vanderburg, 1938; Major Mines of Nevada, 1993; Mining Record, v. 104, no. 41		Randol, 1994
326	Zeke	Northern Dynasty 1989 Annual Report		Randol, 1994
327	Cortez	Major Mines of Nevada, 1992	Not included with Cortez Gold Mine	Jeff Doebrich, pers. comm., 1995
328	Kinsley Consolidated	Nevada Mineral Industry, 1992		Randol, 1994
329	Bellview	American Mines Handbook, 1989		
330	Rich Gulch	Tooker and Vercoutere, 1986; Northern Miner, 1984, v. 71, no. 52, p. 33		Randol, 1994
331	Saddle (Toiyabe project)	Nevada Mineral Industry, 1992		Jeff Doebrich, pers. comm., 1995
332	White Pine	Nevada Mineral Industry, 1992		Randol, 1994
333	Bald Mountain	Nevada Mineral Industry, 1992		Randol, 1994
334	Little Bald Mountain	Nevada Mineral Industry, 1992		Randol, 1994
335	Tintic district	Morris, 1990	P from 17.3 M t of ore	Randol, 1994
336	Tonkin Springs	Nevada Mineral Industry, 1992		Randol, 1994
337	Dixie Comstock	Nevada Mineral Industry, 1992		Randol, 1994
338	Crypto	Lindsey and others, 1989; Ohlin and others, 1993		Randol, 1994
339	Golden Butte	American Mines Handbook, 1989-94	closed in 1992	Randol, 1994
340	Magalia district	Tooker and Vercoutere, 1986		
341	Fondaway Canyon	Nevada Mineral Industry, 1991; Nevada Mineral Industry, 1986		Randol, 1994
342	Gold Pick	Nevada Mineral Industry, 1992	Part of Gold Bar	Randol, 1994; Jeff Doebrich, pers. comm., 1995
343	Mount Hope	Carten and others, 1993	R(Mo) = 510 M mt @ 0.1% Mo	
344	Gold Canyon	Nevada Mineral Industry, 1992	Part of Gold Bar	Randol, 1994; Jeff Doebrich, pers. comm., 1995

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345	Alligator Ridge	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993		Randol, 1994
346	Plumas-Eureka	Clark, 1970		
347	Gold Bar	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1993	Includes Gold Canyon deposit	Randol, 1994
348	La Porte district	Tooker and Vercoetere, 1986		
349	Yankee Mine	Nevada Mineral Industry, 1991		Randol, 1994
350	Poker Flat district	Tooker and Vercoetere, 1986		
351	Olinghouse-Frank Free Canyons dist.	Orris and Bliss, 1985; Johnson, 1973a	Contained Ag estimated from fineness	
352	Cherokee Cr. dist.	Clark, 1970		
353	Sierra City district	Tooker and Vercoetere, 1986		
354	Detroit	Butler and others, 1920; Nutt and others, 1990	P from 2.72 M t of ore	
355	Forbestown district	Bliss and Jones, 1988		
356	Archimedes	Mining Engineering 12/94, v. 46, p. 1,320	bulk-mineable ore in a polymetallic replacement district	
357	Brush Creek	Clark, 1970		Randol, 1994
358	Alleghany district	Clark, 1970	some reserves at Bald Mtn. deposit	
359	Eureka district	American Mines Handbook, 1989; Roberts and others, 1967	Production from 1866 to 1901 (\$95 M), not included. R is for the Fad Shaft.	Jeff Doebrich, pers. comm., 1995
361	Gooseberry	Major Mines of Nevada, 1991		Randol, 1994
362	Oroville district	Orris and Bliss, 1985		
363	Sixteen-to-one	Clark, 1970		Randol, 1994
364	Oriental	Clark, 1970		Randol, 1994
365	Rainbow	Clark, 1970		
366	Plumbago	Bliss and Jones, 1988		
367	Talapoosa Mines	Nevada Mineral Industry, 1992; Lincoln, 1923		Randol, 1994
368	Wonder district	Pay Dirt, 2/89; USBM Minerals Yearbook		
369	Windfall	Nevada Mineral Industry, 1992		
370	Easy Junior - Nighthawk Ridge	Nevada Mineral Industry, 1992		Randol, 1994
371	Moore's Flat dist.	Orris and Bliss, 1985		
372	Pan	Alta Gold Co., 1989 Report		Randol, 1994
373	Ratto Canyon	Nevada Mineral Industry, 1986		
374	Austin Gold Venture	Nevada Mineral Industry, 1992		Randol, 1994
375	Brown's Valley district	Bliss and Jones, 1988		
376	N. Bloomfield dist.	Orris and Bliss, 1985		
377	Dinero	Bliss and Jones, 1988		
378	Alpha-Omega dist.	Orris and Bliss, 1985		
379	San Juan Ridge district	Orris and Bliss, 1985		
380	Comstock Lode district	Nevada Mineral Industry, 1992; Bonham, 1969		Jeff Doebrich, pers. comm., 1995
381	Lowell Hill district	Orris and Bliss, 1985		
382	Dutch Flat-Gold Run district	Tooker and Vercoetere, 1986		
383	Ely	Pay Dirt, 9/92; Eric Seedorff, pers. comm., 1995		Eric Seedorff, pers. comm., 1995
384	Mt. Hamilton	Nevada Mineral Industry, 1992		Randol, 1994

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385	Star Pointer	Nevada Mineral Industry, 1986		Randol, 1994
386	Hammonton district	Dodge and Loyd, 1984; Hillman and others, 1984		
387	Fire Angel	Horizon Gold, 1989 Annual Report		Randol, 1994
388	Silver City Placers district	Johnson, 1973a; Johnson, 1977		
389	Idaho-Maryland	Clark, 1970		Randol, 1994
390	Treasure Hill	Cox and Singer, 1992; Smith, 1976		
391	Grass Valley dist.	Bliss and Jones, 1988		
392	Golden Center	Clark, 1970		
393	You Bet district	Orris and Bliss, 1985		
394	Michigan Bluff district	Orris and Bliss, 1985		
395	Empire-Star	Clark, 1970		
396	Fairview district	Willden and Speed, 1974; Mining Engineering, 9/82, p. 1,316		
397	Western World	American Mines Handbook, 1994		Randol, 1994
398	Iowa Hill district	Tooker and Vercoetere, 1986; Orris and Bliss, 1985		
399	Green Springs	Nevada Mineral Industry, 1992		Randol, 1994
400	Herman	Bliss and Jones, 1988		
401	Forest Hill district	Clark, 1970		
402	Rising Sun	Bliss and Jones, 1988		Randol, 1994
403	Bruner district	Miramar Mining Corp, 1992; USBM Minerals Yearbook		
404	Ward	Alta Gold, 1989; Nevada Department of Minerals, 1992; American Mines Handbook, 1993		Randol, 1994
405	Taylor	Nevada Mineral Industry, 1988		Randol, 1994
406	Osceola district	Koschmann and Bergendahl, 1968		
407	MacArthur	American Mines Handbook, 1994		Randol, 1994
408	Osceola district	Johnson, 1973a		
409	Bear Prospect	Cox and others, 1981		
410	Rawhide-Regent district	Nevada Mineral Industry, 1992; Major Mines of Nevada, 1992; Mining Record, 4/28/93		
411	Golden Chest	Mitchell and Bennett, 1983; Randol, 1992; Spokesman-Review, 6/29/95	P @ 6.4 g Au/mt; R @ 1.74 g Au/mt	Spokesman-Review, 6/29/95
412	Hercules	American Mines Handbook, 1994; Earl Bennett, pers. comm., 1995	R @ 141.6 g Ag/mt, 0.5% Zn	

Appendix C. References cited in Appendix B: Table of metal production and resources of significant metallic mineral deposits of the Pacific Northwest

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A number of common reference works, primarily periodical in nature, and often lacking specific author attributions, are cited in Appendix B. Such citations are written out where possible, but abbreviated where necessary, as follows.

- AMH American Mines Handbook
- CMJ Canadian Mining Journal
- EMJ Engineering and Mining Journal
- ME Mining Engineering
- MJ Mining Journal
- MLA U.S. Bureau of Mines, Mineral Land Assessment Reports, MLA series.
- MM Mining Magazine
- MMN Major Mines of Nevada
- MR Mining Record
- NM The Northern Miner
- NMI The Nevada Mineral Industry
- PD Pay Dirt
- Randol Randol mining directory
- SK Skillings' Mining Review
- USBM YB U.S. Bureau of Mines, Minerals Yearbook
- WG Washington Geology

Appendix D. GIS documentation for digital maps showing significant metallic mineral deposits.

Introduction

Current data describing significant metallic mineral deposits was prepared for the Interior Columbia Basin Ecosystem Management Project (ICBEMP) in a GIS-compatible format for digital display, analysis, and distribution. The ARC/INFO point coverage, SIGNIF3, which describes 410 significant metallic mineral deposits in the Pacific Northwest is documented in this appendix.

Data Sources, Processing, and Accuracy

The sources of geologic information for the significant metallic mineral deposits are given both in [Table 3](#) of this report and in the digital point coverage, SIGNIF3.

The digital data from [Table 3](#) was first converted from an Excel 4.0 file format into a dBase IV file format, a format that is compatible with PC ARC/INFO. The *index*, *longitude* and *latitude* items were then dumped to an ASCII file and a point coverage was generated in PC ARC/INFO. The dBase IV data file was joined to the point coverage (using the *index* item as the joinitem) to create a fully attributed coverage. Finally, the coverage was projected to an Albers Equal Area map projection and exported to ARC/INFO on a UNIX platform.

The accuracy of site locations probably ranges from within 0.5 km to within 5 km. Latitudes and longitudes of most deposit site locations are from records in the Mineral Resource Documentation System of the U.S. Geological Survey (MRDS), and the accuracy and completeness of those records is variable. All deposit locations were checked for consistency between location by county and location by latitude and longitude. Many deposit locations were checked against information from other sources, including articles in the literature, information from state geologists, and locations indicated on maps at scales of 1:1,000,000 or larger.

GIS Documentation

Point attribute descriptions for SIGNIF3.PAT are as follows:

ITEM NAME	START COLUMN	ITEM LENGTH	ATTRIBUTE DESCRIPTION
index	17	5	Deposit ID (unique numeric identifier)
deposit	22	35	Deposit name
district	57	35	Mining district
county	92	15	County
state	107	5	State postal code
latitude	112	10	Site latitude (to 3 decimal places)
longitude	122	10	Site longitude (to 3 decimal places, negative for W longitude)
eru_nm	132	40	ICBEMP's Ecologic Reporting Unit name
eru	172	2	Ecologic Reporting Unit ID (numeric identifier that corresponds to Figure 2)
deposit_ty	174	55	Mineral deposit type
alt_dep_ty	229	70	Alternative mineral deposit type
status	299	6	Classification code describing current mine/deposit status. See text and Table 2 for an explanation of these codes.
tract_cov	305	15	<p>Polygon coverage that contains permissive and favorable tracts (as described by Box <i>et al.</i>, 1995) for the mineral deposit type listed in <i>deposit_ty</i>.</p> <p>This <i>tract_cov</i> item is the same as the <i>cover</i> item in the polygon coverages of Box <i>et al.</i> (1995).</p>
tract_no	320	5	<p>Tract ID (alphanumeric identifier) for permissive tract (as described by Box <i>et al.</i>, 1995) within which the deposit occurs.</p> <p>This <i>tract_no</i> item is the same as the <i>id</i> item in the polygon coverages of Box <i>et al.</i> (1995).</p>

ITEM NAME	START COLUMN	ITEM LENGTH	ATTRIBUTE DESCRIPTION
dep_loc_no	325	3	Deposit location ID (numeric identifier) used to identify deposit on its' respective mineral deposit type map in Box <i>et al</i> (1995).
au_prod	328	13	Gold production (descriptive text), in metric tonnes.
ag_prod	341	13	Silver production (descriptive text), in metric tonnes.
cu_prod	354	13	Copper production (descriptive text), in metric tonnes.
pb_prod	367	13	Lead production (descriptive text), in metric tonnes.
zn_prod	380	13	Zinc production (descriptive text), in metric tonnes.
co_prod	393	13	Cobalt production (descriptive text), in metric tonnes.
mo_prod	406	13	Molybdenum production (descriptive text), in metric tonnes.
pd_prod	419	13	Palladium production (descriptive text), in metric tonnes.
pt_prod	432	13	Platinum production (descriptive text), in metric tonnes.
cr_prod	445	13	Chromium production (descriptive text), in metric tonnes.
au_res	458	13	Gold resources (descriptive text), in metric tonnes.
ag_res	471	13	Silver resources (descriptive text), in metric tonnes.
cu_res	484	13	Copper resources (descriptive text), in metric tonnes.
pb_res	497	13	Lead resources (descriptive text), in metric tonnes.

ITEM NAME	START COLUMN	ITEM LENGTH	ATTRIBUTE DESCRIPTION
zn_res	510	13	Zinc resources (descriptive text), in metric tonnes.
co_res	523	13	Cobalt resources (descriptive text), in metric tonnes.
mo_res	536	13	Molybdenum resources (descriptive text), in metric tonnes.
pd_res	549	13	Palladium resources (descriptive text), in metric tonnes.
pt_res	562	13	Platinum resources (descriptive text), in metric tonnes.
cr_res	575	13	Chromium resources (descriptive text), in metric tonnes.
ni_res	588	13	Nickel resources (descriptive text), in metric tonnes.
n_au_prod	601	4	Gold production (numerical value), in metric tonnes. Zero value indicates no known production.
n_ag_prod	605	4	Silver production (numerical value), in metric tonnes. Zero value indicates no known production.
n_cu_prod	609	13	Copper production (numerical value), in metric tonnes. Zero value indicates no known production.
n_pb_prod	622	13	Lead production (numerical value), in metric tonnes. Zero value indicates no known production.

ITEM NAME	START COLUMN	ITEM LENGTH	ATTRIBUTE DESCRIPTION
n_zn_prod	635	13	Zinc production (numerical value), in metric tonnes. Zero value indicates no known production.
n_co_prod	648	13	Cobalt production (numerical value), in metric tonnes. Zero value indicates no known production.
n_mo_prod	661	13	Molybdenum production (numerical value), in metric tonnes. Zero value indicates no known production.
n_pd_prod	674	13	Palladium production (numerical value), in metric tonnes. Zero value indicates no known production.
n_pt_prod	687	13	Platinum production (numerical value), in metric tonnes. Zero value indicates no known production.
n_cr_prod	700	13	Chromium production (numerical value), in metric tonnes. Zero value indicates no known production.
n_au_res	713	4	Gold resources (numerical value), in metric tonnes. Zero value indicates no known resources.
n_ag_res	717	4	Silver resources (numerical value), in metric tonnes. Zero value indicates no known resources.

ITEM NAME	START COLUMN	ITEM LENGTH	ATTRIBUTE DESCRIPTION
n_cu_res	721	13	Copper resources (numerical value), in metric tonnes. Zero value indicates no known resources.
n_pb_res	734	13	Lead resources (numerical value), in metric tonnes. Zero value indicates no known resources.
n_zn_res	747	13	Zinc resources (numerical value), in metric tonnes. Zero value indicates no known resources.
n_co_res	760	13	Cobalt resources (numerical value), in metric tonnes. Zero value indicates no known resources.
n_mo_res	773	13	Molybdenum resources (numerical value), in metric tonnes. Zero value indicates no known resources.
n_pd_res	786	13	Palladium resources (numerical value), in metric tonnes. Zero value indicates no known resources.
n_pt_res	799	13	Platinum resources (numerical value), in metric tonnes. Zero value indicates no known resources.
n_cr_res	812	13	Chromium resources (numerical value), in metric tonnes. Zero value indicates no known resources.
n_ni_res	825	13	Nickel resources (numerical value), in metric tonnes. Zero value indicates no known resources.
references	838	100	Reference(s) used to obtain production and resource information.
comments	938	220	Comments pertaining to production and resource grades and/or tonnages.
status_sou	1158	50	Source(s) of information listed in the <i>status</i> item.

Obtaining Digital Data

The digital files which were used to make the significant metallic mineral deposits map are available as a GIS coverage and associated data files (*SIGNIF3.e00*). These data are maintained in the map projection used for all ICBEMP products:

Projection:	Albers Equal Area
1st Standard Parallel:	43° N
2nd Standard Parallel:	48° N
Central Meridian:	117° W
Origin of Projection:	41° N
Y-offset (false easting):	700,000 meters.

To obtain copies of the digital data, do one of the following:

1. Download the digital files from the USGS public access World Wide Web site on the Internet:

URL = http://wrgis.wr.usgs.gov/docs/northwest_region/ofr95-688.html

or

Anonymous FTP from: **wrgis.wr.usgs.gov**, in the directory:

pub/geologic/northwest_region/min_res/ofr95-688

These Internet sites contain the significant metallic mineral deposit GIS point coverage in ARC/INFO export file format (*SIGNIF3.e00*) as well as the associated ARC/INFO macro program (*SIGNIF3.aml*) which is used to plot the map at a scale of 1:2,000,000. Use of this data requires a GIS that is capable of reading ARC/INFO export formatted files and a computer capable of reading UNIX ASCII files. To use these files on a DOS computer, they must be put through a UNIX-to-DOS filter. Or,

2. Obtain the digital files from the ICBEMP project office from one of the locations given below:

Interior Columbia Basin Ecosystem Management Project
ATTN: Cindy Dean
112 E. Poplar Street
Walla Walla, WA 99362
(509) 522-4030

or from:

Bureau of Land Management
ATTN: Becky Gravenmeier, OR99.2
Oregon - Washington State Office
P.O. Box 2965
Portland, OR 97208
(503) 952-6273.

Obtaining Paper Maps

Paper copies of the significant metallic mineral deposits map are not available from the USGS at this time. However, with access to the Internet and access to a large-format color plotter, a 1:2,000,000-scale paper copy of the map can be made, as follows:

1. Download the digital files from the USGS public access World Wide Web site on the Internet:

URL = http://wrgis.wr.usgs.gov/docs/northwest_region/ofr95-688.html

or

Anonymous FTP from: **wrgis.wr.usgs.gov**, in the directory:

pub/geologic/northwest_region/min_res/ofr95-688

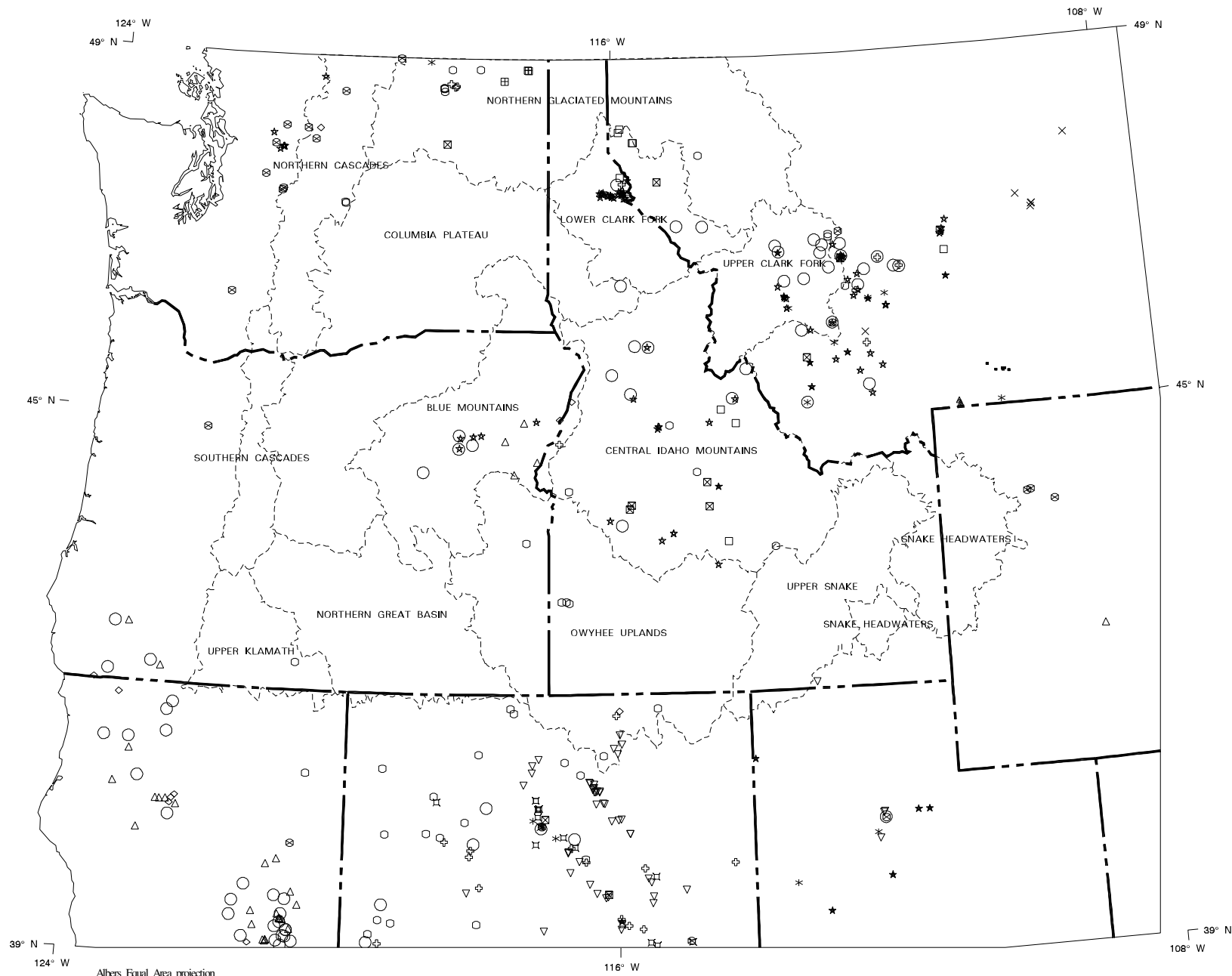
These Internet sites contain a file, **sigdep2m.hp**, which is in HPGL2 graphics language.

2. This file can be plotted by any large-format graphics plotter which can interpret the HPGL2 language. The finished plot is 29 by 38 inches.

Paper copies of the map can also be created by obtaining one of the versions of the digital files as described above, and then creating a plot file in a GIS.

-----	ICBEMP Ecological Reporting Unit (ERU) boundary		Polymetallic vein, Cu-Pb-Au Polymetallic vein, Idaho Batholith Au-Ag Polymetallic vein/dissemin., Idaho Batholith Au-Ag
	Significant metallic mineral deposits are deposits known to contain more than 2 mt Au or 85 mt Ag or 50K mt Cu or 30K mt Pb or 50K mt Zn or 1M mt of ore of other metals.	⊗	Porphyry Cu deposits - Includes Porphyry Cu Porphyry Cu, breccia pipe Porphyry Cu, skarn-related Porphyry Cu-Au, breccia pipe
	DEPOSIT TYPES	⊗	Porphyry Mo deposits - includes Porphyry Mo, Climax Porphyry Mo, Low-F
×	Alkaline Au-Te	▽	Sediment-hosted Au (Carlin type)
⊞	Distal disseminated Ag-Au	□	Sediment-hosted deposits - Includes Sediment-hosted Cu, Revett Sedimentary exhalative Blackbird Cu-Co Sedimentary exhalative Zn-Pb
○	Epithermal deposits - includes Epithermal vein, Comstock Epithermal vein, quartz-adularia Hot spring Au-Ag Hot spring Hg	*	Skarn deposits - includes Skarn Au Skarn Zn-Pb
▲	Homestake stratiform gold	⊕	Unclassified deposits - includes Overlook Unclassified
△	Low sulfide Au-quartz vein deposits - includes Low sulfide Au-quartz vein Low sulfide Au-quartz vein, Archean		
•	Magmatic deposits - includes Magmatic, Bushveld Cr Magmatic, Merensky PGE Magmatic, PGE-enriched stratiform chromitite Magmatic, Stillwater Ni-Cu		
◇	Massive sulfide deposits - includes Massive sulfide, Besshi Massive sulfide, Cyprus Massive sulfide, Kuroko		
⊞	Mississippi Valley, minor		
○	Placer Au		
*	Polymetallic replacement		
*	Polymetallic vein deposits - includes Polymetallic vein (porphyry-related) Polymetallic vein, Blue Mountains Au-Ag Polymetallic vein, Coeur d'Alene		

Significant Metallic Mineral Deposits - Explanation



SIGNIFICANT METALLIC MINERAL DEPOSITS