

STATE OF MONTANA
BUREAU OF MINES AND GEOLOGY
Francis A. Thomson, Director

MEMOIR No. 15

DIRECTORY OF MONTANA MINING PROPERTIES

Compiled under the direction of
F. C. GILBERT

Prepared in cooperation with the
MINING ASSOCIATION OF MONTANA



MONTANA SCHOOL OF MINES
BUTTE, MONTANA

December, 1935

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FOREWORD

This publication has been prepared in response to an insistent demand for an enumeration of the mining properties of the state. No attempt has been made to include coal mines or oil and gas wells. Neither have properties producing such non-metallic materials as clay, building stone, sand and gravel, gypsum, cement rock, phosphate, or limestone been listed in this directory. In fact, with minor exceptions, this is essentially a catalogue of metal producing properties only.

It is recognized at the outset that properties have been omitted that should have been included, and that probably the reverse is also true. Much of the information concerning the various properties has been compiled from statements sent in by the operators themselves, and although every effort has been made to verify its accuracy, the final responsibility rests with those who supplied the data.

Repeated requests to certain operators failed to meet with any response, and if any property has been omitted for this reason, it is not necessarily a reflection either on the operators or on their mining operation.

To all those who have cooperated by furnishing data and information, we express appreciation. To the Montana Relief Commission who supplied funds for stenographic and technical assistance, we are also indebted, as well as to the Mining Association of Montana.

The mining public of the state is earnestly requested to notify the Bureau of Mines and Geology of any important omissions or significant errors which may be detected, so that they may be corrected in subsequent editions.

Francis A. Thomson,
Director

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F. C. Gilbert

INTRODUCTION

The first authentic discovery of gold in Montana is generally conceded to be that by "Benetsee" Francois Finlay in 1858. Four years later, in 1862, James and Granville Stuart set up a string of sluices on Gold Creek, near the scene of Finlay's discovery, and the mining of precious and semi-precious metals has been carried on continuously since that time. New discoveries followed in rapid succession, and at present Montana boasts of over 175 distinct mining districts, scattered over an area of about 64,000 square miles—an area comparable in size to the combined New England States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. In point of production, some of these many districts have doubtless passed their peak, others remain undeveloped largely through inadequate roads, but many more are still quite active and will continue as important metal producing centers for years to come. With the increased price of gold and silver, there has been a substantial revival of small mining operations in many districts during the past few years.

Montana has produced a total of \$2,677,000,000 in metallic wealth since 1862. Although the Butte district overshadows all others in production, a substantial part of the total (\$515,000,000) is credited to districts outside of Silver Bow County. The average normal yearly output of the principal metals mined in Montana is valued at about \$55,000,000.

There has been a long-felt need for a list or directory of mines in Montana. The Directory of Montana Metal and Coal Mines* was naturally out-of-date and The Mines Handbook** does not include all Montana properties. Inquiries as to the status of certain mining companies are received daily by the Bureau of Mines and the Mining Association of Montana. Although this Directory is not concerned with the capitalization or stock issues of the mining companies which operate in Montana, this report has been so designed that other information regarding properties listed in the Directory can be quickly supplied the inquirer. It is believed that it would be greatly to the advantage of operator and investor alike to have reliable data concerning mining operations in Montana available in such a directory.

To fulfill this need, the officers of the Association decided that a list of the active mines and mining districts should be compiled. Lists had been prepared by Mr. Trauerman, president of the Mining Association of Montana, and by Mr. Samuel Barker, Jr., mining engineer of Butte. In August 1934, the Montana Bureau of Mines and Geology offered, as part of its services to the mining industry, to assume the cost of a clerk, postage, and stationery, provided the secretary of the Mining Association of Montana would undertake the direction of the work. Dr. Thomson's offer to cooperate with the Association was enthusiastically accepted. The postmasters of all the mining towns were asked to report the names of mines in their vicinity. Officials of the Anaconda Copper Mining Company and of the American Smelting and Refining Company at East Helena supplied lists of shippers for the past year or two. The back files of western mining journals were combed for names of mines and operating companies. Questionnaires were then sent to all known operators

* Directory of Montana metal and coal mines: Montana Bur. Mines and Metallurgy Bull. no. 2, 1919.

** The Mines Handbook, succeeding The Copper Handbook, founded in 1900 by Horace J. Stevens, and published periodically by The Mines Handbook Co., Inc., New York.

with a request that the signer, in addition to giving information on his own property, also list all the active mines in his neighborhood. It was found necessary to send out second and third requests for data from time to time, the early questionnaires having been mislaid or ignored.

The information given in the Directory is taken from the questionnaires sent by the mine operators, but has been condensed and arranged in a more or less uniform manner. In doing so, omissions and mistakes have doubtless been made. In many cases, the owners have not given sufficient detail on their properties. In addition to the data supplied directly from the owners or operators, a supplementary list of mining properties has been compiled from published reports. In general, production of ore at one time or another has furnished the basis for listing. Some mines or prospects are included, the description of which discloses important information regarding the nature of the ore deposits of the district. On account of the large number of mines which have been explored during a period of seventy-five years, it is not possible to include every mining operation.. Reference is made to geological and mining literature for use in the event that further details of mines or districts are desired.

It is realized that the work has not resulted in a complete list of active mines or mines which might again be worked if higher metal prices, better roads, or more adequate financing were available. The Bureau of Mines and the Mining Association hope to continue the work of keeping the Directory up-to-date and of publishing a revised Directory from time to time, and with the continued cooperation of mine operators, succeeding editions may be made much more accurate and comprehensive.

ACKNOWLEDGMENTS

Special acknowledgments are due the following people who have assisted in the preparation of the Directory: Members of Montana School of Mines faculty; Mr. Uno M. Sahinen, statistician, Montana Bureau of Mines and Geology; Mr. L. H. Margetts, superintendent, Washoe Sampler, Butte; Mr. J. D. MacKenzie, manager, East Helena Plant, American Smelting and Refining Company, East Helena; Mr. William Logan, president, and Mr. Pearl I. Smith, secretary, Beaverhead County Mining Association, Dillon; Mr. L. E. Griffith, Townsend; Mr. James Flint, Pony; Mr. J. E. Collette, Neihart; the late Mr. Sidney M. Logan, Kalispell; Mr. George B. Conway, Helena; Mr. Samuel Barker, Jr., Butte; Mr. Alex Leggat, Butte; Mr. Homer Bosworth, Virginia City; Mr. Raymond Rossiter, Sheridan; Mr. Stanley R. Moore, Wilborn; Mr. Robert Lindberg, Southern Cross; Mr. W. J. Patterson, Radersburg; Mr. F. A. Davis, Elliston; Mr. Mart Sullivan, Dixon; Mr. Robert Perey, Marysville; Mr. A. L. Harris, Virginia City; Mr. John Stuart, Bearmouth; Mr. Hans Fritzsche, Aachen, Germany; and Mr. Marcus D. Pruett, Whitehall. Thanks are also due to Miss Kathleen Smith for invaluable assistance in compilation of this Directory.

DESCRIPTION OF PROPERTIES

In the list of properties reported by owners or operators are included all those on which information has been obtained from questionnaires submitted to the operators or owners.

In the supplementary list of properties are included properties which have not been reported by the owners or operators, but which are known to have shipped, or which are described or mentioned in published reports. In order to effect the greatest condensation in tabulation of these properties, the kind of ore is indicated by chemical symbols for metals— these are: Au, gold; Ag, silver; Cu, copper; Pb, lead; Zn, zinc; Bi, bismuth; As, arsenic; Sb, antimony; W, tungsten; Mo, molybdenum; Pt, platinum; Cr, chromium; and Fe, iron. The year of last shipment is obtained from Mineral Resources of the United States, published by the U. S. Geol. Survey until 1924 and by the U. S. Bureau of Mines since that time. D.M. refers to reports of the Director of the Mint. The numbers under the heading "References" refer to the reports listed in the Bibliography at the end of this report. The Bibliography includes only the more important references to published information.

BEAVERHEAD COUNTY

Properties Reported by Owners or Operators

BADGER

OWNER: D. V. Erwin, Dillon, Mont. PROPERTY: 6 unpat. claims adjoining Ermont mine on the north in sec. 26, T. 6 S., R. 11 W. Argenta district. ORE: Gold, silver. DEVELOPMENT: Incline shaft. PLANT: Head-frame, hoist, skip, and tracks. MEN EMPLOYED: 3. REMARKS: Owner reports, "Operation started April 15, 1934. Production, 50 tons per week. Vein 6 ft. wide. Ore averages \$12.00 per ton in gold."

BON

OWNER: William Logon, Dillon, Mont. PROPERTY: 5 unpat. claims in sec. 32, T. 7 S., R. 11 W. Blue Wing district. ORE: Gold, silver. DEVELOPMENT: 800 ft. of adits and shafts. MEN EMPLOYED: 2. REMARKS: Owner reports, "100 oz. silver, \$0.60 gold per ton. Vein in blue limestone."

CHARTER OAK

OWNER: Foy Herr, Dillon, Mont. PROPERTY: 1 unpat. claim in sec. 4, T. 8 S., R. 11 W. Blue Wing district. ORE: Silver. DEVELOPMENT: 600 ft. of shafts and drifts. MEN EMPLOYED: 2. REMARKS: Vein in white crystalline limestone.

CRYSTAL GRAPHITE

OWNER: Pearl I. Smith, Dillon, Mont. PROPERTY: 8 claims 15 mi. E. of Dillon. Ruby district. ORE: Graphite. PLANT: Mill at Dillon for grinding and refining product. REMARKS: Last operated in 1930 when 4 men were employed.

DIADEM MINING COMPANY

OFFICERS: J. B. Chaney, Pres.; J. W. Williams, Vice-Pres.; J. F. Arnold, Sec. & Treas., Spokane, Wash. PROPERTY: 6 unpat. claims 6 mi. east of Wisdom, Mont. in Steel Creek and Dry Gulch. Wisdom district. ORE: Silver, gold. DEVELOPMENT: 600-ft. drift, 110 ft. of cross-cuts. MEN EMPLOYED: 4. REMARKS: Owner reports, "Ore carrying 6 to 500 oz. silver and \$2 to \$24 in gold per ton occurs in parallel veins associated with a large monzonite dike. Total depth attained about 200 ft. on dip of the vein. Secondary enrichment coming in at that depth. No past production; mine in development stage. Good road to property, water and timber ample."

DOODLE BUG

OWNERS: W. T. Scully and John Holm, Dillon, Mont. PROPERTY: 2 unpat. claims in French Gulch, located June, 1934. Argenta district. ORE: Gold, silver. MEN EMPLOYED: 2.

ERMONT

OWNERS: R. B. Caswell and family, Reedsport, Oregon; J. R. Bowles and F. C. Gram, Box 108, Portland, Oregon. PROPERTY: 33 unpat. claims, 15 mi. W. of Dillon in sec. 30, T. 6 S., R. 11 W. Argenta district. ORE: Gold, silver. DEVELOPMENT: 1 open pit, 52 by 100 ft., shafts, 20 prospect holes. PLANT: Offices, cabins, hoist, and ore bins. REMARKS: Owner reports, "Last operated Sept. 1933, when 20 men were employed. Ore assays 0.34 to 2.55 oz. gold per ton, 0.1 to 1.3 oz. silver per ton."

FERDINAND

OWNERS: W. D. Ross, Theodore Nelson, and Martin Sorenson, Dillon, Mont. PROPERTY: 4 pat. claims in SE $\frac{1}{4}$ sec. 29, T. 6 S., R. 10 W. Argenta district. ORE: Lead, silver, zinc. DEVELOPMENT: 90-ft. shaft, 100-ft. adit. MEN EMPLOYED: 6. REMARKS: Owner reports, "Production, about 40 cars."

GLADSTONE

OWNERS: J. E. Morse Estate, Dillon, Mont.; G. W. French, Argenta, Mont., and Amede Bessette Estate, Bannack, Mont. LESSEES: Duquette & Ponce, Leo L. Duquette, Argenta, Mont. PROPERTY: 2 pat. claims 14 mi. W. of Dillon. SE $\frac{1}{4}$ sec. 13, T. 6 S., R. 11 W. Argenta district. ORE: Gold. DEVELOPMENT: 4 shafts, one 66 ft. deep; drifts. MEN EMPLOYED: 2.

GOLD BUG

OWNER: Tom McDonald, Bannack, Mont. PROPERTY: 1 pat. claim. Bannack district. ORE: Gold. DEVELOPMENT: 400 ft. of adits. MEN EMPLOYED: 6. REMARKS: Owner reports, "Last car shipped netted \$30."

GOLD BUTTON

OWNER: Clayton Vance, Bannack, Mont. PROPERTY: 3 unpat. claims. Bannack district. ORE: Gold.
REMARKS: Idle in 1934.

GOLD FINCH

OWNER: A. H. French, Argenta, Mont. LESSEES: Gold Finch-Clark Canyon Mining Syndicate, R. M. Fleming, Gen. Mgr., Argenta, Mont. PROPERTY: 8 unpat. claims in Clark Canyon 3 mi. NW. of Argenta, NW. $\frac{1}{4}$ sec. 24, T. 6 S., R. 11 W. Argenta district. ORE: Gold, silver, lead. DEVELOPMENT: 3 shafts, 100, 65, and 85 ft. deep; 700 ft. of drifts. PLANT: 20-ton flotation and table concentration mill. MEN EMPLOYED: 10.
REMARKS: Owner reports, "Gold, 3 oz.; silver, 5 oz.; lead 3%. Vein 6 ft. wide."

GRASSHOPPER PLACER, NO. 1 AND NO. 2

OWNERS: E. R. Gleed and J. L. McRenney, Lima, Mont. PROPERTY: 6 unpat. claims in sec. 29, T. 8 S., R. 10 W. Bannack district. MEN EMPLOYED: 3. REMARKS: Owner reports, "150 cubic yds. sluiced in 1934."

GRASSHOPPER GULCH PLACER

OWNER: George R. Metlen, Dillon, Mont. PROPERTY: 2 pat. and 8 unpat. claims in Grasshopper Gulch, T. 8 S., Rs. 10 and 11 W. Bannack district. REMARKS: Owner reports, "\$350,000 in gold has been taken out of White's Bar Placer on creek bed. Grasshopper Gulch placers have an area of about 600 acres of which 15 acres have been worked." Idle in 1934.

GROUND HOG

OWNERS: Ground Hog Mining Syndicate, Elliot R. Henderson, Ben R. Jones, Dillon, Mont.
PROPERTY: 1 pat. and 6 unpat. claims 8 mi. from Argenta, sec. 18, T. 6 S., R. 10 W. Argenta district.
ORE: Gold, silver, lead, zinc. DEVELOPMENT: 5 shafts, 70 to 300 ft. deep, 200-ft. adit, 200-ft. drift.
MEN EMPLOYED: 3. REMARKS: Vein on contact between quartzite and limestone.

GULCH PLACER

OWNERS: W. H. Perkins and L. M. Eberline, Dillon, Mont. PROPERTY: 1 unpat. claim on Grasshopper Creek 4 mi. SE. of Bannack. Bannack district. REMARKS: Owner reports, "1,000 ft. were worked in 1934, producing \$759.68 in gold from March 10 to August 10."

HECLA (FORMERLY HECLA CONS., MIN. CO.)

OWNER: George B. Conway, 29 Pittsburgh Block, Helena, Mont. PROPERTY: 16 pat., 1 unpat., and 2 fractional claims, and 13 mill sites 16 mi. W. of Melrose, Bryant district. ORE: Gold, silver, lead, zinc.
DEVELOPMENT: 12 to 14 mi. of adits, inclined shafts, and drifts. MEN EMPLOYED: 7 or 8 lessees.
REMARKS: Ore along limestone contacts. Formerly operated by Hecla Cons. Min. Co. Reference, 39:86.

HENDRICKS

OWNER: C. W. Stallings, Graeter Park Realty Co., Dillon, Mont. PROPERTY: 1 pat. claim near Bannack. Blue Wing district. ORE: Gold. DEVELOPMENT: 600 ft. of adits. PLANT: 50-ton ball mill.
MEN EMPLOYED: 5. REMARKS: Free milling ore. Owner reports, "Production \$40,000."

HURON

OWNER: F. F. Sinnott, Dillon, Mont. PROPERTY: 7 unpat. claims, sec. 28, T. 7 S., R. 11 W. Blue Wing district. ORE: Silver. DEVELOPMENT: 700-ft. adit. MEN EMPLOYED: 2. REMARKS: Quartz veins in limestone.

INGERSOLL AND SILVER ROSE

OWNERS: Amede Bessette Estate, Montreal Can.; W. M. Corbett, F. E. Herr, and C. Innes, Dillon, Mont. PROPERTY: 5 unpat. claims in sec. 4, T. 7 S., R. 11 W. Blue Wing district. ORE: Silver, gold.
DEVELOPMENT: 1,500 ft. of adits and shafts. MEN EMPLOYED: 4. REMARKS: Owner reports, "Last shipment carried 24 oz. of silver and 1.76 oz. of gold per ton." Quartz veins in limestone.

IRON MASK

OWNER: Iron Mask Mining Co., Dillon, Mont. PROPERTY: 1 pat. claim in SW. $\frac{1}{4}$ sec. 28, T. 7 S., R. 11 W. Blue Wing district. ORE: Silver. DEVELOPMENT: 200-ft. shaft, 3 adits. REMARKS: Idle in 1934.

JAKE

OWNERS: W. D. Ross and C. M. Ross, Dillon, Mont. PROPERTY: 1 unpat. claim about 3 mi. from Argenta, Argenta district. ORE: Gold, silver, lead. DEVELOPMENT: 100-ft. shaft, drift. MEN EMPLOYED: 2.

J. M. C.

OWNER: J. A. McCollum, Dillon, Mont. PROPERTY: 3 claims 17 mi. W. of Dillon. Argenta district. ORE: Gold, silver, lead. DEVELOPMENT: 280 ft. of cross-cut. REMARKS: Owner reports, "59 to 60 oz. silver and 40% lead per ton." Idle in 1934.

LIVELY

OWNERS: B. H. Lively and L. B. Lively, Box 96, Melrose, Mont. PROPERTY: 7 unpat. lode claims, 60 acres placer 19 mi. from Grant P. O. on Jeff Davis Cr. Chinatown district. REMARKS: Owner reports, "Gold occurs in porphyry dikes assaying \$2 to \$6 per ton. Placer ground estimated to contain \$0.35 to \$0.50 of gold per yard. 2,000 yards sluiced in 1932 yielding \$800.70. Bedrock of lower placer is decomposed porphyry. No large boulders, overburden 4 to 12 ft." Lode mine worked in 1933. Idle in 1934.

LONE WOLF

OWNERS: Myrl Erwin, Dillon, Mont. and Sarah Caswell, Reedsport, Ore. PROPERTY: 6 unpat. claims adjoin Ermont and Badger mines, Argenta district. ORE: Gold, silver. DEVELOPMENT: Several shallow shafts and trenches. MEN EMPLOYED: 10. REMARKS: Owner reports, "Ore assays 0.15 to 0.90 oz. gold and 0.7 to 1.5 oz. silver per ton."

MIDNIGHT

OWNER: Monida Trust Co., W. S. K. Brown, Pres.; Walter H. Linforth; Vice-Pres.; James E. Murray, Min. Agent; R. B. LaLande, Sec., Butte, Mont. PROPERTY: 2 pat. claims, SE. ¼ sec. 13, T. 6 S., R. 11 W. REMARKS: Idle in 1934.

NEVADA

OWNER: C. N. Roberts, Dillon, Mont. PROPERTY: 4 unpat. claims in Jake's Canyon. Blacktail district. ORE: Silver. DEVELOPMENT: 130 ft. of drifts and adits. MEN EMPLOYED: 4. REMARKS: Owner reports, "8 carloads of ore assaying 25 to 30 oz. of silver per ton shipped in 1933 and 1934 from surface." Ore occurs in numerous scattered boulders of large size.

NEW DEPARTURE

OWNER: J. L. Templeman, Butte, Mont. LESSEE: Harry Hickey, Dillon, Mont. PROPERTY: 7 unpat. claims and a pat. mill site. Blue Wing district. ORE: Gold, silver, lead, zinc. DEVELOPMENT: 1 mi. of adits, drifts, raises. MEN EMPLOYED: 6 to 10. REMARKS: Owner reports, "Veins 1 in. to 10 ft. thick occur in limestone, ore assays up to 750 oz. silver per ton. Production over \$1,000,000. Last shipment 99.8 oz. of silver per ton." Reference, 30:36.

NORTH STAR

OWNER: J. L. Templeman, Butte, Mont. PROPERTY: 5 unpat. claims about 1½ mi. W. of Dickey's Bridge, secs. 9 and 10, T. 1 N., R. 12 W. Wisdom district. ORE: Gold. DEVELOPMENT: 1,000 ft. of drifts on the vein. MEN EMPLOYED: 3. REMARKS: Flat quartz vein in quartzite, width 18 in. to 2 ft.

ORO FINO

OWNERS: Hurley Leach, Bill German, and Matt Orr, Dillon, Mont. PROPERTY: 4 unpat. claims on Rattlesnake Creek. Argenta district. ORE: Gold. DEVELOPMENT: 50-ft. shaft and drift. Several open cuts on surface. 1,200-ft. cable way. REMARKS: Gold-bearing iron oxide ore in andesite and quartzite, vein 2 to 4 in. on foot wall. Owner reports, "Smelter returns on shipment of 16 tons, \$1,300." Idle in 1934.

PARK

OWNER: John H. Shafer, Jr., Argenta, Mont. PROPERTY: 9 unpat. claims 7 mi. W. of Argenta. Argenta district. ORE: Gold. DEVELOPMENT: Adits and trenches. MEN EMPLOYED: 5. REMARKS: Quartz ore.

PINE TREE

OWNER: Harry Renz, Argenta, Mont. PROPERTY: 1 unpat. claim 6 mi. N. of Argenta. Argenta district. ORE: Silver, lead. DEVELOPMENT: Adits. MEN EMPLOYED: 5 lessees.

QUARTZ HILL (ARGYLE)

OWNER: Quartz Hill Mining Co., Selden S. Rodgers, Vice-Pres. & Gen. Mgr., Anaconda, Mont. PROPERTY: 22 pat. and 6 unpat. claims about 6 mi. S. of Dewey and 12 mi. from Divide, SW. ¼ sec. 30, T. 1 S., R. 11 W. Vipond district. ORE: Silver, gold quartz. DEVELOPMENT: 600-ft. Inclined shaft, about 3,000 ft. of drifts, raises, etc. MEN EMPLOYED: 13. PLANT: 30 h. p. gasoline hoisting engine, 310-cubic ft. Gardner-Denver portable compressor. REMARKS: Owner reports, "Formerly known as Jay Hawk and Lone Pine Consolidated, Ltd. Operated in 1890-93. Now shipping 300 tons per month."

RUTH

OWNER: W. Logan, Dillon, Mont. PROPERTY: 6 unpat. claims in SW. $\frac{1}{4}$ sec. 33, T. 7 S., R. 11 W. Blue Wing district. ORE: Gold, silver. DEVELOPMENT: 3 adits, one 400 ft. long. MEN EMPLOYED: 4. REMARKS: Owner reports, "Last shipment carried 40 oz. silver and \$2 gold per ton." Ore in limestone.

SILVER WATER

OWNER: G. V. Elder, part owner and lessee, Dillon, Mont. PROPERTY: 5 pat. and 9 unpat. claims, $\frac{1}{2}$ mi. SW. of Argenta. Argenta district. ORE: Gold, bismuth. DEVELOPMENT: 52-ft. shaft, 70-ft. drift. MEN EMPLOYED: 1. REMARKS: Vein 43 ft. wide.

SIR WALTER SCOTT

OWNER: G. V. Elder, Argenta, Mont. PROPERTY: 5 pat. and 9 unpat. claims. Argenta district. ORE: Gold, silver, lead, bismuth. DEVELOPMENT: Two 55-ft. shafts, 600 ft. of adits. MEN EMPLOYED: 3. REMARKS: Owner reports, "23-ft. vein in limestone."

STARLIGHT

OWNER: J. L. Templeman, Butte, Mont. PROPERTY: 10 pat. and 10 unpat. claims in Bloody Dick Creek canyon 3 mi. E. of Brenner Station on Pittsburgh and Gilmore R. R. Bloody Dick district. ORE: Gold, silver. DEVELOPMENT: Adits and drifts. MEN EMPLOYED: 2. REMARKS: Owner reports, "Veins in gneiss, quartzite, and limestone. Numerous veins up to 50 ft. thick."

STRINGER

OWNER: G. A. Taylor, Argenta, Mont. PROPERTY: 4 unpat. claims, NW. $\frac{1}{4}$ sec. 21, T. 6 S., R. 10 W. Argenta district. ORE: Gold. DEVELOPMENT: 3 shafts, 1 adit. MEN EMPLOYED: 2.

THOMPSON GOLD MILLING COMPANY

OWNER: Thompson Gold Milling Co., Bannack, Mont., J. A. Thompson, Pres.; F. C. Brewer, Vice-Pres. & Treas.; Norton Clapp, Sec., Tacoma, Wash.; J. F. Hancock, Gen. Supt., Bannack. PROPERTY: 20 pat. and 7 unpat. claims. Bannack district. ORE: Gold. DEVELOPMENT: Adits, drifts, and crosscuts. PLANT: 125-ton counter-current decantation cyanide mill. MEN EMPLOYED: 40.

VANADINITE

OWNERS: Mrs. Roscoe Taylor, A. L. Woodside, and F. C. Gilbert, 1211 W. Diamond St., Butte, Mont. PROPERTY: 1 unpat. claim on Dyce Creek 6 mi. SE. of Polaris. Polaris district. ORE: Gold, silver, copper, lead, vanadium. DEVELOPMENT: 3 shafts, 20, 60, and 40 ft. deep; 2 adits, 250 and 40 ft. long; 30-ft. drift. MEN EMPLOYED: 2. REMARKS: Owner reports, "Sample of ore was submitted to the Montana School of Mines which reported the presence of vanadinite. Dump ore assays 2% vanadium with gold, silver, lead, and a small amount of copper." Men employed sorting dump ore.

VANGUARD

OWNERS: Adolph Palinish, Wm. Palinish, S. M. Starr, George Pyle, and Andy Pyle, Polaris, Mont. PROPERTY: 5 unpat. claims 2 mi. S. of Polaris. Polaris district. ORE: Gold, silver. DEVELOPMENT: 2 adits, 640 and 200 ft. long; 3 shafts, 30, 35, 30 ft. deep, and 143 ft. of cross-cuts. PLANT: Compressor, machine-drills, 700 ft. of pipe, and small machinery. MEN EMPLOYED: 2.

WEST SHORE

OWNERS: J. A. McCollum, J. F. Bishop, M. B. Thompson, Lenore McCollum, Dillon, Mont. PROPERTY: 1 pat. claim in sec. 7, T. 13 S., R. 7 W. near Dell. ORE: Gold, copper. DEVELOPMENT: 40-ft. adit, 100-ft. open cut. MEN EMPLOYED: 4. REMARKS: Owner reports, "Shipment of ore made from time to time."

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Ajax	Ajax	Pb,Ag	39:78	Dies Creek Placer	Bald Mtn.	Au	MR.1915
Alaska	Utopia	Ag	MR.1884	Dillon (Argenta Min. Co.)	Argenta	Pb,Ag	39:68
Anaconda	Argenta	Pb	MR.1927				
Argenta	Argenta	Pb,Ag	30:75	Double Eagle Placer	Bald Mtn.	Au	MR.1930
Aurora	Vipond	Ag	MR.1933	Elsie	Bald Mtn.	Au	MR.1930
Baltic	Bloody Dick	Cu	MR.1917	Elk	Vipond	Ag	10:27
Bartholdi	Bald Mtn.	Au	10:27	Elkhorn	Elkhorn	Pb,Cu,Ag	39:168
Bella	Argenta	Pb,Cu	30:77	Emerald	Bald Mtn.	Au,Ag	39:76
Benton	Vipond	Ag	39:79	Evans	Vipond	Ag	MR.1909
Big Snowy	Vipond	Au	MR.1915	Excelsior (Original-Bannack Min. Co.)	Bannack	Au	39:75
Blue Bird (So. African Develop. Corp.)	Blacktail	Cu	MR.1923	Fairview	Utopia		39:63
Blue Grass	Bannack	Au	30:42	Faithful	Bald Mtn.	Graphite	39:106
Bonanza	Vipond	Ag	DM.1883	Garnett	Bald Mtn.	Au,Ag	10:27
Bonny Court Placer	Bannack	Au	MR.1933	Gold Coin	Vipond	Au,Ag	10:27
Brick Pomeroy	Elkhorn		MR.1908	Gold Crown	Bannack	Au	MR.1933
Bright Smile	Argenta	Au	MR.1931	Gold Day	Argenta	Au	39:67
Brownell	Argenta	Pb	30:64	Golden Era	Argenta	Pb,Ag,Au	30:72
Butte-Argenta	Argenta	Pb	MR.1925	Golden Leaf			
Cable	Bald Mtn.	Au	10:27	(Royal Dutch Metals Develop.)	Bannack	Au	39:74
Carbonate	Argenta	Ag,Pb	30:71	Goldsmith	Argenta	Cu,Au	30:67
Central	Elkhorn	Pb,Cu	39:178	Goldstone	Beaverhead	Au,Cu	39:77
Chief & Ida	Utopia	Cu,Ag	MR.1917	Gray Jockey	Vipond	Ag	10:23
Clipper	Bryant	Cu	MR.1918	Greely	Vipond	Ag	DM.1833
Chipmunk	Vipond	Ag	DM.1883	Greenstone	Utopia	Cu,Ag	39:63
Cochran	Polaris	Ag	MR.1919	Hamilton	Chinatown	Pb,Au	MR.1933
Colonel Ingersoll	Blue Wing	Ag	MR.1918	Handy Andy	Vipond		
Columbia	Bryant	Cu	MR.1919	Hard Luck	Argenta	Pb,Ag	MR.1910
Coolidge	Argenta	Pb,Ag	30:67	Hard Luck Placer	Bannack	Au	MR.1910
Copper Bell	Argenta	Cu,Ag,Au	30:77	Hattie J. Placer	Chinatown	Au	MR.1933
Cottontail	Blue Wing	Au,Ag	MR.1917	Hayseed	Argenta	Pb	MR.1933
Dakota	Polaris	Au,Ag	MR.1910	Head	Argenta	Pb,Ag	MR.1915
Dark Horse (Calumet-Montana Min. Co.)	Bloody Dick	Cu	39:77	Horse Prairie Placer	Bloody Dick	Au	MR.1924
DeCelles (Butte-Vipond Min. Co.)	Vipond	Au	MR.1921	I. B. Min. Co.	Bannack	Au	MR.1930
Del Monte	Blue Wing	Ag	39:71	Indian Queen	Utopia	Ag,Cu	39:63
Dexter	Argenta	Pb,Ag	30:74	Ingersoll	Elkhorn	Ag,Cu	MR.1909

* Explanation of References: MR.1916 signifies that reference is made to the 1916 volume of the "Mineral Resources of the United States," and also that 1916 is the year of last reported shipment, so far as known. In 1932, "Mineral Resources" was changed to "Minerals Yearbook," and for years following, MR. refers to that publication. DM.1916 refers in a similar manner to the reports of the Director of the Mint. A numbered reference, such as 39:78, refers to reports listed in the Bibliography at the end of the directory—the first number denoting the list number of the report, and the second number to the particular page of that report to which reference is made.

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Iron Mountain	Argenta	Pb	30:68	Owl	Bloody Dick	Au,Ag	MR.1928
Ivanhoe & Franks	Brown's Lake	Cu	MR.1929	Park	Elkhorn	Fe,Au,Ag	39:170
I. X. L. Placer	Bloody Dick	Au	MR.1926	Paul Placer	Monida	Au	MR.1923
Jack Rabbit	Argenta	Au,Cu,Ag	20:76	Penobscot Min. Co.	Bryant		MR.1914
Jahnke	Bloody Dick	Pb,Cu	39:77	Pilgrim	Argenta		MR.1927
Jake Creek	Jake Creek	Ag	MR.1923	Pilon	Argenta	Ag	MR.1920
Jannie's Bar Placer	Bannack	Au	MR.1933	Pioneer	Beaverhead	Au,Cu	39:77
Kelly	Bloody Dick	Ag	MR.1912	Pioneer Placer	Pioneer	Au	
Kent	Blue Wing	Ag	39:70	Polaris (Silver			
Legal Tender	Argenta	Ag,Pb	30:63	Fissure Co.)	Polaris	Ag	MR.1922
Limon & Beck	Blue Wing		MR.1922	Pomeroy	Blue Wing	Pb,Ag	30:37
Little Bear	Argenta	Pb	MR.1933	Puzzler	Bloody Dick	Cu	39:76
Little Bell	Bald Mtn.	Au	10:26	Queen of the Hills	Vipond	Ag	39:79
Little Bell Placer	Bannack	Au	MR.1921	Randall	Blue Wing	Ag,Pb	30:37
Little Goldie	Vipond	Ag	10:27	Red Rock	Nogo	Ag	MR.1913
Little Nugget				Rena	Argenta	Pb,Au	30:72
Placer	Wisdom	Au	MR.1930	Saginaw	Saginaw	Cu	MR.1917
Lone Pine	Vipond	Ag	DM.1883	Silver Fissure	Polaris	Ag,Au	39:76
Lookout	Bannack	Au	39:75	Silver King	Utopia	Ag,Cu	MR.1912
Lucky Boy	Bald Mtn.	Graphite	39:106	Silver Star	Blue Wing	Ag	30:38
Mammoth	Vipond			Sleeping Princess	Bannack		MR.1930
Mauldin	Argenta	Pb	30:65	Slide Rock	Vipond	Ag	10:27
Mayflower	Bald Mtn.	Au	10:26	Stanley	Argenta	Au	MR.1933
McConnell	Elkhorn	Ag,Cu	39:169	Star	Elkhorn	Au	MR.1933
Metal Mines De-				Sulfide	Bald Mtn.	Ag	MR.1921
velop. Co.	Bannack	Ag	MR.1922	Sunshine	Beaverhead	Ag	MR.1915
Mewonitoc	Vipond	Ag	DM.1881	Tacoma	Chinatown	Au,Ag	MR.1909
Midway	Bloody Dick	Au,Ag,Cu	39:76	Tilden	Argenta	Pb,Ag	30:60
Millionaire	Nogo	Pb,Ag,Au	MR.1921	Tillie	Vipond	Ag	MR.1915
Montana-Apex	Elkhorn	Ag,Cu	MR.1909	Tuscarora Min. &			
Monument	Bloody Dick	Cu	39:76	Smelt. Co. (Great			
Mountain View	Bryant	Ag	MR.1919	Western Develop,			
Nancy Ann	Vipond	Ag	MR.1933	Co.)	Argenta	Ag,Pb	30:59
New Discovery	Wisdom	Au,Ag	MR.1926	Wadams	Bannack	Pb,Cu,Ag	39:75
New Discovery				Watson Placer	Argenta	Au	MR.1926
Placer	Wisdom	Au	MR.1917	West Side	Vipond	Ag	10:27
Old Faithful	Bald Mtn.	Ag	10:25	Wheal Rose	Blue Wing	Pb,Ag	30:38
Old Paymaster	Argenta	Pb,Ag	MR.1926	Witherspoon	Bald Mtn.	Au	10:27
Oro Fino	Bald Mtn.	Au	10:27	Yellow Bird	Argenta	Pb,Ag	MR.1926

BLAINE COUNTY

Properties Reported by Owners or Operators

GOLD HILLS MINING COMPANY

OWNER: Gold Hills Mining Co., D. C. Kenyon, Sec. & Treas., Chinook, Mont. PROPERTY: 7 claims.

Bearpaw district. ORE: Gold, silver. DEVELOPMENT: Open cuts and prospect shafts, 45 ft. of shafts.

MEN EMPLOYED: 3.

BROADWATER COUNTY

Properties Reported by Owners or Operators

ALLEN

OWNERS: State Bank of Townsend and others, Townsend, Mont. PROPERTY: 1 pat. claim 3½ mi. S. of Radersburg. Radersburg district. ORE: Gold, silver. DEVELOPMENT: 140-ft. shaft, drifts. REMARKS: Owner reports, "Oxidized ore assaying \$75 per ton in gold above 80-ft. level, sulphide ore below 80-ft. level. Fissure veins in andesite carrying \$25 per ton. Production, \$40,000." Idle in 1934. Reference, MR.1933.

BIG CHIEF SYNDICATE

OWNER: Herschel James, Simms, Mont. PROPERTY: 10 unpat. claims in White Horse Gulch, Park district.

BLACK FRIDAY

OWNER: J. L. Templeman, Butte, Mont. PROPERTY: Near Radersburg. Radersburg district. ORE: Gold, silver. DEVELOPMENT: 700-ft. shaft, drifts at each 100-ft. level. REMARKS: Owner reports, "Production about \$500,000." Idle in 1934.

BLACKSMITH

OWNERS: Hugh and John Carter, Townsend, Mont. LESSEES: Wyoming-Mont. Mines Co., Lovell, Wyo.; W. G. Mason, Mine Supt., Townsend, Mont. PROPERTY: 4 pat. claims. Park district. ORE: Gold, silver. DEVELOPMENT: Several shafts, one 250 ft. deep, 400 to 500 ft. of drifts in ore on 150-ft. level. MEN EMPLOYED: 3 to 9.

BLUE BUCKET

OWNER: B. C. Lanning, Box 43, Winston, Mont. PROPERTY: 2 unpat. claims 2 mi. SW. of Winston. Winston district. ORE: Gold, silver. DEVELOPMENT: 3 adits on 2 veins, each 100 ft. long. MEN EMPLOYED: 2. REMARKS: Owner reports, "High-grade ore \$79 to \$203 per ton. Numerous faults."

CHAMPION

OWNER: John A. Roos, Winston, Mont. PROPERTY: 2 unpat. claims 9 mi. W. of Winston. Winston district. ORE: Gold. REMARKS: Idle in 1934.

CUSTER

LESSEE: Custer Mining Co., John A. Roos, Winston, Mont. PROPERTY: 8 pat. claims 2 mi. W. of Winston. Winston district. ORE: Gold, silver, lead. MEN EMPLOYED: 5. REMARKS: Men sampling dumps and surface workings in 1934.

DIAMOND CITY PLACER

OWNER: Diamond City Mines Co., Townsend, Mont., M. A. Ellis, Vice-Pres. PROPERTY: 10 pat. claims in Confederate Gulch. Confederate Gulch district. DEVELOPMENT: Several miles of ditches. PLANT: About 1 mi. of steel pipe, 4 hydraulic giants, gates, etc. MEN EMPLOYED: 12. Reference, MR.1931.

DIAMOND HILL

OWNER: L. E. Griffith, Townsend, Mont. PROPERTY: 12 mi. W. of Townsend. Park district. ORE: Gold, silver. DEVELOPMENT: 2 open pits, 2,800 ft. transportation adit. REMARKS: Idle in 1934.

EAST PACIFIC

OWNER: Montana Cons. Mines Corp., C. D. Wason, Pres., Seattle, Wash.; Gust Carlson, Vice-Pres. & Mgr., Duluth, Minn.; Lars Carlson, Sec. & Treas., Helena, Mont.; H. J. Johnson, Acct. & Transf. Agt., Helena, Mont. PROPERTY: 8 pat. and 2 unpat. claims 6 mi. SW. of Winston. Winston district. ORE: Lead, silver, gold. DEVELOPMENT: 400-ft. main level, winze, 4 lower levels. REMARKS: Last operated in 1930.

ETTA

OWNER: Charles Dunne, Townsend, Mont. OPERATOR: W. G. Mason, Townsend, Mont. PROPERTY: 2 unpat. claims and unpat. fractions on Giant Hill 11 mi. W. of Townsend. Park district. ORE: Lead, manganese, gold. DEVELOPMENT: Sundry shafts and adits. REMARKS: Owner reports, "Mine worked in 70's and 80's. Several dumps of milling ore left." Idle in 1934. Vein in andesite.

GOLD KING MINING COMPANY

OWNER: Gold King Mining Co., Charles P. Day, Pres., E. Orange, N. J.; O. I. DeSchon, Vice-Pres., Great Falls, Mont.; Graham H. Jackson, Treas., Green Pond, N. J.; E. J. McCabe, Sec., Great Falls, Mont.
PROPERTY: 3 pat. and 10 unpat. claims 7 mi. SW. of Winston. Winston district. ORE: Gold, silver, lead.
DEVELOPMENT: 125-ft. shaft; 3 adits, 750, 250, 250 ft. long; 1,000 ft. of drifts; 155-ft. winze.
PLANT: Air compressor, machine drills, buildings, blacksmith shop, cabins, hoist. MEN EMPLOYED: 8.
REMARKS: Owner reports, "Water and timber available. Power line passes over property."

GRANITE MOUNTAIN

OWNERS: Johnson Brothers, Toston, Mont. PROPERTY: 8 unpat. claims 7 mi. S. of Radersburg. Radersburg district. ORE: Gold, silver. DEVELOPMENT: 80-ft. shaft, 60-ft. drift. PLANT: Hoist, compressor.
MEN EMPLOYED: 5. REMARKS: Owner reports, "Seven parallel veins in granite, 300 ft. apart. Several small shipments have been made."

HARD CASH

OWNERS: A. Wright, Townsend, Mont.; Minnie Holdaway, Radersburg, Mont. PROPERTY: 6 unpat. claims 7 mi. SW. of Radersburg. Radersburg district. ORE: Gold, silver. DEVELOPMENT: Adits and shafts.
MEN EMPLOYED: 4. REMARKS: Owner reports, "Shipping regularly."

HARD CASH

OWNERS: Samuel Perkins, Howard Perkins, Joe Perkins, Jay Rathbun, Canton, Mont. PROPERTY: 6 unpat. claims. Confederate Gulch district. ORE: Gold. DEVELOPMENT: 230-ft. shaft. MEN EMPLOYED: 5.
REMARKS: 6 quartz veins.

HUMPHREY PLACER

OWNER: Ed Humphrey, Townsend, Mont. PROPERTY: 1 pat. claim on Indian Creek 8 mi. SW. of Townsend. Park district. REMARKS: Owner reports, "Several hundred feet have been worked. Mr. Green operated the property for a short time in 1934. Water short." Reference, MR.1933.

HYANTHA

LESSEE: Custer Mining Co., J. A. Roos, Pres., Winston, Mont. PROPERTY: 7 pat. claims 2 mi. W. of Winston. Winston district. REMARKS: Owner reports, "Unwatering and sampling in 1934." Last operated in 1926.

IDEAL

OWNER: Ideal Mining Co., P. O. Box 641, Anaconda, Mont.; P. S. Everett, Pres., Anaconda, Mont.; C. H. Spengler, Vice-Pres.; J. C. Waring, Sec.; F. M. Davidson, Treas. PROPERTY: 8 unpat. claims 8¼ mi. NE. of Canyon Ferry. Hellgate district. ORE: Copper. DEVELOPMENT: 1,200-ft. adit. REMARKS: Owner reports, "Last operated in 1929." Prospectus and map on file in office of Montana Bureau of Mines and Geology.

IRON AGE

OWNER: Ed Wishon, Winston, Mont. PROPERTY: 3 pat. claims 2 mi. S. of Winston. Winston district. ORE: Gold, silver. DEVELOPMENT: 100-ft. drift. MEN EMPLOYED: 1 lessee. REMARKS: Owner reports, "Under option to Associated Gold Mines Co."

IRON WEDGE

OWNER: Lanning and Co., Winston, Mont. PROPERTY: 5 unpat. claims 5 mi. NW. of Winston between Pole and Starbuck Creeks. Winston district. ORE: Gold. DEVELOPMENT: 80-ft. shaft; 2 adits, 200 and 550 ft. long; 150 ft. of drift; 190-ft. raise; 85-ft. winze. REMARKS: Owner reports, "Vein 6,000 ft. long. Production \$12,000. Water and timber available, 1½ mi. from power line." Last operated May 1933. Idle in 1934.

JANUARY

OWNER: George Neill, 414 Floweree St., Helena, Mont. PROPERTY: 4 pat. claims 6 mi. S. of Winston, joins East Pacific Group on east side. Winston district. ORE: Gold, silver, lead, zinc.
DEVELOPMENT: 1,800-ft. adit, 1,000 ft. of stopes. MEN EMPLOYED: 3. REMARKS: Owner reports, "Ore shipments carry 0.50 oz. of gold, 23 oz. of silver, 21% zinc."

JO DANDY

OWNER: Butte Copper Cons. Mines, P. O. Box 1968, Butte, Mont., Philo Hanson, Vice-Pres.; Ernest Dorais, Sec. & Treas., Butte, Mont. PROPERTY: 5 unpat. claims 5 mi. SW. of Radersburg in secs. 28 and 33, T. 5 N., R. 1 W. Radersburg district. ORE: Lead, silver. DEVELOPMENT: 600 ft. of shafts, 2,500 ft. of

drifts, crosscuts, raises. REMARKS: Owner reports, "In 1928 and 1929, mine was largest producer of high-grade lead ore in Montana. Last operated in 1931, when 35 men were employed." Idle in 1934.

JOHN L.

OWNER: H. J. Schreiner, Townsend, Mont. PROPERTY: 4 unpat. claims 12 mi. NW. of Townsend. Park district. ORE: Gold, silver, lead, copper, zinc. DEVELOPMENT: 2 adits, 200 and 800 ft. long. MEN EMPLOYED: 4. REMARKS: Owner reports, "Vein, 2 to 6 ft. wide, in andesite; average value \$30 per ton; production about \$25,000." Reference, MR.1909.

JULIA

OWNER: J. A. Patten, 724½ Maryland St., Butte, Mont. PROPERTY: 8 pat. claims on Slim Sam Creek 8 mi. SW. of Radersburg. Radersburg district. ORE: Gold, silver, quartz vein in limestone. PLANT: 6-h. p. gasoline hoist. DEVELOPMENT: Two 140-ft. shafts, 1,400-ft. cross-out. MEN EMPLOYED: 3. REMARKS: Owner reports, "12-ft. vein can be traced by surface outcrops 1,000 ft. Shipping ore averages \$25 to \$30 per ton. Last shipment of ore, December 8, 1934. Claims were located in 1884 by Marshall D. Patten, sheriff of Virginia City, 1878 to 1884."

KEATING

OWNER: James E. Murray, Butte, Mont. PROPERTY: 18 pat. claims 12 mi. W. of Radersburg, Mont. Radersburg district. ORE: Gold, silver. DEVELOPMENT: 3 shafts, one 1,200 ft. deep.

KLEINSCHMIDT-IRISH SYNDICATE

OWNER: Montana Cons. Mines Corp., C. D. Wason, Pres., Seattle, Wash.; Gust Carlson, Vice-Pres. & Mgr., Duluth, Minn. and Helena, Mont.; Lars Carlson, Sec. & Treas., Helena, Mont. PROPERTY: 4 pat. and 18 unpat. claims 8 mi. SW. of Winston. Winston district. ORE: Lead, silver, gold. DEVELOPMENT: 2 adits, 500 ft. apart; lower adit, 400 ft. long.

LITTLE ANNIE

LESSEE: R. J. Sarbu, Townsend, Mont. PROPERTY: 2 unpat. claims. Park district. ORE: Gold, silver. DEVELOPMENT: 500 ft. of drifts, 100-ft. incline. REMARKS: Owner reports, "Last operated in 1933, 4 men were employed." Reference, 24:309.

MIGHTY MONARCH

OWNER: Mrs. George Winslow, Radersburg, Mont. PROPERTY: 6 mi. W. of Radersburg. Radersburg district. ORE: Gold, silver. DEVELOPMENT: Shaft and adit. REMARKS: Owner reports, "Production about \$10,000 worth of high-grade ore." Idle in 1934.

OHIO KEATING

OWNER: Oppenheimer Estate, Butte, Mont. LESSEE: Montana-Keating Gold Mining Co., Fred Slade, Pres., Salt Lake City; C. R. Teter, Vice-Pres., Butte, Mont.; Frank M. Maloney, Sec. & Treas., Salt Lake City; A. H. Kelson and William Goldberg, Directors, Salt Lake City, office, 519 Continental Bank Bldg. PROPERTY: 5 unpat. and 10 pat. claims in Keating Gulch about 1½ mi. from Radersburg. Radersburg district. ORE: Gold, silver. DEVELOPMENT: 550-ft. shaft, 5 levels, total length 10,000 ft. PLANT: 50-h. p. hoist, 2-stage 640-cu. ft. Imperial type I. R. compressor, 11-ton cyanidation mill. MEN EMPLOYED: 25. REMARKS: Owner reports, "20 railroad cars shipped in 1933, 55 railroad cars shipped in 1934, average assay, 0.60 oz. gold per ton."

QUARTZ SITE

OWNER: Quartz Site Mining Co., W. J. Patterson, Pres., Radersburg, Mont. PROPERTY: 8 unpat. claims 7 mi. W. of Radersburg. Radersburg district. ORE: Gold, silver. DEVELOPMENT: 200 ft. of shafts and drifts. PLANT: Ball mill, blacksmith shop, 3 cabins. MEN EMPLOYED: 5 (lessees).

RUBY

OWNER: Mrs. George Winslow, Radersburg, Mont. PROPERTY: About 10 mi. SW. of Radersburg, Radersburg district. ORE: Silver. DEVELOPMENT: Incline shaft and glory hole. REMARKS: Vein along a quartzite-limestone contact. Idle in 1934.

SILVER KING

OWNER: A. J. Schmidt, Winston, Mont. PROPERTY: 6 claims. Winston district. ORE: Gold, silver, lead. PLANT: 230-cu. ft. gas-driven compressor, hoist, and minor equipment. MEN EMPLOYED: 1. REMARKS: Owner reports, "Began operations in 1934."

SLIM JIM

OWNER: H. O. Miller, Canton, Mont. PROPERTY: 3 unpat. claims 2 mi. N. of old Diamond City. Confederate Gulch district. ORE: Gold, silver. DEVELOPMENT: Drifts and raises. PLANT: Small stamp mill. MEN EMPLOYED: 1. REMARKS: Ore in small seams.

SPRING HILL

OWNER: Dr. R. G. Bayles, Townsend, Mont. PROPERTY: 3 unpat. claims 12 mi. W. of Townsend. Park district. ORE: Gold, silver. DEVELOPMENT: 2 drifts on vein at 80- and 170-ft. levels. MEN EMPLOYED: 3. REMARKS: Owner reports, "Sinking shaft on ore shoot."

SURPRISE

OWNER: James P. Smith, Radersburg, Mont. PROPERTY: 1 pat. claim 1 mi. NW. of Radersburg, Radersburg district. ORE: Gold. DEVELOPMENT: 150 ft. of shafts, 300 ft. of drifts. REMARKS: Owner reports, "Last operated in 1929." Montana Oil and Min. Jour., Mar. 30, 1935 reports, "Kroll Corp., C. W. Fowler, Helena, is operating Surprise mine. New 50-ton mill and Kroll separator ready for operation."

VOSBURG

OWNER: Vosburg Mining Co., John A. Roos, Pres., Winston, Mont. PROPERTY: 9 unpat. claims in sec. 3, T. 7 N., R. 1 W. Winston district. ORE: Gold. DEVELOPMENT: Vosburg developed to 500-ft. depth by cross-cuts and drifts; in Stray Horse, drift beyond fault has encountered good ore. PLANT: 360-cu. ft. compressor, 110-cu. ft. compressor. MEN EMPLOYED: 18.

VULTURE

OWNERS: Dr. R. G. Bayles and others, Townsend, Mont. PROPERTY: 1 claim about 16 mi. NW. of Townsend. Park district. ORE: Silver, lead. DEVELOPMENT: 150-ft. shaft. Adit started to cut ore body below shaft. REMARKS: Owner reports, "20 railroad cars at about \$100 per ton." Idle in 1934.

VULTURE

OWNERS: Hentler Bros., P. O. Box 492, Helena, Mont. PROPERTY: 1 pat. and 6 unpat. claims. Park district. ORE: Gold. MEN EMPLOYED: 3 to 4. REMARKS: Owner reports, "Just opening incline adit. Old workings reported to be down about 245 ft. and had a 24-in. vein of steel galena. Our assay from sample lying on the dump ran a little over \$112 per ton. Smelter shipments averaged about \$50 per ton. The last 14 tons taken from the mine when last worked brought \$1,265.95 net."

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Alaska & Copper				Blacker	Radersburg	Au	MR.1909
King	Radersburg	Au,Ag	MR.1916	Black Bug	Radersburg	Au,Ag	MR.1910
Alice	Winston	Au,Ag	MR.1921	Black Diamond	Radersburg	Au	MR.1933
Anaconda Placer	Confederate	Au	MR.1913	Blacktail	Winston	Au,Ag,Pb	MR.1933
Anna May	Confederate	Au,Ag	MR.1933	Blind Mike	Confederate	Au	MR.1933
Argo (Eclipse-Argo)	Hellgate	Cu	24:165	Bonestreet	Radersburg	Pb	MR.1919
Arthur Lee	Radersburg	Au,Ag	MR.1915	Bowman Bar	Park	Au	MR.1912
Bamar	Park	Pb,Zn	MR.1924	Brand Placer	Confederate	Au	MR.1931
Bar Gulch	Confederate	Au	MR.1915	Buckingham	Confederate	Au,Ag	MR.1933
Barnato	Radersburg	Au	MR.1933	Bulldog	Radersburg	Ag,Pb	MR.1926
Beauty	Radersburg	Au	MR.1933	Cabin	Winston	Au,Ag	24:211
Big Four Placer	Deep Creek	Au	MR.1913	Cedar Creek Placer	Park	Au	MR.1912
Big Four	Winston	Pb	MR.1930	Cement Gl. Placer	Confederate	Au	MR.1927
Big Four	Park	Au	MR.1933	Charity Placer	Radersburg	Au	MR.1923
Big W. Placer	Deep Creek	Au	MR.1913	Combination	Radersburg	Ag,Cu	MR.1909
Big Lemon Placer	Park	Au	MR.1933	Confederate Gulch			
Bird	Park	Pb	MR.1927	Placer	Confederate	Au	MR.1928

* See footnote on p. 7.

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Copper	Backer	Au,Ag	MR.1933	Iron Mask (Bamar			
Copper King	Radersburg	Cu	MR.1919	Copper Co., Creden			
Copper Knob	Park	Au	MR.1933	Mines Corp.)	Park	Pb	24:309
Copper Queen (Mont.				Jack Pine	Park	Au,Ag	MR.1919
Develop. Co.)	Radersburg	Cu,Pb	MR.1929	Jay Gould	Park	Au,Cu,Pb	MR.1918
Crosscut	Park	Au	24:309	Jim Long Placer	Park	Au	MR.1933
Crow Creek Placer	Radersburg	Au	MR.1921	Jumbo	Radersburg	Au,Ag,Cu	MR.1917
Cyclone	Radersburg	Au	MR.1933	Kahoka	Radersburg	Cu	MR.1933
Daisy Dandy	Radersburg	Ag,Pb	MR.1925	Kalamazoo	Park	Au,Ag	MR.1915
Dixie	Park	Au,Ag	MR.1934	Kent Co.	Park	Au	MR.1916
Doggett Placer	Confederate	Au	MR.1930	Kettle of Beans	Backer	Au,Ag	MR.1933
Double Standard	Park	Pb	MR.1928	Keystone	Radersburg	Au,Ag	MR.1912
Eagle	Park	Pb	MR.1926	King	Park	Pb	MR.1933
East Pacific (Mont.				Kinty County	Park	Au,Ag	MR.1909
Min. Corp.)	Winston	Pb	24:216	Krome	Radersburg	Au	MR.1933
Edna	Winston	Cu	MR.1922	Last Chance	Radersburg	Pb	MR.1930
Ellis Placer	Confederate	Au	MR.1931	Laura May	Radersburg	Au	MR.1933
Emma	Radersburg	Pb,Zn,Ag	MR.1924	Lead Crown	Radersburg	Au,Ag	MR.1922
Excelsior	Park	Pb	MR.1926	Leviathon	Radersburg	Au	MR.1933
Florence	Park	Au,Ag,Pb	MR.1913	Liberty	Park	Au,Ag	MR.1924
Frieburg	Winston	Pb,Ag	24:220	Little Bonanza	Winston	Au,Ag	24:222
Giant Hill Fraction	Park	Au,Ag	MR.1910	Little Fanny	Park	Pb	MR.1927
Gleeson	Winston	Au,Ag	MR.1916	Little Goldie	Park		MR.1927
Gold Bug	Winston	Au	MR.1929	Little Joe	Radersburg	Au,Ag	MR.1931
Gold Crown	Radersburg	Au	MR.1931	Little Olga	Winston	Pb,Ag	24:223
Gold Dust	Park	Au	MR.1931	Little One	Beaver	Au	MR.1925
Gold Hill Fraction	Park	Au,Ag,Pb	MR.1910	Lone Star	Beaver	Au,Ag	MR.1913
Gold Queen	Radersburg	Au	MR.1933	Lost Treasure	Park	Au	MR.1933
Goodenough	Park	Au,Ag,Pb	MR.1915	Lucky Jim	Radersburg	Pb	MR.1930
Gopher	Radersburg	Pb	MR.1931	Mabin	Radersburg	Au,Ag	MR.1922
Grasshopper Creek				Magpie	Park	Au	MR.1912
Placer	Park	Au	MR.1925	Mammoth	Park	Au	MR.1923
Gray Rock and				Margaret Taylor	Park	Au	MR.1917
Sunshine	Winston	Au	MR.1933	Marietta	Park	Au	MR.1933
Grecian Fraction	Winston	Au	MR.1933	Marion	Winston	Pb	MR.1933
Greenhorn	Radersburg	Au	MR.1933	Martha	Winston	Au	MR.1933
Grubstake & Snowshoe				Martha Washington	Winston	Au	24:226
Placer	Confederate	Au	MR.1931	Mary V	Winston	Au,Ag	MR.1919
Harding	Radersburg	Au	MR.1933	May Day	Radersburg	Au,Ag	MR.1914
Hassel Placer	Park	Au	MR.1912	Metropolitan and			
Hidden Treasure	Radersburg	Au	24:305	Kalamazoo	Park	Au,Ag	MR.1917
High Up	Radersburg	Au,Ag	MR.1926	Midas	Winston	Au	MR.1933
Horn	Radersburg		MR.1910	Mississippi	Confederate	Au,Ag	MR.1933
Hot Cake	Winston	Au	MR.1926	Mohawk	Radersburg	Au,Ag	MR.1917
Hoxsey Placer	Confederate	Au	MR.1928	Molly	Winston	Au,Ag	MR.1914
Humming Bird Placer	Confederate	Au	24:162	Molly Gibson	Confederate	Au	MR.1933
Hunter	Radersburg	Au,Ag	MR.1922	Montana-Radersburg	Winston		MR.1919
Huron	Winston	Au,Ag	MR.1934	Moon Beam	Radersburg	Au,Ag	MR.1924
Indian Creek Placer	Park	Au	MR.1933	Morning Glory	Park	Au	MR.1931
Iron Gap	Winston	Au,Ag	MR.1911	Mountain Divide	Park	Pb	MR.1926

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Mountain View	Winston	Au	MR.1933	Silver Bell	Radersburg	Au,Ag	MR.1926
Myloie Placer	Confederate	Au	MR.1933	Silver Horse	Radersburg	Ag,Pb	MR.1926
New Year	Winston	Au,Ag	MR.1919	Silver Mountain	Park	Au,Pb	MR.1933
New York	Winston	Au,Ag	MR.1921	Silver True	Radersburg	Au,Pb	MR.1926
Ninety	Confederate	Pb	MR.1933	Smith Placer	Park	Au	MR.1922
North Home	Radersburg	Ag,Pb	MR.1927	Smith Placer	Confederate	Au	MR.1931
Only One	Park	Au,Ag	MR.1931	Snowshoe Placer	Confederate	Au	MR.1933
Orphan Boy	Winston	Au,Ag	MR.1931	South Ruby	Radersburg	Au,Ag	MR.1923
Osborne Placer	Confederate	Au	MR.1930	Sparrow	Park	Pb	MR.1930
Park	Park	Pb	MR.1933	Stevenson	Radersburg	Au,Ag	MR.1912
Pinchback	Radersburg	Au	MR.1933	Summit (Mendota			
Pittsburgh Placer	Park	Au	MR.1933	Min. Co.)	Radersburg	Ag,Pb,Zn	MR.1930
Quartette	Winston	Au,Ag	24:222	Sunrise	Winston	Au	24:216
Queen Bee	Confederate	Au	MR.1933	Sunshine	Winston	Pb,Au	24:222
Rabdan	Park		MR.1918	Top Notch	Winston	Au,Ag	MR.1931
Radersburg Placer	Radersburg	Au	MR.1930	Triple Placer	Confederate	Au	MR.1923
Red Buck	Winston	Au,Ag	MR.1914	Valley View	Park	Au	MR.1933
Relief	Park	Au	MR.1915	W. A. Clark	Park	Au,Ag	MR.1916
Robinson Placer	Confederate	Au	MR.1928	White Elephant	Park	Pb	MR.1933
Ruby Silver	Radersburg	Ag	MR.1926	White's Gulch			
Santa Anita	Radersburg	Pb,Ag	MR.1930	Placer	Confederate	Au	MR.1921
Satellite	Winston	Pb,Au	MR.1926	Williams	Park	Au	MR.1933
Schabert	Confederate	Au	24:163	Wilson Placer	Park	Au	MR.1933
Schranger Placer	Confederate	Au	MR.1931	Winter State	Winston	Au,Ag	MR.1931
Sheriff Patent Pl.	Magpie Gulch	Au	MR.1931	York Placer	Confederate	Au	MR.1933

CARBON COUNTY

Properties Reported by Owners or Operators

CLARK'S FORK PLACER (COMBINATION)

OWNER: Gold-Black Sand Mining Co., W. A. Gibbs, Pres., 113 Twenty-first St., N., Great Falls, Mont.; E. A. Shaw, Sec. & Treas., 1617 Central Ave., Great Falls, Mont. PROPERTY: 9 unpat. claims extending from Wyoming to Belfry down Clark Fork River. 1,400 acres. Clark Fork district.

REMARKS: Owner reports, "In 1926 Yellowstone Dredging Co. drilled a number of test holes, gold content reported satisfactory."

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Henry Placer	Clark Fork	Au	MR.1933	Montana Chrome,			
Martin, M. E.**	Silver Run	Cr	38:83	Inc. **	Hellroaring	Cr	38:83

* See footnote on p. 7.

** Schafer, P. A., Personal communication.

CASCADE COUNTY

Properties Reported by Owners or Operators

ANACONDA COPPER MINING COMPANY

(GREAT FALLS REDUCTION WORKS, GREAT FALLS, MONT.)

OFFICERS: A. E. Wiggin, Mgr.; R. B. Caples, Gen. Supt.; W. E. Mitchell, Asst. Gen. Supt.

COPPER PLANT: Copper refining, rod-rolling mills, bare-wire and cable mills.

Electrolytic Copper Refinery: Tank room, 4 crane bays, 360 tanks each, 1,530 total, including 90 starting sheet tanks, 7- and 10-ton Whiting Traveling electric cranes, capacity operation requires 6 motor-generator sets, each delivering 6,000 amperes at 200 volts, producing 875,000 l bs. cathodes per day, 26 to 27 million pounds per month.

Furnace Refinery: 3 reverberatory furnaces, natural-gas fired. Equipment for each furnace, Stirling waste-heat boiler, 400 h. p. Wellman-Seaver-Morgan charging crane for 3 furnaces, Clark-type casting wheel, mould presses, etc. Product: Copper bars, ingots, etc. 99.955% pure.

Rolling Mills: 2 rod mills, consisting of bar-heating furnace, roughing, intermediate, and finishing mills, coilers, roll lathes, etc.

Wire Drawing Machinery: 4 block benches for large wire, continuous trolley wire-drawing bench, one 10-die duplex wire-drawing bench for No. 12 and smaller sizes, three 6-die duplex and one 5-die duplex machines for drawing No. 6 and No. 12, three 8-die duplex machines for No. 18 and No. 22 wire, four 14-die machines for No. 24 wire, etc. Annealing furnaces, stranding machines, two 5-ton traveling cranes. Wire, strand, cable, etc. are made from "Anaconda" copper, mined in Butte, smelted in Anaconda, refined and fabricated in Great Falls, i.e., covering all the steps "from mine to finished product."

Copper Plant Substation: 7 motor-generator sets, each consisting of one 1,730-h. p., 6,600-volt motor, driving two 600-K.W., 200-volt, 3,000-ampere generators. Three motor-generator sets, each consisting of 450-h. p., 6,600-volt motors, driving a 550-volt, 300-K.W., D. C. generator for power to operate cranes, locomotive, and hoists through entire works. Two 1,500-K.W. banks of three transformers stepping down from 6,600 volts to 2,200 volts for industrial motors. Total capacity, 13,000-K.W. (17,450 h. p.). Additional substations are located at rolling mill and electric furnaces. Maximum demand from Montana Power Company is 64,000-K.W. (85,000 h. p.). 600 A.C. and 182 D.C. motors in service. Total connected motor load, 102,000 h. p.

ZINC PLANT: Process: Roasting, leaching, electrolyzing, and casting. Plant Capacity: 335 tons cathode zinc per 24 hours, 20,000,000 lbs. per month.

Roasting Division: 14 Anaconda-type Wedge-MacDougal 7-hearth mechanical roasting furnaces, natural-gas fired. Product: Calcine for leaching plant.

Leaching Division: Pachuca tanks, Dorr classifiers and thickeners, Oliver and Moore filters, driers, American filter presses.

Electrolyzing Division: 8 units, 144 cells each, total 1,152 cells.

Product: Zinc cathodes.

Casting Division: Melting furnaces, casting 50 lb. slabs "Anaconda Electric" zinc, 99.995% zinc.

Zinc Plant Substation: 110,000-volt power stepped down through nine 6,100-K.V.A. 3-phase, 60-cycle transformers to 406 volts, which supply 5,800-K.W. converters; current changed from A.C. current to 580-volt D.C. for electrolytic zinc plant. 110,000- and 6,600-volt power stepped down to 2,200 volts for distribution to motors. Total capacity, 60,500-K.V.A. (81,100 h. p.).

ELECTRIC POWER: Two 110,000-volt transmission lines from Rainbow and Great Falls stations and four 6,600-volt transmission lines from the Black Eagle stations (Montana Power Co.).

ELECTRIC TRAMMING SYSTEM: 9 miles standard gauge track connecting with Great Northern Railway.

MOTIVE POWER: One 40-ton motor, four 25-ton General Electric motors, one 15-ton motor, two 10-ton motors, third-rail, 500-volt, D. C. system, 22 bottom-dump steel cars, 300-cu. ft. capacity.

STEAM GENERATING PLANTS: Four boiler plants, 15 Stirling and Heine waste-heat boilers, combined rating 5,600 boiler-horsepower.

BRICK DEPARTMENT: Building bricks, blocks, tile, fire bricks, and blocks. Capacity, 35,000 building bricks per day.

WATER SUPPLY: From Missouri River, low- and high-pressure systems, 1,000,000-gallon concrete reservoir, fire and service lines. About 10,000,000 gallons of water are pumped each 24 hours.

MISCELLANEOUS: Plant is equipped with laboratory, four emergency hospitals, ambulances, emergency outfits, change houses, Company Club house, 6 hole golf course, etc.

REMARKS: For descriptions of Anaconda Copper Mining Company's plants at Butte, East Helena, and Anaconda, see Silver Bow, Lewis and Clark, and Deer Lodge County directories.

BENTON

OWNER: Benton Group Mining Co., C. B. Power, Pres., Helena, Mont.; Mrs. Irene Spencer, Vice-Pres., Spokane, Wash.; Tad E. Collins, Sec. & Treas., Helena, Mont. PROPERTY: 12 pat. claims. Neihart district. ORE: Silver. DEVELOPMENT: Adits and shafts. REMARKS: Workings caved. Idle in 1934.

BIG SEVEN

OWNER: Montana Silver Queen Mining Co., Standard Stock Exchange Building, Spokane, Wash. Montana office, care of Chas. E. Wethered, Mgr., 2726 Third Ave. N., Great Falls. PROPERTY: 9 pat. claims consisting of Big Seven Group of 7 claims and Aurora and Coney Group. Neihart district. ORE: Silver. PLANT: Old plant dismantled; new plant will be installed. MEN EMPLOYED: 4. Will be increased. REMARKS: Owner reports, "Montana Silver Queen Mining Company incorporated under the laws of the State of Washington in May 1935. Capital stock, 2,500,000 shares, par value 10¢ per share; non-assessable. 1,000,000 shares placed in treasury."

COLLETTE (I.X.L.)

OWNER: J. E. Collette, Neihart, Mont. PROPERTY: 10 pat. and 2 unpat. claims on Snow Creek, N. slope of Neihart Baldy. Neihart district. ORE: Gold, silver, molybdenum. PLANT: Cyanide mill. REMARKS: Idle in 1934.

CORNUCOPIA

OWNERS: James E. Murray and H. Lowndes Maury, Butte, Mont. LESSEE: John E. Lillberg. PROPERTY: 14 pat. claims on Carpenter Creek 2½ mi. from first R. R. switch N. of Neihart. Neihart district.

ORE: Gold, silver. DEVELOPMENT: 250-ft. shaft, 300-ft. adit, 300 ft. of cross-cuts. MEN EMPLOYED: 3.

REMARKS: Owner reports, "Water, timber, and power available. Vein in gneiss and quartzite."

FITZPATRICK (SEE RUTH MARY)

FLORENCE (SEE M. & I.)

HARTLEY

OWNER: Neihart Consolidated Silver Co. LESSEE: Tom Gordon, Neihart, Mont. PROPERTY: 7 pat. claims. Neihart district. ORE: Silver. PLANT: 20-ton gravity concentration mill. REMARKS: Owner reports, "Mine last operated in 1923."

INGERSOLL

OWNER: Ingersoll Mining Co., E. A. Shaw, Pres., 1617 Central Ave., Great Falls, Mont. PROPERTY: 5 pat. claims. Neihart district. ORE: Gold and silver. DEVELOPMENT: 1,300 ft. of adits and 600 ft. of cross-cuts. Three veins from which ore has been shipped are exposed. PLANT: Ingersoll-Rand compressor. MEN EMPLOYED: 10.

REMARKS: Owner reports, "Although one shipment of gold ore that contained 0.76 oz. per ton was made, the silver content was of rather low grade. For this reason very little stoping has been done. From developments so far, it seems that it would be more profitable to mill the ore, as it is easily concentrated. Last operated in 1917."

JOHANNESBURG

OWNER: Johannesburg Gold Mining Co., Victor Nelson, Act. Sec. & Treas. & Agt., Neihart, Mont.

LESSEES: T. L. Johnson and Fred Cunningham, Neihart, Mont. PROPERTY: 7 pat. claims 5 mi. N. of Neihart on Belt Creek. Neihart district. ORE: Gold. DEVELOPMENT: 420-ft. shaft, 60-ft. adit, 700 ft. of drifts, 500 ft. of cross-cuts. PLANT: 100-h. p. and 50-h. p. steam boilers, 100-h. p. steam hoist, mine buildings. REMARKS: Owner reports, "Last operated in 1912. Water and timber available. ¼ mi. from R. R. spur. Montana Power line crosses property. Unwatered in fall of 1934. Large body of low-grade gold ore exposed. Mine workings now filled with water."

LONDON

OWNERS: Louis Heitman estate, Helena, Mont. LESSEE: Loretta Rives, Conrad, Mont. PROPERTY: 3 pat. claims. Neihart district. ORE: Gold. DEVELOPMENT: Adit. MEN EMPLOYED: 2.

M. & I. AND FLORENCE

OWNER: M. & I. Mining Co., E. A. Shaw, Pres., 1617 Central Ave., Great Falls, Mont. PROPERTY: 5 pat. claims. Neihart district. ORE: Silver. DEVELOPMENT: 6 adits, above water. Shaft extends from lower adit with a depth of 500 ft. These adits and levels are from 500 to 1,000 ft. in length, and the ground is nearly all stoped. PLANT: Equipped for mining only, electric power used. MEN EMPLOYED: 35.

REMARKS: Owner reports, "This mine is locally known as the "Florence," nearly all the mining having been done on this claim. It is a high-grade silver mine. Shipments have been made of 500-oz. silver ore. Production \$3,000,000. Last operated in 1928."

MINUTE MAN

OWNER: Thomas Westgard, Neihart, Mont. PROPERTY: 4 unpat. claims adjoining Silver Dyke Mine. Neihart district. ORE: Gold. DEVELOPMENT: 640-ft. adit. MEN EMPLOYED: 1 to 4. REMARKS: Owner reports, "Additional drifts expose large tonnage of silver-gold and lead-zinc-copper ores."

MORNING AND EVENING STAR

OWNER: Loretta Rives, Conrad, Mont. PROPERTY: 3 pat. and 5 unpat. claims. Neihart district. ORE: Gold. DEVELOPMENT: 1,200-ft. adit, 60-ft. shaft, stopes. MEN EMPLOYED: 3 (lessees). Reference, MR.1916.

RUTH MARY (AND FITZPATRICK)

OWNER: Tony Faller, Neihart, Mont. PROPERTY: 2 pat. and 2 unpat. claims ¼ mi. S. of Neihart. Neihart district. ORE: Silver. DEVELOPMENT: 1,100-ft. drift, 60-ft. raise. PLANT: Compressor, machine drill. MEN EMPLOYED: 3. REMARKS: Owner reports, "Ore carries 8 to 3,400 oz. of silver per ton."

SILVER DYKE

OWNER: American Zinc Lead and Smelting Co., W. N. Payne, Compt., 743 Paul Brown Bldg., St. Louis, Mo. PROPERTY: 31 pat. claims, at Neihart. Neihart district. ORE: Silver. DEVELOPMENT: Adits and drifts. REMARKS: Idle in 1934.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Alexander	Neihart	Ag	MR.1923	Hegener	Neihart	Ag	28:53
Alice	Neihart	Ag	MR.1931	Liberty (Broadwater			
Alice Extension	Neihart	Au	MR.1926	Cons. Mines)	Neihart	Ag	MR.1917
B. and M.	Neihart	Ag	MR.1917	Lizzie	Neihart	Ag	28:43
Blackbird	Neihart	Ag,Pb	28:50	Lucky Strike	Neihart	Ag	28:59
Broadwater	Neihart	Pb,Ag	28:36	Moulton	Neihart	Ag	28:38
Commonwealth	Neihart	Ag	28:59	Peabody	Neihart	Ag	MR.1922
Dakota	Neihart	Pb,Zn,Ag	MR.1926	Queen of the Hills	Neihart	Pb,Ag,Zn	28:31
Davis Diamond	Neihart	Au	MR.1926	Ripple	Neihart	Ag	28:59
Fairplay	Neihart	Pb,Zn,Ag	MR.1926	Rock Creek	Neihart	Ag,Pb	28:46
Flohart	Neihart	Ag	MR.1920	Silver Belt	Neihart	Pb,Ag	28:45
Galt	Neihart	Pb,Ag,Au,Zn	28:33	Snow Creek	Neihart	Ag	MR.1922
Gibson Dump	Smelter	Ag,Slag	MR.1926	Tom Hendricks	Neihart	Ag	28:60

* See footnote on p. 7.

DEER LODGE COUNTY

Properties Reported by Owners or Operators

ANACONDA COPPER MINING COMPANY

(ANACONDA REDUCTION WORKS, ANACONDA, MONT.) OFFICERS: Louis V. Bender, Gen. Supt.; C. A. Lemmon, Asst. Gen. Supt.

COPPER PLANT: (Process: Concentration, roasting, reverberatory smelting, converting, refining, and casting.) 40-ft. rotary car dumper, belt conveyors, gyratory crushers, Symons cone crusher, crushed ore bins (1 in. size).

Concentration: 8 sections, capacity of each section is 1,600 tons of ore per 24 hours; conveyors, elevators, tommels, crushing rolls, classifiers, Hardinge ball mills, selective-flotation machines, Dorr thickeners, Oliver filters. Crude ore, 4 to 6% copper; concentrate, 24 to 27% copper, 27 to 32% sulphur, 10% water. Tailings 0.25 to 0.35% copper.

Recovery: 95% copper; rejects 70% iron and over 95% silica.

Roasting Division: 7-hearth, 25-ft. mechanical roasting furnaces natural-gas fired, capacity 175 tons (dry) per 24 hours. Sulphur reduced 15 to 20%. Product: Calcine for reverberatories.

Reverberatory Smelting: 7 furnaces 23 ft. wide, 134 ft. long (inside), capacity about 600 tons solid charge per day, natural-gas fired. Waste-heat boilers, Matte tapped into 14 ton ladles.

Converting: Seven 20-ft. Great Falls-type converters, 3 overhead travelling cranes.

Product: 98% blister copper.

Refining at Anaconda: 3 casting furnaces, each 200-ton capacity, copper carrying gold and silver cast into 730-lb. anodes which are shipped to Great Falls Reduction Works.

ZINC PLANT: (Process; Concentrating, roasting, leaching, electrolyzing, and casting.)

Concentrator: Capacity, 1,500 tons ore per 24 hours. Blake crushers, rolls, Hardinge ball mills, collective and selective-flotation machines. Dorr thickeners, Oliver filters. Product: Zinc concentrates, lead concentrates (shipped to East Helena).

Roasting Divisions: 14 Wedge-MacDougal, 7-hearth mechanical roasting furnaces, natural-gas fired.

Product: Calcine for leaching.

Leaching Division: 9 Pachuca tanks, Dorr classifiers and thickeners, Moore and Oliver filters, Ruggles-Cole driers, Shriver filter presses, Product: Clear filtrate (electrolyte) for electrolysis. Lead-silver residues shipped to East Helena.

Electrolytic Division: Two 800-ton storage tanks, 576 electrolytic cells (4 units, 144 cells each). Motor-generator set for each unit, lead anodes, aluminum cathodes. Product: Zinc cathode sheets. Acid solution back to leaching division.

Casting Division: 2 melting furnaces. Product: Zinc slabs, bars, etc, 99.9% pure. In addition to the copper and zinc departments, the Anaconda Plant manufactures sulphuric acid, "Anaconda Treble Superphosphate," white arsenic, and "Anaconda Wood Preservative," operates foundries, brick plant, limerock quarry, etc.

SULPHURIC ACID PLANT: Raw material, dried pyrite concentrate. Dust separators, Glover towers, Gay-Lussac towers, acid chambers, and brick-packed towers. Capacity, 200 tons 60° Be. acid per day, some sold for commercial purposes, balance to phosphate plant.

PHOSPHATE PLANT: Raw material, phosphate rock from Conda, Idaho. MacDougal furnaces (calcining), agitators, Dorr thickeners, and filters. Swenson evaporators concentrating to 53% available phosphoric acid, about three times as much as ordinary acid phosphate. Pratt mixers, cranes, driers, bagging machines. Capacity, 180 tons per day of phosphate rock, 120 tons per day Treble Superphosphate, requiring about 140 tons per day 60° Be. sulphuric acid.

ARSENIC PLANT: Smelter gases are passed through electric dust precipitators before entering main chimney 75 ft. in diameter at bottom, 60 ft. in diameter at top, 585 ft. high, capacity, 3 to 4 million cu. ft. of gas per minute, the largest in the world.

MAIN DUST TREATING PLANT: 20 box-type units, vertical flue plates, and wires carrying static charge of electricity at 62,500 volts. Product: Dust, 45% arsenic oxide. MacDougal roaster, condensing flues, small reverberatory furnace, 3 lines of brick arsenic "Kitchens," barrelling machines. Final Product: Anaconda Prime White Arsenic, 99% plus arsenic oxide.

ANACONDA WOOD PRESERVATIVE: Arsenical flue dust, Irish moss, and water made up into paste; applied to fence post, telegraph and telephone poles, etc.

REMARKS: For descriptions of Anaconda Copper Mining Company's plants at Butte, East Helena, and, Great Falls, see Silver Bow, Lewis and Clark, and Cascade County directories.

BIG BUTTE

OWNER: Thomas Cannon, Anaconda, Mont. PROPERTY: 11 claims, 5 claims in Lost Creek. Lost Creek district. ORE: Gold, silver. DEVELOPMENT: Two 9-ft. adits. MEN EMPLOYED: 11.

BUTTE - PACIFIC

OWNERS: Butte-Pacific Copper Co., Otto Stroh, J. K. Claxton, Butte, Mont. PROPERTY: 14 pat. claims 5 mi. E. of Warm Springs. Oro Fino district. ORE: Gold, silver. DEVELOPMENT: 500-ft. shaft, drifts, and cross-cuts. PLANT: 2 steam boilers, hoist, compressor, 2 receivers, 125-volt dynamo. REMARKS: Idle in 1934.

CABLE

OWNER: H. C. Bacorn, Jardine, Mont. PROPERTY: 13 pat. claims near head of Cable Creek 13 mi. NW. of Anaconda, Mont. Georgetown district. ORE: Gold, silver, copper. DEVELOPMENT: 10,000 ft. of adits, drifts, and shafts. PLANT: Electric power, 30-stamp mill, amalgamation plates, motor-driven compressor, hoist, office, residences, bunkhouses. REMARKS: Owner reports, "Production, \$4,000,000. In 1934 a number of men were employed in general cleanup and repairs." Reference, 13:321.

CASHIER

OWNER: Thos. Cannon, Anaconda, Mont. PROPERTY: 6 claims 9 mi. SE. of Racetrack. Oro Fino district. ORE: Gold, silver. DEVELOPMENT: 2 adits. MEN EMPLOYED: 4.

GIRARD

OWNER: Girard Copper Co., George J. Kirby, Pres., Willmantic, Conn. PROPERTY: 6 pat. and 14 unpat. claims 5 mi. E. of Warm Springs, Mont. Oro Fino district. ORE: Gold, silver, copper. DEVELOPMENT: Shafts, adits. REMARKS: Last operated in 1933.

GOLD COIN

OWNERS: Gold Coin Mines Co., John Westerlund, Pres.; Wm. Forsman, Vice-Pres., 617 Elm St.; C. W. Smith, Treas.; Oscar Forsman, Sec.; Dr. Kargacin, J. B. C. Knight, Gail White, Directors, Anaconda, Mont. PROPERTY: 2 pat. claims 14 mi. W. of Anaconda. Georgetown district. ORE: Gold. DEVELOPMENT: 140-ft. shaft; 2 adits, 1700 and 350 ft. long; 600 ft. of drifts; 500 ft. of cross-cuts; 375 ft. of raises; 50-ft. winze. PLANT: Electric power, stamp mill, flotation cells, 2 compressors, drill sharpener, 7 houses, and blacksmith shop. MEN EMPLOYED: 15. REMARKS: Owner reports, "Production of last 4 years valued at \$140,000." Reference, 13:324.

HOLDFAST

OWNER: Robert Lindborg, Southern Cross, Mont. PROPERTY: 3 pat. claims near Southern Cross, Mont. Georgetown district. ORE: Gold. DEVELOPMENT: 650-ft. adit, 450-ft. incline shaft. MEN EMPLOYED: 4. REMARKS: Electric power available.

HONORAH G.

OWNER: Pat. J. Gardner, Anaconda, Mont. PROPERTY: 1 unpat. claim near Southern Cross and Pyrenees mines. Georgetown district. ORE: Gold. DEVELOPMENT: 75-ft. adit; 3 shafts, 20 to 70 ft. deep. REMARKS: Electric power available. Idle in 1934.

HORSESHOE BEND

OWNER: Thos. Cannon, Anaconda, Mont. PROPERTY: 5 claims. Lost Creek district. ORE: Gold, silver. DEVELOPMENT: 800-ft. adit. PLANT: Small mill. MEN EMPLOYED: 6.

MOUNTAIN VIEW

OWNERS: J. L. Templeman and J. A. Poore, Butte, Mont. LESSEE: E. R. Borchardt, Butte, Mont. PROPERTY: 4 pat. claims W. of Gold Coin mine. ORE: Gold, silver. PLANT: Keystone drill for placer area. REMARKS: Electric power available. Last operated in November 1934.

NORTH ATLANTIC

OWNERS: Messrs. Lindborg, Whiting, and Alexander, Southern Cross, Mont. LESSEES: B. Hendrickson and Wm. Louma, Southern Cross, Mont. PROPERTY: 1 pat. claim E. of Southern Cross P. O. Georgetown district. ORE: Gold. DEVELOPMENT: 200-ft. shaft, 200-ft. winze. MEN EMPLOYED: 3. REMARKS: Electric power available.

NORTHWEST

OWNERS: Northwest Mining Co., Otto Stroh and J. K. Claxton, Butte, Mont. PROPERTY: 4 unpat. claims 5 mi. E. of Warm Springs. Oro Fino district. ORE: Copper, lead. DEVELOPMENT: 350-ft. adit, 105-ft. shaft. PLANT: Steam boiler, compressor, hoist, 125-K.W. dynamo, air receiver. MEN EMPLOYED: 2.

ORO FINO

OWNERS: Messrs. Lindborg, Whiting, and Alexander, Southern Cross, Mont. LESSEES: B. Hendrickson and Wm. Louma, Southern Cross, Mont. PROPERTY: 1 pat. claim E. of Southern Cross P. O. Georgetown district. ORE: Gold. DEVELOPMENT: 200-ft. shaft, 1,200-ft. adit. MEN EMPLOYED: 3. REMARKS: Electric power available.

SHORT SHIFT

OWNER: Frank Realty Co., Butte, Mont. LESSEE: Robert Lindborg, Southern Cross, Mont. PROPERTY: 1 pat. claim. Southern Cross P. O. Georgetown district. ORE: Gold. DEVELOPMENT: 450-ft. shaft, 1,500-ft. adit, 85-ft. winze. REMARKS: Electric power available.

SIMON PLACER

OWNERS: Simon Bros., Butte, Mont. PROPERTY: 8 claims. Oro Fino district. ORE: Placer gold, sapphires. PLANT: Hydraulic giants. MEN EMPLOYED: 8.

TWILIGHT CYANIDE PLANT

OWNER: Mrs. C. Goodrich, Southern Cross, Mont. LESSEES: E. A. Benson, E. O. Stromen, Southern Cross, Mont. PROPERTY: 1 pat. claim 1½ mi. NW. of Southern Cross, Mont. Georgetown district. ORE: Gold. PLANT: Electric power, 5-ton cyanide mill. MEN EMPLOYED: 2. REMARKS: Owner reports, "Cyaniding old mill tails from Bob Evans mine."

VENEZUELA

OWNER: Brown Fortier Co., P. O. Box 132, Anaconda, Mont. PROPERTY: 1 pat. claim and fraction. Georgetown district. ORE: Gold. DEVELOPMENT: 4 shafts, 20 to 105 ft. deep; 2 log buildings. REMARKS: Idle in 134.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Antelope	BlueEyedNellie	Ag	13:244	Kirby	Oro Fino	Pb,Zn	24:282
Black Chief	BlueEyedNellie	Fe	13:244	Last Resort	Oro Fino	Pb,Cu	24:285
Blue Eyed Nellie	BlueEyedNellie	Pb,Cu	13:243	Lucky Boy	BlueEyedNellie	Ag	MR.1919
Bob Evans	Georgetown	Au	31:52	Luxemburg	Georgetown	Au	13:236
Cameron	Georgetown	Ag	MR.1926	March	Oro Fino	Ag,Au	MR.1917
Champion (Butte-Jardine Met. Co.)	Oro Fino	Ag	24:113	Montana	Georgetown	Au	MR.1933
Dry Gulch	Lost Creek	Au	MR.1931	New Year	BlueEyedNellie	Pb,Cu	13:244
Extension	BlueEyedNellie	Ag	MR.1911	Okoreaka	BlueEyedNellie	Ag	13:237
George	BlueEyedNellie	Ag,Pb	MR.1923	Oregon	Oro Fino	Ag	MR.1933
Golden Wedge	Georgetown	Au,Ag	MR.1928	Pyrenees	Georgetown	Au	13:236
Independence	Oro Fino	Au,Cu	MR.1931	Silver King	Lost Creek	Ag	MR.1916
Independent	Oro Fino	Ag,Cu	MR.1933	Silver Reef	Georgetown	Au,Ag	13:237
Jackpot	Oro Fino	Pb,Cu,Mo	24:285	Snowstorm	Georgetown	Ag	MR.1918
Jetty	BlueEyedNellie	Ag	13:244	Southern Cross	Georgetown	Au,Ag	13:231
Joker Fraction (Banker Leasing Co.)	Oro Fino	Ag	MR.1931	St. Louis	Oro Fino	Au,Ag,Pb,Cu	24:285

* See footnote on p. 7.

FERGUS COUNTY

Properties Reported by Owners or Operators

GOLDEN JACK

OWNERS: Dick Thomas and Harry Oquist, Fergus, Mont. LESSEE: Bliss Mining Co., Fergus, Mont.
 PROPERTY: 3 unpat. claims at head of Brickyard Creek S. of Armells. Cone Butte district. ORE: Gold.
 DEVELOPMENT: 3 adits, 100, 280, and 180 ft. long. PLANT: Compressor, machine drills. MEN EMPLOYED: 2.

HORSESHOE AND MULE SHOE

OWNERS: Sarah Stoddard, Lewistown, Mont. and D. J. Hilger, State Historian, Helena, Mont.
 LESSEE: W. G. Allen, Hanover, Mont. PROPERTY: 2 pat. claims in Richy Gulch in Judith Mts. 10 mi. NE. of Lewistown. Warm Springs district. ORE: Gold, copper, lead. DEVELOPMENT: 500-ft. drift, 75-ft. raise, 100-ft. shaft. MEN EMPLOYED: 1 to 3. REMARKS: Owner reports, "Truck shipments of lead-gold ore assaying \$28 per ton." Lode and placer deposits.

SILVER QUEEN

OWNERS: H. Royston, W. F. Hannap, and Bill McVeda, Lewistown, Mont. PROPERTY: 5 unpat. claims in New Year Gulch N. of Lewistown. North Moccasin district. ORE: Silver. DEVELOPMENT: Open cut. MEN EMPLOYED: 3 (to April 1934). REMARKS: 3-ft. vein carrying 38 oz. of silver per ton.

SPOTTED HORSE

OWNERS: Leslie Ames and Donald W. Taylor, Trustees, 36 E. Fourth St., St. Paul, Minn.
 PROPERTY: 2 unpat. claims 21 mi. NE. of Lewistown in sec. 5, T. 16 N., R. 20 E. Warm Springs district. ORE: Gold, silver. DEVELOPMENT: 460-ft. shaft; 7 levels, 200 to 1,200 ft. long; 15,000 ft. of drifts; 200 ft. of winzes. PLANT: 60-ton cyanide mill, partly dismantled. REMARKS: Operated in 1934 by Geo. H. Wieglanda. Owner reports, "Mine located in early 80's. Estimated production \$5,000,000. Roads fair, timber and water supply limited, but sufficient for moderate tonnage. Nearest railroad at Brooks, 11 mi. distant. Power line at Lewistown, 21 mi. distant." Reference, 32:602.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Alpine Placer	Warm Springs	Au	MR.1923	Last Chance	Cone Butte	Ag	MR.1928
Bedrock Placer	North Moccasin	Au	MR.1923	Last Chance	Warm Springs	Au	10:37
Big Chicago	Cone Butte	Au	MR.1917	Maginnis	Warm Springs	Au,Ag	MR.1925
Big Six (Chicago & Montana Min. Co.)	Warm Springs	Au	DM.1903	Mammoth (Judith Mts. Gold Min. Co.)	Warm Springs	Au	MR.1922
Chickadee	Warm Springs	Au	10:36	Monte Christo	Warm Springs	Ag	MR.1925
Cumberland	Warm Springs	Au	MR.1918	New Year	Warm Springs	Au	32:607
Dardanelles	Cone Butte	Ag	MR.1927	North Moccasin (Barnes King Dev. Co.)	North Moccasin	Au	6:20
Double Jack	Cone Butte	Ag	MR.1916	Plum Creek	North Moccasin	Au	MR.1930
Gilt Edge	Warm Springs	Au	10:36	Silver Bell	Warm Springs	Ag	MR.1926
Judith Gold Min. Co.	Warm Springs	Au	10:37	Silver Bullion	Warm Springs	Ag,Au,Pb,Zn	MR.1924
Kell	Warm Springs	Ag	MR.1925	Silver King	Warm Springs	Ag	MR.1925
Kendall (Barnes King Co.)	North Moccasin	Au	6:20	Sutter	Cone Butte	Au,Ag	MR.1916
Kentucky	Warm Springs	Au	MR.1931	Tail Holt	Warm Springs	Au	MR.1931
Kentucky Placer	North Moccasin	Au	MR.1925	War Eagle	Warm Springs	Pb,Zn,Au,Ag	MR.1911

* See footnote on p. 7.

FLATHEAD COUNTY

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
D & H Flathead (Anaconda Copper Min. Co.)	Hog Heaven	Ag	MR.1931	Great Northern M. C. Ole	Essex Whitefish Hog Heaven	Ag,Cu Cu Ag	MR.1910 MR.1923 MR.1931
Foolsburg	Hog Heaven	Ag	MR.1935				
	Star Meadow	Cu	MR.1931				

GALLATIN COUNTY

Properties Reported by Owners or Operators

LAST CHANCE

OWNER: Ed Larson, Route No. 1, Belgrade, Mont. PROPERTY: 4 claims. DEVELOPMENT: 25-ft. shaft, 150-ft. adit.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Anderson		Au,Ag	MR.1919	Jefferson River Pl.	Three Forks	Au	MR.1933
Apex Develop Co.	Eldridge	Au,Ag	MR.1919	Jewell Placer	West Gallatin	Au	MR.1933

GRANITE COUNTY

Properties Reported by Owners or Operators

AMERICAN FLAG

OWNER: William Flynn, Box 1317, Anaconda, Mont. PROPERTY: 4 pat. claims near Divide between Flint Creek and Warm Springs Creek. Red Lion district. ORE: Gold. DEVELOPMENT: 3 shafts, 30, 100, and 200 feet deep; and cuts. PLANT: None, hoist dismantled. MEN EMPLOYED: 4. REMARKS: Owner reports, "Ore shipped in the 90's and in 1910. Ore on dump assays 0.65 oz. in gold. Last operated in 1916."

BADGER - MONTANA MINING COMPANY

OWNER: P. V. Schissler, Mgr., 2040 Amherst Drive, South Pasadena, California. PROPERTY: 12 claims (227 acres pat.) about 4 mi. from Southern Cross P. O. Red Lion district. ORE: Gold and silver. DEVELOPMENT: 3,700 ft. of shafts, adits, drifts, and open cuts, now needing repairs, except where the lessee is operating. PLANT: Destroyed. REMARKS: Owner reports, "Under a lease, mining was started last January (1935) on our Surprise lode. The contiguous lodes were secured under bond and leased by some person connected with a large mining company, perhaps due to the showing made in our Surprise lode. We have received an offer from a mill operator to rebuild our plant on a lease agreement, he to treat the ore in the district. Last operated in 1926."

* See footnote on p. 7.

BARICH

MANAGER: Frank X. Barich, 408 Cedar St., Anaconda, Mont. PROPERTY: 9 unpat. claims 18 mi. NW. of Anaconda. Hidden Lake district. ORE: Gold. DEVELOPMENT: 2,000-ft. adit, shafts, cross-cuts, drifts. PLANT: 3-ton stamp mill on adjoining property, to be used for ore treatment. REMARKS: Mining engineer's report on file in Montana Bureau of Mines and Geology.

BROOKLYN

OWNER: Brookly Cons. Mines Co., Maxville, Mont. F. D. Oakley, Pres. H. A. Flood, Vice-Pres.; R. C. Carlson, Sec.; R. J. Sharp, Treas., 1114 Rust Bldg., Tacoma, Wash. LESSEE: W. M. Talmadge. PROPERTY: 12 unpat. claims 7 mi. SE. of Maxville. South Boulder district. ORE: Gold, silver, copper, lead, zinc, manganese. DEVELOPMENT: 150-ft. shaft; 115 ft. of raises; 5 adits, 200 to 1,400 ft. long; 800 ft. of drifts; 300 ft. of cross-cuts. PLANT: Gas engine, 6 ft. by 8 ft. ball mill, 8 log cabins, blacksmith shop, boarding house, power house, 1 barn. MEN EMPLOYED: 6. REMARKS: Owner reports, "Water for milling and timber available. 7 mi. to R. R., 5 mi. to power line. 500,000 tons have been stoped." Idle in 1935.

BUTTE AND ANACONDA MINING COMPANY

OWNER: Butte and Anaconda Cons. Mining Co., W. R. Allen, Pres., Boston, Mass.; E. R. Keppler, Vice-Pres., Anaconda, Mont.; C. E. Avery, Sec. & Treas., 110 Oak St., Anaconda, Mont. PROPERTY: 8 pat. claims on Cable Mtn. between Southern Cross and Red Lion. Red Lion district. ORE: Gold. DEVELOPMENT: 2 adits, 900 ft. long; 300-ft. of cross-cuts. REMARKS: Owner reports, "Low-grade gold vein, 15 to 20 ft. wide running length of Golden Eagle claim. 1 mi. long barren iron vein, 15 to 18 ft. wide in limestone. Ore deposition thought to have some relation to shale contact."

CAPITAL BELLE MINING COMPANY

OFFICERS: Barry Falk, Pres.; Joseph Lepke, Sec. & Treas., 15 Main St., Anaconda, Mont. PROPERTY: 6 unpat. claims 18 mi. W. of Anaconda on Warm Springs Creek. Red Lion district. ORE: Gold and silver. DEVELOPMENT: 55-ft. shaft, 120-ft. tunnel. PLANT: No mining or milling equipment, cabin. REMARKS: Owner reports, "Operated years ago. No men employed now. Road not very good, have sufficient water, some timber. No record of production." Ore valued at \$600 to \$20 per ton.

ETHEL B. (BLUE BIRD)

OWNER: Claude N. Bielenberg, Maxville, Mont. PROPERTY: 3 pat. and 4 unpat. claims 12 mi. E. of Maxville on Little Gold Creek ½ mi. N. of Royal and Sunday mines. South Boulder district. ORE: Gold. DEVELOPMENT: 472-ft. adit, 300-ft. cut. MEN EMPLOYED: 2. REMARKS: Owner reports, "Stoping ore high-grade, 8 in. wide, \$163 per ton. Ore valued at \$32 per ton is 2 ft. wide."

FREE COINAGE

OWNER: H. S. Mussigbrod, Wisdom, Mont. LESSEE: Free Coinage Leasing Co., John M. Buske, Treas., Garnet, Mont. (via Bearmouth). PROPERTY: 1 pat. claim. Garnet district. ORE: Gold. DEVELOPMENT: 50-ft. adit. MEN EMPLOYED: 8. REMARKS: Information furnished by Chris Johnson, Garnet, Mont.

GARNET-BUTTE

OWNER: Garnet-Butte Gold Mining Co., Charles Greiner, Pres., Butte; Frank Galasso, Vice-Pres., Butte; O. L. Dillenbeck, Sec., Anaconda; F. L. Melcher, Treas., Butte; John Farrell, Director, Grass Valley, California. LESSEES: Arthur Taylor and W. C. Heard, Philipsburg, Mont. PROPERTY: 5 pat. claims. Garnet district. ORE: Gold, silver. DEVELOPMENT: Incline shaft and adit. MEN EMPLOYED: 2.

GOLD COIN

OWNER: J. H. Miller. LESSEES: F. C. Mullholen and H. F. Crocker, First National Bank Bldg., Denver, Colorado; Matthew Stiffler, Box 9, Borger, Texas. PROPERTY: 10 pat. claims. Maxville district. ORE: Gold. DEVELOPMENT: 150-ft. incline. REMARKS: Work ceased Aug. 1, 1934. Information furnished by John S. Watt, Maxville, Mont.

GOLD KING AND GOLD MOUNTAIN

OWNER: J. W. Kaiser, Philipsburg, Mont. PROPERTY: 2 pat. claims 2 mi. N. of Princeton, Mont. South Boulder district. ORE: Gold. DEVELOPMENT: Shafts and drifts. MEN EMPLOYED: 2.

GOLD LEAF

OWNER: John Stuart, Bearmouth, Mont. PROPERTY: 1 pat. claim. Garnet district. ORE: Gold. DEVELOPMENT: Shaft. MEN EMPLOYED: 2 (lessees). REMARKS: Reference, 21:214.

GOLD PRICE

OWNER: H. O. Gasper, Philipsburg, Mont. PROPERTY: 3 unpat. claims in McKay Gulch tributary to Rock Creek. Rock Creek district. ORE: Gold, silver. DEVELOPMENT: 100-ft. adit, incline shaft. MEN EMPLOYED: 2. REMARKS: Owner reports, "Ore in incline shaft assays \$54 per ton at 40-ft. depth."

GRANITE AND BIMETALLIC

OWNER: Philipsburg Mining Co., L. S. Mitchell, Pres., St. Louis, Mo.; Leigh Wyman, Sec., St. Louis, Mo.; J. C. Yob, Supt., Philipsburg, Mont. PROPERTY: 262 pat. claims, 3,225 acres pat. Philipsburg district. ORE: Gold, silver, copper, lead, zinc, manganese. DEVELOPMENT: 2 shafts, 1,750 and 2,150 ft. deep; 2-mi. adit; 20 mi. of drifts; raises; shafts; and winzes. PRODUCTION: 1,000,000 tons. PLANT: Electric powered, 200-ton flotation mill, motors, hoists, compressors, drills. MEN EMPLOYED: 35.

REMARKS: Owner reports, "Mine has been reopened and is producing a small tonnage which will be increased. During the summer of 1934, the mill treated 185 tons of dump ore per day; total milled in 1934, 30,000 tons. Shipment to smelters 90,000 oz. silver, 220 oz. gold, 60,000 lb. lead. Copper and zinc not paid for." Formerly operated by Granite Bimetallic Co.

HIDDEN LAKE

OWNER: Lakes Mining and Milling Syndicate, Box 1324, Anaconda, Mont., B. P. Byregorson, Pres., 200 Elm St., Edgewood, Pittsburg, Pa.; Ray E. Tower, Vice-Pres. & Mgr., Anaconda, Mont.; M. J. Sheehan, Sec. & Treas., Butte. PROPERTY: 4 pat. and 13 unpat. claims near Hidden Lake. Red Lion district. ORE: Gold. DEVELOPMENT: Main adit cut in vein 50 ft. below outcrop, 200-ft. shaft and winze, 3,000 ft. of drifts and cross-cuts. PLANT: Electric powered 75-ton all-slime cyanide mill. MEN EMPLOYED: 30. REMARKS: Owner reports, "Ore occurs in fault fissure in Newland quartzite. Ore minerals are magnetite, limonite, and pyrite."

KENT AND CONDON

OWNER: David L. Kent, Trenton, Mo. LESSEES: T. S. Grooms, Joe Dumont, and Huey Grantland, Philipsburg, Mont. PROPERTY: 3 unpat. claims 35 mi. SW. of Philipsburg 1 mi. E. of Medicine Lake. Frog Pond Basin district. ORE: Gold. DEVELOPMENT: 1,500-ft. adit, 200-ft. incline shaft. MEN EMPLOYED: 4.

LEAD KING

OWNER: Mitchell-Mussigbrod Mining Co., W. J. Paul, Vice-Pres., Deer Lodge, Mont. LESSEE: Peterson and Pennington, Deer Lodge, Mont. PROPERTY: 30 pat. and 5 unpat. claims. Garnet district. ORE: Gold, silver. DEVELOPMENT: Numerous adits. MEN EMPLOYED: 30. REMARKS: Other claims owned by Mitchell-Mussigbrod Mining Co. are Red Cloud, Crescent, Fairview, Fourth of July, Willie, Free Coinage, and others.

LYNX

OWNER: F. A. Davey, Garnet (via Bearmouth), Mont. PROPERTY: 3 pat. and 5 unpat. claims in Cayuse and Day's Gulch 2 mi. E. of Garnet. Garnet district. ORE: Gold, silver (lode and placer). DEVELOPMENT: 2 adits, upper 350 ft. long, lower 145 ft. long; 330-ft. cross-cut; 250-ft. drift. PLANT: Blacksmith shop. MEN EMPLOYED: 2.

MAXVILLE GOLD AND SILVER

OWNER: Maxville Gold and Silver Mining and Development Co., W. E. Cruse, Pres., Missoula, Mont.; Charles J. Anderson, Vice-Pres., Philipsburg, Mont.; George J. Duvall, Sec., Missoula, Mont.; W. E. Allbright, Philipsburg, Mont.; Harry Small, Missoula, Mont., Directors. PROPERTY: 10 unpat. claims. Maxville district. ORE: Gold. DEVELOPMENT: 3,000-ft. drift, 300-ft. shaft. PLANT: 100-ton flotation mill. MEN EMPLOYED: 2.

MONT-YORK COMPANY

OWNERS: Jack Parfitt and James Dissett, Philipsburg, Mont. PROPERTY: 3 pat. and 3 unpat. claims 2½ mi. N. of Philipsburg. Philipsburg district. ORE: Gold, silver. DEVELOPMENT: Seven 20-ft. shafts; 2 adits, 600 and 500 ft. long; 600 ft. of drifts; 60-ft. cross-cut. PLANT: Track, car, drills, hand steel, blacksmith shop. REMARKS: Last operated in 1928 by Isaac Sanders.

MOORLIGHT MINING COMPANY

OFFICERS: John Hickey, Pres.; Thomas Hickey, Vice-Pres.; J. C. Harrah, Sec. & Treas., Philipsburg, Mont. PROPERTY: 5 pat. and 3 unpat. claims 1 mi. E. of Philipsburg. Philipsburg district. ORE: Manganese. PLANT: 50-ton magnetic separation mill. MEN EMPLOYED: 32. REMARKS: Owner reports, "Production \$300,000. Operated continuously for 15 years. Company is leasing several properties."

PINEU PLACER (MacFARLAND)

OWNER: J. H. Crockett, Gold Creek, Mont. PROPERTY: 6 unpat. claims upper middle fork of Gold Creek. Rose Mountain district. ORE: Gold (placer). PLANT: No. 3 giant, 10-ton portable derrick, 500 ft. of 20 in. by 20 in. sluice boxes. 450,000-gal. storage dam, 1½-mi. ditch, 150-ft. water head. MEN EMPLOYED: 2 to 4. REMARKS: Owner reports, "Placer gold, 850 fine, occurs in glacial moraines. Property has operated continuously for 40 years, 8 years of washable gravel in sight."

RED - CLOUD

OWNER: Mitchell-Mussigbrod Mining Co., H. S. Mussigbrod, Wisdom, Mont.; J. W. Paul, Deer Lodge, Mont. LESSEE: Fred Hensolt, Garnet, Mont. PROPERTY: 1 pat. claim. Garnet district. DEVELOPMENT: Incline shaft, drifts. MEN EMPLOYED: 2.

SILVER KING AND SILVER QUEEN

OWNER: Silver King and Silver Queen Mining Co., Joseph Lepke, Pres.; Frazier Smith, Sec. & Treas.; W. S. Smith, Mgr., Anaconda, Montana. PROPERTY: 2 unpat. claims at head of Warm Springs Creek ¾ mi. S. of Snowshoe Tom Group, 4¾ mi. NW. of Hidden Lake. Red Lion district. ORE: Silver. DEVELOPMENT: Several adits and shafts. REMARKS: Idle in 1934.

SILVER PRINCE

OWNER: Silver Prince Mining Co., L. L. Savage, Pres., 501 Fifth Ave., New York City; A. J. Molesphini, Treas., 501 Fifth Ave.; C. J. Hansen, Mgr., Philipsburg, Mont. PROPERTY: 16 pat. claims 2 mi. E. of Philipsburg. Philipsburg district. ORE: Silver, zinc. DEVELOPMENT: 500-ft. shaft, 2 mi. of underground workings. MEN EMPLOYED: 20.

STEPHENS PLACER

OWNER: G. A. Stephens, Philipsburg, Mont. PROPERTY: 1 pat. placer claim in sec. 12, T. 5 N., R. 16 W. on West Fork of Rock Creek. Rock Creek district. PLANT: 2 cabins. REMARKS: Owner reports, "About 1¾ mi. of gulch were worked in the 80's, ½ mi. of virgin flat ground remains. Test holes indicate a gold content of 80¢ per yard. Shipment of 23 tons of float ore assayed \$1,290 per ton. 43 tons, \$1,495 per ton." Idle in 1934.

SUNRISE

OWNER: Sunrise Mines Inc., James E. Murray, Pres.; John L. Pope, Vice-Pres.; Charles E. Leonard, Sec. & Treas., Butte, Mont. LESSEE: John E. Pratt, Maxville, Mont. PROPERTY: 38 pat. and 8 unpat. claims 17 mi. NE. of Philipsburg and 5 mi. W. of Maxville. Maxville district. ORE: Gold, silver, copper. REMARKS: Idle in 1934.

TROUT (ALGONQUIN AND COYLE MINES)

OWNER: Trout Mining Co., Charles H. Hyder, Gen. Mgr., Philipsburg, Mont. PROPERTY: 21 pat. and 1 unpat. claims 2 mi. E. of Philipsburg. Philipsburg district. ORE: Manganese and complex gold, silver, lead, zinc, copper. DEVELOPMENT: 3 shafts, 550, 635, and 630 ft. deep; 4 mi. of drifts and cross-cuts. PLANT: 100-ton magnetic-separation mill producing battery manganese ore (70% MnO₂). MEN EMPLOYED: 94. REMARKS: Property has been in continuous operation for 10 years. Reference, 13:209.

TWO PERCENT

OWNER: Patten Mining Co., James Patten, Philipsburg, Mont. PROPERTY: 4 pat. claims 1½ mi. NE. of Philipsburg. Philipsburg district. ORE: Silver, manganese. DEVELOPMENT: Two 100-ft. shafts, 1,000 ft. of drifts. PLANT: Engine rooms and blacksmith shop. REMARKS: Last operated in 1925 by L. U. Loumas.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Abe Lincoln	Moose Lake	Au	MR.1931	Atlas	Garnet	Au	MR.1933
Annie	Maxville	Au	13:262	Baker and Sullivan	Garnet	Pb,Ag	21:230

* See footnote on p. 7.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Banner	Moose Lake	Ag	MR.1923	Hobo	Philipsburg	Ag	13:207
Barnes	Maxville	Cu	13:261	Holland	Maxville	Ag	MR.1919
Basin Placer	Rock Creek	Au	MR.1933	Homer	Maxville	Au	13:260
Bayview	Philipsburg	Cu	MR.1917	Homestake	Garnet	Au	MR.1933
Bear	Maxville	Pb	MR.1927	Hope	Philipsburg	Au	13:213
Ben Placer	Garnet	Au	MR.1933	Hydee	Dunkleburg	Ag	MR.1929
Big Eight Placer	Welcome Creek	Au	MR.1933	International	Garnet	Au,Ag	21:186
Blackmail	Philipsburg	Ag,Zn	13:210	Jackson	Dunkleburg	Ag,Pb	22:247
Bluebird	South Boulder	Au	13:248	Jefferson	South Boulder	Au	13:250
Bonanza	Maxville	Ag,Zn	13:262	John G. Carlisle	Rose Mountain	Au,Ag	13:251
Bryan and Banker	South Boulder	Ag,Pb	13:250	Juniper	Philipsburg	Ag	MR.1923
Bunker Hill	Combination	Au,Ag	13:257	Juno King	Dunkleburg	Pb	MR.1927
Cadgie Taylor	Philipsburg	Ag	13:218	Last Chance	Philipsburg	Ag	13:261
Cayuse Placer	Garnet	Au	MR.1933	Little Dick Placer	Garnet	Au	MR.1933
Climax	Garnet	Au	MR.1931	Lodgepole	Garnet	Au	MR.1933
Comanche	Philipsburg	Ag	MR.1918	Londonderry	Maxville	Au	
Combination	Combination	Cu,Ag	13:252	Magane and Anderson	Garnet	Au	21:188
Comstock Extension	Philipsburg	Ag	MR.1920	Maggie C.	Philipsburg	Ag,Zn	MR.1916
Copper State	Maxville	Cu	MR.1931	Mariola	Philipsburg	Ag	MR.1909
Delaware	Maxville	Pb,Ag	21:261	McKay	Philipsburg	Ag	MR.1922
Dewey	Garnet	Au,Ag	21:178	Miller	Frog Pond Basin	Au,Pb,Zn	MR.1931
Donlon Bar Placer	Garnet	Au	MR.1933	Mitchell	Philipsburg	Ag,Zn	13:207
Douglas	Combination	Au,Ag	13:256	Modoc and American			
Durand	Maxville	Ag,Au	13:259	Flag	Red Lion	Au,Cu	5:341
Eagle	Maxville	Ag,Cu	13:260	Montana-Tonopah	South Boulder	Au	MR.1933
Eleanor	Philipsburg	Ag	MR.1923	Mother Vein	Maxville	Au,Cu	13:260
Elfers Placer	Garnet	Au	MR.1930	Mount Powell	Maxville	Ag	MR.1919
Fairview	Garnet	Au	21:195	Mountain	Garnet	Cu	21:210
Fealand Gulch Pl.		Au	MR.1912	Mountain Lion	South Boulder	Ag,Pb	13:250
First Chance Min.				Mountain Ram	Antelope Creek	Au	13:258
Co.	Garnet	Ag,Au	21:190	Mountain View	Garnet	Au	MR.1931
Flint Creek	Red Lion	Au	13:242	Nancy Hanks	Garnet	Au	21:182
Fourth of July	Garnet	Au	21:194	Nineteen Hundred	Red Lion	Au	13:240
Free Silver	Maxville	Cu	MR.1912	Nonpareil	South Boulder	Ag,Pb	13:249
Gem	Philipsburg	Ag	13:210	North Star	Maxville	Cu	13:262
Golconda	Alps	Cu	MR.1931	Old Chief	Philipsburg	Au	MR.1922
Gold Bug	Alps	Cu,Au	MR.1933	Peacock	Combination	Ag,Cu	13:256
Gold Center	Garnet	Au	MR.1926	Pearl	Garnet	Au,Cu	13:211
Gold Leaf	Frog Pond Basin	Pb	MR.1930	Pearl	Dunkleburg	Pb	22:246
Gold Reef	South Boulder	Au	13:250	Philipsburg Min. Co.	Philipsburg	Ag	MR.1918
Golden Eagle	Red Lion		13:241	Potlatch	Garnet	Au	MR.1933
Golden Sceptre	Moose Lake	Au,Ag	DM.1898	Powell	South Boulder	Ag,Cu	13:249
Grant and Hartford	Garnet	Au	21:188	Princeton	South Boulder	Ag	13:250
Grubstake	Garnet	Au	MR.1933	Puritan	Philipsburg	Ag	13:207
Hannah	Red Lion	Au	13:239	Rainy Day	Alps	Au	MR.1929
Harrison	Philipsburg	Ag	MR.1918	Red Cloud	Garnet	Au	21:190
Hatta	Dunkleburg	Pb,Ag,Zn	22:247	Red Lion	Red Lion	Au	13:238
Headlight	Philipsburg	Ag	13:210	Red Rock	Garnet	Au	21:213
Heilman	Maxville	Au,Ag,Pb	13:261	Redemption	Philipsburg	Fe	13:219
Hill Top	Garnet	Au	MR.1931	Red Wing	Dunkleburg	Au	MR.1930

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Robert Emmett	Garnet	Au,Ag	21:194	Summit	Dunkleburg	Pb,Ag	22:247
Robinson	Red Lion	Au,Ag	13:241	Sunset	Dunkleburg	Pb,Ag	22:246
Rose Mountain	Rose Mountain	Au	24:305	Sunset Placer	Maxville		MR.1931
Royal	South Boulder	Au	13:246	Surprise	Red Lion	Au	MR.1924
Royal Basin	Maxville	Cu	MR.1917	Swastika	Philipsburg	Ag	MR.1917
Sanders	Philipsburg	Pb,Ag	13:212	Tiger	Garnet	Au	21:187
San Francisco	Philipsburg	Ag,Au	13:208	True Fissure	Philipsburg	Ag	
Shamrock	Garnet	Au,Ag	21:186	Tuskman	Garnet	Au	DM.1897
Sierra	Garnet	Au	21:187	Twin Buttes	Maxville	Cu,Pb,Ag	13:260
Silver Crest	Maxville	Ag	MR.1919	Wasa	Dunkleburg	Zn	22:244
Silver Lode	Philipsburg	Ag	13:220	White Horse	Philipsburg	Ag	MR.1917
Spawn	Philipsburg	Ag,Pb	MR.1916	Willie	Garnet	Au	21:195
Spokane	Garnet	Au	21:185	Young America	Philipsburg	Ag	13:209
Stone Placer	Garnet	Au	MR.1931				

JEFFERSON COUNTY

Properties Reported by Owners or Operators

ALTA MINES CORPORATION

OWNER: Walter Eckley, Corbin, Mont. PROPERTY: In Colorado district. REMARKS: Owner reports, "Cleaning up concentrates and tailings around three old mills: Alta, Peck, and Jefferson mills." Reference, 24:241.

BALLARD

LESSEE: Ballard Mining Co., W. H. Tierney, Pres., Seattle, Wash.; E. J. Mo, Vice-Pres. & Mgr., Box 114, Helena, Mont.; G. W. Blevines, Sec. & Treas., Seattle, Wash. PROPERTY: 5 pat. and 4 unpat. claims 8 mi. E. of Jefferson City. Alhambra district. ORE: Gold. DEVELOPMENT: 300-ft. cross-cut to intersect 16-ft. vein at depth of 240 ft. MEN EMPLOYED: 6.

BALKAN BUTTE COPPER MINING COMPANY

OFFICERS: Charles Steele, Butte, Mont. PROPERTY: 4 pat. claims. Elk Park district.

BALTIMORE COPPER COMPANY

OFFICERS: D. J. Charles, Pres.; T. J. Fenlon, Sec. & Treas., Butte, Mont. PROPERTY: 5 pat. and 1 unpat. claims 4 mi. N. of Boulder and 2 mi. NE. of Basin Montana Tunnel Co. mines. Basin district. ORE: Gold, silver, copper, lead, zinc. DEVELOPMENT: 4 adits, lower 750 ft. long, upper 300 and 400 ft. long. REMARKS: Idle in 1934. Reference, 24:292.

BASIN MONTANA TUNNEL COMPANY

OFFICERS: Wm. H. Hax, Pres.; W. P. Jacob, Vice-Pres.; H. W. Dolph, Sec., 341 Madison Ave., New York City, N. Y.; Frank McPherson, Gen. Supt., Basin, Mont. PROPERTY: 46 pat. and 144 unpat. claims in T. 6 N., R. 5 W., 4 mi. NE. of Basin. Basin district. ORE: Gold, silver, lead, copper, zinc. DEVELOPMENT: Gray Eagle mine, 600 ft. of adit and winze. Comet mine, vertical 480-ft. 3-compartment shaft, drifts, cross-cuts, raises. PLANT: Electric power, hoisting plants, 150-ton flotation mill. MEN EMPLOYED: 95.

BASIN GOLDFIELDS, LTD.

OFFICERS: Carl J. Trauerman, Vice-Pres. & Consulting Engr.; Ernest Dorais, Sec. & Treas., Butte, Mont. PROPERTY: 1 pat. and 6 unpat. claims 1 mi. NW. of Basin. Basin district. ORE: Gold. DEVELOPMENT: Several adits. MEN EMPLOYED: 4. REMARKS: Owner reports, "8 parallel veins, 8 in. to 30 ft. wide, assaying \$5 to \$1,000 in gold. Adit planned 200 ft. below present workings."

BELLE

OWNER: J. L. Templeman, Butte, Mont. LESSEE: J. T. Eckerson, Boulder, Mont. PROPERTY: 3 pat. claims 12 mi. E. of Jefferson City, Mont. on Wilson Creek. Alhambra district. ORE: Gold, silver, copper, lead, zinc. DEVELOPMENT: Two 50-ft. shafts; 2 adits, 100 and 700 ft. long; 600 ft. of drifts; 200 ft. of cross-cuts. PLANT: Cabin and blacksmith shop. MEN EMPLOYED: 3.

BLUE BELL

OWNER: R. J. Marsh, Whitehall, Mont. PROPERTY: 1 pat. and 4 unpat. claims on Pipestone Creek 5 mi. N. of Spire Rock. Pipestone district. ORE: Gold, silver, copper, lead, zinc. DEVELOPMENT: 180-ft. upper adit, 580-ft. lower adit, 40- and 100-ft. raises. MEN EMPLOYED: 2. REMARKS: Owner reports, "Veins, 3½ to 6 ft. wide, assay \$2 to \$50, 3,000 tons of ore on dump averaging \$10 per ton. Water available for milling."

BLUE MOOSE

OWNER: Lyle Smith, Box 157, Whitehall, Mont. PROPERTY: 1 unpat. claim in Sunlight Mountains. Whitehall district. ORE: Gold. DEVELOPMENT: Underhand stope. MEN EMPLOYED: 3.

BULLION

OWNER: Bullion Mining Co., William Fischer, Pres., Hotel Ems, 321 S. Olive St., Los Angeles, Calif.; George Fischer, Vice-Pres., Bixby Hotel, Los Angeles, Calif.; Joseph P. Leyden, Sec. & Treas., 250 Moffet Ave., Joplin, Mo. PROPERTY: 2 pat. claims on N. slope of Jack Mountain 6 mi. N. of Basin. Basin district. ORE: Gold, silver. DEVELOPMENT: 3 adits, 300, 900, and 300 ft. long. PLANT: 100-ton flotation mill, offices, residences, shops. REMARKS: Owner reports, "A number of men are employed in general cleanup and repairs."

DEER HORN

OWNER: Callahan Gold Mining Co., 401 S. Wyoming St., Butte, Mont. PROPERTY: 20 unpat. claims 12 mi. E. of Jefferson City. Alhambra district. ORE: Gold. DEVELOPMENT: 1,500 ft. of adit. REMARKS: Idle in 1934.

DORIS

LESSEE: Ed Lindquist, Butte, Mont. PROPERTY: 1 pat. claim ¾ mi. NW. of Basin. Basin district. ORE: Lead, silver, gold, zinc. DEVELOPMENT: 500-ft. adit. MEN EMPLOYED: 3. REMARKS: Owner reports, "Big body of ore containing lead, silver, gold, and zinc."

EAGLES NEST (B. & G.)

OWNER: Montana State Mining Corp. LESSEE: E. E. Griffin, Jefferson City, Montana. PROPERTY: 3 pat. claims. Alhambra district. MEN EMPLOYED: 3. PLANT: 30-h. p. gasoline power engine. DEVELOPMENT: 2 shafts, 90 and 250 ft. deep; 1,000 ft. of drifts; 300 ft. of cross-cut. ORE: Gold. REMARKS: Reference, 24:229.

ERDMAN AND PYFER

OWNERS: J. H. Erdman, Whitehall, Mont. PROPERTY: 6 unpat. claims near Half Way Creek. DEVELOPMENT: 500-ft. adit. MEN EMPLOYED: 4.

GLORIA LEE (BUCKEYE)

OWNER: George Davenport, Whitehall, Mont. PROPERTY: 2 unpat. claims in Dry Creek 5 mi. N. of Pipestone Springs. Pipestone district. ORE: Gold, silver, copper, lead. DEVELOPMENT: 30-ft. shaft. MEN EMPLOYED: 1.

GOLDEN VALLEY

OWNER: Louis Kuntz, Whitehall, Mont. PROPERTY: 2 unpat. claims on Dry Creek 5 mi. N. of Pipestone Springs. Pipestone district. ORE: Gold, silver, copper, lead. DEVELOPMENT: 30-ft. shaft. MEN EMPLOYED: 1.

GRUBSTAKE

OWNERS: Erdman and Koppo, Whitehall, Mont. PROPERTY: 2 unpat. claims. Pipestone district. ORE: Gold. DEVELOPMENT: 550 ft. of adits, 50-ft. winze. MEN EMPLOYED: 4.

HATTIE FERGUSON

OWNER: Mr. White, Butte, Mont. PROPERTY: 7 pat and 4 unpat. claims 6 mi. N. of Basin. Basin district. ORE: Gold, silver, lead. DEVELOPMENT: Shafts, adit. REMARKS: Owner reports, "Driving lower adit to intersect extension of upper ore body during 1934."

HOFFMAN

OWNERS: L. F. Carmody, Butte, Mont. and W. W. Papesh, Kellogg, Idaho. PROPERTY: 5 pat. and 3 unpat. claims. Elkhorn district. ORE: Gold, silver. DEVELOPMENT: Adits, shafts. PLANT: Electric power, 100-ton cyanide plant, with compressor, crusher, rolls, and tanks. MEN EMPLOYED: 2.
REMARKS: Owner reports, "100,000 tons of ore in reserves."

JEFFERSON

OWNER: Jefferson Mines Co., John K. Claxton, Sec., Butte, Mont. PROPERTY: 3 pat claims 6 mi. NE. of Whitehall. Whitehall district. ORE: Gold, copper. DEVELOPMENT: One 300-ft., two 2,500-ft. adits.
PLANT: Gasoline hoist, compressors, engine and tool rooms, cook and bunk houses. REMARKS: Idle in 1934.

JIB

LESSEE: Roy E. Miller, Inc., Basin, Mont. PROPERTY: 20 pat. claims near town of Basin. Basin district. ORE: Gold, silver, lead, copper. DEVELOPMENT: Several shafts, Hope-Katie vein has been worked 2,000 ft. in length and 600 ft. in depth. Extension of this vein has been exposed 200 to 400 ft. in depth.
PLANT: Offices, residences, shaft house, shops. 300-ton gravity and flotation mill. MEN EMPLOYED: 25 to 60.
REMARKS: Owner reports, "Mine has been in operation off and on for 50 years. At various times it has produced large tonnages of very high-grade gold ores."

JOHN

OWNER: Economy Mines Co., I. Rosenfield, Pittsburg Bldg., Helena, Mont. PROPERTY: 202 acres of pat. claims. McClellan district. ORE: Gold (lode and placer). DEVELOPMENT: Open cuts and shallow shafts.
MEN EMPLOYED: 4 lessees.

LESLIE

OWNER: R. Mullins, 3001 Goodwin St., Butte, Mont. PROPERTY: 5 unpat. claims in Leslie Gulch 8 mi. from Homestake. Homestake district. ORE: Gold, silver. DEVELOPMENT: 85-ft. shaft, 120-ft. drift.
MEN EMPLOYED: 6. REMARKS: Owner advises, "Adit is now being driven to tap ore body exposed in bottom of shaft (18-in. vein of \$100 ore), 50 ft. of additional drifting necessary."

LITTLE GIANT

OWNER: Wm. Bluenchen, East Helena, Mont. PROPERTY: 4 unpat. claims 6 mi. S. of East Helena. McClellan district. ORE: Gold, silver. DEVELOPMENT: Shallow shafts and adits. PLANT: Gasoline hoist and pump.
MEN EMPLOYED: 1 to 2.

LOST HATCHET

OWNER: B. O. Cowdrey, Renova, Mont. PROPERTY: 2 unpat. claims in Dry Creek 5 mi. N. of Pipestone Springs. Pipestone district. ORE: Gold, silver, copper. DEVELOPMENT: 60-ft. shaft. MEN EMPLOYED: 2.
REMARKS: Owner reports, "Production about 40 years ago was \$4,000."

MARY LODE

OWNER: B. F. Chamberlain, Boulder, Mont. PROPERTY: 2 unpat. claims about 12 mi. E. of Jefferson City. Alhambra district. ORE: Gold, silver. DEVELOPMENT: 25-ft. shaft. MEN EMPLOYED: 2.
REMARKS: Owner reports, "About 2 tons of ore sent to East Helena to determine value of a 3-ft. vein."

MASTODON

OWNER: J. L. Templeman, Butte, Mont. PROPERTY: 2 pat. claims 10 mi. E. of Jefferson City in secs. 17 and 18, T. 7 N., R. 2 W. Alhambra district. ORE: Gold, silver. DEVELOPMENT: 50-ft. shaft, surface trenching.
REMARKS: Owner reports, "Vein-material 300 ft. wide, quartz streaks assay 1½ oz. of gold per ton." Idle in 1934.

MINNIE WILSON

OWNERS: R. T. Ogle, Charles Downey, Jack Femester, 901 Delaware St., Butte, Mont. PROPERTY: 2 unpat. claims 4 mi. N. of Pipestone Spring. Pipestone district. ORE: Gold, silver. DEVELOPMENT: Open cuts; 3 shafts, 15, 190, and 60 ft. deep. MEN EMPLOYED: 3. REMARKS: Owner reports, "6 parallel veins, 5 ft. wide, average \$5 and over per ton. 8-in. vein assays \$20 to \$48 per ton. Past production \$10,000."

MONTANA

OWNERS: J. E. Kendall and M. E. Loughran, 231 E. Granite St., Butte, Mont. PROPERTY: 4 pat. and 5 unpat. claims near Camp Caroline 3½ mi. E. of Homestake. Homestake district. ORE: Gold, silver, lead.
DEVELOPMENT: 5 shafts, 30 to 390 ft. deep; 200-ft. adit; 70 ft. of drifts. PLANT: 7 cabins. MEN EMPLOYED: 3.
REMARKS: Owner reports, "Past production \$20,000 from milling operations 35 years ago."

MORNING GLORY

OWNER: Morning Glory Mines, Inc., H. F. Tabb, Pres., Spokane., Wash.; D. K. Rowand, Vice-Pres., Helena, Mont.; H. C. W. Richter, Sec. & Treas., Helena, Mont. PROPERTY: 4 unpat. claims 4½ mi. from Basin. Basin district. ORE: Silver. DEVELOPMENT: 135-ft. shaft, drifts, cross-cuts. PLANT: Diesel-powered hoist, compressor, shops, cabins. MEN EMPLOYED: 14. REMARKS: Owner reports, "Shipments of high-grade silver ore have been made. Shaft is being sunk 100 ft."

MORNING STAR

OWNER: Morning Star Mining Co., J. L. Templeman, Pres., Butte, Mont. LESSEE: Eph Bennetts, Butte, Mont. PROPERTY: 5 pat. claims on Basin Creek 10 mi. from Basin. Basin district. ORE: Gold, silver, lead, zinc. DEVELOPMENT: 2 shafts, 125 and 50 ft. deep; 3 adits, 500, 300, and 100 ft. long; 900 ft. of drifts. PLANT: 2 cabins. MEN EMPLOYED: 2. REMARKS: Owner reports, "Several parallel fissure veins 3 to 7 ft. wide in andesite."

NELLIE

OWNER: J. L. Templeman, Butte, Mont. LESSEE: Bill Brown, Homestake, Mont. PROPERTY: 1 pat. and 6 unpat. claims on Lion Gulch Creek 3 mi. NW. of Homestake. Homestake district. ORE: Gold, silver. DEVELOPMENT: Two 50-ft. shafts; 6 adits, 150, 100, 1,000, 700, 300, and 700 ft.; 2,000 ft. of drifts; 400 ft. of cross-cuts; 300 ft. of raises. PLANT: Gasoline-driven compressor, 3 cabins. MEN EMPLOYED: 4. REMARKS: Owner reports, "Production, \$15,000. Veins in granite associated with aplite intrusions."

NEW DEAL (HIGHLAND VIEW)

OWNERS: R. T. Ogle, Louis Ogle, Buck Foran, and Chick Hodge, 901 Delaware St., Butte, Mont. PROPERTY: 2 unpat. claims on Dry Creek 5 mi. N. of Pipestone Springs. Pipestone district. ORE: Gold, silver. DEVELOPMENT: 30-ft. shaft, 30-ft. drift, 30-ft. raise. MEN EMPLOYED: 4. REMARKS: Owner reports, "Last shipment of 11 tons averaged 168 oz. of silver per ton."

NORTH ALTA

OWNER: J. L. Templeman, Butte, Mont. PROPERTY: 7 pat. claims N. of Alta mine on Alta hill near Corbin. Colorado district. ORE: Gold, silver, lead. DEVELOPMENT: Two 50-ft. shafts; 2 adits, 800 and 150 ft. long; 200 ft. of drifts; 800 ft. of cross-cuts. REMARKS: Owner reports, "Fissure vein 15 ft. wide parallel to Alta vein, 1,000 ft. north. Cross-cut at depth of 150 ft."

OHIO

OWNER: Mrs. A. J. McKay, Whitehall, Mont. and Mrs. J. B. Welcome, Butte, Mont. LESSEES: Tidball and Beigh, Whitehall, Mont. PROPERTY: 1 unpat. claim. Whitehall district. ORE: Gold. DEVELOPMENT: 80-ft. shaft, drifts. MEN EMPLOYED: 4. REMARKS: Owner reports, "This claim is one of a group of 22 claims. Hutchinson and McGilvran hold lease on the other 21 claims."

OVERLAND (GOLD BUG)

OWNER: C. S. Caird, Box 783, Helena, Mont. PROPERTY: 2 unpat. claims 1 mi. from Montana City. Clancy district. ORE: Gold. DEVELOPMENT: 450-ft. incline shaft, 400-ft. drift. PLANT: Small stamp mill. REMARKS: Idle in 1934.

PHANTOM

OWNERS: Charles J. Mattila, Deer Lodge, Mont. and Herman Pitkanen, Butte, Mont. PROPERTY: 4 unpat. claims on Cataract Creek 4 mi. from Basin. Basin district. ORE: Gold, silver. DEVELOPMENT: 80-ft. shaft, 700-ft. adit planned. PLANT: Air compressor, machine drill, blacksmith shop, cabins. MEN EMPLOYED: 6 for past 3 years. REMARKS: Owner reports, "Vein 8 ft. wide at bottom of shaft, soft material, assays \$2.80 in gold."

RARUS

OWNER: J. L. Templeman, Butte, Mont. LESSEE: W. Eckerle, Corbin, Mont. PROPERTY: 5 unpat. claims ½ mi. from Corbin station. Colorado district. ORE: Gold, silver, copper, lead, zinc. DEVELOPMENT: Two 100-ft. shafts, 2 adits, 900 ft. of drifts, 200 ft. of cross-cuts, 60-ft. winze. PLANT: Compressor, machine drills. MEN EMPLOYED: 2. REMARKS: Owner reports, "Bottom of winze shows 9 ft. of ore containing lead, zinc, silver, gold, and copper."

SLIM CEDAR

LESSEES: Lorentz and Milligan, 801 S. Montana St., Butte, Mont. SUB-LESSEES: McLaughlin and Slenker. PROPERTY: 240 acres of pat. claims 10 mi. W. of Whitehall. Pipestone district. ORE: Gold, silver, copper. DEVELOPMENT: 50-ft. shaft. PLANT: 1 cabin. MEN EMPLOYED: 2.

SPECULATOR

OWNER: William Barth, 621 W. Diamond St., Butte, Mont. PROPERTY: 5 pat. claims 5 mi. NE. of Trask. Elk Park district. ORE: Gold, silver, copper. DEVELOPMENT: 30-ft. shaft, 3 cross-cuts 80 ft. long. REMARKS: Owner reports, "Vein 100 ft. wide, claims patented by James Larkin, Timber available. These claims are located in the center of a group of 20 claims on the same vein. Last operated in 1892."

SUNNYSIDE

LESSEE: Silver Basin Cons. Mining Co., Whitehall, Mont. PROPERTY: 8 unpat. claims 6 mi. E. of Whitehall in secs. 18 and 19, T. 2 N., R. 3 W. Whitehall district. ORE: Gold, silver, lead, zinc. DEVELOPMENT: Several short adits. 2 shafts. PLANT: 3 cabins. REMARKS: 5 men employed in 1933. Idle in 1934.

SUNSET

OWNER: B. F. Jackson, Basin, Mont. PROPERTY: 2 unpat. claims N. of Morning Glory mine. Basin district. DEVELOPMENT: 300-ft. adit. ORE: Gold, silver. MEN EMPLOYED: 1.

TOURMALINE

OWNER: Wade V. Lewis, 105 U. S. Bldg., Butte, Mont. PROPERTY: 10 unpat. claims near Queen Siding on Elkhorn Creek. Elkhorn district. ORE: Gold. DEVELOPMENT: 12 adits, 500 ft. in total length. PLANT: Cabins, blacksmith shop. MEN EMPLOYED: 2. REMARKS: Owner has submitted an engineer's report on property.

WICKES-CORBIN MINING COMPANY

OFFICERS: B. D. Van Horn, Pres.; Ellery Newton, Vice-Pres.; John P. Conway, Sec., 1230 Vance Bldg., Seattle, Wash. PROPERTY: 2 unpat. claims. Colorado district. ORE: Gold, silver, lead, zinc. DEVELOPMENT: 175-ft. shaft, 220-ft. drift. PLANT: Gasoline-driven machinery. MEN EMPLOYED: 6. REMARKS: Owner reports, "Arranging to install electric power."

WINSTON BROTHERS COMPANY (PLACER)

OFFICE: 326 Fuller Ave., Helena, Mont. PROPERTY: 8 unpat. claims in Prickly Pear Creek. Montana City district. ORE: Gold (placer). PLANT: 3½-cu. ft. Bucyrus-Monighan diesel dragline with stacker scow with a capacity of 52,000 cu. ft. of gravel per 24 hrs. MEN EMPLOYED: 25.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Adolphus	Boulder	Au,Ag	MR.1924	Ariadne	Colorado	Ag	MR.1922
Albion	Elkhorn	Pb,Ag	MR.1915	Assets	Colorado	Au	MR.1914
Alexander	Basin	Ag,Pb	MR.1926	At Ease	Colorado	Pb	MR.1928
Alice	Amazon	Pb	MR.1925	Atlantis	Basin	Au,Ag,Pb	MR.1909
Allport	Basin	Au	24:296	Atlas	Colorado	Ag	MR.1915
Alturas	Pipestone	Au	MR.1933	Atlas	Basin	Ag,Pb	MR.1925
Amalgamated Silver				Atwater	Basin	Ag,Pb	MR.1925
Mines	Clancy	Ag	MR.1921	Aurella	Boulder	Ag,Cu	MR.1916
Amazon	Amazon	Ag,Pb	24:296	Australia	Boulder	Ag	MR.1920
American	Whitehall	Au,Ag	MR.1914	Avon	Whitehall	Au	MR.1915
Angelica	Colorado	Au,Ag,Cu,Pb	MR.1917	Bald Headed Eagle	Colorado	Au,Ag,Pb	MR.1908
Anna and Avon	Whitehall	Au,Ag	MR.1914	Banner	Colorado	Ag	MR.1906
Apollo	Basin	Au,Ag	MR.1905	Basin Bell	Basin	Pb,Cu	MR.1933
Argentum	Colorado	Ag,Pb	DM.1880	B and G	Clancy	Pb,Cu	24:229
Argonaut	Clancy	Ag	MR.1921	Bell	Colorado	Ag	MR.1905
Argus	Whitehall	Au	MR.1915	Bell	Clancy	Au,Ag,Pb	24:229

* See footnote on p. 7.

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Bertha	Colorado	Cu	24:242	Crystal	Basin	Pb,Zn,Ag	24:292
Big Chief	Colorado	Ag	24:241	Custer	Basin	Cu,Ag	24:295
Big Four	Big Foot	Pb,Zn	MR.1933	Custer	Colorado	Au	24:225
Bismarck	Boulder	Pb	MR.1933	Dailey	Colorado	Ag,Cu,Au	24:233
Black Jack	Colorado	Ag,Pb	24:269	Dan Tucker	Clancy	Pb,Ag	MR.1918
Black Rock	Colorado	Au,Ag	24:241	Devall	Colorado	Ag,Pb	MR.1922
Black Sheep	Homestake	Au,Ag	MR.1917	Doble	McClellan	Pb,Au	MR.1914
Bland and Weaver	Boulder	Au,Ag	MR.1917	Dolcoath	Elkhorn	Au, (Bi)	24:303
Blizzard	Colorado	Au,Ag,Pb	24:242	Dorothy	Colorado	Ag	MR.1925
Blue Bird	Colorado	Ag,Cu	24:242	Dry Ridge Placer	Whitehall	Au	MR.1933
Bluebird	Boulder	Au,Ag	31:32	Duluth-Montana	Clancy	Au,Ag,Pb	MR.1916
Blue Jacket	Colorado	Pb	MR.1924	Earl	Basin	Au	MR.1930
Blue Rods	Pipestone	Au	MR.1933	Early Riser	Basin	Ag,Cu	MR.1913
Blue Stone	Colorado	Ag	24:238	East Katie	Basin	Au	24:290
Bonanza Jack	Basin	Au	MR.1933	East Rumley	Colorado	Ag	MR.1906
Boston	Colorado	Ag,Cu	MR.1905	Eighty Acre	Whitehall	Cu	MR.1918
Boston Atlas	Colorado	Ag,Au	MR.1909	Eliza	McClellan	Au,Ag,Cu	MR.1914
Boston and Corbin	Colorado	Ag,Cu	MR.1918	Elkhorn	Elkhorn	Au,Ag,Pb	24:300
Brooklyn	McClellan	Au	MR.1926	Elkhorn Queen	Elkhorn	Ag	37:509
Buckhorn	Colorado	Pb	MR.1921	Emma B.	Basin	Ag	MR.1911
Buckeye	Basin	Ag,Cu	MR.1926	Emma May	Boulder	Ag,Pb	MR.1910
Buliver	Elkhorn	Cu	MR.1925	Euberta	Basin	Au,Ag,Cu	MR.1911
Bunker Hill	Colorado	Pb,Ag,Zn		Eureka	Elk Park	Ag	MR.1919
Burlington	Whitehall	Pb	39:98	Eureka	McClellan	Au	MR.1922
Butte-Cardwell Min. Co.	Whitehall	Ag,Pb	MR.1917	Eva May	Basin	Cu,Ag	24:295
Butte-Elk Park	Elk Park	Ag	MR.1926	Evening Star	Boulder	Pb,Ag	MR.1919
Butte and Phila- delphia	Basin	Ag	24:294	Evening Star	Homestake	Au,Ag	MR.1926
C and D	Elkhorn	Au	37:505	Freiburg	Boulder	Au,Ag,Pb	MR.1908
Canadian	Basin	Pb	MR.1918	Frohner	Clancy	Pb	MR.1929
Capital	Clancy	Au,Ag,Pb	MR.1909	Garfield	Basin	Ag,Pb	MR.1926
Carbonate	Whitehall	Pb,Ag	MR.1929	Garneau	McClellan	Au	MR.1933
Carbonate Chief	Clancy	Au,Ag	24:249	Glenbeg	Colorado	Ag	MR.1919
Chalcopryite	Colorado	Cu	MR.1929	Gold Bar	McClellan	Au,Ag,Cu	MR.1916
Charlton	Homestake	Ag	MR.1930	Gold Coin	Colorado	Au	MR.1922
Clara	Pipestone	Au	MR.1933	Gold Crown	Clancy	Au,Pb	MR.1909
Cleveland	Boulder	Pb	MR.1924	Gold King	Whitehall	Ag,Pb	
Climax	Basin	Au	DM.1884	Gold Star	Whitehall	Au	MR.1933
Coffee Blossom	Homestake	Au,Ag	MR.1911	Golden Crony	Elkhorn	Au	MR.1931
Columbia	Whitehall	Au,Ag,Pb	39:98	Golden Moss	Elkhorn	Au	MR.1925
Comet	Basin	Au,Pb,Zn,Cu	24:242	Golden Ridge	McClellan	Au	MR.1933
Copper King	Basin	Au,Ag	24:296	Golden Sunlight	Whitehall	Au	39:98
Copper Ore	Boulder	Ag,Cu	MR.1927	Good Cheer	Clancy	Ag,Pb	MR.1910
Copper Queen	Elkhorn	Cu	MR.1931	Grand View	Boulder	Ag,Cu,Pb	MR.1909
Corbett	Basin	Au,Ag	MR.1915	Granite Butte	Basin	Ag	MR.1922
Corbin Copper Co.	Colorado	Pb,Cu,Ag	24:244	Gray Lead	Basin	Au	MR.1931
Corbin Met. Min. Co.	Colorado	Pb,Zn,Mo	24:245	Great Northern	Boulder	Ag	MR.1923
Craig	Whitehall	Cu	MR.1926	Gregory	Colorado	Ag,Pb,Zn	24:245
Croatia	Whitehall	Au,Ag	MR.1918	Hackensack	Whitehall	Au	MR.1931
				Haegan	Elkhorn	Au	MR.1930
				Hattie	Colorado	Cu,Ag	MR.1916

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Haystack Butte	McClellan	Au	MR.1933	Mammoth	Clancy	Ag	MR.1921
Helper	Colorado	Pb	MR.1918	Mammoth	Clancy	Pb,Ag	MR.1908
Hennefy	Basin	Pb	MR.1914	Mantle	Basin	Au	MR.1933
Hiawatha	Basin	Au,Ag	MR.1906	Margaret	Clancy	Ag	MR.1921
High Ore	Colorado	Pb	MR.1927	Martin	Whitehall	Au,Ag	MR.1918
High Up	Whitehall	Pb	MR.1929	Mascot	Homestake	Ag,Au	MR.1916
Highland	Basin	Au,Ag	DM.1882	Mayflower	Amazon	Au,Ag,Pb,Cu	MR.1913
Homestake	Homestake	Au	MR.1917	Mayflower	Colorado	Ag,Pb	MR.1922
Hope	McClellan	Cu	MR.1930	McCormick	Clancy	Pb,Zn,Ag	24:230
Hope Katie	Basin	Au	24:290	McCormick	Colorado	Cu,Ag	MR.1916
Horseshoe	Colorado	Pb,Ag	24:245	McKinley	Boulder	Pb	MR.1929
Hudson	Whitehall	Au,Ag	39:98	Middlesex	Clancy	Pb	MR.1918
H. T.	Colorado	Ag	MR.1918	Midnight	Clancy	Pb	MR.1924
I Don't Know	Basin	Ag	MR.1918	Midnight	Whitehall	Pb	MR.1929
Independent	Amazon	Ag,Cu	MR.1917	Millburn	Whitehall	Pb,Au	MR.1919
Irene	Whitehall	Au	MR.1931	Minah	Colorado	Ag,Pb	24:245
Ironsides	Whitehall	Au,Ag	MR.1918	Minerva	Whitehall	Pb	MR.1926
I. W. W.	Whitehall	Au,Ag	MR.1918	Minneapolis	Basin	Ag,Pb,Zn	24:289
Jacquenin	Elkhorn	Au,Fe	37:509	Minnesota	Clancy	Pb,Ag	MR.1933
Jenny	Basin	Ag	MR.1911	Mocking Bird	Clancy	Au,Ag	24:229
Jenny B.	Basin	Pb,Zn	MR.1927	Molly McGregor	Boulder	Pb	MR.1927
John and Jim	McClellan	Au,Ag	MR.1927	Mono	Boulder	Pb,Ag	MR.1919
John T.	Basin	Ag	MR.1917	Montana	Boulder	Au	MR.1921
Johnson	Basin	Ag	MR.1927	Montana	Homestake	Ag	MR.1919
Johnson	Colorado	Pb	MR.1927	Montana	Basin	Au,Ag	MR.1918
Katie	Basin	Au,Ag	MR.1922	Montana Central	Elkhorn	Au,Fe	MR.1908
Keene	Elkhorn	Au	37:505	Moon	Colorado	Pb	MR.1924
Kennedy	Clancy	Ag	24:232	Morning Star	Basin	Pb,Ag	24:295
King Cole	Basin	Ag	MR.1923	Morning Star	Boulder	Ag,Pb	MR.1908
King Solomon	Clancy	Pb,Cu,Ag,Mo	24:231	Mount Pleasant	Elkhorn	Ag,Pb	MR.1915
Kit Carson	Basin	Au,Ag	24:297	Mount Washington	Colorado	Pb,Zn	24:236
Klondike	Basin	Pb,Cu	MR.1908	Mountain Gem	Pipestone	Ag	MR.1921
Kronholm	Whitehall	Au,Ag,Pb	MR.1912	Muskegon	Clancy	Ag	MR.1927
Last Chance	McClellan	Au	MR.1933	Musketeer	Pipestone	Ag	MR.1933
Last Chance	Basin	Ag	MR.1917	Nancy Placer	Basin	Au	MR.1933
Last Hope	Clancy	Ag,Pb	MR.1909	Nanny	Homestake	Au,Ag	MR.1911
Last Hope	McClellan	Ag		New Albany	Boulder	Ag,Cu	MR.1916
Leadville	Basin	Pb,Ag	24:292	New Year	Whitehall	Au	MR.1933
Legal Tender	Clancy	Ag,Pb,Zn	24:227	Ninety Six	Clancy	Pb,Ag	MR.1926
Lewis	Basin	Ag	24:293	Nipsic	Clancy	Ag	MR.1919
Lewis Placer	McClellan	Au	MR.1933	No Man's	Boulder	Au	MR.1929
Lexington	Basin	Au,Ag,Pb	MR.1908	Northern Pacific	Colorado	Pb,Zn	24:246
Little Minnie	Clancy	Ag,Pb	MR.1926	Orphan Boy	Homestake	Au,Ag	MR.1911
Little Nell	Clancy	Ag,Pb,Cu	24:231	Ottawa	Boulder	Pb	MR.1927
Liverpool	Clancy	Pb,Ag	24:227	Parrott	Whitehall	Pb	MR.1927
Liza	McClellan	Au	MR.1926	Pass Over	Elkhorn	Ag	MR.1915
Lizzie Bell	Basin	Au	MR.1928	Partner	Colorado	Ag,Pb	MR.1926
Lone Eagle	Whitehall	Au	MR.1933	Payer	Colorado	Pb	MR.1928
Lost Cabin	Big Foot	Ag,Pb	MR.1926	Peacock	Colorado	Au,Ag	MR.1914
Louise	Basin	Ag,Pb	MR.1926	Peacock and Turkey	Elkhorn	Ag	MR.1915
Lump Gulch Placer	Clancy	Au	MR.1933	Peerless	Basin	Au	MR.1931

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Pen Yan	Colorado	Pb,Ag	MR.1921	Silver Trail	Basin	Ag	MR.1922
Perhaps	Whitehall	Pb	MR.1929	Serious	Basin	Au,Ag,Pb	MR.1911
Peter Lode	Colorado	Pb,Cu	MR.1916	Solar Pearl	Basin	Ag	MR.1922
Petaluma	Whitehall	Au,Ag	MR.1914	South Bend	Basin	Au	MR.1931
Phoenix	Boulder	Ag	MR.1917	South Serious	Basin	Au	MR.1933
Pilot	Boulder	Ag	MR.1924	State	Bigfoot	Au	MR.1927
Pioneer	Whitehall	Ag	MR.1921	State	Colorado	Ag	MR.1906
Portal	Colorado	Cu	MR.1914	Stegmiller	Colorado	Ag,Pb	MR.1922
Prize	Colorado	Ag	MR.1925	Streak of Luck	Whitehall	Au	MR.1930
Queen of May	Clancy	Ag,Pb	MR.1910	St. John	Boulder	Au,Ag	MR.1913
Rachell	Clancy	Ag,Pb	MR.1910	St. Louis	Basin	Pb,Cu,Ag,Au	24:285
Raymond	Clancy	Ag,Pb	MR.1909	Sullivan	Clancy	Pb,Cu	24:230
Red Wing	Basin	Pb	MR.1930	Sunny Corner	Whitehall	Pb,Au,Ag	MR.1933
Reliance	Colorado	Ag	MR.1905	Sunrise	Pipestone	Au	MR.1933
Revenue	Clancy	Pb,Zn	MR.1927	Surprise	Whitehall	Pb	MR.1931
Robert Emmett	Boulder	Ag,Cu	24:295	Swissmont	Elkhorn	Au	MR.1933
Rock of Ages	Basin	Au	MR.1933	Toga	Basin	Au,Ag,Pb	MR.1908
Roosevelt	Homestake	Au	MR.1930	Two Dot	Clancy	Ag,Pb	MR.1917
Rose Girl	Clancy	Cu	MR.1924	Uncle Sam	Basin	Pb,Zn,Ag	24:294
Rose Gold	Elkhorn	Au	MR.1907	Union	Elkhorn	Ag,Pb	37:506
Ruby	Basin	Au,Ag	24:296	Union	Boulder	Ag	MR.1909
Rumley	Basin	Au	MR.1930	Virginia	Basin	Pb	MR.1918
Salvail	Colorado	Au,Ag,Cu	24:237	Washington	Clancy	Ag,Pb	MR.1905
Sandman	Clancy	Ag,Pb	MR.1926	Wassom	Basin	Au,Ag	MR.1908
Scioto	Elkhorn	Au		Wegemer	Whitehall	Au	MR.1933
Searchlight	Clancy	Au	MR.1923	Wendall	Clancy	Au	MR.1929
Shields & Ironside (Martin Min. Co.)	Boulder	Ag,Cu	MR.1926	West Nobel	Boulder	Ag,Pb	MR.1909
Silent Treasure	Elk Park	Au,Ag	MR.1926	West Rumley	Basin	Au	MR.1925
Silver Bell	Basin	Ag	MR.1925	White Fawn	Colorado	Ag	MR.1926
Silver Butte	Basin	Au,Ag	MR.1884	White Pine	Clancy	Pb,Zn	24:229
Silver Hill	Basin	Ag	MR.1922	Whitehall	Whitehall	Pb	MR.1926
Silver King and Silver Queen	Basin	Au		Wilbur Silver	Boulder	Ag,Pb	MR.1929
Silver Star	Boulder	Au,Ag,Pb	MR.1914	Willard	Clancy	Cu,Pb,Zn	24:229
Silver Tip	Colorado	Ag,Pb	24:240	Winter Placer	Boulder	Au	MR.1926
				Yellowstone	Clancy	Au	24:231
				Zinc B.	Basin	Pb	MR.1918

JUDITH BASIN COUNTY

Properties Reported by Owners or Operators

BLOCK P

OWNER: St. Joseph Lead Co., Clinton H. Crane, Pres.; Andrew Fletcher, Vice-Pres. & Treas.; Irwin H. Cornell, Vice-Pres. & Sales Mgr.; C. Merrill Chapin, Vice-Pres.; E. V. Peters, Vice Pres.; H. B. McGown, Sec. Office, 250 Park Ave., New York City, N. Y. PROPERTY: Hughesville. Barker district. ORE: Silver, lead, zinc. DEVELOPMENT: 1,470-ft. shaft, 31,000 ft. of drifts and cross-cuts. PLANT: 2-mi. aerial tramway, 400-ton flotation plant, jaw crusher, Symons cone crusher, rod mill, classifier, flotation cells, and Borco filter. REMARKS: Idle in 1934.

LIBERTY

OWNER: Faith Mining Co., Box 216, Helena, Mont. PROPERTY: 21 pat. and 9 unpat. claims. Barker district. ORE: Silver, lead, zinc. DEVELOPMENT: Shafts and adits. REMARKS: Last operated in 1929. Idle in 1934.

MOUNTAIN SIDE

OWNER: F. B. Snyder, Danvers, Mont. PROPERTY: 3 pat. and 1 unpat. claims 20 mi. SW. of Stanford. Running Wolf district. ORE: Silver, lead, zinc. DEVELOPMENT: 3 adits, 600, 300, and 300 ft. long. MEN EMPLOYED: 2. REMARKS: Owner reports, "Shipments to smelter assay 56 to 90 oz. silver, 10% lead, 18 to 20% zinc."

NEW MINE SAPPHIRE SYNDICATE

OFFICERS: C. T. Gadsden, Mgr., Utica, Mont. PROPERTY: 271 acres of pat. lode claims (sapphire) and 15 pat. placer (gold) claims in sec. 22, T. 13 N., R. 11 E., 14 mi. W. of Utica. Yogo district. ORE: Sapphire. DEVELOPMENT: 250-ft. shaft, 5,250 ft. of drifts. PLANT: Hoist, compressors, machine drills. Gems recovered by sluicing or by special milling process using disintegrators, shaking screens, and jigs, etc. REMARKS: Owner reports, "Claims located in 1896, vein about 5½ mi. long. Last operated in 1928."

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
August	Barker	Pb,Cu,Zn	MR.1923	Monarch (New Lib-			
August No. 2	Barker	Pb	MR.1926	erty Min. Co.)	Barker	Pb,Ag	MR.1929
Barker	Barker	Ag,Pb	35:442	Queen Esther	Barker	Pb,Ag	35:446
Big Four	Barker	Cu,Pb,Zn	MR.1921	Romer	Running Wolf	Pb	MR.1927
Blankship (Mont. Sil-				Running Wolf	Running Wolf	Pb	MR.1931
ver Lead Min. Co.)	Barker	Pb,Ag	MR.1924	Sampson	Barker	Cu,Pb,Zn	MR.1922
Bluebell	Running Wolf	Pb	MR.1921	Silver	Running Wolf	Ag	MR.1919
Butler	Barker	Pb	MR.1924	Silver Bell	Barker	Pb,Ag	MR.1930
Danny T.	Barker	Pb	MR.1923	Sir Walter Scott	Running Wolf	Ag	35:451
Dr. Kalloch	Barker	Pb	MR.1929	Tiger	Barker	Pb,Ag	35:445
Fourth of July Pl.	Running Wolf	Au	MR.1929	Woodhurst-Mortsom	Running Wolf	Pb,Ag	35:451
Frenchman & Pocket	Barker	Pb	MR.1929	Wright and Edwards	Barker	Ag	35:452
Last Chance	Barker	Pb	MR.1923	Yogo Lead & Zinc Co.	Running Wolf	Ag,Pb	MR.1928

LAKE COUNTY

Properties Reported by Owners or Operators

SILVERSTONE

OWNER: Silverstone Mining Co., Kalispell, Mont., Anton Vlasak, Pres.; John Bear, Vice-Pres.; C. R. Hussman, Sec. PROPERTY: 800 acres pat. claims ½ mi. N. of Elmo near Chief Cliff mine. Elmo district. ORE: Silver, lead. DEVELOPMENT: 130-ft. shaft. PLANT: Hoist, compressor, machine drills. MEN EMPLOYED: 2.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Chief Cliff	Elmo	Pb,Ag		Elmo Placer	Elmo	Au	

* See footnote on p. 7.

LEWIS AND CLARK COUNTY

Properties Reported by Owners or Operators

AJAX

OWNER: E. L. Hotvedt, Saco, Mont. PROPERTY: 1 pat. claim, upper end of Ophir Creek. Ophir district.

ORE: Gold and silver. DEVELOPMENT: 800 ft. of adit and air shaft to surface at end of adit.

REMARKS: Pipe veins carrying gold and silver. Last operated in 1918.

AMERICAN SMELTING AND REFINING COMPANY (EAST HELENA PLANT, EAST HELENA, MONT.)

OFFICERS: J. D. MacKenzie, Mgr.; O. P. Chisholm, Supt.

PROCESS: Smelting lead ores and concentrates, also gold and silver ores and concentrates. Lead ores and concentrates from mines in the Coeur d'Alene district, Idaho; zinc plant residues from Anaconda Copper Mining Company, Great Falls; custom ores from Montana.

WEIGHING: Over Northern Pacific Railway track scales.

THAWHOUSE: Capacity, 600 tons per 24 hours. Natural-gas fired.

SAMPLING: Concentrates: Shovel sampling and pipe sampling. Crude Ores: Two standard Vezin-type sampling mills. One, 20 tons per hour capacity for less than carload lots and truck lots. One, 40 tons per hour capacity for carload lots. Gyratory crushers, conveyor belts, crushing rolls, screens, Vezin samplers, bucking room.

BEDDING BINS: Ores reclaimed by Hoar Mechanical Shovels, transported to roasting department by electric locomotives. New ore unloading and handling system in operation by October 1, 1935. Ores and concentrates unloaded from bottom-dump cars into storage plant, capacity 10,000 tons. Reclaimed by electric locomotive crane into proportionate feeder bins, belt conveyor system to D. & L. Department. Natural gas unit heaters.

ROASTING DEPARTMENT: Eight standard (22-ft.) and one 44-ft. Dwight & Lloyd sintering machines. Capacity, standard machines 200 tons each per 24 hours. Large machine 400 tons per 24 hours. Double sintering practice. Sulphur, 12 to 14% initial charge, reduced to 1.0 and 1.5% final product. Natural gas used for ignition.

BLAST FURNACE DEPARTMENT: Four blast furnaces, three 42 by 192 in., one 48 by 192 in. Capacity, 1,000 tons per 24 hours. 40 ozs. blast pressure. Product, bullion to Dressing Plant, iron speiss to dross smelting reverberatories, slag to slag treating plant.

BULLION DROSSING AND CASTING DEPARTMENT: Five 60-ton kettles, natural-gas fired. Dross to dross smelting reverberatories. Bullion cast on straight-line casting machine in 100 pound pigs, weighed, loaded in railroad cars for shipment to refineries.

DROSS REVERBERATORIES: Two furnaces, one 7 by 21 ft., one 7 by 28 ft., natural-gas fired. Capacity, 150 tons dross per 24 hours, products, lead bullion to kettles, copper speiss to Tacoma, slag to blast furnace.

COTTRELL DEPARTMENT: Ten units, each 180 pipe electrodes, 12 ft. long 6 in. diameter. Motor generator set each unit. Treat D. & L. gas, volume 200,000 cu. ft. Humidification with water sprays under 250 lbs. pressure. Dust recovered to D. & L. Department.

BAGHOUSE DEPARTMENT: Three baghouses, each containing 1,200 bags 30 ft. by 18 in. Capacity, 100 cu. ft. per bag per minute. Dust recovered to D. & L. Department.

ANACONDA COPPER MINING COMPANY

(SLAG-FUMING PLANT, EAST HELENA, MONT.)

PROCESS: Zinc-bearing slags from East Helena plant of A. S. & R. Co. are fumed with pulverized coal, producing impure zinc oxide containing lead oxide, which is shipped to Great Falls Zinc plant.

PLANT: Blast furnace, water-jacketed horizontal flue, U-tube cooling flues, 32,000 sq. ft. Standard-type baghouse, 576 woolen bags, 7½-ft. fan. Capacity, 350 tons of slag per day. 20 to 35% fuel used, 85 to 90% extraction.

REMARKS: For descriptions of Anaconda Copper Mining Company's plants at Butte, Anaconda, and Great Falls, see Silver Bow, Deer Lodge, and Cascade County directories.

AUGUSTA

OWNER: W. D. Scott, 404 N. Benton, Helena, Mont. PROPERTY: 1 unpat. claim ½ mi. E. from Whitlatch and Spring Hill mines. Helena district. ORE: Gold, silver. DEVELOPMENT: 150-ft. drift. REMARKS: Owner reports, "Continuous streak of ore from 8 in. to 2 ft. wide, assaying \$8 to \$10 in gold per ton." Idle in 1934.

BACHELOR GOLD MINING COMPANY

OFFICER: William L. Meikle, Gen. Mgr., 602 Walker Bank Bldg., Salt Lake City, Utah. PROPERTY: 15 unpat. claims, Virginia Creek at Stemple. Gould-Stemple district. ORE: Gold, silver. DEVELOPMENT: Drifts and raises. PLANT: 20-ton amalgamation and flotation mill (ball mill). MEN EMPLOYED: 14. REMARKS: Owner advises, "Property was acquired from the Old Gold Mines Company. We have approximately 3,000 tons of ore developed." Reference, 24:87.

BALD BUTTE

OWNER: Bald Butte Gold Mines Co., L. K. Stratton, W. G. Stratton, Directors, Symons Bldg., Spokane, Wash.; E. J. Mimnaugh, Mgr., Marysville, Mont. PROPERTY: 18 pat. claims 4 mi. SW. of Marysville. Marysville district. ORE: Gold, silver. DEVELOPMENT: Several adits. PLANT: 40-stamp mill (80 tons per day). Mine machinery and buildings. MEN EMPLOYED: 15. REMARKS: Owner reports, "Reopening main working level and driving new adit on north side."

BELL BOY

OWNER: Bell Boy Gold Mining Co., Marysville, Mont. PROPERTY: 3 pat. and 16 unpat. claims. Marysville district. ORE: Gold, silver. DEVELOPMENT: Adit and shafts. PLANT: Electric powered, 75-ton flotation mill, offices, residences. MEN EMPLOYED: 22.

CHANNEL GOLD MINES, LTD.

OFFICERS: Boy Channel, Pres., Marysville, Mont.; Belle Channel, Sec. & Treas., Marysville, Mont.; L. S. Ropes, Cons. Eng. PROPERTY: 7 unpat. claims in triangle bounded by Bald Butte, Penobscot and Shannon mines. Marysville district. ORE: Gold, silver. DEVELOPMENT: 1,200-ft. adit, 800-ft. shaft. PLANT: Mine buildings, compressor, machine drills. MEN EMPLOYED: 8. REMARKS: Owner reports, "Rich gold veins discovered during past year." Engineer's report on file in Montana Bureau of Mines and Geology.

COLUMBIA

LESSEE: Donnelly-Erickson Mines Syndicate, H. E. Longmaid, Agt., Box 251, Helena, Mont. PROPERTY: 8 pat. claims. Seven-up Pete Gulch district. ORE: Gold, silver. DEVELOPMENT: 300-ft. shaft, 3 levels, total length 1,000 ft. REMARKS: Idle in 1934.

CONSOLATION

OWNER: Thompson and Horner, Thurber Printing Co., Helena, Mont. LESSEE: Tom Ryan, Wilborn, Mont. PROPERTY: 3 pat. claims at Silver Camp. Heddleston district. ORE: Gold, silver, lead, zinc, copper. DEVELOPMENT: Adit. MEN EMPLOYED: 3.

COPPER QUEEN

OFFICERS: S. Rosenfield, Pres.; I. Rosenfield, Sec.; Dorman Schaeffer, Helena, Mont. PROPERTY: 7 unpat. claims in York Gulch. York district. ORE: Gold, silver, copper. DEVELOPMENT: 150-ft. shaft at top of mountain, 1,800-ft. adit at base of mountain. PLANT: Gasoline-power plant. REMARKS: Idle in 1934.

CROWN LODE

OWNERS: A. H. Stewart, 416½ Central Ave., Great Falls, Mont.; W. F. Hoge, Wilborn, Mont. PROPERTY: 1 pat. and 5 unpat. claims, sec. 27, T. 13 N., R. 7 W. Gould-Stemple district. ORE: Gold, silver. DEVELOPMENT: Several shafts about 700 ft. deep, drifts a few hundred ft. on the veins. The veins run from 2 to 10 ft. in width. PLANT: Modern electric-powered mill contemplated. Power to be furnished by Montana Power Co. MEN EMPLOYED: 4 at present. Force to be increased.

CRUSE, BALD MOUNTAIN, AND BELMONT

OWNER: Thomas Cruse Mining and Development Co., Richard Cruse, Pres.; C. B. Cruse, Vice. Pres.; James J. Cruse, Treas.; W. J. Cooke, Sec., Helena, Mont. LESSEE: Belmont Mines, Inc., Marysville, Mont. PROPERTY: 28 pat. claims of 345 acres in secs. 29, 34, 35, and 36, T. 12 N., Rs. 5 and 6 W. Marysville district. REMARKS: List of claims on file in Montana Bureau of Mines and Geology office. Operating in 1934.

D O N N E L L Y

OWNERS: Mrs. G. H. Donnelly and Merrit Estate, Helena, Mont. LESSEE: Donnelly-Erickson Mines Syndicate, H. E. Longmaid, Agt., Box 251, Helena, Mont. PROPERTY: 2 pat. claims. Seven-up Pete Gulch district. ORE: Gold, silver. DEVELOPMENT: 900-ft. adit. MEN EMPLOYED: 10. REMARKS: Owner reports, "Reopening lower adit and retimbering."

D R U M L U M M O N

OWNER: St. Louis-Drumlummon Mines, Inc., S. A. Brown, Mgr., Marysville, Mont. PROPERTY: 54 pat. claims. Marysville-Bald Butte district. PLANT: 60-ton cyanide mill. MEN EMPLOYED: 14.
REMARKS: Lessees to operate Drumlummon, St. Louis, and Nine Hour mines. Reference, 24:69.

E R I C K S O N

OWNER: Simon Erickson, Helena, Mont. LESSEE: Donnelly-Erickson Mines Syndicate, H. E. Longmaid, Agt., Box 251, Helena, Mont. PROPERTY: 10 unpat. claims. Seven-up Pete Gulch district. ORE: Gold, silver. DEVELOPMENT: 1,500 ft. of drifts, 100-ft. shaft. MEN EMPLOYED: 10. REMARKS: Owner reports, "Claims being developed through the Donnelly mine."

F E D E R A L G O L D

OWNER: W. M. Manning, Montana Club, Helena, Mont. PROPERTY: 20 claims. ORE: Gold.
DEVELOPMENT: Several thousand feet of workings. REMARKS: Last operated in 1933.

G O L D E N M E S S E N G E R

OWNER: United Gold Mines Corp., J. C. Archibald, Mgr., Box 765, Helena, Mont. PROPERTY: 6 pat. and 6 unpat. claims. York district. ORE: Gold. DEVELOPMENT: 3 adits and a winze 100 ft. below lowest level. PLANT: 125-ton cyanide plant. MEN EMPLOYED: 25.

G O L D E N M I S T

OWNER: E. C. Pew, Helena, Mont. PROPERTY: York district. REMARKS: Owner reports, "Large tonnage of low-grade ore, probably 0.05 oz. gold on average."

G O U L D

OWNER: Mrs. Owen Brynes, Helena, Mont. LESSEE: Cannon & Julian, Marysville, Mont. PROPERTY: In Marysville district. PLANT: Diesel engine, concentration and flotation mill (ball mill, etc.). MEN EMPLOYED: 4.
REMARKS: Lessee reports, "Operations consist of cleanup of mill and old tailings, past production \$20,000."

G R A Y R O C K

OWNERS: Tintinger and Qualey, Box 377, Unionville, Mont. PROPERTY: 5 unpat. claims 3½ mi. S. of Helena, Mont. Helena district, Unionville. ORE: Gold. DEVELOPMENT: Drifted NE. and SW. on 50-ft. level. 75 ft. mined and stoped to shaft which opened ventilation. PLANT: Ellis Ball mill (5 tons).
MEN EMPLOYED: 5. REMARKS: Owner reports, "The Gray Rock is a true fissure vein of quartz diorite, 5 ft. across the face. Strike is W. to SW. Dips slightly to the SE. The footwall has consisted of high-grade gold, quartz, and talc. Averaged about \$200 per ton. Boulders of the Boulder batholith close to contact between quartz monzonite and quartzite."

H E N T E R B R O T H E R S

OWNERS: Henter Brothers, P. O. Box 942, Helena, Mont. PROPERTY: 3 pat. claims 11½ mi. NW. of Helena. Blue Cloud district. ORE: Gold (placer). PRODUCTION: Probable past production about \$400,000.
MEN EMPLOYED: 5. REMARKS: Gravel runs from \$1.50 to \$2.50 in test of bank run. Last operated in 1912.

H O M E S T A K E A N D G R U B S T A K E

OWNER: Joe Oker, Helena, Mont. PROPERTY: 10 claims. Gould-Stemple district. ORE: Gold, silver.
DEVELOPMENT: 2,000 ft. of adits and drifts. PLANT: Compressors, machine drills, mine buildings, 7-ft. Lane mill. REMARKS: Operating in 1934, Reference, 24:87

J A Y G O U L D

OWNER: Standard Silver Lead Mining Co., Arch Witherspoon, Pres.; Charles Hussy, Sec. & Treas.; W. A. Corey, Director, all of 604 Empire State Bldg. Spokane, Wash.; S. R. Moore, Mgr., Wilborn, Mont. PROPERTY: 9 pat. and 22 unpat. claims 6 mi. NW. of Wilborn; Fool Hen Creek. Altitude 5,778 ft. Gould-Stemple district. ORE: Gold, silver. DEVELOPMENT: 800-ft. shaft; 2 adits, 6,400 ft.; 9,000 ft. of drifts; 6,400 ft. of cross-cuts; 8 raises, 2,500 ft. PLANT: Office, 4 residences, boarding house, 8 bunk houses,

compressor, 12 machine drills, 26 ore cars, 35-ton flotation and cyanide mill, electric power.

MEN EMPLOYED: 65. REMARKS: Owner reports, "Mine located in 1882; past production \$2,000,000; vein 5 ft. wide, $\frac{3}{4}$ mi. long, strike S. 70° E., dip 70° N. Water supply 3,000 gal. per min.; timber abundant; good roads; 20 mi. to R. R."

KELLY

OWNER: John Kelly, Rimini, Mont. PROPERTY: 4 unpat. claims on Ruby Creek. Rimini district. ORE: Gold, silver. DEVELOPMENT: 2 adits, 40 and 60 ft. long. REMARKS: Idle in 1934.

LARSEN

OWNER: Atlas Mines Corp., 15 Exchange Placer, Room 427, Jersey City, N.J., Carol H. Sayre, Pres., c/o Merrill, Lynch and Co., 40 Wall Street, New York; F. B. Hyder, Mgr., Room 26 Union Bank Bldg., Helena, Mont. PROPERTY: Near Bald Butte mill. Marysville district. ORE: Gold. PLANT: 500-ton flotation mill. MEN EMPLOYED: 40. REMARKS: Lode, placer, and tailings dump deposits.

LOST CABIN PLACER

OWNERS: Goldfields Cons. Mines Co., Inc., J. F. Morrissey Co., Hirbour Bldg., Butte, Mont.

PROPERTY: 4 unpat. claims about 6 mi. NW. of Finn. Buffalo Creek district. ORE: Gold (placer).

DEVELOPMENT: $\frac{1}{2}$ mi. of high line ditch, pipe line with 200-ft. head, hydraulic giants. MEN EMPLOYED: 7.

LUCKY BOY

OWNER: Ludwig K. Beaver, Avon, Mont. PROPERTY: 6 unpat. claims at head of Ophir Gulch. Ophir district. ORE: Gold, silver. DEVELOPMENT: Shaft and adit. MEN EMPLOYED: 1.

MARYSVILLE GOLD MINING COMPANY

OFFICER: Ted E. Collins, Sec., 31 W. Sixth Ave., Helena, Mont. PROPERTY: 8 pat. claims. Marysville district.

DEVELOPMENT: 600-ft. adit. REMARKS: Idle since 1912.

MONTANA LEAD, INCORPORATED

OFFICERS: P. R. Barbour, Pres. & Mgr.; G. N. Slade, Vice-Pres.; E. G. Roomey, Sec., Rimini, Mont.

PROPERTY: 96 pat. and 40 unpat. claims. Montana Lead, Inc. holds lease on 32 claims of Red Mtn. Cons.

Mining Co., A. T. Stolpestad, Sec., c/o First Trust Co., St. Paul, Minn. Rimini district. ORE: Gold, silver, copper, lead, zinc. DEVELOPMENT: 3,600 ft. of cross-cuts, 2,167 ft. of drifts, 400 ft. of raises. PLANT: Two 225-h. p. diesel compressors, etc. MEN EMPLOYED: 12. REMARKS: Lode and placer deposits. Reference, 24:249.

MONTE CRISTO MINING COMPANY

OFFICER: E. J. Mo., Mgr., Helena, Mont. PROPERTY: 5 unpat. claims 3 mi. SW. of Rimini. Rimini district. ORE: Gold, silver, copper. DEVELOPMENT: 1,100-ft. adit, tracked and timbered, 125-ft. double-compartment shaft. REMARKS: Owner reports, "Vein at 125-ft. depth is 15 ft. wide." Operating in 1934.

NEW MILL

OWNER: Nickolas Blanchett, Otto Johnson, 719 Eight Ave., Helena, Mont. PROPERTY: 8 unpat. claims in Cave and Bar gulches. York district. ORE: Gold, silver. DEVELOPMENT: Shallow shafts and adits.

MEN EMPLOYED: 2. REMARKS: Owner reports, "Shales in large quantities bearing gold and silver."

NEW VICTORY

OWNERS: Live in Helena, names unknown. PROPERTY: 1 mi. below Lucky Boy mine. Ophir district.

ORE: Gold, silver, copper, iron. MEN EMPLOYED: 1. REMARKS: Altitude over 6,000 ft., poor roads,

water and timber supply good, distance to R. R. 12 mi., distance to power line, Marysville, 12 mi.

NORTH GOULD MINING COMPANY

OFFICERS: H. O. Batzer, Pres., Box 1184, Great Falls, Mont., E. R. Angle, Sec. & Treas., Helena, Mont.;

George Canavan, Gen. Mgr., Great Falls, Mont.; Dewey J. Sabin, Cons. Eng., Helena, Mont. Property leased from R. Williams. PROPERTY: 10 pat. and 5 unpat. claims in secs. 10, 11, and 15, T. 13 N., R. 7 W. Gould-

Stemple district. ORE: Gold, silver. DEVELOPMENT: 900-ft. adit. PLANT: 50-ton stamp mill now being installed.

REMARKS: Owner reports, "Work indicates vein of 20 ft. or more which carries a good grade of milling ore."

PORTER BROTHERS CORPORATION

OFFICERS: R. P. Porter, Pres.; R. B. Porter, Vice-Pres.; D. L. Skidmore, Sec., Helena, Mont.

PROPERTY: Secs. 18 and 19, T. 10 N., R. 3 W. Helena district. MEN EMPLOYED: 10.

REMARKS: Owner reports, "Total area is 600 acres. New Yuba 6-cu. ft. steel dredge to be erected."

SAN FILLIPPE

OWNER: E. L. Hotvedt, Saco, Mont. PROPERTY: 3 unpat. claims, left fork of Ophir Creek. Ophir district. ORE: Gold. DEVELOPMENT: 45 ft. of shaft, 160 ft. of drift. MEN EMPLOYED: 2.

SPRAUKE L

OWNERS: Alice Thibest, Annie Engle, Finn, Mont. LESSEE: Maurice James, Finn, Mont. PROPERTY: 1 pat. placer claim, 1 unpat. lode claim 6 mi. N. of Finn, 1½ mi. from Wiggins mine. Gould-Stemple district. ORE: Gold. DEVELOPMENT: Placer claim has been worked for 1 mi. Lode claim has been worked by open cuts. MEN EMPLOYED: 1.

SPRING HILL

OWNER: Montana Cons. Mines Corp., C. D. Wason, Pres., Seattle, Wash.; Gust Carlson, Vice-Pres. & Mgr., Duluth, Minn. and Helena, Mont.; Lars Carlson, Sec. & Treas., Helena, Mont.; H. J. Johnson, Acct. & Transf. Officer, Helena, Mont. PROPERTY: 24 pat. claims 3 mi. SW. of Helena. Helena district. ORE: Gold. DEVELOPMENT: Main adit, 200-ft. winze, intermediate and lower levels. PLANT: 250-ton flotation mill. MEN EMPLOYED: 70. REMARKS: Operating in 1935.

WHITLATCH

OWNER: Jared W. Young, 317 W. Fifty-sixth St., New York City, H. C. Sherman, Mgr., Box 746, Helena, Mont. PROPERTY: 120 acres pat. claims 4 mi. S. of Helena. Helena district. ORE: Gold. DEVELOPMENT: 600-ft. shaft, 2,000-ft. adit. PLANT: Electric-powered, 200-stamp amalgamation and gravity concentration mill (70 tons per 24 hrs.) REMARKS: Owner reports, "Property worked extensively in 1906-1908 and by lessees in 1915, 1920, 1927. Ore mined in 1906-1908 had average value of \$9 per ton. Considerable body of low-grade ore left in mine by former operators. 40,000 tons of tailings averaged 0.08 oz. gold. Levels above 500 ft. open for inspection, under 500 ft. filled with water." Idle in 1934. Reference, 24:210.

WIGGINS

OWNER: Evans Metals Mines, Co., Wallace Evans, Pres. & Mgr., Finn, Mont. PROPERTY: 3 unpat. claims, 1 pat. mill site in sec. 32, T. 13 N., R. 8 E. 8 mi. N. of Finn. Gould-Stemple district. ORE: Gold, silver, copper, lead. DEVELOPMENT: 4 adits, 185, 180, 60, and 20 ft. long; 440 ft. of drifts; 300 ft. of cross-cuts. PLANT: Mine residence buildings, motor-driven compressor, machine drills, 25-ton steam-powered amalgamation and concentration mill. MEN EMPLOYED: 8. REMARKS: Owner reports, "Altitude 7,000 ft., fair roads, pumping plant, 2,700 ft. of pipe line, capacity 40 g. p. m., abundant timber for fuel and mining."

Supplementary List of Mines

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Ajax (Scratch Gravel Min. Co.)	Scratchgravel	Au	24:56	Baldy Smith	Austin	Pb	24:62
Albatross and Yellow Jacket	Scratchgravel	Au	MR.1933	Base Metal	Helena	Au,Ag	MR.1934
Alpha	Gould-Stemple	Au	MR.1918	Bassett, O. H.	Rimini	Pb,Cu,Ag	24:251
American Boy	Gould-Stemple	Au	MR.1931	Bassett, S. P.	Rimini	Pb,Cu,Ag	24:254
American Flag	Marysville	Au,Ag	24:71	Besse	Austin	Ag,Au,Pb	MR.1936
American Flag	Rimini	Au,Ag,Pb	24:251	Big Copper	York	Cu	24:168
Anaconda	Heddeleston	Au,Ag,Cu	24:106	Big Indian	Helena	Au	24:210
Ariadene	Scratchgravel	Au,Ag,Pb	24:55	Big Ox	Marysville	Pb,Zn	MR.1927
Armstrong	Rimini	Au,Ag,Cu	24:248	Bissonette (Liberty)	Wolf Creek	Cu	24:113
Aster (Helena Silver Lead Min. Co.)	Scratchgravel	Pb	24:46	Black Cat	Scratchgravel	Ag	MR.1928
Aurora	Rimini	Au	MR.1931	Black Foot	Lincoln	Au	24:116
Baker	York	Au	24:163	Black Foot Belle	Heddeleston	Ag	24:105
				Black Eagle Placer	Rimini	Au	MR.1933
				Bloom and Billy			
				Williams Placer	Lincoln	Au	MR.1933

* See footnote on p. 7.

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Ethel B.	Scratchgravel	Cu	24:44	Hamlet	Rimini	Au,Ag,Pb	24:254
Blue Bird(Copper & Silver Min. Co.)	Scratchgravel	Pb,Ag	24:55	Harvey	Lincoln	Au	MR.1933
Blue Jay	Austin	Cu,Ag,Pb	24:60	Helena	Helena	Au,Ag,Cu,Pb	MR.1917
Bonanza	Scratchgravel	Au,Ag,Pb	24:55	Herwood (Harvey Cr. Min. Co.)	Wolf Creek	Cu	24:112
Buck Deer	Gould-Stemple	Au	MR.1931	Hogall	Heddeleston	Pb,Ag	24:98
Buckhorn Placer	York	Au	MR.1933	Honeycomb	Wolf Creek	Cu	24:113
Bunker Hill	Rimini	Au,Ag,Pb	24:253	Hope	Helena	Au	MR.1933
Calliope	Heddeleston	Au,Ag	24:102	Hopeful	Scratchgravel	Au,Ag,Pb	24:51
Calumet	Rimini	Au	24:70	Horseshoe	Marysville	Cu,Au	MR.1933
Calumet and Staples	Marysville	Au	MR.1933	Hubbard	Gould-Stemple	Au	24:84
Carbonate	Heddeleston	Pb,Zn	24:99	Hudson	Wolf Creek	Cu	24:112
Carbonate Hill	Heddeleston	Pb,Ag	24:103	Ida	Helena	Au	MR.1933
Carlson	Rimini	Au	24:261	Independence	Gould-Stemple	Au	MR.1931
Compromise	Marysville	Au	MR.1933	Iridescent	Scratchgravel	Cu	24:55
Conshohocken	York	Cu	24:164	Irma	Gould-Stemple	Au	MR.1933
Copper Chief	Wolf Creek	Cu	MR.1919	Iron Hill	Heddeleston	Pb	24:105
Copper Lode	Wolf Creek	Cu,Ag	MR.1917	Jimtown Placer	Helena	Au	MR.1926
Crescent (Pentabase Min. Co.)	Wolf Creek	Cu	MR.1930	John McGrew	Rimini	Au,Ag,Pb	24:258
Drumheller	Scratchgravel	Pb,Ag	24:46	Johnny	Rimini	Au,Ag,Pb	24:254
Dudley	Helena	Pb	MR.1925	Josephine	Rimini	Ag	MR.1919
Durant	York	Au	24:163	Julia	Scratchgravel	Au	24:56
Dutro	Helena	Au	24:211	Katy	Scratchgravel	Au,Ag,Pb	24:55
Earthquake	Marysville	Pb	24:75	Keystone	Helena	Au	MR.1933
Economy	Lincoln	Pb,Ag	MR.1919	King Tut	Austin	Ag,Pb	24:62
Eldorado Bar Placer	Missouri River	Au	24:181	Kleinschmidt	Wolf Creek	Au,Ag	24:108
Elizabeth	Scratchgravel	Au,Ag,Pb	24:50	Klondike	Gould-Stemple	Au	MR.1933
Ella	Scratchgravel	Au	24:148	Korizek	York	Ag,Pb,Cu	24:170
Empire	Marysville	Au,Ag,Pb	24:77	Lady Alice	York	Pb	MR.1917
Eula	Helena	Au	MR.1931	Lady Washington	Rimini	Pb,Zn	24:248
Eureka (Mont. Lead, Inc.)	Rimini	Au,Ag,Pb	24:251	Last Chance	Lincoln	Au	24:118
Evans & Jones Pl.	Austin	Au	MR.1933	Last Chance	Scratchgravel	Pb	MR.1928
Fairview	Scratchgravel	Ag,Pb	24:44	Last Chance Gl. Pl.	Helena	Au	MR.1933
Food Producer	Austin	Au	MR.1933	Lee Mountain (Ideal Min. Co.)	York	Pb,Zn	24:161
Franklin	Scratchgravel	Au	24:41	Lee Mountain (Mont. Lead Inc.)	Rimini	Pb,Au,Ag,As	24:255
Free Speech No. 1	Rimini	Au,Ag,Pb	24:254	Lexington	Scratchgravel	Pb,Ag	24:56
General Grant	Rimini	Pb,Ag	DM.1882	Lexington (Mont. Lead, Inc.)	Rimini	Au,Ag,Pb	24:252
General Harrison	Scratchgravel	Au	24:47	Lindsay	Helena	Au	MR.1933
General Sherman	Rimini	Pb,Ag	DM.1882	Little Dandy	York	Au,Ag	24:158
Gold Asset	Helena	Ag,Pb	MR.1928	Little Jennie	Rimini	Au,Pb,Ag	DM.1884
Gold Bar	Marysville	Au	MR.1933	Little Sampson	Rimini	Au,Ag,Pb	24:254
Golden Charm	York	Au	24:159	Lockey	Heddeleston	Au	MR.1917
Golden Crown	Scratchgravel	Au,Ag	24:48	Loeber	Rimini	Pb	MR.1933
Good Friday	Rimini	Pb,Ag	DM.1882	Looby (Thomas Cruse Min. & Dev. Co.)	Scratchgravel	Au,Ag	24:57
Gould Placer	Rimini	Au	MR.1925	Lockout	Gould-Stemple	Au	MR.1931
Gravel Range Placer	Gould-Stemple	Au	24:119	Lucky Boy	Marysville	Au	
Greenhorn Placer	Austin	Au	24:62				
Grizzly Gulch Pl.	Helena	Au	MR.1933				

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
M and L	Marysville	Au,Ag	24:70	Robinson	Scratchgravel	Au	MR.1928
Mabel Placer	York	Au	MR.1933	Robinson Flescher Placer	Lincoln	Au	24:115
Magpie	Scratchgravel	Pb,Ag	24:43	Rock Rose, Helena, Looby (Cruse Cons. Min. Co.)	Scratchgravel	Pb,Ag	24:57
Mammoth	Marysville	Au	24:75	Rover	Gould-Stemple	Au	24:118
Mammoth	Rimini	Au,Ag,Pb	24:254	Russell	Rimini	Ag,Pb	24:254
Margaret	York	Au	24:162	San Juan	York	Au	MR.1930
McCower (Mont. Lead, Inc.)	Rimini	Au,Ag,Pb	24:249	Shakespeare	Marysville	Cu,Pb	24:76
Midnight	Heddeleston	Au	24:101	Scratch Gravel	Scratchgravel	Au	24:43
Mike Horse	Heddeleston	Pb,Zn	24:80	Shannon	Marysville	Au	MR.1923
Miller	York	Au	MR.1923	Silver Bell	Gould-Stemple	Au,Ag	
Milliron	Heddeleston	Pb,Ag	24:103	Silver Copper Min. Co.	Scratchgravel	Pb,Ag	24:56
Morning Star	Scratchgravel	Pb,Au,Ag	MR.1926	Silver Coin	Scratchgravel	Ag,Pb	24:58
Mullin	Scratchgravel	Au	24:49	Silver Cord	Rimini	Pb	24:255
Nellie Grant	Rimini	Au,Ag,Pb	DM.1882	Silver King	Helena	Au	MR.1921
Nelson Gulch Placer	Helena	Au	MR.1933	Skyscraper	Heddeleston	Pb	24:106
Nettie	Scratchgravel	Au	24:45	South Pacific	Rimini	Au,Ag,Pb	24:251
New Era	Wolf Creek	Cu	24:110	Spokane Bar Placer	York	Au	24:180
Nile	Marysville	Au,Ag,Pb	24:72	Stanton	Rimini	Pb,Zn	24:254
North Pacific (Mont. Lead Inc.)	Rimini	Au,Ag,Pb	24:251	Staples	Marysville	Au	24:70
North Star	Scratchgravel	Au,Ag,Cu	24:50	Strawberry	Marysville	Au	
North Star	Marysville	Au	MR.1933	Sunrise	Scratchgravel	Pb	MR.1931
O'Connell	Marysville	Au	24:53	Sunrise	Lincoln	Au	MR.1933
Oker	Heddeleston	Ag		Teal Lake	Rimini	Au,Ag,Pb	24:249
Old Amber	York	Au	24:157	Three Sixty Eight Placer	York	Au	MR.1933
Omega	Gould-Stemple	Au		Tom Lode	York	Pb	24:170
Osage Chief	Austin	Au,Cu	24:61	Towsley	Marysville	Pb,Cu	24:76
Padbury Placer	Gould-Stemple	Au	MR.1933	Umatilla	Austin	Au	MR.1926
Pauper's Dream	Rimini	Au	24:260	Valley Forge	Rimini	Au,Ag,Pb	24:257
Paymaster	Heddeleston	Pb,Ag	24:108	Venus	Rimini	Au	24:260
Peerless Jennie	Rimini	Au,Ag,Pb	24:258	Victory	Gould-Stemple	Au,Ag	24:32
Penobscot	Marysville	Au	24:63	War Eagle	Austin	Ag	24:60
Piegan Gloster	Marysville	Au	24:63	Whippoorwill	Marysville	Au,Ag	
Philadelphia Min. Co.	Marysville	Au	MR.1921	White	York	Au,Ag	24:161
Pipeline	Austin	Pb,Ag	MR.1917	White Astor	Marysville	Au	MR.1930
Porphyry Dike (Gold Corp. Min. Co.)	Rimini	Au	24:259	White Lode-Union	Helena	Au	24:210
Potter Placer	Austin	Au	MR.1931	Whitmire	York	Cu	24:168
Prize	Gould-Stemple	Au	24:85	Winscott	Helena	Au	24:202
Producer	Helena	Au	MR.1923	Wolftone (Mont. Lead, Inc.)	Rimini	Au,Ag,Pb	24:253
Queen of the Valley	Scratchgravel	Au	24:51	Woodrow Wilson	Rimini	Au	MR.1933
Quinley	Rimini	Pb	MR.1927	Yellowjacket	Helena	Au	24:209
Raster	Gould-Stemple	Au	MR.1933	Yellowstone	Scratchgravel	Au	24:46
Recovery Placer	Helena	Au	MR.1931				
Red Wing (Sterling Min. & Mill. Co.)	Heddeleston	Pb,Ag	24:99				
Regina	Scratchgravel	Au	24:48				
Rex Beach (MacKeesport Min. & Mill. Co.)	Heddeleston	Au,Ag,Pb	24:105				

LINCOLN COUNTY

Properties Reported by Owners or Operators

AMERICAN EAGLE MINING COMPANY

OFFICERS: I. L. Earnheart, Sec. & Mgr., Box G., Troy, Mont. PROPERTY: 17 unpat. claims 3½ mi. SW. of Troy. Troy district. ORE: Gold, silver. DEVELOPMENT: 2,600-ft. adit. PLANT: Gas engine, compressor. REMARKS: Last operated in 1929.

BIG EIGHT

OWNER: Partnership, c/o Harry L. Day, Box 408, Wallace, Idaho. PROPERTY: 4 pat. and 2 unpat. claims on Callahan Creek 8 mi. W. of Troy. Troy district. ORE: Silver, zinc, lead. DEVELOPMENT: 1,000 ft. of drifts. REMARKS: Idle in 1934.

BLACK DIAMOND MINING SYNDICATE

OFFICERS: C. A. Smith, Pres.; A. R. Johnson, Sec. & Treas.; L. A. White, Mgr.; G. A. King, Mill Supt., Troy, Mont. PROPERTY: 8 unpat. claims 7½ mi. NE. of Leonia, Idaho on Yaak River. Sylvanite district. ORE: Gold, silver, copper, lead. DEVELOPMENT: 700-ft. adit. PLANT: Mill under construction in 1934.

BRANNIGAN (BRICK & BRANNIGAN)

OWNER: Fisher Creek Mining Co., Ed Murphy, Pres., Lawler, Iowa; Oscar V. Miller, Eng., Libby, Mont. PROPERTY: 8 pat. claims. Libby district. ORE: Gold. DEVELOPMENT: Adits. MEN EMPLOYED: 3. REMARKS: Brannigan mine has been taken over by Sinnette and Green of Spokane, according to Mont. Oil and Min. Jour., Jan. 5, 1935.

D & W MINING AND CONCENTRATING COMPANY (FORMERLY LINCOMONT OPTIONS CO.)

OFFICERS: C. B. Boyle, Director, Libby, Mont. PROPERTY: 12 unpat. claims 8 mi. S. of Libby. Libby district. ORE: Gold, silver, lead. DEVELOPMENT: 1,000-ft. adit, shallow shafts, cross-cuts. REMARKS: Idle in 1934.

GIANT SUNRISE MINING COMPANY

OFFICER: T. S. Hutchinson, Pres., Box 1262, (E. 2523 Third Ave.), Spokane, Wash. PROPERTY: 23 unpat. claims 8 mi. SE. of Troy. Troy district. ORE: Gold, silver. DEVELOPMENT: 4 adits, 47, 58, 273, and 1,000 ft. long. PLANT: 200-ton mill. MEN EMPLOYED: 5. REMARKS: Mill operating in June 1935.

GLACIER SILVER LEAD MINING COMPANY

OFFICERS: G. W. Millett, Pres., Libby, Mont.; Chris Devenish, Vice-Pres., Colville, Wash.; Samuel Holbert, Dir. Eng., Troy, Mont.; R. E. Rudd, Greenacres, Wash.; J. L. Rielly, Sec. & Treas., Libby, Mont.; James R. Lee, Supt., Libby, Mont. REMARKS: See Lukens Hazel and Hazel T. mines.

HANNIGAN AND WOLZ GOLD MINING COMPANY (FORMERLY NORTHERN MONTANA GOLD MINES CO.)

OFFICERS: V. A. Hannigan, E. Wolz, Libby, Mont. PROPERTY: 5 pat. claims. Cabinet district. ORE: Gold. DEVELOPMENT: Several adits. REMARKS: Idle in 1934.

HERBERT GOLD MINES, INCORPORATED

OFFICER: Wm. Herbert, Pres., Libby, Mont. PROPERTY: 19 unpat. claims 4 mi. S. of Libby. Libby district. ORE: Gold and silver. DEVELOPMENT: 1,600-ft. adit, 3,000 ft. of open cuts on vein. Vein length proved 2,800 ft. PLANT: Gas engine and compressor, drill sharpener, wet leyner drill, etc. MEN EMPLOYED: 6 to 8. REMARKS: Owner reports, "Vein 15 to 30 ft. wide, carries gold and silver, about equal in value, no lead or zinc. Average value \$10 to \$12 per ton."

IRON MASK LEAD MINING COMPANY

OFFICERS: George F. Stannard, Sec., Box 74, Kalispell, Mont. PROPERTY: 4 pat. claims 12 mi. S. of Troy. Troy district. ORE: Gold, silver, lead, zinc. DEVELOPMENT: Two 300-ft. adits. REMARKS: Owner reports, "Vein 7 ft. wide. Three carloads of milling ore produced in 1930 but not shipped." Idle in 1934.

JOHN BULL AND UNCLE SAM

OWNER: A. M. Hoffman, W. F. Kienitz, Libby, Mont. PROPERTY: 3 unpat. claims on Bear Creek at junction with Cable Creek. Cabinet district. ORE: Gold, silver, lead. DEVELOPMENT: 250-ft. adit. REMARKS: Owner reports, "Main contact vein 4 ft. wide." Idle in 1934.

KOOTENAI

OWNER: Williams and Hoffman, Libby, Mont. PROPERTY: 4 pat. claims, Kootenai River, 10 mi. from Libby on State Highway No. 2. Libby district. ORE: Gold, silver. DEVELOPMENT: One 100-ft. adit. REMARKS: Last operated in 1933.

LAST CHANCE PLACER

OWNER: R. L. Green, Libby, Mont. PROPERTY: 1 unpat. claim on Libby Creek 15 mi. S. of Libby. Libby district. ORE: Gold. PLANT: 800-ft. ditch, 200-ft. flume, ground sluice. REMARKS: Idle in 1934.

LIBBY

OWNER: Tip Top Mining Co., H. C. Bolyard, Trustee, Libby, Mont. PROPERTY: 4 pat. and 13 unpat. claims on Bramlet Creek 40 mi. S. of Libby. Cabinet district. ORE: Gold, silver. DEVELOPMENT: 10 adits, 100 to 350 ft. long. PLANT: Compressors, machine drills, motors, stamp mill, 2 log buildings. REMARKS: Owner reports, "Roads fair except 3 mi., adequate timber and water supply. Last operator, A. G. Lotze, Trustee, plans to work property during coming year." Vein in quartzite.

LIBERTY

OWNER: Liberty Metals Co., J. P. Powers, Mgr., Star Route No. 3, Troy, Mont. PROPERTY: 9 unpat. and 160 acres of pat. claims 6 mi. S. of Troy, sec. 35, T. 31 N., R. 34 W. Troy district. ORE: Gold, silver, lead, zinc. DEVELOPMENT: 2,600 ft. of drifts, 207-ft. shaft, extensive surface excavation. PLANT: 100-ton flotation mill under construction. MEN EMPLOYED: 23.

LUKENS HAZEL AND HAZEL T.

OWNERS: Glacier Silver Lead Mining Co. PROPERTY: 15 pat. and 4 unpat. claims 9 mi. SW. of Libby. Libby district. ORE: Gold, silver. DEVELOPMENT: 10,000 ft. of drifts, raises, winzes, and cross-cuts. PLANT: 400-h. p. hydro-electric power plant, 300-ton conical ball mill. MEN EMPLOYED: 21.

MIDAS GOLD MINING COMPANY (ROSE MINE)

OFFICERS: J. P. Graves, Pres.; Clyde M. Graves, Jr., Vice-Pres.; J. P. Graves, 2nd, Sec. & Treas., 608 Peyton Bldg., Spokane, Wash. (Spokane-Idaho Copper Co. owns about 95% of issued capital stock of this corporation). PROPERTY: 16 unpat. claims 21 mi. SE. of Libby. Libby district. ORE: Gold, silver. DEVELOPMENT: 300-ft. upper adit, 250-ft. lower adit, 1,300 ft. of drifts, 120-ft. shaft.

PLANT: Amalgamation and flotation. REMARKS: Mill operated 3 months in 1934 with 35 men employed.

MONTANA MORNING (SEE TROY MINES CO.)

MONTEZUMA

OWNER: Montezuma Gold Mining Co., H. C. Bolyard, Pres.; L. J. Olson, Sec. & Treas., Libby, Mont. PROPERTY: 35 mi. S. of Libby. Fisher River district. ORE: Gold, silver. DEVELOPMENT: Three 150-ft. shafts, two 665-ft. tunnels, 665 ft. of drifts, 3 stopes. PLANT: 65-h. p. gas engine, compressor, machine drills, blacksmith shop. REMARKS: Owner reports, "Good roads, ample timber and water, vein dip 45°." Last operated in 1931.

MOUNTAIN VIEW MINING COMPANY

OFFICERS: A. J. Williams, Pres., Troy, Mont.; C. C. Meade, Vice-Pres., Trout Creek; Wm. E. Williams, Sec. & Treas. & Gen. Mgr. PROPERTY: 11 lode claims, 4 placer claims, 1 power site 14 mi. NE. of Trout Creek. Cabinet district. ORE: Silver, lead. DEVELOPMENT: Open pit, 3 adits, 185-ft. cross-cut. PLANT: Steam power, compressor, machine drills. MEN EMPLOYED: 5. REMARKS: Owner reports, "27 ft. of ore on surface cross-cut, vein has been cross-cut on 300 ft. adit, lower adit gives 1,100 ft. additional depth on the vein, 3 cars of ore shipped, averaging \$27 to \$31 per ton."

NEW DEAL GOLD MINING COMPANY

OFFICERS: Harry Bolyard, Mgr., Libby, Mont.; Oscar V. Miller, Eng.-In-Charge, Libby Mont. PROPERTY: 8 unpat. claims. Libby district. ORE: Gold. PLANT: 10-stamp mill. MEN EMPLOYED: 7.

NUGGET PLACER MINING COMPANY

OFFICERS: A. R. Johnson, Sec. & Treas.; Wm. R. Logan, Supt., Box 97, Kalispell, Mont. PROPERTY: 240 pat. and 380 unpat. acres 17 mi. SE. of Libby. Libby district. DEVELOPMENT: 3 pits, 3,000-cu. yds. of excavation. PLANT: 2 drum hoist with 55-h. p. Waukesha motor, cables, 2 drag-line scrapers, pumps, motors, revolving screens, 300 ft. of 3 by 3 ft. sluice boxes, upper portion equipped with steel rail riffles, 150 ft. with wood blocks. MEN EMPLOYED: 5. REMARKS: Owner reports, "Tests show average value of \$1.35 per cu. yd. in gold." Engineers' report on property on file in office of Montana Bureau of Mines and Geology.

SILVER CABLE

OWNER: I. M. Hart, Kalispell, Mont. PROPERTY: 5 pat. claims, Cable Creek, 20 mi. SW. of Libby. Libby district. ORE: Gold, silver, lead, zinc. DEVELOPMENT: 4 adits. PLANT: Steam power, stamp amalgamation mill. REMARKS: Idle in 1934. Vein in granite and quartzite.

SILVER GROUSE

OWNER: Silver Grouse Mining Co., Charles H. Curtis, Pres. & Mgr.; E. P. Russell, Vice-Pres.; Nellie M. Curtis, Sec. & Treas., Troy, Mont. PROPERTY: Grouse Mtn. 6 mi. S. of Troy. Troy district. ORE: Silver. DEVELOPMENT: 2 shallow shafts, 311-ft. adit. PLANT: 2 cabins, garage, blacksmith shop. REMARKS: Owner reports, "Good roads, ample water and timber, electric power line crosses claim 50 ft. from cabins." Fissure vein in quartzite dips 45°.

SILVER STRIKE MINING COMPANY

OFFICER: J. F. Powers, Mgr., Star Route No. 3, Troy, Mont. PROPERTY: 3 pat. and 8 unpat. claims 8 mi. S. of Troy. Troy district. ORE: Gold, silver, lead, zinc. DEVELOPMENT: 2,400 ft. of drifts and cross-cuts. MEN EMPLOYED: 20. REMARKS: Operated by Liberty Metals Company.

SILVER TIP (MONTANA SUNRISE MINING CO.)

OWNER: H. P. Howard, Libby, Mont. PROPERTY: 3 unpat. claims 20 mi. S. of Libby. Libby district. ORE: Lead, silver. DEVELOPMENT: 300-ft. adit. REMARKS: Last operated in 1926.

SNOW SHOE

OWNERS: Heirs of H. C. Keith, dec'd., G. H. Grubb, C. H. Foot, Libby, Mont. PROPERTY: Snow Shoe Creek near Cherry Creek 15 mi. S. of Libby. Libby district. ORE: Gold, silver, lead, zinc. DEVELOPMENT: 2 shafts, 550 and 475 ft. deep; 5 adits, 60 to 1,250 ft. long; 3,020 ft. of drifts; 1,480 ft. of raises. REMARKS: Owner reports, "Roads can be made, with little expense, very good for trucking. Water and timber supply ample. Past production \$1,500,000. Last operated in 1912 by A. E. Riter, Receiver." Vein in limestone and quartzite.

SNOWSTORM (SEE TROY MINES CO.)

SPOKANE-IDAHO COPPER COMPANY (SEE MIDAS GOLD MINING CO.)

TROY MINES COMPANY (SNOWSTORM (B & B), MONTANA MORNING MINES)

OFFICERS: George F. Stannard, Pres., Kalispell, Mont.; Robert Gregg, Sec. & Treas., Troy, Mont.; Samuel B. Holbert, Mgr., Troy, Mont. PROPERTY: 2 pat. and 48 unpat. claims on Callahan Creek. Morning mine is 5 mi. and Snowstorm mine 6½ mi. SW. of Troy. Troy district. ORE: Gold, silver, copper, lead, zinc. DEVELOPMENT: 2 shafts, 125 and 600 ft. deep; 10,000 ft. of adits; 500 ft. of drifts; 3,500 ft. of cross-cuts; 1,100 ft. of raises; 600-ft. winze. PLANT: Office, 3 residences, hoists, compressors, machine drills, shops, assay office, hydro-electric power plant. (Mill burned down in 1927.) REMARKS: Vein in diabase and quartzite. Narrow gauge R. R., owned by company, connects mines with G. N. Ry. at Troy. Idle in 1934.

VERMICULITE AND ASBESTOS COMPANY

OFFICER: P. E. Oscarson, Supt., Libby, Mont. PROPERTY: Rainy Creek. Libby district. ORE: Vermiculite. DEVELOPMENT: 2,000 ft. of adits and raises. PLANT: Power shovel, 240-ton pneumatic concentrating mill. MEN EMPLOYED: 16.

VICTOR GOLD MINING COMPANY (VICTOR AND EMPIRE MINES)

OFFICER: W. R. Sampson, Sec. & Treas., Peyton Bldg., Spokane, Wash. PROPERTY: 11 unpat. claims on Granite Creek T. 29 N., R. 32 W. Libby district. ORE: Gold. DEVELOPMENT: 3,400-ft. adit. REMARKS: Owner reports, "Diamond-drill hole in 1924 cut a 4½-ft. vein of gold ore assaying \$290 per ton." Idle in 1934.

VIKING MINING COMPANY

OFFICERS: A. B. Dirks, Pres., Box 1461, Great Falls, Mont.; Robert Smith, Sec. & Treas.; Oscar V. Miller, Eng., Libby, Mont. PROPERTY: 4 claims on Silver Butte Creek. Cabinet district. ORE: Gold. DEVELOPMENT: Cross-cuts, drifts, raises. PLANT: Gas engine, compressor, machine drills. MEN EMPLOYED: 6.

ZONOLITE COMPANY

OFFICERS: W. B. Mayo, Vice-Pres., Detroit, Mich.; M. F. Gay, Sec. & Treas., Libby, Mont. PROPERTY: 41 unpat. claims 9 mi. NE. of Libby. Libby district. PLANT: 80-ton heat-processing and milling plant. MEN EMPLOYED: 20. REMARKS: Owner reports, "Competent engineers estimate approximately 40,000,000 tons of the crude material (zonolite) in the deposit as now opened up."

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
American- Kootenai	Cabinet	Au		Little Annie	Cabinet	Au	
Annie	Libby	Au	MR.1912	Montana Placer	Libby	Au	
Black Pine	Troy	Au		Mountain Rose	Libby	Ag,Pb	MR.1923
Brophy Placer	Libby	Au	MR.1933	Napoleon -Copper			
Cabin Queen	Cabinet			Antler	Rainy Creek	Cu	23:28
Callahan Placer	Troy	Au	MR.1924	Nome	Libby	Au	MR.1921
Cherry Creek Placer	Libby	Au	MR.1924	Silver Butte	Cabinet	Pb,Ag	7:105
Comet Placer	Libby	Au	MR.1921	Silver King	Troy	Ag	MR.1929
Finch and Campbell	Sylvanite	Au		Silver Mountain			
Gold Star (Golden				(Silver Crown)	Libby	Ag,Pb	MR.1923
West Min. Co.)	Libby	Au	MR.1930	Tip Top	Cabinet	Au	
Libby Placer	Libby	Au		Vaughn-Greenwell			
Liberty Placer	Libby	Au	MR.1933	Placer	Libby	Au	

MADISON COUNTY

Properties Reported by Owners or Operators

AGITATOR — CONCENTRATOR

OWNERS: McNulty and Swayze. LESSEES: Moore and Wright, Sheridan, Mont. PROPERTY: Ramshorn Gulch. Sheridan district. ORE: Gold, silver. PLANT: 3-stamp amalgamation mill. MEN EMPLOYED: 2.

REMARKS: Owner reports, "We have been operating on dumps averaging \$7 value but we are now mining ore."

ALAMEDA — BAMBOO CHIEF

LESSEE: A. L. Harris, Virginia City, Mont.; F. C. Gilbert, Cons. Eng., Butte, Mont. PROPERTY: 3 pat. claims 1½ mi. S. of Virginia City. Virginia City district. ORE: Gold, silver. DEVELOPMENT: 370-ft. shaft, 700-ft. adit. PLANT: 35-ton 10-stamp amalgamation and concentration mill. MEN EMPLOYED: 5.

REMARKS: Operating in 1935.

ALDER GULCH (BELL)

OWNER: T. Tomich, 116 W. Park St., Butte, Mont. PROPERTY: 11 pat. and 11 unpat. claims 2 mi. S. of Virginia City in Alder Gulch. Virginia City district. ORE: Gold, silver, copper. DEVELOPMENT: 2,500 ft. of adits, 2,200 ft. of drifts, 300 ft. of cross-cuts, 250 ft. of raises. PLANT: Electric motors, compressors, machine drills, shop, cabin. REMARKS: Vein in gneiss. Owner reports, "Good roads, ample water, and timber supply. Past production \$8,000."

* See footnote on p. 7.

APEX

OWNERS: James E. Murray, H. L. Maury, Butte, Mont. LESSEES: William Northam, William Richards, F. H. LeSage, 204 W. Park St., Butte, Mont. PROPERTY: 1 pat. claim leased, 2 additional claims owned by Northam and LeSage, 12 mi. SE. of Virginia City. Virginia City district. DEVELOPMENT: 486-ft. adit. REMARKS: Owner reports, "Ore shoot 120 ft. long and 15 ft. wide. Average of 25 samples, \$10 in gold. \$75,000 past production."

ARIZONA

OWNERS: Mary Boyd, Dalt Durham, Charles Durham, Pony, Mont. PROPERTY: 3 unpat. claims on N. Willow Creek 3½ mi. W. of Pony. Pony district. ORE: Gold, silver, copper. DEVELOPMENT: 2 adits, 200 and 70 ft. long; 60 ft. of drifts. MEN EMPLOYED: 2. REMARKS: Owner reports, "Good roads, mine timber available on claims, ore occurs in pockets, 3 tons shipped in 1934, net returns \$151.17."

ATLANTIC-PACIFIC

LESSEE: M. I. Leydig, Pony, Mont. PROPERTY: 2 pat. and 5 unpat. claims 5 mi. SW. of Pony. Pony district. ORE: Gold. DEVELOPMENT: 1,200 ft. of drifts and open cuts. MEN EMPLOYED: 6.

BELLE

OWNER: Dave Rossiter, Sheridan, Mont. PROPERTY: 1 pat. claim head of north fork of Mill Creek 12 mi. E. of Sheridan. Sheridan district. ORE: Gold, silver. DEVELOPMENT: 2,000 ft. of adits, 300 ft. of cross-cuts. MEN EMPLOYED: 3. REMARKS: Owner reports, "Operated by lessees, ore assays 3 to 5 oz. gold."

BILLY

OWNER: E. H. Price, Norris, Mont. PROPERTY: 3 unpat. claims 3½ mi. SW. of Norris on Warm Springs Creek. Norris district. ORE: Gold, silver. DEVELOPMENT: 65-ft. shaft, 600-ft. adit, 300 ft. of drifts. PLANT: Motors, hoists, compressor, machine drills, mine cars, tracks. MEN EMPLOYED: 3. REMARKS: Owner reports, "Good roads, 8 mi. to timber, spring water 30 g. p. m., 3½ mi. to R. R., 2½ mi. to power line." Now under control of Montana Coal and Iron Company.

BIRDIE

OWNER: A. J. Stoker, Norris, Montana. PROPERTY: 1 unpat. claim, sec. 19, T. 3 S., R. 1 E. Norris district. ORE: Gold, silver. DEVELOPMENT: 800-ft. adit, surface cuts, winzes, raises, stopes. MEN EMPLOYED: 1. REMARKS: Owner reports, "Property has been opened and worked since 1896."

BOAZ

OWNER: Jackpot Mining Co., C. Bearse, Norris, Mont. PROPERTY: 1 pat. and 2 unpat. claims 5 mi. SE. of Norris. Norris district. ORE: Gold. DEVELOPMENT: 265 ft. of shaft, 275 ft. of drifts on the 165-ft. level along with raises and stopes. Just starting to develop lead on 265-ft. level. MEN EMPLOYED: 14. REMARKS: Reference, 31:52.

BONE BASIN GROUP (BLUE BIRD, BONANZA FRACTION, COLORADO, GOLD HILL NO. 2, LAST CHANCE FRACTION, MARY INGABER, SURPRISE, VIRGINIAN)

OWNERS: Robert Pruett, C. J. Pruett, Marcus D. Pruett, Whitehall, Mont.; Mrs. Caroline Fair, Butte, Mont. LESSEES: Tom E. Wilkinson and others. PROPERTY: 2 pat. and 8 unpat. claims 1½ mi. S. of Whitehall. Renova district. ORE: Gold, silver. DEVELOPMENT: Numerous open cuts, tunnels, shafts, cross-cuts. MEN EMPLOYED: 6 to 10. REMARKS: Owner reports, "These claims are known as a group, each claim is operated independent of the others. At present are working the Blue Bird only."

BOSS TWEED AND CLIPPER

OWNER: J. L. Templeman, 602 Metals Bank Bldg., Butte, Mont. LESSEE: Pacific Gold Mining Co., H. S. Kuramoto, Mgr.; N. Thomson, Eng., Pony, Mont. PROPERTY: 12 pat. and 1 unpat. claims 3½ mi. W. of Pony. Pony district. ORE: Gold, silver. DEVELOPMENT: 10,000 ft. of adits, drifts, raises. PLANT: Electric power, transmission lines, 100-ton flotation mill. (Unassembled 3½ mi. aerial tram stored at Pony.) MEN EMPLOYED: 45. REMARKS: Vein in gneiss.

BROAD GAUGE — TAMARACK MINING COMPANY

OFFICERS: Alex Leggat, Pres., Leggat Hotel, Butte, Mont. PROPERTY: 6 pat. and 2 unpat. claims 4½ mi. NE. of Sheridan. Sheridan district. ORE: Gold. DEVELOPMENT: 2 adits, winze from lower adit, 4,000 ft. of workings, extreme depth 450 ft. on dip. PLANT: Electric power, amalgamation and concentration mill. MEN EMPLOYED: 2. REMARKS: Ore occurs in pre-Cambrian limestone. Owner reports, "Best ore is a porous silicate replacement of the limestone resembling chalk with irregular nuclei of chalcedonic quartz. Very fine-grained crystalline pyrite in seams and cracks is barren and apparently secondary."

BROADWAY

OWNER: Monidah Trust Co., Butte, Mont. LESSEE: H. H. Gordon, Silver Star, Mont. PROPERTY: 4 pat. claims 2 mi. W. of Silver Star, sec. 2, T. 2 S., R. 6 W. Silver Star district. ORE: Gold, silver, copper, lead, zinc. DEVELOPMENT: 2 shafts, 400 and 500 ft. long; 1,100-ft. adit; 100-ft. winze. PLANT: Gasoline hoist. MEN EMPLOYED: 3. REMARKS: Owner reports, "Good roads, spring water, timber 3 mi., R. R. 4 mi., power line 6 mi."

BUCKEYE

OWNER: Buckeye Corp., Raymond Rossiter, Pres., Sheridan, Mont. PROPERTY: 5 pat. and 1 unpat. claims 3 mi. E. of Sheridan. Sheridan district. ORE: Lead, silver. DEVELOPMENT: 900-ft. adit driven on vein. REMARKS: Last operated in 1927.

BULL MOOSE

OWNERS: McLeod, Mather, and McLeod, Norris, Mont. PROPERTY: 3 unpat. claims, Richmond Flats 5½ mi. SW. of Norris. Norris district. ORE: Gold. DEVELOPMENT: 4 incline shafts, one 167 ft. deep; 190-ft. drift (100-ft. level). MEN EMPLOYED: 3. REMARKS: Owner reports, "Gold occurs in quartz, limonite, and hematite. Vein 10 in. to 6 ft. wide, average 5 ft."

CAROLINA

OWNER: George Bosanatz, Sheridan, Mont. PROPERTY: 1 pat. and 2 unpat. claims, Goodrich Gulch. Tidal Wave district. DEVELOPMENT: 3 adits, stopes 600, 300, and 245 ft. long. MEN EMPLOYED: 2. REMARKS: Owner reports, "Ore averages 1 oz. of gold, 1 oz. of silver per ton. Several thousand tons of ore on dump assaying 0.34 oz. of gold, 1 oz. of silver."

CHILE

OWNERS: John King, Jr., Mrs. John King, Willow Creek, Mont. PROPERTY: 3 mi. S. of Sappington. Sand Creek district. ORE: Gold, silver. DEVELOPMENT: 450 ft. of shafts, drifts from levels 100 ft. apart. REMARKS: Owner reports, "Mine is full of water at present." Last operated in 1932.

DIAMOND HITCH

OWNER: D. A. Noble, San Diego, Calif. LESSEES: Wright and Hatfield, Sheridan, Mont. PROPERTY: 1 pat. claim in Nugget Gulch. Sheridan district. REMARKS: Idle in 1934.

EAGLE GROUP

OWNERS: J. A. Flint, Pony, Mont.; J. L. Templeman, Butte, Mont. PROPERTY: 7 unpat. claims 5 mi. W. of Pony. Pony district. ORE: Gold, silver, copper. DEVELOPMENT: 10 adits, 2,000 ft. long; 1,000 ft. of drifts, 1,000 ft. of cross-cuts, 3,100 ft. of raises. PLANT: 5-stamp mill driven by steam engine. REMARKS: Owner reports, "Good roads, ample water and timber supply, 5 mi. from R. R., ¼ mi. from power line."

EASTON AND PACIFIC GROUP

OFFICER: Edward P. Scallon, Cons. Min. Eng., Crosby, Minn. PROPERTY: 19 pat. and 13 unpat. claims, Brown's Gulch. Virginia City district. ORE: Gold. DEVELOPMENT: 3 adits, 300-ft. shaft, 200-ft. winze, 3½ mi. underground openings. PLANT: Former plant removed. Headframe in good condition. MEN EMPLOYED: 7. REMARKS: Owner reports, "1 main vein, 3 branch veins, 7 ore shoots with an aggregate length of 1,600 ft. and average width of 2½ ft."

ELFLEEDA

OWNER: Clark Estate, Helena, Mont., Bertha Griffin, Portland, Maine. LESSEE: Frank M. Wright, Virginia City, Mont. PROPERTY: 1 pat. claim in Fairweather 2 mi. S. of Virginia City, Mont. Virginia City district. ORE: Gold, silver in gneiss. DEVELOPMENT: East end, 4 adits, 300 to 500 ft. long; west end, 350-ft. cross-cut. REMARKS: Vein in gneiss. Owner reports, "Last operated 20 years ago, workings caved, lessees plan to reopen lower adit. Last production, \$100,000."

ELLA

OWNER: William T. Bennett. LESSEE: Adolph Levander, Sheridan, Mont. PROPERTY: 1 unpat. claim, Wet Georgia Gulch. Tidal Wave district. ORE: Gold, silver. DEVELOPMENT: 4 adits, 100 to 250 ft. long. MEN EMPLOYED: 2. REMARKS: Shipped ore in 1933. Reference, 39:158.

FAIRVIEW SYNDICATE

OWNER: Hall Estate, Raymond Rossiter, Sheridan, Mont.; F. C. Gilbert, Con. Eng., Butte, Mont. LESSEE: Fairview Syndicate, C. M. Roos, Mgr., Box 775, Helena, Mont. PROPERTY: 2 pat. and 2 unpat. claims, Wisconsin Gulch 6½ mi. NE. of Sheridan. Sheridan district. ORE: Gold, silver. DEVELOPMENT: 2,500 ft. of adits and drifts. PLANT: Gardner-Denver compressor, machine drills, shop, cabins.

MEN EMPLOYED: 4. REMARKS: Owner reports, "Ore occurs along contact between gneiss and limestone, also in fractures in limestone. Ore in bottom of winze in intermediate level assays \$80 to \$100 per ton."

GARNET

OWNER: Mrs. Bessie Connor, Pony, Mont. PROPERTY: 19 pat. and 2 unpat. claims in Cataract Creek. Pony district. ORE: Gold, silver, copper, lead, zinc. DEVELOPMENT: 4 adits, 2,500 ft. of drifts, 8,000 ft. of cross-cuts, 100-ft. winze. PLANT: Water-power plant, 2 hoists, 650-cu. ft. compressor, 20-stamp amalgamation and concentration mill with plates and Frue vanners, steam-heating plant, bunk-house, boarding house, assay office, 2 residences, blacksmith shop, dry house. REMARKS: Owner reports, "Last operated in 1931 by J. C. Kneeder, 500 in. of water available, timber within 1 mi., 3 mi. to R. R."

GOLD COIN

OWNERS: Steiner and Sons, Sheridan, Mont. PROPERTY: Sheridan district. ORE: Gold. PLANT: Straub 12-stamp amalgamation mill. REMARKS: Owner reports, "Operating in 1934. Have been making bullion shipments to Denver Mint for 2 years."

GOLD KING

OWNER: Charles A. Lewis, 512 Clark Ave., Billings, Mont. or Alder, Mont. PROPERTY: 7 unpat. claims. Virginia City district. ORE: Gold, silver. DEVELOPMENT: Adit. Plant: Small test mill. MEN EMPLOYED: 3.

GOLD SMITH

OWNERS: Jacob Steiner and Sons, Sheridan, Mont. PROPERTY: 3 unpat. claims on Rainstorm Creek 14 mi. E. of Sheridan. Sheridan district. ORE: Gold, silver. DEVELOPMENT: Adits. PLANT: 20-ton 10-stamp Straub amalgamation and concentration mill. MEN EMPLOYED: 4. REMARKS: Owner reports, "Prospecting old workings on surface, milling old dumps and mine fillings, and advancing drifts."

GREENE CAMPBELL GROUP

OWNERS: Bassette C. Leyson, Neihart, Mont.; E. O. Pace, Lincoln, Neb. PROPERTY: 5 pat. claims 2½ mi. W. of Silver Star. Silver Star district. ORE: Gold, silver. DEVELOPMENT: 400-ft. shaft, 700-ft. adit, 700 ft. of drifts, 700 ft. of cross-cuts, 120 ft. of raises. PLANT: Hoist, cabins, assay office, mill (partly wrecked). REMARKS: Owner reports, "Good road, timber 5 mi., R. R. 4½ mi., power line 9 mi." Idle in 1934.

HIDDEN TREASURE

OWNERS: A. Bieber, Calif., A. B. Keith, Spokane, Wash.; Mrs. B. T. Asbury., Anaconda, Mont. PROPERTY: 7 unpat. claims 6 mi. E. of Reichle. McCarthy Mountain district. ORE: Gold, silver. DEVELOPMENT: 5 adits. PLANT: 5-ton amalgamation mill (ball mill). MEN EMPLOYED: 8.

HIGHLAND LADY

OWNERS: Dave Krause, Honora E. Mishener. LESSEE: Roy Johnston, McAllister, Mont. PROPERTY: 2 unpat. claims. Washington district. ORE: Gold, silver, DEVELOPMENT: Two 150-ft. adits. MEN EMPLOYED: 3. REMARKS: Shipped ore in 1933.

HIGHLAND MARY

OWNER: High Hope Mining Co., Dr. A. E. DuBarry, Cliff Lake, Mont. PROPERTY: Beaver Creek district. ORE: Gold, silver, copper, lead. DEVELOPMENT: Shaft and 5 adits. REMARKS: Owner reports, "Idle in 1934."

HUMPHREYS GOLD CORPORATION

OWNER: Humphreys Gold Corporation, Virginia City, Mont. PROPERTY: Virginia City district. Placer. PLANT: Linkbelt, 5,000 cu. yds. per day. MEN EMPLOYED: 26.

INSPIRATION GOLD MINING COMPANY

(BIELENBERG AND HIGGINS MINE)

OFFICERS: Paul Hudtloff, Pres.; Frank C. Ball, Vice-Pres.; B. E. Holland, Sec. & Treas.; Angus B. McLeod, Ivar Rhude, Directors, Butte, Mont. PROPERTY: 14 pat. and 20 unpat. claims 12 mi. NE. of Twin Bridges. Tidal Wave district. ORE: Gold, silver. DEVELOPMENT: 9,000 ft. of drifts, cross-cuts, raises. PLANT: 250-ton flotation mill, fully equipped. MEN EMPLOYED: 65 in 1934.

IRON ROD

OWNER: Golden Rod Mining Co., Twin Bridges, Mont. OFFICERS: W. M. Newman, Pres.; A. F. Bingenheimer, Gen. Mgr.; A. J. Patent, John N. Roberts, Directors, Sherwood Bldg., Spokane, Wash.; Ray Armstrong, Vice-Pres., Twin Bridges, Mont. PROPERTY: 8 pat. and 7 unpat. claims 3½ mi. SW. of Silver Star. Silver Star district. ORE: Gold, silver. DEVELOPMENT: Adits, shafts, drifts. PLANT: Gasoline-driven compressor, machine drills. REMARKS: Vein in gneiss. Owner reports, "Fair roads, 2 mi. from R. R. and 1 mi. from power line. Drainage from adit about 900 gal. per day.

ISABELLE

OWNERS: O. A. Stansell, Twin Bridges, Mont.; John E. Holmes, 13 Lexington Terrace, Walkerville, Mont. PROPERTY: 3 unpat. claims in Bear Gulch. Tidal Wave district. ORE: Gold, silver. DEVELOPMENT: 60-ft. adit. REMARKS: Idle in 1934.

JACK RABBIT

OWNER: McLaughlin Bros. Mining Co., Box 15, Melrose, Mont. PROPERTY: 9 unpat. claims 1 mi. S. of Camp Creek. Rochester district. ORE: Gold, silver, lead in dolomitic limestone. DEVELOPMENT: 300 ft. incline shaft, 200-ft. winze. PLANT: 35-h. p. Diesel engine, 220-cu. ft. air compressor, machine drills, 6-h. p. gasoline hoist, air hoist. MEN EMPLOYED: 3 to 10.

JAY BIRD

OWNER: Albrecht and Moore, Sheridan, Mont. PROPERTY: S. of Fairview mine. Sheridan district. MEN EMPLOYED: 2. REMARKS: Owner reports, "New discovery, one ore shipment made."

JIM

LESSEE: O. F. Curteman, Norris, Mont. PROPERTY: 1 unpat. claim 4 mi. S. of Norris. Norris district. ORE: Gold, silver. DEVELOPMENT: 40-ft. adit, 15-ft. shaft. MEN EMPLOYED: 1.

JOSEPHINE

OWNER: Josephine Gold Mining Co., A. Doornbos, Norris, Mont.; F. C. Gilbert, Cons. Eng., Butte, Mont. PROPERTY: 3 unpat. claims. Norris district. ORE: Gold, silver. DEVELOPMENT: 200-ft. incline shaft, 1,000 ft. of drifts and cross-cuts. PLANT: Air hoist, pumping plant, compressor, machine shop, boarding and bunk house. MEN EMPLOYED: 5.

LAKEVIEW

OWNER: D. R. Snider, 708 Maryland Ave., Butte, Mont. LESSEE: Lakeview Gold Mines, Inc., Jefferson Island, Mont., J. F. McBurney, Pres.; Gerard T. Morgan, Treas., 1003 Joshua Green Bldg., Seattle, Wash. PROPERTY: 4 unpat. claims 23 mi. S. of Jefferson Island on west fork of S. Boulder Creek 7 mi. SW. of Mammoth mine and ¼ mi. from Saylor Lake. South Boulder district. ORE: Gold, silver, copper, lead, zinc. DEVELOPMENT: 3 adits, 780, 416, and 40 ft. long; 100 ft. of cross-cuts; 30-ft. raise; 8-ft. winze. PLANT: Semi-Diesel engine, compressor, machine drills. MEN EMPLOYED: 5. REMARKS: Owner reports, "Fair road, ample timber and water, good possibilities of developing local power."

LEITER

OWNER: L. Z. Leiter Estate, 21 E. Van Buren St., Chicago, Ill.; Raymond Rossiter, Residence Agt., Sheridan, Mont. PROPERTY: 14 pat. claims 7 mi. N. of Sheridan on Wisconsin Creek. Sheridan district. ORE: Gold, silver. DEVELOPMENT: 600-ft. shaft, 1,200 ft. of drifts, leading to shaft, connecting 200 ft. from surface. PLANT: 20-stamp mill. REMARKS: This property was a large gold and silver producer in the early days from its oxidized ore, sulphide ores are reported in the lower levels."

LIBERTY MONTANA MINES COMPANY (MAMMOTH)

OFFICER: Edward Deschamps, Mgr., Jefferson Island, Mont. PROPERTY: 22 pat. and 24 unpat. claims. Mammoth district. ORE: Gold, silver. DEVELOPMENT: 18,000 ft. of adits and cross-cuts on 5 levels; 2 shafts, 175 and 150 ft. deep. PLANT: 150-ton flotation mill. MEN EMPLOYED: 46. Reference, 31:29.

LIPTON (LIPTON, LIPTON NO. 2, STRATTON, ELEANOR, GOLD BOND)

OWNER: George W. Fisher, Jr., Box 92, Norris, Mont. PROPERTY: 5 unpat. claims, sec. 29, T. 3 S., R. 1 W. Norris district. ORE: Gold, silver. DEVELOPMENT: 2 adits, 250 and 750 ft. long; 2 shafts, 40 and 75 ft. deep. MEN EMPLOYED: 1.

LOTTIE

OWNER: August Urbain, Butte, Mont. LESSEE: Ivan Napier, 1019½ W. Woolman St., Butte, Mont. PROPERTY: 10 unpat. claims, Goodrich Gulch, 9 mi. NE. of Twin Bridges. Tidal Wave district. ORE: Gold, silver, copper, lead, zinc. DEVELOPMENT: 4 adits, 600, 200, 50, and 100 ft. long; 300 ft. of drifts; 150 ft. of cross-cuts; 30-ft. raise; three 80-ft. winzes. PLANT: 2 cabins. REMARKS: Owner reports, "Vein in gneiss and limestone. Good roads, ample timber and water supply, R. R. 9 mi., power line 1 mi." Operating in 1934.

LUCKY STRIKE (LUCKY STRIKE, ERMA, JEAN)

OWNER: Jesse C. Lomas, Norris, Mont. PROPERTY: 1 pat. placer claim and 2 unpat. lode claims 9 mi. S. of Harrison. Norwegian district. ORE: Gold, silver. DEVELOPMENT: Drift and shaft. REMARKS: Operating in 1934.

LUCKY SWED E

OWNERS: Ray Anderson, John Larson, Pete Rostad, 1822 S. Franklin St., Butte, Mont. PROPERTY: 3 unpat. claims in Spring Gulch between Harris and Bivins Gulches 5 mi. NE. of Sheridan. Sheridan district. ORE: Gold, silver. DEVELOPMENT: 35-ft. shaft, 75-ft. adit. MEN EMPLOYED: 1. REMARKS: Quartz vein in gneiss. Owner reports, "5-ft. vein in bottom of shaft, carrying gold and silver. A 75-ft. extension to present adit necessary to reach bottom of shaft at 100 ft. greater depth. Water available at Butcher Gulch ¾ mi. distant."

MADISON MINING SYNDICATE

OFFICER: Frank Zichosch, Pres., Virginia City, Mont. PROPERTY: 14 pat. claims and 1,986 acres of unpat. lode and placer claims near Virginia City. Virginia City district. ORE: Gold, silver. DEVELOPMENT: Adits, drifts, shafts. PLANT: Hoist, mining machinery, cars, tools. MEN EMPLOYED: 9.

MADISONIAN

OWNER: John Speedy, Sheridan, Mont. LESSEES: Cline and Jackson, Norris, Mont. PROPERTY: Top of Divide 6 mi. N. of Norris. Norris district. ORE: Gold, silver. REMARKS: Owner reports, "Operating in 1934. Shipping crude ore to smelters."

MAPLETON

OWNER: Elling and Millard Estates, Virginia City, Mont. LESSEES: Batten and Gilbert, Virginia City, Mont. PROPERTY: 2 pat. claims 3 mi. N. of Virginia City. Virginia City district. ORE: Gold, silver. DEVELOPMENT: 90-ft. shaft, three 750-ft. adits. MEN EMPLOYED: 2. REMARKS: Owner reports, "Fair roads, R. R. 9 mi., power line passes over property. Last shipment assayed 0.36 oz. in gold and 2.7 oz. in silver per ton."

MARIETTA MINING AND MILLING COMPANY (MARIETTA AND METALLIC)

OFFICERS: W. S. Norman, Pres.; Frank Rose, Sec.; Dr. C. E. Grove, Vice-Pres., 315 Ziegler Bldg., Spokane, Wash.; Tom Raymond, Mgr., Alder, Mont. PROPERTY: 60 pat. and 3 unpat. claims 18 mi. SE. of Alder. Virginia City district. ORE: Gold, silver in gneiss. DEVELOPMENT: 890-ft. adit, 1,000 ft. of drifts, 900 ft. of cross-cuts, 500 ft. of raises, 180-ft. winze. PLANT: Electric power, compressor, machine drills, bunk house, blacksmith shop, cabins, flotation mill. MEN EMPLOYED: 21. REMARKS: Owner reports, "8 mi. of county road, 8 mi. of mountain road, condition fair, ample water and timber supply. Vein exposed for 5,000 ft. by open cuts and shallow shafts. Approximately \$200,000 ore blocked out." Operating in 1935.

MC CAULEY

OWNERS: Woodring Kimmel and Tuttle Mining Co., Melrose, Mont. PROPERTY: 6 pat. lode and placer claims on Camp Creek 12 mi. E. of Melrose. Rochester district. ORE: Gold. MEN EMPLOYED: 3. REMARKS: Sluicing operations. Owner reports, "Rich, gold 'float' ore has been found but vein not yet discovered. Placer gold coarse and rough with nuggets up to 2 oz."

MC VEY

OWNERS: Mrs. T. A. Grigg, Butte, Mont.; E. R. Grigg, Sappington, Mont. PROPERTY: 3 pat. claims. Sand Creek district. ORE: Gold. DEVELOPMENT: 50-ft. shaft, drift. MEN EMPLOYED: 3.

MISSOURI — MC KEE GOLD MINING COMPANY

OFFICERS: A. F. Crounse, Pres., 211 W. Lake St., Minneapolis, Minn.; A. M. Locke, Eng., McAllister, Mont. PROPERTY: 12 pat. claims on S. Meadow Creek 10 mi. W. of McAllister. Washington district. ORE: Gold, silver. DEVELOPMENT: Numerous adits, winzes, and levels on upper and lower veins along

contact between gneiss and andesite porphyry sill. PLANT: Water power, compressor, machine drills, bunk houses, cabins, 50-ton 10-stamp amalgamation, concentration, and cyanide mill, assay office, blacksmith shop. MEN EMPLOYED: 22 in 1934.

MONTANA ONYX COMPANY

ADDRESS: c/o Wendel-Cannon Monument Works, 2656-60 S. Montana St., Butte, Mont. PROPERTY: 17 unpat. claims, 340 acres Onyx. Quarries located 20 mi. SW. of Alder on Sweetwater Creek secs. 4 and 9, T. 9 S., R. 6 W. Ruby Mountains district. DEVELOPMENT: 8 test pits. REMARKS: Owner reports, "In addition to the 340 acres of placer claims, company owns 40 acres and 2 lode claims showing iron ore, and holds mineral rights on 160 acres owned by Mr. Brunzel, Alder, Mont. Good roads to within 1 mi., nearest R. R. and power line at Alder." Idle in 1934.

MOONLIGHT AND THRUSH

OWNER: Henry Cline, Twin Bridges, Mont. PROPERTY: 2 unpat. claims in Burns Gulch. Tidal Wave district. ORE: Gold, silver. DEVELOPMENT: 25-ft. shaft, 40-ft. drift. MEN EMPLOYED: 2. REMARKS: Owner reports, "Small high-grade streak assays up to 19 oz. in gold and 8.4 oz. in silver per ton."

NORWEGIAN

OWNERS: Goldfields Cons. Mines, Inc., 85 Hirbour Bldg., Butte, Mont., L. O. Goodman, Butte, Mont.; William H. Northey, Pony, Mont. PROPERTY: 1 pat. and 2 unpat. claims. Norwegian Creek district. ORE: Gold, silver. DEVELOPMENT: 100-ft. shaft, 300 ft. of drifts and cross-cuts. PLANT: Gasoline hoist. MEN EMPLOYED: 5. REMARKS: Owner reports, "Production about \$25,000. Last shipments averaged over \$100 per ton."

OLD JOE AND CLEVELAND

OWNERS: Mt. Jefferson Lodge No. 56, A. F. and A. M., W. H. Adkins, Sec.; C. E. Drackert, W. G. Elliott, and James A. Flint, Managing Com., Pony, Mont. PROPERTY: 4 pat. and 2 unpat. claims 2½ mi. from Pony R. R. station. ORE: Gold. DEVELOPMENT: 3 adits, 750 ft. REMARKS: Ore at contact of gneiss and granite. Last operated in 1933. Owner reports, "Past production about \$20,000." Reference, 39:123.

OREGON

OWNER: J. L. Templeman, Butte, Mont. LESSEE: Jonas Wicklund, Pony, Mont. PROPERTY: 3 mi. W. of Pony. Pony district. ORE: Gold. DEVELOPMENT: Adits. MEN EMPLOYED: 1. REMARKS: Owner reports, "Property has been a producer of high-grade gold-ore in the past." Reference, 31:24.

PACKER MINING COMPANY

OWNERS: E. E. McLaughlin, Melrose, Mont.; John Kierman Estate, Sarah K. Caswell, R. B. Caswell, Reedsport, Oreg. PROPERTY: 8 unpat. claims in Camp Creek. Rochester district. ORE: Gold, silver, lead. DEVELOPMENT: 2 adits, 100 and 35 ft. long; shallow trenches and shafts. PLANT: Cabin. REMARKS: Operating in 1934.

PAY DAY AND BADGER

PROPERTY: 2 unpat. claims near Sappington, Mont. Sand Creek district. ORE: Gold, silver. DEVELOPMENT: Pay Day, 55-ft. incline shaft, 20-ft. drift. Badger, 60-ft. incline shaft, drifts. MEN EMPLOYED: 2 lessees. REMARKS: Was operated in 1934.

PAYMASTER GROUP

OWNER: Leigh Roush, Manhattan, Mont. LESSEE: Sunnyside Mining Co., S. F. Lawrence, Mgr., McAllister, Mont. PROPERTY: 5 unpat. claims on S. Meadow Creek 10 mi. W. of McAllister. Washington distrct. ORE: Gold, silver, lead. DEVELOPMENT: 2 adits, 100 and 150 ft. long. PLANT: Engine, compressor, machine drills. MEN EMPLOYED: 3. REMARKS: Owner reports, "6-ft. vein, 10 in. of oxidized ore assaying \$46 per ton, 20 in. of sulphide ore assaying \$40 to \$50 per ton, silver-lead ore in adit assaying 100 oz. of silver per ton, material for 1,000-ft. tramway."

PULVERIZER

OWNER: P. Q. Malan, 1208 First National Bldg., Ogden, Utah, or Norris, Mont. PROPERTY: Between Saline and Norwegian mines. Norris district. ORE: Gold. DEVELOPMENT: Open cuts, adits. MEN EMPLOYED: 2 to 5.

RED BLUFF AND MONTANA BOY

OWNER: Idaho-Montana Development Co., George Brunt, Pres., C. J. Creghlin, Sec., 100 Maple St., Idaho Falls, Idaho; A. H. Dahle, Mgr., Norris, Mont. PROPERTY: 3 pat. and 11 unpat. claims. Norris district. ORE: Gold. DEVELOPMENT: Shaft, adit. MEN EMPLOYED: 12.

RED PINE

OWNER: Sheridan Mines Co., Victor Ario, H. O. Batzer, Great Falls, Mont.; J. E. Johnson, Sheridan, Mont. PROPERTY: 7 unpat. claims on Indian Creek 9 mi. NE. of Sheridan. Sheridan district. ORE: Gold, silver. DEVELOPMENT: Adits, drifts, winzes. MEN EMPLOYED: 16. REMARKS: Owner reports, "Two ore shoots each 125 ft. long, 180 ft. below surface; east shoot now developed to depth of 250 ft. by winze 70 ft. below drift. In lower adit, 1,000 ft. below surface, there is a 4-ft. vein of \$20 ore."

ROSEBUD

OWNER: Richard F. Peel, Virginia City, Mont. LESSEES: Frank M. Wright, William A. Lynch, R. R. Peel, James E. Wright, Virginia City, Mont. PROPERTY: 1 unpat. claim 1 mi. S. of Virginia City. Virginia City district. ORE: Gold, silver. DEVELOPMENT: 225-ft. adit, 50-ft. cross-cut, 58-ft. drift on hanging wall vein. PLANT: 5-ton Gibson amalgamation mill. MEN EMPLOYED: 4.

RUBY BASIN PLACER

OWNER: Roger G. Kent, Varney, Mont. PROPERTY: 8 unpat. claims in Ruby Basin, Gravelly Range. Cherry Creek district. ORE: Placer gold. DEVELOPMENT: Owner is testing ground.

SAFEWAY

OWNER: Joe Foy, Alder, Mont. PROPERTY: 2 unpat. claims, Quaking Asp Gulch. Virginia City district. ORE: Gold. DEVELOPMENT: 250-ft. adit. REMARKS: Last operated in 1933.

SMUGGLER MINING COMPANY (EMMA B. MINE)

OFFICER: Alex Walker, Pres., 1109 Steel St., Butte, Mont. PROPERTY: 13 unpat. claims on Mill Creek 8 mi. E. of Sheridan, secs. 13 and 24, T. 4 S., R. 4 W. Sheridan district. ORE: Gold, silver. DEVELOPMENT: 117-ft. shaft; 2 adits, 150 and 120 ft. long; 1,340 ft. of drifts; 425 ft. of cross-cuts; 450 ft. of raises; 160 ft. of winzes. PLANT: Hydro-electric power plant, 12 to 20 in. pipe line, 4-ft. Pelton water wheel, 100-KVA generator, transmission line, compressor, machine drills, saw mill, 100-ton amalgamation and concentration mill with crusher, No. 54 Marcy ball mill, classifier, 3 Wilfley tables, motors, pumps, 25 buildings including office, residences, assay office, cabins (accommodation for 45 people), water, electric light, and telephone systems. REMARKS: Owner reports, "Gold production \$24,117.03 from 1930 to 1933. Tailings pond estimated at 30,000 tons assaying \$4.00 per ton. Work has been suspended pending changes in milling practice to flotation, tests indicating a possible recovery of 95%. A large tonnage of low-grade gold-ore is exposed on both the main and lower levels. Vein in gneiss. Last operated in 1933."

SPOTTED HORSE

OWNER: W. K. Bray, Sheridan, Mont. PROPERTY: 3 unpat. claims in Spotted Horse Park, Ramshorn Creek. Sheridan district. ORE: Gold, silver, lead. DEVELOPMENT: 2 shafts on veins, adits driven to tap vein at depth. PLANT: 3-stamp mill driven by gasoline engine. MEN EMPLOYED: 2. REMARKS: Owner reports, "Tellurium is present in the ore."

STELLA

OWNERS: Ben Yarbrough, Joe LeSage, Silver Star, Mont. LESSEES: Ed Lahey, Henry Shute, 1118 Maryland St., Butte, Mont. PROPERTY: 2 unpat. claims. Silver Star district. ORE: Gold, silver. DEVELOPMENT: 320-ft. shaft, 2 drifts, 100 and 140 ft. long. PLANT: Steam hoist, pump, fan and electric light equipment, logging outfit, blacksmith shop, boarding house (11 men). MEN EMPLOYED: 8. REMARKS: Owner reports, "Last shipment 6 tons of \$112.50-per-ton ore from shaft-sinking operation. Ore shoot in drift, 115 ft. long and 6 in. wide, averages \$100 per ton. Several dump assays ran \$5 per ton and over. Past production estimated at \$50,000."

ST. JOHN AND NELLIE BLYE

OWNER: Monidah Trust Co., Butte, Mont. LESSEES: H. J. Knowlton, H. L. Fowler, 1551 Dundee St., Butte, Mont. PROPERTY: 2 pat. claims in Alder Gulch 4 mi. from Virginia City. Virginia City district. ORE: Gold. DEVELOPMENT: St. John, 2 shafts, 60 and 100 ft. deep. Nellie Blye, 3 adits; 30-ft. shaft. REMARKS: Owner reports, "Vein 2½ to 3 ft., \$15 ore, 5,000 tons of \$5 dump ore. Plan to retimber shafts, open adits. Install 10-ton Gibson mill."

STRAWBERRY

OWNER: Elling Estate, Virginia City, Mont. LESSEES: Keystone Leasers, Dave Box, Leah Mendenhall, Pony, Mont. PROPERTY: 7 pat. claims. Pony district. ORE: Gold. DEVELOPMENT: Adits, drifts. PLANT: 10-stamp amalgamation and concentration mill. MEN EMPLOYED: 5.

SUNNYSIDE

OWNER: Alameda Mines, Inc., D. A. Harris, Pres., W. N. Waugh, Vice-Pres.; E. V. Harris, Sec. & Treas., Virginia City, Mont. PROPERTY: 6 unpat. claims in Hungry Hollow 5 mi. S. of Virginia City. Virginia City district. ORE: Gold, silver. DEVELOPMENT: 50-ft. shaft, 500 ft. of cross-cuts. REMARKS: Owner reports, "3 veins in gneiss 6 to 30 ft. wide, assay an average of \$7 per ton. Last operated in 1898 by James Emsley."

TOBACCO ROOT

OWNER: Tobacco Root Mines, a common law trust, Norris, Mont. TRUSTEES: N. W. Coursolle, Pres.; O. S. McCormick, Vice-Pres., Minneapolis, Minn.; Albert Anderson, Sec. & Treas., Billings, Mont.; C. S. Davis, Mgr., Norris, Mont.; C. R. Hansen, Trustee, Billings, Mont. PROPERTY: 11 unpat. claims 1½ mi. SE. of Norris, Mont. Norris district. ORE: Gold. DEVELOPMENT: 3 adits, 750, 400, 100 ft. long, with 300 ft. of drifting on the vein. PLANT: 35-ton cyanide mill under construction in 1934. MEN EMPLOYED: 6.

TOPEKA

OWNER: Sam Haganberger, Sheridan, Mont. LESSEE: G. F. Heinze, Box 161, Sheridan, Mont. PROPERTY: 4 unpat. claims in Goodrich Gulch, Tidal Wave district. ORE: Gold, silver. DEVELOPMENT: Adit, drift, 2 raises, 35 and 50 ft. MEN EMPLOYED: 1.

VALDEZ

OWNER: A. H. Dahle, Norris, Mont. PROPERTY: 5 claims. Norris district. ORE: Gold. DEVELOPMENT: 350-ft. adit, 100-ft. shaft. PLANT: Compressor, machine drills. REMARKS: Last operated in 1905.

VERMONT

LESSEES: James H. Brown, Chas. R. Lee, and Peter McPhillips, Arizona Hotel, Butte, Mont. PROPERTY: 5 unpat. claims on east slope of McCarthy Mtn., adjacent to the Hidden Treasure. McCarthy Mountain district. ORE: Silver, lead, gold. DEVELOPMENT: 640-ft. adit, several shallow shafts (caved), open cuts. REMARKS: Owner reports, "Exceptionally high-grade silver-ore has been shipped. Last shipment of 6 tons netted \$1,800. Starting operations in the summer of 1935." Last operated in 1929.

VIKING

OWNER: J. L. Templeman, (part owner), Butte, Mont. PROPERTY: 7 unpat. claims adjoining Atlantic and Pacific mine. Pony district. ORE: Gold. DEVELOPMENT: Surface cuts, adits. MEN EMPLOYED: 2. REMARKS: Owner reports, "Porphyry dike with fissure veins 1 in. to 5 ft. wide, formation similar of that in Atlantic and Pacific."

VIRGINIA CITY GOLD MINING COMPANY (PROSPECT MINE)

OFFICERS: Mr. Petersen, Mill Supt., Steve Murphy, Mine Foreman. PROPERTY: 5 pat. claims ¾ mi. W. of Virginia City. Virginia City district. ORE: Gold, silver. DEVELOPMENT: 1,350-ft. main adit, 150-ft. shaft below main level. PLANT: 50-ton amalgamation, concentration and flotation mill. MEN EMPLOYED: 45.

WATSECA

OWNER: Raymond McCune. PROPERTY: 11 pat. claims ½ mi. N. of Rochester. Rochester district. ORE: Gold, silver. DEVELOPMENT: Several shafts to 600-ft. depth, several thousand feet of cross-cuts. REMARKS: Several veins, 2 to 14 ft. in width, in garnetiferous mica and hornblende schist cut by granite sills. Most productive period was from 1898 to 1905. Idle since 1905, surface plant dismantled. Reference, 39:130.

WILD CAT

OWNER: D. T. Clemo, Sheridan, Mont. PROPERTY: Mill Creek at foot of Belle Hill. Sheridan district. REMARKS: Owner reports, "Shipment of high-grade ore once a year."

WISCONSIN PLACER

OWNER: W. A. Clark Estate, c/o Union Bank and Trust Co., Helena, Mont., Mrs. George F. Weeks, Girdly, Calif. PROPERTY: 4 pat. claims on Wisconsin Creek 4 mi. N. of Sheridan. Sheridan district. ORE: Placer gold. DEVELOPMENT: ½ mi. drain at mouth of gulch, bedrock exposed for 500 to 600 ft. PLANT: Hydraulic giant, derrick, 42-in. flume ½ mi. long. REMARKS: "Company last operated in 1930."

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Abbie Alice	Rochester	Au,Ag,Pb	MR.1911	Borosco	Norris	Au,Ag	MR.1906
Abe Silver	Virginia City	Ag,Pb	MR.1927	Bozeman	Pony	Au	MR.1907
Adopted Kid	Virginia City	Ag	MR.1909	Bran and			
Agatha	Tidal Wave	Au	MR.1931	Shorts	Virginia City	Au,Ag	MR.1931
Agnes	Tidal Wave	Au,Ag	MR.1926	Brandon	Sheridan	Au,Ag,Pb	MR.1917
Ajax	Rochester	Pb	MR.1930	Brown Loam	Virginia City	Au,Ag	1890
Alfreeda	Tidal Wave	Au,Ag	31:37	Bummer Dan Pl.	Virginia City	Au	MR.1931
Alhambra	Virginia City	Au	MR.1931	Butte and			
Alley	Sheridan	Au,Ag	MR.1918	Virginia	Virginia City	Au,Ag	MR.1917
Amy Louise	Norwegian Cr.	Au	31:32	Calamont Min.			
Anything	Rochester	Au,Ag	MR.1909	Co.	Norris	Cu,Pb,Ag	39:117
APA Extension	Tidal Wave	Au,Ag	MR.1921	California	Virginia City	Au	MR.1931
Aparanda	Tidal Wave	Au,Ag	MR.1918	California	Rochester	Au	MR.1933
Argenta	Tidal Wave	Au,Ag	39:158	Calusa	Rochester	Au	MR.1931
Atlanta	Pony	Au	MR.1910	Calvin (Common-			
Aurora	Silver Star	Au,Ag	14:74	wealth Lead			
Bachelor	Norwegian Cr.	Au	MR.1933	Min. Co.)	Rochester	Pb,Ag	MR.1931
Badger	Norris	Au	MR.1917	Cannon Ball	Silver Star	Au,Ag	MR.1919
Baker and Baglin	Sheridan	Pb	MR.1918	Canyon Placer	Sheridan	Au	MR.1933
Ballaclava	Silver Star	Cu	MR.1929	Carolina	Rochester	Au,Ag	39:156
Barton Gulch	Virginia City	Au,Ag	31:47	Carpenter	Rochester	Au	MR.1933
Batchelor	Norwegian Cr.	Au	MR.1911	Cash Boy	Sheridan	Au,Ag	MR.1916
Bay State	Tidal Wave	Pb,Ag	MR.1927	Castle Blue	Sheridan	Ag	MR.1919
BB and IE	McCarthy Mtn.	Pb	MR.1931	Chambers Pl.	Virginia City	Au	MR.1931
Beck	Tidal Wave	Au	MR.1933	Champion	Rochester	Pb	MR.1933
Beacon Light	Rochester	Au		Columbia	Silver Star	Au,Ag	MR.1918
Bedford	Sheridan	Ag,Pb	39:138	Columbia	Norris	Au	MR.1907
Bedford	Silver Star	Ag	14:80	Combination	Rochester	Au,Ag,Pb	MR.1933
Bella Union	Sheridan	Cu	MR.1918	Combination	Silver Star	Au,Ag	MR.1918
Ben Harrison	Pony	Au,Ag	MR.1933	Contentment	McCarthy Mtn.	Pb	MR.1930
Bertha	Virginia City	Au,Ag	MR.1897	Cooper	Rochester	Ag	39:131
Bessie	McCarthy Mtn.	Pb	MR.1928	Copper Chief	Silver Star	Au,Ag	MR.1905
Betty Baker	Sheridan	Au	39:139	Copper Glance	Virginia City	Cu,Au,Ag	MR.1917
Big Canadian	Norwegian Cr.	Au	MR.1931	Copper King	Tidal Wave	Pb,Ag	31:36
Big Jack	Norris	Pb,Cu	39:117	Copper Queen	Norris	Cu,Au	MR.1927
Bismarck	Pony	Ag,Cu,Mo	31:31	Cordell	Rochester	Au,Ag	MR.1929
Black	Norwegian Cr.	Au	MR.1911	Corncracker	Tidal Wave	Au	MR.1933
Black Eagle	Virginia City	Ag,Pb	31:48	Cornelia	Sheridan	Au	39:136
Black Hawk	Norris	Au	MR.1905	Cornucopia	Virginia City	Au,Ag	MR.1914
Blackman	Silver Star	Au,Ag	MR.1914	Cousin Jack			
Black Rock	Virginia City	Au,Ag	MR.1918	Min. Co.	Sheridan	Au,Ag	MR.1931
Bluebird	Tidal Wave	Au,Ag	MR.1922	Cousin Jenny	Sheridan	Au	MR.1933
Bluebird-New	Rochester	Au	MR.1910	Cricket	Silver Star	Pb,Ag	MR.1914
Blue Grouse	Norris	Au,Cu	MR.1933	Crystal Lake			
Blue Jay	Tidal Wave	Au,Ag	39:154	Min. Co.	Tidal Wave	Au	31:36
Bob Ingersoll	Sheridan	Au,Ag		Davis	Renova	Au	MR.1929

* See footnote on p. 7

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Democrat	Tidal Wave	Au,Ag	39:156	Gillfooy	Rochester	Au,Ag	MR.1909
D and J	Rochester	Au	MR.1933	Gillman	Virginia City	Au	MR.1933
Deutschland	Tidal Wave	Pb,Ag	31:37	Gladstone	Sheridan	Au	39:136
Dewdrop	Virginia City	Au,Ag	MR.1919	Gleason	Norris	Au,Ag	MR.1910
Diadem	Sheridan	Au,Ag	MR.1926	Gold Anchor	Pony	Au,Ag	MR.1914
Dictator	Norwegian Cr.	Au	MR.1919	Gold Band	Norris	Au	MR.1928
Dictator	Sheridan	Cu	MR.1919	Gold Coin	Rochester	Au	MR.1911
Dickey	Rochester	Pb	MR.1933	Gold Dust	Rochester	Au	MR.1931
Dixie	Norris	Au	MR.1933	Gold Era	Sheridan	Au	MR.1933
Drew	Sheridan	Au,Ag	MR.1912	Gold Nugget	Rochester	Pb	MR.1933
Eagle	Rochester	Au	MR.1933	Gold Reef	Norris	Au,Ag	MR.1915
Eagle Paint	Norris	Au,Ag	MR.1926	Gold Stock	Rochester	Au	MR.1931
East Pacific	Norris	Au,Ag	MR.1928	Golden Chant	Pony	Au,Ag	MR.1931
Eclipse	Norris	Au	MR.1929	Golden Pacific	Rochester	Au,Ag	MR.1906
Edgerton	Silver Star	Au,Ag	14:72	Golden Spike	Silver Star	Au,Ag	14:80
Edmond Forest	Tidal Wave	Au	MR.1933	Golden Treasure	Norwegian Cr.	Au	MR.1931
Eggert Placer	Virginia City	Au	MR.1931	Golden Shower	Tidal Wave	Au	MR.1931
Elenora	Tidal Wave	Au	31:37	Good Friday	Rochester	Au,Ag	MR.1917
Elgin	Rochester	Au	MR.1933	Good Enough	Sand Creed	Au	MR.1933
Elliot	Norris	Au	31:55	Goodrich	Tidal Wave	Au,Ag,Pb	MR.1909
Ella Joy	Sheridan	Au,Ag	MR.1933	Governor Hays	Virginia City	Au,Ag	MR.1933
Elsie	Virginia City	Au	MR.1926	Grand Union	Virginia City	Au	31:46
Emma (Butte-Madison Min. Corp.)	Rochester	Pb,Ag,Au	MR.1930	Granger	Tidal Wave	Au	MR.1930
Emma	Silver Star	Pb	MR.1922	Granite Mountain	Potosi	Au	MR.1926
Empire	Sheridan	Pb	MR.1928	Gray Eagle	Tidal Wave	Au,Ag	MR.1929
Empire State	Tidal Wave	Au	31:37	Greaser	Norris	Au,Ag	MR.1915
Eureka	Rochester	Au,Ag	MR.1907	Green Back	Virginia City	Ag	31:49
Evergreen	Norris	Au,Ag	MR.1921	Grouse	Tidal Wave	Au	31:36
Excelsior	Virginia City	Au	31:47	Grubstake	Norris	Au,Ag	39:116
First Chance	Sheridan	Au	MR.1933	Gunderson	Silver Star	Au,Ag	MR.1912
Fitzgerald	Silver Star	Au,Ag	MR.1927	Hammerway	Tidal Wave	Au,Ag	MR.1916
Flag Staff	Sheridan	Pb,Zn	MR.1930	Hariette	Sheridan	Au,Ag	MR.1923
Florence	Virginia City	Au,Ag	MR.1922	Hays Placer	Virginia City	Au	MR.1931
Florence	Norris	Au,Ag	MR.1917	Hazzard	Rochester	Au,Ag	MR.1911
Florence	Renova	Cu	MR.1928	Hecla (Mont. Hecla Min. Co.)	Norris	Au	MR.1910
Florida Grant	Tidal Wave	Au	MR.1915	Hemlock	Rochester	Au,Ag	MR.1924
Fool Hen	Silver Star	Au,Ag	MR.1927	Hendricks	Norris	Au	31:51
Fortuna	Norris	Pb,Ag	31:47	High Bluff	Washington	Au	39:114
Fortune	Virginia City	Au	MR.1930	High Peak	Tidal Wave	Au,Ag	MR.1928
Fraction	Sand Creek	Au	MR.1933	High Ridge Fraction	Tidal Wave	Au	31:37
Frisbee	Washington	Au	31:54	High Up	Virginia City	Au,Ag	31:47
Galena	Silver Star	Pb,Ag	14:80	Highland Chief	Virginia City	Au,Ag	MR.1925
Galena (Empire Gold Min. Co.)	Norris	Pb,Au	31:54	Homestake	Virginia City	Au,Ag	31:47
Gardiner	Virginia City	Au,Ag,Pb	31:47	Horn Silver	Pony	Au,Ag	MR.1917
Georgia Gulch	Tidal Wave	Au,Ag	MR.1927	Hudson	Silver Star	Au,Ag	MR.1925
George Washington	Norris	Au,Ag	MR.1907	Humming Bird	Tidal Wave	Au	MR.1930
Germania	Rochester	Au,Ag	39:131	Hungerford Placer	Virginia City	Au	MR.1931
Giant	Tidal Wave	Au	31:36	Independent	Silver Star	Au	MR.1933
				Independent	Renova	Au	MR.1928

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Indian Gold	Pony	Au	MR.1917	Lucky Strike	Tidal Wave	Au,Ag	MR.1922
Iron Hat	Virginia City	Au,Ag	MR.1918	Madison	Norris	Au	MR.1911
Iva	Tidal Wave	Au,Ag	MR.1931	Marshal	Rochester	Au,Ag	MR.1917
Ivey	Sheridan	Au,Ag	MR.1917	Mary Ann	Tidal Wave	Au,Ag	MR.1931
Jay and Bill	Sheridan	Au,Ag	MR.1911	Mascot	Norwegian Cr.	Au	MR.1933
Jay Gould	Tidal Wave	Au	39:154	Mascot	Norris	Au	MR.1924
Jesse	Sheridan	Au,Ag	MR.1918	May Day	Rochester	Au	MR.1933
Jimsey Placer	Pony	Au	MR.1924	May Queen	Norris	Au	MR.1913
Johnston-Moffet	Tidal Wave	Cu	39:152	Mayflower (Anaconda Copper Min. Co.)	Renova	Au,Ag	39:99
Jonquil	Sheridan	Au,Ag	31:42	McKay Placer	Sheridan	Au	MR.1933
Judge Law	Silver Star	Au,Ag	MR.1925	Metal View	Virginia City	Au,Ag	MR.1924
June	Tidal Wave	Au,Ag	MR.1928	Metallic	Virginia City	Au,Ag	MR.1919
Kearsarge	Virginia City	Au	31:46	Michigan	Norris	Au,Ag	MR.1909
Kennett	Virginia City	Cu,Ag	MR.1900	Midnight	Norris	Au,Ag	MR.1929
Keno	Tidal Wave	Au,Ag	39:158	Miner's Union	Tidal Wave	Au,Ag	MR.1914
Keystone	Silver Star	Au,Ag	14:80	Minnie	Norwegian Cr.	Au	MR.1933
Keystone	Tidal Wave	Au,Ag	MR.1919	Moffet	Tidal Wave	Cu	MR.1916
Keystone	Virginia City	Au,Ag	39:163	Mogullian	Pony	Au	39:172
Kidd	Washington	Au	31:54	Mohawk	Sheridan	Au,Ag	MR.1925
Kineo	Tidal Wave	Au,Ag	MR.1911	Mohawk	Washington	Au	
King	Tidal Wave	Ag,Pb	MR.1923	Mohegan	Norris	Au	MR.1931
King Fisher	Silver Star	Cu	MR.1929	Monitor	Rochester	Au,Ag	MR.1924
Last Chance	Tidal Wave	Au,Ag	MR.1929	Monitor Revenue	Norris	Au	MR.1931
Last Chance	Washington	Au,Ag	39:114	Montana	Norwegian Cr.	Au	MR.1931
Last Effort	Norris	Au,Ag	MR.1931	Monte Christo	Virginia City	Au	MR.1921
Latest Out	Sheridan	Au,Ag	MR.1929	Montrose	Rochester	Au	MR.1933
Lead Queen	Tidal Wave	Au,Ag		Moonlight	Virginia City	Au,Ag	MR.1917
Lead Star	Virginia City	Au,Ag	MR.1928	Moonlight	Norris	Au	MR.1933
Lean	Silver Star	Au,Ag	MR.1917	Mooselead	Silver Star	Ag	MR.1909
Legal Tender	Tidal Wave	Au,Ag	MR.1909	Morning Star	Norris	Ag	MR.1926
Lehigh	Washington	Au	39:112	Montana Rose	Rochester	Ag	MR.1913
Lester	Silver Star	Au,Ag	MR.1906	Mountain Chief	Pony	Au,Ag	MR.1917
Lexington	Norris	Au	MR.1915	Mountain Chief	Virginia City	Au,Ag	MR.1918
Liberty	Tidal Wave	Au,Ag	MR.1910	Mountain Cliff	Pony	Au,Ag	31:25
Liberty	Norris	Au	MR.1933	Mountain Flower	Virginia City	Au	MR.1933
Lindberg	Rochester	Pb	MR.1930	Mountain Metals	Pony	Au,Ag	MR.1909
Little Bear	Tidal Wave	Pb,Ag	31:36	Mountain View	Norris	Au	MR.1930
Little Jane	Sheridan	Au	MR.1933	Mountain View	Tidal Wave	Au	MR.1930
Little Kid	Washington	Au	MR.1897	Mountain View	Rochester	Au	MR.1922
Little Lode	Virginia City	Au,Ag	MR.1916	Mountain View	Norwegian Cr.	Au	MR.1919
Little Maudie	McCarthy Mtn.	Au	MR.1933	Mountain View	McCarthy Mtn.	Au	MR.1931
Lolita	Silver Star	Au,Ag	MR.1925	Mueller	McCarthy Mtn.	Ag	26:31
Lone Star	Washington	Au	MR.1925	Mutch	Rochester	Pb,Au,Ag	40:131
Lone Tree	Sheridan	Au	MR.1916	Mutt and Jeff	Sheridan	Au,Ag	MR.1913
Lone Wolf	Pony	Au	MR.1916	Nabob	Norwegian Cr.	Au	MR.1923
Long Chance	Norris	Au	MR.1933	National Placer	Rochester	Au	MR.1934
Longfellow	Rochester	Au,Ag	39:130	Native Silver(Barton Gulch Min. Co.)	Virginia City	Ag	31:148
Lost Cabin	Tidal Wave	Au,Ag	MR.1923	Nelson	Virginia City	Au	39:163
Lucky Boy	Tidal Wave	Au,Ag	MR.1923				
Lucky Moon	Silver Star	Au	MR.1930				

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Nettie	Sheridan	Au	MR.1933	Revenue	Norris	Au	39:114
New Clifton	Rochester	Au,Ag	MR.1917	Rhyolite	Silver Star	Ag,Pb	14:80
New Deal	Silver Star	Au	MR.1933	Rising Sun	Norris	Au	31:51
New York	Tidal Wave	Au	MR.1930	Robin	Tidal Wave	Au,Ag	MR.1930
New York Belle	Norris	Au,Ag	MR.1910	Robinson Crusoe	Tidal Wave	Au,Ag	MR.1926
Nez Pearce	Rochester	Au,Ag	MR.1917	Rochester	Rochester	Au	MR.1918
Nitingale	Tidal Wave	Au,Ag	MR.1926	Rodger	Norwegian Cr.	Au	MR.1917
Nobel	Sheridan	Au,Ag	31:42	Roulette	Tidal Wave	Au,Ag	MR.1919
North End	Virginia City	Au	31:47	Royal Bear	Tidal Wave	Au	39:154
North Extension	Sheridan	Au,Ag	MR.1918	Rubicon	Rochester	Au	MR.1916
North Star	Sheridan	Au,Ag	MR.1917	Ruby	Sheridan	Au	MR.1933
North Star	Virginia City	Au,Ag	MR.1931	Ruby Silver	Virginia City	Ag	31:Pl.1
Norwegian Placer (Parish Min. Co.)	Norwegian Cr.	Au	MR.1930	Sage Hen	Silver Star	Au,Ag	MR.1912
Okey	Norwegian Cr.	Au	MR.1917	Sailor Boy	Virginia City	Au	MR.1890
Old Chief	Norris	Au	MR.1909	Saturday Night	Rochester	Au,Ag	MR.1925
Old Norwegian	Norwegian Cr.	Cu	MR.1933	Schmidt	Tidal Wave	Au,Ag	MR.1910
Opportunity and Red Chief	Norwegian Cr.	Au	MR.1933	Searchlight	Sheridan	Au,Ag	
Oregon	Tidal Wave	Au,Ag	MR.1911	Shafter	Virginia City	Au,Ag	MR.1905
Oriole	Norwegian Cr.	Au	MR.1931	Shamrock	Sheridan	Au,Ag	MR.1920
Oro Cache	Virginia City	Au	31:46	Shoemaker	Rochester	Au	MR.1931
Osternich	Sheridan	Au,Ag	MR.1925	Short Shift	Rochester	Au	MR.1933
Pacific	Virginia City	Au,Ag	MR.1922	Silver Bar	Sheridan	Ag	MR.1923
Pan-American Union	Pony	Au	31:25	Silver Bell	Tidal Wave	Ag	MR.1917
Parrett	Tidal Wave	Au	MR.1929	Silver Bell	Virginia City	Au,Ag	MR.1919
Pedo	Sheridan	Au,Ag	MR.1928	Silver Bow	Virginia City	Au,Ag	MR.1922
Peter	Tidal Wave	Au	39:154	Silver Bullion	Sheridan	Ag	MR.1928
Peterson	Virginia City	Au	MR.1927	Silver Coin	Tidal Wave	Ag	MR.1922
Pete and Joe	Tidal Wave	Au	MR.1933	Silver King	Sheridan	Au,Ag	14:80
Picard	Rochester	Au	MR.1933	Silver Lining	Norris	Au	MR.1922
Pinchbeck	Silver Star	Ag	14:80	Silver Point	Sheridan	Au,Ag	MR.1922
Pine Mountain	Tidal Wave	Au,Ag	MR.1927	Silver Queen	Norris	Au	MR.1926
Polly Jane	McCarthy Mtn.	Pb	MR.1930	Silver Star	Norris	Au,Ag	MR.1925
Pony	Pony	Au	MR.1917	Silver Star	Silver Star	Au,Ag	MR.1918
Potomac	Norris	Au	MR.1910	Smith	Virginia City	Au	31:47
Potosi	Potosi	W	31:32	Snowslide	Sheridan	Au,Ag	MR.1926
Primrose	Norris	Au	MR.1927	Sparrow	Sheridan	Au,Ag	MR.1922
Pritchett	Tidal Wave	Pb,Au	39:154	Speculation	Tidal Wave	Au,Ag	MR.1911
Proctor Knot	Pony	Au	MR.1907	Star	Tidal Wave	Au,Ag	MR.1909
Prosperity (Mayo Min. Co.)	Virginia City	Au	MR.1933	Stella	Norris	Au	MR.1902
Python	Sand Creek	Au	MR.1909	Sterling	Norris	Au	31:51
Rambler	Rochester	Au,Ag	MR.1917	Stevens	Norris	Au	31:51
Raphanic	Washington	Au	MR.1931	Stratton	Norris	Au,Ag	MR.1928
Rattler	Renova	Pb	MR.1930	Sunbeam	Tidal Wave	Au,Ag	31:36
Red Bell	Tidal Wave	Pb,Au	39:155	Sunberg	Norris	Au,Ag	MR.1931
Red Chief	Norris	Au	MR.1900	Sunflower	Tidal Wave	Au,Ag	31:37
Red Cross	Norris	Au,Ag	MR.1928	Sunlight	Sheridan	Au,Ag	31:41
Red Rose	Norris	Au	MR.1911	Sunnyside	Sheridan	Au	31:44
				Sunrise	Norwegian Cr.	Au	MR.1916
				Sunset	Tidal Wave	Au	MR.1929
				Surprise	Renova	Au	39:100

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Tariff	Virginia City	Au,Ag	MR.1924	Vigilantes Min. Corp.	Virginia City	Pb,Zn	MR.1930
Tennessee	Norris	Au	MR.1909	Virginia City Min. Co.	Virginia City	Au	MR.1934
Tesla	Pony	Au,Ag	MR.1907	Wakoosta	Virginia City	Au,Ag	MR.1924
Texas	Tidal Wave	Au,Ag	MR.1928	Water Lode (Red Chief Min. Co.)	Norris	Au	MR.1900
Thad Stevens	Norris	Au,Ag	MR.1919	Waters	Sheridan	Au,Ag	MR.1916
Thistle	Rochester	Au,Ag	MR.1909	Wellington	Norwegian Cr.	Au	MR.1933
Tidal Wave	Tidal Wave	Au,Ag	MR.1920	West Mayflower	Renova	Au	31:31
Tipperary	Tidal Wave	Pb	MR.1931	Wheal and Clifford	Silver Star	Au,Ag	MR.1922
Toledo	Sheridan	Au,Ag	31:43	Whippoorwill	Sand Creek	Au	MR.1933
Traufler	Rochester	Au,Ag	MR.1910	White Elephant	Silver Star	Pb,Ag	MR.1909
True Blue	Virginia City	Ag	MR.1890	White Pine	Pony	Au	39:124
Tucker	Washington	Au	MR.1913	White Feather	Norris	Au	MR.1933
Turmoil	Silver Star	Au,Ag	MR.1917	Wild Rose	Tidal Wave	Au	MR.1911
Twilight	Silver Star	Au,Ag	MR.1911	Willow Creek & Ned	Pony	Au,Ag	MR.1913
Twin Bridges	Tidal Wave	Au,Ag	MR.1923	Wilson	Virginia City	Au,Ag	MR.1919
Twin Lakes	Washington	Pb	MR.1931	Wilson and Rice	Norris	Au	MR.1927
Union	Tidal Wave	Au	MR.1933	Windy	McCarthy Mtn.	Pb,Au,Ag	MR.1917
Union	Pony	Au	MR.1926	Winnetka	Virginia City	Au	39:191
U. S. Grant	Virginia City	Au,Ag	39:163	Woodpecker	Tidal Wave	Au,Ag	MR.1926
Valley View	Virginia City	Au	39:164	Yellow Jacket	Silver Star	Pb,Ag	14:80
Van Meter	Tidal Wave	Pb	MR.1927				
Virginia City Lava Cap Min. Co.	Virginia City	Au	MR.1924				

MEAGHER COUNTY

Properties Reported by Owners or Operators

BEVERLEY HILLS

OWNER: Clara Manger et al., Richard Manger, Mgr., White Sulphur Springs, Mont. LESSEES: Emil Sartons, Guy Frohman et al. PROPERTY: 10 unpat. claims 22 mi. W. of White Sulphur Springs at head of Thompson Gulch. Beaver Creek district. ORE: Gold, silver. DEVELOPMENT: Two 100-ft. shafts, 15,000 ft. of adits, 100 ft. of raises, two 60-ft. winzes. PLANT: 4 cabins, shop, mill building, steam boiler, Huntington mill. MEN EMPLOYED: 6. REMARKS: Owner reports, "Production about \$2,000 in 1934. Milling dumps at present and taking out ore."

CLEVELAND AND ALABAMA

OWNER: Russell Manger Co., White Sulphur Springs, Mont. PROPERTY: 5 mi. S. of White Sulphur Springs, Mont., sec. 3, T. 3 N., R. 7 E. Castle Mountains district. ORE: Silver, copper, lead, zinc, manganese. DEVELOPMENT: Two 100-ft. adits, 50 ft. of drifts, two 50-ft. raises, 25-ft. winze. REMARKS: Owner reports, "Good roads, water and timber available, 3 mi. to R. R., 1½ mi. to power line. High-grade silver and manganese ore. Last operated about 10 years ago."

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Beaver Placer	Beaver Creek	Au	MR.1933	Bourbon	Musselshell	Au,Ag	MR.1922
Bluebird	Musselshell	Cu	MR.1917	Bullion	Musselshell	Au	MR.1931
Blue Eyed Nellie	Castle Mtn.	Zn	MR.1914	Camp Robber Placer	Beaver Creek	Au	MR.1933

* See footnote on p. 7.

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Capitol Hill	Musselshell	Cu	MR.1929	Homestake	Castle Mtn.		
Castle Mountain	Castle Mtn.	Pb	MR.1926	Jack Pine	Beaver Creek	Au	MR.1925
Clara Barton	Musselshell	Au,Ag,Cu	MR.1908	Jumbo	Castle Mtn.	Pb,Zn	MR.1926
Copper Duke	Musselshell	Cu	33:157	Klondyke Placer	Beaver Creek	Au	MR.1933
Copper Glance	Murray	Cu	MR.1929	Mammoth (Mont. Copper and Zinc Co.)	Musselshell	Pb,Zn	MR.1928
Copper Queen	Murray	Cu	MR.1923	Mountain Mines, Inc.	Musselshell	Cu,Pb,Zn	MR.1924
Copper Queen	Castle Mtn.			Newlan Copper	Musselshell	Cu	MR.1914
Copper Top				Skidoo	Castle Mtn.		
Copperopolis	Musselshell	Cu	33:157	Snowdrift	Castle Mtn.		
Corner Stone Placer	Beaver Creek	Au	MR.1933	St. John & Darling	Castle Mtn.	Cu	MR.1914
Cumberland	Castle Mtn.	Ag,Pb	33:	Vandor	Castle Mtn.	Cu,Ag	MR.1917
Eldorado Placer	Beaver Creek	Au	MR.1931	Willis (Willis Copper Co.)	Murray	Cu	MR.1918
F. and A.	Beaver Creek	Au	MR.1924	Yellowstone	Castle Mtn.		
Geho Placer	Beaver Creek	Au	MR.1927				
Grasshopper	Castle Mtn.		33:				

MINERAL COUNTY

Properties Reported by Owners or Operators

AMAZON-DIXIE MINING COMPANY

OFFICE: Sildex (via Saltese), Mont.; Herman J. Rossi, Pres., Wallace, Idaho. PROPERTY: 9 pat. claims on Lookout Pass near Montana-Idaho summit. St. Regis district. ORE: Gold, silver. DEVELOPMENT: 5 mi. of underground workings. REMARKS: Last operated in 1928.

BOSTON COLBY COPPER MINING COMPANY

OFFICE: Haugan, Mont.; Nels Knudson, Ritzville, Wash.; Lewis Becker, Spokane, Wash.; C. J. Coleman, Haugan, Mont. PROPERTY: 9 pat. claims W. of Saltese. Denemora district. ORE: Gold, silver, copper. DEVELOPMENT: 80- and 25-ft. shafts, 400- and 800-ft. adits, 600 ft. of drifts, 200 ft. of cross-cuts, 30 ft. of raises, 20 ft. winze. PLANT: Steam hoist, compressor, machine drills, shops, camp buildings. MEN EMPLOYED: 2. REMARKS: Owner reports, "Mine is located within 300 ft. of State Highway No. 10, Northern Pacific and Milwaukee R. Rs. cross the claims. Mill site located on St. Regis River. ½ mi. to power line." Vein in quartzite.

DARBY MINING AND MILLING COMPANY

OFFICER: S. C. Bean, Mgr., Keystone, Mont. Office at Mullan, Idaho. PROPERTY: 10 unpat. claims 3 mi. E. of Keystone. St. Regis district. ORE: Gold, silver. DEVELOPMENT: 2,000 ft. of adits, drifts, cross-cuts. MEN EMPLOYED: 1.

GOLD MOUNTAIN MINES, INCORPORATED (GOLD HILL MINE)

OFFICERS: P. L. O'Neill, Pres., Box 211, Superior, Mont.; J. A. O'Neill, Vice-Pres., Missoula, Mont.; Mary Helen O'Neill, Sec. & Treas., Superior, Mont. PROPERTY: 7 unpat. claims on Deep Creek, tributary of Trout Creek 17 mi. SE. of Superior. Iron Mountain district. ORE: Gold. DEVELOPMENT: Open cuts, 400-ft. adit. PLANT: Amalgamation and concentration mill under construction, Blake crusher, Forrester rod mill, amalgamation plates, No. 9 Wilfley table, 40-h. p. engine, blacksmith shop, 3 cabins. MEN EMPLOYED: 5. REMARKS: Owner reports, "Ample water for power and milling operations. Abundant timber for fuel and mining. Road building by C.C.C. up Trout and Deep Creeks to be completed in spring of 1934."

LIBERTY COPPER COMPANY

OFFICE: Insurance Bldg., Wallace, Idaho. PROPERTY: 6 unpat. claims near Montana-Idaho summit. St. Regis district. ORE: Gold, silver. DEVELOPMENT: 180-, 335-, and 810-ft. adits. REMARKS: Last operated in 1928.

LITTLE PITTSBURG MINING COMPANY

OFFICERS: G. T. Petticrew, Vice-Pres., Mullan, Idaho; Eugene Keesey, Sec., Superior, Mont.

PROPERTY: 2 pat. and 6 unpat. claims in Sloey Creek, sec. 1, T. 17 N., R. 27 W. Keystone district.

ORE: Silver, copper. DEVELOPMENT: 6,000 ft. of drifts and cross-cuts, 90 ft. of raises, 60 ft. of winzes.

MEN EMPLOYED: 6 to 12. REMARKS: Owner reports, "This property has a record of extensive production during the 80's and 90's. Present operations date from 1927. Vein has been cut in lower adit giving 700 ft. additional depth."

RICHMOND LEXINGTON MINING AND MILLING COMPANY

OFFICER: Fred A. Mayo, Mgr., Superior, Mont. PROPERTY: 6 unpat. claims near town of St. Regis.

St. Regis district. ORE: Gold, copper. DEVELOPMENT: 700-ft. adit. REMARKS: Last operated in 1930.

SUPERIOR MINES COMPANY (CEDAR CREEK MINE)

OFFICERS: L. L. Schauble, Pres.; E. Eugene Peerenboom, Vice-Pres.; Edward Schauble, Sec. & Treas.;

Tom Baillargeon, O. E. LeBlanc, John Cassidy, Directors, all of Superior, Mont. PROPERTY: 1 pat. and 4 unpat. claims (380 acres) on Cedar Creek. Iron Mountain district. ORE: Placer gold. PLANT: Water power plant, 2 hydraulic giants, sawmill, compressor, machine drills, logging equipment, office, blacksmith shop, 5 bunk houses. MEN EMPLOYED: 4 in winter, 20 in summer. REMARKS: 1 mi. of ground has been worked. Owner reports, "Property located in 1870, past production is approximately \$2,000,000, a small amount of gold was produced in 1932. Floods in 1933 buried flumes and workings. 1934 operation confined to repairing damage, construction of by-passes, and of 24-in. pipe line."

SWASTIKA PLACER

OWNERS: Louis Cullen, Tarkio, Mont.; William Cullen, Mary T. Cullen, Edwin Cullen, 4012 Corliss Ave., Seattle, Wash. PROPERTY: 16½ pat. claims 1 mi. W. of Tarkio on Clark Fork (Missoula) River. Cedar Creek district. ORE: Placer gold. PLANT: Gravel is dumped from mine car into a 10-in. pipe, 70 ft. long, into a revolving perforated trommel, fines pass to a gold-saving table at the edge of river. Gasoline-powered engine. MEN EMPLOYED: 2. REMARKS: Owner reports, "This is an ancient river deposit 60 ft. above Missoula River formerly known as Texas Bar. Formerly worked by drifting on bedrock, the overburden being 60 ft. thick. At the present time 2 paystreaks have been located. Gold varies from coarse nuggets to flakes. 300 ft. of ground have been worked."

TROUT CREEK PLACERS

OWNER: H. L. Shapard, 805 Wilma Bldg., Missoula, Mont. PROPERTY: 16 unpat. claims 10 mi. up Trout Creek, 16 mi. from Superior. Iron Mountain district. ORE: Placer gold. PLANT: 2,000 ft. of 4-ft. flume, derrick. REMARKS: 4½ mi. of ground has been worked. Last operated in 1905. Owner reports, "Now building forest road, ample timber available, production \$12,000. Property controls a basin ¼ mi. wide, 3 mi. long."

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Amador	Iron Mtn.	Cu,Ag,Pb	MR.1917	Glen Metals	Iron Mtn.	Pb,Zn,Ag	27:583
Amazon	St. Regis	Ag	MR.1926	Golden Treasure Pl.	Iron Mtn.	Au	MR.1929
Bald Mountain	Denemora	Cu,Au,Ag	MR.1915	Hemlock	Denemora	Pb,Ag	8:194
Ben Hur	Denemora	Ag,Pb	8:193	Higlsy Min. Co	Cedar Creek	Au	MR.1930
Bryan	Denemora	Pb,Ag	8:191	Horseshoe Placer	Cedar Creek	Au	MR.1931
Calumet Placer	Cedar Creek	Au	MR.1933	Kelly Placer	Cedar Creek	Au	MR.1925
Cedar Creek Placer	Cedar Creek	Au	MR.1933	Last Chance Placer	Cedar Creek	Au	MR.1928
Dakota Placer	Cedar Creek	Au	MR.1933	Last Chance	Denemora	Pb,Ag	8:192
Darby	Iron Mtn.	Pb	MR.1926	Lenora Gold Min. Co.	St. Regis	Au	MR.1931

* See footnote on p. 7.

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Lolo Placer	Cedar Creek	Au	MR.1930	Silver Cable Min.			
Lucky Strike Placer	Cedar Creek	Au	MR.1931	Co.	Denemora	Ag,Pb,Zn	8:190
Lulu Placer	Cedar Creek	Au	MR.1925	Sterling Placer	Cedar Creek	Au	MR.1931
Margerite Placer	Cedar Creek	Au	MR.1924	St. Lawrence	St. Regis	Cu	MR.1925
Meadow Creek Placer	Cedar Creek	Au	MR.1933	Syndicate	Denemora	Pb,Ag	8:190
Oro Fino Placer	St. Regis	Au	MR.1924	Windfall (Irene Lu)			
Rock Island(Lead Hill Mines, Corp.)	St. Regis	Pb	MR.1929	Placer	Cedar Creek	Au	MR.1931

MISSOULA COUNTY

Properties Reported by Owners or Operators

EUREKA MINING COMPANY

OFFICERS: G. H. Randall, Pres., Box 767, Missoula, Mont.; B. E. Earnest, Vice-Pres., W. E. Starbribe, Sec. & Treas., Missoula, Mont. PROPERTY: 9 pat. claims 2½ mi. NE. of Clinton. Clinton district.

ORE: Gold, silver, copper. DEVELOPMENT: 3 adits, 2,750 ft. long. PLANT: Diesel engine, compressor, machine drills. MEN EMPLOYED: 4.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Boyd Placer	Nine Mile	Au	MR.1933	Golden Snake	Nine Mile	Au	MR.1930
Cape Nome	Clinton	Au	21:228	Independence	Elk Creek	Au	21:204
Charcoal	Coloma	Pb,Zn,Ag	MR.1928	Jameson Placer	Nine Mile	Au	MR.1933
Chloride	Copper Cliff	Pb,Ag	21:229	Kennebeck	Clinton	Cu	MR.1926
Chrysalis	Nine Mile	Au	MR.1933	Maine and Mont.			
Copper Queen	Copper Cliff	Cu	MR.1918	Copper Co.	Clinton	Cu,Pb	MR.1923
Dandy	Coloma	Au	21:201	Mammoth	Coloma	Au	21:195
Davey Placer	Coloma	Au	MR.1922	McCormick Creek Pl.	Nine Mile	Au	MR.1929
Beron and Barrett	Nine Mile	Au	MR.1931	Montana Center	Clinton	Pb	MR.1930
Easy Strike Placer	Nine Mile	Au	MR.1931	Petty Creek Placer	Petty Creek	Au	MR.1933
Elk Creek Hydraulic Placer	Coloma	Au	21:237	Pine Creek Placer	Nine Mile	Au	MR.1929
				San Pit Placer	Nine Mile	Au	MR.1921

PARK COUNTY

Properties Reported by Owners or Operators

CREVASSE MOUNTAIN MINING COMPANY

OFFICERS: Sam H. Treloar, Pres.; J. L. Scott, Sec.; A. F. Rice, Treas., Owsley Block, Butte, Mont.; E. A. Parken, Eng., Jardine, Mont. PROPERTY: 11 pat. and 1 unpat. claims on Crevasse Mtn. 5 mi. E. of Gardiner. Crevasse district. ORE: Gold. DEVELOPMENT: Open cut and 125-ft. adit. PLANT: 30- to 35-ton amalgamation and concentration mill. MEN EMPLOYED: 12. REMARKS: Owner reports, "6,000 tons have been taken from open cut in which a vein 15 ft. wide is exposed."

* See footnote on p. 7.

DUKE (MARY MAC, IMPERIAL, PONTIAC, AND MARJORIE DAW)

OWNER: James H. Stinson, Cooke, Mont. PROPERTY: 5 unpat. claims on S. end of Miller Mtn. New World district. ORE: Lead, silver. DEVELOPMENT: 185- and 80-ft. adits, 70-ft. cross-cut. REMARKS: Owner reports, "400 tons of ore were mined 30 years ago, carrying 68% lead, 15 oz. in silver, treated in an old Mexican furnace which is now abandoned." Idle in 1934. Reference 20:75.

EMIGRANT GOLD MINING COMPANY

OFFICERS: Howard P. Dunn, Pres., Fairhaven, Mass.; Oscar Roseborough, Vice-Pres., Livingston, Mont. W. L. Kearns, Sec. & Treas., Box 594, Livingston, Mont. PROPERTY: 5 unpat. claims in Emigrant Gulch. Emigrant district. ORE: Placer gold. MEN EMPLOYED: 12 since 1931. REMARKS: Operations consist of drift mining on bedrock gravel 2 to 7 ft. thick, width of paystreak is 25 to 50 ft., 50 to 250 ft. below surface for a distance of 1,600 ft., gravel is trammed to 15-in. sluice line.

GLENGARRY MINING COMPANY

OFFICERS: Harry Kamprath, Supt., Cooke, Mont.; Joe Fennah, Foreman, Cooke, Mont. PROPERTY: 12 pat. and 11 unpat. claims head of Clarks Fork 6 mi. N. of Cooke. New World district. ORE: Gold, silver, copper. DEVELOPMENT: 3 adits on one ore body, ½-mi. adit, 430-ft. raise on second ore body. PLANT: 30-ton concentration and flotation mill under construction. MEN EMPLOYED: 12.

GOLD BUD PLACER

OWNER: Jud Hossfield, Box 242, Livingston, Mont. PROPERTY: 1 unpat. claim in Emigrant Gulch. Emigrant district. ORE: Placer gold. MEN EMPLOYED: 2. REMARKS: Operations consist of drift-mining in 700-ft. adit and sluicing.

IRMA MINES, INCORPORATED (BLACK ROCK AND REPUBLIC)

OFFICERS: W. S. Metz, Pres.; A. K. Craig, Vice-Pres.; G. W. Scales, Sec. & Treas., Sheridan, Wyo.; Lyman H. Brooks, Jr., Mgr., Cooke, Mont. PROPERTY: 5 pat. and 36 unpat. claims ¼ to 2½ mi. S. of Cooke on Republic and Woody Mts. New World district. ORE: Silver, lead, zinc. DEVELOPMENT: 3,000 ft. of adits, drifts, cross-cuts. PLANT: Engines, compressors, machine drills. MEN EMPLOYED: 10. REMARKS: Development work. Ore in limestone.

JARDINE MINING COMPANY

OFFICERS: H. C. Bacorn, Pres., Jardine, Mont.; E. W. Stifel, Vice-Pres., Wheeling, W. Va. PROPERTY: 27 pat. and 5 unpat. claims near Jardine. Jardine district. ORE: Gold, silver, arsenic, tungsten. DEVELOPMENT: 5 mi. of adits, drifts, cross-cuts. PLANT: 40-stamp amalgamation, concentration and flotation mill, roasters and arsenic furnaces, tungsten ore concentration plant. MEN EMPLOYED: 75.

ST. JULIAN

OWNERS: E. J. Wemlinger, Box 73, Livingston, Mont.; H. B. Futter, Cardwell, Idaho. PROPERTY: 9 pat. and 9 unpat. claims on St. Julian Mtn. E. fork of Emigrant Creek 6 mi. above Chico. Emigrant district. ORE: Gold. DEVELOPMENT: 3,000 ft. of adits, shafts, winzes. PLANT: 10-stamp amalgamation and concentration mill in poor condition. MEN EMPLOYED: 2 to 4 (intermittently). REMARKS: Owner reports, "\$100,000 has been spent in development, camp and mill construction. There is now available ore in most of mine workings. We plan to repair old mill, add new equipment, and resume active operations."

VANCE MINES AND POWER COMPANY (GOLD DUST, HOMESTAKE AND SILVER QUEEN)

OFFICERS: W. G. Vance, Pres.; E. B. Vance, Treas.; Lawrence Vance, Sec., Morristown, N. J. PROPERTY: 5 mi. E. of Cooke. New World district. ORE: Gold, silver, copper, lead, zinc, manganese (lode and placer). DEVELOPMENT: 300 ft. of shafts, four adits (2,000 ft.), 800 ft. of drifts, 172 ft. of cross-cuts, 186 ft. of raises, 40,000 tons stoped. PLANT: Hydro-electric power, crushers, rod mills, office, shops, 2 residences, 26 cabins, smelter plant. REMARKS: Owner reports, "R. F. C. loan application has been made; if granted, hydro-electric plant, smelter, and sawmill will be reconditioned; 500-ton flotation mill built; it is planned to use smelter for custom smelting and to furnish power and light to smaller mines in district." Last operated in 1929 by Montana Mines and Power Company.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Aurora	New World	Ag	DM.1884	Homestake	New World	Ag,Cu	20:62
Birthday	New World	Pb	MR.1929	Hudson and Boulder	New World	Au,Ag,Pb	MR.1908
Black Warrior	New World	Au,Ag	DM.1884	Little Daisy	New World	Ag,Pb	DM.1884
Cooke Consolidated				New World	New World	Pb,Au	20:77
Copper Co.	New World	Cu	MR.1924	Rising Sun	New World	Au,Ag	DM.1884
Copper Glance	New World	Au,Ag	20:74	Shoo Fly	New World	Pb,Ag,Zn	20:77
Cuba Consolidated	New World	Pb,Ag	MR.1917	Stump	New World	Pb	20:75
Daisy	New World	Au	20:61	Western Smelting			
Eclipse	New World	Ag,Pb,Cu	DM.1884	Co.	New World		20:46
Fairhaven and Key				Wolverine Placer	Emigrant	Au	MR.1922
Placer	Emigrant	Au	MR.1933	Yellowstone	New World	Pb,Ag	MR.1917
Greely	New World	Pb	MR.1918	Yellowstone Placer	Emigrant	Au	MR.1930

PHILLIPS COUNTY

Properties Reported by Owners of Operators

IDAHO AND HOB O

OWNER: T. M. Crook, Harlem, Mont. PROPERTY: 11 claims. Little Rockies district. ORE: Gold.

DEVELOPMENT: 150-ft. adit. MEN EMPLOYED: 3. REMARKS: Owner reports, "Most of the ore will run \$2 to \$4 per ton. One vein assays up to \$87."

LITTLE BEN MINING COMPANY (AUGUST)

OFFICERS: N. B. Holter, Pres., 1203 Parkway, Beverly Hills, Calif.; George T. McGee, 285 N. Euclid Ave., Pasadena, Calif.; James T. Finlen, Butte, Mont.; P. A. Wickham, Mgr., Landusky, Mont.

PROPERTY: 21 pat. and 3 unpat. claims on King Creek 2 mi. NE. of Landusky 63 mi. from Dodson on Great Northern Ry. Little Rockies district. ORE: Gold, silver. DEVELOPMENT: 200-ft. shaft, two 400-ft. adits, 800 ft. of drifts, 200 ft. of cross-cuts, 100-ft. raise, 200-ft. winze, 10,000 tons stoped.

PLANT: Semi-Diesel power plant, pumps, electric hoist, McCormick-Deering gas engine, Gardner-Denver compressor, 7 machine drills, 70-ton cyanide mill, Austin No. 4 gyratory crusher, 2 sets of 26 by 15 in. rolls, Areo-Vibe screen, office, and 13 residence buildings. REMARKS: Owner reports, "Fair country roads, water pumped 400 ft., timber limited, 50-mi. power line from Harlem, some natural gas developed in sec. 20, T. 24 N., R. 24 E. Possibility of future development of natural gas about 8 mi. from Landusky." 3- to 30-ft. vein in porphyry.

LITTLE ROCKIES MINING COMPANY (BEAVER CREEK)

OFFICERS: Charles Whitcomb, Pres., Zortman, Mont.; Sam Goodman, Vice-Pres., Great Falls, Mont.; George Whitcomb, Sec. & Treas., Zortman, Mont. PROPERTY: 4 pat. and 5 unpat. claims 3 mi. N. of Zortman. Little Rockies district. ORE: Gold, silver. DEVELOPMENT: Various adits; 6 levels; 1,300-ft. cross-cut to 600-ft. level; No. 5 level, 300 ft. of cross-cuts and drifts; No. 4 level, 500 ft. of cross-cuts and 1,000 ft. of drifts. MEN EMPLOYED: 10.

OLD BEAVER CREEK

OWNER: Charles J. Whitcomb, Zortman, Mont. PROPERTY: 6 claims. Little Rockies district. ORE: Gold. DEVELOPMENT: 3,000 ft. of adits and drifts. PLANT: Diesel engine, compressor, machine drills, mine cars, 40-ton mill. MEN EMPLOYED: 6. REMARKS: Owner reports, "400,000 tons of ore have been stoped."

* See footnote on p. 7.

RUBY GULCH MINING COMPANY

OFFICERS: Carl J. Trauerman, Pres., Butte, Mont.; Chas. Whitcomb, Vice-Pres. & Gen. Mgr.; Zortman, Mont.; Harry S. Whitcomb, Treas., Zortman, Mont.; Ernest Dorais, Sec., Butte, Mont.; William Sturman, Mine Supt. PROPERTY: 30 pat. claims and millsites, 2 miles north of Zortman. Little Rockies district. ORE: Gold, silver. DEVELOPMENT: Open cuts and haulage adits. Ruby open cut tapped by haulage-way 500 feet below the surface. PLANT: Mine is fully equipped with compressed air drilling machinery. Haulage by electric locomotive. New 300-ton cyanide mill to be completed in January 1936. Ore to be crushed to 3/8 in. in gyratory crushers and rolls and leached in tanks of 300-ton capacity for 4 days. Power obtained by a 300-h. p. Venn-Severin Diesel oil engine direct connected to an Ideal Electric Company fly-wheel type 480-volt A.C. generator. Water obtained from Alder Gulch by pumping through 5-in. line from 6,000 ft. to a height of 500 ft. REMARKS: Owners report, Company, a consolidation of Ruby Gulch Mining Company with the Alder Gulch Mining Company and the Alabama Company, incorporated in Montana in 1904; capital, 100,000 shares; par value, \$1.00. All stock outstanding (Nov. 28, 1935); only 7 stock holders. About \$100,000 worth of high-grade ore shipped from the Mint, Ruby, Divide, Pearl, Alabama, Badger King, and Independent claims, mainly in the later part of 1935 by the present operators. Company has milled 1,500,000 tons of low-grade ore assaying 0.104 oz. gold; tailings assayed 0.017 in gold; cost of mining and milling was \$1.05. Reserves total 10,000,000 tons low-grade ore carrying 0.08 oz. in gold. Company has paid \$1,000,000 in dividends up to 1923. Ore occurs as quartz stringers carrying gold and silver cutting hard and soft porphyry.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Annex Placer	Little Rockies	Au	MR.1933	Montana	Little Rockies	Au	10:31
August	Little Rockies	Au	12:115	Papoose	Little Rockies	Au	10:35
Big Chief	Little Rockies	Au	10:31	Susie	Little Rockies	Au	10:31
Fergus Min. Co.	Little Rockies	Au	12:115	Swift	Little Rockies	Au	10:31
Illinois Tunnel Pl.	Little Rockies	Au	MR.1933	Valentine	Little Rockies	Au	10:31

POWELL COUNTY

Properties Reported by Owners or Operators

AMERICAN WESTERN MINES (BIG DICK, BLACK JACK, COMSTOCK, MOONLIGHT, AND LOOKOUT)

OFFICERS: C. J. Webb, 412 Columbia Bldg., Spokane, Wash.; Homer Enfield, 908 W. Providence, Spokane, Wash.; H. L. Mooney, 1414 W. Courtland, Spokane, Wash.; B. E. Davis, Elliston, Mont.; F. A. Davis, Mgr., Elliston, Mont. PROPERTY: 1 pat. and 12 unpat. claims 10 mi. SE. of Elliston. Elliston district. ORE: Gold, silver, lead. DEVELOPMENT: Big Dick: 277-ft. shaft, 5 levels, 1,200-ft. drainage adit; Black Jack: 334-ft. vertical and incline shaft; Moonlight: 450-ft. shaft; Lookout: 320-ft. shaft; Comstock: 100-ft. shaft. PLANT: 50-ton amalgamation and flotation mill, sawmill. MEN EMPLOYED: 5 to 10. REMARKS: Owner reports, "Black Jack vein is parallel to Big Dick. Comstock vein is a continuation of Big Dick. Length of ore shoots, Moonlight, 200 ft.; Lookout, 100 ft.; Comstock, 200 ft."

BLUE EYED MAGGIE LEASING COMPANY

OFFICER: Sam Varelia, Mgr., Box 584, Deer Lodge, Mont. PROPERTY: 1 pat. and 3 unpat. claims. Emery district. ORE: Gold, silver, lead. DEVELOPMENT: Shafts and drifts. MEN EMPLOYED: 12. REMARKS: Owner reports, "Shipments of ore about 90 tons per month, average value of \$60 per ton."

* See footnote on p. 7.

CLARK LEAD

OWNER: J. M. Gabel, 502 Fuller Ave., Helena, Mont. PROPERTY: 502 unpat. acres on Little Blackfoot River 3½ mi. S. of Elliston, sec. 19, T. 9 N., R. 7 W. 3 mi. from State Highway No. 10. Elliston district. ORE: Gold, silver, copper, lead, zinc. DEVELOPMENT: 65-ft. shaft, 160-ft. adit, 160 ft. of drifts, 25-ft. winze. PLANT: Hoist, pump, residence, bunk houses. REMARKS: Owner reports, "Ample timber available, 3½ mi. from R. R., 5 mi. from power line. Last operated in 1924 by Sherman Clark."

DEZELL MINING COMPANY

OFFICERS: M. J. Dezell, Pres., Box 8, Gold Creek, Mont.; A. L. Rankin, Vice-Pres., Box 1178, Billings, Mont.; R. M. Dezell, Sec. & Treas. PROPERTY: 4 unpat. claims 6 mi. S. of Pioneer. Pioneer district. ORE: Gold, silver. DEVELOPMENT: 700 ft. of adits, 700 ft. of drifts. PLANT: Gardner-Denver compressor driven by caterpillar tractor, machine drills, Ellis ball mill, Overstrom Diester concentrating table. MEN EMPLOYED: 2. REMARKS: Owner reports, "Average width of vein is 12 in. \$20,000 worth of ore blocked out."

DARK HORSE

OWNER: T. V. Arnreiter, Anaconda, Mont.; F. C. Gilbert, Cons. Eng., Butte, Mont. PROPERTY: 2 unpat. claims and 1 millsite on Granite Creek 7 mi. W. of Racetrack. Racetrack district. ORE: Gold. DEVELOPMENT: 200-ft. adit. PLANT: Water power, crusher, Ellis ball mill, arrastra. MEN EMPLOYED: 3. REMARKS: Last shipment (1934) assayed 1.4 oz of gold.

ELDORADO GOLD PLACER

OFFICERS: H. McCullogh, Pres.; S. J. Martin, Sec.; C. H. Melston, Treas., 702 Mohawk Bldg., Spokane, Wash.; P. F. Rogers, Mgr., Avon, Mont. PROPERTY: 6 pat. claims. Finn district. ORE: Placer gold. PLANT: 2 drag-line shovels and dry-land dredge. MEN EMPLOYED: 13. REMARKS: Operations consist of stripping barren overburden, 800 cu. yds. in 8 hrs. and sluicing underlying gold bearing gravel at the rate of 300 cu. yds. in 8 hrs.

ELK GOLD MINING COMPANY

OFFICERS: I. S. Eldred, Pres.; P. Pauly, Larabie Stock Co., Phil O'Neill, W. N. Harris, Deer Lodge, Mont. LESSEE: V. A. Harpole et al. PROPERTY: 13 acres pat. 10 mi. SE. of Deer Lodge. Oro Fino district. ORE: Gold, silver. DEVELOPMENT: Open pits, 50-ft. shaft.

EMERY CONSOLIDATED MINING COMPANY (EMERY)

OFFICERS: J. R. Davenport, Pres.; Dr. C. S. Renouard, Vice-Pres.; G. W. Whitworth, Sec. & Treas.; A. B. Davenport, A. J. Whitworth, Directors, Deer Lodge, Mont., or 610 Phoenix Bldg., Butte, Mont. LESSEE: Tweedy Bros., Deer Lodge, Mont. PROPERTY: 4 pat. and 7 unpat. claims 9 mi. E. of Deer Lodge. Emery district. ORE: Gold, silver, lead in andesite. DEVELOPMENT: 700- and 450-ft. shafts, 10,000 ft. of drifts. PLANT: Electric power, flotation mill, hoist. MEN EMPLOYED: 15. REMARKS: Owner reports, "20,000 tons stoped, past production, \$1,000,000. Started to open mine November 1, 1934." Operating in 1935.

GARRISON MINING AND PHOSPHATE COMPANY

OFFICERS: W. M. Archibald, Pres.; A. B. Ritchie, Vice-Pres.; E. G. Randall, Sec. & Treas., Trail, British Columbia. PROPERTY: 1,400 acres leased from United States Government. Garrison district. ORE: Phosphate rock. DEVELOPMENT: 1,300 ft. of cross-cuts, 400 ft. of drifts. REMARKS: Idle in 1934.

HIGGINS

OWNERS: E. L. Stout and Dave Fleming, Helmville, Mont. PROPERTY: 1 pat. and 4 unpat. claims, Shores Creek 7 mi. NE. of Helmville. Big Blackfoot district. ORE: Gold, silver, lead. DEVELOPMENT: 300-ft. adit. MEN EMPLOYED: 2. REMARKS: Owner reports, "Fair roads, water and timber available."

KILBURN PLACER

OWNERS: J. D. Kilburn, Ovando, Mont.; R. R. Kilburn, Helmville, Mont. PROPERTY: 8 unpat. claims 6 mi. NE. of Helmville. Big Blackfoot district. ORE: Placer gold. MEN EMPLOYED: 4. PLANT: Caterpillar tractor, shops, and cabins. REMARKS: Several thousand feet of bedrock-drainage cut.

MONTANA UNITED MINING COMPANY

OFFICE: Deer Lodge, Mont. PROPERTY: 14 pat. claims 9 mi. E. of Deer Lodge. Emery district. ORE: Gold, silver. DEVELOPMENT: 500-ft. 2-compartment shaft, several adits. PLANT: Hoist, compressor, pumps. REMARKS: Last operated in 1907.

NEW DEAL

OWNER: C. H. Anderson, Elliston, Mont. LESSEE: Erickson Bros. PROPERTY: 1 unpat. claim in Moose Gulch 8 mi. S. of Elliston. Elliston district. ORE: Gold, silver, lead. DEVELOPMENT: Several short adits. PLANT: Shop and cabin. MEN EMPLOYED: 2. REMARKS: Owner reports, "Poor roads, water and timber plentiful, 9 mi. to power line."

PIKES CREEK MINING COMPANY

OWNER: Pikes Creek Mining Co., H. S. Stevenson, Mgr., Gold Creek, Mont., or 310 Fifth Ave., Helena, Mont. PROPERTY: 2,000 acres partially pat. 6 mi. S. of Gold Creek. Pioneer district. ORE: Pl. gold. DEVELOPMENT: Test shafts. PLANT: 1¼-yd. drag line and washing plant, capacity, 1,000 yds. MEN EMPLOYED: 8. REMARKS: Owner reports, "Have been testing for 2 years; started mining June 22, 1935."

PIONEER PLACER AND DREDGING COMPANY

OFFICER: N. Cleaveland, Mgr., Gold Creek, Mont. PROPERTY: 4,000 acres. Pioneer district. ORE: Placer gold. PLANT: Electric dredge, 7,000-cu. yd. per day capacity. MEN EMPLOYED: 30.

TELEGRAPH CREEK

OWNERS: W. J. Harris, Spokane, Wash.; C. H. Anderson, Elliston, Mont. LESSEES: Brian O'Connell, Mr. Longmaid, Helena, Mont. PROPERTY: Telegraph Creek. Elliston district. ORE: Gold, silver. PLANT: Small mill. MEN EMPLOYED: 5.

WILLIAM PAUL PLACER

OWNER: E. W. Kieley. LESSEE: Frank I. Zell, Finn, Mont. PROPERTY: 3 pat. claims, sec. 18, T. 12 N., R. 8 W. Finn district. ORE: Placer gold. PLANT: Drag line, 500-cu. yd. screening plant. MEN EMPLOYED: 6.

YAM HILL PLACER

OWNER: Bernard Sauber, Gold Creek, Mont. PROPERTY: 287 pat. acres SE. of Gold Creek. Pioneer district. ORE: Placer gold. PLANT: Hydraulic giants. MEN EMPLOYED: 4. REMARKS: Owner reports, "Shortage of water handicaps operation."

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Ajax	Ophir	Au	24:33	Dezielle	Ophir	Pb,Cu	MR.1913
American Gulch Pl.	Finn	Au	MR.1928	Eddy Placer	Elliston	Au	MR.1930
Anderson	Pioneer	Au	MR.1931	Elkhorn	Finn	Au	MR.1907
Argus	Emery	Ag	24:281	Emilda	Elliston	Au	MR.1931
Ballard	Pioneer	Au	MR.1933	Emma Darling	Emery	Pb	24:281
Big Buff	Elliston	Pb	MR.1924	Esmeralda Gold Min. Co.	Ophir	Au	MR.1923
Black Foot Gold Min. Co.	Big Blackfoot	Au	MR.1931	Etna	Ophir	Au	MR.1929
Blackfoot Placer	Big Blackfoot	Au	MR.1929	Eureka Gulch Placer	Finn	Au	MR.1909
Black Jack	Elliston	Pb,Ag	MR.1930	Fairview	Ophir	Au,Ag	24:32
Blue Bell	Emery	Au,Ag	MR.1912	Flagstaff (Elliston Copper Min. Co.)	Ophir	Cu,Au,Ag	MR.1909
Bobcat	Elliston	Pb	MR.1933	Flora-Best	Elliston	Ag,Pb	24:268
Carbonate Boy	Elliston	Pb	MR.1925	Friday Placer	Pioneer	Au	MR.1931
Carpenter Basin P.	Ophir	Au	MR.1909	Galena	Emery	Au,Ag	MR.1933
Charter Oak	Elliston	Pb,Ag,Au	24:268	Gerdt's Placer	Finn	Au	MR.1914
Comet Bar Placer	Ophir	Au	MR.1910	Gold Seal	Finn	Au	MR.1907
Dandy Jim	Elliston	Pb	MR.1924	Grey Rock	Elliston	Pb	MR.1929
Davis Placer	Ophir	Au	MR.1909	Hardie	Elliston	Pb	MR.1929
Democrat	Elliston	Au,Ag	MR.1924				

* See footnote on p. 7.

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Hidden Treasure (Missoula Min. Assn.)	Emery	Pb,Ag,Au,Cu	27:582	Prairie and Carpen- ter Bar Placer	Ophir	Au	24:31
High Ore	Big Blackfoot	Au	MR.1924	Rawlings	Ophir	Au,Ag	MR.1910
Home	Ophir	Au	MR.1931	Red Bird	Pioneer	Au	MR.1929
Julia	Elliston	Pb,Ag	24:255	Ruther Placer	Finn	Au	MR.1912
Katy Placer	Finn	Au	MR.1933	Saddie	Elliston	Pb,Ag	24:267
Kiely Placer	Finn	Au	MR.1933	Scotch Bar Placer	Finn	Au	MR.1915
Kraes	Pioneer	Au	MR.1928	Shamrock	Finn	Au	MR.1933
Lorraine Placer	Ophir	Au	MR.1909	Silver Star	Elliston	Au,Ag,Pb	MR.1907
Madison Creek Pl.	Finn	Au	MR.1925	Small Nugget Placer	Finn	Au	MR.1918
Marian	Elliston	Pb	MR.1924	Tomera Placer	Ophir	Au	MR.1910
McKay	Ophir	Au	24:35	Trapper	Big Blackfoot	Au	MR.1909
Mutual	Finn	Au	MR.1911	Upper Gold Creek Placer	Pioneer	Au	MR.1924
Nattie	Elliston	Au,Ag,Pb	MR.1907	Victory	Ophir	Au	MR.1930
North Pole	Elliston	Ag	MR.1923	Walking Dredge Pl.	Finn	Au	MR.1912
Northwestern Pl.	Big Blackfoot	Au	MR.1909	Ward Placer	Ophir	Au	MR.1909
Opportunity and Last Chance	Ophir	Cu	MR.1929	Warm Springs Hill	Ophir	Au	MR.1910
Oro Fino Placer	Pioneer	Au	MR.1929	Wilson Bar Placer	Finn	Au	MR.1909
Pioneer	Elliston	Pb	MR.1933				

RAVALLI COUNTY

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Belle		Ag,Cu	DM.1881	Jim and Star	Hughes Creek	Au	MR.1924
Bitterroot Prince	Pleasant View	Ag	DM.1881	Metal Smith Gold, Inc.		Au,Ag	
Black Hawk		Au	MR.1909	Monitor	Mineral Point	Pb,Ag	19:90
Brickley Placer	Hughes Creek	Au	MR.1926	Ore Finder		Pb,Zn	MR.1907
Camas Placer	Hughes Creek	Au	MR.1933	Pathfinder	Hughes Creek	Au	MR.1925
Cow Creek Placer	Hughes Creek	Au	MR.1925	Pleasant View	Pleasant View	Ag	19:87
Curlew	Curlew	Pb,Ag	19:86	Providence	Three Mile	Pb,Ag,Zn	MR.1907
Discovery Placer	Hughes Creek	Au	MR.1933	Ravalli Gold Min. Co.	Curlew	Au,Ag,Cu	MR.1935
Homestake Placer	Hughes Creek	Au	MR.1933	Victor Orchard	Curlew	Au,Ag,Pb,Zn	MR.1910
Hughes Creek Dredg- ing Co.	Hughes Creek	Au	MR.1921	Washington	Hughes Creek	Au	MR.1935
Hughes Creek Hydraulic Co.	Hughes Creek	Au	MR.1921				

* See footnote on p. 7.

SANDERS COUNTY

Properties Reported by Owners or Operators

BLUE CREEK MINING COMPANY

OFFICERS: C. P. Stackhouse, Pres. & Treas., Sandpoint, Idaho; E. W. Wheelan, Sec., Sandpoint, Idaho. PROPERTY: 6 pat. and 3 unpat. claims. Blue Creek district. ORE: Silver, lead, zinc. DEVELOPMENT: 2,000-ft. adit. PLANT: Compressor, machine drills. REMARKS: Owner reports, "Ore shoot 180 ft. long, 4 ft. of high-grade and 10 ft. of milling ore. Last operated in 1928."

CARDIFF

OWNERS: M. J. Sullivan and Dick Terrill, Box 158, Dixon, Mont. PROPERTY: 1 pat. and 1 unpat. claim at Ferry Basin 7 mi. NE. of Perma. Camas Prairie district. ORE: Silver, lead. DEVELOPMENT: Two 20-ft. shafts, 280-ft. adit, 30-ft. drift. MEN EMPLOYED: 2. REMARKS: Owner reports, "Fair road to Perma, 7 mi. to R. R., 10 mi. to power line, timber available."

COOPER CREEK MINING COMPANY

OFFICER: William Moser, Sec., Thompson Falls, Mont. PROPERTY: 6 unpat. claims 16 mi. S. of Prospect Creek. Prospect Creek district. ORE: Silver, lead. DEVELOPMENT: 800-ft. adit. PLANT: Gas engine, compressor, camp buildings for 20 men. REMARKS: Owner reports, "Good roads, ample water and timber, 500 ft. to power line. Last operated in 1933."

COPPER MASK MINING COMPANY

OFFICERS: John Hickey, Pres.; John D. Kennedy, Vice-Pres.; J. C. Harrah, Sec. & Treas., c/o Moonlight Mining Co., Philipsburg, Mont. PROPERTY: 9 unpat. claims 9 mi. E. of Thompson Falls. Thompson River district. ORE: Silver, copper. DEVELOPMENT: 2,000 ft. of drifts, 200 ft. of raises. MEN EMPLOYED: 3.

DRAKE (TRADE DOLLAR, EAGLE, AND LUCKY STRIKE)

OWNERS: J. C. Drake, Mabel Ashcraft, Box 167, Dixon, Mont. LESSEE: M. J. Sullivan, Dixon, Mont. PROPERTY: 4 unpat. claims 6 mi. SW. of Dixon. Revais Creek district. ORE: Gold, silver, copper, platinum, palladium. DEVELOPMENT: 1,200 ft. of adits, shafts, raises. MEN EMPLOYED: 2. REMARKS: Ore along contact of gabbro dike with quartzite.

EAGLE MOUNTAIN MINING COMPANY

OFFICER: W. H. Herrick, Wallace, Idaho. PROPERTY: 6 unpat. claims. Prospect Creek 6 mi. N. of Thompson Falls. Prospect Creek district. ORE: Gold, silver, lead. DEVELOPMENT: 1,200-ft. adit. REMARKS: Last operated in 1931.

HERMAN

OWNER: Christ Herman, Perma, Mont. PROPERTY: 3 pat. and 2 unpat. claims, Ferry Basin 7 mi NE. of Perma. Camas Prairie district. ORE: Silver, lead. DEVELOPMENT: Open cuts, four 25-ft. shafts. MEN EMPLOYED: 1.

HOMESTEAD MINING COMPANY

OFFICERS: John Salisbury, Pres.; Lloyd E. Gandy, Vice-Pres., 503 Columbia Bldg., Spokane, Wash. Mine address: Noxon, Mont. PROPERTY: 7 unpat. claims, W. fork of Pilgrim Creek. Blue Creek district. ORE: Gold, silver, lead, copper, zinc in quartzite. DEVELOPMENT: Open cuts, 300-ft. adit, 1,500-ft. drift. REMARKS: Owner reports, "Width of ore zone about 100 ft., vein 4 in. to 2 ft., total width of vein is 12 ft. of workable ore. Shipments of high-grade ore to smelters." Last operated in 1933.

JACK WAITE MINING COMPANY

OFFICERS: J. F. Duthie, Pres.; Robert S. Terhune, Vice-Pres.; G. W. Dinejetter, Jr., Sec., Box 1382, Seattle, Wash. LESSEE: American Smelting and Refining Co. PROPERTY: 11 pat. and 144 unpat. claims on boundary of Montana and Idaho. White Pine district. ORE: Silver, lead, zinc. DEVELOPMENT: 7 adits, 2 shafts, 25 raises, 300 cross-cuts, 15 drifts, total of 21,776 ft. of workings. PLANT: Selective flotation mill.

KING DAVID MINING SYNDICATE

OFFICER: D. K. May, Mgr., Box 531, Thompson Falls, Mont. PROPERTY: 15 unpat. claims 10 mi. NE. of Thompson Falls. Prospect Creek district. ORE: Copper, lead, zinc. DEVELOPMENT: 600 ft. of adits and drifts. PLANT: Ingersoll-Rand portable compressor, Chicago Pneumatic machine drill. MEN EMPLOYED: 2 to 4.

MAYFLOWER

OWNER: Charles Allen, Dixon, Mont. PROPERTY: 3 unpat. claims 6 mi. SW. of Dixon. Revais Creek district.
ORE: Gold, silver, platinum, palladium. DEVELOPMENT: 300 ft. of adits, 25-ft. shaft. MEN EMPLOYED: 1.

MONTANA PREMIER GOLD MINING CORPORATION

OFFICER: T. S. Letterman, Pres. & Mgr., Plains, Mont. PROPERTY: 180 pat. and 70 unpat. claims 2 mi. S. of Plains. Plains district. ORE: Gold, silver, lead. DEVELOPMENT: Adit, shafts, drifts. MEN EMPLOYED: 3. REMARKS: Owner reports, "6 veins 1 to 15 ft. thick, ore shoots opened to depth of 250 ft., gold in free-milling ore from surface down, silver and lead important at 250-ft. depth. It is planned to install 25-ton mill and to drive cross-cut to tap vein system at greater depth."

MONTANA STANDARD MINING COMPANY

OFFICERS: J. P. Mahoney, Pres.; Dan P. Mahoney, Vice-Pres., Spokane, Wash.; C. Z. Seelig, Sec. & Treas., Box 388, Wallace, Idaho. PROPERTY: 13 pat. claims on Prospect Creek 12 mi. from Thompson Falls. Thompson River district. ORE: Silver, lead, copper. DEVELOPMENT: 2,400 ft. of adits. REMARKS: Idle in 1934.

NEW DEAL

OWNER: M. J. Sullivan, Dixon, Mont. PROPERTY: 5 unpat. claims 6 mi. SW. of Perma. Perma district. ORE: Gold, silver, copper. DEVELOPMENT: 400-ft. adit, 150-ft. shaft. MEN EMPLOYED: 4. REMARKS: Oxidized ore in gabbro dike.

PALIN

OWNER: Isaac Palin, Perma, Mont. PROPERTY: 4 unpat. claims 2 mi. W. of Perma. Perma district. ORE: Copper. DEVELOPMENT: 60-ft. adit. MEN EMPLOYED: 2. REMARKS: Carbonate ore.

R. J. PRICE COMPANY

OFFICER: Henry S. Larson, Sec., 2025 E. Thirty-second St., Tacoma, Wash. PROPERTY: 12 unpat. claims 13 mi. E. of Noxon. Silver Butte district. ORE: Gold, silver. DEVELOPMENT: 465-ft. adit. PLANT: Pelton water wheel, 500-ft. pipe line, 4 compressors, 2 Burleigh machine drills. MEN EMPLOYED: 4.

SLOW POKE

OWNER: C. A. Allen, Box 457, Dixon, Mont. PROPERTY: 3 unpat. claims 3 mi. SW. of Dixon. Revais Creek district. ORE: Gold, silver, copper. DEVELOPMENT: Shaft and 300-ft. adit. MEN EMPLOYED: 1.

THOMPSON FALLS MINING COMPANY

OFFICERS: David E. Pyle, Pres.; A. T. Brown, Sec., Hoquian, Wash.; C. C. Cardwell, Agt., Elma, Wash. PROPERTY: 8 lode claims, 158.5 acres, 2 millsites, 9.8 acres, pat. app. for September 24, 1934, sec. 36, T. 21 N., R. 31 W. and secs. 2 and 3, T. 20 N., R. 31 W. Prospect Creek district. ORE: Gold, lead. DEVELOPMENT: 60 ft. shaft, 4 adits, 200 to 1,800 ft. long. PLANT: 50-ton concentration mill, blacksmith shop, boarding and bunk houses. REMARKS: Owner reports, "Expect to resume operations as soon as patents are granted. County road to be repaired, mill to be equipped for flotation. Estimate 1,700-ft. depth of ore from surface to mill level." Last operated in 1929.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Arlington	Spring Gulch	Pb,Ag,Au	MR.1908	Iron Daisy (Princess Min. Co.)		Pb	MR.1930
Carter Min. and Milling Co.	Spring Gulch	Au,Ag,Pb	MR.1908	Iron Mask	Spring Gulch	Cu	MR.1908
Idaho Divide	White Pine	Pb	MR.1923	Poor Man		Au	MR.1906

* See footnote on p. 7.

SILVER BOW COUNTY

Properties Reported by Owners or Operators

ANACONDA COPPER MINING COMPANY

(BUTTE MINES)

ADDRESS: 25 Broadway, New York; Anaconda, Montana.

OFFICERS: Cornelius F. Kelley, Pres.; James R. Hobbins, Vice-Pres.; Robert E. Dwyer, Vice-Pres. & Treas.; David B. Hennessy, Sec. & Asst. Treas.; James Dickson, Gen. Auditor; Kenneth B. Frazer, Asst. Sec.

DIRECTORS: Cornelius F. Kelley, James R. Hobbins, Robert E. Dwyer, Andrew J. Miller, Grayson M. P.

Murphy, John A. Coe, W. D. Thornton, H. C. Bellinger.

GENERAL METALLURGICAL MANAGER: Frederick Laist.

MONTANA MINES: J. R. Hobbins, Vice-Pres., Hennessy Bldg., Butte.

OPERATING OFFICIALS: Wm. B. Daly, Mgr. of Mines; John Gillie, Cons. Eng.; J. J. Carrigan, Gen. Supt. of Mines.

SUPERINTENDENTS OF MINES: H. J. Rahilly, John R. Bartlett, A. E. Blair, John C. Gaul, T. H. Oaas.

DEPARTMENT HEADS: Reno H. Sales, Chief Geologist & Min. Eng.; F. A. Linforth, Asst. Chief Geoligist and Min. Eng.; C. D. Woodward, Chief Elec. & Mech. Eng.; F. C. Jaccard, Mech. Supt.; A. S. Richardson, Ventilation Eng.; John L. Boardman, Chairman, Bureau of Safety; W. J. McMahon, Labor Commissioner.

BUTTE MINE SHAFTS:

Anaconda	3½	compartments	3000	feet	deep
Alice	3	"	1500	"	"
Anselmo	3½	"	3000	"	"
Badger State	3½	"	4100	"	"
Belmont	3½	"	3300	"	"
Berkeley	3½	"	2500	"	"
Colorado	4	"	2800	"	"
Diamond	3	"	3600	"	"
Elm Orlu	3½	"	3500	"	"
Gray Rock (West)	2	"	1800	"	"
Green Mountain	2	"	2400	"	"
High Ore	3½	"	3400	"	"
Leonard	4	"	2800	"	"
Lexington	3	"	1400	"	"
Moulton	3	"	1500	"	"
Mountain Con	4½	"	3800	"	"
Mountain View	3½	"	3000	"	"
Neversweat	3	"	2600	"	"
Original	3	"	3600	"	"
Orphan Girl	3	"	1700	"	"
Pennsylvania	3½	"	3100	"	"
Poulin	2½	"	2100	"	"
St. Lawrence	3	"	2800	"	"
Silver Bow	3	"	1400	"	"
Steward	3½	"	3600	"	"
Tramway	3½	"	3000	"	"
West Colusa	3½	"	2400	"	"

UNDERGROUND DEVELOPMENT: Total, including drifts, cross-cuts, laterals, raises and winzes, approximately 1,000 miles.

ORES: Copper ore, 4 to 6% copper, 2 oz. silver, 0.01 oz. gold per ton; zinc-lead ore, 12 to 14% zinc, 2% lead, 5 to 8 oz. silver and 0.008 oz. gold per ton. Manganese ores, 30 to 38% manganese.

ZONAL ARRANGEMENT OF ORE BODIES: 1. Central zone, (two by three miles), copper ores, (chalcocite, bornite, enargite, with small amounts of sphalerite and pyrite). 2. Intermediate zone, adjoining copper area on north, west, and south, zinc ores with a decrease in copper content and an increase in silver, lead, and manganese. Gangue, quartz with smaller amounts of pyrite. 3. Outer zone, manganese ores (rhodochrosite and rhodonite) with sphalerite and galena and small amount of copper ore (chalcopyrite and tetrahedrite). Gangue mostly quartz and lesser amounts of pyrite.

POWER AND EQUIPMENT: Electric power from Montana Power Company, 3-phase 60-cycle 50,000 to 100,000 volts received at three sub-stations and stepped down to 2,400 volts, thence distributed to the mines. Larger motors and hoists operate at 2,200 volts, smaller motors and limiting at 440, 220, and 110 volts.

COMPRESSORS: 27 motor-driven 2-stage compressors, capacity 200,000 cu. ft. free air per minute at 90 lb. gauge; 8 additional compressors, capacity 400 to 1,200 cu. ft. each, supply air to mines through pipe line system for mining and hoisting.

HOISTS: 26 mining shafts equipped with duplex double-drum and single-drum hoists operated by electricity and compressed air.

PUMPS: All underground water drained into central pumping plants on 1,200-ft., 2,200-ft., 2,800-ft. levels in one mine, and 1,200-ft., 2,200-ft. levels of another mine. 23 Anaconda-type vertical quintriplex motor driven pumps.

VENTILATION: Natural downcast-upcast through shafts for main passage-ways; exhaust and pressure fans and blowers for drifts and stopes. Large fans are reversible, 5½ to 10 ft. in diameter, motor driven, 75- to 750-h. p. Several hundred blower fans, 3½ to 20-h. p.

ELECTRIC MINE SIGNALS: A. C. station bells operated from power service; D. C. shaft bells operated by storage batteries; station "buzzers" supplement main signals. Mine signal system is reliable, safe, simple, and easy to repair.

ELECTRIC LOCOMOTIVES: 18- and 20-inch gauge, storage battery type, weight, 1½ and 5 tons; trains travel about 5 miles per hour.

LIGHTING: Electric at stations and in many drifts; power furnished by 110 and 220 volt 3-wire system, rubber-covered lead jacketed cables. Edison cap lamps for employees.

ELECTRIC HOIST: Main hoists, 12-ft. diameter, 93-in. face, wind 5,500 ft., 1⅞-in. steel cable in 3 layers, capacity 7 tons ore at 2,250 ft. per minute; operated by motor-generator set, and Ward-Leonard control; 1,100 tons ore from lower levels in 8 hours. Auxiliary hoists, 8-ft. diameter, 102-in. face, wind 5,400 ft. of 1⅜-in. rope; capacity of 8 tons at 1,500 ft. per minute, operated by motor-generator set, and Ward-Leonard control.

PRODUCTION:

Total metal production Silver Bow County, 1882 1882-1933, inclusive

Gold	\$ 37,429,114
Silver	330,266,735
Copper	1,582,093,736
Lead	21,343,691
Zinc	<u>208,108,338</u>
TOTAL	\$2,179,241,614

TRANSPORTATION: Butte, Anaconda and Pacific Ry. Co., H. A. Gallwey, Gen. Mgr., transporting ore from Butte mines to the Anaconda Reduction Works, Anaconda, Montana, a distance of 26 miles.

REMARKS: For descriptions of Anaconda Copper Mining Company's plants at Anaconda, East Helena, and Great Falls, see Deer Lodge, Lewis and Clark, and Cascade County directories.

ANDERSON MINING COMPANY

OFFICERS: John E. Corette, Pres.; J. D. Murphy, Sec.; K. B. Frazer, Treas., Butte, Mont. **PROPERTY:** 1 pat. claim S. of Butte. Butte district. **REMARKS:** Idle in 1934.

BEST HOPE

OWNER: Hobo Mining Co., Oskar Karri, 48 E. Broadway, Butte, Mont. **PROPERTY:** 1 pat. and 12 unpat. claims 3 mi. SW. of Butte, secs. 28 and 33, T. 3 N., R. 8 W. Butte district. **ORE:** Gold, silver, lead,

zinc, manganese. DEVELOPMENT: 42-ft. 2-compartment shaft, 100-ft. 2-compartment shaft, 1 shaft being timbered, two 50-ft. adits. REMARKS: Operating in 1934. General report on file with Montana Bureau of Mines and Geology.

BLACK WARRIOR GROUP

OWNER: John L. Templeman, Butte, Mont. PROPERTY: 11 pat. claims W. of Nettie mine and N. of Blue Bird mine. Butte district. ORE: Gold, silver, copper, lead, zinc, manganese. DEVELOPMENT: Two 200-ft. shafts. REMARKS: Last operated in 1929.

BLUE VEIN MINING COMPANY

OFFICERS: F. L. Melcher, Pres.; W. F. Noyes, Vice-Pres.; Lewis A. Smith, Sec. & Treas., Butte, Mont. PROPERTY: 9 pat. claims 3 mi. SE. of Butte, secs. 27, 28, 33, and 34, T. 3 N., R. 8 W. Butte district. ORE: Gold, copper. DEVELOPMENT: 2 shafts, 1 adit. REMARKS: Owner reports. "Timber on claims, Northern Pacific R. R. runs through group." Last operated in 1907.

BONANZA BUTTE

OWNERS: Bernard Dougherty, Sarah Dougherty, 1318 Evans Ave., Butte, Mont. PROPERTY: 4 unpat. claims 1 mi. E. of County Hospital near Venus placer. Butte district. ORE: Gold. DEVELOPMENT: 40- and 25-ft. shafts, 88- and 107-ft. drifts. MEN EMPLOYED: 1. REMARKS: Owner reports, "Vein averages \$15 per ton."

BUTTE HIGHLANDS MINING COMPANY

OFFICER: A. Fortier, Box 132, Anaconda, Mont. PROPERTY: 33 claims at head of Basin Creek. Highland district. ORE: Gold, silver. DEVELOPMENT: 3,000-ft. adit, cross-cuts, drifts, raises. PLANT: 100-ton mill and other surface equipment. MEN EMPLOYED: 35.

BUTTE HILL COPPER MINING COMPANY

OFFICER: R. F. Gaines, Sec., Butte, Mont. PROPERTY: Claims on top of Butte Hill. Butte district. REMARKS: Owner reports, "Inactive for many years."

BUTTE SOUTHERN

OFFICERS: A. P. Peake, Pres.; Ernest Dorais, Sec. & Treas.; J. J. Davis, Director, 25 E. Broadway, Butte, Mont. PROPERTY: 1 claim, sec. 22, T. 3 N., R. 8 W. Butte district. REMARKS: Last operated in 1929.

BUTTE AND SUPERIOR MINING COMPANY (BLACK ROCK)

OFFICER: George Moser, Box 1945, Butte, Mont. PROPERTY: 61 pat. claims 3 mi. N. of Butte. Butte district. ORE: Silver, lead, copper, zinc. DEVELOPMENT: Three 3-compartment shafts, 2,000, 2,800, 3,700 ft. deep; 400,000 ft. of drifts and cross-cuts.

REMARKS: Owner reports, "Our equipment includes electric hoists from 75- to 2,000-h. p., air hoists, compressors from 900-cu. ft. per. min. up to 5,800-cu. ft. per min. displacement, headframes, boilers, cages, and skips, storage-battery locomotives, mine cars and timber trucks, rock drills, ventilating fans, mine pumps, mine lockers, electric motors from $\frac{3}{4}$ to 200-h. p., transformers from 3- to 750-KW each; also about a \$30,000 stock of new warehouse supplies. When our mine was shut down in the early part of 1931, our developed ore reserves and tons remaining in the mine consisted of 280,875 tons of zinc ore assaying 5.68 oz. of silver per ton and 15.35% zinc. For sometime past, on account of the high silver content in the ores on our upper levels, we have been seriously considering opening up some of these levels for leasing. However, this leasing program is being held in abeyance until there is a considerable improvement in the price of zinc.

PRODUCTION: Total production to January 1, 1934 is 6,363,316 tons, containing 13.5% zinc, 1.18% lead, 0.5% copper, 6.3 oz. silver, and 0.09 oz. gold per ton. The production of metals is as follows:

Gold	58,365 ounces
Silver	40,022,121 ounces
Copper	65,640,876 pounds
Lead	150,416,291 pounds
Zinc	1,725,704,828 pounds

BUTTENIA

OWNER: W. J. Semmens, Mgr., 14 W. Quartz St., Butte, Mont. PROPERTY: 1 pat. claim, 1200 Blk., Wilson St., Butte, Mont. Butte district. DEVELOPMENT: 75-ft. shaft, 1,200 ft. of drifts and cross-cuts. PLANT: Gasoline hoist and pump. MEN EMPLOYED: 4.

EAGER MINING GROUP

OWNERS: B. H. and L. B. Lively, Box 96, Melrose, Mont. LESSEE: George F. Davis. 409 Lindelle Blk., Spokane, Wash. PROPERTY: 4 claims on N. side of Nigger Mtn. 10 mi. N. of Melrose on Moose Creek. Moose Creek district. ORE: Gold, silver. DEVELOPMENT: 250 ft. of open cuts, 60- and 250-ft. adits. REMARKS: Owner reports, "Veins 6 in. to 3 ft. wide, ore assays \$6 to \$35 per ton. Spring water, timber available, good roads to within 3 mi."

EAST BUTTE COPPER MINING COMPANY

The East Butte Copper Mining Company, an Arizona corporation, which owns mining property in the East Butte and Grand Avenue additions to the City of Butte, Silver Bow County, and a Lime Quarry at Lime Spur, Jefferson County, Montana, discontinued doing business permanently in 1930. The Company was dissolved in 1931 and it is now in process of liquidation.

GRANDVIEW

OWNER: Ed Lindhorst, Gen. Del., Butte, Mont. PROPERTY: 1 pat. claim, Highland Road 2 mi. W. of 19 Mile. Highland district. ORE: Gold. DEVELOPMENT: 6-ft. shaft. PLANT: Cabins, shaft house, compressor house, mine car, compressor (Chevrolet engine) jackhammer, etc. REMARKS: Talc vein, 14 in. wide, assays 30¢ gold; 2nd vein 8 ft. north, 8 in. wide. Veins run east and west.

LAVENA AND SEYMOUR GROUP

OWNER: J. L. Templeman, Butte, Mont. LESSEE: Butte Lavena Mining Co., Joseph T. Farrow, Mgr., Box 835, Butte, Mont. PROPERTY: 6 pat. claims W. of Butte, sec. 9, T. 3 N., R. 8 W. Butte district. ORE: Gold, silver, manganese. DEVELOPMENT: 295-ft. shaft, 2,000 ft. of drifts and cross-cuts. PLANT: Electric power, engine house, dry house, machine shop, residence. MEN EMPLOYED: 7.

MONTANA HIGHLANDS GOLD MINING COMPANY

OFFICERS: H. H. Desroches, Pres.; Ernest Dorais, Sec. & Treas.; Carl J. Trauerman, Conslt. Eng., 302 Lewisohn Bldg., Butte, Mont.; W. F. Stratton, Supt., Highland City, Mont. PROPERTY: 6 unpat. claims, lode and placer, 15 mi. S. of Butte. Highland district. ORE: Gold, silver. DEVELOPMENT: Shaft, adit, 200 ft. of drifts and cross-cuts. REMARKS: Placer gravel 35 ft. thick. Operating in 1934 and 1935.

NEW BUTTE MINING COMPANY

OFFICERS: C. J. Kelly, J. Bruce Kremer, James A. McKee, R. L. Ruhle, Butte, Mont. PROPERTY: 18 pat. claims N. of Butte, adjoins Butte-Bacorn mine. Butte district. ORE: Copper. DEVELOPMENT: Adits. REMARKS: Idle in 1934.

NEWCOMB

OWNER: Tom Newcomb, 1041 Utah Ave., Butte, Mont. PROPERTY: 2 unpat. claims 1 mi. NW. of fork of Jerry Creek 4 mi. SW. of head of German Gulch. German Gulch district. ORE: Silver, lead. DEVELOPMENT: 213-ft. shaft, 35-ft. drift at 196-ft. depth, 6-ft. winze at 100-ft. depth, 27-ft. incline, 3 winzes, 18, 12, and 10 ft. Cost \$14,000. PLANT: Hoist frame. REMARKS: Owner reports, "Shipped 50 tons in 1889, 44% lead, 46 oz. silver, 5 to 7 ft. vein in iron carbonate. Date last operated 1930."

NORTH BUTTE MINING COMPANY

OFFICERS: Paul A. Gow, Pres., Butte, Mont.; William P. John, Vice-Pres., Milwaukee, Wis.; J. J. Harrington, Sec. & Treas., Butte, Mont. PROPERTY: 1,300 acres pat., 2,200 acres smelter site in Deer Lodge County. Butte district. ORE: Gold, silver, zinc. DEVELOPMENT: 6 shafts (Granite Mountain, Main Range, Speculator, Toulumne, Sarsfield, Colusa-Leonard) 900 to 3,600 ft. deep; over 50 mi. of workings. REMARKS: Owner reports, "Past production \$450,000,000." Last operated in 1931.

PITTSMONT COPPER COMPANY

The Pittsmont Copper Company, a West Virginia corporation, which owns mining property in the East Butte, Pittsmont and McQueen additions to the City of Butte, Silver Bow County, and a group of claims in Lewis & Clark County, Montana, discontinued doing business permanently in 1930. The Company was dissolved in 1931 and has been in process of liquidation since that time.

QUEEN MINE

OWNER: J. L. Templeman, Butte, Mont. PROPERTY: 4 unpat. claims S. of Highland City. Highland district. ORE: Gold. DEVELOPMENT: Three 50-ft. shafts, 6 short adits. PLANT: Log cabin. MEN EMPLOYED: 2. REMARKS: Owner reports, "This property is considered east extension of Highlands mine. Surface limestone assays 40¢ to \$20 gold, 300 to 500 ft. long, 3,000 sq. ft. in area; two or three dikes cross the claims. N. of Iron Mtn., S. of mineralized limestone, is a thick covering of quartzite."

V. F. W. GROUP

OWNER: Art Dubie, 1601 Gaylord St., Butte, Mont. PROPERTY: 5 unpat. claims 12 mi. S. of Butte 1 mi. from Milwaukee Ry. Highland district. ORE: Molybdenum. DEVELOPMENT: 30-ft. shaft, 80-ft. open cut. PLANT: 1 cabin. MEN EMPLOYED: 2. REMARKS: Owner reports, "Mine located in 1918. Formation now shows 80 ft. long by 10 ft. wide without reaching vein walls. Samples of ore assay 1.7 to 2.25% molybdenum." Molybdenite dissemination in aplite.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Agnes (Ardsley-Butte Mines Corp.)	Highland	Ag,Pb,Zn	MR.1929	Butte & Burlington Min. Co.	Butte	Ag	MR.1925
Alex Scott	Butte	Cu,Ag	MR.1914	Butte-Coalition Min. Co.	Butte	Au,Ag,Cu	
Alice	Divide Creek	Au	MR.1933	Butte & Isele Min. Co.	Butte		
Amy Silversmith (Crystal Copper Co.)	Butte	Ag,Pb,Zn	36:247	Butte-Duluth Bullwhacker	Butte	Cu	MR.1928
Anna Butte	Butte	Pb,Zn,Ag	MR.1935	Butte East Slope Min. Co.	Butte	Au	MR.1923
Artic	Butte		MR.1923	Butte-Los Angeles	Butte		MR.1925
Backbone and Artic	Divide Creek		MR.1911	Butte Olive Branch	Butte		
Ballaklava	Butte		MR.1927	Butte Metals	Butte	Ag	MR.1920
B. and B.	Butte	Cu	MR.1928	Butte-New England	Butte	Ag	MR.1920
Banner	Melrose	Cu,Pb	MR.1919	Butte-Ramsdell	Butte	Cu	MR.1923
Beal Placer	German Gulch	Au	MR.1934	Butte and Western	Butte		
Berlin	Melrose	Au	39:95	Butte Water Co. Pl.	Highland	Au	MR.1917
Bernard	Highland		MR.1911	Cayuga Dev. Co.	Divide Creek		39:56
Bill Placer	Highland	Au	MR.1932	Central Placer	German Gulch	Au	MR.1917
Black Bear Placer	Highland	Au	MR.1933	Chicago	Butte		MR.1926
Black Hawk	Butte		MR.1925	Christianson	Melrose		39:94
Black Jacket	Divide Creek	Ag,Pb	MR.1914	Climax	Divide Creek	Au,Ag	MR.1913
Bluebird Cons. Min. Co.	Butte	Pb,Zn	MR.1929	C. and M.	Butte		MR.1930
Blue Jacket	Divide Creek		MR.1911	Clipper	Divide Creek	Au,Ag	MR.1913
Bonanza	Divide Creek		MR.1911	Columbia	Divide Creek	Ag,Cu	MR.1917
Brewer	Butte		MR.1926	Combination	Divide Creek	Ag,Cu	MR.1917
Brilliant	Butte		MR.1924	Copper Bell	Divide Creek	Ag,Cu	MR.1917
Bryan	Divide Creek			Copper King	Divide Creek	Ag,Cu	MR.1917
British-Butte Min. Co.	Rocker	Au	MR.1919	Copper Wave	Divide Creek	Ag,Cu	MR.1917
Brittania	Butte		MR.1927	Cripple	Butte		MR.1927
Brooks	Highland	Au,Ag,Cu	MR.1918	Curry		Pb,Zn	MR.1930
Bull of the Woods	Highland	Au	MR.1911	Daisy	Divide Creek	Ag	MR.1918

* See footnote on p. 7.

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Eagle	Butte		MR.1919	Lizzie		Pb,Cu,Zn	MR.1930
Elba	Butte	Pb,Zn	MR.1929	Magna Charta	Butte		MR.1929
Emma Nevada	Melrose	Ag	39:93	Magnolia			MR.1924
Flint Creek	Butte		MR.1926	Mammoth	Butte		MR.1924
Flint Creek		Au,Ag	MR.1933	Mayflower	Butte		MR.1919
Florence	Butte		MR.1926	Metz Placer	Butte	Au	MR.1933
French Joe Fraction	Butte	Ag	MR.1928	Midwest (Butte Dev. Co.)	Butte	Ag,Pb,Zn	MR.1926
Gallatin	Butte		MR.1923	Minnie Irvine	Butte		MR.1926
Gallinipper	Divide Creek	Ag	MR.1925	Minnie Jane (Butte Westside Mines Co.)	Butte	Pb,Zn	MR.1929
Garfield-Salvador	Butte	Pb,Zn	MR.1928	Mountain Chief	Butte	Cu	MR.1927
Garibaldi	Butte		MR.1923	Mtn. Consolidated	Divide Creek	Ag,Pb	MR.1914
Garland	Divide Creek	Au	MR.1923	Muncie	Butte		MR.1922
General Sheridan	Butte		MR.1925	Murphy	Highland	Au	39:89
Geneva	Butte		MR.1925	Narrow Gauge	Butte		MR.1926
Germania (Butte and Superior Co.)	Butte	Ag	MR.1917	Naomi	Butte		MR.1919
Glengarry	Butte		MR.1925	Non-Consolidated (Crystal Copper Co.)	Butte	Ag,Pb,Zn	MR.1925
Glory Copper	Melrose		39:95	Northern Pacific	Butte		MR.1924
Gold Chief Placer	Highland	Au	MR.1933	Nugget Placer	Soap Creek	Au	MR.1914
Gold Dust	Divide Creek	Ag	MR.1922	Old Glory	Divide Creek		MR.1910
Golden Surprise	Highland		MR.1911	Olive Branch	Butte		MR.1929
Gold Hill	Moose Creek	Au	39:90	Oneida	Melrose	Ag,Cu	MR.1915
Gold King	Melrose	Au,Cu	39:92	Ophir-Butte-Detroit Copper & Zinc Co.	Butte	Cu,Zn	MR.1917
Goldsmith (Crystal Copper Co.)	Butte	Pb,Zn	MR.1928	Orphan Boy	Divide Creek	Ag	MR.1926
Gold Stream (Ardley-Butte Extension Min. Co.)	Butte			Ottawa	Butte	Ag	MR.1920
Gray Rock	Divide Creek	Ag	MR.1921	Pacific	Butte		MR.1929
Great Butte	Butte		MR.1919	Pandora	Divide Creek	Ag	39:92
Gregory	Butte		MR.1924	Paymaster		Ag,Pb,Zn	
Hattie Bell	Butte		MR.1919	Portland Placer	Butte	Au	MR.1931
Highland	Butte		MR.1922	Plutus	Butte		MR.1919
Highland Placer	Highland	Au	MR.1914	Preferencia	Butte		MR.1919
High Ridge	Divide Creek		MR.1913	Prospector	Butte		MR.1919
Honolulu	Butte	Ag	MR.1922	Quartz Hill	Butte		MR.1925
Humboldt	Butte		MR.1925	Red Rose	Divide Creek	Ag,Pb	MR.1915
I. X. L.	Butte	Ag	MR.1928	Reliance	Divide Creek	Ag,Cu	MR.1915
Illinois	Butte		MR.1919	Republic	Butte	Cu	MR.1919
Irene	Divide Creek		MR.1914	Right Bower		Cu	
Jennie Dell	Butte		MR.1926	Rose O'Malley	Butte	Cu	MR.1929
Jewel	Butte	Au	MR.1933	Ruby Mountain	Divide Creek	Cu	MR.1924
Jimmy Placer		Au	MR.1922	Sailor's Dream	Butte		MR.1930
Julia	Butte		MR.1925	Seymour	Butte		MR.1927
King and Queen	Melrose	Au	39:92	Siberia Placer	German Gulch		MR.1917
Lamarche	Divide Creek	Ag	MR.1919	Silent Tracery	Divide Creek	Ag,Cu	MR.1918
Lincoln	Butte	Au	MR.1924	Silent Treasure	Butte		MR.1927
Little Bill Placer	Highland	Au	MR.1933	Snowdrift	Butte		MR.1922
Little Darling	Butte	Ag	MR.1928	Snowflake	Butte		MR.1919
Little St. Lawrence	Butte		MR.1926				

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Snowstorm	Butte		MR.1925	Tzarina	Butte		MR.1919
St. Clair (Crystal Copper Co.)	Butte	Ag,Pb,Zn	MR.1926	Uncle Sam	Butte		MR.1921
Sudden Storm Pl.			MR.1933	Unexpected	Butte	Ag	MR.1928
Superior	Divide Creek		MR.1921	Vadnais Polydor	Butte		MR.1926
Tiger	Butte		MR.1919	Venus	Butte	Pb,Zn	MR.1930
Tilton (Butte-Highland Min. Co.)	Highlands	Au	MR.1913	Veronica	Butte		MR.1925
Twilight		Ag	MR.1929	West Olive Branch	Butte	Pb	MR.1929
				Yellow Jacket	Butte		MR.1925

STILLWATER COUNTY

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Benbow	Nye	Cr	38:82	Monat	Nye	Cr	
Florence Placer	Yellowstone	Au	MR.1931	Roughneck	Nye	Cu	MR.1930

SWEET GRASS COUNTY

Properties Reported by Owners or Operators

BELLE MINING COMPANY (GRANITE MTN. AND STEMWINDER)

ADDRESS: Box 507, Butte, Mont. PROPERTY: 14 unpat. claims N. of Springdale in Crazy Mts., part in Park County. Big Timber Canyon district. ORE: Gold, silver, lead. PLANT: Compressor, machine drills.

REMARKS: Owner reports, "Estimated ore developed approximately \$2,000,000 at present prices, 1 oz. of silver to each percent of lead, \$1.25 to \$4.50 per ton in gold. Test shipment to smelter assayed 55 oz. of silver and 55% lead."

BIG TIMBER MINES, INCORPORATED

OFFICERS: Harold W. Hansen, Pres., Helena, Mont.; Severin Oie, Sec., Big Timber, Mont.; Oliver Ebert, Treas., Livingston, Mont. PROPERTY: 17 pat. and 19 unpat. claims on main Boulder River S. of Big Timber. Independence district. ORE: Gold, silver, copper, lead. DEVELOPMENT: 2,000 ft. of adits, 300 ft. of drifts. PLANT: I-R portable compressor, machine drills, caterpillar tractor, blacksmith shop.

REMARKS: Owner reports, "Good automobile roads, water and timber plentiful, electric power can be developed on Boulder River. Past production \$120,000 (1890-1905)." Operated by contractors up to July 25, 1934 with 7 men, in charge of John Conrow, Big Timber, Mont., and Ed Brannin, Melville, Mont.

SILVER KING MINING COMPANY

OFFICERS: Dr. A. P. O'Leary, Pres.; C. F. Ulman, Vice-Pres.; P. P. Cronin, Sec. & Treas., Big Timber, Mont. PROPERTY: 15 unpat. claims 15 mi. S. of Greycliff. Deep Creek district. ORE: Gold, silver.

DEVELOPMENT: Pits and open cuts exposing vein 20 ft. wide, of low-grade ore, entire length of 3 claims.

REMARKS: Last operated in 1933.

*See footnote on p. 7.

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Bonanza (Boulder River Chrome Co.)	Boulder River	Cr	38:80	Kirwan	Boulder River	Cr	38:80
Boulder	Boulder River	Cr	38:80	M. & R.	Boulder River	Cr	38:80
Drago	Natural Bridge	Au,Ag,Cu	MR.1917	Roughneck	Big Timber	Cu	MR.1930
Fry-Dillon	W. Stillwater	Cr	38:81	Royal	Boulder River	Cr	38:80
Granite Mountain (Belle Min. Co.)	Big Timber	Pb,Ag	MR.1922	Stemwinder	Big Timber	Pb,Ag	
Independence	Boulder River	Au		Yellowstone River Placer	Yellowstone	Au	MR.1933

TOOLE COUNTY

Supplementary List of Properties

Property	District	Kind of Ore	Reference*	Property	District	Kind of Ore	Reference
Banner Placer	Gold Butte	Au	MR.1933	Eureka	West Butte	Pb	MR.1908
Cummings Placer	Gold Butte	Au	MR.1923	Jessie No. 1, Pl.	Gold Butte	Au	MR.1924

* See footnote on p. 7.

BIBLIOGRAPHY

1. Barrell, Joseph, Geology of the Marysville mining district, Montana; a study of igneous intrusion and contact metamorphism: U. S. Geol. Survey Prof. Paper 57, 178 pp., 1907.
2. Beadle, H. M., The Iron Mountain mine (Missoula Co., Montana): Eng. and Min. Jour., vol. 60, p. 562, 1895.
3. Beadle, H. M., The persistence of ores in lodes in depth—the Empire lode (Marysville, Montana): Eng. and Min. Jour., vol. 55, pp. 154-155, 1893.
4. Billingsley, Paul, The Southern Cross mine, Georgetown, Montana: A.I.M.E. Trans., vol. 46, pp. 128-136, 1914. Also Min. World, vol. 39, pp. 781-784, 1913.
5. Billingsley, Paul, and Grimes, J. A., Ore deposits of the Boulder batholith of Montana: A.I.M.E. Trans., vol. 58, pp. 284-361, 1918.
6. Blixt, J. E., Geology and gold deposits of the North Moccasin Mountains, Fergus County, Montana: Mont. Bur. Mines and Geology Mem. 8, 1933.
7. Calkins, F. C., A geological reconnaissance in northern Idaho and northwestern Montana: U. S. Geol. Survey Bull. 384, pp. 7-91, 1909.
8. Calkins, F. C., and Jones E. L., Jr., Economic geology of the region around Mullan, Idaho, and Saltese, Montana: U. S. Geol. Survey Bull. 540-E, pp. 167-211, 1914.
9. Clayton, J. E., The Drumlummon group of veins and the mode of formation, Helena, Montana: Eng. and Min. Jour., vol. 46, pp. 85-86, 106-108, 1888.
10. Corry, A. V., Some gold deposits of Broadwater, Beaverhead, Phillips, and Fergus Counties, Montana: Mont. Bur. Mines and Geology Mem. 10, 1933.
11. Emmons, W. H., The Granite-Bimetallic and Cable mines, Philipsburg quadrangle, Montana: U. S. Geol. Survey Bull. 315, pp. 31-55, 1907.
12. Emmons, W. H., Gold deposits of the Little Rocky Mountains, Montana: U. S. Geol. Survey Bull. 340, pp. 96-116, 1908.
13. Emmons, W. H., Geology and ore deposits of the Philipsburg quadrangle, Montana: U. S. Geol. Survey Prof. Paper 78, 1913.
14. Fritzsche, Hans, Geology and ore deposits of the Silver Star mining district, Madison County, Montana: Thesis, Montana School of Mines, 1935.
15. Goodale, C. W., The Drumlummon mine, Marysville, Montana: A.I.M.E. Trans., vol. 49, pp. 258-283, 1915.
16. Jennings, Hennen, History and development of gold dredging in Montana: U. S. Bur. Mines Bull 121, 1916.
17. Jones, Verner, Spring Hill gold deposit near Helena, Montana: Econ. Geology, vol. 29, no. 6, pp. 545-559, 1934.
18. Knopf, Adolph, Ore deposits of the Helena mining region, Montana: U. S. Geol. Survey Bull. 527, 1913.
19. Lindgren, Waldemar, Mineral deposits of the Bitterroot Range and Clearwater Mountains in Montana and Idaho: U. S. Geol. Survey Prof. Paper 27, 1904.
20. Lovering, T. S., The New World or Cooke City mining district. Park County, Montana: U. S. Geol. Survey Bull. 811-A, 1929.
21. Pardee, J. T., The Dunkleburg mining district, Granite County, Montana: U. S. Geol. Survey Bull. 660-G, pp. 241-247, 1917.
22. Pardee, J. T., Ore deposits of the northwestern part of the Garnet Range, Montana: U. S. Geol. Survey Bull. 660-F, pp. 159-239, 1918.
23. Pardee, J. T., and Larsen, E. S., Deposits of vermiculite and other minerals in the Rainy Creek district near Libby, Montana: U. S. Geol. Survey Bull. 805-B, pp. 17-28, 1929.
24. Pardee, J. T., and Schrader, F. C., The greater Helena mining region: U. S. Geol. Survey Bull. 842, 1933.
25. Pepperburg, L. J., Notes on the mineral deposits of the Bearpaw Mountains, Montana: U. S. Geol. Survey Bull. 430-C, pp. 135-146, 1910.

26. Richards, R. W., and Pardee, J. T., The Melrose phosphate field: U. S. Geol. Survey Bull. 780-A, 1926.
(Description of McCarthy Mountain mining districts on pp. 3 and 32.)
27. Rowe, J. P., Mines of Missoula County, Montana: Mines and Minerals, vol. 31, pp. 581-584, 1911.
28. Schafer, P. A., Geology and ore deposits of the Neihart mining district, Cascade County, Montana:
Mont. Bur. Mines and Geology Mem. 13, 61 pp., 1935.
29. Schrader, F. C., Gold-bearing ground moraine in northwestern Montana: U. S. Geol. Survey Bull. 470-B,
pp. 62, 74, 1911.
30. Shenon, P. J., Geology and ore deposits of Bannack and Argenta, Montana: Mont. Bur. Mines and Geology
Bull. 6, 77 pp., 1931.
31. Tonsley, Wilfred; Schafer, F. A.; and Hart, L. H., A geological reconnaissance in the Tobacco Root
Mountains, Montana: Mont. Bur. Mines and Geology Mem. 9, 57 pp., 1933.
32. Weed, W. H., Geology and mineral resources of the Judith Mountains, Montana: U. S. Geol. Survey
Eighteenth Ann. Rept., pt. 3, pp. 437-616, 1898.
33. Weed, W. H., Geology of the Castle Mountain mining district, Montana: U. S. Geol. Survey Bull. 139, 164
pp., 1896.
34. Weed, W. H., and Pirsson, L. V., The geology of the Little Rocky Mountains, Montana: Jour. Geol., vol. 4,
pp. 399-428, 1896.
35. Weed, W. H., Geology of the Little Belt Mountains, Montana: U. S. Geol. Survey Twentieth Ann. Rept., pt.
3, pp. 257-461, 1900.
36. Weed, W. H., Geology and ore deposits of the Butte district, Montana: U. S. Geol. Survey Prof. Paper 74,
1912.
37. Weed, W. H., Geology and ore deposits of Elkhorn mining district, Montana (Jefferson County):
U. S. Geol. Survey Twenty-second Ann. Rept., pt. 2, pp. 399-510, 1901.
38. Westgate, L. G., Deposits of chromite in Stillwater and Sweet Grass Counties, Montana: U. S. Geol. Survey
Bull. 725-A, pp. 67-84, 1921.
39. Winchell, A. N., Mining districts of the Dillon quadrangle, Montana: U. S. Geol. Survey Bull. 574, 1914.
40. Winchell, H. V., Notes on the Blue Bird mine, Wickes, Montana: Econ. Geology, vol. 7., pp. 287-294,
1912.

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