

RECEIVED

JUN 30 2015

DEPARTMENT OF
MINERAL RESOURCES**Exceptions to Forfeiture for Mining Questionnaire- Section 42-223(11), Idaho Code**

This questionnaire should be used as a guide to provide evidence supporting an exception to forfeiture. Each answer will need to have corresponding documents and/or affidavits.

List the adjudication claim number(s) in which an exception to forfeiture under Section 42-223(11), Idaho Code is sought:

94-2089. This right is also claimed as exempt from forfeiture under Section 42-223(6).

- 1) Enter the name of the mine or property in which the water claimed above was historically used. (All of the following questions will refer to the mine or property named below.)

Ray Jefferson/Carlisle, Monitor. See attached deed(s).

- 2) When was the mining, mineral processing or milling at the mine or property suspended?

RJ/C-1947; M-1977

- 3) Described the reason(s) the mining, mineral processing or milling of minerals at the mine or property was suspended or the mine was closed?

Economic recession; low metals prices

- 4) Does the mine or property have one or more valuable minerals as defined in Section 47-1205, Idaho Code? If so, please list the mineral(s).

Silver, lead, zinc. See attached mineralization reports.

- 5) Please provide a history of the price of the mineral(s) at the mine or property?

USGS – Metal Prices in the United States through 2010 Report

- 6) Explain how the property and mineral rights have been maintained for future mineral production at the mine or property?

Hecla owns the patented mining claims, including the mineral rights where these mines are located. In

addition, the company maintains stormwater permits associated with these claim sites, conducts annual

inspections of the sites, and maintains access to the sites. See attached example of a stormwater permit

and inspection report and copy of a map of access routes to these mining properties (yellow dots depict mine

sites included in annual inspections; blue lines are access routes). The surface of this mine property is free of

any structures or encumbrances that would interfere with mining or milling operations. The only structures on

the surface are those associated with historic mining activities or property caretaking.

Paul L. Glader Environmental Director
Please print name and title of person completing this questionnaire

6/18/15
Date

[Signature]
Signature of person completing this questionnaire

Exceptions to Forfeiture for Mining Questionnaire Attachments

- ♦ Ownership Deeds/Information
- ♦ Historical operation records
- ♦ Historical production records/mineralization reports
- ♦ USGS – Metal Prices in the United States through 2010
- ♦ Example stormwater inspection report
- ♦ Map of historical mine site access routes
- ♦ Stormwater permit example

THIS INDENTURE, made the 10th day of July, A.D. 1914, between VIRGINIA T. GIVENS, (formerly Virginia T. Hill) and William Robert Given her husband, of Kingston, Ontario, Canada, the parties of the first part, and the RAY-JEFFERSON MINING COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Idaho, with its principal office at Wallace, Idaho, the party of the second part.

WITNESSETH: that the said parties of the first part, for and in consideration of the sum of one dollar, lawful money of the United States of America, and other good and valuable considerations, to them in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, have granted, bargained, sold and conveyed and by these presents do grant, bargain, sell, convey and confirm unto the said party of the second part, its successors and assigns forever, all of their right, title and interest of, in and to the following described property, situated in the Beaver Mining District, in Shoshone County, State of Idaho, and more particularly bounded and described as follows, to-wit:

The "MORNING LIGHT", "COEUR D'ALENE CHIEF", and "FIDELITY" lode claims and the "MINNEAPOLIS MILLSITE", designated by the United States Surveyor General for the State of Idaho as Lots No's. 1082A and 1082B, a United States Patent for which said lode claims and millsite was issued to William S. Hill on the 6th day of February, A.D. 1895, and duly recorded in the office of the County Recorder of Shoshone County, Idaho, in Book "9" of Deeds on page 147 thereof, records of Shoshone County, Idaho, to which said patent and the record thereof reference is hereby made for a more particular description of the said Morning Light, Coeur d'Alene Chief and Fidelity lode claims and Minneapolis Millsite.

Also the "DOROTHY HILL", "HOPEFUL", "SECURITY", "FANNY PEAK", and the "EMMA A" lode claims and the "NORTH STAR MILLSITE", designated by the United States Surveyor General for the State of Idaho as Lots No's. 1051 A and 1051 B, a United States Patent for which said lode mining claims and millsite was issued to William S. Hill on the 14th day of February, A.D. 1895, and duly recorded in the office of the County Recorder of Shoshone County, Idaho, in Book "9" of Deeds on page 170 thereof, records of Shoshone County, Idaho, to which said patent and the record thereof reference is hereby had and made for a more definite and specific description of the said Dorothy Hill, Hopeful, Security, Fanny Peak and Emma A lode claims and North Star Millsite.

Also the "PRESIDENT" lode claim and the "IDAHO MILLSITE", designated by the United States Surveyor General for the State of Idaho as Lots No's. 1077 A and 1077 B, a United States Patent for which said lode mining claim and millsite was issued to William S. Hill on the 27th day of July, A.D. 1895, and duly recorded in the office of the County Recorder of Shoshone County, Idaho, in Book "9" of Deeds on page 375 thereof, records of Shoshone County, Idaho, to which said patent and the record thereof, reference is hereby had and made for a more definite and specific description of the said

DOMINION OF CANADA)
) SS
PROVINCE OF ONTARIO)

On this 10th day of July, A.D. 1914,
before me, the undersigned, a Notary Public in and for said Province of
Ontario, personally appeared Virginia T. Givens and William Robert
Givens, her husband, known to me to be the persons whose names are sub-
scribed to the within instrument and acknowledged to me that they ex-
ecuted the same freely and voluntarily, for the uses and purposes there-
in set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my offi-
cial seal at my office in Kingston, Ontario, Canada, the day and
year in this certificate first above written.

W. J. Givens

Notary Public, in and
for the Province of Ontario
residing at Kingston, Ont.
My commission expires for the



88290

D E E D

✓ Virginia T. Givens (nee Hill)
✓ William Robert Givens

to

✓ Ray-Jefferson Mining Company

Recorded at the request of

P. I. J. Meggy

Oct. 25. 1915.

at 11:45 o'clock A. M., in book

48 of 7 Deeds

page 506 Records of

Shoshone County, State of Idaho,

J. R. Adams

County Recorder.

By

Edmund Jefferson
Deputy Recorder.

2

Ed Day
City.

06'52

39 N 67

W 100 116

74 N 116

THIS INDENTURE made this 28 day of September, A. D. 1940, by and between the RAY-JEFFERSON MINING COMPANY, a corporation duly organized and existing under the laws of the State of Idaho and having its registered office and principal place of business in Wallace, Shoshone County, Idaho, the party of the first part, and the MONITOR MINING COMPANY, a corporation duly organized and existing under the laws of the State of Idaho and having its registered office and principal place of business at Wallace, Idaho, the party of the second part, WITNESSETH:

That said party of the first part, for and in consideration of THREE HUNDRED AND NINETY TWO THOUSAND TWO HUNDRED AND NINETY EIGHT (392,298) shares of the capital stock of the Monitor Mining Company, the party of the second part herein, of the par value of \$196,149.00, to it paid and delivered by said party of the second part, the receipt whereof is hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell and convey unto said party of the second part, its successors and assigns forever, all the following mining property located in Sections 24, 25, 26, and 36, Twp. 49 N., R. 4 E. B. M., and Sections 30 and 31, Twp. 49 N., R. 5 E. B. M., on Beaver and Carbon Creeks, in Beaver Mining District, Shoshone County, Idaho, and more particularly described as follows, to-wit:

ALL of the MOUNTAIN GOAT Lode Mining Claim, designated as Lot No. 62 (M. S. #739), being the same lode mining claim for which a Register's Final Certificate of Entry, dated United States Land Office, Coeur d'Alene, Idaho, December 9, 1889, was issued to the Seattle Mining Company of Seattle, Washington, said lode mining claim containing 16.145 Acres, more or less;

ALSO, ALL of the CARLISLE Lode Mining Claim, designated

711
49N
5E
30,31

by the Surveyor General as Lot No. 67 (M. S. #833), being the same lode mining claim for which a United States patent was issued to Frank N. Beebe under date of June 8, 1892; which said patent was duly recorded on September 12, 1892 in Book "1" of deeds at page 387 thereof of the records of Shoshone County, Idaho; to which said patent and said record thereof reference is hereby had and made for a more definite and specific description of said Carlisle Lode Mining Claim, containing 17.09 Acres, more or less;

ALSO, ALL of the FAITHFUL Lode Mining Claim, designated by the Surveyor General as Lot #1081, being the same lode mining claim for which a United States patent was issued to W. S. Hill under date of December 20, 1894; which said patent was duly recorded on January 11, 1895 in Book "9" of Deeds at page 77 thereof of the records of Shoshone County, Idaho; to which said patent and said record thereof reference is hereby had and made for a more definite and specific description of said Faithful Lode Mining Claim, containing 20.65 Acres, more or less;

ALSO, ALL of the PRESIDENT Lode Mining Claim and IDAHO Millsite Claim, designated by the Surveyor General as Lots Nos. 1077A and 1077B, being the same lode mining claim and millsite for which a United States Patent was issued to William S. Hill under date of July 27, 1895; which said patent was duly recorded on August 22, 1895 in Book "9" of Deeds at page 375 thereof of the records of Shoshone County, Idaho; to which said patent and said record thereof reference is hereby had and made for a more definite and specific description of said President Lode Mining Claim and Idaho Millsite claim, containing in the aggregate

23.68 Acres, more or less;

ALSO, ALL of the MORNING LIGHT, COEUR D'ALENE CHIEF, and FIDELITY Consolidated Lode Mining Claims and MINNEAPOLIS Millsite Claim, designated by the Surveyor General as Lots Nos. 1082A and 1082B, and being the same mining claims and millsite for which a United States Patent was issued to William S. Hill under date of February 6, 1895; which said patent was duly recorded on March 16, 1895 in Book "9" of Deeds at page 147 thereof of the records of Shoshone County, Idaho; to which said patent and said record thereof reference is hereby had and made for a more definite and specific description of said Morning Light, Coeur d'Alene Chief and Fidelity consolidated lode mining claims and Minneapolis Millsite claim, containing in the aggregate 40.547 Acres, more or less;

ALSO, ALL of the DOROTHY HILL, HOPEFUL, SECURITY, FANNY PEAK, and EMMA "A" Consolidated Lode Mining Claims and the NORTH STAR Millsite Claim, designated by the Surveyor General as Lots Nos. 1051A and 1051B, and being the same lode mining claims and millsite claim for which a United States Patent was issued to William S. Hill under date of February 14, 1895; which said patent was duly recorded on March 29, 1895 in Book "9" of Deeds at page 170 thereof of the records of Shoshone County, Idaho; to which said patent and said record thereof reference is hereby had and made for a more definite and specific description of said Dorothy Hill, Hopeful, Security, Fanny Peak and Emma "A" Consolidated Lode Mining Claims and North Star Millsite Claim, containing in the aggregate 85.863 Acres, more or less;

ALSO, ALL of the Virginia Consolidated Placer Mining

which said patent was duly recorded on March 9, 1916 in Book 49 of Deeds at page 200 thereof of the records of said Shoshone County, Idaho; to which said patent and said record thereof reference is hereby had and made for a more definite and specific description of said Billy Goat Lode Mining Claim, containing 4.888 acres, more or less;

ALSO, ALL right, title and interest, of, in and to the following unpatented lode mining claims, to-wit: RALPH Lode, PERSHING Lode, TUSCANIA Lode, BONNIE BELL Lode, CARBON Lode, FERN Lode, HENDERSON AMENDED Lode, LAST CHANCE Lode, and PANHANDLE Lode Mining Claims, all located in the valleys of Carbon and Beaver Creeks in the aforesaid mining district, county and state;

AND ALSO, any and all other mining claims, millsites or real estate belonging to the Ray-Jefferson Mining Company or in which the grantor may have an interest, or in which it may hereafter acquire an interest by operation of law or otherwise; it being the intention of this conveyance to convey to the Monitor Mining Company all property belonging to the Ray-Jefferson Mining Company or any interest therein belonging to the Grantor wherever the same may be located.

TOGETHER with all the dips, spurs and angles, and also, all the metals, ores, gold and silver-bearing quartz, rock and earth therein, and all the rights, privileges and franchises there-to incident, appendant and appurtenant, or therewith usually had or enjoyed; and also, all and singular, the tenements, hereditaments, and appurtenances thereunto belonging, or in anywise apper-

taining, and the rents, issues and profits thereof; and also all the estate, right, title, interest, property, possession, claim and demand whatsoever, as well in law as in equity of the said party of the first part, of, in or to said premises and every part and parcel thereof, with the appurtenances.

TO HAVE AND TO HOLD, all and singular, the said premises together with the appurtenances and privileges thereto incident, unto said party of the second part, its successors and assigns forever.

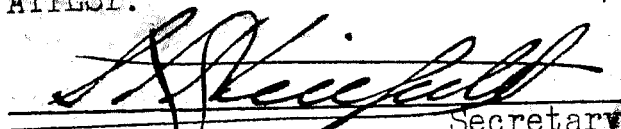
IN WITNESS WHEREOF said party of the first part, by resolution of its Board of Directors has caused these presents to be subscribed by its Vice-President and Secretary and its corporate name and seal to be hereunto affixed this the day and year first above written.

RAY-JEFFERSON MINING COMPANY

By



ATTEST:


Secretary
County of Shoshone

On this 28 day of Sept

me, Alpha H. Hogan, a Notary Public in and for the State of Idaho, personally appeared HENRY L. DAY, personally known to me to be the Vice-President of the Ray-Jefferson Mining Company, the corporation that executed the within and foregoing instrument

and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF I have hereunto set my hand and af-
fixed my notarial seal at my office in Wallace, Idaho, this the
day and year first above written.

Edna H. Hagan
Notary Public for the State of
Idaho, residing at Wallace, Idaho.

112832

115895

Ray-Jefferson Mining Co ✓

to
Monitor Mining Company

STATE OF IDAHO }
COUNTY OF SPOKANE } SS.

I hereby certify that the within instrument
was filed for record at the request of

John H. Worms

Book 4, 1940

at 10:30 A.M., and recorded in Book
73 of Deeds of said County, page 235, records

W. H. HOOVER

County Recorder

By

John H. Worms

Deputy

Fee \$ 3.00

Return To

and acknowledged to me that such corporation executed the same.
IN WITNESS WHEREOF I have hereunto set my hand and af-
fixed my notarial seal at my office in the City of Idaho, this 10th

John H. Worms
County Recorder
10.30.1940

Claim, comprising the SUNLIGHT, VIRGINIA, GRACE, LUCY and ESTELLE Placer Mining Claims, designated by the Surveyor General as Lot No. 1084, and being the same placer mining claims for which a United States Patent was issued to Fannie A. Fitz and Virginia T. Hill under date of June 9, 1896, which said patent was duly recorded on July 10, 1896, in Book 10 of Deeds at page 87 thereof of the records of Shoshone County, Idaho; to which said patent and said record thereof reference is hereby had and made for a more definite and specific description of said Virginia Consolidated Placer Mining Claim, containing 110.82 acres, more or less;

ALSO, ALL of the LINCOLN, RAY, COMET, JEFFERSON, ELLIS, MOHAWK, DANVILLE, OLD HICKORY, DAVID C. and WHITE ELEPHANT Lode Mining Claims, designated by the Surveyor General as Survey No. 2758 and being the same lode mining claims for which a United States Patent was issued to Ray-Jefferson Mining Company under date of February 19, 1916; which said patent was duly recorded March 9, 1916 in Book 49 of Deeds at page 195 thereof of the records of Shoshone County, Idaho; to which said patent and said record thereof reference is hereby had and made for a more definite and specific description of said Lincoln, Ray, Comet, Jefferson, Ellis, Mohawk, Danville, Old Hickory, David C. and White Elephant Lode Mining Claims, containing in the aggregate 151.982 acres, more or less;

ALSO, ALL of the BILLY GOAT Lode Mining Claim, designated by the Surveyor General as Min. Sur. No. 2762, and being the same lode mining claim for which a United States Patent was issued to Ray-Jefferson Mining Company under date of February 19, 1916;

Deed to Mining Claim

THIS INDENTURE, Made the 8th day of January, A.D. 1914 A.D. 1914 between D.L. McGrath and Carrie E. McGrath, his wife, of Wallace, Idaho

parties of the first part, and Ray-Jefferson Mining Company, a corporation, organized and existing under and by virtue of the laws of the State of Idaho, part of the second part:

WITNESSETH, That the said parties of the first part, for and in consideration of the sum of ONE (\$1.00) Dollars lawful money of the United States of America, to them in hand paid by the said part of the second part, the receipt whereof is hereby acknowledged, have granted, bargained, sold, remised, released and forever quitclaimed and by these presents do grant, bargain, sell, remise, release and forever quitclaim unto said part of the second part and unto its successors heirs and assigns forever,

All of their right, title and interest of, in and to the following described lode mining claims, situated in Beaver Mining District, County of Shoshone, State of Idaho, and more particularly described as follows:

The "DANVILLE" lode mining claim, notice of location of which was recorded in the office of the County Recorder of Shoshone County, Idaho, on June 1st, 1905, in Book "Z" of Quartz Locations, at page 315 thereof.

The "MOHAWK" lode mining claim, notice of location of which was recorded in the office of the County Recorder of said County on June 1st, 1905, in Book "Z" of Quartz Locations, at page 316 thereof.

The "OLD HICKORY" lode mining claim, notice of location of which was recorded in the office of the County Recorder of said County on June 1st, 1905, in Book "Z" of Quartz Locations at page 318 thereof, records of Shoshone County, State of Idaho.

Together with all dips, spurs and angles, and also all the metals, ores, gold and silver bearing quartz, rock and earth therein; and all the rights, privileges and franchises thereto incident, appendant and appurtenant, or therewith usually had and enjoyed; and also, all and singular, the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining, and the rents, issues and profits thereof; and also all the estate, right, title, interest, property, possession, claim and demand whatsoever, as well in law as in equity, of the said parties of the first part, of, in and to the said premises, and every part and parcel thereof, with the appurtenances.

TO HAVE AND TO HOLD, all and singular, the said premises, together with the appurtenances and privileges thereto incident, unto the said part of the second part, its successors heirs and assigns forever.

IN WITNESS WHEREOF, the said parties of the first part have hereto subscribed their name, the day and year first above written.

Signed and Delivered in the presence of

D.L. McGrath
Carrie E. McGrath

47N 4E 30
149N 5E 30

Deed to Mining Claim

D. L. McGRATH and CARRIE E.
McGRATH, his wife
TO
RAY-JEFFERSON MINING COM-
PANY, (a corporation)

Recorded at the request of
D. L. McGrath
JAN 9 1914 190
at 9 minutes past 10 o'clock A. M.
in Book "36" of Deeds
Page 612 Records of Shoshone
County, State of Idaho.

John P. Sheehy
County Recorder
By H. A. Rogers Deputy
Fees, \$ 44

Idaho Press Print
Wallace, Idaho

Ray-Jefferson Mining Co.
D. L. McGrath

IN WITNESS WHEREOF I have hereunto set my hand and affixed
my official seal at my office in Wallace, Idaho, the
day and year in this certificate first above written.
John P. Sheehy
County Recorder

On this 8th day of January, A. D. 1914, A. D. -190
before me, John P. Sheehy, County Recorder, Public in and for said county, personally appeared
D. L. McGrath, and Carrie E. McGrath, his wife,
personally known to me to be the person whose name is subscribed to the within instrument and
acknowledged to me that they executed the same freely and voluntarily for the uses and purposes therein set
forth.

STATE OF IDAHO,
County of Shoshone,
ss.

Deed to Mining Claim

This Indenture, Made the...27th...day of...JANUARY...A. D. 1905
between.....Lida C. Beebe, a widow.....
.....
part.y...of the first part, and...Ray Jefferson Mining Company, an Idaho corporation,
.....
part.y...of the second part:

Witnesseth, That the said part.y...of the first part, for and in consideration of the sum of.....
.....One dollar and other valuable consideration..... Dollars
lawful money of the United States of America, to...has...in hand paid by the said part.Y...of the second part,
the receipt whereof is hereby acknowledged, ha.S...granted, bargained, sold, remised, released and forever quit-
claimed and by these presents doS...grant, bargain, sell, remise, release and forever quitclaim unto said part.Y...
of the second part, and unto...his.....heirs and assigns successors and assigns,

that certain mining claim or premises known as the CARLISLE
LOPE MINING CLAIM, designated by the Surveyor General as Lot No.
67, embracing a portion of the unsurveyed public domain in
the Beaver Mining District, in the County of Shoshone and
State of Idaho.

Together with all the dips, spurs and angles, and also all the metals, ores, gold and silver bearing quartz,
rock and earth therein; and all the rights, privileges and franchises thereto incident, appendant and appurtenant,
or therewith usually had and enjoyed; and, also, all and singular, the tenements, hereditaments and appurtenances
thereto belonging or in anywise appertaining, and the rents, issues and profits thereof; and also all the estate,
right, title, interest, property, possession, claim and demand whatsoever, as well in law as in equity, of the said
part.Y.....of the first part, of, in and to the said premises, and every part and parcel thereof, with the appur-
tenances.

To Have and To Hold, all and singular, the said premises, together with the appurtenances and privileges
thereto incident, unto the said partY...of the second part, his.....heirs and assigns forever. SUCCESSORS
and assigns.

In Witness Whereof, the said partY.....of the first part ha.S.....hereunto subscribed...her.....name...
the day and year first above written.

Signed and Delivered in the presence of

Lida C. Beebe
A. J. Kerns

Lida C. Beebe

47N 4E 25
49N 5E 30

Deed to Mining Claim

LIDA C. BEEBE,

TO

RAY JEFFERSON MINING CO.

Recorded at the request of

D. L. McGrath

Feb. 27. 1915

at 4 minutes past 4 o'clock P.M.,

in Book "47" of Deeds

Page 574, Records of Shoshone

County, State of Idaho.

John P. Freeman
County Recorder

By H. Rogers Deputy

Fees, \$ 1.50 chg.

THIS FORM PREPARED BY
JAMES A. WAYNE

PUBLISHED AND GUARANTEED CORRECT BY

THE WALLACE MINER
WALLACE, IDAHO

1908

On this 27th day of January, A. D. 1915, before me
M. Chummet, a Notary Public in and for said county, personally appeared,
LIDA C. BEEBE, a widow,
personally known by me to be the
person whose name L.S. subscribed to the within instrument and acknowledged to me she executed the
same.
In witness whereof, I have hereunto set my hand and affixed my official seal at
my office in Wallace, the day and year in
this certificate first above written.
M. Chummet, Notary Public.

SPECIAL WARRANTY DEED

This Special Warranty Deed is executed and delivered this 28th day of February, 1992, by HECLA MINING COMPANY, a Delaware corporation ("Grantor") to LOUISIANA-PACIFIC CORPORATION, a Delaware corporation ("Grantee"), whose address is P.O. Box 4000-98, Hayden Lake, Idaho 83835-4000.

Grant, Exceptions and Reservations. FOR VALUE RECEIVED, Grantor grants, bargains, sells and conveys to Grantee the surface rights to that certain real property located in Shoshone County, Idaho, described on Exhibit A, attached hereto and incorporated herein by this reference together with (i) the right to lateral and subjacent support subject to Hecla's reserved rights; (ii) the right to ordinary soil, rock, sand and gravel located within 100 feet of the surface of said real property; and (iii) the right to reasonable subsurface access to obtain water and the full benefit of the property rights transferred herein (the "Property"); EXCEPTING AND RESERVING TO GRANTOR all other subsurface rights and the "Minerals," and the right to use as much of the surface of the real property described in Exhibit A as in the reasonable judgment of Hecla is reasonably necessary for "Access" and "Mining Operations".

For the purposes of this Deed,

- A. "Minerals" shall mean all ores, base and precious metals, coal, oil, gas, other liquid or gaseous hydrocarbons, minerals and mineral bearing substances of every kind and character, whether currently known to be valuable or becoming valuable in the future, now known to exist or hereafter discovered on, in or under the Property, but excluding ordinary soil and rock, sand and gravel.
- B. "Access" shall mean the right of the Grantor to use existing roads on the Property in connection with Mining Operations and Other Operations and the right to construct new roads, pipelines, powerlines, rail lines or conveyors, tramways, communication lines and other similar access and communications facilities to be used in connection with Mining Operations.
- C. "Mining Operations" shall mean without limitation the right to conduct geological, geophysical or geochemical exploration and the extraction and processing of Minerals on the Property by any method now known or subsequently developed including the right to use water from the Property for such purposes, and the right to use the Property for excavations, tunnels, adits, drill holes, wells, surface mine operations, buildings, tailings, stock piling of ores and mine waste and other facilities as in the reasonable judgment of

351159

Grantor is reasonably necessary for the exploration and extraction of Minerals.

- D. "Other Operations" shall mean without limitation forest management and timber harvesting and other current uses of the land in the vicinity of the Property now owned or controlled by Grantor or Grantor's affiliates.

TO HAVE AND TO HOLD the said premises, with their appurtenances unto Grantee, its successors and assigns forever. Grantor covenants with and warrants to Grantee that Grantor will defend the Property from all lawful claims whatsoever of persons claiming by, through or under Grantor but not otherwise, subject to the following exceptions:

- (i) Power line and other utility easements of record or in view as of the date hereof;
- (ii) Reservations or exceptions contained in federal patents or in Acts authorizing the issuance thereof;
- (iii) Liens for taxes not yet payable;
- (iv) All rights reserved to or vested in any governmental, statutory or public authority to control or regulate the Hecla Property in any manner, and all applicable laws, rules and orders of governmental authority.
- (v) The exceptions set forth in Exhibit A to this deed.

This grant and conveyance is subject to the terms and conditions of that certain agreement by and between Grantor and Grantee dated February 28, 1992.

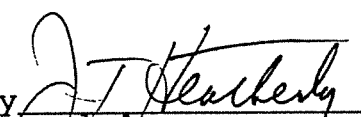
IN WITNESS WHEREOF, the Grantor has caused this Special Warranty Deed to be signed as of the day and year first above written.

HECLA MINING COMPANY, GRANTOR

Attest


Michael B. White
Secretary

By

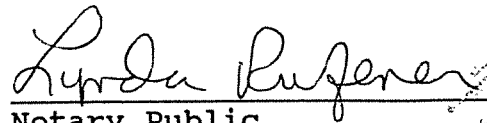

Joseph T. Heatherly
Vice President

351159

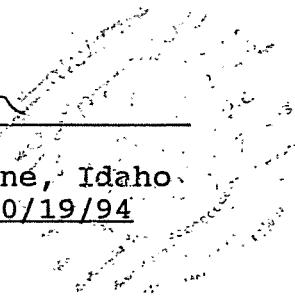
STATE OF IDAHO)
)ss.
County of Kootenai)

On this 28th day of February, 1992, before me, the undersigned, a Notary Public in and for the State of Idaho, personally appeared JOSEPH T. HEATHERLY and MICHAEL B. WHITE, known or identified to me to be the Vice President and Secretary, respectively, of HECLA MINING COMPANY, the officers who executed the instrument on behalf of said corporation, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my notarial seal the day and year in this certificate first above written.



Notary Public
Residing at Coeur d'Alene, Idaho
My Commission Expires: 10/19/94



HECLA MINING COMPANY
MONITOR GROUP

All or a portion of one hundred fifty-three (153) patented lode claims and one (1) mill site located in Sections 25 and 36, Township 49 North, Range 4 East, and Sections 28, 29, 30, 31 and 32, Township 49 North, Range 5 East, B.M., Beaver Mining District and Placer Center Mining District, Shoshone County, Idaho, as listed below by mineral survey number and claim name:

<u>Claim Name</u>	<u>Mineral Survey Number</u>	<u>Acres</u>
Mule Deer	613	
Red Dragon	613	
Silver Tip	613	56.025
Tuscumbia	637	15.308
Sitting Bull	690	11.505
Live Oak	716	9.512
Roy	716	1.484
Roy Fraction	716	5.406
Mountain Goat	739	16.125
Monitor	767	14.950
Parrott	820	18.903
Carlisle	833	17.009
Tough Nut	851	12.630
Silver Tip	869	1.514
West Fraction	870	0.454
Parallel Fraction	871	1.483
Father	957	18.800
Dorothy Hill	1051A	2.432
Hopeful	1051A	20.105
Security	1051A	17.294
President	1077A	18.710
Blue Grouse	1545	
Correction	1545	
Mountain Grouse	1545	
Protection	1545	38.830
Beaver	1634	7.710
Ajax	1670	
Amazon	1670	
Glenwood	1670	
Manhattan Fraction	1670	
Merrimac	1670	
New York	1670	
Staten Island	1670	96.382

(continued)

Exhibit A - Page 68

<u>Claim Name</u>	<u>Mineral Survey Number</u>	<u>Acres</u>
Earl	1958	20.460
Chloride Queen	2144	
Diamond Fraction	2144	
Gerrard	2144	
Lacy	2144	
Switchback	2144	87.015
Evening Star	2238	
Liberty Bell	2238	
Little Bug	2238	
Lulu	2238	
Stanford	2238	
Star Fraction	2238	
Sunrise	2238	104.446
Brittle Silver	2288	
Ramola Fraction	2288	17.100
Blue Stone	2350	
Bullion	2350	
Cinnamon	2350	
Contact	2350	
Gray Rock	2350	
Grizzley	2350	
Kasson	2350	
Raget Top	2350	
Roland	2350	156.249
Nepsic	2483	20.632
Kearsage	2484	
Lackawanna Fraction	2484	18.193
Bessie	2567	
Bonanza	2567	
Butte	2567	
Chandler	2567	
Clancy	2567	
Dick	2567	
Giant	2567	
Globe	2567	
Grace	2567	
Hall	2567	
Homestake	2567	
Illinois	2567	
Interstate	2567	

(continued)

351159

Exhibit A - Page 69

<u>Claim Name</u>	<u>Mineral Survey Number</u>	<u>Acres</u>
Iowa	2567	
Jackson	2567	
Japan	2567	
Judson	2567	
Laura	2567	
Laura Fraction	2567	
Louis	2567	
Mark	2567	
North Star	2567	
Oversights	2567	
Russian	2567	
Wallace	2567	313.205
Connection	2650	1.737
Rose	2666	12.452
Ajax	2746A	
Del Norte	2746A	
Gibson	2746A	
Olga Valeria	2746A	
Spokane Broker	2746A	
Sunset Peak	2746A	104.861
Sunset Peak Mill Site	2746B	4.970
Comet	2758	
Danville	2758	
David C.	2758	
Ellis	2758	
Jefferson	2758	
Lincoln	2758	
Mohawk	2758	
Old Hickory	2758	
Ray	2758	
White Elephant	2758	151.982
Billy Goat	2762	4.888
Sunset Peak No. 2	2773	20.565
Carlson	2787	
Mary H	2787	
Meeting Day	2787	
Norma	2787	
Thelma	2787	

(continued)

Exhibit A - Page 70

<u>Claim Name</u>	<u>Mineral Survey Number</u>	<u>Acres</u>
Zinc	2787	82.716
Silver	2788	0.916
C.I.C.	2789	3.189
Storm	2790	5.153
Buster Brown	2791	
Florence	2791	
Last	2791	
Lela	2791	
Little Peet	2791	
Mountain Quail	2791	
Teana	2791	99.254
Eight	2792	
Eleven	2792	
Fifteen	2792	
Five	2792	
Four	2792	
Fourteen	2792	
Nine	2792	
One	2792	
Seven	2792	
Six	2792	
Ten	2792	
Thirteen	2792	
Three	2792	
Twelve	2792	
Two	2792	164.731
Guarantee	2805A	10.604
Lead Belt	2805A	4.524
Sunshine	2805A	19.397
Venezuela	2805A	13.218
Spokane	2837	12.757
Sunset Peak Fraction	2859	
Sunset Peak No. 3	2859	25.719
Steep	2897	1.033
View	2898	14.898
Virginia	2967	19.386
Skid-Doo	3168	19.541
Eugene	3322	7.878
Bessie	3477	2.816
Hudson	3477	3.837
Lookout Fraction	3477	0.070

(continued)

Exhibit A - Page 71

Which are located within the following described perimeter boundary:

Beginning at Corner 1 of the EIGHT claim (MS 2792);

THENCE N 31°52' E, 607.15 feet to Corner 2 of the EIGHT;

THENCE N 89°14' E, 204.28 feet to Corner 2 of the THIRTEEN;

THENCE N 26°56' E, 608.09 feet to Corner 3 of the THIRTEEN;

THENCE N 89°49' E, 274.26 feet to Corner 2 of the FOURTEEN;

THENCE N 25°41' E, 612.08 feet to Corner 3 of the FOURTEEN;

THENCE N 89°37' E, 750.63 feet to Corner 4 of the FOURTEEN and Corner 2 of the TWELVE;

THENCE S 83°49'20" E, 501.83 feet to intersection of WHITE ELEPHANT (MS 2758);

THENCE N 13°40' W, 659.08 feet to Corner 2 of the WHITE ELEPHANT;

THENCE N 54°10' E, 562.2 feet to intersection of the SUNLIGHT PLACER (MS 1084);

THENCE S 0°39' E, 264.33 feet to Corner 45 of the SUNLIGHT PLACER;

THENCE N 58°20' E, 206.0 feet to Corner 46 of the SUNLIGHT PLACER;

THENCE N 38°34'E, 207.01 feet to intersection of the DAVID C (MS 2758);

THENCE S 84°07' E, 203.17 feet to Corner 3 of the DAVID C;

THENCE S 13°47' E, 111.93 feet to Corner 4 of the OLD HICKORY;

THENCE N 56°45' E, 636.0 feet to Corner 1 of the OLD HICKORY and Corner 4 of the DANVILLE;

(continued)

Exhibit A - Page 72

THENCE N 66°08' E, 477.0 feet to Corner 4 of the SECURITY (MS 1051A);

THENCE N 40°50' W, 1,306.7 feet to Corner 5 of the SECURITY;

THENCE N 65°15' E, 600.0 feet to Corner 6 of the SECURITY;

THENCE N 61°20' E, 600.0 feet to Corner 13 of the HOPEFUL;

THENCE S 40°35' E, 1,500.0 feet to Corner 14 of the HOPEFUL;

THENCE S 40°35' E, 182.5 feet to Corner 15 of the DOROTHY HILL;

THENCE S 61°20' W, 50.0 feet to Corner 3 of the PRESIDENT;

THENCE S 62°39' E, 1,475.65 feet to Corner 2 of the MERRIMAC (MS 1670);

THENCE N 20° E, 591.7 feet to Corner 1 of the MERRIMAC;

THENCE S 62°48' E, 1,432.1 feet to Corner 7 of the MERRIMAC;

THENCE N 20° E, 35.8 feet to Corner 1 of the NEW YORK;

THENCE S 61°34' E, 1,423.39 feet to Corner 4 of the NEW YORK and Corner 1 of the STATEN ISLAND;

THENCE S 48°12' E, 466.71 feet to intersection of the SPOKANE AMENDED (MS 2837);

THENCE N 35°19' E, 363.33 feet to Corner 1 of the SPOKANE AMENDED and Corner 3 of the NEPSIC (MS 2483);

THENCE N 35°19' E, 600.0 feet to Corner 2 of the NEPSIC and Corner 5 of the VIEW (MS 2898);

THENCE N 56°21' W, 760.0 feet to Corner 1 of the VIEW;

THENCE N 31°06' E, 392.0 feet to Corner 2 of the VIEW;

THENCE S 60°13' E, 1,482.4 feet to Corner 3 of the VIEW;

THENCE S 31°06' W, 475.0 feet to Corner 4 of the VIEW;

(continued)

Exhibit A - Page 73

THENCE S 57°42' E, 575.43 feet to intersection of the
SUNSET PEAKS NO. THREE (3) (MS 2859);

THENCE N 45°38' W, 124.59 feet to Corner 2 of the SUNSET
PEAKS NO. THREE (3);

THENCE N 07°35' E, 1,022.01 feet to intersection of
EUGENE (MS 3322);

THENCE N 77°06' W, 83.96 feet to Corner 1 of the EUGENE;

THENCE N 34°35' E, 184.18 feet to intersection of the
SUNSET PEAKS NO. THREE (3) (MS 2859);

THENCE N 07°35' E, 184.9 feet to Corner 3 of the SUNSET
PEAKS NO. THREE (3);

THENCE S 45°38' E, 85.14 feet to intersection of EUGENE
(MS 3322);

THENCE N 34°35' E, 82.0 feet to intersection of PARROTT
(MS 820);

THENCE N 66°11'30" W, 566.40 feet to Corner 4 of the
PARROTT;

THENCE N 28°54' E, 403.30 feet to Corner 1 of the
PARROTT;

THENCE S 50°00' W, 203.5 feet to Corner 1 of the
TUSCUMBIA (MS 637);

THENCE N 64°50' W, 1,112.45 feet to intersection of
HUDSON (MS 3477);

THENCE S 68°06' W, 70.07 feet to Corner 4 of the HUDSON;

THENCE N 53°50' W, 362.81 feet to intersection of
VENEZUELA (MS 2805A);

THENCE S 70°32' W, 581.29 feet to Corner 2 of the
VENEZUELA and Corner 2 of the SUNSHINE;

THENCE S 57°30' W, 700.0 feet to Corner 3 of the
SUNSHINE;

THENCE N 64°07' W, 1,462.0 feet to Corner 4 of the
SUNSHINE;

(continued)

Exhibit A - Page 74

THENCE N 57°30' E, 317.55 to intersection of GUARANTEE;

THENCE N 39°00' W, 1,054.7 feet to intersection of north line, Section 30;

THENCE N 89°49' E, 2,862.35 feet to NW Corner of Section 30, T49N, R5E;

THENCE N 89°49' E, approximately 230 feet to intersection of ROY FRACTION (MS 716);

THENCE S 44°26' E, approximately 285 feet to Corner 8 of the ROY FRACTION and Corner 12 of the LIVE OAK;

THENCE S 53°18'21" E, 1,021.07 feet to Corner 11 of the LIVE OAK;

THENCE S 25°30' W, approximately 118 feet to Corner 4 of the CONNECTION (MS 2650);

THENCE S 54°09' E, 872.5 feet to intersection of SITTING BULL (MS 690);

THENCE N 25°12' E, 121.73 feet to Corner 3 of SITTING BULL;

THENCE S 62°30' E, 208.0 feet to Corner 2 of the PARALLEL FRACTION (MS 871);

THENCE N 24°12' E, 85.0 feet to Corner 3 of the PARALLEL FRACTION;

THENCE S 61°29'44" E, 833.86 feet to Corner 4 of the PARALLEL FRACTION and Corner 3 of the SILVER TIP FRACTION (MS 869);

THENCE S 57°56' E, 277.0 feet to Corner 4 of the SILVER TIP FRACTION;

THENCE N 24°12' E, 560.0 feet to Corner 11 of the MULE DEER (MS 613);

THENCE S 69°16' E, 1,490.0 feet to Corner 12 of the MULE DEER and Corner 3 of the SKID-DOO (MS 3168);

THENCE S 67°30' E, 1,445.0 feet to Corner 4 of the SKID-DOO and Corner 2 of the LITTLE BUG (MS 2238);

THENCE S 59°30' E, 1,495.0 feet to Corner 3 of the LITTLE BUG;

(continued)

Exhibit A - Page 75

THENCE N 22°09' E, 225.64 feet to Corner 2 of the LULU (MS 2238);

THENCE S 51°18' E, 127.68 feet to Corner 1 of the STAR FRACTION;

THENCE N 55°44' E, 585.71 feet to Corner 2 of the STAR FRACTION and Corner 1 of the EVENING STAR (MS 2238);

THENCE N 55°44' E, 481.22 feet to Corner 2 of the EVENING STAR;

THENCE S 56°45' E, 1,500.0 feet to Corner 3 of the EVENING STAR;

THENCE S 55°44' W, 584.81 feet to Corner 4 of the EVENING STAR;

THENCE S 53°00' E, 496.31 feet to Corner 3 of the LIBERTY BELL (MS 2238);

THENCE S 55°44' W, 554.5 feet to Corner 4 of the LIBERTY BELL;

THENCE S 55°03' E, 888.4 feet to Corner 4 of the STANFORD AMENDED (MS 2238);

THENCE S 22°09' W, 614.7 feet to Corner 5 of the STANFORD AMENDED;

THENCE N 55°02' W, 1,499.4 feet to Corner 1 of the STANFORD AMENDED;

THENCE S 22°09' W, 60.0 feet to Corner 4 of the LULU (MS 2238);

THENCE S 51°18' E, 200.68 feet to Corner 4 of the EARL (MS 1958);

THENCE S 17°29' W, 636.15 feet to Corner 3 of the EARL;

THENCE N 51°22' W, 1,500.00 feet to Corner 2 of the EARL and Corner 3 of the SUN RISE (MS 2238);

THENCE N 51°22' W, 264.46 feet to Corner 4 of the SUN RISE;

THENCE N 24°12' E, 415.74 feet to Corner 4 of the LITTLE BUG (MS 2238);

(continued)

Exhibit A - Page 76

THENCE N 59°30' W, 1,495.0 feet to Corner 1 of the LITTLE BUG and Corner 1 of the SKID-DOO (MS 3168);

THENCE N 67°31' W, 1,445.0 feet to Corner 2 of the SKID-DOO and Corner 8 of the SILVER TIP (MS 613);

THENCE S 24°12' W, 600.0 feet to Corner 5 of the SILVER TIP;

THENCE S 65°39' E, 261.6 feet to Corner 4 of the RED DRAGON (MS 613);

THENCE S 34°35' W, 489.3 feet to Corner 1 of the RED DRAGON;

THENCE N 69°58' W, 239.1 feet to intersection of SUNSET PEAKS NO. 2 (MS 2773);

THENCE S 45°38' E, 935.0 feet to Corner 1 of the SUNSET PEAKS NO. 2;

THENCE S 82°25' E, 37.3 feet to Corner 2 of the SUNSET PEAKS (MS 2746A);

THENCE S 07°35' W, 600.0 feet to Corner 1 of the SUNSET PEAKS and Corner 3 of the SPOKANE BROKER (MS 2746A);

THENCE S 07°35' W, 600.0 feet to Corner 4 of the SPOKANE BROKER;

THENCE S 82°25' E, 675.0 feet to Corner 1 of the AJAX (MS 2746A);

THENCE S 20°51' W, 616.0 feet to Corner 4 of the AJAX;

THENCE N 82°25' W, 240.0 feet to Corner 1 of the SUNSET PEAKS M.S. (MS 2746B);

THENCE S 11°26' E, 565.75 feet to Corner 2 of the SUNSET PEAKS M.S.;

THENCE N 57°11' W, 750.0 feet to Corner 3 of the SUNSET PEAKS M.S.;

THENCE N 18°38' W, 239.8 feet to Corner 4 of the SUNSET PEAKS M.S.;

THENCE N 82°25' W, 360.65 feet to intersection of BRITTLE SILVER (MS 2288);

(continued)

Exhibit A - Page 77

THENCE S 58°45' E, 153.76 feet to Corner 1 of the BRITTLE SILVER;

THENCE S 43°55' W, 611.6 feet to Corner 4 of the BRITTLE SILVER and Corner 4 of the LUCKY FRANK (MS 2297);

THENCE S 57°39' E, 1,111.8 feet to Corner 3 of the LUCKY FRANK and Corner 4 of the CENTRAL (MS 2297);

THENCE S 53°47'30" E, 1,381.24 feet to Corner 3 of the CENTRAL;

THENCE S 45° W, 9.21 feet to intersection of GRACE (MS 2567);

THENCE S 79°14' W, 940.01 feet to Corner 2 of the GIANT (MS 2567);

THENCE S 29°44' W, 572.8 feet to Corner 3 of the GIANT and Corner 2 of the GLOBE (MS 2567);

THENCE S 11°07' W, 594.1 feet to Corner 3 of the GLOBE;

THENCE S 64°33' E, 20.5 feet to Corner 2 of the CHANDLER (MS 2567);

THENCE S 40°18' W, 600.0 feet to Corner 3 of the CHANDLER;

THENCE S 40°18' W, 20.7 feet to Corner 3 of the OVERSIGHT (MS 2567)';

THENCE S 65°11' E, 944.3 feet to Corner 4 of the OVERSIGHT;

THENCE S 44°56'30" W, 480.0 feet to Corner 5 of the OVERSIGHT and Corner 2 of the BUTTE (MS 2567);

THENCE S 44°56'30" W, 481.37 feet to Corner 3 of the BUTTE and Corner 2 of the JUDSON (MS 2567);

THENCE S 35°57' W, 350 feet to Corner 3 of the JUDSON;

THENCE N 87°18'20" W, 522.78 feet to Corner 4 of the JUDSON;

THENCE N 65°23' W, 750.0 feet to Corner 5 of the JUDSON;

(continued)

Exhibit A - Page 78

THENCE N 35°57' E, 579.2 feet to Corner 1 of the JUDSON and Corner 3 of the NELLIE (MS 2567);

THENCE N 65°44' W, 204.3 feet to Corner 2 of the NELLIE;

THENCE N 58°07' W, 1,071.97 feet to Corner 1 of the NELLIE and Corner 1 of the MUTUAL (MS 2567);

THENCE N 74°43' W, 418.6 feet to Corner 5 of the MUTUAL;

THENCE N 65°24' W, 1,099.65 feet to Corner 4 of the MUTUAL;

THENCE S 35°57' W, 65.7 feet to Corner 3 of the MUTUAL;

THENCE N 53°51' W, 93.1 feet to Corner 4 of the MINNEAPOLIS (MS 2567);

THENCE S 35°57' W, 395.57 feet to Corner 3 of the LELA and Corner 2 of the FLORENCE (MS 2791);

THENCE S 53°53' W, 602.0 feet to Corner 3 of the FLORENCE;

THENCE N 41°20' W, 1,219.53 feet to intersection of RONELD (MS 2748);

THENCE N 54°27'20" W, 253.87 feet to Corner 4 of the RONELD;

THENCE S 28°31' W, 571.8 feet to Corner 3 of the RONELD and Corner 1 of the PACIFIC (MS 2206);

THENCE N 48°10' W, 894.03 feet to Corner 2 of the PACIFIC;

THENCE N 63°25' W, 607.27 feet to Corner 1 of the PACIFIC and Corner 1 of the ATLANTIC (MS 2206);

THENCE N 55°56'30" W, 969.95 feet to Corner 4 of the THELMA (MS 2787);

THENCE N 73°32' W, 1,513.67 feet to Corner 1 of the THELMA;

THENCE N 29°30' E, 610.3 feet to Corner 2 of the THELMA;

THENCE N 71°03' W, 114.52 feet to Corner 4 of the MARY H (MS 2787);

(continued)

Exhibit A - Page 79

THENCE N 26°50' E, 482.97 feet to Corner 1 of the MARY H;

THENCE N 26°50' E, 48.94 feet to intersection of ONE (MS 2792);

THENCE S 85°53' W, 226.59 feet to Corner 4 of the ONE;

THENCE N 09°55' W, 603.0 feet to Corner 1 of the ONE;

THENCE N 85°42' W, 978.85 feet to Corner 2 of the TWO and Corner 4 of the FOUR (MS 2792);

THENCE N 89°48'12" W, 459.71 feet to Corner 2 of the THREE (MS 2792);

THENCE S 25°10' W, 620.0 feet to Corner 3 of the THREE;

THENCE S 89°43'30" W, 976.81 feet to Corner 4 of the THREE and Corner 2 of the FIVE (MS 2792);

THENCE N 88°52' W, 1,420.65 feet to Corner 3 of the FIVE and Corner 3 of the SEVEN (MS 2792);

THENCE S 88°38' W, 358.88 feet to intersection of VIRGINIA (MS 1084);

THENCE N 39°20' W, 111.46 feet to Corner 23 of the VIRGINIA;

THENCE N 56°55' W, 727.2 feet to intersection of SEVEN (MS 2792);

THENCE N 25°10' E, 80.11 feet to Corner 1 of the SEVEN;

THENCE S 89°52'40" E, 39.25 feet to Corner 1 of the EIGHT (MS 2792), the point of beginning and containing an area of 1950.642 acres more or less.

(continued)

26

TWENTY-FOURTH ANNUAL
REPORT OF THE
MINING INDUSTRY
OF IDAHO

FOR THE YEAR
1922



Idaho
TN
24
.12
M5
1922

STEWART CAMPBELL
INSPECTOR OF MINES

MISS A. F. MAHAN
Secretary

RAY JEFFERSON MINING CO.

Office: Wallace. **Officers:** James J. Murphy, Pres.-Mgr., Burke; P. J. Maggy, Sec., Wallace. **Inc.:** March 31, 1910. **Capital:** 2,000,000 shares; par value 25c; shares issued, unknown. **Property:** Ray Jefferson; 30 patented claims, Beaver dist.; Carbonate. **Development:** Approximately 11,300 ft. of underground workings. **Plant:** Mine and mill buildings and machinery. **Remarks:** Idle throughout the year. An assessment of 5 mills levied June 5, 1922.

RED CLOUD MINING CO.

Office: Wallace. **Officers:** A. L. Honeker, Pres.; Herman J. Rossi, Sec.-Mgr., both of Wallace. **Inc.:** Sept. 1, 1896. **Capital:** 500,000 shares; par value \$1; 236,369 shares issued. **Property:** Red Cloud; 1 patented claim, Yreka dist.; Kellogg. **Ore:** Lead-silver. An assessment of 3 mills levied Nov. 21, 1922.

REED LEVEL MINING CO.

Office: Wardner. **Officers:** Elmer C. Brain, Pres.-Mgr.; John E. McEachran, Sec., both of Kellogg. **Inc.:** Oct. 30, 1920. **Capital:** 3000 shares; par value \$100; all shares issued. **Property:** Lease on upper workings of Bunker Hill. **Ore:** Lead-silver. **Men employed:** Average, 16. **Remarks:** Mining equipment and power furnished by Bunker Hill & Sullivan M. & C. Co. and ore milled at the plant owned by the Cooperative Milling Co. A large tonnage of ore was mined and milled during the year.

REX CONSOLIDATED MINING CO.

Office: 25 Broad St., New York City. **Officers:** L. E. Wicher, Pres.; S. L. Sherman, Sec., both of New York City; Raymond Guyer, Mgr., 318 Symonds Bldg., Spokane, Wash. **Inc.:** Sept. 1, 1915. **Capital:** 5,000,000 shares; par value 25c; 4,000,000 shares issued. **Property:** Rex and Red Monarch groups; 6 patented, 52 unpatented claims, Beaver dist.; Wallace. **Development:** Principally by 3 tunnels: No. 1, 44 ft. long; No. 2, 1200 ft. long; No. 3, 600 ft. long; and 2 shafts, the principal one being 700 ft. deep, with 200-ft. intermediate levels. Total development approximately 15,000 ft. **Plant:** MINE: Allis-Chalmers electrically driven hoist; electrically driven 2-stage 20 cu. ft. I-R compressor; sorting plant; complete mining equipment and camp; 1¼ mile Riblet tram connecting mine and mill. MILL: 250-ton concentrator including flotation. **Ore:** Lead-zinc-silver. **Men employed:** Average, 4. **Remarks:** During the year this company acquired the property of the Red Monarch Mining Co., and maintained prospecting work throughout the year.

RHODE ISLAND MINING CO., LTD.

Office: Wallace. **Officers:** A. G. Webb, Pres.; C. E. Clarke, Sec., both of Wallace. **Inc.:** July 13, 1900. **Capital:** 1,000,000 shares; par value 5c; 440,406 shares issued. **Property:** Rhode Island group; 4 unpatented claims, Evolution dist.; Wallace. **Development:** Approximately 900 ft. of workings. **Ore:** Lead-zinc-silver. **Remarks:** Assessment work only. An assessment of 1 mill levied April 25, 1922.

ROANOKE MINING CO., LTD.

Office: Wallace. **Officers:** Herman J. Rossi, Pres.; F. C. Stone, Sec.-Mgr., both of Wallace. **Inc.:** Jan. 2, 1907. **Capital:** 1,500,000 shares; par value \$1; 1,197,833 shares issued. **Property:** Roanoke group; 7 patented claims, Yreka dist.; Kellogg. **Development:** Approximately 1000 ft. **Plant:** Electrically driven hoist. **Ore:** Lead-silver.

ROBERTA

Office:
John A.
1,000,000
unpaten-
ed
ft. of v

ROB ROY

Office:
Sec., b
value
dist.;
sessme

ROCKFORD

Office:
Hanson
value
Wallac
long.
employ
throug

ROYAL M

Office:
Sec., C
ue \$1;
West
ly 200
wheel;
Men e
4, 1922

RUTH CO

Office:
Pres.;
ital:
group;
By 2
driven
Lead-
year.

SAINT JO

Office:
Sec.,
value
dist.;

SAMSON

Office:
Brain
value
claim
ft. lon
ment

Twenty-Seventh
Annual Report
of the
Mining Industry
of Idaho for the
Year 1925



STEWART CAMPBELL
INSPECTOR OF MINES

Herbert E. Sammis

Remarks: During the year a compressor and complete mining equipment were installed on the Cuba group, buildings were constructed, and a small amount of work performed. The necessary annual labor was performed on all other properties.

POLARIS DEVELOPMENT & MINING CO.

Officers: John F. Gearon, Sec.; Chester J. Howarth, Mgr., both of Wallace. Inc.: Dec. 10, 1915. Capital: 1,500,000 shares; par value \$1; 1,020,000 shares issued. Property: 3 patented claims, Yreka dist.; Wallace. Development: Principally by 1 tunnel 2500 ft. long. Plant: Electrically driven compressor and complete mining equipment. Ore: Lead-silver. Remarks: A stock assessment of 5 mills was levied on March 10, 1925.

PROGRESS GOLD MINING CO.

Office: Prichard. Officers: Harry Clark, Pres.; Louisa Clark, Sec., both of Sprague, Wash. Inc.: Aug. 17, 1920. Capital: 1,000,000 shares; par value 10c; 326,000 shares issued. Property: 17 unpatented claims, Summit dist.; Murray. Development: 5 short tunnels. Remarks: A small amount of work was done during the year.

PURITAN MINING CO., LTD.

Office: Wallace. Officers: Theodore Anderson, Pres., Lindsay, Calif.; C. A. Salberg, Sec.-Treas., Wallace. Inc.: Sept. 30, 1905. Capital: 1,500,000 shares; par value \$1; all shares issued. Property: Puritan group; 7 patented claims, Placer Center dist.; Wallace. Development: Approximately 5000 ft. of crosscuts and drifts. Plant: Complete mining equipment and camp. Remarks: Idle throughout the year.

RAINBOW MINING & MILLING CO., LTD.

Office: 518 Peyton Bldg., Spokane, Wash. Officers: George Austin, Pres.-Mgr., Spokane, Wash.; John F. Gearon, Sec., Wallace. Inc.: June 20, 1907. Capital: 2,000,000 shares; par value 25c; 1,205,123 shares issued. Property: 7 patented, 17 unpatented claims, Little North Fork dist., Kootenai County; and Evolution dist.; Osburn. Development: 2000 ft. crosscut on Rainbow group. Plant: Gas driven I-R compressor, and complete mining equipment. Ore: Lead-silver. Men employed: Average, 4. Remarks: Annual labor only on Kootenai County property. The long crosscut tunnel was advanced without interruption throughout the year.

RAMONA MINING CO.

Office: Kellogg. Officers: R. A. Brockman, Pres.-Mgr.; W. B. Turnbow, Sec., both of Kellogg. Inc.: Nov. 24, 1924. Capital: 1,000,000 shares; par value 25c; 10,000 shares issued. Property: Ramona group; 4 unpatented claims, Evolution dist.; Osburn. Ore: Lead-silver.

RAY JEFFERSON MINING CO.

Office: Wallace. Officers: James J. Murphy, Pres.-Mgr., Burke; P. J. Maggy, Sec., Wallace. Inc.: March 31, 1910. Capital: 2,000,000 shares; par value 25c; all shares issued. Property: Ray Jefferson; 30 patented, 8 unpatented claims, Beaver dist.; Carbonite. Development: Approximately 11,300 ft. of underground workings. Plant: Mine and mill buildings and machinery. Remarks: Idle throughout the year. A stock assessment of 3 mills was levied on May 18, 1925.

RED CLOUD MINING CO.

Office: Wallace. Officers: A. L. Honeker, Pres.; H. J. Rossi, Sec., both of Wallace. Inc.: Sept. 1, 1896. Capital: 500,000 shares; par value \$1; 312,397 shares issued. Property: 1 patented claim, Yreka dist.; Kellogg. Ore: Lead-silver-zinc.

REINDEER-QUEEN MINING CO.

Office: Wallace. Officers: J. F. Gearon, Pres.-Mgr.; Ray Morrison, Sec., both of Wallace. Inc.: Sept. 27, 1913. Capital: 2,000,000 shares; par value

REVE
O
J.
00
er
pa
th
RHOC
Of
W
sh
lul
On
me
RICH
Off
Lai
par
pat
pro
pre
A s
tun
par
pen
as
ROANO
Offi
1907
Prop
velo
Lead
ROB RO
Offi
Sec.
valu
dist;
Rem
on Ji
ROYAL
Office
Sec.
par v
ed cl
Appro
Peltor
silver
was l

50th Annual Report
OF THE
MINING INDUSTRY
OF THE
STATE OF IDAHO
FOR THE YEAR 1948



CEO. A.
McDOWELL
Inspector of Mines

MYRTLE
ELLEN SOHN
Secretary

10,000 shares; par value \$100; 518 shares issued. **Remarks:** This property has been sold to Day Mines, Inc.

DAY MINES, INC.

Office: Wallace. **Officers:** Henry L. Day, Pres.; S. F. Heitfeld, Sec., both of Wallace. **Inc.:** October 1, 1947. **Capital:** 5,000,000 non-assessable shares, par value 10c; 2,886,575 shares issued. **Men Employed:** Average, 500. **Ore:** Silver, lead, zinc, copper, antimony. **Remarks:** Day Mines, Inc., came into existence on October 1, 1947, as a result of a statutory consolidation effected under the laws of the state of Idaho, Delaware and Nevada, the corporate domicile of the predecessors of constituent corporations whose names were as follows: Tamarack & Custer Consolidated Mining Company, Hercules Mining Company, Sherman Lead Company, Dayrock Mining Company, Monitor Mining Company, King Mining Company, Stanley Mining Company, Duluth Mining Company, Happy Day Mining Company, Ltd., Western Union Mining Company, Crystal Lead Mines Company and Treasure Vault Mining Company.

DAYROCK MINING CO.

Office: Wallace. **Officers:** Henry L. Day, Pres.; S. F. Heitfeld, Sec., both of Wallace. **Inc.:** Nov. 30, 1923 as Strattons Mines Co.; name changed Nov. 19, 1928. **Capital:** 2,000,000 shares; par value 10c; 1,747,229 shares issued. **Property:** 47 patented and 22 unpatented claims; Evolution, Beaver and Placer Center dists.; Wallace. **Development:** By 22 tunnels the longest of which is 21,508 feet. Approximate total development 59,744 ft. **Plant:** MINE: Electrically driven hoist and 2 electrically driven compressors; complete mining equipment; storage-battery locomotive and haulage. **MILL:** 150-ton Selective flotation. **Ore:** Lead-silver. **Remarks:** Development work done during the year: Crosscutting, 1,232 ft.; drifting, 2,645 ft.; raises, 839 ft. **NOTE:** On October 1, 1947 the Dayrock Mining Company was consolidated into a new corporation named Day Mines, Inc., as a result of a statutory consolidation effected under the laws of the State of Idaho. The corporate existence of this company was terminated by operation of law on this date as a result of such statutory consolidation.

DOBSON PASS LEAD AND SILVER MINES CORP.

Office: Cataldo. **Officers:** M. D. Anderson, Pres., Cataldo; A. J. Teske, Sec., Wallace. **Inc.:** Sept. 17, 1932. **Capital:** 1,500,000 non-assessable shares; par value 10c; 158,762 shares issued. **Property:** 3 patented claims; Dobson Pass group; Beaver mining dist., Wallace. **Development:** By 1 tunnel. **Ore:** Lead and silver. **Remarks:** Idle.

DOUGLAS MINING CO., LTD.

Office: Wallace. **Officers:** Stanly A. Easton, Pres.-Mgr., Kellogg; Lennis E. Hill, Sec., Wallace. **Inc.:** Oct. 24, 1903. **Capital:** 1,200,000 shares; par value \$1; all shares issued. **Property:** Douglas group; 17 patented and 1 unpatented claims, Yreka dist.; Kellogg. **Development:** By 4 tunnels totaling 4,830 feet and an inclined shaft 330 ft. **Plant:** MINE: Electrically driven compressor and hoist; complete mining equipment and camp. **Ore:** Lead and zinc. **Remarks:** Leased to Douglas Leasing Company, Wallace, Idaho. 210.5 ft. of crosscutting and 407 ft. of drifting done under contract during the year.

DULUTH MINING CO.

Office: Wallace. **Officers:** Henry L. Day, Pres.; S. F. Heitfeld, Sec., both of Wallace. **Inc.:** June 10, 1909. **Capital:** 1,500,000 shares; par value 25c; 320,210 shares issued. **Property:** Duluth group; 8 patented claims, Leland dist., Burke. **Development:** By 5 tunnels. **Ore:** Lead-silver. **Remarks:** Idle. **NOTE:** On October 1, 1947 the Duluth Mining Co. was consolidated into a new corporation named Day Mines, Inc. as a result of a statutory con-

ANNUAL REPORT

DAY MINES, INC.

For the Year Ending December 31, 1947

Incorporated Under Laws of Idaho

GENERAL OFFICES

Wallace, Idaho

OFFICERS

HENRY L. DAY, President and Manager
F. M. ROTHROCK, Vice President
PAUL B. JESSUP, Vice President and Comptroller
S. F. HEITFELD, Secretary and Treasurer
R. W. ANNO, Asst. Secretary and Asst. Treasurer

DIRECTORS

ELEANOR DAY BOYCE, Wallace, Idaho
HENRY L. DAY, Wallace, Idaho
WRAY D. FARMIN, Spokane, Washington
PAUL B. JESSUP, Wallace, Idaho
C. I. PAULSEN, Spokane, Washington
F. M. ROTHROCK, Spokane, Washington
F. W. ROTHROCK, Spokane, Washington

TRANSFER OFFICE

DAY BLDG., WALLACE, IDAHO

Manager's Report

Wallace, Idaho

March 8, 1948

TO THE STOCKHOLDERS OF DAY MINES, INC.

Herewith please find report and financial statements for the calendar year 1947, covering the operations of Day Mines, Inc., and its twelve predecessor companies. The combined production of silver, lead and zinc increased from that of the previous year as more workers were available. The combined net operating profit of all the companies, parties to the consolidation of October 1, 1947, after all deductions including state and federal income taxes, was \$654,667.01 during the past year; it was \$898,292.75 before depletion. Cash amounted to \$920,341.53 on December 31, 1947, and current assets exceeded current liabilities by \$1,382,736.72. The ratio of current assets to current liabilities was 3.2 to 1.

CONSOLIDATION—Day Mines, Inc. came into corporate existence on October 1, 1947, being a statutory consolidation of twelve mining companies, all owning mineral properties in the Coeur d'Alene Mining District of Northern Idaho. In meetings specially called for the purpose, the shareholders of each of the predecessor companies voted on September 23 and 24, 1947, by more than two-thirds majorities in favor of the consolidation. At the twelve meetings there were a total of 20,713,614½ shares eligible to vote; 17,931,469 shares were present in person or by proxy. Of the 20,713,614½ shares, 86.19% voted in favor of the consolidation, and only 0.38% in opposition. As a result, all assets and liabilities of the twelve old companies were assumed by Day Mines, Inc. on October first, and the predecessor corporations were legally dissolved the same day. Exchange ratios for the old stocks into the new were also established at the shareholders' meetings. For each 1,000 shares of the predecessor company, the old stockholders were entitled to receive the following number of Day Mines, Inc. shares:

Tamarack & Custer Cons. Mng. Co.....	164
Hercules Mining Co.....	692
Sherman Lead Co.....	168
Dayrock Mining Co.....	340
Monitor Mining Co.....	212
King Mining Co.....	60
Stanley Mining Co.....	8
Duluth Mining Co.....	12.5
Happy Day Mining Co., Ltd.....	7
Western Union Mining Co.....	6
Crystal Lead Mines Co.....	21
Treasure Vault Mining Co.....	6

On March 1, 1948, Day Mines, Inc. had 2,149 shareholders of record. In addition, there were 397 shareholders of the twelve old companies who had not yet surrendered their old shares for conversion into certificates of Day Mines, Inc. at the foregoing ratios. However, 99.08% of the old shareholdings have done so. The management urges the others to do so immediately, as the exchange is necessary in order for them to receive the 10c per share dividend payable January 31, 1948.

DIVIDENDS—In June, 1947, three of the predecessor corporations declared dividends to their shareholders. The Dayrock paid \$43,680.72, at the rate of 2½c per share; the Sherman disbursed \$73,500.00, at the rate of 2c per share; and the Tamarack paid \$50,000.00 at the rate of 1c per share. All of these dividends were paid from current earnings, and were fully taxable to stockholder recipients.

Day Mines, Inc. paid its first dividend on January 31, 1948, of 10c per share, aggregating \$288,657.50. This dividend was declared on November 13, 1947, and made payable to stockholders of record on January 3, 1948. A portion of this dividend was charged to current earnings and the balance to capital surplus. The status of this dividend from the standpoint of its taxability to the shareholders has not been determined at the present time. When it is, stockholders will be advised.

Dividends declared by all the companies totalled \$455,838.22 in 1947. At the present time the management has no fixed policy with respect to the declaration of regular dividends. These will be paid in the future as justified by earnings, after setting aside prudent amounts for capital expenditures (new properties, new equipment, exploration work) and for additional working capital.

EXPLORATION AND DEVELOPMENT—Progress was at an accelerated pace last year, appreciably above the substantial totals of 1946. To a considerable extent, the 1947 program was underwritten through exploration funds made available by the Office of the Premium Price Plan for Copper, Lead and Zinc operating under order No. 137 of the Office of Economic Stabilization, issued in September, 1946. Federally aided exploration projects were terminated December 31, 1947. In addition, Day Mines, Inc. and the majority of its twelve predecessor companies (treated in this paragraph as a single entity for calendar 1947), made substantial expenditures in the search for new and additional ore bodies.

The 800 level, present bottom one in the Dayrock mine, was extended westerly 1,335 feet to the Murray fault and 1,320 feet of diamond drilling performed east thereof. The Nipsic crosscut on Interstate No. 4 level (now re-named the 1500) was extended 2,745 feet northerly to intersect two Silver Tip veins near the end of 1947. The Carlisle vein was explored in 1947 by deepening the shaft 145 feet, drifting a total of 470 feet on a new lower level (the 3250), and by extending drifts northerly and southerly on the main haulage level (the 2800) a total of 549 feet. On the Idora No. 3 level (the 1400) the drift on the Tuscumbia vein system was driven 907 feet easterly, and 1,257 feet of diamond drilling done therefrom. No ore was discovered but a strong vein was left in the face, as winter weather made the work difficult. Further exploration to the east is planned for 1948. A portion of the area intervening between the Sherman and Tamarack mines was explored by crosscutting and drifting a total of 1,050 feet to the west of and from the Sherman 1,000 level. Only about 60% of the original project was completed. From the 2400 level of the Tamarack mine an off-set, vertical shaft was sunk 300 feet. Drifting on the 2700 level, the deepest in the mine, will be completed in 1948. No additional ore bodies were developed in 1947 either on the Crystal Lead vein, or on the Fairview vein in the present Hercules Group. The latter (one of the old Humming Bird veins) is now regarded as worked out. An extensive geological reconnaissance of the King Area, running from Burke southeasterly over the Mullan divide toward the Snowstorm mine, was started in the spring of 1947 and will be completed about July, 1948. Unwatering of the Hercules

shaft, 1200 feet deep, and located nearly two miles underground, was commenced in the third quarter of 1947. At present, unwatering has reached the 1000 level, and a new 500 gallon per minute pump has been installed thereon. The 1000 was the lowest operating level in the old mine. The vein will be initially explored in 1948 by deep diamond drilling from the 1200 level.

The following tabulation is a summary of the progress of the exploration and development work during the past five years. For comparison purposes, the 1947 figures apply to the calendar year at each property without regard to the consolidation of last October first. The totals for 1943, 1944, 1945 and 1946 show the progress of the predecessor companies of Day Mines, Inc.

	Drifting	Cross cutting	Raising	Sinking	Diamond Drilling	Stations & Pockets
1943	7,356 ft.	3,113 ft.	1,345 ft.	436 ft.	11,802 ft.	29,598 cu. ft.
1944	7,151	2,431	2,881	....	7,938	.....
1945	4,179	1,203	2,129	784	3,873	68,411
1946	7,787	4,998	3,638	....	4,587	38,418
1947-Dayrock	2,562	1,093	922	....	4,545	.....
Monitor	4,274	3,475	1,218	145	1,969	36,281
Sherman	1,091	388	517	....	150	.....
Tamarack	 837	788	1,802	373	829	32,775
Crystal Lead	 650	88	.....	....	181	.....
Hercules-Fairview	 87	.....	66	....	1,133	.....
	9,501	5,832	4,525	518	8,807	69,056

ORE RESERVES—These were estimated to aggregate 1,033,918 tons on December 31, 1947, in the four principal mines, as contrasted to 906,264 tons twelve months previously. The increase was chiefly due to the favorable development of the Dayrock in 1947, although there were other substantial contributing factors. Estimates embrace only the "measured" and "indicated" classifications as defined by the U. S. Bureau of Mines, following accepted standards. Such estimating involved prediction of metal prices as well as production costs over a four to five-year period in the future.

PRODUCTION—The output of the mines in 1947 increased in tonnage as more underground workers became available. The following tabulation shows the average grade and tonnage of the company account ore milled during the past five years by the predecessor companies of Day Mines, Inc. For 1947, a breakdown by mines is given for the calendar year. Inasmuch as at the present time it is economically desirable to recover zinc concentrates only from Tamarack and Monitor milling ores, the zinc figures apply only to such production. In 1947 the Tamarack company reclaimed and treated in the Dorn concentrator a modest tonnage of old tailings which had been deposited on its own property. Figures follow:

	Dry Tons	Silver	Lead	Tons Milled From Which Zinc Recovered	Recoverable Zinc
1943	225,684	3.0 oz.	5.7%	142,923	7.8%
1944	222,325	2.6	5.0	157,013	6.7
1945	188,136	2.5	4.5	131,115	6.0
1946	155,363	2.0	4.2	105,761	5.5
1947-Dayrock	46,363	3.1	5.3		
-Hercules (Fairview)	11,163	5.3	7.9		
-Monitor	64,190	.8	2.0	64,190	5.0
-Sherman	33,678	9.1	13.3		
-Tamarack	65,518	1.1	3.3	65,518	4.7
	220,912	2.9	5.1	129,708	4.9
-Tamarack-Tailings	20,059	2.5	3.2	20,059	3.7

The gross contents of the ores milled by the various companies during the past five calendar years are tabulated herewith. The annual figures for pounds of recoverable zinc apply only to those tonnages from which zinc concentrates were made in the mills.

	Silver Oz.	Lead Lb.	Recoverable Zinc Lb.
1943	679,984	25,822,040	22,298,689
1944	580,159	22,268,130	21,014,174
1945	464,834	17,016,001	15,811,080
1946	314,049	12,933,120	11,708,960
1947-Dayrock	145,677	4,933,284	
-Hercules (Fairview)	 59,455	1,769,102	
-Monitor	 51,188	2,560,018	6,425,950
-Sherman	306,117	8,941,890	
-Tamarack	 74,431	4,378,024	6,190,968
	636,868	22,582,318	12,616,918
-Tamarack-Tailings	 49,951	1,276,360	1,498,148

LEASING—Five underground leasers produced a total of 19,820 dry tons of milling ore in 1947. Zinc concentrates were made from 18,303 tons. The average grade was 1.4 ounces silver per ton, 3.5 per cent lead, and 4.7 per cent recoverable zinc. The gross content of the ore concentrated was 27,918 ounces of silver, 1,399,440 pounds of lead, and 1,707,714 pounds of recoverable zinc.

Five surface leasers produced 13,079 dry tons of milling ore from old dumps and tailings deposits. Zinc concentrates were made from 7,924 tons of such material. The average grade was 1.3 ounces silver per ton, 1.8 per cent lead,

and 2.2 per cent recoverable zinc. The gross content of the ore concentrated was 17,063 ounces of silver, 465,430 pounds of lead, and 351,708 pounds of recoverable zinc.

Royalties paid by the leasers in 1947 amounted to \$41,359.84. The leasers' output declined slightly from the 1946 totals. This is probably due to the termination of the Premium Price Plan on June 30, 1947, and subsequent lower net prices for zinc.

METAL PRICES—The following table gives the average quotations during the past five years of the three metals produced by Day Mines, Inc. The silver figures are the average prices paid by the United States Treasury for newly-mined domestic metal, while the lead prices are the New York quotations, and the zinc prices are based on the St. Louis market.

Year	Silver Per Oz.	Lead Per Lb.	Zinc Per Lb.
1943	70.625c	6.50c	8.25c
1944	70.625	6.50	8.25
1945	70.625	6.50	8.25
1946	80.56	8.11	8.73
1947	90.00	14.67	10.50

Under the law of July, 1946, the Treasury continued to buy silver produced in the United States at the official price of 90½c per ounce less handling charge. Following the removal of O. P. A. controls in November, 1946, the price of lead advanced to 12.55c at the start of 1947, and to 15.00c early in March, 1947, which has been the quotation ever since. There is a world scarcity of lead at the present time. While the price is now at the highest in history, it is very firm. Zinc was quoted at 10½c per pound in St. Louis all during the past year. United States zinc consumption was in excess of production, which caused a price increase to 12c on January 20, 1948. This quotation should hold until more zinc is available to consumers.

The Premium Price Plan for Copper, Lead and Zinc—an aftermath of the scheme used during World War II to stimulate the production of these three metals—expired June 30, 1947. Hardship was caused to those producers dependent on high zinc prices. Congress enacted a law in July, 1947, extending the Premium Price Plan, little changed, for one year. The measure was promptly vetoed by President Truman, contrary to the expectation of the mining industry. New legislation will be introduced during the present session of Congress. It is now impossible to predict its exact nature or likelihood of enactment into law.

CAPITAL ADDITIONS—Total expenditures for capital purposes in 1947 of Day Mines, Inc. and twelve predecessors, totalled \$578,886.14. Substantial capital expenditures were made last year for the Tamarack 2400 level offset shaft, the deepening of the Carlisle shaft, the completion of a vertical working raise between the Amazon 2000 and 2800 levels, and the unwatering of the Hercules mine. At the end of 1947, the capacity of the Carlisle mill was being increased from 215 tons daily to 490 tons; a lead oxide flotation circuit was being installed in the Sherman mill; and a worn-out ball mill in the Hercules concentrator was being replaced by a used but serviceable unit. Boarding houses at the Sherman mine in Burke and at the Interstate property were equipped and put into service last December. The Mace Power Plant was purchased from Citizens Utilities Co. Substantial expenditures were made for new machinery and equipment for the various mines.

SUBSIDIARIES—The Fern Mining Company, wholly owned by Day Mines, Inc. during 1947, was organized under the laws of Idaho, February 18, 1946. The corporation was non-productive last year, and the development expense was limited to \$1,550.16, mostly for geological work. The Fern company owns 81 unpatented claims aggregating 1554.67 acres, lying southerly and easterly of Osburn at the headwaters of Shields and Lake Gulches. Eighty of the claims are in one contiguous group.

The Aurum Mining Company, a second wholly owned Day Mines, Inc. subsidiary, not only maintained its gold properties near Republic, Washington, but performed successful development work. The major portion of the production came from three leasers, active through all of 1947, who paid the company \$20,774.50 in royalties. The output was shipped direct to a custom smelter as crude silicious ore, and aggregated:

Dry Tons	Grade	Content
14,951.4	0.244 oz. gold	3,643.7 oz. gold
	1.26 oz. silver	18,785 oz. silver

During 1947 the Ben Hur 600 level drift was extended 189 feet northerly, and then turned to crosscut the South Cross vein, which was intersected by 604 feet of work. At the end of the year, drifts on the South Cross vein had been extended a total of 134 feet northerly and southerly. This work and its continuation early in 1948 have indicated a substantial tonnage of better than average grade.

The tonnage of the Aurum ore reserves declined about 5% in 1947, while the gold grade increased about 10%. This is due to the fact that estimated future operating costs had to be increased which raised the cut-off grade, and eliminated a substantial amount of low-grade material, previously considered commercial.

The Aurum company maintained its properties during 1947 at a loss of \$4,784.40, before depletion. In addition, net capital expenditures amounted to \$44,769.22, which with one exception was all for the exploration of the South Cross vein from the Ben Hur 600 level. The exception was \$5,200 spent for the purchase of additional mineral property.

GENERAL—The Hercules mill operated rather steadily as well as profitably during 1947 on a custom basis. Until last July when President Truman vetoed the one-year extension of the Premium Price Plan bill, operations were at near capacity on freshly broken ore. Since then, screened river tailings have furnished the bulk of the material concentrated.

Day Mines, Inc. has a one-fourth participating interest in a long-term lease on the Galena property held by the American Smelting and Refining Company. The Galena property, a mile west of Wallace, is now owned by the Vulcan Silver-Lead Corporation, a subsidiary of the Callahan Zinc Lead Company. The project contemplates deepening the

Galena shaft more than 2000 feet vertically to approximate sea level, and 5000 feet of crosscutting and drifting at that elevation. This work was started in 1947 with the installation of a large compressor, suitable double drum hoist, surface buildings, and the rehabilitation of the old shaft to the sump, 840 feet below the collar. The shaft work included the addition of a fourth compartment to be used for ventilation. By March 1, 1948, the shaft had been deepened about 200 feet. Day Mines, Inc. expenditures in 1947, account of its quarter interest in the Galena project, amounted to \$61,006.89.

In January, 1947, "portal" pay suits were filed against several of the predecessor companies in the total of \$615,091. The cases were tried in the district federal court in Coeur d'Alene last November. The following month Judge Chase A. Clark decided the cases should be dismissed if pleadings were not amended. A judgment of dismissal was entered February 20, 1948, which is subject to appeal if made within three month of that date.

A new labor contract was negotiated in the summer of 1947 and is effective until June 30, 1949, except that the matter of wages can be re-opened on June 30, 1948. It provided for an increase of \$1.00 per shift and six paid holidays. The average daily wage paid to all wage-earners including shift differentials, overtime, vacations and holidays, is now about \$11.89.

The number of employees increased substantially last year as the labor supply showed a marked improvement. On Day Mines, Inc. payrolls, on December 31, 1947, there were 569 employees of all classifications, an increase of 116 during the year. Approximately two-thirds were working underground. Turn-over continued very high as hires and separations in 1947 ran in excess of 1,300 and 1,200 respectively. At present only experienced miners are being employed.

Day Mines, Inc. shares were traded in as "unlisted" by the Spokane Stock Exchange from October 1, 1947, to February 25, 1948, with the approval of the Securities and Exchange Commission. On the latter date, Day Mines, Inc. shares were admitted to "listed" trading, and Dayrock, Sherman and Tamarack were no longer called. Further Day Mines, Inc. listing is under consideration, and will be applied for when opportune.

OUTLOOK—The Day Mines, Inc. properties are well equipped, both surface and underground, and in a position to take advantage of high prices for lead and zinc. However, a substantial portion of the ore reserves are low to medium in grade, and due to present high costs, this tonnage requires high prices for profitable extraction. The management anticipates a high rate of capital expenditures during the next few years as several exploration projects are now in the formulative stage, in addition to the unwatering of the Hercules mine, and the one-fourth interest in the deep development at the Galena shaft.

This opportunity is taken to thank all employees, whose loyal and efficient services made the 1947 results possible. Particular appreciation is accorded to those who participated in the unusual work required by the consolidation.

Respectfully submitted,
HENRY L. DAY,
President and Manager.

Auditor's Certificate

Day Mines, Inc.

Wallace, Idaho
March 6, 1948

To the Board of Directors
Day Mines, Inc.
Wallace, Idaho
Gentlemen:

We have examined the balance sheet and statement of surplus of Day Mines, Inc., as at December 31, 1947, and the combined statement of profit and loss of the predecessor corporations and the Day Mines, Inc. for the year then ended, have reviewed the system of internal control and the accounting procedures of the company and, without making a detailed audit of the transactions, have examined or tested accounting records of the company and other supporting evidence, by methods and to the extent we deemed appropriate. Our examination was made in accordance with generally accepted auditing standards and included all procedures which we considered necessary in the circumstances.

The investments in subsidiaries are not consolidated into the balance sheet of the Day Mines, Inc. for the reason that the subsidiaries are in the development stage and the book values of the property, plant, and equipment of these companies have no relation to actual value, which can only be determined from future exploration. The investments in these companies are carried at cost, and current accounts with them are shown in the balance sheet.

In our opinion the accompanying comparative balance sheet and related comparative statements of income and surplus and the notes thereon present fairly the position of Day Mines, Inc. at December 31, 1947, and the results of operations for the fiscal year then ended in conformity with generally accepted accounting principles.

Yours very truly,
L. J. RANDALL,
Certified Public Accountant

DAY MINES, INC.
CONDENSED BALANCE SHEET

December 31, 1947

ASSETS

CURRENT ASSETS:

Cash on Hand and in Banks	\$ 920,341.53
Bond Investments @ Cost (Market \$263,314.40)	253,560.81
Amounts due from Smelters for Concentrates Shipped	470,808.69
Concentrates on Hand @ Market value	12,930.09
Receivables and Prepaid Expenses	52,051.13
Inventory of Mine and Mill Supplies at Cost	309,406.50

TOTAL

\$2,019,098.55

INVESTMENTS:

Stock of Subsidiary Companies @ Cost	490,477.53
Advances to Subsidiary Companies	196,326.56
Stock of Other Companies @ Cost	88,376.02
Other Investments	9,369.00

TOTAL

784,549.11

MINING PROPERTIES, PLANT & EQUIPMENT:

Operating Mining Properties:	
Mining Claims and Ore bodies (after deducting Reserve Plant, Equipment, Deferred Mining Costs, for Depletion)	1,560,941.12
Furniture and Fixtures (after deducting Reserve for Depreciation)	1,131,372.02

TOTAL

2,692,313.14

Non Operating Mining Properties:

Claims and Mining Properties	1,869,147.21
Exploration Costs and Other Interests	241,905.15

TOTAL

2,111,052.36

TOTAL ASSETS

\$7,607,013.16

LIABILITIES

CURRENT LIABILITIES:

Accounts Payable	\$ 157,348.09
Wages and Salaries Payable	101,499.62
Taxes Payable	78,584.34
Dividend Payable	288,657.50
Exploration Premiums Unexpended	10,272.28

TOTAL

\$ 636,361.83

CAPITAL STOCK (Authorized—5,000,000 shares
par value 10c per share)

Capital Stock Issued and Outstanding
(2,886,575 shares, par value 10c per
share)

288,657.50

SURPLUS: (See Statement of Surplus)

Capital Surplus	6,681,993.83
Earned Surplus	.00

TOTAL

6,681,993.83

TOTAL LIABILITIES

\$7,607,013.16

FOOTNOTE: No provision has been made for possible liability for additional compensation to employees under the "portal to portal" suits which have been dismissed, and for additional federal income taxes that might arise out of the Tamarack & Custer Consolidated Mining Company's depletion controversy with the Bureau of Internal Revenue.

DAY MINES, INC. AND ITS PREDECESSOR CORPORATIONS
PROFIT & LOSS STATEMENT FOR YEAR ENDING DECEMBER 31, 1947

	PREDECESSOR CORPORATIONS 9 MOS. ENDING 9-30-47	DAY MINES, INC., 3 Mos. ENDING 12-31-47	COMBINED 12 MONTHS ENDING 12-31-47
OPERATING INCOME:			
Revenue from Ore Sales	\$2,689,972.08	\$886,893.12	\$3,576,865.20
Royalties from Lease Operations	37,872.42	3,487.42	41,359.84
Profit from Custom Milling	12,450.28	7,466.91	19,917.19
TOTAL	\$2,740,294.78	\$897,847.45	\$3,638,142.23
OPERATING EXPENSES:			
Ore Breaking	\$1,067,012.49	\$402,206.50	\$1,469,218.99
Development	131,734.55	29,562.83	161,297.38
Milling	293,740.13	87,724.72	381,464.85
Hauling Ores, Concentrates and Tailings	56,504.52	16,738.38	73,242.90
Office, Administrative and General:			
Salaries	53,403.40	29,054.17	82,457.57
Property Taxes	23,620.66	8,631.86	32,252.52
Other	58,494.08	29,462.03	87,956.11
TOTAL	\$1,684,509.83	\$603,380.49	\$2,287,890.32
OPERATING PROFIT	1,055,784.95	294,466.96	1,350,251.91
OTHER INCOME AND EXPENSE (NET)	40,005.08	14,035.97	54,041.05
NET PROFIT BEFORE DEPLETION, DEPRECIATION AMORTIZATION AND INCOME TAXES	\$1,095,790.03	\$308,502.93	\$1,404,292.96
DEPLETION, DEPRECIATION AND AMORTIZATION:			
Depletion	\$ 208,687.81	\$ 34,937.93	\$ 243,625.74
Depreciation and Amortization	134,575.59	39,135.41	173,711.00
TOTAL	\$ 343,263.40	\$ 74,073.34	\$ 417,336.74
NET PROFIT BEFORE INCOME TAXES	\$ 752,526.63	\$234,429.59	\$ 986,956.22
INCOME TAXES:			
State Income	\$ 32,660.61	\$ 10,140.01	\$ 42,800.62
State Mine License	13,007.92	3,704.09	16,712.01
Federal Income	224,258.09	48,518.49	272,776.58
TOTAL	\$ 269,926.62	\$ 62,362.59	\$ 332,289.21
NET PROFIT	\$ 482,600.01	\$172,067.00	\$ 654,667.01

DAY MINES, INC.

STATEMENT OF SURPLUS DECEMBER 31, 1947

CAPITAL SURPLUS:

Surplus at date of Organization—	
October 1, 1947	\$6,800,264.46
Additions for Year	None
Deductions for Year:	
Monitor Royalty Adjustment	\$ 1,680.13
Portion of Dividend No. 1	116,590.50
CAPITAL SURPLUS—December 31, 1947	\$6,681,993.83

EARNED SURPLUS:

Additions for year: Net Profit	\$ 172,067.00
Deductions for Year: Portion of Dividend No. 1	172,067.00
EARNED SURPLUS—December 31, 1947	\$.00

FOOTNOTE: The excess earnings of the predecessor corporations over the dividends paid by such corporations during the nine months ending September 30, 1947 were reflected in the capital surplus of Day Mines, Inc. The combined earnings of Day Mines, Inc., and its predecessor corporations for the year amounted to \$654,667.01. The total dividends declared by Day Mines, Inc. and its corporate predecessors for the year 1947 amounted to \$455,838.22, leaving an excess of earnings over dividends on a combined basis of \$198,828.79.

Proxy Statement

of

Monitor Mining Company

TABLE of CONTENTS

PLAN OF REORGANIZATION.....	1
HISTORY AND BUSINESS OF CONSTITUENT	
CORPORATIONS AND THEIR SUBSIDIARIES.....	2
General Information.....	2
Earnings — Dividends Paid.....	3
Working Capital.....	3
Current Metal Prices	3
Ore Reserves - General.....	4
Effect of Extension of Premium Price Plan.....	4
Operations if Consolidation Effected.....	4
Financing Exploration Plans.....	5
Tamarack & Custer Consolidated Mining Company.....	5
Hercules Mining Company.....	9
Sherman Lead Company.....	11
Dayrock Mining Company.....	14
Monitor Mining Company.....	17
King Mining Company.....	21
Stanley Mining Company.....	22
Duluth Mining Company.....	22
Happy Day Mining Company, Ltd.....	22
Western Union Mining Company.....	23
Crystal Lead Mines Company.....	23
Treasure Vault Mining Company.....	23
Aurum Mining Company.....	24
Fern Mining Company.....	26
CAPITALIZATION OF THE CONSOLIDATED CORPORATION.....	26
STOCK CONVERSION RATIO.....	26
MANAGEMENT	27
HISTORICAL MARKET PRICES OF STOCKS.....	33
CONSIDERATIONS AFFECTING CONSOLIDATION.....	35
RIGHTS OF DISSENTING SHAREHOLDERS.....	36
CONTRACTS AND LEASES OUTSTANDING.....	37
CONTINGENT LIABILITIES.....	38
BY-LAWS OF THE CONSOLIDATED CORPORATION.....	39
FINANCIAL STATEMENTS.....	40
COST OF SOLICITATION, DISCRETIONARY AUTHORITY IN PROXIES.....	40
EXHIBITS:—	
Exhibit "A"—Joint Agreement of Consolidation.....	41
Exhibit "B"—Financial Statements of Operating Companies.....	51
Exhibit "C"—Financial Statements of Non-Operating Companies.....	66
Exhibit "D"—Combined and Consolidated Financial Statements.....	68

MONITOR MINING COMPANY

PROXY STATEMENT

*To the Shareholders of
Monitor Mining Company:*

Wallace, Idaho
Aug. 18, 1947

The following information concerning the attached proxy and the matter to be acted upon under authority of said proxy is submitted pursuant to the requirements of Regulation X-14, of the Securities & Exchange Act of 1934, as amended. While the information submitted is required by the regulations of the Securities & Exchange Commission, the Commission has no authority to and does not pass upon the merits of any proposal submitted to stockholders.

Plan of Reorganization

The matter submitted to the shareholders of the Monitor Mining Company is the reorganization of such company, along with eleven (11) other companies, into a single new mining corporation.

The method proposed to effect such a reorganization is a statutory consolidation under the laws of the State of Idaho.

In effecting such a consolidation, Idaho law requires that a joint consolidation agreement be executed by the majority of the Board of Directors of each of the corporations proposing to consolidate. A copy of such consolidation agreement is attached hereto marked Exhibit A.

The Idaho law also requires that before such consolidation can be effected, the joint agreement must be submitted to the shareholders of each of the corporations affected, at special shareholders meetings called for that purpose, and adopted by a vote of two-thirds of all the shareholders of each of such corporations. The law further provides that if the joint agreement is adopted by the requisite number of shareholders, such agreement shall be filed with the Secretary of State of the State of Idaho along with the Articles of Incorporation of the new consolidated corporation.

In this connection, your attention is directed to paragraph 13 of Exhibit A, wherein it is provided that if the requisite two-thirds vote of the shareholders of the Tamarack & Custer Consolidated Mining Company, Sherman Lead Company, Dayrock Mining Company, Monitor Mining Company, Hercules Mining Company, and the King Mining Company adopt the consolidation agreement, a consolidation of all the companies adopting the same shall be effected even though some of the other corporations named in the consolidation agreement fail to adopt the same.

The effect of such a consolidation, if consummated, would be for the consolidated corporation to acquire by agreement and operation of law all the property, rights and privileges of the consolidating or constituent corporations. The consolidated corporation would also inherit all the liabilities and obligations of the constituent corporations. See paragraphs 9 and 10 of Exhibit A for the detailed effects of such a consolidation.

The name of the consolidated corporation, its domicile, period of existence, registered office, capitalization, stock conversion ratio, method of stock conversion, purposes for which formed, and its proposed officers and directors are all set forth in Exhibit A, to which your attention is directed for details.

If the reorganization plan is adopted and the consolidation effected, the management has been advised by counsel that the entire transaction will be a tax free exchange under

federal revenue laws; that the tax basis of the assets acquired by the consolidated corporation will be the same basis those assets enjoyed in the hands of the constituent corporations; and the tax basis of the stock of the consolidated corporation in the hands of the consolidated stockholders will be the same amount as their basis for the stock of the constituent corporations surrendered in exchange for consolidated corporation stock.

Under the terms of the joint consolidation agreement the expense of consolidation shall be borne by the consolidated corporation. It is estimated that the total expense of consolidation will not exceed the sum of \$15,000. This amount does not contemplate the cost of paying for the stock of dissenting shareholders of constituent corporations as hereinafter described, nor the cost of any prolonged or unanticipated litigation that may arise in connection with the consolidation. In the event the consolidation fails the cost of the consolidated effort will be borne by the constituent corporations.

The management has been advised by counsel that the laws of the States of Idaho, Nevada and Delaware, the places of incorporation of the constituent corporations, all permit the consolidation of domestic and foreign corporations.

History and Business of Constituent Corporations and Their Subsidiaries

Under this heading the management submits a concise but complete statement of many of the factors involved in appraising relatively the values of the several constituent corporations, expressed in terms of shares of the consolidated corporation. The description of the business of each corporation varies in length according to its present activities. Where such information could be presented in consolidated form this has been done. Where this is not feasible, it has been treated separately under the company to which it relates.

General Information

The following table discloses pertinent general information relative to the twelve constituent corporations and their two subsidiaries:

Name of Company	Year of incorporation	State of incorporation	Period of Corporate Existence	Shares Authorized	Par Value per Share	Shares Outstanding (exclusive treasury stock)	Approx. Number of Shareholders
Tamarack & Custer							
Consolidated Mining Co.	1912	Nevada	Perpetual	5,000,000	\$ 1.00	5,000,000	750
Hercules Mining Company	1923	Delaware	Perpetual	500,000	10.00	425,140	27
Sherman Lead Company	1918	Idaho	50 years	3,675,000	.25	3,675,000	1,034
Dayrock Mining Company	1923	Idaho	50 years	2,000,000	.10	1,738,658	616
Monitor Mining Company	1940	Idaho	50 years	2,000,000	.50	1,807,328	410
King Mining Company	1943	Idaho	50 years	5,000,000	.10	1,884,040	576
Stanley Mining Company	1926	Idaho	50 years	1,500,000	.10	1,267,727	78
Duluth Mining Company, Ltd.	1909	Idaho	50 years	1,500,000	.25	320,210	12
Happy Day Mng. Co. Ltd.	1899	Idaho	50 years	1,000,000	.10	573,507	53
Western Union Mng. Co.	1916	Idaho	50 years	2,000,000	.10	1,855,711½	211
Crystal Lead Mines Co.	1931	Idaho	50 years	1,500,000	.10	1,498,996	130
Treasure Vault Mng. Co.	1906	Idaho	50 years	1,000,000	1.00	658,726	22
Aurum Mining Company	1927	Idaho	50 years	1,000,000	1.00	667,750	2
Fern Mining Company	1946	Idaho	Perpetual	3,000,000	.10	762,500	6

- Notes: (1) All the above companies act as their own Transfer Agents, and all their registered offices are located at the Day Building in Wallace, Idaho.
(2) The capital stock of all these companies is fully paid and assessable.
(3) The Tamarack, Sherman and Dayrock companies are listed on the Spokane Stock Exchange, which is registered under the Securities & Exchange Act of 1934. The securities of all other companies are not listed on any securities exchange.
(4) The fiscal year of all these companies ends on December 31.

Dayrock — Life

The proved life of the mine is estimated at some three to four years if present operating conditions continue to prevail. The management believes that development work on the scale outlined in a previous paragraph will result in the maintenance of these ore reserves and the prolongation of the life of the mine for a number of years.

Dayrock — Economic Geology

The Dayrock vein system strikes approximately North 70° West and dips generally South at a variety of angles, averaging about 65°. It lies between two roughly parallel transverse faults of large displacement (the Murray on the west and the Dobson Pass on the east) which strike more or less North-South and dip westerly. The horizontal extent of this raking zone is between 2,000 and 3,000 feet in length (3,000 at the mill elevation and 2,000 at the 800 level), and it has been partly explored by the mine workings over a vertical range of nearly 900 feet. Two parallel veins (Dayrock and Ohio) are now known and a transverse vein (Freeman) has been explored to a limited degree. The Black Cloud-California vein system also lies within the Dayrock company's property. Exploration is being considered to investigate this vein system at deeper horizons.

The wall rocks are sediments of the lower Wallace, St. Regis, and Upper Revett formations, deformed by folding and faulting and later sheared and brecciated by the present veins systems. Wall rock alteration is intense throughout the mine and is of the "bleaching" type. The vein mineralization consists essentially of a gangue of quartz, calcite and siderite with argentiferous galena, pyrite, and sphalerite in varying proportions.

No accurate appraisal of future ore possibilities can be made, but the prospects in depth appear to be good for a continuation of the same type and tenor of ore as is now being mined.

Dayrock — Other Assets

In evaluating the property of the Dayrock company, consideration must be given to three items which have influence upon the present and future worth of the corporation. These are in addition to ore-bodies and working capital:

- (a) The company owns approximately between 1,000 and 1,100 acres of mineral land in the Placer Center Mining District, north of Wallace, Idaho. It has only been explored in relatively small part and would offer the opportunity to discover additional ore bodies.
- (b) The company owns its own surface mining plant and concentrator, all the machinery and equipment being modern and up to date.
- (c) The Dayrock Mining Company owns almost a one-fifth interest in the Fern Mining Company, a newly organized corporation which is fully described in this proxy statement.

Monitor — History

In the brief period of its corporate history, the Monitor Mining Company has consolidated a number of older properties, purchased some outright, and located additional claims so that its holdings at the present time embrace 162 patented claims, aggregating 2,133.5 acres; in addition, the company owns 53 unpatented claims. These claims are practically all in one contiguous group, located in the Beaver Mining District seven to ten miles northly of Wallace, Idaho.

The better known properties which have been acquired by the Monitor company include the Ray-Jefferson, Amazon-Manhattan, Virginia, Silver Tip, Tuscumbia, Idora, and Interstate-Callahan.

Many of the claims covering the above veins were located prior to 1890, and were productive in the decade preceding 1900. During World War I there was a great deal of activity in the present Monitor region, mainly due to the discovery and production of high-grade zinc ore from the Interstate-Callahan veins, the property being a phenomenal producer during the decade starting about 1913.

A period of general quiescence followed in this area until the Monitor company began active exploration in 1942. This resulted in the establishment of mining camps and mining plants at the portals of the Amazon 700 level, and the Carlisle adit. The old Ray-Jefferson mill was completely rehabilitated and put into operation as a flotation concentrator in 1944. The Interstate-Callahan property was acquired in August, 1945, and the underground workings are still in process of being reclaimed at the present time.

Monitor — Plant and Equipment

The principal surface facilities in use during the last few years at the portal of the Amazon 700 level are temporary in nature, and will be abandoned as the ore reserves are exhausted above this horizon. In addition to a crushing plant, compressor house, shops, change house, and warehouse, the company has boarding-house facilities for about sixty Amazon mine workers.

Eventually, all of the ore found in the Amazon and Carlisle veins and in the lower part of the Interstate mine will be brought to the surface through the Carlisle haulage tunnel and concentrated in the mill located approximately 1,000 feet from the portal of the adit. The surface plant consists of compressor, shops, and change house. There is also a Carlisle boarding house with facilities for about forty men.

The present mill has a capacity of approximately 200 tons per day. All the equipment in it is modern save for the old ball mills.

A fairly complete surface plant is now provided at the surface of Interstate No. 4 level, and is more than ample for the work at present taking place there. In addition, the old bunkhouse has been remodeled in part and will soon have capacity to care for about fifty men.

The company now has approximately 145 employees.

The tabulation which follows gives a summary during each of the past five years of the progress achieved in re-opening the old properties controlled by the Monitor Mining Company. On the average, annual work as disclosed by these figures, will be required in the future to develop new ore reserves as fast as the present ones are diminished by current extraction.

Monitor — Exploration and Development

Year	Drifting	Cross-cutting	Raising	Sinking	Diamond Drilling	Stations & Pockets
1942						
1943	2,724 ft.	170 ft.	534 ft.	436 ft.	6,774 ft.	29,598 cu. ft.
1944	2,517	146	1,226		3,360	
1945	1,065	280	551		1,618	
1946	3,030	2,850	627		1,335	17,157
Total	9,336 ft.	3,846 ft.	2,938 ft.	436 ft.	13,087 ft.	46,755 cu. ft.

At the present time the Monitor is driving a 2800-ft. crosscut on the Interstate No. 4 level northerly to intersect the Silver Tip vein system at an additional depth of 1,100 feet. The Carlisle vertical shaft will be deepened 150 feet and the vein explored on a new lower level during the last half of 1947.

Monitor — Production, Costs, Earnings

The mining business of the Monitor Company is disclosed by the tabulation which follows. It gives the tonnage and grade of the ore produced for the past five years, both by company output and lessees' work, plus the corporate income, expense, and net income per ton, as well as the earnings per share of the stock outstanding at the present time. The company has paid no dividends. In order to make the statistics comparable with those furnished by other companies, described in this proxy statement, depreciation, depletion, income taxes, and non-recurring items have been excluded as shown by the footnote.

	Tons Milled	ASSAY			PER TON			PER SHARE	
		Ag. Oz.	Lead %	Zinc %	Income	Ex- pense*	Net*	Earn- ings	Divi- dends
1942 Co. Production....	100	1.3	4.0	8.4					
Lessees' "	14,417	1.3	3.7	7.1					
Total	14,517	1.3	3.7	7.1	\$ 2.14	.70	\$1.44	1.2c	.00
1943 Co. Production.....	28,850	1.1	2.3	4.9	13.61	13.16	.45		
Lessees' "	8,159	.9	2.5	6.2			4.46**		
Total	37,009	1.1	2.4	5.2			\$1.33	2.7c	.00
1944 Co. Production.....	63,693	.9	2.3	5.6	13.61	9.43	4.18		
Lessees' "	10,916	2.0	4.1	7.9			2.23**		
Total	74,609	1.1	2.5	5.9			\$3.90	16.1c	.00
1945 Co. Production.....	65,033	.9	2.4	5.4	11.51	8.89	2.62		
Lessees' "	15,238	1.4	3.0	8.5			2.31**		
Total	80,271	1.0	2.5	6.0			\$2.56	11.4c	.00
1946 Co. Production.....	39,437	.9	2.3	6.1	15.75	15.10	.65		
Lessees' "	13,029	1.0	2.5	8.6			2.19**		
Total	52,466	1.0	2.4	6.7			\$1.03	3.0c	.00
Total or Average,									
Company	197,113	.9	2.3	5.5	13.34	10.98	2.36		
Lessees	61,759	1.3	3.2	7.8			2.55**		
	258,872	1.0	2.5	6.1			\$2.40	34.4c	.00

*Excluding Depreciation, Depletion, Income Taxes, and non-recurring items.

**Royalties

The company has underway one important exploration program at the present time. This is to crosscut the Silver Tip vein at a depth of about 1,100 feet vertically below the present workings. This is being achieved by extending the No. 4 Interstate level more than one-half mile farther northerly. The company also has plans to deepen the Carlisle shaft and to explore the Parrott and Tuscumbia veins from the Idora No. 3 level.

Monitor — Metal Prices

The following tabulation shows the weighted average prices received by the Monitor company for the two principal metals produced by the company during the past five years. These prices include federal subsidies paid under the terms of the war-time Premium Price Plan.

Year	Lead	Zinc
1942.....	6.50c	8.25c
1943.....	10.86	13.34
1944.....	12.22	13.43
1945.....	12.42	12.18
1946.....	14.58	14.29

Monitor — Ore Reserves

The following figures show the ore reserves at the beginning and the end of each of the past five years, and embrace some six veins which have been productive.

	Tons	Silver	Lead	Zinc
January 1, 1943.....	68,270	1.2 oz.	2.8%	6.8%
December 31, 1943.....	260,160	1.0	2.4	5.7
December 31, 1944.....	233,065	1.0	2.9	6.6
December 31, 1945.....	340,980	1.1	3.2	6.6
December 31, 1946.....	301,043	1.3	3.0	6.3

It is the opinion of the Monitor management that the above ore reserves may be kept relatively intact by the rate at which development is planned in the years to come. Several of the veins embraced in the foregoing estimate have distinct possibilities of producing much additional tonnage upon further exploration.

The cut-off grades used in calculating the Monitor's ore reserves were:

CARLISLE

0.45 Oz. Silver
1.3 % Lead
4.8 % Zinc

AMAZON AND ALL OTHER VEINS

0.5 Oz. Silver
1.8 % Lead
5.2 % Zinc

The metal prices used were:

90c per ounce of Silver
12c per pound of Lead, and
10c per pound of Zinc.

The operating costs used were \$8.35 per ton for all operations. While these are below recent figures, it is expected that a number of factors will serve to lower costs substantially in the future. Chief among these will be the saving in trucking and custom milling which will result from the completion of the rock raise system between the Carlisle and Amazon operations.

Monitor — Economic Geology

The Monitor holdings embrace the major known portions of five separate veins systems: (1) Carlisle-Virginia, (2) Amazon-Manhattan, (3) Ray-Jefferson-Interstate, (4) Nipsic, and (5) Sunset. All but the Carlisle are roughly parallel in attitude, striking North 60-75° West and dipping steeply north or south, and lie from 1,000 to 2,500 feet apart covering a total cross section of about 5,000 feet. The Carlisle-Virginia vein strikes North 15° West and dips 80° westerly, being parallel to a prominent system of transverse faults which are found in the Beaver Creek section of the district. The known lateral extent of commercial mineralization varies between 500 feet at the Carlisle to 5,000 feet of inter-

mittently mineralized veins in the Sunset Vein system. The vertical range explored also varies considerably, between 650 feet at the Carlisle to approximately 2,500 feet at the Interstate-Callahan.

The wall rocks are entirely of the Prichard formation which have been rather gently folded and faulted before being sharply fissured by the present veins. Wall rock alteration is almost totally absent, except for local silicification along certain veins. The vein mineralization consists of a small percentage of quartz and calcite with larger but variable proportions of pyrite, pyrrhotite, magnetite, Sphalerite, and galena. The ore bodies are predominantly zinc ores with lead and silver generally subordinate in value. The iron content is variable but frequently high, so that the ores are usually hard to grind but relatively easy to concentrate.

Future ore possibilities are very difficult to appraise with any assurance, but the Monitor holdings are large and the unexplored potentialities are very considerable.

Monitor — Life

The known life of the Monitor company is now five years, assuming costs, metal prices, and labor supply to remain about as at present. It is expected that exploration work now in progress, or to be started in the near future, will discover enough ore to extend that life materially, and that additional tonnages will eventually be revealed to prolong the operation for a number of years.

Monitor — Other Assets

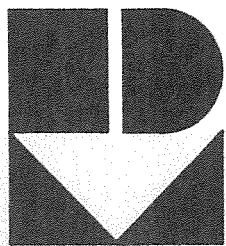
Besides its ore-bodies this company has the following other assets which must be considered in making an evaluation:

- (a) The property of the Monitor Mining Company embraces roughly 3,000 acres of mineral lands northerly of Wallace, Idaho, and embracing the westerly portion of the Sunset Peak District. This ground contains several veins, a number of which are regarded as having very good possibilities. This acreage must be considered as a valuable asset with substantial zinc-lead ore reserves either known or to be developed in the future.
- (b) The company owns the Carlisle mill, an all-flotation concentrator of 200 tons capacity per 24 hours.
- (c) The company has several surface mining plants, as well as boarding houses sufficient for present needs. In addition, the company owns enough mining equipment to operate its properties to capacity.
- (d) It also has a one-fifth interest in the Fern Mining Company, which corporation is fully described in this proxy statement.

King Mining Company

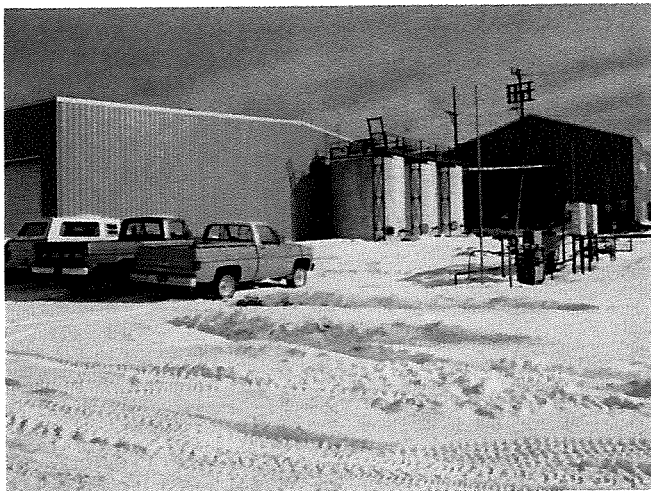
The King Mining Company was organized for the purpose of consolidating a number of contiguous mining properties east of Burke and north of Mullan, Idaho. The best known ones which have been acquired in the last few years include the Marsh, Gertie, Maher-Hearn, Imperial, Sonora, East Hecla, Liquidator, and National Copper. The total holdings of the King company now include 154 patented claims, embracing about 2,108 acres; portions of ten patented claims; 7 unpatented claims; and 160 acres of patented homestead land.

The King property covers a strike-length of approximately five miles, more or less, along the course of the Snowstorm National Fault. The western end of the property lies between the O'Neill and Sawmill Gulch Faults, and the eastern end is marked by the Lucky Calumet property. Included are such old mines as the Marsh, Copper King, and National Copper, all of which had veins and between which is considerable unexplored ground where



**DAY
MINES
INC.**

1977 Annual Report



Leadville Mill



Underground Shop, Sherman Mine

Permian Potash:

Your company has been optimistic about the long term outlook for the potash reserves indicated by drilling on our leased lands. Management has assumed that, when potash prices and market demand improved, development of the property for production could be quickly initiated.

The Department of the Interior, however, is now preparing changes in existing regulations which would discourage companies from maintaining potash leases in preparation for later production. The Department plans to impose royalties which could soon nearly triple and later more than quadruple DMI's cost of maintaining its leases.

Seven Potash Prospecting Permit applications, some of which were originally made in 1971, were finally issued to Day Mines late in 1977. Three more, the last of DMI's applications, will probably be approved early in 1978.

Dayrock Mine:

Venture capital could not be located for the project within the time frame that was considered prudent to maintain the Dayrock in standby condition. In the latter part of the year, the decision was made to close the mine. Salvage operations are now being completed.

DIA Project:

DMI holds a 47.7 percent interest in this project, which is operated by Hecla Mining Company. During 1977, the DIA crosscut advanced 1,041 feet to reach its objective, referred to as the "Y," from which 396 feet of drifting westward along the mineralization was completed. In addition, 1,525

feet of diamond drilling was done from the face of the crosscut, and crosscuts totalling 133 feet in length were driven north and south from the drift.

The DIA crosscut intersected a mineralized zone approximately 3000 feet below the bottom level of the Gold Hunter Mine. About 200 feet of intensely altered rock, mineralized with narrow quartz and siderite stringers containing minor amounts of galena, sphalerite and tetrahedrite, was encountered. Near the north edge of the zone a section of stringers and narrow veins 45 feet wide contains the strongest mineralization. The new occurrence is found in the Wallace formation.

Monitor:

The independent contractor completed mining and milling operations in the Gray Rock portion of the mine early in 1977. Final production of 3,328 tons of ore averaged 0.7 ounces of silver per ton, 1.8 percent lead and 4.2 percent zinc. Following completion of underground work, DMI conducted final closure and surface plant cleanup operations.

Hunter Ranch:

Over a period of several years, mining operations in the Lucky Friday mine have skirted the Hunter Ranch-Lucky Friday property line, and at times, have extended into DMI's Hunter Ranch, between Lucky Friday's 2300 and 2800 levels. More recently, development activity on the 3850, 4050 and 4250 levels has indicated ore in the Hunter Ranch property that is much improved in grade as well as volume. Profit derived from mining the Lucky Friday vein in the Hunter Ranch is split 50-50 under a Development Agreement with Hecla Mining Company.

Property of
HECLA MINING COMPANY
6500 MINERAL DRIVE BOX C-8000
COEUR D'ALENE, ID 83814-1931
(208) 769-4100

PRODUCTION STATISTICS FOR THE COEUR D'ALENE MINING DISTRICT,
SHOSHONE COUNTY, IDAHO -- 1884-1980

Compiled by
Victoria E. Mitchell
Earl H. Bennett

Idaho Geological Survey
University of Idaho
Moscow, Idaho 83843

Technical Report 83-3
May 1983

Table 6. Upper Ninemile Creek and Sunset Peak area production (Middle Prichard deposits).

Map Symbol	Source	Property	Tons Produced	Silver oz	Lead lb	Zinc lb	Copper lb	Gold oz	Silver oz/ton	Lead %	Zinc %	Copper %	Ratio, Silver oz/ton to % Lead	Ratio, % Lead to % Zinc
13	USBM	Interstate/ Callahan 1906-1977 ¹	1,423,619	1,987,651	99,215,270	306,931,724	106,104	259	1.40	3.48	10.78	0.004	0.40	0.32
17	USBM	Amazon (includes Monitor and Parrot) 1912-1977	1,287,907	988,941	51,337,860	13,158,011	2,151,628	983	0.77	1.99	0.51	0.08	0.39	3.90
15	USBM	Sunset Lease (1913-1976)	355,032	578,817	22,909,129	31,213,950	639,752	568	1.63	3.23	4.40	0.09	0.50	0.73
17	USBM	Mountain Goat 1955-1970	344,674	234,065	12,504,600	34,358,100	94,800	160	0.68	1.81	4.98	0.01	0.38	0.36
20	USBM	Rex (includes 16 to 1 and Red Monarch) 1905-1949	154,441	246,095	10,671,876	9,592,070	35,629	100	1.59	3.46	3.11	0.01	0.46	1.11
16	Crosby	Carlisle 1942-1947	78,963	39,481	2,526,816	789,630	--	--	0.50	1.60	0.50	--	0.31	3.20
14	USBM	Silver Tip 1941-1959	30,255	63,972	2,855,484	2,420,711	101,847	59	2.11	4.72	4.00	0.17	0.45	1.18
13	USBM	Tuscumbia 1911-1956	12,632	38,179	1,851,516	16,300	6,214	39	3.02	7.33	0.06	0.02	0.41	122.17
18	Crosby	Nepsic 1943-1947	10,475	8,380	460,900	2,220,700	--	--	0.80	2.20	10.60	--	0.36	0.21
13	USBM	Idora 1907-1949 ²	5,707	19,948	876,941	7,475	540	3	3.50	7.68	0.07	0.005	0.46	109.71
17	USBM	Blue Grouse (1952-1969)	2,747	1,999	119,883	470,992	1,686	7	0.73	2.18	8.57	0.03	0.33	0.25
13	Crosby	Tough Nut (?)	1,448	1,738	75,296	72,400	--	--	1.20	2.60	2.50	--	0.46	1.04
17	Crosby	Ray Jefferson (?)	130	1,404	67,080	4,680	--	--	10.80	25.80	1.80	--	0.42	14.33
TOTALS			3,708,030	4,210,670	205,472,651	401,256,743	3,138,200	2,178	1.14	2.77	5.41	0.04	0.41	0.51

¹ Figures for the Interstate/Callahan mine include dump material² In 1948, lessees removed 2,034 tons of ore (grade unknown) from the Idora mine

USBM Data from the U. S. Bureau of Mines' Western Field Operations Center, Spokane, Washington

-- Data insufficient or unavailable

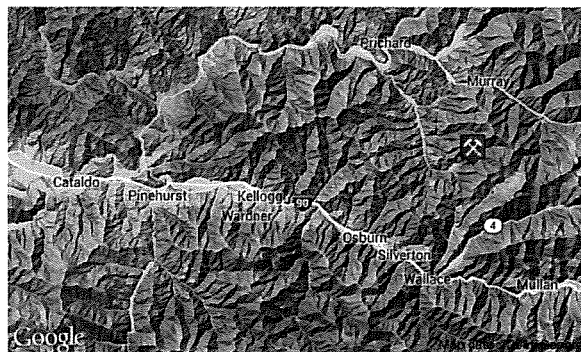
Western Mining History

Home >> Mines >> Idaho Mines >> Shoshone County Mines >> Mine Detail

Carlisle Mine

Location: Shoshone County, Idaho

All mine locations were obtained from the USGS Mineral Resources Data System. The locations and other information in this database have not been verified for accuracy. It should be assumed that all mines are on private property.



View Larger Map

State: Idaho

County: Shoshone

Elevation: 3,310 feet (1,009 meters)

Latitude: 47.56222

Longitude: -115.88111

Primary: Zinc, Lead, Silver

Carlisle Mine MRDS Details

All data originates from the USGS Mineral Resource Data System.

Site Name

Primary: "Carlisle Mine"
Secondary: "Ray Jefferson Mine"

Commodity

Primary: Zinc
Primary: Lead
Primary: Silver

Location

State: Idaho
County: Shoshone
District: Coeur D'Alene District
(Beaver)

Land Status

Land Ownership: Private
Administrative Organization:

Holdings

Workings

Ownership

Owner Name: Day Mines
Company ID:
Percent:
Home Office:
Info Year:
Years: -

Production

Year: < 1967
Time Period: Thru 1967
Mined:
Material type: ORE
Description: Cp_Grade: ^0.5 Oz
Ag/Ton, 1.8 % Pb, 5.1 % Zn

Deposit

Record Type: Site
Operation Category: Past Producer
Deposit Type: Vein
Plant Type:
Plant Subtype:
Operation Type: Unknown
Mining Method:
Milling Method:
Year First Production: 1885
Year Last Production:
Discovery Year:
Discovery Method: Unknown
Years of Production:
Organization:
Significant: N
Deposit Size: S

Physiography

General Physiographic Area: Rocky Mountain System
Physiographic Province: Northern Rocky Mountains
Physiographic Section:
Physiographic Detail: Bitterroot Mountains - Coeur
D'Alene Mountains

Mineral Deposit Model

Orebody

Name:
Form:

[Home](#) [Mines](#) [Mining Towns](#) [Articles](#) [Blog](#)

[Please Consider a Donation](#) [Join Our Mailing List](#)

About The MRDS Mines Database

The Western Mining History database of mines is currently in beta form. The database uses the full USGS Mineral Resources Data System (MRDS) database. More information about this section will be posted soon.

Popular Tags

[View all tags](#)

Historical Commercial Buildings	564
Historical Homes	240
Best of Mining Era Structures	143
Stamp Mills	141
Cemeteries	109
Hotels	107
1906 San Francisco Earthquake	65
Churches	64
Victorian Homes	56
Mining Machinery	44
Panoramas	43
Headframes	37
Western Museum Of Mining And Industry	37
Gold Dredging	31
Railroads	30
Schools	27
Winter Scenes	23
Smelters	22
Commercial Building Interiors	21
Best Historical Photos	8

Find us on Facebook

Western Mining History
Like

Miners Union protest meeting, Rhyolite, Nevada, February 17, 1907.

149 Likes · 2 Comments · 19 Shares

8,942 people like Western Mining History.

Facebook social plugin

Structure

Type: L
 Structure:
 Description: Mineralized Belt Cuts Strike Of Beds In W
 Flank Of Burke Anticline At 90 Deg

Alterations**Rocks**

Name: Quartzite
 Role: Host
 Description:
 Age Type: Host Rock
 Age in Years:
 Dating Method:
 Material Analyzed:
 Age Young: Neoproterozoic
 Age Old:
 Name: Quartzite
 Role: Host
 Description:
 Age Type: Host Rock Unit
 Age in Years:
 Dating Method:
 Material Analyzed:
 Age Young: Neoproterozoic
 Age Old:

Analytical Data**Materials**

Ore: Sphalerite
 Ore: Galena
 Gangue: Pyrite
 Gangue: Pyrrhotite
 Gangue: Ankerite

Comments

Comment Type: **Comment** DEPTHS TO TOP, BOTTOM, EXPRESSED IN ELEVATION. IN THE CARLISLE -
 Deposit HERCULES MINERAL BELT

References

Reference Category: **Reference:** CROSBY, G. M., 1969 , QUARTERLY OF THE COLORADO SCH. MINES, V. 64 , NO.
 Production 1 , P. 173
Pages: **URL:**

Reference Category: **Reference:** FRYKLUND, V. C., JR., 1964 , ORE DEPOSITS OF THE COEUR D'ALENE DISTRICT,
 Deposit SHOSHONE COUNTY, IDAHO: USGS PROF. PAPER 445 , 103 P.
Pages: **URL:**

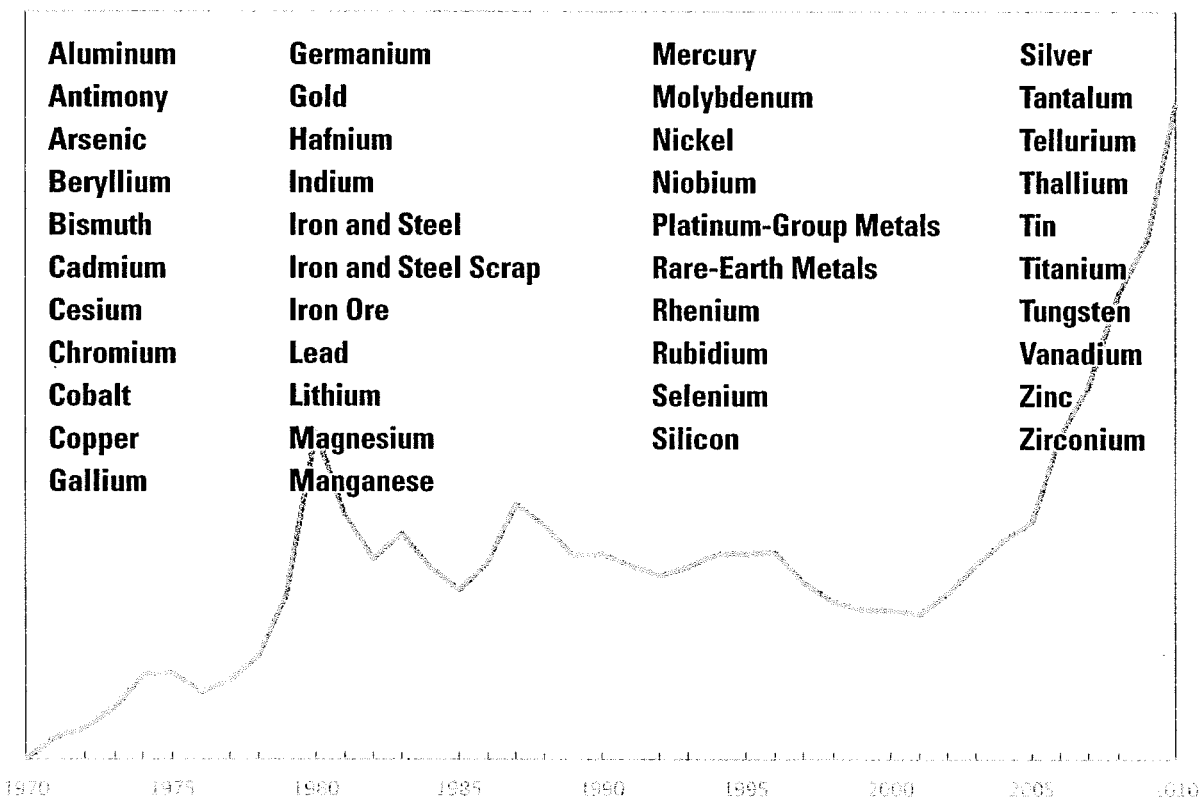
Reference Category: **Reference:** GRIGGS, A. B., 1952 , GEOLOGY AND NOTES ON ORE DEPOSITS IN CANYON -
 Deposit NINE MILE CREEKS AREA, SHOSHONE COUNTY, IDAHO: USGS OPEN-FILE REPT., 108 P.
Pages: **URL:**

Reference Category: **Reference:** USGS PROF PAPER 478
 Deposit **URL:**
Pages:

Reference Category: **Reference:** 1952 GEOLMAP A. B. GRIGGS, OPEN-FILE REPT.
 Deposit **URL:**
Pages:

Reference Category: **Reference:** 1964 OTHER V. C. FRYKLUND, PROF. PAPER 445
 Deposit **URL:**
Pages:

Metal Prices in the United States Through 2010



Scientific Investigations Report 2012–5188

Metal Prices in the United States Through 2010

By U.S. Geological Survey National Minerals Information Center staff

Scientific Investigations Report 2012–5188

U.S. Department of the Interior
U.S. Geological Survey

U.S. Department of the Interior
KEN SALAZAR, Secretary

U.S. Geological Survey
Marcia K. McNutt, Director

U.S. Geological Survey, Reston, Virginia: 2013

For more information on the USGS—the Federal source for science about the Earth, its natural and living resources, natural hazards, and the environment, visit <http://www.usgs.gov> or call 1-888-ASK-USGS.

For an overview of USGS information products, including maps, imagery, and publications, visit <http://www.usgs.gov/pubprod>

To order this and other USGS information products, visit <http://store.usgs.gov>

Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Although this information product, for the most part, is in the public domain, it also may contain copyrighted materials as noted in the text. Permission to reproduce copyrighted items must be secured from the copyright owner.

Suggested citation:

U.S. Geological Survey, 2013, Metal prices in the United States through 2010: U.S. Geological Survey Scientific Investigations Report 2012-5188, 204 p., available only at <http://pubs.usgs.gov/sir/2012/5188>.

50 Metal Prices in the United States Through 2010

Table 1. Annual average U.S. producer copper price.

[Values in cents per pound]

Year	Price	Year	Price	Year	Price	Year	Price
1850	22.00	1891	12.80	1932	5.79	1973	59.49
1851	17.00	1892	11.60	1933	7.28	1974	77.27
1852	22.00	1893	10.80	1934	8.66	1975	64.16
1853	22.00	1894	9.50	1935	8.88	1976	69.59
1854	22.00	1895	10.70	1936	9.71	1977	66.77
1855	27.00	1896	10.80	1937	13.39	1978	65.81
1856	27.00	1897	11.29	1938	10.22	1979	92.19
1857	25.00	1898	12.03	1939	11.20	1980	101.31
1858	23.00	1899	16.70	1940	11.53	1981	84.21
1859	22.00	1900	16.19	1941	12.00	1982	72.80
1860	23.00	1901	16.10	1942	12.00	1983	76.53
1861	22.00	1902	11.63	1943	12.00	1984	66.85
1862	22.00	1903	13.20	1944	12.00	1985	66.97
1863	34.00	1904	12.80	1945	12.00	1986	66.05
1864	47.00	1905	15.60	1946	14.04	1987	82.50
1865	39.20	1906	19.30	1947	21.27	1988	120.51
1866	34.20	1907	20.00	1948	22.32	1989	130.95
1867	25.40	1908	13.20	1949	19.50	1990	123.16
1868	23.00	1909	13.11	1950	21.58	1991	109.33
1869	24.20	1910	12.88	1951	24.50	1992	107.42
1870	21.20	1911	12.55	1952	24.50	1993	91.56
1871	24.10	1912	16.48	1953	29.05	1994	111.05
1872	35.60	1913	15.52	1954	29.94	1995	138.33
1873	28.00	1914	13.31	1955	37.51	1996	109.04
1874	22.00	1915	17.47	1956	42.00	1997	106.92
1875	22.70	1916	28.46	1957	30.17	1998	78.64
1876	21.00	1917	29.19	1958	26.31	1999	75.91
1877	19.00	1918	24.68	1959	30.99	2000	88.16
1878	16.60	1919	18.19	1960	32.34	2001	76.85
1879	18.60	1920	17.50	1961	30.32	2002	75.80
1880	21.40	1921	12.65	1962	31.00	2003	85.01
1881	19.20	1922	13.56	1963	31.00	2004	134.20
1882	19.10	1923	14.75	1964	32.35	2005	173.57
1883	16.50	1924	13.28	1965	35.36	2006	314.75
1884	13.00	1925	14.30	1966	36.00	2007	328.00
1885	10.80	1926	14.05	1967	38.10	2008	319.16
1886	11.10	1927	13.05	1968	41.17	2009	241.38
1887	13.80	1928	14.81	1969	47.43	2010	348.34
1888	16.80	1929	18.35	1970	58.07		
1889	13.50	1930	13.23	1971	52.09		
1890	15.60	1931	8.37	1972	51.44		

Notes:

1850–96, New York price for Lake copper (99.9-percent-pure copper), *in* Loughlin, G.F., Prefatory note on the report on gold, silver, copper, lead, and zinc, Mineral Resources of the United States 1922, Part I, U.S. Geological Survey, 1925, p. 127a.

1897–98, New York price for Lake copper (99.9-percent-pure copper), *in* Engineering and Mining Journal.

1899–1908, Electrolytic (99.9-percent-pure copper) refinery price in New York, *in* Engineering and Mining Journal.

1909–22, Electrolytic (99.9-percent-pure copper) domestic f.o.b. refinery, *in* American Metal Market.

1923–72, Electrolytic (99.9-percent-pure copper) domestic delivered to Connecticut price, *in* American Metal Market.

1973–77, U.S. producer electrolytic (99.9-percent-pure copper) wirebar, *in* Metals Week.

1978–92, U.S. producer cathode (99.99-percent-pure copper), *in* Metals Week.

1993–2010, U.S. producer cathode (99.99-percent-pure copper), *in* Platts (Platt's) Metals Week.

84 Metal Prices in the United States Through 2010

Table 1. Annual average lead price.

[Values in dollars per pound]

Year	Price	Year	Price	Year	Price	Year	Price
1909	0.043	1935	0.041	1961	0.109	1987	0.359
1910	0.044	1936	0.047	1962	0.096	1988	0.371
1911	0.044	1937	0.060	1963	0.111	1989	0.394
1912	0.045	1938	0.047	1964	0.136	1990	0.460
1913	0.044	1939	0.051	1965	0.160	1991	0.335
1914	0.039	1940	0.052	1966	0.151	1992	0.351
1915	0.047	1941	0.058	1967	0.140	1993	0.317
1916	0.069	1942	0.065	1968	0.132	1994	0.372
1917	0.088	1943	0.065	1969	0.149	1995	0.423
1918	0.074	1944	0.065	1970	0.157	1996	0.488
1919	0.058	1945	0.065	1971	0.139	1997	0.465
1920	0.080	1946	0.081	1972	0.150	1998	0.453
1921	0.045	1947	0.147	1973	0.163	1999	0.437
1922	0.057	1948	0.180	1974	0.225	2000	0.436
1923	0.073	1949	0.154	1975	0.215	2001	0.436
1924	0.081	1950	0.133	1976	0.231	2002	0.436
1925	0.090	1951	0.175	1977	0.307	2003	0.438
1926	0.084	1952	0.165	1978	0.337	2004	0.551
1927	0.068	1953	0.135	1979	0.526	2005	0.61
1928	0.063	1954	0.141	1980	0.425	2006	0.774
1929	0.068	1955	0.151	1981	0.365	2007	1.240
1930	0.055	1956	0.160	1982	0.255	2008	1.200
1931	0.042	1957	0.147	1983	0.217	2009	0.869
1932	0.032	1958	0.121	1984	0.256	2010	1.090
1933	0.039	1959	0.122	1985	0.191		
1934	0.039	1960	0.119	1986	0.221		

Notes:

1909–36, Primary producer price, New York (common lead, 99.94-percent pure), *in* Engineering and Mining Journal.

1937–66, Primary producer price, New York (common lead, 99.94-percent pure), *in* Engineering and Mining Journal, Metal and Mineral Markets.

1967–70, Primary producer price, New York (common lead, 99.94-percent pure), *in* Metals Week.

1971–85, Primary producer price, delivered (minimum 99.97-percent pure), *in* Metals Week.

1986–93, North American producer price, delivered (minimum 99.97-percent pure), *in* Metals Week.

1994–2010, North American producer price, delivered (minimum 99.97-percent pure), *in* Platts (Platt's) Metals Week.

Significant events affecting U.S. gold prices since 1970

1971	President suspended convertibility of dollar into gold; dollar devalued by 7.9 percent
1972	Official U.S. gold price increased to \$38 per troy ounce
1973	Official U.S. gold price increased to \$42.22 per troy ounce, dollar devalued, two-tier gold price terminated, Organization of Petroleum Exporting Countries (OPEC) oil embargo begins
1974	U.S. citizens allowed to hold gold bullion and coins for the first time in 40 years
1975	U.S. Treasury began public sales of gold stocks
1976	International Monetary Fund (IMF) began 5-year gold sales program; IMF auctions and lower inflation outlook drove gold prices down
1977	Hiatus in U.S. Treasury gold sales
1978	U.S. Treasury resumed selling gold; Middle Eastern investors increased gold purchases
1979	Soviet Union invaded Afghanistan; political upheaval in Iran; taking of U.S. hostages
1980	Gold price peaked at an historic daily high of \$850 per troy ounce on January 21; IMF completes 5-year gold sales program
1982–88	Fluctuating world currency exchange rates, increasing concern about U.S. trade and budget deficits and banking problems, and Third World debt
1989–91	Conflict in the Persian Gulf and the breakup of the Soviet Union; erosion of gold's role as a safe haven for investors; generally weak economic growth worldwide
1992–96	Gold price remained relatively stable
1997–2001	Central banks of several countries sold large shares of gold holdings to meet common-currency criteria for European Union or to demonetize; bank failures or insolvencies in East and Southeast Asian countries
2001	September 11 terrorist attacks
2002–10	Prices surged because of increase in investment in gold stemming from political and economic concerns

Table 1. Annual average gold price.

[Values in dollars per troy ounce]

Year	Price	Year	Price	Year	Price	Year	Price
1968	40.06	1979	307.50	1990	384.93	2001	272.22
1969	41.51	1980	612.56	1991	363.29	2002	311.33
1970	36.41	1981	459.64	1992	344.97	2003	364.80
1971	41.25	1982	375.91	1993	360.91	2004	410.52
1972	58.60	1983	424.00	1994	385.41	2005	446.20
1973	97.81	1984	360.66	1995	385.50	2006	605.83
1974	159.74	1985	317.66	1996	389.08	2007	698.95
1975	161.49	1986	368.24	1997	332.38	2008	873.50
1976	125.32	1987	477.95	1998	295.24	2009	974.68
1977	148.31	1988	438.31	1999	279.91	2010	1,227.51
1978	193.55	1989	382.58	2000	280.10		

Notes:1968–93, Englehard domestic market price, 99.95-percent-pure gold, *in* Metals Week.1994–2010, Englehard domestic market price, 99.95-percent-pure gold, *in* Platts (Platt's) Metals Week.

Significant events affecting silver prices since 1970

1979–80	Individual investors attempted to corner the silver market
1985	U.S. Mint authorized to begin minting a silver bullion coin
1982–97	U.S. Government disposed of silver in the National Defense Stockpile, using it for production of commemorative coins
1998	Price increased in the first quarter of 1998 following disclosure that an investment firm had accumulated approximately 4,000 metric tons (t) of silver
2006	Highest average price since 1983 owing to investment interest in newly established silver exchange-traded fund (ETF)
1999–2010	Price increased mainly because of investment demand and increased industrial use

Table 1. Annual average silver price.

[Values in dollars per troy ounce]

Year	Price	Year	Price	Year	Price	Year	Price
1900	0.62	1928	0.58	1956	0.91	1984	8.14
1901	0.60	1929	0.53	1957	0.91	1985	6.14
1902	0.53	1930	0.38	1958	0.89	1986	5.47
1903	0.54	1931	0.29	1959	0.91	1987	7.01
1904	0.58	1932	0.28	1960	0.91	1988	6.53
1905	0.61	1933	0.35	1961	0.92	1989	5.50
1906	0.67	1934	0.48	1962	1.09	1990	4.82
1907	0.66	1935	0.64	1963	1.28	1991	4.04
1908	0.53	1936	0.45	1964	1.29	1992	3.94
1909	0.52	1937	0.45	1965	1.29	1993	4.30
1910	0.54	1938	0.43	1966	1.29	1994	5.29
1911	0.54	1939	0.39	1967	1.55	1995	5.15
1912	0.62	1940	0.35	1968	2.14	1996	5.19
1913	0.61	1941	0.35	1969	1.79	1997	4.89
1914	0.56	1942	0.38	1970	1.77	1998	5.54
1915	0.51	1943	0.45	1971	1.55	1999	5.25
1916	0.67	1944	0.45	1972	1.68	2000	5.00
1917	0.84	1945	0.52	1973	2.56	2001	4.39
1918	0.98	1946	0.80	1974	4.71	2002	4.62
1919	1.12	1947	0.72	1975	4.42	2003	4.91
1920	1.02	1948	0.74	1976	4.35	2004	6.69
1921	0.63	1949	0.72	1977	4.62	2005	7.34
1922	0.68	1950	0.74	1978	5.40	2006	11.57
1923	0.65	1951	0.89	1979	11.09	2007	13.41
1924	0.67	1952	0.85	1980	20.63	2008	15.00
1925	0.69	1953	0.85	1981	10.52	2009	14.69
1926	0.62	1954	0.85	1982	7.95	2010	20.20
1927	0.57	1955	0.89	1983	11.44		

Notes:

1900–74, New York price of 99.9-percent-pure silver, *in* Silver, U.S. Bureau of Mines Minerals Yearbook 1974.1974–93, New York price of 99.9-percent-pure silver, *in* Metals Week.1993–2010, New York price of 99.9-percent-pure silver, *in* Platts (Platt's) Metals Week.

Table 1. Annual average zinc price.

[Values in dollars per pound]

Year	Price	Year	Price	Year	Price	Year	Price
1875	0.070	1909	0.054	1943	0.083	1977	0.344
1876	0.072	1910	0.054	1944	0.083	1978	0.310
1877	0.060	1911	0.056	1945	0.083	1979	0.373
1878	0.049	1912	0.068	1946	0.087	1980	0.374
1879	0.052	1913	0.055	1947	0.105	1981	0.446
1880	0.055	1914	0.051	1948	0.136	1982	0.385
1881	0.052	1915	0.142	1949	0.122	1983	0.414
1882	0.053	1916	0.136	1950	0.139	1984	0.486
1883	0.045	1917	0.089	1951	0.180	1985	0.404
1884	0.044	1918	0.080	1952	0.162	1986	0.380
1885	0.043	1919	0.070	1953	0.109	1987	0.419
1886	0.044	1920	0.078	1954	0.107	1988	0.602
1887	0.046	1921	0.047	1955	0.123	1989	0.820
1888	0.049	1922	0.057	1956	0.135	1990	0.746
1889	0.050	1923	0.066	1957	0.114	1991	0.528
1890	0.055	1924	0.063	1958	0.103	1992	0.584
1891	0.050	1925	0.076	1959	0.115	1993	0.462
1892	0.046	1926	0.073	1960	0.130	1994	0.493
1893	0.040	1927	0.062	1961	0.116	1995	0.534
1894	0.035	1928	0.060	1962	0.116	1996	0.511
1895	0.036	1929	0.065	1963	0.120	1997	0.646
1896	0.039	1930	0.046	1964	0.136	1998	0.514
1897	0.041	1931	0.036	1965	0.145	1999	0.535
1898	0.046	1932	0.029	1966	0.145	2000	0.556
1899	0.058	1933	0.040	1967	0.139	2001	0.440
1900	0.044	1934	0.042	1968	0.135	2002	0.386
1901	0.041	1935	0.043	1969	0.147	2003	0.406
1902	0.048	1936	0.049	1970	0.153	2004	0.525
1903	0.054	1937	0.065	1971	0.161	2005	0.671
1904	0.051	1938	0.046	1972	0.178	2006	1.589
1905	0.059	1939	0.051	1973	0.207	2007	1.544
1906	0.061	1940	0.063	1974	0.360	2008	0.889
1907	0.058	1941	0.075	1975	0.390	2009	0.779
1908	0.046	1942	0.083	1976	0.370	2010	1.020

Notes:

1875–1904, New York price for Prime Western zinc (98-percent-pure), *in* Ingalls, W.R., *Lead and Zinc in the United States*, McGraw-Hill, N.Y., 1980, p. 342.1905–70, St. Louis/East St. Louis producer price for Prime Western zinc, *in* American Metal Market/Metal Statistics.1971–79, U.S. Dealers Prime Western delivered price, *in* Metals Week.1980–93, U.S. Dealers High Grade zinc (99.9-percent-pure) delivered price, *in* Metals Week.1994–98, U.S. Dealers Special High Grade zinc (99.99-percent-pure) delivered price, *in* Platt's Metals Week.1999–2010, North American Special High Grade zinc (99.995-percent-pure) delivered price, *in* Platts Metals Week.



October 20, 2014

U.S. Environmental Protection Agency
Office of Water, Water Permits Division
Mail Code 4203M, ATTN: MSGP Reports
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

RE: Annual Reporting Form – Hecla Limited Inactive and Unstaffed Site – Carlisle

To Whom It May Concern:

Please find enclosed the Annual Reporting Form for Hecla Limited's inactive and unstaffed site Carlisle.

If there are any omissions, errors, or concerns related to this submittal please do not hesitate to contact Judy Cloos, using any of the following:

Attn: Judy Cloos
Hecla Limited
Lucky Friday Mine
P.O. Box 31
Mullan, ID 83846
208-744-1751 X 2241
jcloos@hecla-mining.com

Thank you.

Best Regards,

A handwritten signature in black ink, appearing to read "P. Glader", is written over the "Best Regards," text.

Paul Glader
Environmental Director

Cc: File
Judy Cloos
Encls.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

Annual Reporting Form

A. GENERAL INFORMATION

1. Facility Name: HECLA LIMITED CARLISLE

2. NPDES Permit Tracking No.: IDR05C446

3. Facility Physical Address:

a. Street: BEAVER CREEK ROAD

b. City: WALLACE

c. State: ID

d. Zip Code: 83873

4. Lead Inspectors Name: JUDY CLOOS

Title: SR ENVIRONMENTAL TECH

Additional Inspectors Name(s): KENNETH CLOOS

SEASONAL EMPLOYEE

5. Contact Person: JUDY CLOOS

Title: SR ENVIRONMENTAL TECH

Phone: 208 - 744 - 1751 Ext. 2241 E-mail: jcloos@hecla-mining.com

6. Inspection Date: 08 / 26 / 2014

B. GENERAL INSPECTION FINDINGS

1. As part of this comprehensive site inspection, did you inspect all potential pollutant sources, including areas where industrial activity may be exposed to stormwater?

☒ YES ☐ NO

If NO, describe why not:

NOTE: Complete Section C of this form for each industrial activity area inspected and included in your SWPPP or as newly identified in B.2 or B.3 below where pollutants may be exposed to stormwater.

2. Did this inspection identify any stormwater or non-stormwater outfalls not previously identified in your SWPPP? ☐ YES ☒ NO

If YES, for each location, describe the sources of those stormwater and non-stormwater discharges and any associated control measures in place:

3. Did this inspection identify any sources of stormwater or non-stormwater discharges not previously identified in your SWPPP? ☐ YES ☒ NO

If YES, describe these sources of stormwater or non-stormwater pollutants expected to be present in these discharges, and any control measures in place:

4. Did you review stormwater monitoring data as part of this inspection to identify potential pollutant hot spots? ☐ YES ☐ NO ☒ NA, no monitoring performed

If YES, summarize the findings of that review and describe any additional inspection activities resulting from this review:

5. Describe any evidence of pollutants entering the drainage system or discharging to surface waters, and the condition of and around outfalls, including flow dissipation measures to prevent scouring:

There are no industrial materials or activities exposed to storm water at the Carlisle and associated sites. Based on past site visits, there are no indications of significant storm water runoff from these sites into either Beaver Creek, Carbon Creek or associated tributaries.

6. Have you taken or do you plan to take any corrective actions, as specified in Part 3 of the permit, since your last annual report submission (or since you received authorization to discharge under this permit if this is your first annual report), including any corrective actions identified as a result of this annual comprehensive site inspection?

☐ YES ☒ NO

If YES, how many conditions requiring review for correction action as specified in Parts 3.1 and 3.2 were addressed by these corrective actions?

11

NOTE: Complete the attached Corrective Action Form (Section D) for each condition identified, including any conditions identified as a result of this comprehensive stormwater inspection.

C. INDUSTRIAL ACTIVITY AREA SPECIFIC FINDINGS

Complete one block for each industrial activity area where pollutants may be exposed to stormwater. Copy this page for additional industrial activity areas.

In reviewing each area, you should consider:

- Industrial materials, residue, or trash that may have or could come into contact with stormwater;
- Leaks or spills from industrial equipment, drums, tanks, and other containers;
- Offsite tracking of industrial or waste materials from areas of no exposure to exposed areas; and
- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas.

INDUSTRIAL ACTIVITY AREA 1:

1. Brief Description:

Carlisle Mine and associated sites.

2. Are any control measures in need of maintenance or repair? ☐ YES ☒ NO

3. Have any control measures failed and require replacement? ☐ YES ☒ NO

4. Are any additional/revised control measures necessary in this area? ☐ YES ☒ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised c necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO

3. Have any control measures failed and require replacement? ☐ YES ☐ NO

4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

NOTE: Copy this page and attach additional pages as necessary

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO3. Have any control measures failed and require replacement? ☐ YES ☐ NO4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO3. Have any control measures failed and require replacement? ☐ YES ☐ NO4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

INDUSTRIAL ACTIVITY AREA _____:

1. Brief Description:

2. Are any control measures in need of maintenance or repair? ☐ YES ☐ NO3. Have any control measures failed and require replacement? ☐ YES ☐ NO4. Are any additional/revised BMPs necessary in this area? ☐ YES ☐ NO

If YES to any of these three questions, provide a description of the problem: (Any necessary corrective actions should be described on the attached Corrective Action Form)

D. CORRECTIVE ACTIONS

Complete this page for each specific condition requiring a corrective action or a review determining that no corrective action is needed. Copy this page for additional corrective actions or reviews.

Include both corrective actions that have been initiated or completed since the last annual report, and future corrective actions needed to address problems identified in this comprehensive stormwater inspection. Include an update on any outstanding corrective actions that had not been completed at the time of your previous annual report.

1. Corrective Action # of for this reporting period.

2. Is this corrective action:

- ☐ An update on a corrective action from a previous annual report; or
☐ A new corrective action?

3. Identify the condition(s) triggering the need for this review:

- ☐ Unauthorized release or discharge
☐ Numeric effluent limitation exceedance
☐ Control measures inadequate to meet applicable water quality standards
☐ Control measures inadequate to meet non-numeric effluent limitations
☐ Control measures not properly operated or maintained
☐ Change in facility operations necessitated change in control measures
☐ Average benchmark value exceedance
☐ Other (describe): _____

4. Briefly describe the nature of the problem identified:

5. Date problem identified: / /

6. How problem was identified:

- ☐ Comprehensive site inspection
☐ Quarterly visual assessment
☐ Routine facility inspection
☐ Benchmark monitoring
☐ Notification by EPA or State or local authorities
☐ Other (describe): _____

7. Description of corrective action(s) taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, analyses to be conducted, etc.) or if no modifications are needed, basis for that determination:

8. Did/will this corrective action require modification of your SWPPP? ☐ YES ☐ NO

9. Date corrective action initiated: / /

10. Date correction action completed: / / or expected to be completed: / /

11. If corrective action not yet completed, provide the status of corrective action at the time of the comprehensive site inspection and describe any remaining steps (including timeframes associated with each step) necessary to complete corrective action:

E. ANNUAL REPORT CERTIFICATION**1. Compliance Certification**

Do you certify that your annual inspection has met the requirements of Part 4.2 of the permit, and that, based upon the results of this inspection, to the best of your knowledge, you are in compliance with the permit? ☒ YES ☐ NO

If NO, summarize why you are not in compliance with the permit:

2. Annual Report Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

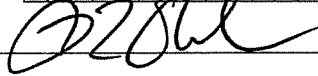
Authorized Representative
Printed Name:

PAUL GLADIER

Title:

ENV DIRECTOR

Signature: _____



Date Signed: _____

10/20/14

Comprehensive Site Inspection 2014

Comprehensive Site Inspection Procedures

Annual comprehensive site inspections will occur during coverage under this permit. Annual means once during each of the following inspection periods beginning with the period authorized to discharge under this permit:

Year 1:	September 29, 2008 – September 29, 2009
Year 2:	September 29, 2009 – September 29, 2010
Year 3:	September 29, 2010 – September 29, 2011
Year 4:	September 29, 2011 – September 29, 2012
Year 5:	September 29, 2012 – September 29, 2013

For “Year 1”, a comprehensive site inspection for an inspection period is waived if authorization to discharge is less than three months before the end of that inspection period.

Should coverage be administratively continued after the expiration date of MSGP 2008, inspections will continue to be performed annually until coverage under MSGP 2008 is no longer necessary.

Comprehensive site inspections will be conducted by qualified personnel with at least one member of the stormwater pollution prevention team participating in the comprehensive site inspections.

Comprehensive site inspections must cover all areas of the facility affected by the requirements in this permit, including the areas identified in the SWPPP as potential pollutant sources (see Part 5.1.3) where industrial materials or activities are exposed to stormwater, any areas where control measures are used to comply with the effluent limits in Part 2, and areas where spills and leaks have occurred in the past 3 years. The inspections must also include a review of monitoring data collected in accordance with Part 6.2. Inspectors must consider the results of the past year’s visual and analytical monitoring when planning and conducting inspections. Inspectors must examine the following:

- Industrial materials, residue, or trash that may have or could come into contact with stormwater;

Were all site areas examined? Y / N

- Leaks or spills from industrial equipment, drums, tanks, and other containers;

Were all site areas examined? Y / N

- Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site;

Were all site areas examined? Y / N

- Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas;

Were all site areas examined? Y / N

- Control measures needing replacement, maintenance, or repair.

Were all site areas examined? Y / N

Describe any control measures needing replacement, maintenance, or repair:

No additional control measures were needed at this time..

Stormwater control measures required by this permit must be observed to ensure that they are functioning correctly. If discharge locations are inaccessible, nearby downstream locations must be inspected.

Were all control measures observed? Y / N

Are all stormwater control measures functioning correctly? Y / N

If the answer above is “No”, describe the specific site and situation:

Comprehensive Site Inspection Documentation

Document the findings of each comprehensive site inspection and maintain this documentation onsite with the SWPPP as required in Part 5.4. In addition, submit this documentation in an annual report as required in Part 7.2. At a minimum, documentation of the comprehensive site inspection must include (see the Annual Reporting Form included as Appendix I):

The date(s) of the inspection; 07/17-08/26/2014

The name(s) and title(s) of the personnel making the inspection;

Judy Cloos - Senior Environmental Technician
(name and title)

Kenneth Cloos – Seasonal Employee
(name and title)

Dustin Howell – Seasonal Employee
(name and title)

Findings from the examination of areas of your facility affected by the requirements of MSGP 2008:

All observations relating to the implementation of your control measures including:

previously unidentified discharges from the site? Y / N

previously unidentified pollutants in existing discharges? Y / N

evidence of, or the potential for, pollutants entering the drainage system? Y / N

evidence of pollutants discharging to receiving waters at all facility outfall(s), and the condition of and around the outfall, including flow dissipation measures to prevent scouring? Y / N, and

additional control measures needed to address any conditions requiring corrective action identified during the inspection? Y / N

For any items answered “Yes” above, describe the specific site location and circumstances below:

Any required revisions to the SWPPP resulting from the inspection? Y / N

If “Yes”, describe:

Any corrective action required as a result of the comprehensive site inspection must be performed consistent with Part 3 of this permit.

Do you certify that this annual comprehensive site inspection met the requirements of MSGP 2008 Part 4.3 and that based upon the results of this inspection, to the best of your knowledge, you are in compliance with 2008? Yes X No _____

If “No”, summarize why you are not in compliance with the permit:

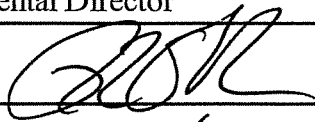
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information contained is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Paul Glader –Environmental Director

(name & title – printed)

(signature)

(date)


10/20/14

STORM WATER POLLUTION PREVENTION PLAN

STAR- MORNING FACILITY -- MSGP 2008 PERMIT #IDR05A401

Contents of Your SWPPP (Part 5.1)

For coverage under this permit, your SWPPP must contain all of the following elements:

- Stormwater pollution prevention team (see Part 5.1.1);
- Site description (see Part 5.1.2);
- Summary of potential pollutant sources (see Part 5.1.3);
- Description of control measures (see Part 5.1.4);
- Schedules and procedures (see Part 5.1.5);
- Documentation to support eligibility considerations under other federal laws (see Part 5.1.6); and
- Signature requirements (see Part 5.1.7).

Where your SWPPP refers to procedures in other facility documents, such as a Spill Prevention, Control and Countermeasure (SPCC) Plan or an Environmental Management System (EMS) developed for a National Environmental Performance Track facility, copies of the relevant portions of those documents must be kept with our SWPPP.

Stormwater Pollution Prevention Team (Part 5.1.1)

“You must identify the staff members (by name or title) that comprise the facility’s stormwater pollution prevention team as well as their individual responsibilities. Your stormwater pollution prevention team is responsible for assisting the facility manager in developing and revising the facility’s SWPPP as well as maintaining control measures and taking corrective actions where required. Each member of the stormwater pollution prevention team must have ready access to either an electronic or paper copy of the applicable portions of this permit and your SWPPP.”

The pollution prevention team includes Judy Cloos, Ken Cloos and Dustin Howell, who will manage all SWPPP issues.

Site Description (Part 5.1.2)

- **Activities at the Facility**

Provide a description of the nature of the industrial activities at your facility.

8. G.6.1 Nature of Industrial Activities

Briefly document in your SWPPP the mining and associated activities that can potentially affect the stormwater discharges covered by this permit, including a general description of the location of the site relative to major transportation routes and communities.

The Star Morning Facility includes historic disturbances associated with underground mining and surface milling facilities. The Hecla Mine operated from the late 1800's until the late 1940's. The Star facility was operated initially under a contract arrangement beginning in the 1920's; the Morning facilities were historically operated by Federal/ASARCO and subsequently leased, then purchased, by Hecla in the 1960's. Hecla ceased mining and milling activities at this site in 1982. The property was leased to Star/Phoenix Mining Company in 1989. Star/Phoenix ceased operation in November 1990. The Star Mine area of the Facility was active and staffed from June 2011 to June 2013 during underground exploration activities. The underground exploration activities ended in June 2013 and this Facility will no longer be routinely staffed.

Development rock associated with the underground exploration activities was trucked to Star Pond 5, a historically disturbed area (closed per the requirements of the Idaho Department of Water Resources (IDWR) rules for Mine Tailings Impound Structures (MTIS) that had been used during historic Star operations for storage of tailings. The development rock was placed over an approximately one acre area on the closed pond surface.

Work also took place at the Grouse 700 portal to establish a secondary escapeway for the underground exploration project. The Grouse 700 portal is located at an elevation of 5,130 (see Figure 4). There are no buildings at this location. The site provided access to the underground workings for repair and rehabilitation work only and is now closed.

This Facility area is part of Operable Unit 3 of the Bunker Hill Mining and Metallurgical Complex superfund site, specifically addressed by the Consent Decree (CD) for Operable Unit 3.

The nearest community to the Star side of the facility is the small community of Burke. The nearest community to the Morning side of the facility is the town of Mullan. Mullan sits adjacent to Interstate 90 and Burke is located north of Interstate 90 on the Burke Canyon road (old State Highway 4). (See attached general location map)

- General location map

Provide a general location map (e.g. U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of your facility and all receiving waters for your stormwater discharges.

See attached general location map (Figure 1), and both the Star Mine 2000 Portal Site Map (Figure 2), Star Pond 5 Site Map (Figure 3), and Grouse 700 Portal (Figure 4).

- Site map

Provide a map showing:

>the size of the property in acres;

The Star Mine area is approximately 4 surface acres, as indicated on the site maps. The mining area itself is fairly expansive, including numerous historic shafts, adits, and exploration developments. The acreage is assumed to be the surface area disturbance related to past mining activities. Surface land ownership overlaying the underground mining operations is predominantly owned by other entities, primarily timber companies. The disturbed acreage including the access roads was determined during the inspections of these properties under the MSGP and is as follows: Hecla #1-1.5, Hecla #2-1.5, Hecla tramway-1.4, Marsh-2.38, O'Neill Rock dump-2.54, tailing ponds-58.35, Omaha-1.0, Burke mine/mill site-9.37, Russell #1-#2- 0.22, Duluth-0.2, Joe Matt-0.68, Midway Summit-0.32, Hecla 700 level-0.34, Hecla 1000 level-0.3, Hecla 1200 level-6.75, Morning #1-0.2, Morning #2-1.5, Morning #3-1.31, Morning #4-0.99, Morning #5-4.55, Grouse Claims-0.1, You Like- 1.12, We Like-0.53, Fanny Gremm-1.3, Iron Crown-0.2, Star Discovery Cut-0.3, Lucretia- 0.1. The total acreage is 99.05 acres.

>the location and extent of significant structures and impervious surfaces;

Impervious areas represent nearly half the site area, as indicated on Figures 2 & 3.

>directions of stormwater flows (use arrows);

See attached site maps. Flow arrows will be refined as necessary as stormwater runoff is observed.

>locations of all existing structural control measures;

Water diversions, including a liner and riprap, have been constructed at the Star 1200 level. The development rock at this location has been terraced and BMPs have been placed along the toe of this area. Some seeding has also occurred. Improvements have been made to the access road to the Star 700 level including culverts and re-grading. The Morning #1 and #4 have logging roads running through the dumps. Morning #5 area has a new logging road above the portal and the logging company agreed to culvert the water through the dump and riprap Mill Creek near the road. Natural vegetation also provides a vegetative filter at some locations.

>locations of all receiving waters in the immediate vicinity of your facility, indicating if any of the waters are impaired and, if so, whether the waters have TMDLs established for them;

The receiving water bodies of storm water runoff from the Star-Morning facility sites include: O'Neill Gulch Creek, Canyon Creek, Grouse Gulch Creek, & Mill Creek. (See topographic map attached.)

Canyon Creek (from and including Gorge Gulch to mouth) is "impaired" by sediment and has an EPA-approved sediment TMDL. Canyon Creek is also "impaired" for metals (dissolved lead, dissolved zinc, and dissolved cadmium). EPA has approved a TMDL but DEQ needs to finalize via APA process. Do to the uncertainty; monitoring will occur as if there is no EPA-approved TMDL, although this may not be necessary. The Record of Decision (ROD) for Operable Unit 3 may serve as the functional equivalent of a TMDL as virtually all remediation is driven by water quality.

Canyon Creek is completely enclosed within a concrete structure for approximately 1,300 feet, beginning near the entrance to the Star Mine 2000 Portal Area site and continuing approximately 200 feet past the east limit of this area (see attached site map). Surface runoff from this area cannot reach Canyon Creek where the creek is completely enclosed. Surface runoff from the Star Pond 5 area is contained and infiltrated in a grassy swale and does not flow overland into Canyon Creek. Surface runoff from the Grouse 700 Portal area is controlled with berms, sediment traps, and straw wattles.

>locations of all stormwater conveyances including ditches, pipes, and swales;

See attached site maps.

>locations of potential pollutant sources identified under Part 5.1.3.2;

It is not evident that significant amounts of pollutants originate from the Star-Morning facility due to the inactive status. Potential sources of turbidity and sediment include access roads and development rock storage areas. These sources are not expected to be significant.

>locations where significant spills or leaks identified under Part 5.1.3.3 have occurred;

No major spills or leaks are known to have occurred.

>locations of all stormwater monitoring points;

See attached site maps.

>locations of stormwater inlets and outfalls, with a unique identification code for each outfall (e.g. Outfall No. 1, No. 2, etc.), indicating if you are treating one or more outfalls as “substantially identical” under Parts 4.2.3, 5.1.5.2, and 6.1.1, and an approximate outline of the areas draining to each outfall;

See attached site maps.

>municipal separate storm sewer systems, where your stormwater discharges to them;

n/a

>locations and descriptions of all non-stormwater discharges identified under Part 2.1.2.10;

Mine groundwater from the Star Mine side of the Facility is routed to the historic Star tailings line, which transports the groundwater to the Star Pond 6, a tailings pond located down gradient of the site (See Figure 1, NPDES Permit No.ID-000016-7). Mine groundwater from the Morning side of the Facility is routed to the SFCDR. Other historic waters in the area have been identified during the superfund RI/FS activities and are to be addressed under superfund according to the CD.

locations of the following activities where such activities are exposed to precipitation:

>>fueling stations;

n/a

>>vehicle and equipment maintenance and/or cleaning areas;

n/a

>>loading/unloading areas;

n/a

>>locations used for the treatment, storage, or disposal of wastes;

previously addressed

>>liquid storage tanks;

n/a

>>processing and storage areas;

n/a

>>immediate access roads and rail lines used or traveled by carriers of raw materials/manufactured products/waste material/by-products used or created by the facility;

n/a

>>transfer areas for substances in bulk; and

n/a

>>machinery

n/a

>locations and sources of run-on to your site from adjacent property that contains significant quantities of pollutants.

n/a

8.G.6.2 Site Map

Document in your SWPPP the locations of the following (as appropriate):

mining or milling site boundaries;

See attached site maps.

access and haul roads;

Access roads are present at the sites and are controlled by the state, county, logging companies or federal agencies. See attached topographic map for access road locations. No haul roads are associated with this operation.

outline of the drainage areas of each stormwater outfall within the facility with indications of the types of discharges from the drainage areas;

See attached site maps.

location(s) of all permitted discharges covered under an individual NPDES permit;

See attached general location map.

outdoor equipment storage, fueling, and maintenance areas;

Maintenance and fueling has not occurred since 2013. Maintenance activities, during operation, occurred indoors in the plant buildings or at underground maintenance stations.

materials handling areas;

n/a

outdoor manufacturing, outdoor storage, and material disposal areas;

Outdoor manufacturing does not occur at the Star-Morning site. The other items were addressed above.

outdoor chemicals and explosives storage areas;

n/a

overburden, materials, soils, or waste storage areas;

Development rock areas at numerous locations, tailing impoundment area, and the mine/mill plant yard where historic storage of mining and milling items occurred are shown on the attached topographic map.

location of mine drainage (where water leaves mine) or other process water;

“Mine drainage” is a regulatory term applicable to active facilities. There are no process wastewater sources at the Star-Morning sites.

tailings piles and ponds (including proposed ones);

There is one permitted MTIS (Star Pond 6) at the Star-Morning facility.

heap leach pads;

n/a

off-site points of discharge for mine drainage and process water;

n/a

surface waters;

The receiving water bodies of storm water runoff from the Star-Morning facility sites include: O’Neill Gulch Creek, Canyon Creek, Grouse Gulch Creek, & Mill Creek. (See topographic map attached.)

boundary of tributary areas that are subject to effluent limitation guidelines;

See attached maps.

and location(s) of reclaimed areas

n/a – future area remediations conducted under the ROD for Operable Unit 3 will dictate remediation areas.

Summary of Potential Pollutant Sources (Part 5.1.3)

You must document areas at your facility where industrial materials or activities are exposed to stormwater and from which allowable non-stormwater discharges are released. *Industrial materials or activities* include, but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, by-products, final products, and waste products. *Material handling activities* include, but are not limited to: the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product. For each area identified, the description must include:

- Activities in the area (5.1.3.1).

A list of the industrial activities exposed to stormwater (e.g., material storage; equipment fueling, maintenance, and cleaning; cutting steel beams).

none

- Pollutants (5.1.3.2).

A list of the pollutant(s) or pollutant constituents (e.g., crankcase oil, zinc, sulfuric acid, and cleaning solvents) associated with each identified activity. The pollutant list must include all significant materials that have been handled, treated, stored, or disposed, and that have been exposed to stormwater in the 3 years prior to the date you prepare or amend your SWPPP.

Potential pollutant constituents in stormwater discharges from the exposed materials could include common heavy metals (lead, zinc, iron, copper, and cadmium), sediment, TSS, and turbidity.

- Spills and Leaks (5.1.3.3).

You must document where potential spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding outfall(s) that would be affected by such spills and leaks. You must document all significant spills and leaks of oil or toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the 3 years prior to the date you prepare or

amend your SWPPP.

There were no spills or leaks in the prior three years

Note: Significant spills and leaks include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA Sections 311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC §9602. This permit does not relieve you of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 relating to spills or other releases of oils or hazardous substances.

- Non-Stormwater Discharges (5.1.3.4).

You must document that you have evaluated for the presence of non-stormwater discharges and that all unauthorized discharges have been eliminated.

Documentation of your evaluation must include:

The date of any evaluation;

These areas have been evaluated by EPA during the superfund activities of Operable Unit 3. Such discharges will be addressed under superfund according to the CD.

A description of the evaluation criteria used;

Visual evaluations and monitoring (associated with the superfund activities).

A list of the outfalls or onsite drainage points that were directly observed during the evaluation;

- Areas on the attached maps are visited at least annually.

The different types of non-stormwater discharge(s) and source locations; and

Groundwater from historic mine openings - maps are available in the superfund documents for Operable Unit 3.

The action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), if any were identified. For example, a floor drain was sealed, a sink drain was re-routed to sanitary, or an NPDES permit application was submitted for an

unauthorized cooling water discharge.

The CD with EPA will address these discharges.

- 8.G.6.6 Certification of Permit Coverage for Commingled Non-Stormwater Discharges.

If you are able, consistent with Part 8.G.5.3 above, to certify that a particular discharge composed of commingled stormwater and non-stormwater is covered under a separate NPDES permit, and that permit subjects the non-stormwater portion to effluent limitations prior to any commingling, retain such certification with your SWPPP. This certification must identify the non-stormwater discharges, the applicable NPDES permit(s), the effluent limitations placed on the non-stormwater discharge by the permit(s), and the points at which the limitations are applied.

n/a

- Salt Storage (5.1.3.5). You must document the location of any storage piles containing salt used for deicing or other commercial or industrial purposes.

n/a

- Sampling Data (5.1.3.6). You must summarize all stormwater discharge sampling data collected at your facility during the previous permit term.

n/a

8.G.6.3 Potential Pollutant Sources.

For each area of the mine or mill site where stormwater discharges associated with industrial activities occur, identify the types of pollutants (e.g. heavy metals, sediment) likely to be present in significant amounts. Consider these factors:

the mineralogy of the ore and waste rock (e.g. acid forming);

Mine sites in the area are situated in the Belt Series rocks, which contain similar minerals. Rock formations contain only very small amounts of pyrite or other acid forming minerals. As a result the mineral compounds, if present in the outfall(s), tend to result in slightly basic water. Canyon Creek has not been shown to have a pH problem even though impacted by historic mining/milling practices. Potential pollutant sources include the development rock areas and disturbed areas at the

immediate historic mine and mill site. Based on past site inspections, there are no indications of significant storm water runoff from the sites other than the Star 1200 level where water diversion and repair work has occurred in the past. The types of pollutants with the potential to be present would be TSS, lead, zinc, cadmium, copper, and mercury as identified for the Ore Mining and Dressing point source category at 40 CRF 440, Subpart J – Copper, Lead, Gold, Silver, and Molybdenum Ores Subcategory, although only lead, zinc, and cadmium have been shown to be potential concerns during the lengthy and detailed RI/FS superfund process.

toxicity and quantity of chemicals used, produced, or discharged;

n/a

the likelihood of contact with stormwater;

Based on the applicable portions of the narrative above, pollutants are not expected to be present in significant amounts.

vegetation of site (if any);

Some of the sites contain substantial natural vegetation.

and history of significant leaks or spills of toxic or hazardous pollutants.

There have not been any such leaks or spills as addressed above.

Also include a summary of any existing ore or waste rock or overburden characterization data and test results for potential generation of acid rock. If any new data is acquired due to changes in the ore type being mined, update your SWPPP with this information.

For the above requirements of section 8.G.6.3, based upon the lack of erosion and results of past evaluations, the site is very stable and does not appear to be a source of significant pollutants. Mine sites in the area are situated in the Belt Series rocks, which contain similar minerals. Rock formations contain only very small amounts of pyrite or other acid forming minerals. As a result, the mineral compounds if present in the outfalls tend to result in slightly basic water. Potential pollutant sources include; 1) the development rock area, and 2) historic areas at the combined mine/mill site as discussed above. Numerous superfund documents developed for Operable Unit 3 contain characterization data and pH has not been identified as a concern.

Description of Control Measures (Part 5.1.4).

- Control Measures to Meet Technology-Based and Water Quality-Based Effluent Limits (5.1.4.1).

You must document the location and type of control measures you have installed and implemented at your site to achieve the non-numeric effluent limits in Part 2.1.2, and where applicable in Part 8, the effluent limitations guidelines-based limits in Part 2.1.3, the water quality-based effluent limits in Part 2.2, and any agreed-upon endangered species or NEPA-related requirements in Parts 2.3 and 2.4, and describe how you addressed the control measure selection and design considerations in part 2.1.1. This documentation must describe how the control measures at your site address both the pollutant sources identified in Part 5.1.3, and any stormwater run-on that commingles with any discharges covered under this permit.

Due to the nature of the site areas, limited BMPs are necessary. BMP locations are shown on the site maps. Ultimately, the ROD implementation process will dictate activities at the sites.

Part 2.1.2 Non-Numeric Technology-Based Effluent Limits (BPT/BAT/BCT).

2.1.2.1 Minimize Exposure. You must minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff by either locating these industrial materials and activities inside or protecting them with storm resistant coverings (although significant enlargement of impervious surface area is not recommended). In minimizing exposure, you should pay particular attention to the following:

>use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from these areas;

>locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas);

>clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;

>use drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible;

- >use spill/overflow protection equipment;
- >drain fluids from equipment and vehicles prior to on-site storage or disposal;
- >perform all cleaning operations indoor, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray; and
- >ensure that all washwater drains to a proper collection system (i.e., not the stormwater drainage system).

The discharge of vehicle and equipment washwater, including tank cleaning operations, is not authorized by this permit. These wastewaters must be covered under a separate NPDES permit, discharged to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or disposed of otherwise in accordance with applicable law.

Note: Industrial materials do not need to be enclosed or covered if stormwater runoff from affected areas will not be discharged to receiving or if discharges are authorized under another NPDES permit.

Limited industrial activities occurred and development rock is the exposed material as indicated above and shown on the site maps.

2.1.2.2 Good Housekeeping. You must keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals, keeping materials orderly and labeled, and storing materials in appropriate containers.

Good housekeeping will be observed at the site.

2.1.2.3 Maintenance. You must regularly inspect, test, maintain, and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in stormwater discharged to receiving waters. You must maintain all control measures that are used to achieve the effluent limits required by this permit in effective operating condition. Nonstructural control measures must also be diligently maintained (e.g., spill response supplies available, personnel appropriately trained). If you find that your control measures need to be replaced or repaired, you must make the necessary repairs or modifications as expeditiously as practicable.

Maintenance is not an issue for industrial equipment and systems due to the inactive nature of the site. BMPs are inspected at least annually and repaired as necessary.

2.1.2.4 Spill Prevention and Response Procedures. You must minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur. At a minimum, you must implement:

>Procedures for plainly labeling containers (e.g., “Used Oil”, “Spent Solvents”, “Fertilizers and Pesticides”, etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;

>Preventive measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;

>Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of your stormwater pollution prevention team (see Part 5.1.1); and

>Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies. Where a leak, spill or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period, you must notify the National Response Center (NEC) at (800) 424-8802 or, in the Washington, DC, metropolitan area, call (202) 267-2675 in accordance with the requirements of 40 CFR Part 110, 40 CFR part 117, and 40 CFR Part 302 as soon as you have knowledge of the discharge. State or local requirements may necessitate reporting spills or discharges to local emergency response, public health, or drinking water supply agencies. Contact information must be in locations that are readily accessible and available.

Spill prevention and response procedures are not necessary due to the absence of industrial materials as noted above.

2.1.2.5 Erosion and Sediment Controls. You must stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants. Among other actions you must take to meet this limit, you must place flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants. In selecting, designing, installing, and implementing appropriate control measures, you are encourage to consult with EPA’s internet-based resources relating to BMPs for erosion and sedimentation, including the sector-specific *Industrial Stormwater Fact Sheet*

Series, (www.epa.gov/npdes/stormwater/msgp), *National Menu of Stormwater BMPs* (www.epa.gov/npdes/stormwater/menuofbmps), and *National Management Measures to Control Nonpoint Source Pollution from Urban Areas* (www.epa.gov/owow/nps/urbanmm/index.html), and any similar State or Tribal publications.

As indicated above, the limited historic disturbances associated with the Star-Morning Facility are very stable after many decades of exposure. The MANUAL OF BEST MANAGEMENT PRACTICES FOR THE MINING INDUSTRY IN IDAHO (BMP manual) will be consulted for appropriate control measures as necessary. The BMP manual was developed by the Idaho Mining Advisory Committee comprised of: Idaho Department of Lands, Idaho Department of Water Resources, Idaho Department of Health & Welfare (DEQ), Idaho Department of Fish & Game, Bureau of Land Management, USDA Forest Services (Region 1), USDA Forest Service (Region 4), Idaho Conservation League, Clark Fork Coalition, Idaho Mining Association, Independent Miner's Association, and individual volunteers. Additional procedures required by the CD will be followed under that specific procedure.

2.1.2.6 Management of Runoff. You must divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff, to minimize pollutants in your discharges. In selecting, designing, installing, and implementing appropriate control measures, you are encouraged to consult with EPA's internet-based resources relating to runoff management, including the sector-specific *Industrial Stormwater Fact Sheet Series*, (www.epa.gov/npdes/stormwater/msgp), *National Menu of Stormwater BMPs* (www.epa.gov/npdes/stormwater/menuofbmps), and *National Management Measures to Control Nonpoint Source Pollution from Urban Areas* (www.epa.gov/owow/nps/urbanmm/index.html), and any similar State or Tribal publications.

As indicate above, the stability of the historic disturbances limits the need for many control features. Stormwater infiltration occurs at the sites and runoff will be controlled with appropriate BMPs. At the Star 1200 level (see attached maps), a small intermittent drainage was diverted over the development rock.

2.1.2.7 Salt Storage Piles Containing Salt. You must enclose or cover storage piles of salt, or piles containing salt, used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces. You must implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. Piles do not need to be enclosed or covered if stormwater runoff from the piles is not discharged or if discharges from the piles are authorized under another NPDES permit.

n/a

2.1.2.8 Sector Specific Non-Numeric Effluent Limits. You must achieve any additional non-numeric limits stipulated in the relevant sector-specific section(s) of Part 8.

Addressed below.

2.1.2.9 Employee Training. You must train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel), including all members of your Pollution Prevention Team. Training must cover both the specific control measures used to achieve the effluent limits in this Part, and monitoring, inspection, planning, reporting, and documentation requirements in other parts of this permit. EPA recommends training be conducted at least annually (or more often if employee turnover is high).

Training amongst the team member and site personnel will occur annually, with documentation included with the SWPPP.

2.1.2.10 Non-Stormwater Discharges. You must eliminate non-stormwater discharges not authorized by an NPDES permit. See Part 1.2.3 [THERE IS NO PART 1.2.3 – THE LIST IS AT PART 1.1.3] for a list of non-stormwater discharges authorized by this permit.

See above discussion on the superfund process.

2.1.2.11 Waste, Garbage and Floatable Debris. You must ensure that waste, garbage, and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged.

Such materials are not generated at this inactive and unstaffed site.

2.1.2.12 Dust Generation and Vehicle Tracking of Industrial Materials. You must minimize generation of dust and off-site tracking of raw, final, or waste materials.

These activities are not occurring at this inactive and unstaffed site.

8. G.6.4 Documentation of Control Measures.

Document all control measures that you implement consistent with Part 8.G.5.2. If control measures are implemented or planned but are not listed in Part 8.G.5.2 (e.g., substituting a less toxic chemical for a more toxic one), include descriptions of them in your SWPPP.

Berms, straw logs/bales, stormwater runoff directed to infiltration, sediment sump at bridge and silt fences are all in place at the Star Mine Site. Water diversions, including a liner and riprap, have been constructed at the Star 1200 level. The development rock at this location has been terraced and BMPs have been placed along the toe of this area. Some seeding has also occurred. Improvements have been made to the access road to the Star 700 level including culverts and re-grading. The Morning #1 and #4 have logging roads running through the dumps. Morning #5 area has a new logging road above the portal and the logging company agreed to culvert the water through the dump and riprap Mill Creek near the road. Natural vegetation also provides a vegetative filter at some locations.

8.G.5 Additional Technology-Based Effluent Limits.

8.G.5. 1 *Employee Training.* (See also Part 2.1.2.9) Conduct employee training at least annually at active and temporarily inactive sites.

See above discussion per training.

8.G.5.2 *Stormwater Controls.* Apart from the control measures you implement to meet your Part 2 effluent limits, consider implementing the following control measures at your site. The potential pollutants identified in Part 8.G.6.3 shall determine the priority and appropriateness of the control measures selected.

8.G.5 .2.1 *Stormwater Diversions:* Consider diverting stormwater away from potential pollutant sources. Following are some options: interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.

Water diversions have been implemented at the Star 1200 level as indicated above. Such features may be part of the ultimate ROD implementation addressing the sites.

8.G.5.2.2 *Capping:* When capping is necessary to minimize pollutant discharges in stormwater, identify the source being capped and the material used to construct the cap.

Capping is not necessary at these sites or has already been completed.

8.G.5.2.3 *Treatment*: If treatment of stormwater (e.g., chemical or physical systems, oil and water separators, artificial wetlands) is necessary to protect water quality, describe the type and location of treatment used. Passive and/or active treatment of stormwater runoff is encouraged where practicable. Treated runoff may be discharged as a stormwater source regulated under this permit provided the discharge is not combined with discharges subject to effluent limitation guidelines for the Ore Mining and Dressing Point Source Category (40 CFR Part 440).

Treatment of stormwater runoff from these sites has not been shown to be necessary.

Schedules and Procedures (Part 5.1.5)

- Pertaining to Control Measures Used to Comply with the Effluent Limits in Part 2. (5.1.5.1)

The following must be documented in your SWPPP:

Good Housekeeping (See Part 2.1.2.2) – A schedule for regular pickup and disposal of waste materials, along with routine inspections for leaks and conditions of drums, tanks and containers;

N/A at this site due to inactive and unstaffed nature of the site.

Maintenance (See Part 2.1.2.3) – Preventative maintenance procedures, including regular inspections, testing, maintenance, and repair of all industrial equipment and systems, and control measures, to avoid situations that may result in leaks, spills, and other releases, and any back-up practices in place should a runoff event occur while a control measure is off-line;

N/A at this site due to inactive and unstaffed nature of the site.

Spill Prevention and Response Procedures (See Part 2.1.2.4) – Procedures for preventing and responding to spills and leaks. You may reference the existence of other plans for

Spill Control and Countermeasure (SPCC) developed for the facility under Section 311 of the CWA or BMP programs otherwise required by an NPDES permit for the facility, provided that you keep a copy of that other plan onsite and make it available for review consistent with Part 5.3; and

N/A at this site due to inactive and unstaffed nature of the site.

Employee Training (Part 2.1.2.9) – A schedule for all types of necessary training.

8. G.6.5 Employee Training. All employee training(s) must be documented in the SWPPP.

See above per training. Documentation will be attached to the SWPPP.

Pertaining to Monitoring and Inspection (5.1.5.2).

You must document in your SWPPP your procedures for conducting the five types of analytical monitoring specified by this permit, where applicable to your facility, including:

>Benchmark monitoring (see Part 6.2.1);

N/A at this site due to inactive and unstaffed nature of the site.

>Effluent limitations guidelines monitoring (see Part 6.2.2);

n/a at this site due to inactive and unstaffed nature of the site.

>State- or Tribal-specific monitoring (see Part 6.2.3)

n/a at this site due to inactive and unstaffed nature of the site.

>Impaired waters monitoring (see Part 6.2.4); and

Monitoring will begin per the process identified at MSGP 6.2.4.2. The metals TMDL (dissolved lead, dissolved zinc, dissolved cadmium), applicable to some site receiving waters, was approved by EPA 8/18/2000, according to DEQ's approved Integrated Report. This TMDL must be subjected to the Idaho APA process. The sediment TMDL is also applicable to some site receiving waters. Due to similarities of the sites (development rock exposure) and potential pollutants (heavy metals, TSS, and turbidity),

any identified outfalls are considered to be substantially identical, not only within the Star-Morning facility sites, but other historic inactive sites in the areas addressed under the Superfund RI/FS process. Sampling documentation will be maintained and kept with the SWPPP.

>Other monitoring as required by EPA (see Part 6.2.5).

N/A at this site due to inactive and unstaffed nature of the site.

For each type of monitoring, your SWPPP must document:

>Locations where samples are collected, including any determinations that two or more outfalls are substantially identical;

Part 6.1.1 Monitored Outfalls. Applicable monitoring requirements apply to each outfall authorized by this permit, except as otherwise exempt from monitoring as a “substantially identical outfall.” If your facility has two or more outfalls that you believe discharge substantially identical effluents, based on the similarities of the general industrial activities and control measures, exposed materials that may significantly contribute pollutants to stormwater, and runoff coefficients of their drainage areas, you may monitor the effluent of just one of the outfalls and report that the results also apply to the substantially identical outfall(s). As required in Part 5.1.5.2, your SWPPP must identify each outfall authorized by this permit and describe the rationale for any substantially identical outfall determinations. The allowance for monitoring only one of the substantially identical outfalls is not applicable to any outfalls with numeric effluent limitations. You are required to monitor each outfall covered by a numeric effluent limit as identified in Part 6.2.2. [THE “METAL MINING” SECTOR HAS NO NUMERIC EFFLUENT LIMITS]

Storm Water Pollution Prevention Plan (SWPPP) components will address site information knowledge available at this time. For example, the MSGP requires information in the SWPPP, such as outfall locations, which have not all been located at the Star-Morning facility due to the remote and historic nature of these inactive mine sites. The monitoring waiver for inactive and unstaffed sites will be applied where applicable. Outfalls are considered to be substantially identical.

>Parameters for sampling and the frequency of sampling for each parameter;

Potential parameters for impaired waters monitoring include lead, zinc, and cadmium, even though EPA approved the TMDL but DEQ has not formalized (i.e. not clear if this

sampling is required). Frequency will be determined pursuant to MSGP 6.2.4.2.

>Schedules for monitoring at your facility, including schedule for alternate monitoring periods for climates with irregular stormwater runoff (see Part 6.1.6):

See above response. Sample will be collected when an opportunity is available per site staffing/logistics.

>Any numeric control values (benchmarks, effluent limitations guidelines, TMDL-related requirements, or other requirements) applicable to discharges from each outfall; and

To be determined per 6.2.4.2.

>Procedures (e.g., responsible staff, logistics, laboratory to be used, etc.) for gathering storm event data, as specified in Part 6.1.

The pollution prevention team members would conduct the sampling. For any potential TSS monitoring, analysis will be conducted by a team member pursuant to 40 CFR Part 136 on the same day as sample collection. For potential dissolved metal analysis of lead, zinc, and cadmium; SVL Analytical, Inc. of Kellogg, Idaho would be used. Samples would be delivered to SVL the same day as sample collection occurs. Local area rain gauges could be used to determine rainfall for storm events.

If you are invoking the exception for inactive and unstaffed sites for benchmark monitoring, you must include in your SWPPP the information to support this claim as required by Part 6.2.1.3.

Documentation is attached.

You must document the following in your SWPPP if you plan to use the substantially identical outfall exception for your quarterly visual assessment requirements in Part 4.2 or your benchmark monitoring requirements in Part 6.2.1:

>Location of each of the substantially identical outfalls;

See attached site maps.

>Description of the general industrial activities conducted in the drainage area of each outfall;

As described above, there are no industrial activities occurring. Historic sampling during

superfund-related activities shows the lowest concentrations instream during spring runoff. Loadings are higher, but this appears to be attributable to historic tailings in the floodplain because similar increases are seen in stream reaches (which contain historic tailings) where development rock and mining disturbances are absent.

>Description of the control measures implemented in the drainage area of each outfall;

See attached site maps for control measures. The primary potential outfall area for Star site is the access road leading up to the 2000 Portal site.

See attached maps for control measures. Most sites have stabilized naturally and do not exhibit signs of any significant erosion. Estimated drainage areas:

Hecla #1-#2 ~10, 000 sq. ft.	Russell #1-#2 ~32, 500 sq. ft.
Marsh ~25, 000 sq. ft.	O'Neill rock dump ~50, 000 sq. ft.
Burke mine/mill site ~50, 000 sq. ft.	Duluth ~100, 000 sq. ft.
Joe Matt ~30, 000 sq. ft.	Omaha ~30, 000 sq. ft.
Midway Summit ~50, 000 sq. ft.	Hecla tramway ~20, 000 sq. ft.
Tailing ponds ~113, 750 sq. ft.	Grouse claims ~1, 250 sq. ft.
You Like ~25, 000 sq. ft.	We Like ~10, 000 sq. ft.
Fanny Gremm ~200, 000 sq. ft.	Morning #1-#5 ~200, 000 sq. ft.
Iron Crown ~10, 000 sq. ft.	Star Discovery Cut ~10, 000 sq. ft.
Star 700 ~200, 000 sq. ft.	Star 1000 ~100, 000 sq. ft.
Star 1200 ~900, 000 sq. ft.	Lucretia ~100, 000 sq. ft.

>Description of the exposed materials located in the drainage area of each outfall that are likely to be significant contributors of pollutants to stormwater discharges;

No exposed materials are considered to be significant sources of pollutants as evidenced by annual inspection results showing quite stable natural conditions. Development rock is present at all sites.

>An estimate of the runoff coefficient of the drainage areas (low = under 40%; medium = 40 to 65%; high = above 65%); and

Due to the permeable nature of development rock, and observed historic stability, runoff coefficients are considered to be low for these areas. The majority of the Star Mine area is pavement & concrete with outslope areas consisting of native materials with no evidence of significant erosion. BMPs have been installed and maintained.

>Why the outfalls are expected to discharge substantially identical effluents.

District mining occurs in similar rock structures (Belt Series) with the potential pollutants being TSS, metals, and turbidity. Specific to metals, the numerous water quality studies conducted during basin superfund activities have identified dissolved zinc, dissolved cadmium, and particulate lead as water quality concerns throughout Operable Unit 3, including the areas surrounding the Facility.

You must document in your SWPPP your procedures for performing, as appropriate, the three types of inspections specified by this permit, including:

>Routine facility inspections (see Part 4.1);

N/A – inactive and unstaffed waiver applied.

>Quarterly visual assessment of stormwater discharges (see Part 4.2): and

N/A – inactive and unstaffed waiver applied.

>Comprehensive site inspections (see Part 4.3).

Site areas described above will be inspected annually with documentation maintained in the SWPPP.

For each type of inspection performed, your SWPPP must identify:

>Person(s) or positions of person(s) responsible for inspection;

The pollution prevention team member will conduct the inspections.

>Schedules for conducting inspections, including tentative schedule for facilities in climates with irregular stormwater runoff discharges (see Part 4.2.3): and

Annual comprehensive inspections will occur when sites are accessible, which can be late May/early June thru October.

>Specific items to be covered by the inspections, including the schedules for specific outfalls.

All site areas identified above will be inspected during the annual comprehensive site inspection. Inspection forms will be kept with the SWPPP.

If you are invoking the exception for inactive and unstaffed sites relating to routine facility inspections and quarterly visual assessments, you must include in your SWPPP the information to support this claim as required by Parts 4.1.3 and 4.2.3.

This exception is being invoked and supporting information will be included with the SWPPP documents.

Documentation to Support Eligibility Considerations Under Other Federal Laws (Part 5.1.6).

- Documentation Regarding Endangered Species (5.1.6.1).

You must keep with your SWPPP the documentation supporting your determination with regard to Part 1.1.4.5 (Endangered and Threatened Species and Critical Habitat Protection).

Attached

- Documentation Regarding Historic Properties (5.1.6.2).

You must keep with your SWPPP the documentation supporting your determination with regard to Part 1.1.4.6 (Historic Properties Protection).

Attached

- Documentation Regarding NEPA Review (5.1.6.3).

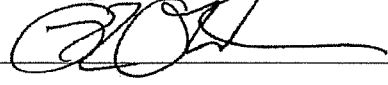
You must keep with your SWPPP the documentation supporting your certification of eligibility under Part 1.1.2.5 (Discharges Subject to Any New Source Performance Standards).

N/A - these are historic sites on private property addressed under superfund. No Table 1-1 conditions apply.

Signature Requirements (Part 5.1.7).

You must sign and date your SWPPP in accordance with Appendix B, Subsection 11, including the date of signature.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Paul L. Glader Title: Environmental Director
Signature:  Date: 6/12/15

Required SWPPP Modifications (Part 5.2)

You must modify your SWPPP whenever necessary to address any of the triggering conditions for corrective action in Part 3.1 and to ensure that they do not reoccur, or to reflect changes implemented when a review following the triggering conditions in Part 3.2 indicates that changes to your control measures are necessary to meet the effluent limits in this permit. Changes to your SWPPP document must be made in accordance with the corrective action deadlines in Parts 3.3 and 3.4, and must be signed and dated in accordance with Appendix B, Subsection 11.

Required SWPPP modifications will be documented and, where necessary, addressed per the corrective action requirements of Part 3 of MSGP 2008.

SWPPP Availability (Part 5.3).

You must retain a copy of the current SWPPP required by this permit at the facility, and it must be immediately available to EPA; a State, Tribal, or local agency approving stormwater management plans; the operator of an MS4 receiving discharge from the site; and representatives of the U.S. Fish and Wildlife (USFS) or the National Marine Fisheries Service (NMFS) at the

time of an onsite inspection or upon request. EPA may provide access to portions of your SWPPP to a member of the public upon request. Confidential Business Information (CBI) may be withheld from the public, but may not be withheld from those staff cleared for CBI review within EPA, USFWS, or NMFS.

EPA encourages you to post your SWPPP online and provide the website address on your NOI.

Additional Documentation Requirements (Part 5.4)

You are required to keep the following inspection, monitoring, and certification records with your SWPPP that together keep your records complete and up-to-date, and demonstrate your full compliance with the conditions of this permit:

- A copy of the NOI submitted to EPA along with any correspondence exchanged between you and EPA specific to coverage under this permit;
- A copy of the acknowledgement letter you receive from the NOI Processing Center or eNOI system assigning your permit tracking number;
- A copy of this permit (an electronic copy easily available to SWPPP personnel is also acceptable).
- Descriptions and dates of any incidences of significant spills, leaks, or other releases that resulted in discharges of pollutants to waters of the U.S., through stormwater or otherwise; the circumstances leading to the release and actions taken in response to the release; and measures taken to prevent the recurrence of such releases (see Part 2.1.2.4);
- Records of employee training, including date training received (see Part 2.1.2.9);
- Documentation of maintenance and repairs of control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, the date(s) that the control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules (see Part 2.1.2.3);
- All inspection reports, including the Routine Facility Inspection Reports (see Part 4.1), the Quarterly Visual Assessment Reports (see Part 4.2), and the Comprehensive Site Inspection Reports (see Part 4.3);

- Description of any deviations from the schedule for visual assessments and/or monitoring, and the reason for the deviations (e.g., adverse weather or it was impracticable to collect samples within the first 30 minutes of a measureable storm event) (see Parts 4.2.1, 6.1.4, and 6.2.1.2);
- Description of any corrective action taken at your site, including triggering event and dates when problems were discovered and modifications occurred;
- Documentation of any benchmark exceedences and how they were responded to, including either (1) corrective action taken, (2) a finding that the exceedence was due to natural background pollutant levels, or (3) a finding that no further pollutant reductions were technologically available and economically practicable and achievable in light of best industry practice consistent with Part 6.2.1.2;
- Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if you discharge directly to impaired waters, and that such pollutants were not detected in your discharge or were solely attributable to natural background sources (see Part 6.2.4.2); and
- Documentation to support your claim that your facility has changed its status from active to inactive and unstaffed with respect to the requirements to conduct routine facility inspections (see Part 4.1.3), quarterly visual assessments (see Part 4.2.3), and/or benchmark monitoring (see Part 6.2.1.3).

Applicable documents per the Part 5.4 requirements will be kept with the SWPPP.