

JUN 30 2015

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:

94-2082. 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.)

Morning. See attached deed(s).

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

1980

- 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, copper, gold. 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

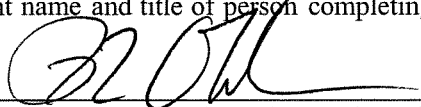
the surface are those associated with historic mining activities or property caretaking.

Paul L. Glader Environmental Director

Please print name and title of person completing this questionnaire

6/18/15

Date



Signature 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



1965

SIXTY-EIGHTH

ANNUAL REPORT

OF THE DIRECTORS OF

HECLA MINING COMPANY

FOR THE YEAR ENDED

December 31, 1965

OPERATIONS

A description of the Company's mining operations is set forth as follows:

LUCKY FRIDAY MINE

Coeur d'Alene District — Idaho

Hecla owns 100% of the Lucky Friday mine which produced 181,074 tons of ore assaying 17.8 ounces of silver, 11.3% lead and 1.0% zinc. On December 31, 1965 ore reserves were computed at 607,000 tons as compared to 671,000 tons as of the beginning of the year.

Stope preparation work was completed on the 3250' level, preparatory development work on the 3450' level has been started, and the vein on this level will be intersected and developed during 1966. The Lucky Friday shaft was deepened 219 feet to a point 155 feet below the 3650' level.

An agreement was signed with Day Mines, Inc. to develop the Hunter Ranch property which adjoins the Lucky Friday property to the west. Development is to be done from the Lucky Friday shaft on at least two levels with Hecla and Day Mines sharing production and expense equally. Work was started on the 2800' level and as of December 31, 1965, 480 feet of lateral heading had been driven in the Hunter Ranch property.

As previously reported, Atlas Mining Company, in November, 1962, attempted to locate several mining claims upon ground which was located by the predecessors of Lucky Friday Silver-Lead Mines Company (now merged with Hecla) as long ago as 1889, and for which a U.S. patent was issued in 1926. These attempted mining locations by Atlas were over ground which contains the Lucky Friday ore body and represent an endeavor to appropriate that ore body and mine. The case is now being litigated. In the opinion of counsel the Company's title to the claims is good and will be upheld by the courts.

STAR UNIT AREA

Coeur d'Alene District — Idaho

Hecla owns a 30% interest in production from the Star mine and from the adjoining Morning mine leased from American Smelting and Refining Company. The two mines are operated by Hecla through common facilities as the Star Unit Area. Operating profits after Morning lease royalties are divided 30% to Hecla and 70% to The Bunker Hill Company.

During the year 72,059 tons of ore were mined for the account of Hecla, assaying 2.80 ounces of silver, 4.69% lead, and 10.24% zinc. Hecla's share of ore reserves increased 70,000 tons to 342,000 tons.

During February, 1966 Hecla purchased the Morning mine from American Smelting and Refining Company in exchange for 25,230 shares of Hecla stock. Effective February 1, 1966 Hecla will receive 100% of the Morning lease royalty income which previously had been paid by the Star Unit Area owners to American Smelting and Refining Company.

In the opinion of Hecla's management, royalty income to be derived from present ore reserves of the Morning mine, which can be reached with existing operating facilities, is expected to at least equal the purchase price paid for the property. Royalty income over and above cost is contingent upon economic mining of deep level ore reserves, and present plans (which would not have been considered feasible without purchase of the Morning property) call for major underground installations to facilitate extraction of ore from deep levels of the Star-Morning Unit.

SUNSHINE UNIT AREA

Coeur d'Alene District — Idaho

Hecla owns a 33.25% interest in production from the Sunshine Unit Area which is operated by the Sunshine Mining Company. The other participants in the area are Sunshine Mining Company and Silver Dollar Mining Company.

During 1965 the Sunshine Unit Area produced 168,763 tons of ore, assaying 38.8 ounces of silver per ton, of which Hecla's share was 56,114 tons. Tons of ore developed exceeded tons of ore mined and Hecla's share of ore reserves increased from 160,000 tons at the beginning of the year to 223,000 tons at the end of the year.

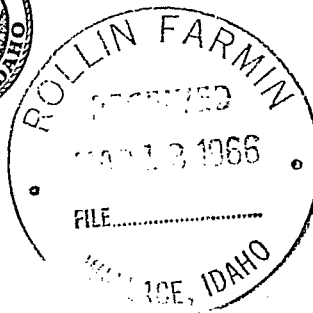
Lateral development and drilling along the Chester fault - vein on the 4600' level disclosed ore over a total length of 670 feet, as compared to a length of 687 feet of ore developed along the same vein on the 4400' level. In addition, development in the "Hook" area on 4600' level has indicated commercial ore in several short ore shoots. Development of this area is continuing on both the 4400' and 4600' levels. Deepening of the No. 10 shaft below the 4600' level was started late in the year to provide for development of the 4800' and the 5000' levels.

CHESTER MINING COMPANY

Coeur d'Alene District — Idaho

Hecla owns a 54.2% stock interest in Chester Mining Company. Chester receives a royalty on ores mined from the "Chester Area" (a strip of ground 400 feet wide and approximately 1,500 feet in length adjoining the Sunshine Unit Area) which is leased to the owners of the Sunshine Unit Area. Hecla does not participate as a shareholder

66th Annual Report
of the
MINING INDUSTRY
OF IDAHO
for
1966



O. T. HANSEN - - - *Inspector of Mines*
EDWARD V. ADAMS - - - - *Deputy*
 Inspector of Mines
GARRETTA REYNOLDS - - - *Secretary*

of the county. The district is a famous producer of lead, silver, zinc and copper. Other ores found are gold, antimony and tungsten.

ABERDEEN IDAHO MINING CO.

OFFICE: 510 Bank St., Wallace, Idaho. OFFICERS: John T. Kingsbury, Pres. and Agt., Wallace; A. J. Teske, Sec. and Mgr., Boise, INC.: April 22, 1946. CAPITAL: 3,000,000 non-assessable shares, par value 10c; 2,035,450 shares issued. PROPERTY: 25 unpatented claims, Yreka dist., Osburn. ORE: Lead and silver. REMARKS: The property is subject to a profit sharing operating agreement with the Bunker Hill Company.

AMERICAN SILVER MINING COMPANY

OFFICE: 123 West 4th Ave., Spokane, Wash. OFFICERS: J. M. Henneck, Pres.; L. B. Conrad, Sec.; F. J. Frankovich, Mgr., all of Spokane; C. C. Conrad, Agent, Wallace. INC.: September 22, 1924. CAPITAL: 2,750,000 non-assessable shares, par value 10c; 2,339,131 shares issued. PROPERTY: American Silver group, 15 unpatented claims, Evolution dist., Osburn. ORE: Silver and copper. REMARKS: Work consisted in having the property evaluated by a noted geologist, Mr. Frank J. Frankovich, and having considerable bulldozing done on claims.

AMERICAN SMELTING AND REFINING COMPANY

OFFICE: Wallace, Idaho and 120 Broadway, New York 5, New York. OFFICERS: R. D. Bradford, Pres.; Harold Howe, Sec., both of New York, New York; Norman Visnes, Gen. Mgr., Wallace; J. L. Eberle, Agent, Boise. INC.: New Jersey corp., filed in Idaho September 24, 1903, as Federal Mining and Smelting Co.; merged into American Smelting and Refining Co., May 15, 1934. CAPITAL: 500,000 7% preferred shares, par value \$100; all shares issued. 16,000,000 common shares, no par value; 11,158,929 shares issued.

COEUR PROJECT

Property: 16 patented claims leased from the Coeur d'Alene Mines Corporation and 22 patented claims leased from the Rainbow Mining and Milling Company, Evolution dist., Osburn. MEN EMPLOYED: Average, 27. DEVELOPMENT: Approximate total development to date, 958 ft. vertical shaft. OTHER WORKS: Pump stations. ADDITIONS: American Smelting and Refining Company continued rehabilitation of Coeur d'Alene Mines Corporation shaft; erected necessary surface facilities and commenced sinking Coeur shaft on Rainbow property.

GALENA MINE

PROPERTY: 52 patented and 20 unpatented claims; Placer Center and Evolution dist., Wallace. DEVELOPMENT: By 2 tunnels, the principal one being 1,398 ft. long. Approximate total development to date, 144,107 ft., consisting of 10,833 ft. of shafts, 22,106 ft. of raises, 111,168 ft. of tunnels, crosscuts and drifts. Also 13,338 ft. underground diamond drilling, drill stations, ore and waste pockets. PLANT: MILL: 500-ton flotation. MEN EMPLOYED: Average, 178. ORE: Silver, lead and copper.

MORNING MINE

PROPERTY: 44 patented and 14 unpatented claims. Hunter dist., Mullan. DEVELOPMENT: By 2 tunnels, the principal one being 9,500 ft. long. Principal vertical shaft is 3,050 ft. deep. Approximate total development to date, 39,345 ft., consisting of 5,709 ft. shafts, 4,718 ft. raises, 28,918 ft. of tunnels, crosscuts and drifts. Diamond drilling. ORE: Lead, zinc and silver. REMARKS: Property sold to Hecla Mining Co., Wallace, Idaho, February 1, 1966.

Contract #130
X. copy

213930
QUITCLAIM DEED

DEEDS
BOOK 127 PAGE 102

THIS INDENTURE, Made the 27th day of September, 1967,
between AMERICAN SMELTING AND REFINING COMPANY, a New Jersey corporation,
Grantor, and HECLA MINING COMPANY, a Washington corporation, Grantee,

W I T N E S S E T H :

That Grantor, for and in consideration of the sum of One Dollar
(\$1.00), lawful money of the United States of America, receipt of which
is hereby acknowledged, and other considerations has sold, conveyed, and
quitclaimed, and by these presents does sell, convey and quitclaim unto
the Grantee, the following described property, situated in the County of
Shoshone, State of Idaho, to-wit:

All of that portion of Evening Mill Site, Mineral Survey 1181,
and Lot 5, section 34, Township 48 North, Range 5 East, B.M.,
Shoshone County, Idaho, more particularly described as follows:

Beginning at Corner No. 1, a point on the west boundary of
section 34, which lies 2,385.46 feet South 00°03'00" West
from the northwest corner of section 34 (said point is
identical to Corner No. 14, Tract F of the Asarco-Hecla
Morning Group Purchase Agreement);

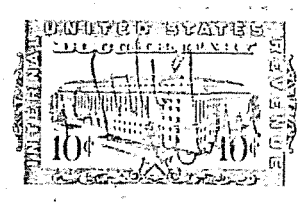
Thence North 76°15'00" East a distance of 476.75 feet
to Corner No. 2 (said corner is identical to Corner
No. 13, Tract F of the Morning Group Purchase Agreement);

Thence South 86°33'00" East a distance of 538.23 feet
to Corner No. 3 (said corner is identical to Corner
No. 12, Tract F of the Morning Group Purchase Agreement);

Thence South 88°51'30" East a distance of 76.73 feet
to Corner No. 4;

Thence due South a distance of 101.59 feet to Corner
No. 5 (said corner lies adjacent to the north fence
surrounding Morning Shops);

Thence South 87°33'08" West along said north fence line
a distance of 182.41 feet to Corner No. 6;



Thence North 05°12'08" East a distance of 26.33 feet to Corner No. 7;

Thence North 83°19'30" West a distance of 279.41 feet to Corner No. 8;

Thence North 86°33'00" West a distance of 166.06 feet to Corner No. 9;

Thence South 05°12'08" West a distance of 57.29 feet to Corner No. 10, a point on the north right-of-way line of the Morning Shop spur of the Northern Pacific Railway;

Thence on said north right-of-way line along a 1/2° curve to the left having a chord 92.63 feet in length and bearing South 89°07'18" West to Corner No. 11, a point on the north right-of-way line of the main track of the Northern Pacific Railway;

Thence on said last northerly right-of-way line along a 6° curve to the left having a chord 356.66 feet in length and bearing North 86°49'26" West to the place of beginning,

all lying within the Evening Mill Site, Mineral Survey 1181, and Lot 5, section 34, Township 48 North, Range 5 East, B.M., Shoshone County, Idaho, and containing 1.868 acres, more or less, as shown on the attached map,

with the appurtenances.

TO HAVE AND TO HOLD the said described surface hereditaments and premises hereby conveyed together with the appurtenances unto the Grantee, its successors and assigns forever, subject however to the following reservation.

Out of the conveyance herein contained there is reserved unto the Grantor, its successors and assigns, all mines and minerals of whatsoever nature lying in and under the property hereby conveyed, with the full right to mine and remove said minerals, but by underground workings only and without entering upon or in any way disturbing the surface of the property hereby conveyed.

IN WITNESS WHEREOF the American Smelting and Refining Company has caused this instrument to be executed in its name and under its corporate seal by its duly authorized officers the day and the year hereinabove first written.

AMERICAN SMELTING AND REFINING COMPANY

By R. Worth Vaughan
Vice President

ATTEST:

Harold Howe
Secretary

STATE OF NEW YORK)
County of New York) ss:

On this 2nd day of October, 1967, before me, the undersigned, a Notary Public in and for the State of New York, personally appeared R. Worth Vaughan and Harold Howe, known to me to be the Vice President and Secretary, respectively, of the corporation that executed the within and foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said corporation for the uses and purposes therein mentioned, and on oath stated that they were authorized to execute said instrument and that the seal affixed is the corporate seal of said corporation.

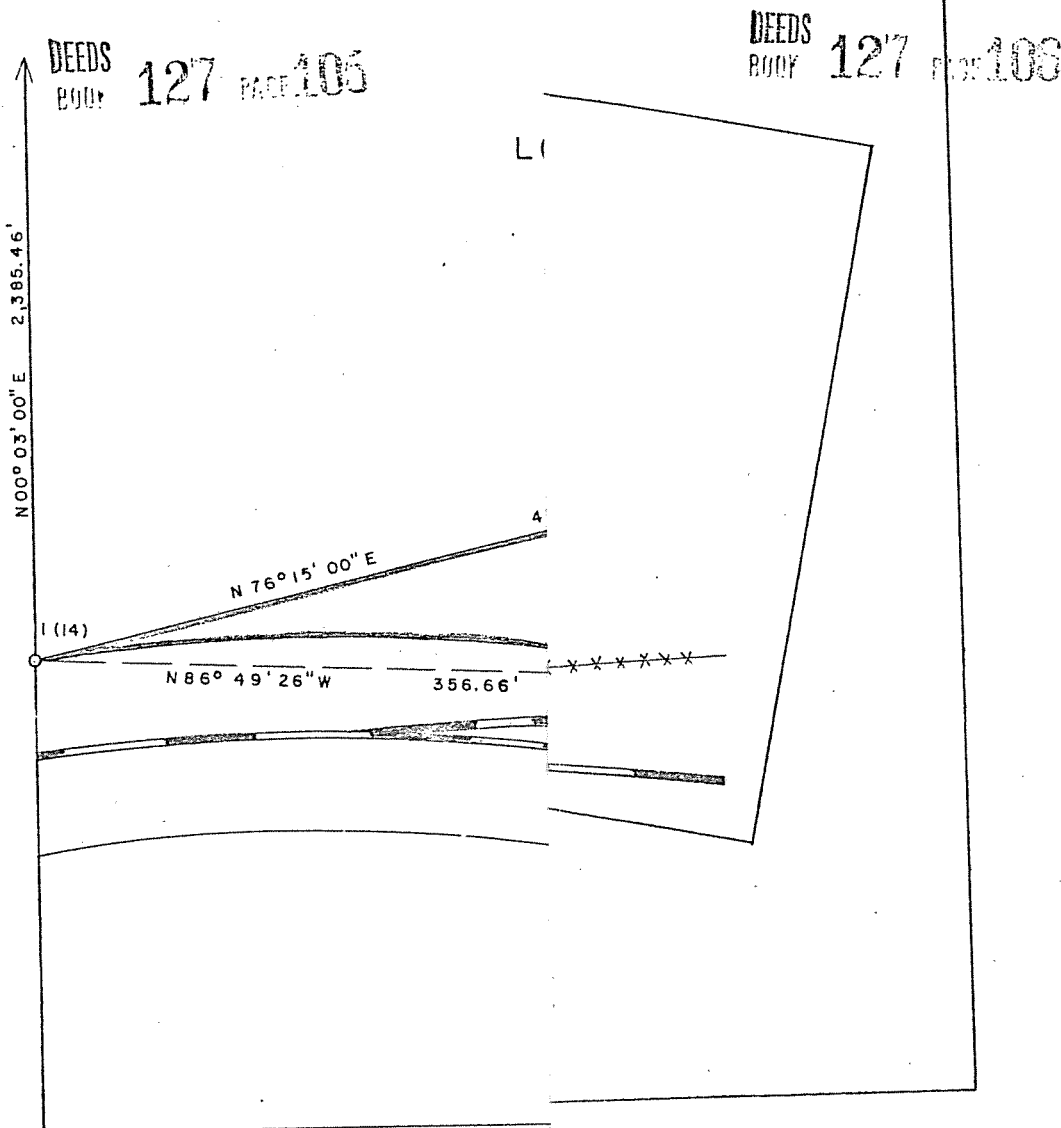
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

William T. [Signature]
Notary Public in and for the State of New York.

Residing at 942 E. 37th St.,
Brooklyn, N.Y. 11210

My Commission expires: March 30, 1969

CLARE A. DAPONE
Notary Public, State of New York
No. 24-013297, Qualified in Kings Co.
Cert. Filed in New York Co.
Commission Expires March 30, 1969



To Accompany
from
AMERICAN SMELTING AND E
to
HECLA MINING C

ed at the request of
Portion of
Section 34, Township 18 North
Shoshone County

at 9:45 A.M.

THICK, County Recorder

Scale: 1" =

Deputy

THIS INDENTURE, made this 23rd day of February, 1966,
between AMERICAN SMELTING AND REFINING COMPANY, a New Jersey
corporation, with an office at 120 Broadway, New York City, N.Y.
(hereinafter called "Grantor") and HECLA MINING COMPANY, a
Washington corporation, with an office at Wallace, Idaho (hereinafter
called "Grantee")

W I T N E S S E T H :

That the Grantor, for and in consideration of the sum of Ten
Dollars (\$10.00) and other valuable consideration to it in hand paid by
the Grantee, receipt of which is hereby acknowledged, has granted,
bargained, sold and conveyed, and by these presents does hereby
grant, bargain, sell and convey unto the Grantee, its successors and
assigns forever all those certain lots, pieces or parcels of land and all
those patented and unpatented mining claims, located in the Hunter
Mining District, County of Shoshone, State of Idaho, and more par-
ticularly described as follows:

A -- All of the following patented lode mining claims,
identified by name and, set opposite thereto, the U.S. Mineral Survey
Number and the acreage applicable thereto:

<u>Name of Patented Claim</u>	<u>Survey Number</u>	<u>Acres</u>
Noon Day Fraction	1188-A	3.207
Lauren J.	1188-A	5.206
Grouse Fraction	3107	1.066
Morning	688	20.403
Silver King	803	12.379
Evening	802	17.617
Evening Fraction	2821)	1.104
Independence Fraction	2821)	
Midnight	1284	17.662
Bummer	1284	3.696
You Like	977	20.521
Silver Queen	1219	16.473
Park	1219	15.046
East Side	2044	20.661
Poorman	2044	20.018
Total Acreage		175.059

MORNING MINE 48 5 34

Recorded - Shoshone
County
at 2/25/66
of Book 427/34
W.D.J.

Instrument
204623

B -- All that part of the Grouse patented lode mining claim, U. S. Survey Number 1188-A, lying east of the southerly extension of the westerly end line of the above-mentioned Morning patented lode mining claim, U.S. Survey Number 688, containing 11.320 acres.

C -- An undivided one-half ownership interest in the following patented lode mining claims, identified as aforesaid by name and U.S. survey number, and with acreage as shown:

<u>Name of Patented Claim</u>	<u>Survey Number</u>	<u>Acres</u>
Blackhawk	1719	15.329
Blackhawk Fraction	1719	3.297
Hawkeye	1719	18.771
Alvy	1719	10.093
Fanny Gremm	2503)	15.803
Twenty-two Short Fraction	2503)	
Total Acreage		63.293
One-half interest equivalent to		31.646

D -- All of the following patented lode mining claims, identified as aforesaid by name and U.S. survey number, and with acreage as shown:

<u>Name of Patented Claim</u>	<u>Survey Number</u>	<u>Acres</u>
No. 1 (less excepted interests described below)	1672	20.661
No. 2	1672	20.661
No. 3	1672	16.989
No. 4	1672	17.395
No. 5	1672	20.661
No. 6	1672	20.661
No. 7	1672	20.661
No. 8	1672	20.661
No. 9	1672	20.661
No. 10	1672	20.661
No. 11	1672	20.479
No. 12 Fraction	1672	4.994
No. 13	1672	20.661
No. 14	1672	20.661
No. 15	1672	20.661
No. 16	1672	20.661
No. 17	1672	20.661
No. 18	1672	20.661
No. 19	1672	7.611
Total Acreage		356.722

EXCEPTING from the above-mentioned No.1 patented lode
mining claim,

- (1) the interest therein conveyed by Grantor
to Kenneth J. Elwood and Mable D. Elwood
by quitclaim deed dated November 15, 1960,
and recorded in Deeds Book 105, page 291,
records of Shoshone County, and
- (2) the interest therein conveyed by Grantor
to William Couch and Alice Couch by quitclaim
deed dated June 2, 1961, and recorded in Deeds
Book 110, page 306, records of Shoshone County.

E -- All of the following patented lode mining claims,
identified as aforesaid by name and U. S. survey number and with
acreage as shown:

<u>Name of Patented Claim</u>	<u>Survey Number</u>	<u>Acres</u>
Ketchem	2318	13.704
White Fir	2318	13.507
High Line	2818	<u>18.991</u>
Total Acreage		46.202

F -- All of the following unpatented lode mining claims,
identified by name, with the certificate of location for each recorded
in the Shoshone County Recorder's records as shown opposite each
claim, as follows:

<u>Name of Unpatented Claim</u>	<u>Certificate of Location Recorded in</u>	
	<u>Book</u>	<u>Page</u>
P- 1	34	530
P- 2	34	528
P- 3	34	526
P- 4	34	524
P- 5	34	522
P- 6	34	520
P- 7	34	518
P- 8	31	362
P- 9	34	516
P- 10	34	514
P- 11	31	360
P- 12	31	358
P- 13	34	532
P- 14, amended	33	443

The foregoing group of fourteen (14) unpatented mining claims
covers approximately 164 acres.

G -- Parts of Lots 5,6 and 7, section 34, Township 48 North, Range 5 East, B.M., and a portion of the Evening Millsite, Mineral Survey Number 1181, more particularly described as follows:

From Corner No.7 of the official survey of the "Village of Mullan Townsite," which is a concrete monument, go North $23^{\circ}09'$ East a distance of 848.32 feet to Corner No.1, an iron pin, the place of beginning,

- (1) Thence South $8^{\circ}36'$ West a distance of 53.85 feet to Corner No.2, the southwest corner of Block C of the Village of Mullan;
- (2) Thence South $29^{\circ}27'$ West, shown of record to be South $29^{\circ}10'$ West, a distance of 612.43 feet to Corner No.3;
- (3) Thence South $55^{\circ}03'$ East, shown of record to be South $55^{\circ}20'$ East, a distance of 100.00 feet to Corner No.4, the courses from Corner No. 2 to Corner No.3, and from Corner No.3 to Corner No.4 running along and coinciding with a portion of the boundary of a parcel conveyed by Federal Mining and Smelting Company to the Village of Mullan by quitclaim deed dated September 20, 1929, and recorded in Deeds Book 56, page 254, records of Shoshone County;
- (4) Thence South $34^{\circ}57'$ West, shown of record to be South $34^{\circ}40'$ West, a distance of 172.35 feet along the northwest boundary of Block A of the old West Addition to the Village of Mullan, to Corner No.5, the southwest corner of said Block A;

- (5) Thence South $54^{\circ}55'$ East, shown of record to be South $55^{\circ}18'$ East, along Line 7-6 of the "Village of Mullan Townsite," and along the south boundary of Block A a distance of 149.50 feet to Corner No. 6;
- (6) Thence South $39^{\circ}07'30''$ West a distance of 100.36 feet to Corner No. 7, an iron pin;
- (7) Thence North $54^{\circ}52'$ West a distance of 124.95 feet to Corner No. 8 an iron pin;
- (8) Thence South $80^{\circ}23'30''$ West a distance of 123.19 feet to Corner No. 9, an iron pin, and the northeast corner of a parcel of land conveyed by Grantor to Harold R. Durfee and Daisy G. Durfee by quitclaim deed dated November 15, 1960;
- (9) Thence South $78^{\circ}37'45''$ West along the north boundary of said parcel of land a distance of 163.63 feet to Corner No. 10, an iron pin, said Corner No. 10 also being the northwest corner of the parcel conveyed to the Durfees, and the northeast corner of a parcel of land conveyed by Grantor to Alice Leona Engebretson by quitclaim deed dated February 9, 1962;
- (10) Thence South $63^{\circ}59'$ West a distance of 160.98 feet along the north boundary of said last-mentioned parcel of land to Corner No. 11, an iron pin, and the northwest corner of said parcel;
- (11) Thence North $88^{\circ}51'30''$ West a distance of 575.50 feet to Corner No. 12, an iron pin;
- (12) Thence North $86^{\circ}33'$ West a distance of 538.23 feet to Corner No. 13, an iron pin;

- (13) Thence South $76^{\circ}15'$ West a distance of 476.75 feet to Corner No.14, an iron pin, and a point on the North right-of-way line of the Northern Pacific Railway at its intersection with the west section line of section 34, Township 48 North, Range 5 East, B.M.
- (14) Thence North $0^{\circ}03'$ East Along the west line of section 34 a distance of 1,023.37 feet to line 3-2 of the No.1 claim of Mineral Survey No.1672, and Corner No.15;
- (15) Thence North $89^{\circ}58'$ East along Line 3-2 of the No.1 claim a distance of 1,227.45 feet to Corner No.16 of this tract, which is common with Corner No.2 of the No.1 claim, Mineral Survey No.1672, and with Corner No.2 of the White Fir claim, Mineral Survey No.2318;
- (16) Thence South $89^{\circ}00'30''$ East, shown of record to be South $89^{\circ}01'$ East, along Line 2-1 of the White Fir claim, a distance of 954.91 feet to Line 7-8 of the official survey of the "Village of Mullan Townsite," and Corner No.17;
- (17) Thence North $11^{\circ}26'$ East along said Line 7-8 a distance of 63.77 feet to the north line of Lot 7, section 34, and Corner No.18;
- (18) Thence due East a distance of 175.80 feet along the north line of Lot 7 to Corner No.1, the place of beginning, containing 46.261 acres, more or less.

H -- All of Lot 4, Section 33, Township 48 North, Range 5 East, B.M. and that portion of the northeast quarter of the southeast quarter (NE $1/4$ SE $1/4$) of said section 33, lying north of the northerly

line of the right-of-way of the Northern Pacific Railway, containing 24.644 acres, excepting and excluding therefrom the real property interests heretofore conveyed by Grantor by the following deeds from Grantor to,

- (1) Kenneth J. Elwood and Mable D. Elwood, dated November 15, 1960, and recorded in Deeds Book 105, page 291, records of Shoshone County;
- (2) Thomas A. Jackson and Amelia Jackson, dated April 26, 1961, and recorded in Deeds Book 104, page 13, records of Shoshone County;
- (3) William Couch and Alice Couch, dated June 2, 1961, and recorded in Deeds Book 110, page 306, records of Shoshone County; and
- (4) Evelyn Cecil Wilkie, dated July 3, 1961, and recorded in Deeds Book 109, page 352, records of Shoshone County.

All of the foregoing property hereinabove conveyed is subject to existing rights-of-way and easements, and to an agreement and mining lease dated May 1, 1961, between Grantor and Grantee (and the leasehold estate thereunder shall not merge with the estate granted herein);

Together with all and singular the tenements, hereditaments and appurtenances thereunto belonging or in any wise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof.

AND Grantor by these presents does bargain, sell, grant and convey, transfer and deliver to Grantee, its successors and assigns, all the tools, equipment and buildings belonging to Grantor, located on or attached to any and all the real property hereinabove conveyed, and the use of which tools, equipment and buildings was heretofore given to Grantee by Grantor pursuant to a certain agreement and mining lease dated May 1, 1961, between the parties, and the

same are hereby conveyed and accepted in their present condition and location.

TO HAVE AND TO HOLD, all and singular, the said property, together with the appurtenances and privileges, unto Grantee, its successors and assigns forever.

IN WITNESS WHEREOF, Grantor has caused these presents to be executed by its duly authorized officers and its corporate seal to be affixed as of the day and year first above written.

AMERICAN SMELTING AND REFINING COMPANY

By R. Worth Vaughan
Vice President

ATTEST:

David Home
Secretary

STATE OF NEW YORK)
) ss:
COUNTY OF NEW YORK)

On this 23rd day of February, 1966, before me,
the undersigned, a Notary Public of the State of New York,
personally appeared R. Worth Vaughan, known to me to be a
Vice President of AMERICAN SMELTING AND REFINING COMPANY,
the corporation that executed the above instrument and acknowledged
to me that such corporation executed the same.

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

W. Thomas Reed
Notary Public of the State of New York
Residing at Brooklyn, New York

W. THOMAS REED
Notary Public, State of New York
No 24-8519150
Qualified in Kings County
Commission Expires March 30, 1966

My commission expires: _____

DEED

This Deed is executed and delivered this 17th day of June, 1996 by HECLA MINING COMPANY, a Delaware corporation ("Grantor") to SHOSHONE TREE FARMS, INC., an Idaho corporation ("Grantee"), whose address is Highway 200, Box 220, Laclede, Idaho 83841.

1. Grant, Exceptions and Reservations. FOR VALUE RECEIVED, Grantor specially grants, bargains, sells and conveys to Grantee all of the real property situated in Shoshone County, Idaho, described in attached Exhibit A, incorporated herein by this reference (the "Property"):

EXCLUDING AND RESERVING TO SELLER all ores, base and precious metals, coal, oil, gas, other liquid or gaseous hydrocarbon, minerals, and mineral bearing substance of every kind and character, whether currently known to be valuable or becoming valuable in the future, now known to exist or hereafter discovered in the Property, (such excepted substances being referred to as the "Minerals"); AND EXCLUDING AND RESERVING TO GRANTOR the right to use as much of the surface of the Property as is reasonably necessary for Access and Mining Operations, subject to the terms of paragraph 12 of the Agreement; and SUBJECT TO THE PERMITTED ENCUMBRANCES, AS DESCRIBED BELOW.

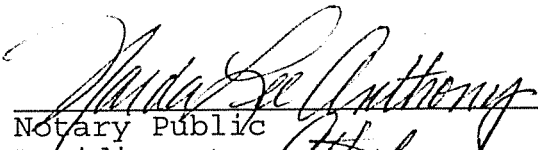
For the purposes of this conveyance, "Access" shall mean the right to use existing roads on the Property in connection with Mining Operations and the right to construct new roads, pipelines, powerlines, rail lines or conveyors, tramways, communication lines and other similar access and communications facilities to be used in connection with Mining Operations. "Mining Operations" shall include, without limitation, the right to conduct geological, geophysical or geochemical exploration and the extraction and processing of Minerals on the Property or other property owned or controlled by Grantor or Grantor's affiliates, successors or assigns by any method now known or subsequently developed, and the right to use the surface of the Property for excavations, tunnels, adits, drill holes, wells, surface mine operations, buildings, tailings, stockpiling of ores and mine waste and other facilities in support of mineral exploration and extraction, maintenance of such facilities, and for activities directed to compliance with environmental laws and regulations.

TO HAVE AND TO HOLD the said premises, with their appurtenances unto Grantee, its successors and assigns forever. Grantor covenants with and specially warrants title to the Grantee against all persons claiming under or through Grantor,

STATE OF IDAHO)
)
County of Kootenai) ss.

On this 17th day of June, 1996, before me, the undersigned, a Notary Public in and for the State of Idaho, personally appeared Michael B. White and Nathaniel K. Adams, known or identified to me to be the Vice President and the Assistant 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 Attah, Idaho
My Commission Expires 8-5-2000

EXHIBIT "A"
PROPERTY DESCRIPTION

PARCEL 1:

All or a portion of the following government lots located in Section 34, Township 48 North, Range 5 East, B.M., Shoshone County, Idaho:

	<u>Acres</u>
GOVERNMENT LOTS 5, 6, and 7 (portion)	72.800
	<i>[before exceptions]</i>

Which are located within the following described perimeter boundary:

From Corner No. 7 of the official survey of the Village of Mullan Townsite, which is a concrete monument, go North 23°09" East, a distance of 848.32 feet to Corner No. 1, an iron pin, the place of beginning; thence

South 8°36' West, a distance of 53.85 feet to Corner No. 2, the Southwest Corner of Block C of the Village of Mullan; thence

South 29°27' West, shown of record to be South 29°10' West, a distance of 612.43 feet to Corner No. 3; thence

South 55°03' East, shown of record to be South 55°20' East, a distance of 100.00 feet to Corner No. 4, the courses from Corner No. 2 to Corner No. 3 and from Corner No. 3 to Corner No. 4, running along and coinciding with a portion of the boundary of a parcel conveyed by Federal Mining and Smelting Company to the Village of Mullan by Quitclaim Deed dated September 20, 1929, recorded in Deeds Book 56, page 254, records of Shoshone County, State of Idaho; thence

South 34°57' West, shown of record to be South 34°40' West, a distance of 172.35 feet along the Northwest boundary of Block A of the old West Addition to the Village of Mullan to Corner No. 5, the Southwest Corner of said Block A; thence

South 54°55' East, shown of record to be South 55°18' East along line 7-6 of the Village of Mullan Townsite and along the South boundary of Block A, a distance of 149.50 feet to Corner No. 6; thence

South 39°07'30" West, a distance of 100.36 feet to Corner No. 7, an iron pin; thence

South 54°52' West, a distance of 124.95 feet to Corner No. 8, an iron pin; thence

South 80°23'30" West, a distance of 123.19 feet to Corner No. 9, an iron pin and the Northeast Corner of a parcel of land conveyed by Grantor to Harold R. Durfee and Daisy G. Durfee by Quitclaim Deed dated November 15, 1960; thence

EXHIBIT "A"
PROPERTY DESCRIPTION

PARCEL 1 (Continued):

South 78°37'45" West along the North boundary of said parcel of land, a distance of 163.63 feet to Corner No. 10, an iron pin, said Corner No. 10, also being the Northwest Corner of the parcel conveyed to the Durfees and the Northeast Corner of a parcel of land conveyed by Grantor to Alice Leona Engebretson by Quitclaim Deed dated February 9, 1962; thence

South 63°59' West, a distance of 160.98 feet along the North boundary of said last-mentioned parcel of land to Corner No. 11, an iron pin and the Northwest Corner of said parcel; thence

North 88°51'30" West, a distance of 575.50 feet to Corner No. 12, an iron pin; thence

North 86°33' West, a distance of 538.23 feet to Corner No. 13, an iron pin; thence

South 76°15' West, a distance of 476.75 feet to Corner No. 14, an iron pin and a point on the North right-of-way line of the Northern Pacific Railway at its intersection with the West Section line of Section 34, Township 48 North, Range 5 East, B.M.; thence

North 0°03' East along the West line of Section 34, a distance of 1,023.37 feet to line 3-2 of the No. 1 claim of M.S. No. 1672 and Corner No. 15; thence

North 89°58' East along line 3-2 of the No. 1 claim, a distance of 1,227.45 feet to Corner No. 16 of this tract, which is common with Corner No. 2 of the No. 1 claim, Mineral Survey No. 1672 and with Corner No. 2 of the White Fir Claim, M.S. 2318; thence

South 89°00'30" East, shown of record to be South 89°01' East along line 2-1 of the White Fir claim, a distance of 954.91 feet to line 7-8 of the official survey of the Village of Mullan Townsite and Corner No. 17; thence

North 11°26' East along side line 7-8, a distance of 63.77 feet to the North line of Lot 7, Section 34 and Corner No. 18; thence

Due East, a distance of 175.80 feet along the North line of Lot 7 to Corner No. 1, the place of beginning.

EXCEPT:

That portion of Government Lots 5, 6 and 7 lying South of the North Right-of-Way Line of that certain County Road known as the Bingville Road.

EXHIBIT "A"
PROPERTY DESCRIPTION

PARCEL 1 (continued):

ALSO EXCEPT:

The Evening Millsite, Mineral Survey No. 1181, situated in Hunter Mining District in Section 34, Township 48 North, Range 5 East, B.M., Shoshone County, Idaho.

PARCEL 2:

All or a portion of the following patented mining claim, located in Sections 33 and 34, Township 48 North, Range 5 East, B.M., Shoshone County, Idaho:

<u>Claim Name</u>	<u>Mineral Survey Number</u>	<u>Sec</u>	<u>Acres</u>
No. 1 (portion)	1672	33,34 <i>[before exceptions]</i>	20.661

EXCEPT:

Beginning at Corner No. 4, Mineral Survey 1672, a 2" iron pipe with a brass cap which bears South 19°46'30" West, 810.08 feet from the Northeast corner of Section 33, Township 48 North, Range 5 East, B.M., and running thence;

South 0°02' West, 480 feet to Corner No. 1 and the true point of beginning; thence

North 0°02' West, 17.49 feet to Corner No. 2; thence

North 75°18'30" East, 176.40 feet to Corner No. 3; thence

South 30° East, 255.96 feet to Corner No. 4; thence

South 75°18'30" West, 175.40 feet to Corner 5; thence

North 34°02' West, 101.33 feet to Corner No. 6; thence

North 89°58' East, 77.82 feet to Corner No. 7; thence

North 0°02' West, 69.15 feet to Corner No. 8; thence

North 21°48'40" East, 32.44 feet to Corner No. 9; thence

EXHIBIT "A"
PROPERTY DESCRIPTION

PARCEL 2 (continued):

North 62°33' West, 13.60 feet to Corner No. 10; thence

North 0°02' West 14.47 feet to Corner No. 11; thence

South 89°58' West, 150.00 feet to Corner No. 1 and the true place of beginning.

ALSO EXCEPT:

Beginning at Corner No. 4 of Claim No. 1, Mineral Survey 1672 which is a 2" iron pipe with a brass cap, lying South 19°46'30" West, a distance of 810.08 feet from the Northeast corner of Section 33, Township 48 North, Range 5 East, B.M. go South 0°02'00" East, a distance of 600.00 feet to Corner No. 3 of said claim, thence along line 3-2 of said claim, a distance of 72.18 feet to Corner No. 1, a point on line 5-4 of the tract deeded to William and Alice Couch and recorded in Book 110, Deeds, at page 306, records of Shoshone County, State of Idaho, and the true place of beginning; thence

North 89°58'00" East, a distance of 77.82 feet to Corner No. 2; thence

North 0°02'00" West, a distance of 69.15 feet to Corner No. 3, a point on line 3-4 of said Couch deed; thence

South 21°48'30" West, a distance of 21.38 feet along line 3-4 of said Couch deed to Corner No. 4 of said Couch deed; thence

South 54°55'30" West, a distance of 85.14 feet along line 4-5 of said Couch deed to Corner No. 1 and the true place of beginning.

ALSO EXCEPT:

From Corner No. 4 of Claim No. 1, Mineral Survey No. 1672, which is a 2" iron pipe with a brass cap, lying South 19°46'30" West, a distance of 810.08 feet from the Northeast corner of Section 33, Township 48 North, Range 5 East, B.M., Shoshone County, State of Idaho, go South 1°53'40" East, a distance of 508.71 feet to Corner No. 1, an iron pin and the place of beginning; thence

North 75°18'30" East, a distance of 110.29 feet to Corner No. 2, an iron pin; thence

South 62°33' East, a distance of 43.79 feet to Corner No. 3, an iron pin; thence

South 21°48'30" West, a distance of 54.27 feet to Corner No. 4, an iron pin; thence

EXHIBIT "A"
PROPERTY DESCRIPTION

PARCEL 2 (continued):

South 54°55'30" West, a distance of 93.66 feet to Corner No. 5, an iron pin; thence

North 26°48'30" West, a distance of 108.04 feet to Corner No. 1, the place of beginning and all lying within Claim No. 1, Mineral Survey No. 1672 and Lot 4, Section 33, Township 48 North, Range 5 East, B.M., Shoshone County, State of Idaho.

ALSO EXCEPT:

From Corner No. 4 of Claim No. 1, Mineral Survey 1672, which is a 2" iron pipe with a brass cap, lying South 19°46'30" West, a distance of 810.08 feet from the Northeast Corner of Section 33, Township 48 North, Range 5 East, B.M., go South 0°02' East, a distance of 581.92 feet to Corner No. 1, an iron pin on the common boundary of Claim No. 1, Mineral Survey 1672, and the Kaintuck claim, Mineral Survey 2248, the place of beginning; thence

North 89°58' East, a distance of 28.06 feet to Corner No. 2, an iron pin; thence

South 33°56'30" East, a distance of 54.33 feet to Corner No. 3, an iron pin; thence

South 79°10' West, a distance of 52.34 feet to Corner No. 4, an iron pin on the East endline of the Arlington Claim, Mineral Survey 2248; thence

North 10°50' West along the East endline of the Arlington Claim a distance of 37.70 feet to Corner No. 5, an inaccessible point, which is the common corner of the Arlington Claim, Mineral Survey 2248, the Kaintuck Claim, Mineral Survey 2248, and Claim No. 1, Mineral Survey 1672; thence

North 0°02' West along the common boundary of the Kaintuck Claim, Mineral Survey 2248 and Claim No. 1, Mineral Survey 1672, a distance of 18.08 feet to Corner No. 1, an iron pin, the place of beginning and lying in Claim No. 1, Mineral Survey 1672 and Government Lot 4, Section 33, Township 48 North, Range 5 East, B.M., Shoshone County, State of Idaho.

ALSO EXCEPT:

From Corner No. 4 of Claim No. 1, Mineral Survey 1672, which is a 2" iron pipe with a brass cap, lying South 19°46'30" West, a distance of 810.08 feet from the Northeast corner of Section 33, Township 48 North, Range 5 East, B.M., go South 0°02'00" East, a distance of 480.00 feet to Corner No. 1, a point on the West endline of said Mineral Survey 1672, and the place of beginning; thence

EXHIBIT "A"
PROPERTY DESCRIPTION

PARCEL 2 (continued):

South 30°11'24" East, a distance of 32.89 feet to Corner No. 2, an iron pin which is identical with Corner No. 1 of a tract deeded to William and Alice Couch and recorded in Book 110, Deeds, at page 306 of the records of Shoshone County, State of Idaho; thence

North 75°18'30" East, a distance of 110.29 feet along line 1-2 of said deed to Corner No. 3, an iron pin which is identical with Corner No. 2 of said deed; thence

South 62°33'00" East, a distance of 30.19 feet along line 2-3 of said deed to Corner No. 4, a point on said line; thence

North 0°02'00" West, a distance of 14.47 feet to Corner No. 5; thence

South 89°58'00" West, a distance of 150.00 feet to a point on the West endline of said Mineral Survey 1672 and the true point of beginning.

PARCEL 3:

All or a portion of the following patented mining claims located in Sections 21, 27, 28 and 34, Township 48 North, Range 5 East, B.M., Shoshone County, Idaho:

<u>Claim Name</u>	<u>Mineral Survey</u>		
	<u>Number</u>	<u>Sec</u>	<u>Acres</u>
No. 2	1672	33,34	20.661
No. 3	1672	27,28	16.989
		33,34	
No. 4	1672	27,28	17.395
No. 5	1672	27,28	20.661
No. 6	1672	27,28	20.661
No. 7	1672	27,28	20.661
No. 8	1672	27,28	20.661
No. 9	1672	27,28	20.661
No. 10	1672	27,28	20.661
No. 11	1672	27,28	20.479
No. 12 Fraction	1672	21,22	4.994
		27,28	
No. 13	1672	28	20.661
No. 14	1672	28	20.661
No. 15	1672	28	20.661
No. 16	1672	28	20.661

EXHIBIT "A"
PROPERTY DESCRIPTION

PARCEL 3 (continued):

<u>Claim Name</u>	<u>Mineral Survey</u>		<u>Acres</u>
	<u>Number</u>	<u>Sec</u>	
No. 17	1672	28	20.661
No. 18	1672	28	20.661
No. 19	1672	21,28	7.611

PARCEL 4:

All or a portion of the following patented mining claims located in Sections 21, 22 and 28, Township 48 North, Range 5 East, B.M., Shoshone County, Idaho:

<u>Claim Name</u>	<u>Mineral Survey</u>		<u>Acres</u>
	<u>Number</u>	<u>Sec</u>	
Morning	688	21,22	20.403
Evening	802	22	17.617
Silver King	803	22	12.379
You Like	977	21,22	20.521
Grouse	1188A	21	19.306
Noonday Fraction (portion)	1188A	21	3.207
Lauren J.	1188A	21	5.206
Silver Queen	1219	22	16.473
Park	1219	22	15.046
Bummer	1284	22	3.696
Midnight	1284	21,22	17.662
Eastside	2044	22	20.661
Poorman	2044	22	20.018
Ketchum	2318	34	13.704
White Fir	2318	34	13.507
Highline	2818	28	18.991
Evening Fraction	2821	28	0.650
Independence Fraction	2821	22	0.452
Grouse Fraction	3107	21	1.066

EXCEPT that portion of the Noonday Fraction in conflict with the Midnight patented mining claim, M.S. 1284, recorded in Book 12, Deeds, page 379.

EXHIBIT "A"
PROPERTY DESCRIPTION

PARCEL 5:

All or a portion of the following patented mining claims located in Sections 16, 17, 20, 21, and 28, Township 48 North, Range 5 East, B.M., Shoshone County, Idaho:

<u>Claim Name</u>	<u>Mineral Survey</u> <u>Number</u>	<u>Sec</u>	<u>Acres</u>
STAR MINE GROUP			
Dipper Lode	1444	20,21	18.421
Evening Star Lode	1514	21	17.705
Evening Star Fraction Lode	1514	21	10.882
Dulape Lode	1712	21	2.383
Alice No. 2	2262	16,17	18.237
GEORGIA GROUP			
Iron Crown	1188A	21	19.508
Iron Crown Fraction	1188A	21	3.982
San Jose Lode	1444	21	15.644
Mary R. Fraction	1514	21	4.603
Morning Star Lode	1514	21	19.525
Ruth (portion)	1627	21	0.889
Little Stake Lode	1713	21	13.552
Josie Lode	1996	21	17.371
Morning Star Fraction	2268	21	1.066
Rusler	2710	21	12.067
Alabama	2813	21,28	20.659
Dipper	2813	21	18.601
Georgia	2813	21	17.528
Main	2813	28	20.659
Nevada	2813	21	20.660
Utah	2813	20,21	20.641
Vermont	2813	21	19.820
Jeff Lode	2820	21	0.074
Iron Crown No. 2 Lode	2958	21	1.770

EXCEPT

That portion of the Ruth, M.S. 1627 described as follows:

Beginning at Corner No. 3 of the Ruth Lode, M.S. 1627, the same being the Southwest Corner of said Survey; thence

EXHIBIT "A"
PROPERTY DESCRIPTION

PARCEL 5 (continued):

South 63°7' East, 205.2 feet to intersect with the East side line of the Little Stake Lode, M.S. 1713; thence

North 10°23' West, 431.5 feet to intersect with the West endline of said Ruth Lode, M.S. 1627; thence

South 22°55' West along the said West endline 180.8 feet to Corner No. 2 of said Ruth Lode, M.S. 1627; thence

South 11°55' West 168.7 feet to the place of beginning.

<u>Claim Name</u>	<u>Mineral Survey</u>		<u>Acres</u>
	<u>Number</u>	<u>Sec</u>	
TOM BOY GROUP			
Cliff	3055	20	17.497
Elk Fraction	3055	20	6.777
Elk Tunnel Site	3055	20	19.615
Irene	3055	20	18.562
L & H	3055	20,21	17.352
L & H Fraction	3055	20,21	4.748
Tom Boy	3055	20,21	18.495

PARCEL 6:

All or a portion of the following patented mining claims located in Sections 21 and 22, Township 48 North, Range 5 East, B.M., Shoshone County, Idaho:

<u>Claim Name</u>	<u>Mineral Survey</u>		<u>Acres</u>
	<u>Number</u>	<u>Sec</u>	
Alvy Lode	1719	21	10.094
Blackhawk	1719	21	15.329
Blackhawk Fraction	1719	22	3.297
Hawkeye	1719	21	18.770

EXHIBIT "A"
PROPERTY DESCRIPTION

PARCEL 7:

All or a portion of the following patented mining claims located in Sections 22 and 27, Township 48 North, Range 5 East, B.M., Shoshone County, Idaho:

<u>Claim Name</u>	<u>Mineral Survey Number</u>	<u>Sec</u>	<u>Acres</u>
SUNSHINE PREMIER GROUP			
Contact	1321	22,27	9.063
Lucretia	1321	22,27	18.550
Stillwater Fraction	1341	22	2.495

PARCEL 8:

All or a portion of the following patented mining claims located in Sections 21 and 22, Township 48 North, Range 5 East, B.M., Shoshone County, Idaho:

<u>Claim Name</u>	<u>Mineral Survey Number</u>	<u>Sec</u>	<u>Acres</u>
Hickeory	1049	21	19.220
Franny Gremm	2503	22	14.617
Twenty-two Short Fraction	2503	22	1.217

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 12. Other Revett-St. Regis deposits production.

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
14	Hecla	Morning 1895-1980	18,631,754	62,311,121	2,814,714,000	1,945,494,000	4,565,921	12,833	3.34	7.55	5.22	0.01	0.44	1.45
14	Hecla	Star 1925-1980	7,259,687	9,246,727	610,668,000	1,314,380,000	3,790,300	5,308	1.27	4.21	9.05	0.03	0.30	0.47
16	USBM*	Lucky Friday 1938-1980*	3,998,747	64,927,626	812,588,335	79,929,967	12,587,958	30,785	16.24	10.16	1.00	0.16	9.50	1.71
	Hecla	1942-1979	3,823,118	63,366,324	808,520,880	91,870,600	--	--	--	--	--	--	--	--
15	USBM	Gold Hunter ¹ 1901-1954	3,260,750	9,955,082	195,209,698	1,144,318	456,810	615	3.05	2.99	0.02	0.01	1.02	149.50
12	USBM	Dayrock ² 1924-1974	1,276,488	6,526,992	154,918,341	7,762,003	794,672	1,406	5.11	6.07	0.30	0.03	0.84	20.23
12	USBM	Monarch 1904-1942	58,840	51,289	6,792,667	687,519	1,322	59	0.87	5.77	0.58	0.001	0.15	9.95
13	USBM	Alice 1909-1926	49,419	80,806	3,562,915	7,552	17	--	1.64	3.60	0.01	0.00002	0.46	360.00
12	USBM	California 1902-1925	49,079	270,174	7,134,141	11,301	120	46	5.50	7.27	0.01	0.0001	0.76	727.00
not plotted	Shenon Butte and Coeur d'Alene ³ (Idaho Silver) 1926		35	497	1,540	3,360	--	--	14.2	2.2	4.8	--	6.45	0.46
17	USBM	Vindicator (1922-1938)	28	859	12,418	--	209	--	30.68	22.18	--	0.37	1.38	--
not plotted	USBM	Dear (1935)	1	117	333	--	60	--	117	16.65	--	3.00	7.03	--
TOTALS			34,584,828	153,371,500	4,595,602,388	3,349,420,020	22,197,389	51,052	4.43	6.64	4.84	0.00	0.77	1.17

¹ The Gold Hunter mine is believed to have had considerable production prior to 1901, but there are no records available. This mine is in the Wallace Formation.

² The figures for the Dayrock mine include tonnages for 1924 to 1928, but not metal production for this period.

³ The Butte and Coeur d'Alene mine is in the Wallace Formation.

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

-- Data insufficient or unavailable

* Data from this source used to calculate total

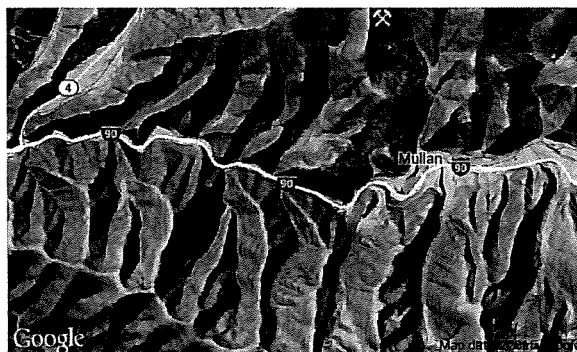
Western Mining History

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

Star-Morning 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: 5,325 feet (1,623 meters)

Latitude: 47.49408

Longitude: -115.81383

Primary: Zinc, Lead, Silver

Star-Morning Mine MRDS Details

All data originates from the USGS Mineral Resource Data System.

Site Name

Primary: "Star-Morning Mine"
Secondary: "Morning Mine"
Secondary: "Star Mine"
Secondary: "You Like Mine"

Commodity

Primary: Zinc
Primary: Lead
Primary: Silver
Secondary: Copper
Tertiary: Gold

Location

State: Idaho
County: Shoshone
District: Hunter

Land Status

Land Ownership: BLM Administrative Area
Administrative Organization:

Holdings

Workings

Type: Underground
Type: Underground
Type: Underground
Type: Underground
Type: Underground
Type: Underground
Type: Underground
Type: Underground
Type: Underground
Type: Underground
Type: Underground
Type: Underground

Ownership

Owner Name: Sullivan Mining Co.
Company ID:
Percent: 100.0
Home Office: Kellogg, Idaho
Info Year:
Years: 1924 - 1956
Owner Name: Sullivan Mining Co.
Company ID:
Percent: 100.0
Home Office: Kellogg, Idaho
Info Year:
Years: 1916 - 1924
Owner Name: Star Mining Co.
Company ID:

Production

Year: 2005
Time Period: 1925-1990
Mined: 9586325.000 mt
Material type: Star and Star-Morning
Mine Production
Description:
Year: 2005
Time Period: 1895-1958
Mined: 13371423.000 mt
Material type: Morning Mine
Cumulative Production
Description:

Deposit

Record Type: Site
Operation Category: Past Producer
Deposit Type: HYDROTHERMAL
VEIN AND REPLACEMENT
Plant Type: Beneficiation (Mill)
Plant Subtype: Flotation
Operation Type: Underground
Mining Method: Filled Stopes - Horiz
Cut and Fill W/Tailings
Milling Method: Flotation
Year First Production: 1887
Year Last Production: 1990
Discovery Year: 1884
Discovery Method: Ore-Mineral In

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Percent: 100.0
Home Office: Spokane, Washington
Info Year:
Years: 1900 - 1924
Owner Name: You Like Mining Association (H&K Lease)
Company ID:
Percent: 100.0
Home Office: Mullan, Idaho
Info Year:
Years: 1922 - 1929
Owner Name: You Like Mining Co.
Company ID:
Percent: 100.0
Home Office: Mullan, Idaho
Info Year:
Years: 1891 - 1905
Owner Name: Star Phoenix Mining Co.
Company ID:
Percent: 100.0
Home Office: Wallace, Idaho
Info Year:
Years: 1989 - 1990
Owner Name: Star-Morning Mining Co.
Company ID:
Percent: 100.0
Home Office: Wallace, Idaho
Info Year:
Years: 1984 - 1985
Owner Name: Hecla Mining Co.
Company ID:
Percent: 100.0
Home Office: Coeur d'Alene, Idaho
Info Year:
Years: 1966 -
Owner Name: Bunker Hill Co.
Company ID:
Percent: 70.00
Home Office: Kellogg, Idaho
Info Year:
Years: 1961 - 1966
Owner Name: Hecla Mining Co.
Company ID:
Percent: 30.00
Home Office: Coeur d'Alene, Idaho
Info Year:
Years: 1961 - 1966
Owner Name: American Smelting & Refining Co.
Company ID:
Percent: 100.0
Home Office: New York
Info Year:
Years: 1953 - 1966
Owner Name: H&K Lease (Grouse Lease)
Company ID:
Percent: 100.0
Home Office: Mullan, Idaho
Info Year:
Years: 1929 - 1938
Owner Name: Sheridan Leasing Co.
Company ID:
Percent: 100.0
Home Office:
Info Year:
Years: 1923 - 1929
Owner Name: Federal Mining & Smelting Co.
Company ID:
Percent: 100.0
Home Office: New York
Info Year:
Years: 1905 - 1953
Owner Name: Peter Larson & Thomas Greenough
Company ID:
Percent: 100.0
Home Office: Mullan, Idaho
Info Year:
Years: 1897 - 1905

Place
Years of Production: 1889-1891,
1893-1982, 1984-1985, 1989-1990
Organization: George S. Good and
C.C.A. Clark
Significant: Y
Deposit Size: L

Owner Name: Peter Larson & Thomas Greenough
 Company ID:
 Percent: 100.0
 Home Office: Mullan, Idaho
 Info Year:
 Years: 1895 - 1897
 Owner Name: D.B. Huntley
 Company ID:
 Percent: 100.0
 Home Office: Mullan, Idaho
 Info Year:
 Years: 1894 - 1894
 Owner Name: Morning Mining & Concentrating Co.
 Company ID:
 Percent: 100.0
 Home Office:
 Info Year:
 Years: 1894 -
 Owner Name: Morning Mining Co
 Company ID:
 Percent: 100.0
 Home Office: Milwaukee, Wisconsin
 Info Year:
 Years: 1891 - 1894
 Owner Name: Warren Hussey
 Company ID:
 Percent: 100.0
 Home Office: Mullan, Idaho
 Info Year:
 Years: 1886 - 1891

Physiography	Mineral Deposit Model	Orebody
General Physiographic Area: Rocky Mountain System Physiographic Province: Northern Rocky Mountains Physiographic Section: Physiographic Detail: Bitterroot Mountains - Coeur D'Alene Mountains	Model Name: Polymetallic veins	Name: North Silver Vein Form: PINCH AND SWELL Name: Motor Barn Vein Form: PINCH AND SWELL Name: South Noonday Vein Form: PINCH AND SWELL Name: Noonday Vein Form: PINCH AND SWELL Name: Midnight Vein Form: PINCH AND SWELL Name: Skip Pocket (East Morning) Vein Form: PINCH AND SWELL Name: Wilkie Vein Form: PINCH AND SWELL Name: East Noonday Vein Form: PINCH AND SWELL Name: Star-Morning Vein Form: PINCH AND SWELL Name: Grouse Vein Form: PINCH AND SWELL Name: You Like Vein Form: PINCH AND SWELL
Structure	Alterations	Rocks
Type: R Structure: Description: Osburn Fault (WNW) to south. Type: R Structure: Description: Star-Morning Fault, a feather joint off a shear plane complementary to the Osburn Fault. Type: R Structure: Description: Anticline (WNW) - veins in south upright limb.	Alteration Type: L Alteration: Alteration Text: Zone of disseminated siderite extends 10s to 100s of meters out from the veins, passing into a siderite-ankerite zone up to 10s of meters wide, and then into a zone of ankerite-calcite 100s of meters wide. Alteration Type: L Alteration: Alteration Text: Sericitization; Chlorite; Biotite; Siderite	Name: Quartzite Role: Host Description: Age Type: Host Rock Unit 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:
 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: Galena
 Ore: Chalcopyrite
 Ore: Sphalerite
 Ore: Tetrahedrite
 Gangue: Siderite
 Gangue: Magnetite
 Gangue: Quartz
 Gangue: Calcite
 Gangue: Pyrite
 Gangue: Barite
 Gangue: Pyrrhotite
 Gangue: Ankerite
 Gangue: Biotite
 Gangue: Chlorite
 Gangue: Sericite
 Gangue: Specularite
 Gangue: Marcasite
 Trace: Plattnerite
 Trace: Silver
 Trace: Cerussite
 Trace: Pyromorphite
 Trace: Polybasite
 Trace: Pyrrargyrite

Comments

Comment Type: Development
Comment The Star claim was located in 1886 by Thomas Greenough and Clarence Cunningham on a western extension of the Morning vein.

Comment Type: Production
Comment Star and Star-Morning Mine production compiled from Bunker Hill Co. records, Hecla Mining Co. annual reports, and other sources.

Comment Type: Workings
Comment Morning Adits Nos. 1 to 4 caved and inaccessible by 1912. The Morning No. 5 Adit level is the zero level of the Morning mine and equivalent to the 1700 level of the Star mine. Morning No. 6 Adit level is Morning 600 level and Star 2500 level. Morning workings connected with Star via Star 2900 and 4000 level crosscuts.

Comment Type: Orebody
Comment Mineralization extends below bottom (8300 foot Star) level.

Comment Type: Reserve-Resource
Comment The Star-Morning vein on Morning ground is depleted, but extends below the lowest level in the Star Mine. Substantial resources remain in subsidiary veins such as the Noonday.

Comment Type: Development
Comment The modern Star-Morning mine is a unitization of the Morning and Star Mines effected in 1961. At the time of unitization, the Morning consisted of 44 patented and 14 unpatented claims, including the old Grouse, Midnight, and You Like Groups. The Star Group in 1971 consisted of 30 patented claims.

Comment Type: Production
Comment Morning mine production compiled from annual reports and records of Federal Mining & Smelting Co., Asarco, and other sources.

References

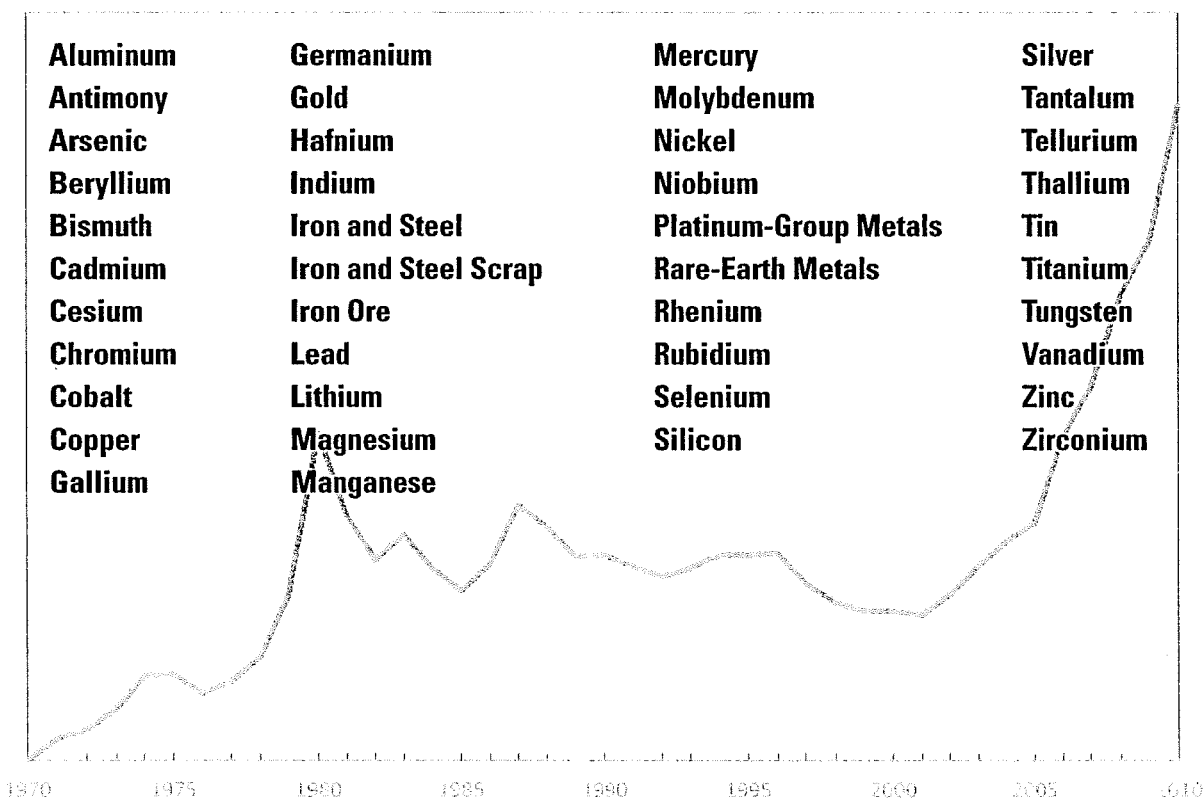
Reference Category: Development
Reference: Dalton, M.P., 1930, Milling methods and costs at the Morning concentrator of the Federal Mining & Smelting Co., Mullan, Idaho: U.S. Bureau of Mines Information Circular 6587, 11 p.
Pages: URL:

Reference Category: Reserve-Resource
Reference: Hecla Mining Co., 1981, Annual report
Pages: URL:

Reference Category: Reference: Federal Mining & Smelting Co., 1912-1952, Annual report to stockholders

Production	URL:
Pages:	
Reference Category:	Reference: Reynolds, John R., 1956, Mining methods and costs at the Morning mine, American Smelting & Refining Co., Shoshone County, Idaho: U.S. Bureau of Mines Information Circular 7743,
Development	40 p.
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Deposit	Mining & Smelting Co.
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Geology	geochemistry of the Star-Morning mine, Coeur d'Alene mining district, Idaho: Geology, v. 19, p. 131-
Pages:	134.
	URL:
Reference Category:	Reference: Calkins, F.C., and Jones, E.L., Jr., 1914, Economic geology of the region around Mullan,
Geology	Idaho, and Saltese, Montana: U.S. Geological Survey Bulletin 540-E, p. 167-211.
Pages:	URL:
Reference Category:	Reference: 6) Ransome, F. L., AND Calkins, F. C., 1908 , The geology and ore deposits of the
Geology	Coeur d'Alene district, Idaho: U.S. Geological Survey Professional Paper 62 , 203 p.
Pages:	URL:
Reference Category:	Reference: Fryklund, V. C., Jr., 1964 , Ore Deposits of the Coeur d'Alene district, Shoshone County,
Geology	Idaho: U.S. Geological Survey Professional Paper 445 , 103 p.
Pages:	URL:
Reference Category:	Reference: Umpleby, J. B., and Jones, F. L., Jr., 1923 , Geology and ore deposits of Shoshone
Deposit	County, Idaho: U.S. Geological Survey Bulletin 732, 156 p.
Pages:	URL:

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

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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 – Star/Morning Facility

To Whom It May Concern:

Please find enclosed the Annual Reporting Form for Hecla Limited's inactive and unstaffed site Star/Morning Facility.

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 "Paul Glader", written over a horizontal line.

Paul Glader
Environmental Director

Cc: File
Judy Cloos
Encls.

NPDES Permit Tracking No.:

IDR05A421

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

Annual Reporting Form

A. GENERAL INFORMATION

1. Facility Name: HECLA LIMITED STAR/MORNING

2. NPDES Permit Tracking No.: IDR05A421

3. Facility Physical Address:

a. Street: BURKE 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: 07/16/2014

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 Star/Morning and associated sites. Based on past site visits, there are no indications of significant storm water runoff from these sites into either the Canyon Creek, O'Neil Gulch Creek, Grouse Creek, Mill Creek and associated tributaries.

The Star Mine Site is no longer conducting underground exploration activities and therefore is again unstaffed. An updated NOI was submitted and has been processed indicating this status.

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:

Star/Morning 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)

Morning #5 Portal was improved for ventilation purposes
Star 700 Rock Raise was filled for safety improvements

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 GLADEB

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

Star/Morning includes: Hecla #1 - #3, Russell #1 - #2, Marsh (2 portals), O’Neil Rock Dump, Hecla Waste Dump, Star Mine Yard, Omaha, Joe Matt, Tailings Ponds, Duluth, Midway Summit (2 portals), Sonora #1 - #2, Gertie #1 - #2, Matt, Imperial, Andrews
South Fork Side: Grouse Claims (5 portals), We Like, Star 700, 1000, 1200, Star Discovery Cut, Iron Crown, You Like #1 - #2, Lucretia, Morning #1 - #5, Fanny Gremm, Wall Street

- 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:

Morning #5 Portal was improved for ventilation purposes

Star 700 Rock Raise was filled for safety improvements

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 D):

The date(s) of the inspection; 5/27/2014 – 7/16/2014

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

Judy Cloos – Senior Environmental Technician

(name and title)

Ken 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:

The Star Mine Site is no longer conducting underground exploration activities and therefore is again unstaffed. An updated NOI was submitted and has been processed indicating this status.

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:

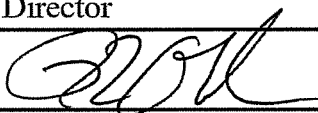
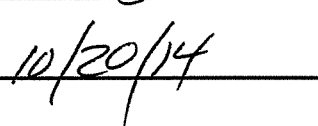
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons 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)



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 – Star/Morning Facility

To Whom It May Concern:

Please find enclosed the Annual Reporting Form for Hecla Limited's inactive and unstaffed site Star/Morning Facility.

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 "Paul Glader", written over a horizontal line.

Paul Glader
Environmental Director

Cc: File
Judy Cloos
Encls.

NPDES Permit Tracking No.:

IDR05A421

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

Annual Reporting Form

A. GENERAL INFORMATION

1. Facility Name: HECLA LIMITED STAR/MORNING

2. NPDES Permit Tracking No.: IDR05A421

3. Facility Physical Address:

a. Street: BURKE ROAD

b. City: WALLACE

c. State: ID

d. Zip Code: 83873

4. Lead Inspectors Name: JUDY CLOOS

Title: SR ENVIRONMENTALTECH

Additional Inspectors Name(s): KENNETH CLOOS

SEASONAL EMPLOYEE

5. Contact Person: JUDY CLOOS

Title: SR ENVIRONMENTALTECH

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

6. Inspection Date: 07 / 16 / 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 Star/Morning and associated sites. Based on past site visits, there are no indications of significant storm water runoff from these sites into either the Canyon Creek, O'Neil Gulch Creek, Grouse Creek, Mill Creek and associated tributaries.

The Star Mine Site is no longer conducting underground exploration activities and therefore is again unstaffed. An updated NOI was submitted and has been processed indicating this status.

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:

Star/Morning 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)

Morning #5 Portal was improved for ventilation purposes
Star 700 Rock Raise was filled for safety improvements

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 corrective 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:

NPDES Permit Tracking No.:

11DR05A421

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 GLADER

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

Star/Morning includes: Hecla #1 - #3, Russell #1 - #2, Marsh (2 portals), O’Neil Rock Dump, Hecla Waste Dump, Star Mine Yard, Omaha, Joe Matt, Tailings Ponds, Duluth, Midway Summit (2 portals), Sonora #1 - #2, Gertie #1 - #2, Matt, Imperial, Andrews
South Fork Side: Grouse Claims (5 portals), We Like, Star 700, 1000, 1200, Star Discovery Cut, Iron Crown, You Like #1 - #2, Lucretia, Morning #1 - #5, Fanny Gremm, Wall Street

- 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:

Morning #5 Portal was improved for ventilation purposes
Star 700 Rock Raise was filled for safety improvements

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 D):

The date(s) of the inspection; 5/27/2014 – 7/16/2014

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

Judy Cloos – Senior Environmental Technician
(name and title)

Ken 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:

The Star Mine Site is no longer conducting underground exploration activities and therefore is again unstaffed. An updated NOI was submitted and has been processed indicating this status.

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:

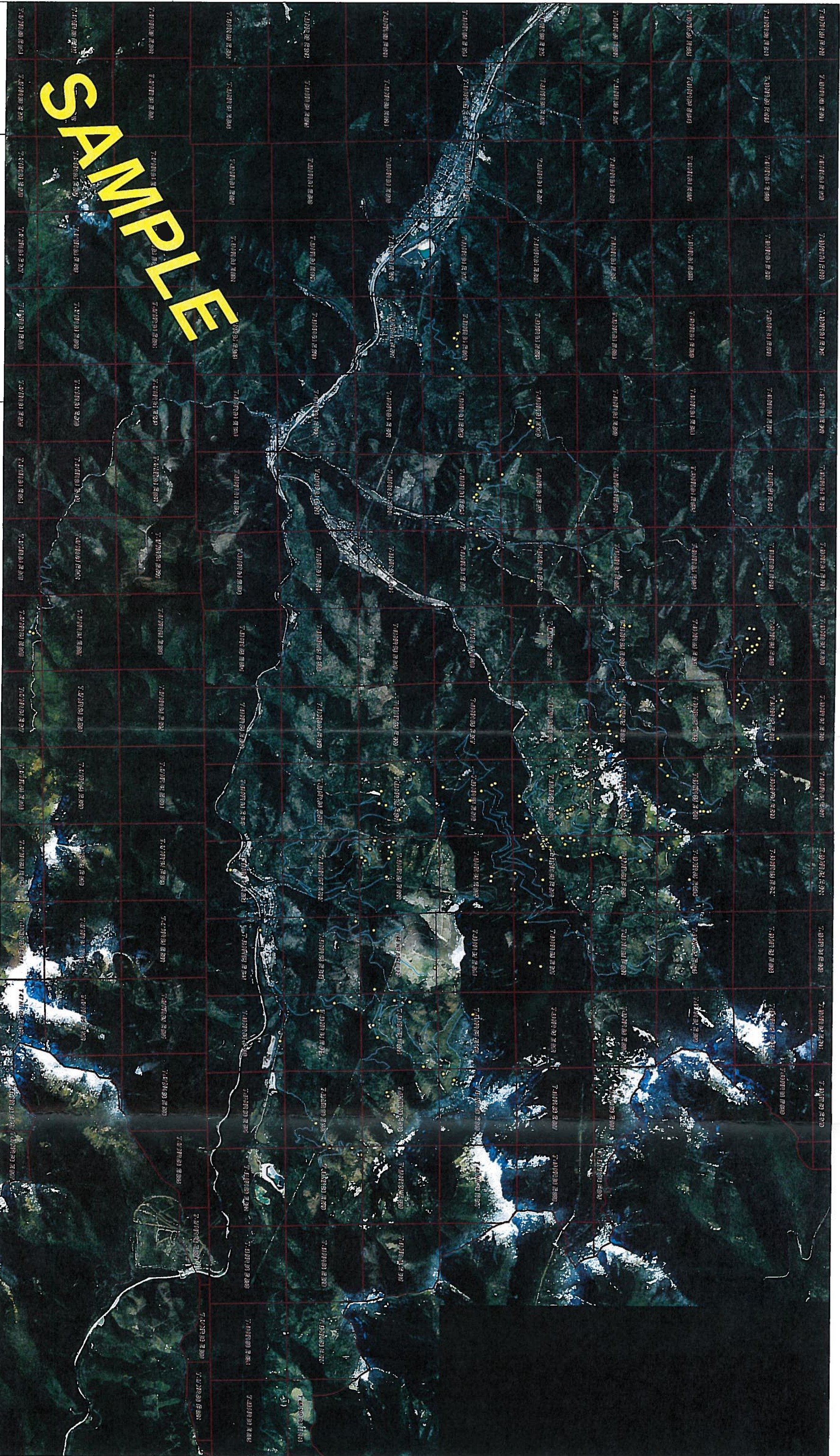
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information contained therein. Based on my inquiry of the person or persons 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)



SAMPLE

6000 N. Mineral Drive, Suite 200
Coeur d'Alene, ID 83815-9408

This map is for representation only and should be treated as such. The data is not survey grade quality and was compiled from various dates/times.

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0.5

1

2

Miles

Projects

Shoshone County, ID

Drawn By	xxxxx
Checked By	B. Roberts
Approved By	S. Paterni
Date	xx-xx-xxxx
Scale	As Noted
File Name	xxxxxx-xxxx

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 made 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.