

STATE OF COLORADO

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
TDD Line (303) 691-7700
Located in Glendale, Colorado
<http://www.cdphe.state.co.us>



Colorado Department
of Public Health
and Environment

For Agency Use Only
COR- _____
Date Received ____/____/____ Month Day Year
REGULATION _____
WATER BODY ID _____

APPLICATION for STORMWATER DISCHARGES ASSOCIATED WITH:

- HEAVY and LIGHT INDUSTRIAL ACTIVITY
- METAL MINING (and some Coal Mining)
- RECYCLING INDUSTRY

Please print or type. Original signatures are required. FAXED COPIES OR PDF COPIES WILL NOT BE ACCEPTED.

This application is for use by all industrial stormwater dischargers engaged in **heavy and light industrial activity, metal mining** (and some coal mining), and the **recycling industry** as categorized by Standard Industrial Classification Code (SIC code) (see Appendix A.)

The application must be submitted to the Water Quality Control Division (the Division) **at least 30 days** prior to the anticipated date of discharge, and must be considered complete by the Division before it will begin the review and approval process. The Division will notify the applicant if additional information is needed to complete the application. If more space is required to answer any question, please attach additional sheets to the application form. Applications must be mailed or delivered to:

**Colorado Department of Public Health and Environment
Water Quality Control Division
4300 Cherry Creek Drive South
WQCD-P-B2
Denver, Colorado 80246-1530**

PERMIT TYPE

Indicate the stormwater discharge permit type this application applies to. Refer to Appendix A for appropriate permit type based on the primary industrial activity conducted at the facility. Note: Applications for Heavy Industrial Activity and the Recycling Industry stormwater discharge permit types must include a copy of the Stormwater Management Plan.

- Heavy Industrial Activity (A copy of the Stormwater Management Plan must be submitted to the Division with the application.)
- Light Industrial Activity
- Metal Mining Inactive mine active over 10 acres active under 10 acres
- Recycling Industry (A copy of the Stormwater Management Plan must be submitted to the Division with the application.)

APPLICANT

The applicant must be a legal entity that meets the definition of either the owner and/or operator of the industrial activities that occur at the facility for this application to legally cover the industrial activities. The applicant must have day-to-day supervision and control over activities at the facility and implementation of the Stormwater Management Plan (SWMP).

Alternative Permittees: Other agents may also obtain permit coverage if they have clear contractual responsibility and operational control to address the impacts industrial activities may have on stormwater quality (including SWMP implementation). Examples include consultants or property owners acting as facility managers under contract with the owner or operator of the industrial activities, as long as the contractual relationship clearly delegates responsibility for stormwater management. A property owner that is not associated with the actual industrial activities at the site or under contract to adequately perform the stormwater management responsibilities at the site, as discussed above, may not legally maintain permit coverage for industrial activities at their property.

Applicant is:

Property Owner

Contractor/Operator

Permit number COR-_____

a. CONTACT INFORMATION - NOT ALL CONTACT TYPES MAY APPLY * indicates required

***PERMITTEE (If more than one please add additional pages)**

***ORGANIZATION FORMAL NAME:** _____

1) *PERMITTEE the person **authorized to sign and certify** the permit application. This person receives all permit correspondences and is **legally responsible** for compliance with the permit.

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

This form must be signed by the Permittee to be considered complete.

Per Regulation 61 In all cases, it shall be signed as follows:

- a) In the case of corporations, by a responsible corporate officer. For the purposes of this section, the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the application originates.
- b) In the case of a partnership, by a general partner.
- c) In the case of a sole proprietorship, by the proprietor.
- d) In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official

2) DMR COGNIZANT OFFICIAL (i.e. authorized agent) the person or position authorized to **sign and certify** reports required by permits including Discharge Monitoring Reports [DMR's], Annual Reports, Compliance Schedule submittals, and other information requested by the Division. The Division will transmit pre-printed reports (ie. DMR's) to this person. If more than one, please add additional pages.

Same As 1) Permittee

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Per Regulation 61 : All reports required by permits, and other information requested by the Division shall be signed by the permittee or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (i) The authorization is made in writing by the permittee
- (ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a **named individual** or any individual occupying a **named position**)
- (iii) Submitten in writing to the Division

3) *SITE CONTACT local contact for questions relating to the facility & discharge authorized by this permit for the facility.

Same As 1) Permittee

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

4) OPERATOR in Responsible Charge Same As 1) Permittee

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Certification Type _____ Certification Number _____

5) * BILLING CONTACT if different than the permittee

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

6) OTHER CONTACT TYPES (check below) Add pages if necessary:

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Pretreatment Coordinator

Inspection Facility Contact

Stormwater MS4 Responsible Person

Environmental Contact

Consultant

Stormwater Authorized Representative

Biosolids Responsible Party

Compliance Contact

Other _____

Property Owner

B. Permitted Project/Facility Information

Project/Facility Name _____

Street Address or cross streets _____

City, _____ Zip Code _____ County _____

Facility Latitude/Longitude— (approximate center of site to nearest 15 seconds using one of following formats

001A Latitude _____ . _____ Longitude _____ . _____ (e.g., 39.703°, 104.933°)
degrees (to 3 decimal places) degrees (to 3 decimal places)

or

001A Latitude _____ ° _____ ' _____ " Longitude _____ ° _____ ' _____ " (e.g., 39°46'11"N, 104°53'11"W)
degrees minutes seconds degrees minutes seconds

C. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE(S) FOR THIS FACILITY

(See Appendix A - include up to 4 in order of importance).

a. _____ b. _____ c. _____ d. _____

D DESCRIBE THE INDUSTRIAL ACTIVITIES WHICH TAKE PLACE ON THIS SITE

Describe the primary industrial activities at this facility (e.g., trucking firm with vehicle maintenance; computer equipment manufacturer; automobile or scrap metal recycling; precious metal mining, milling, metal mining services; coal mine etc.). Indicate whether or not the facility has a coal pile. If this application is for any of the following types of facilities, also provide the additional information indicated:

Airport: state the estimated volume of deicers used, and the volume of fuel sold, on an annual basis.

Wastewater treatment plant: include the design flow and pretreatment program status.

Steam electric power plant: indicate the primary and backup fuel sources.

Paving and roofing materials manufacturing: indicate whether or not the facility manufactures asphalt emulsion.

Asphalt or concrete batch plant: indicate whether or not the plant is portable.

Description:

E. RECEIVING WATERS

Identify the receiving water of the stormwater from the industrial facility. Receiving waters are any waters of the State of Colorado including all water courses, even if they are usually dry. If stormwater from the facility enters a ditch or storm sewer system, identify that system and indicate the ultimate receiving water for the ditch or storm sewer. Note: a stormwater discharge permit does not allow a discharge into a ditch or storm sewer system without the approval of the owner/operator of that system.

Immediate Receiving Water(s): _____

Ultimate Receiving Water(s): _____

F. OTHER ENVIRONMENTAL PERMITS

Does this facility currently have any environmental permits, or is it subject to regulation, under either of the following programs?

Permit Name	Yes	No	Application Date	Permit No.
a. Colorado Division of Reclamation, Mining and Safety— permit anniversary:	<input type="checkbox"/>	<input type="checkbox"/>		
b. Underground Injection Control	<input type="checkbox"/>	<input type="checkbox"/>		
c. Clean Water Act (CWA) Section 404 permit (Army Corps of Engineers)	<input type="checkbox"/>	<input type="checkbox"/>		
d. Resource Conservation and Recovery Act (RCRA)	<input type="checkbox"/>	<input type="checkbox"/>		
e. Colorado Discharge Permit System (CDPS)	<input type="checkbox"/>	<input type="checkbox"/>		
f. Colorado State Air Pollution Emission	<input type="checkbox"/>	<input type="checkbox"/>		
g. Other	<input type="checkbox"/>	<input type="checkbox"/>		

G. MAP (Provide as an attachment to the application)

Map attached? NO YES

Map: Attach a map that indicates the site location and that CLEARLY shows the boundaries of the area subject to the application. Maps must be **no larger** than 11 x 17 inches.

H. REQUIRED SIGNATURES (Both parts i. and ii. must be signed)

STOP! A Stormwater Management Plan must be completed prior to signing the following certifications!

The Stormwater Management Plan (SWMP) requirement applies to all facilities. A SWMP must be prepared prior to submitting an application for coverage under a stormwater discharge general permit, and the Stormwater Management Plan Certification (below) signed. See the Division's website (www.coloradowaterpermits.com) for SWMP preparation guidance documents (identified by permit category – heavy and light industrial activity, metal mining, or the recycling industry).

Note: Applications for Heavy Industrial Activity and the Recycling Industry stormwater discharge permit types must include a copy of the Stormwater Management Plan.

Heavy Industrial Activity and the Recycling industry SWMP attached? NO YES

i. Stormwater Management Plan 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 gather and evaluate 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."

Applicant or duly authorized representative signature (submission must include original ink signature) _____ Date Signed _____

Name (printed) _____ Title _____

ii. Signature of Permit Legal Contact

The application must be signed to be considered complete. In all cases, it shall be signed as follows:

- a. In the case of corporations, by a responsible corporate officer. The responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the form originates;
- b. In the case of partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor;
- d. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer has responsibility for the overall operation of the facility from which the discharge originates.

"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 gather and evaluate 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."

Applicant Signature (submission must include original ink signature)

Date Signed

Name (printed)

Title

DO NOT INCLUDE PAYMENT – AN INVOICE WILL BE SENT AFTER THE PERMIT CERTIFICATION IS ISSUED.

APPENDIX A

INDUSTRIES REQUIRED TO OBTAIN STORMWATER DISCHARGE PERMIT COVERAGE

The **Standard Industrial Classification (SIC) Code** or codes for the facility usually determines permit coverage. SIC Codes are assigned according to the primary activities performed by a company. They are often assigned for insurance purposes or when a business registers as a corporation. Industries can also determine their SIC Code by checking with their trade association, Chamber of Commerce, legal counsel, library for the SIC Manual, or on-line at <http://www.osha.gov/pls/imis/sicsearch.html>.

The industries are listed here by their SIC Code. The manufacturing industries are generally represented by SIC Codes 20-39. (A two digit code, such as 42, means that **all** industries under that heading, from 4200 to 4299, are covered.) Use this table to determine which of the Division's general permits is appropriate for your facility.

SIC Code	Industry Type	Notes	Permit Type
10	Metal mining and milling	(a) (b)	M
12	Coal mining	(a) (b)	C
13	Oil and gas extraction	(c) (d)	L
14	Mining and quarrying of nonmetallic minerals except fuels	(a) (b)	S
NA	Construction	(b)	N
20	Food and kindred products (except)		L
2011	Meat packing plants		H
2015	Poultry slaughtering and processing		H
2077	Animal and marine fats and oils		H
21	Tobacco products		L
22	Textile mills		L
23	Apparel and other finished products made from fabric and similar material		L
24	Lumber and wood products except furniture (except)		L
2491	Wood preserving		H
25	Furniture and fixtures		L
26	Paper and allied products		L
27	Printing, publishing, and allied products		L
28	Chemicals and allied products (except)	(b)	H
283	Drugs		H
285	Paints and allied products		H
29	Petroleum refining and related industries (except)	(b)	H
2951	Asphalt batch plants	(e)	L,N,S
30	Rubber and miscellaneous plastics products		H
31	Leather Products (except)		L
311	Leather tanning and finishing		L
32	Stone, clay, glass and concrete products (except)		L
3241	Cement manufacturing	(b)	H
3273	Ready-mix concrete facilities	(e)	L,N,S
33	Primary metals industries		H
34	Fabrication of metal products, except machinery and transportation equipment (except)		L
3441	Fabricated structural metal		L
35	Industrial and commercial machinery and computer equipment		L
36	Electronic and other electrical equipment and components, except computer equipment		L
37	Transportation equipment		L
38	Measuring, analyzing, and controlling instruments: photographic, medical, and optical goods, watches and clocks		L
39	Miscellaneous manufacturing industries		L
40	Railroad transportation	(f)	L
41	Local and suburban transit and interurban highway passenger transportation	(f)	L
42	Motor freight transportation and warehousing (except)	(f)	L
4221	Farm Product warehousing and storage		L
4222	Refrigerated warehousing and storage		L
4225	General warehousing and storage		L
43	US Postal Facilities	(f)	L
44	Water Transportation	(f)	L
45	Transportation by Air	(f)(g)	L,H
4911	Steam electric power generation (all fuel types)	(b)	H
4952	Wastewater treatment plants with a design flow of 1.0 MGD or more, or required to have an approved pretreatment program under 40 CFR 403	(b)	L

APPENDIX A (continued)

SIC Code	Industry Type	Permit Notes	Permit Type
4953	Hazardous waste treatment, storage or disposal facilities; incinerators (including boilers and industrial furnaces) that burn hazardous waste; and active or inactive landfills, land application sites, or open dumps with industrial waste and without a stabilized final cover	(b)	H
5015	Motor vehicle parts, used		R
5093	Scrap and waste materials		R
5171	Petroleum bulk stations and terminals	(f)	L

Notes:

- (a) For this SIC Code, a stormwater permit is required only if runoff contacts overburden, raw material, intermediate or finished product, or waste products.
- (b) For most facilities covered by the stormwater regulations, SIC codes are used to indicate the **primary** function of the facility. This footnote denotes industries which, in most cases, are covered under the stormwater regulations regardless of what other activities are conducted at the site (contact Division for details).
- (c) This SIC Code only refers to the *operation* of oil and gas facilities (exploration, production, processing, or treatment operations, or transmission facilities). *Construction* activities at oil and gas facilities (e.g., construction of well pads, roads, pipelines, etc.) are covered under the Construction general permit.
- (d) For facilities under this SIC Code, as per the Colorado Discharge Permit System Regulations, Section 61.4(3)(b)(i)(C), the operator of an existing or new discharge composed entirely of stormwater from an oil or gas exploration, production, processing, or treatment operation, or transmission facility is not required to submit a permit application unless the facility has had a discharge of a reportable quantity, or contributes to a violation of a water quality standard:
- (e) Facilities at sand and gravel operations may be covered under the Sand and Gravel general permit; facilities at construction sites may be covered under the Construction general permit; other facilities, including mobile plants, may be covered under the Light Industry general permit.
- (f) In this SIC Code, only facilities with vehicle maintenance (including fueling), equipment cleaning, or airport deicing need a stormwater permit.
- (g) Airports that use 1000 gallons of deicer(s) or more annually, and that have annual fuel sales of one million gal/year or more, are covered under the Heavy Industry general permit. Airports that do not meet these criteria need the Light Industry general permit.

Permit types:

L: **Light Industry** General Permit (Permit No. COR-010000)

H: **Heavy Industry** General Permit (Permit No. COR-020000)

N: **Construction** General Permit (Permit No. COR-030000)

M: **Metal Mining** General Permit (Permit No. COR-040000)

C: **Coal Mining** General Permit (Permit No. COG-850000)

S: **Sand and Gravel** General Permit (Permit No. COR-340000)

R: **Recycling Industry** General Permit (Permit No. COR-060000)

Appendix F-6

COLORADO DIVISION OF WILDLIFE CONSULTATION

EXHIBIT F

**Lockland, LLC
Hopemore Shaft-Lake County
Leadville, Colorado
Colorado Division of Reclamation Mining and Safety
110(2) Permit Application**

**Lockland, LLC
Hopemore Shaft
Leadville, Colorado**

Appendix F-7

**STATE HISTORICAL PRESERVATION OFFICE
BUREAU OF LAND MANAGEMENT**

EXHIBIT F

**Lockland, LLC
Hopemore Shaft-Lake County
Leadville, Colorado
Colorado Division of Reclamation Mining and Safety
110(2) Permit Application**

**Lockland, LLC
Hopemore Shaft
Leadville, Colorado**

State Site #: 5LK50.28

Temporary #: N/A

Linear Site Record Form

(page 2 of 2)

11. Archival Data:

Builder: Denver & Rio Grande Railroad

Date of construction: ca. 1881

Courthouse records; describe offices visited, records examined, and results, even if results are negative: Lake County Clerk's office has only basic information on right-of-ways.

General Land Office survey maps and Historical Index checked at BLM? Yes No
Results: Only general right-of-way records for unpatented lands that the linear crosses.

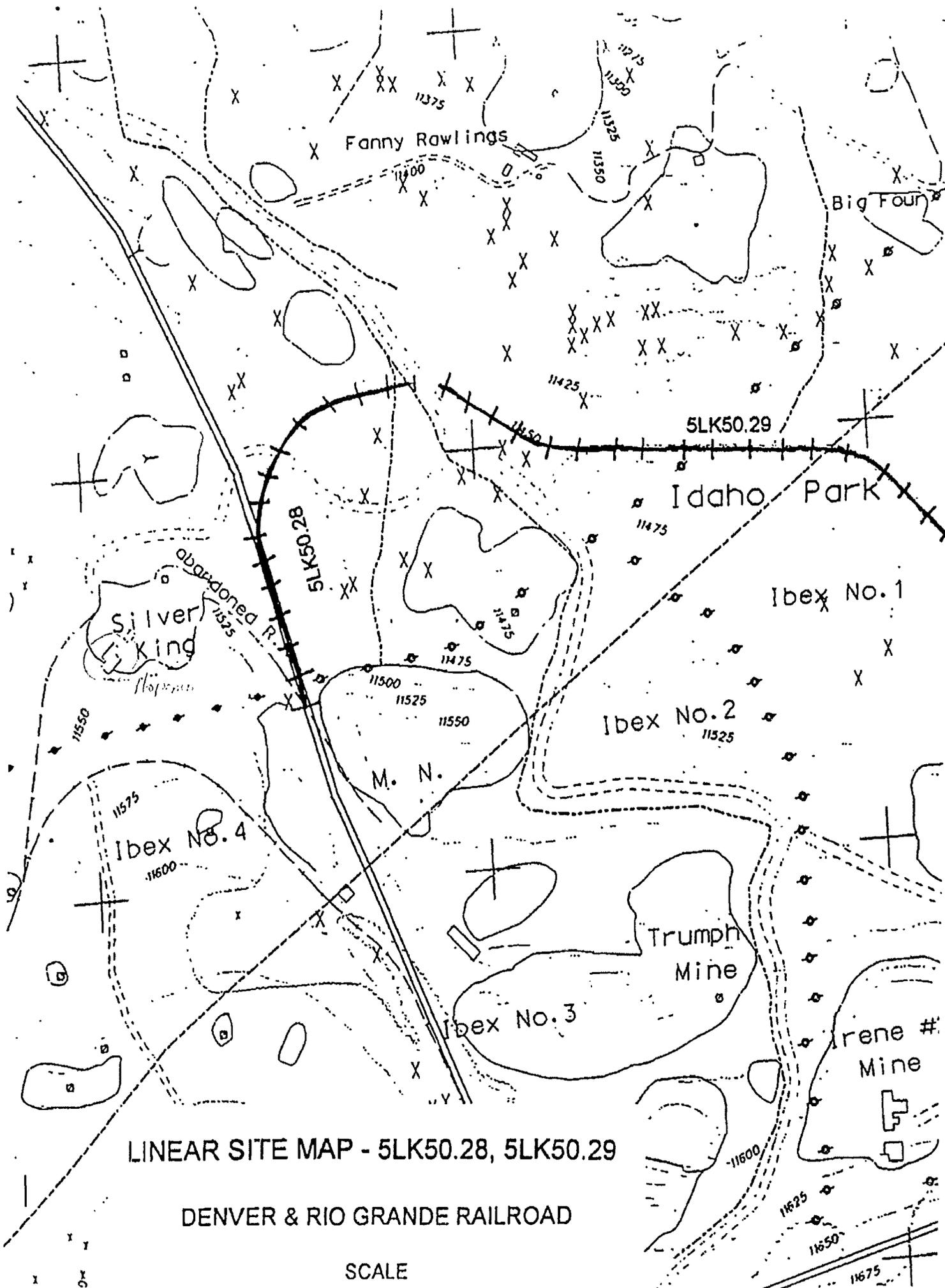
Other offices, records, or sources of information consulted and results: General references on Leadville Mineral Belt Railway (Colorado and Southern) history.

12. Recorder(s): Jon Horn and Nathan Fleming

Date: 6/13/96

Mark location of linear site on USGS map indicating portion of site actually examined, noting physical integrity of sections, and likely route outside area examined, if known.

Colorado Historical Society, Office of Archaeology & Historic Preservation, 1300
Broadway, Denver, CO 80203, (303) 866-3395

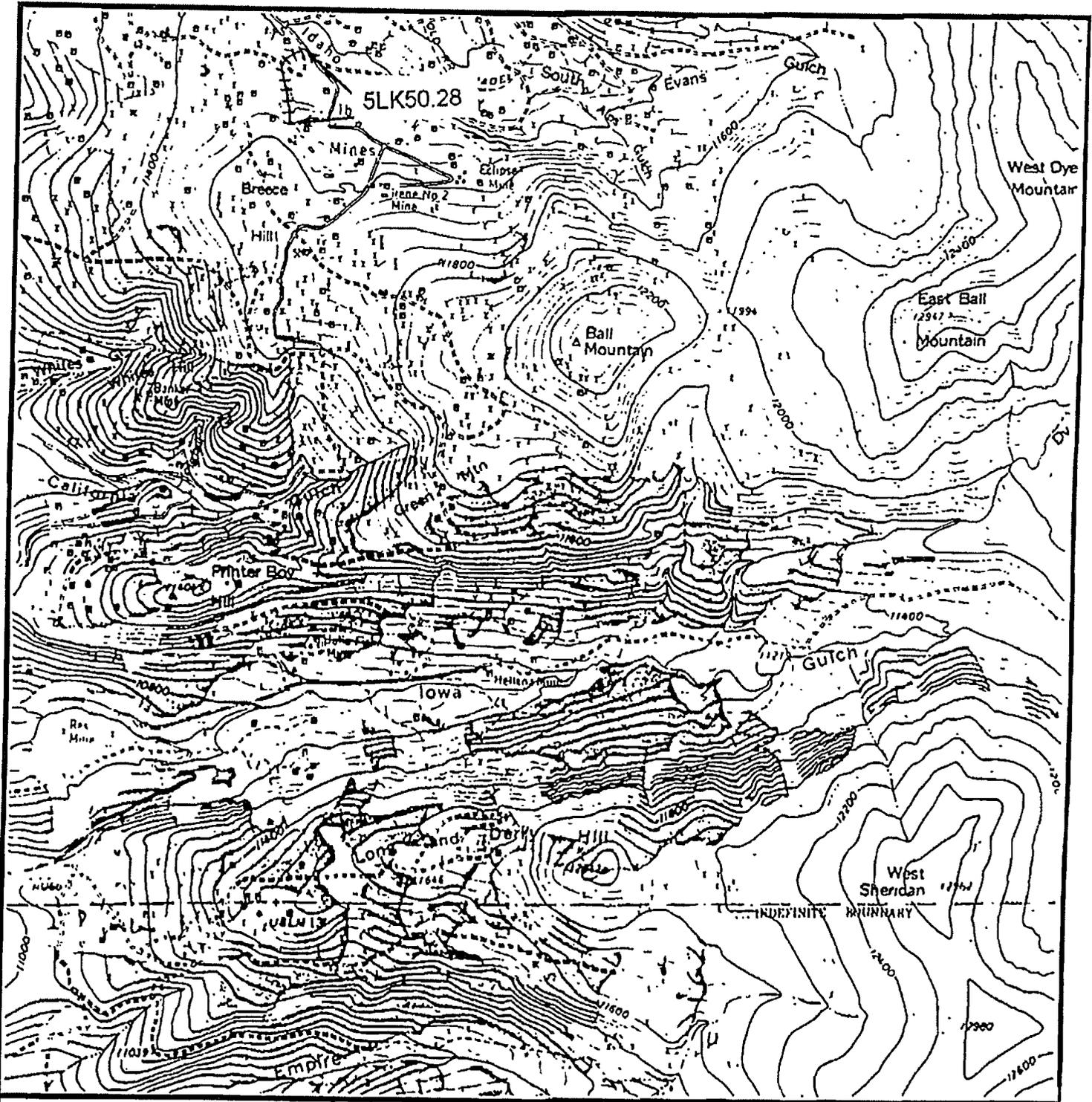


LINEAR SITE MAP - 5LK50.28, 5LK50.29

DENVER & RIO GRANDE RAILROAD

SCALE

1
5



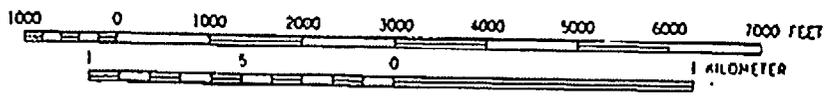
Mount Sherman, Colo. (1961)
 T 9 S., R 79
 Lake County

California Gulch Cultural Resource
 Inventory

Alpine Archaeological Consultants,
 Inc.



Scale: 1:24,000



QUADRANGLE LOCATION

State Site #: 5LK50.28
Temporary #: N/A

Linear Site Record Form
(page 2 of 2)

11. Archival Data:

Builder: Denver & Rio Grande Railroad
Date of construction: ca. 1881

Courthouse records; describe offices visited, records examined, and results, even if results are negative: Lake County Clerk's office has only basic information on right-of-ways.

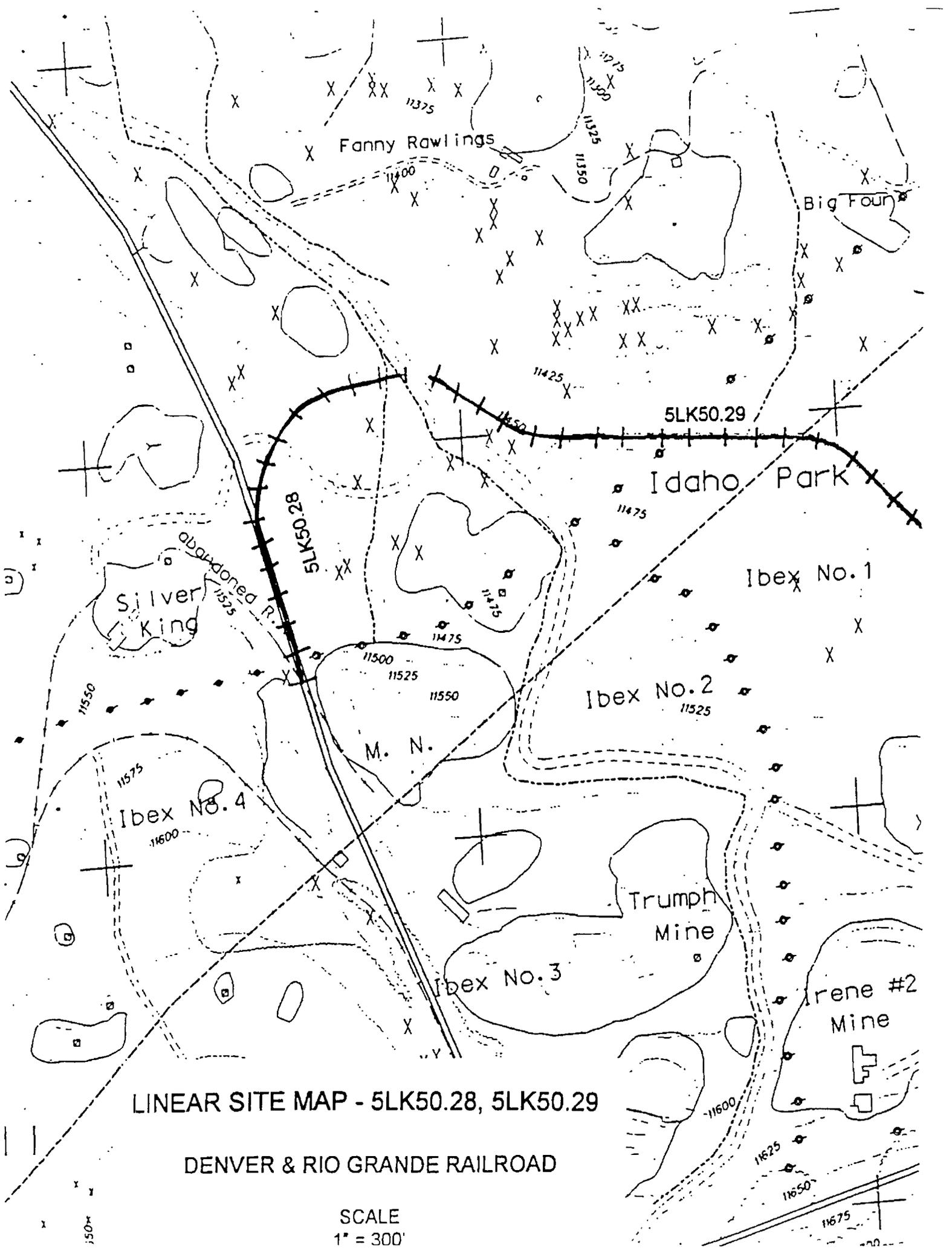
General Land Office survey maps and Historical Index checked at BLM? Yes No
Results: Only general right-of-way records for unpatented lands that the linear crosses.

Other offices, records, or sources of information consulted and results: General references on Leadville Mineral Belt Railway (Colorado and Southern) history.

12. Recorder(s): Jon Horn and Nathan Fleming Date: 6/13/96

Mark location of linear site on USGS map indicating portion of site actually examined, noting physical integrity of sections, and likely route outside area examined, if known.

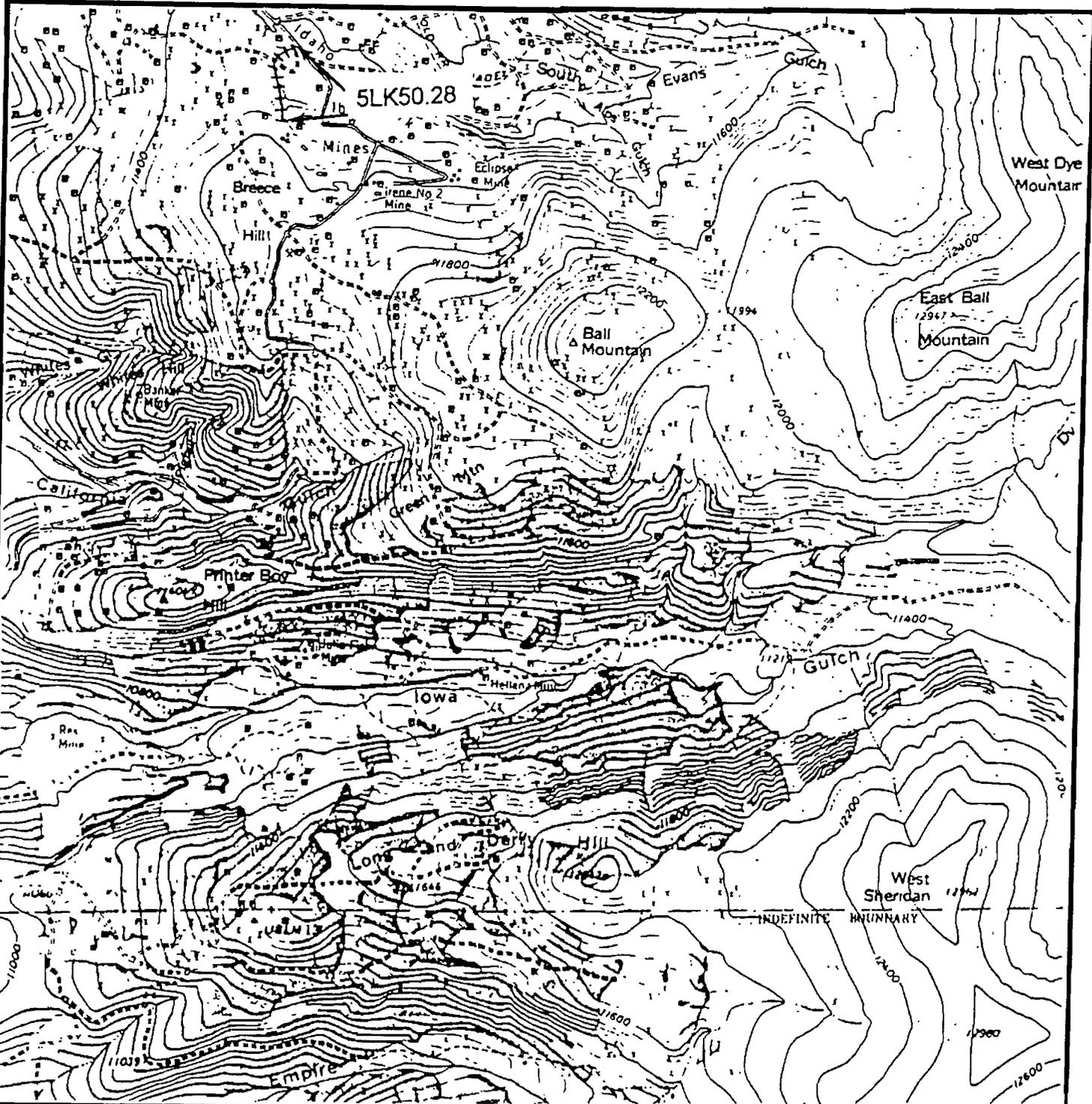
Colorado Historical Society, Office of Archaeology & Historic Preservation, 1300
Broadway, Denver, CO 80203, (303) 866-3395



LINEAR SITE MAP - 5LK50.28, 5LK50.29

DENVER & RIO GRANDE RAILROAD

SCALE
1" = 300'



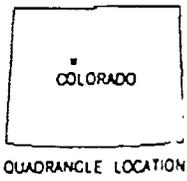
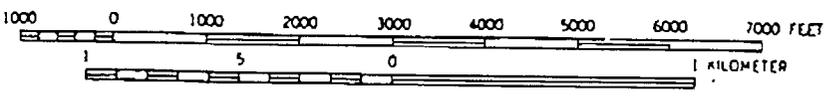
Mount Sherman, Colo. (1961)
 T 9 S., R 79
 Lake County

California Gulch Cultural Resource
 Inventory

Alpine Archaeological Consultants,
 Inc.



Scale: 1:24,000



Site Number 5LK.491

Please Note

Some of the items filed with this cultural resource record were not scanned. These items may include:

- . Published and copyrighted materials - including newspaper and magazine clippings
- . Bound material - including brochures and pamphlets
- . Microfiche
- . Negatives
- . Computer disks or CDs
- . Documents
- ⓪ Items over 17 x 11

These items are stored at the Office of Archaeology and Historic Preservation at the Colorado Historical Society.

COLORADO CULTURAL RESOURCE SURVEY
MANAGEMENT DATA FORM
(page 1 of 5)

MAPPED

Complete this form for each resource in addition to other appropriate forms -- see Manual for information.

1. State Site Number: 5LK491 2. Temporary Site Number: MBT-2
3. Attachments (check as many as apply):
- | | |
|--|---|
| <input type="checkbox"/> Prehistoric Archaeological Component | <input type="checkbox"/> Determined Eligible |
| <input checked="" type="checkbox"/> Historical Archaeological Component | <input type="checkbox"/> Determined Not Eligible |
| <input type="checkbox"/> Historical Architectural Record/
Building Form | <input type="checkbox"/> Nominated |
| <input checked="" type="checkbox"/> Sketch/Instrument Map (required) | <input type="checkbox"/> Listed |
| <input checked="" type="checkbox"/> USGS Map Photocopy (required) | <input type="checkbox"/> Need Data |
| <input checked="" type="checkbox"/> Photograph(s) | <input type="checkbox"/> Contributing to NR Dist. |
| <input type="checkbox"/> Other, Specify _____ | <input type="checkbox"/> Not Contributing to NR Dist. |

I. IDENTIFICATION

5. Resource Name: D & RG Railroad, IbeX Branch
6. Project Name/Number: Mineral Belt Bicycle Trail, FS 12-994)
7. Government Involvement: Local State Federal : Agency: Lake County Commissioners, CDOT, Federal Highway Administration (ISTEA)
8. Site Categories, Check as many as apply:
- A. Prehistoric: Archaeological Site ; Paleontological Site ;
In an existing NR District? Yes No . Name: _____
- b. Historic: Archeol. site Building(s) Structure(s) Object(s)
In an existing NR District? Yes No . Name: _____
9. Owner/Owner's Address: Lake County Right of Way, Lake County Commissioners, 505 Harrison Ave., Box 964, Leadville, CO. 30461
10. Boundary Description and Justification: former railroad right of way and features/landscapes associated with RR
11. Site Dimensions: 10 m, 15000 m; Area: 150000 m², or (divide by 4000): 38 acres; area was calculated as (L X W) , or (L X W X .785) _____.
- NOTE: linear site - approximately 10 miles of abandoned railroad grade.

II. LOCATION.

12. Legal Location: PM: 6th, Township: 9S, Range: 79W, Sections 16, 17, 18, 20, 21 and 28-(multiple quarter sections). And T^{OS}, R^{80W}, Section 13 (multiple quarter sections).
13. USGS Quad: Leadville North, Climax, and Mt. Sherman, 7.5' XX, Date: 1970 (Leadville North).

State Site # 5LK491
Temporary # MBT-2

MANAGEMENT DATA FORM
(page 2 of 5)

14. County: Lake 15. Other Maps: none

16. UTM Reference:

A. 1 3; 3 8 9 0 7 0 m Easting, 4 3 4 6 2 6 0 m Northing.
B. 3 8 9 9 9 0 m Easting, 4 3 4 7 3 7 0 m Northing.
C. 3 9 4 9 1 0 m Easting, 4 3 4 5 9 6 0 m Northing.
D. 3 9 3 6 5 0 m Easting, 4 3 4 4 2 4 0 m Northing.

17. Address: north and east of Leadville Lot Block Addition

18. Location/Access: Ibex Branch ties into Fryer Hill Branch (5LK465) about 1/4 mile east of the D & RG Leadville yards. Much of the former grade from this rail junction east to the Ibex Mines area at the head of Evans Gulch is currently used as an auto road.

III. NATURAL ENVIRONMENT.

19. Topographic features:

<input type="checkbox"/> Mountain	<input type="checkbox"/> Ledge	<input type="checkbox"/> Playa
<input checked="" type="checkbox"/> Hill	<input type="checkbox"/> Terrace/Bench	<input type="checkbox"/> Talus Slope
<input type="checkbox"/> Tableland/Mesa	<input type="checkbox"/> Canyon	<input type="checkbox"/> Alluvial Fan
<input checked="" type="checkbox"/> Ridge	<input type="checkbox"/> Valley	<input type="checkbox"/> Plain
<input type="checkbox"/> Saddle Pass	<input type="checkbox"/> Basin	<input type="checkbox"/> Dune
<input type="checkbox"/> Alcove/Rockshelter	<input type="checkbox"/> Floodplain	<input type="checkbox"/> _____
<input type="checkbox"/> Cliff	<input type="checkbox"/> Outbank	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> Slope	<input type="checkbox"/> Arroyo/Gully	<input type="checkbox"/> _____

20. Describe on-site topography (mention named landforms): grade mostly on fairly flat ground between on the north side of Evans Gulch. In the Ibex Mines area, the Branch and its many mine spurs are built on steeper terrain on the north side slopes of Breece Hill.

21. Site Elevation: 10200 to 11600 Ft. _____ Meters. 22. Aspect: variable

23. Degree Of Slope On Site: 0 - 6 24. Soil Depth: 0 - 100

25. Soil Description (character and color): shallow colluvial silts and gravels

26. Depositional Environment:

<input type="checkbox"/> Aeolian	<input type="checkbox"/> Residual	<input checked="" type="checkbox"/> Colluvial
<input type="checkbox"/> Alluvial	<input type="checkbox"/> None	<input type="checkbox"/> Moraine

27. Nearest Water, name/nature: Evans Gulch/permanent, 0-200 meters distant.

28. Nearest Permanent Water, name: same source . Distance: 0 m

29. Vegetation On Site (list species): Lodgepole pine, Engleman spruce, willow sage, cinquefoil, rescue

30. Vegetation Communities in Site Vicinity: same with aspen

State Site # 5LK491
Temporary # MBT-2

MANAGEMENT DATA FORM
(page 3 of 5)

IV. NATIONAL REGISTER ELIGIBILITY ASSESSMENT.

31. RP3 Context Theme(s) High country railroads, mining as an industry,
Leadville mining district

32. Applicable National Register Criteria:

Does not meet any of the below National Register criteria.

A. Associated with events that have made a significant contribution to the broad pattern of our history.

B. Associated with the lives of persons significant in our past.

C. Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

D. Has yielded, or may be likely to yield, information important in history or prehistory.

Qualifies under exceptions A through G (see Manual).

Level of Significance: National State Local

33. Condition:

a. Architectural/Structural

Excellent

Good

Fair

Deteriorated

Ruins

b. Archaeological/Paleontological

Undisturbed

Light Disturbance

Moderate Disturbance

Heavy Disturbance

Total Disturbance

34. Describe Condition: grade is well preserved in some lengths; in other
places it has been disturbed or destroyed by post-abandonment mining and other
development.

35. Is site vandalized? Yes No describe: no overt vandalism on
section examined.

If yes, complete Vandalism Form, add to site record package.

36. Eligibility Recommendation: Eligible ; Not Eligible ; Need Data
Statement of Significance/NRHP Justification: Site is an integral resource
of Leadville Historic District or a logical eastward extension of the district.
This railroad serves many of the famous mines east of Leadville including the
Resurrection, Fortune, Penn and the several Ixex mines.

37. If an existing National Register District, is the site:
Contributing: Non-Contributing:

38. Is there National Register District Potential? Yes No Discuss:
Probably the best way to realize the historic contribution of this and the
associated mining resources is to extent the existing Leadville Historic
District to the east and include the Ixex Branch as a contributing resource

State Site # 5LK491
Temporary # MBT - 2

MANAGEMENT DATA FORM
(page 4 of 5)

V. MANAGEMENT AND ADMINISTRATIVE DATA.

39. Threats to Resource: Water Erosion Wind Erosion Animal Activity
Neglect Vandalism Recreation Construction Other (specify)
Comments: future development may destroy additional segments of the grade

40. Existing Protection: None . Marked . Fenced . Patrolled . Access
Controlled . Other (specify)

41. Local Landmark Designation: _____ 42. Easement: _____

43. Management Recommendations: Examine the entire grade to identify specific
location, contributing elements and condition.

VI. DOCUMENTATION.

44. Previous Actions Accomplished At The Site: none . or
a. Excavations: Test Partial Complete Date(s): _____
b. Stabilization: Date(s) _____
c. HABS/HAER Documentation: Date(s) & Numbers _____
d. Other Site first recorded by Pioneer Archeological Consultants in
1979 as an isolated find in the vicinity of the Mineral Belt (5LK498) fill and
trestle over the Ixex Branch (Anderson 1980, CRI of the Basalt-Maita
Transmission Line). The portion recorded by Pioneer is only one small fragment
of a large and complex rail network that serviced mines at the head of Evans
Gulch and on Breece Hill.

45. Known Collections/Reports/Interviews and References: None

46. Primary Location of Additional Data Leadville Mining Museum, other sources
in Leadville

47. State or Federal Permit Number _____ Collection Authorized: Yes No
Artifact Collection: Yes No
Method: Diagnostics . Grab Sample . Random Sample . Transect .
Artifact Repository: N/A

48. Photograph #s: _____, Negatives Filed At: _____

49. Report Title: no formal report

50. Recorder(s): A. Kane, J. Suehler Date(s): 6/21/94

51. Affiliation: San Isabel National Forest Phone Number: 719-545-8737

Colorado Historical Society, Office of Archaeology & Historic Preservation,
1300 Broadway, Denver, CO 80203, (303) 866-3395

MANAGEMENT DATA FORM
Site Sketch Map (Page 5 of 5)

Key

True _____ Mag. _____
Declination _____

REFER TO OVERSIZED MAP

Mapper(s): _____ Date(s): _____

Colorado Cultural Resource Survey
Historical Archaeology Component Form
(page 1 of 4)

Use this form in conjunction with the Management Data Form. This form should be completed for each historical site with archeological potential.

1. State Site Number 5LK491 2. Temporary Number MBT - 2

Does this form pertain to the site in general? Yes No OR
a particular feature/structure (please note feature/structure number) 5LK491.1

3. Site/Feature Type: RR grade stream crossing, fill and culverts

4. General Site/Feature Description Feature 1 is the D & RG Ixex Branch cut, fill and culvert over the Evans Gulch drainage. The fill is approximately 100 meters long and 5 meters high at the middle portion. The fill is composed of locally obtained glacially deposited gravels and soil. At the northern end of the cut is a large excavated and leveled area which is probably the source location for the material. Near the southern end of the fill are two culverts for the Evans Gulch watercourse, one an original square in cross section wooden culvert constructed of large wooden beams and spikes. The other culvert is a later, although still historic period, round cast steel specimen.

5. Historic Component Date(s) and/or Sociopolitical Period ca. 1880-1920 AD

Justification published sources

6. Component Function(s)

Original Use Railroad grade

Present Use county road

Comments _____

7. Ethnic Affiliation Of Occupants Anglo-american and american immigrant

Justification written histories of Colorado Mountain railroads

State Site # 5LK491
Temporary # MBT - 2

Historical Archaeology Component Form
(page 2 of 4)

8. Artifact Classes: Please list specific attributes in the first blank and artifact quantity (either count or estimate) on the second line. Particularly important attributes are listed following the artifact class.

<u>Description</u>	<u>Quantity</u>
A. Glass (function, color, manufacturing technique, makers marks, inscriptions, thickness, shape)	
Bottle	
Household bottle glass (Listerine, etc.), from postabandonment use of fill slope as refuse dump (1940's - 1960')	<u>50</u>
Beverage glass (beer, early coca-cola)	<u>25</u>
Window	
Other	
B. Ceramics (function, surface treatment/glaze, shape, trademarks, color, decorations, earthenware)	
Stoneware	
serving wear (dumped post-use)	<u>20</u>
Porcelain	
Other	
C. Nails (size, material type and manufacture techniques if not wire or cut)	
Cut Nails	
Wire Nails	
Other	

<u>Description</u>	<u>Quantity</u>
D. Cans (function, size, material type, type of opening, seams, inscriptions, hole-in-top/hole-in-cap)	
various food cans and misc. metal cans dating to (1940's-1960's), pepsodent Sanitary	50
Other	
E. Cartridge Cases (size, inscriptions, material type)	
F. Construction Material - logs, milled lumber, brick, adobe, cement/concrete, stone/rock, corrugated metal, asphalt/tar, pipe, etc.	
railroad ties (thrown over side)	3
2 foot iron spikes for culvert construction	15
4 X 12 and 6 X dimensional lumber used in culvert construct.	20
1 cast metal culvert, 4 foot diameter	
G. Misc. Other Items - Utensils, stove parts, wire, nuts, bolts, rivets, screws, buckets, barrels, animal shoes, wagon or car parts, machinery, leather, fabric, clothing, bone, furniture, buttons, coins, etc.	
rail tie plates	6



D&RG, Ibex Branch, Photo 1.

5LK491, looking northeast along grade. Fill over Evans Gulch (5LK491.1) is depicted in center of photo.



D&RG, Ibex Branch, Photo 2.

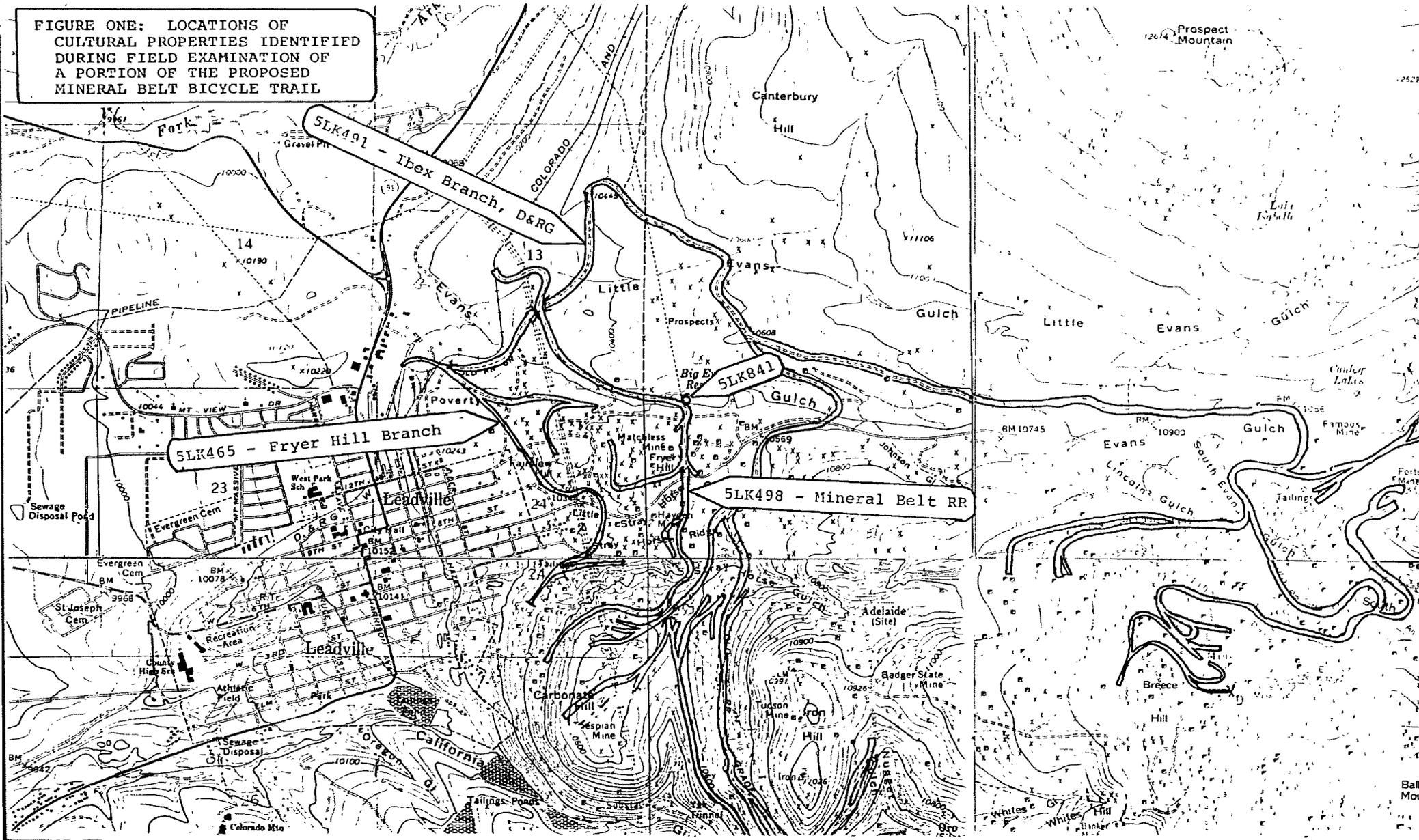
5LK491.1, Evans Gulch fill area,
depicting original (wooden) and
replacement (riveted metal)
culverts for stream.



D&RG, Ibex Branch, Photo 3.

5LK491.1, original wooden
culvert, detail of construction.

FIGURE ONE: LOCATIONS OF CULTURAL PROPERTIES IDENTIFIED DURING FIELD EXAMINATION OF A PORTION OF THE PROPOSED MINERAL BELT BICYCLE TRAIL



OFFICE OF THE STATE ARCHAEOLOGIST
1300 Broadway
Denver, CO 80203
(303) 839-3391

MAPPED



ISOLATED FIND RECORD

1) CSAC Site No.: 5LK491 (2) Temp. No.: 79PLOC 138 3) County Lake

I. LOCATION

4) Legal Location: SE 1/4, SW 1/4, NW 1/4, SE 1/4, Sec. 13 T 9S R 80W FM 6th

taken in reference to SE corner of irregular section.

5) USGS Quad: Name Leadville North Size 7.5' Date 1970

6) UTM: Zone 13, 3 8 9 5 8 0 mE, 4 3 4 6 5 6 0 mN. Attach copy of portion of USGS Quad.

II. ARCHAEOLOGICAL DATA:

7) Artifacts: Railroad grade with associated dispersed charred wood and slag material. There is also a small pit found in the NW area of the locality. See #8 for descriptions.

8) Inferred function/description: The railroad grade is 4 m in width (flat top of grade), and is oriented at an angle of 50° in this section of the right of way. Maximum height of the railroad embankment is about 2.75 m on the northern edge of the grade. Maximum height of the embankment on the southern side is .5 m. Area to north and south of railroad grade exhibits dispersed slag

9) Cultural Affiliation Euro-American Time Period post A.D. 1860 EC AD

10) IF Dimensions 4 m wide X indefinite length
Maximum height - 2.75 m on north edge of grade.

III. ENVIRONMENTAL DATA:

11) Elev. 10300 ft. 3139.4 m. 12) Soil brown silty sand, much gravel and cobble material present

13) Topography gently rolling slope (W/NW facing) 14) Slope: site 2-3° surrounding 2-5°

15) Nearest water: name/nature Little Evans Gulch/permanent elev. 10280 dist. 230m direction N/NW

Nearest permanent water Same elev. dist. direction

16) Veg. on site Lodgepole pine, sage (tridentata) 17) Surrounding veg. same, with lodgepole pine
fireweed, scarlet gilia, showy daisy, yellow daisy grove to west.

Additional Comments: (small), yarrow, unidentified bunch grasses.

Potential for subsurface materials: Good (soil depth exceeds 15 cm).

IV. ADDITIONAL INFORMATION: (Narrative, drawings, sketch map)

8) and charred wood. No definitive concentrations. A small pit, measuring 1.75 m (N-S) x 2 m (E-W) and reaching a maximum depth of .5 m, is situated at the base of the northern facing embankment slope, approximately 100' from the center line of the right of way. A number of large cobbles are present within the pit (and particularly on the north wall), yet the function, if such exist, for this small pit it not determinable.

Relationship to proposed tower #270 (bearing taken from tower): 0°, 11.2m to south edge of railroad embankment.

This portion of this railroad grade is not eligible to the National Register of Historic Places and it is recommended that no further work be done.

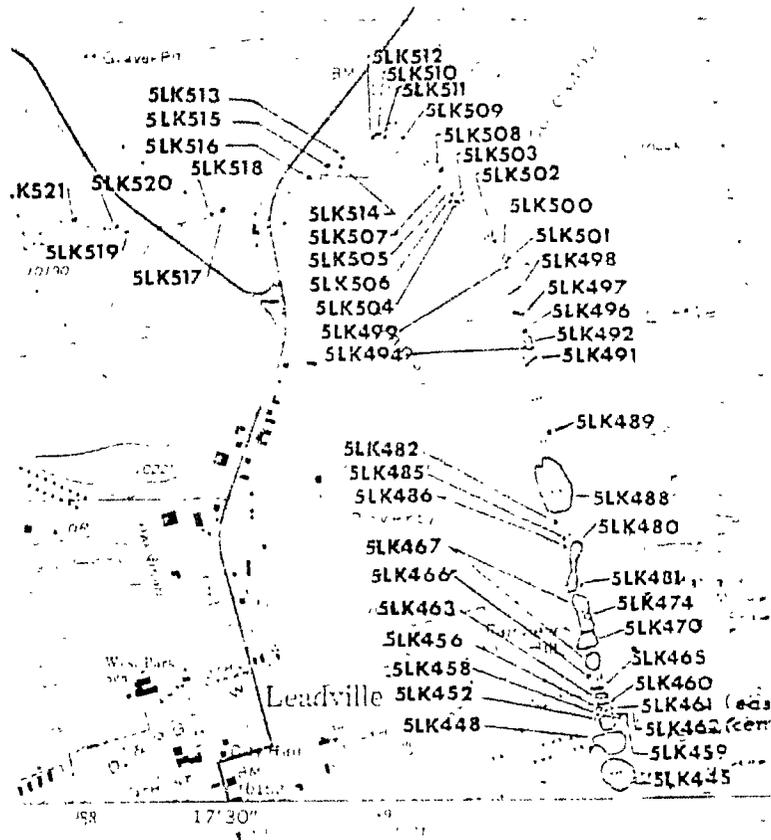
V. REFERENCE DATA: Photograph: Roll 16, exposure 17

18) Collection: yes no X describe Description only

19) Repository: Pioneers' Museum, Co. Spgs., CO 20) Landowner

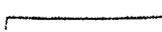
21) Report title Malta-Basalt Transmission Line 22) Recorder Ruth A. Henss

23) Affiliation Pioneer Archaeological Consultants 24) Date 8 / 15 / 79



1:50,000
 250 FEET
 UTM ZONE 18N

Point
 Road
 Boundary
 Contour



ID	Zone;mEast	mNorth
5LK.491	13;389060	4346260
	13;389297	4346270
	13;389535	4346540
	13;389879	4346840
	13;389902	4347310
	13;389943	4347390
	13;390059	4347390
	13;390701	4346950
	13;390747	4346870
	13;390713	4346650
	13;391338	4346300
	13;392058	4346090
	13;392301	4346010
	13;392811	4346040
	13;393905	4345980
	13;394081	4345940
	13;394133	4345820
	13;394122	4345550
	13;394631	4345740
	13;394730	4345870
	13;394799	4345920
	13;394834	4345920
	13;394701	4345470
	13;394672	4345360
	13;394394	4345210
	13;394753	4344820
	13;394753	4344750
	13;394689	4344680
	13;394353	4344520
	13;394243	4344510
	13;393815	4344690
	13;393670	4344610
	13;393612	4344480
	13;393676	4344220
	13;393497	4344220
	13;393468	4344230
	13;393230	4344510
	13;393008	4344240
	13;392967	4344250
	13;393089	4344720
	13;393262	4344890
	13;393355	4344910
	13;393777	4344790
	13;394044	4344640
	13;393806	4345220
	13;392753	4345160
	13;392718	4344950
	13;392660	4344920
	13;392354	4344940
	13;392325	4344950
	13;392336	4345190

5LK.491	13;393048	4345320
	13;393170	4345320
	13;393679	4345260
	13;393656	4345490
	13;393702	4345610
	13;393777	4345630
	13;393968	4345600
	13;394038	4345920
	13;393812	4345910
	13;393390	4345900
	13;392982	4345910
	13;392822	4345970
	13;392280	4345960
	13;391701	4346130
	13;391187	4346250
	13;390840	4346390
	13;390681	4346590
	13;390637	4346730
	13;390703	4346830
	13;390211	4347140
	13;390059	4347340
	13;389943	4347320
	13;389950	4346880
	13;389899	4346770
	13;389473	4346310
	13;389321	4346230
	13;389067	4346210

COLORADO CULTURAL RESOURCE SURVEY
INVENTORY RECORD

Resource No. 5LK759

V. SKETCH MAP: Map all features and show the boundaries of the resources. Show all major topographic features, permanent modern features, and vegetation zones as appropriate. Give names of features, streets and addresses if known. Provide scale, key and direction.

scale:

key:

see attached sketch map

True _____

mag. _____

28) Location/Access: 

29) Boundary Description: 

30) Boundary Justification: The site boundary includes all cultural materials visible on the surface and also areas between the two concentrations where ground visibility is very low.

ARCHAEOLOGICAL COMPONENT FORM

1) Resource No. 5LK759 2) Temp. No. CG-1 3) Name NA

I. ARCHAEOLOGICAL DATA: 4) Site Type lithic scatter

5) Description/Features The site consists of two concentrations of flakes on a southfacing open bench adjacent to Evans Gulch. The largest concentration is visible primarily in the two-track road which extends through the site.

6) Cultural Material Approximately 20+ flakes of chert and chalcedony (see lithic reduction tally sheet). No formal tools were observed. One flake was utilized or retouched and another exhibits evidence of heat treatment.

7) Cultural Affiliation aboriginal/unknown Date unknown

8) Dating Criteria none, no diagnostics were located

9) Site Depth could be up ; Based on cut/bank auger shovel other road cut
ca. 25 cm.+

10) Activities inferred from site features primary and secondary lithic reduction of a minimum of 4 items.

11) Research potential/significance The site may contain subsurface cultural materials or features based on flakes eroding in the roadcut. Therefore, 5LK759 is recommended as potentially eligible for nomination to the NRHP under 36 CFR 60.4, criterion d. It could possibly contain information important to our knowledge of aboriginal utilization in the mountains, especially at high elevations.

12) Known Collections/Excavations/Publications none

13) Informants; Name/Address none

COLORADO CULTURAL RESOURCE SURVEY
ARCHAEOLOGICAL COMPONENT FORM

RESOURCE NO. 5LK759

II. ENVIRONMENTAL DATA: 14) Topography open, gently sloping south-facing bench above a creek

15) Elev. 10,900ft. (x .3048=) 3322 m 16) % Grade: Site 2% Surrounding same

17) Aspect south 18) Soil: Color light brown

19) Nearest water: name Evans Gulch ; Int. Perm. X Fos. ; elev. 3322m

dist. 40 m, direc. S ; Nearest permanent water same

elev. m, dist. m, direc. ; Other

20) Veg. on site sage, cinquefoil, grasses, scattered limber pine, long plummed avens

21) Surrounding veg. same with more pine and willow adjacent to the drainage

III. ADMINISTRATIVE DATA: 22) Completed: record X collect map X test part. excav.

total excav. stabilized other

23) Protection: none X marked fenced patrolled access controlled other

24) Surface Collected: yes no X % collected ; sampling technique: none grab

random transect other , describe NA

25) Artifact Storage at NA

26) Recorder Marilyn Martorano,
David Killam

27) Date(s) 6/29/89

IV. ADDITIONAL INFORMATION:

LITHIC REDUCTION TALLY SHEET

Temp. Site #: CG-1 Perm. Site #: 5LK759 Date: 6/29/89
 Recorder: M. Martorano, D. Killam Sample or Entire Assemblage (check one)
 If sample, how taken? random
 What percentage is the sample of the total observed? 75 %

Reduction Stage Frequencies					
Material Types/Colors	Core	Tested Cobble, Split Cobble, Decortication Flake	Primary Process Flake	Retouched Bi-facial thinning, Secondary Process Flake	Totals
red chert			4	3	7
orange chalcedony				2	2
white chert			1 retouched/ utilized	1	2
gold chert			4 (1 is heat-treated)	1	5
TOTALS					16

Size Categories							
Measurement in Centimeters (maximum length)							
Material Types/Colors	0-0.5	0.5-1.5	1.5-2.5	2.5-3.5	3.5-4.5	4.5+	Totals
red chert	3		4				7
orange chalcedony		2					2
white chert		1			1		2
gold chert			5				5
TOTALS							16

Scale

MAPPED

Colorado Cultural Resource Survey
Management Data Form

(page 1 of 4)

Complete this form for each resource in addition to other
appropriate forms--see Manual for information

1. State Site Number: 5LK50.5-9 and 5LK50.23-36
2. Temporary Site Number: N/A
3. Attachments (check as many as apply)
- Prehistoric Archaeological Component
 - Historical Archaeological Component
 - Historical Architectural Record/
Building Form
 - Sketch/Instrument Map (required)
 - U.S.G.S. Map Photocopy (required)
 - Photograph (s)
 - Other, specify
4. Official determination (OAHP use only)
- Determined Eligible
 - Determined Not Eligible
 - Nominated
 - Listed
 - Need Data
 - Contributing to NR District
 - Not Contributing to NR District

I. IDENTIFICATION

5. Resource Name: Denver & Rio Grande Railroad
6. Project Name/Number: CRI of the California Gulch Superfund Site
7. Government Involvement: Local State Federal
- Agency: Bureau of Reclamation/EPA
8. Site Categories: Check as many as apply
- Prehistoric: archaeological site paleontological site
in an existing National Register District? yes no name:
- Historic: archaeology site building(s) structure(s) object(s)
in an existing National Register District yes no name: Leadville Mining District, 5LK856
9. Owner/Owner's Address: Various private
10. Boundary Description and Justification: Extent of railroad in project area.
11. Site Dimensions: m by m Area m² (+4047) acres
Area was calculated as Length x Width OR (length x width) x .785
rectangle/square ellipse

II. LOCATION

12. Legal Location

PM 6th Township 9S	Range 79W	1/4 of	1/4 of	1/4 of	1/4 of	Section
PM 6th Township	Range	1/4 of	1/4 of	1/4 of	1/4 of	Section
PM 6th Township	Range	1/4 of	1/4 of	1/4 of	1/4 of	Section

if section is irregular, explain alignment method: Unsectioned land

13. USGS Quad: Climax, Colo 7.5' 15' Date(s) 1970 (photorev. 1979) (attach photocopy)
14. County: Lake County
15. Other Maps: Mount Sherman, Colo (1969)

State Site#: 5LK50.5-9 and 5LK50.23-36
Temporary #: N/A

Management Data Form
(page 2 of 4)

16. UTM Reference: See attached Continuation Form

A.;	mE	mN
B.;	mE	mN
C.;	mE	mN
D.;	mE	mN

17. Address: Lot: Block: Addition:

18. Location/Access:

III. NATURAL ENVIRONMENT

19. Topographic Feature(s):

<input type="checkbox"/>	mountain	<input type="checkbox"/>	ledge	<input type="checkbox"/>	playa
<input checked="" type="checkbox"/>	hill	<input type="checkbox"/>	terrace/bench	<input type="checkbox"/>	talus slope
<input type="checkbox"/>	tableland/mesa	<input type="checkbox"/>	canyon	<input type="checkbox"/>	alluvial fan
<input type="checkbox"/>	ridge	<input type="checkbox"/>	valley	<input type="checkbox"/>	plain
<input type="checkbox"/>	saddle/pass	<input type="checkbox"/>	basin	<input type="checkbox"/>	dune
<input type="checkbox"/>	alcove/rockshelter	<input type="checkbox"/>	floodplain		
<input type="checkbox"/>	cliff	<input type="checkbox"/>	cutbank		
<input type="checkbox"/>	slope	<input type="checkbox"/>	arroyo/gully		

20. Describe on-site topography (mention named landforms):

21. Site Elevation: 11,280 feet (x .3048) = 3,438 meters

22. Aspect: Varies°

23. Degree of slope on site: 0-3°

24. Soil Depth: 0-10 cm

25. Soil description (character and color): Dark brown rocky silt loam

26. Depositional environment

<input checked="" type="checkbox"/>	aeolian	<input type="checkbox"/>	residual	<input checked="" type="checkbox"/>	colluvial
<input type="checkbox"/>	alluvial	<input type="checkbox"/>	none	<input type="checkbox"/>	moraine
<input type="checkbox"/>	other, specify:				

27. Nearest water: named/nature: Crosses many drainages distance m ft.

28. Nearest permanent water: name Evans Gulch distance m ft.

29. Vegetation on site (list predominate species): Lodgepole pine, sagebrush, common juniper, grasses, forbs

30. Vegetation association/communities surrounding site: Same as above

State Site #: 5LK50.5-9 and 5LK50.23-36
Temporary #: N/A

Management Data Form
(page 3 of 4)

IV. National Register Eligibility Assessment

31. Colorado Historical Society context (RP3) theme (s): Transportation/Mining

Specify: Railroad/Hardrock

32. Applicable National Register Criteria

- Does not meet any of the below National Register criteria
- A. associated with events that have made a significant contribution to the broad pattern of our history.
- B. associated with the lives of persons significant in our past
- C. embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguished entity whose components may lack individual distinction
- D. has yielded, or may be likely to yield, information important in history or prehistory
- Qualifies under exceptions A through G (see Manual)

Level of Significance National __ State __ Local _

33. Condition

a. Architectural/Structural

- Excellent
- Good
- Fair
- Deteriorated
- Ruins

b. Archaeological/Paleontological

- Undisturbed
- Light disturbance
- Moderate disturbance
- Heavy disturbance
- Total disturbance

34. Describe condition: Many sections are now used as two-track roads

35. Is site vandalized? yes no describe:

36. Eligibility Recommendation:

Eligible Not Eligible Need Data

Statement of Significance/N.R.H.P. Justification: See attached Continuation Form

37. If in an existing National Register District, is the site

Contributing Non-Contributing

38. Is there National Register District Potential? yes no Discuss: The site is already in the Leadville Mining District, 5LK856.

Colorado Cultural Resource Survey
Management Data Form
Continuation (page 1 of 7)

State Site #: 5LK50.5-9 and 5LK50.23-36
Temporary #: N/A

16. UTM Reference (Cont'd):

5LK50.5 - East to west

Zone 13;	394520 m E	4345660 m N
Zone 13;	394140 m E	4345540 m N
Zone 13;	393830 m E	4345660 m N

5LK50.6 - North to south

Zone 13;	394730 m E	4345840 m N
Zone 13;	394720 m E	4345790 m N
Zone 13;	394300 m E	4345530 m N
Zone 13;	394280 m E	4345470 m N
Zone 13;	394190 m E	4345410 m N

5LK50.7 - North to south

Zone 13;	394300 m E	4345530 m N
Zone 13;	394210 m E	4345450 m N

5LK50.8 - North to south

Zone 13;	394660 m E	4345430 m N
Zone 13;	394400 m E	4345280 m N
Zone 13;	394360 m E	4345170 m N
Zone 13;	394640 m E	4344890 m N

5LK50.9 - North to south

Zone 13;	394630 m E	4345460 m N
Zone 13;	394520 m E	4345320 m N

5LK50.23 - West to east

Zone 13;	392540 m E	4345160 m N
Zone 13;	392860 m E	4345300 m N
Zone 13;	393350 m E	4345260 m N

5LK50.24 - West to east

Zone 13;	392900 m E	4345210 m N
Zone 13;	393370 m E	4345260 m N
Zone 13;	393740 m E	4345260 m N
Zone 13;	393690 m E	4345560 m N
Zone 13;	394010 m E	4345610 m N
Zone 13;	394100 m E	4345730 m N

5LK50.25 - North to south

Zone 13;	393650 m E	4345240 m N
Zone 13;	393720 m E	4345200 m N

Colorado Cultural Resource Survey
Management Data Form
Continuation (page 2 of 7)

State Site #: 5LK50.5-9 and 5LK50.23-36

Temporary #: N/A

16. UTM Reference (Cont'd):

5LK50.26 - North to south

Zone 13;	393740 m E	4345420 m N
Zone 13;	393960 m E	4345880 m N
Zone 13;	394210 m E	4345700 m N
Zone 13;	394330 m E	4345770 m N

5LK50.27 - North to south

Zone 13;	393780 m E	4345520 m N
Zone 13;	393810 m E	4345240 m N
Zone 13;	393790 m E	4345460 m N
Zone 13;	393820 m E	4345400 m N

5LK50.28 - West to east

Zone 13;	393360 m E	4344540 m N
Zone 13;	393310 m E	4344780 m N
Zone 13;	393420 m E	4344840 m N

5LK50.29 - West to east

Zone 13;	393460 m E	4344820 m N
Zone 13;	393790 m E	4344740 m N
Zone 13;	394320 m E	4344540 m N
Zone 13;	394400 m E	4344670 m N

5LK50.30 - West to east

Zone 13;	393330 m E	4344670 m N
Zone 13;	393530 m E	4344620 m N

5LK50.31 - West to east

Zone 13;	393450 m E	4344630 m N
Zone 13;	393520 m E	4344640 m N

5LK50.32 - West to east

Zone 13;	393130 m E	4344520 m N
Zone 13;	393230 m E	4344630 m N
Zone 13;	393420 m E	4344460 m N
Zone 13;	393450 m E	4344420 m N
Zone 13;	393440 m E	4344440 m N

5LK50.33 - West to east

Zone 13;	393460 m E	4344630 m N
Zone 13;	393520 m E	4344640 m N

**Colorado Cultural Resource Survey
Management Data Form
Continuation (page 3 of 7)**

State Site #: 5LK50.5-9 and 5LK50.23-36
Temporary #: N/A

16. UTM Reference (Cont'd):

5LK50.34 - West to east

Zone 13;	393380 m E	4344510 m N
Zone 13;	393660 m E	4344560 m N

5LK50.35 - West to east

Zone 13;	393080 m E	4344470 m N
Zone 13;	393180 m E	4344560 m N
Zone 13;	393460 m E	4344320 m N
Zone 13;	393540 m E	4344280 m N

5LK50.36 - West to east

Zone 13;	393460 m E	4344320 m N
Zone 13;	393510 m E	4344310 m N

36. Eligibility Recommendation (Cont'd):

Statement of Significance/N.R.H.P. Justification:

5LK50.5 - Railroad spur 5LK50.5 is recommended as a contributing element (criterion a) of the Denver & Rio Grande Railroad system, a National Register-eligible site, serving the mines of the Leadville area. The segment retains fairly good visual integrity and is readily identifiable as a railroad grade. Because of the grade's visual integrity, it is also considered to be a contributing element of the Leadville Mining District (5LK856).

5LK50.6 - Railroad spur 5LK50.6 is not recommended as a contributing element of the Denver & Rio Grande Railroad system, a National Register-eligible site, serving the mines of the Leadville area. The segment has been altered through upgrading and is not readily identifiable as a railroad grade. For the same reason, it is not considered to be a contributing element of the Leadville Mining District (5LK856).

5LK50.7 - Railroad spur 5LK50.7 is not recommended as a contributing element of the Denver & Rio Grande Railroad system, a National Register-eligible site, serving the mines of the Leadville area. The segment is not easily recognizable as a railroad grade and has been partly obliterated by road construction; it no longer reaches the tipple at the New Monarch Mine. For the same reason, it is not considered to be a contributing element of the Leadville Mining District (5LK856).

5LK50.8 - Railroad spur 5LK50.8 is recommended as a contributing element (criterion a) of the Denver & Rio Grande Railroad system, a National Register-eligible site, serving the mines of the Leadville area. Although the grade has been slightly upgraded and is used as a dirt road, it still retains visual integrity as a railroad grade over much of its length. Because of the grade's visual integrity, it is also considered to be a contributing element of the Leadville Mining District (5LK856).

5LK50.9 - Railroad spur 5LK50.9 is recommended as a contributing element (criterion a) of the Denver & Rio Grande Railroad system, a National Register-eligible site, serving the mines of the Leadville area. The segment retains excellent visual integrity and is readily identifiable as a railroad grade. The grade was built specifically to serve the Fortune Mine (5LK928), an important producer of ore in the Little Ellen Hill area. Because of the grade's visual integrity, it is also considered to be a contributing element of the Leadville Mining District (5LK856).

**Colorado Cultural Resource Survey
Management Data Form
Continuation (page 4 of 7)**

State Site #: 5LK50.5-9 and 5LK50.23-36

Temporary #: N/A

36. Eligibility Recommendation (Cont'd):

Statement of Significance/N.R.H.P. Justification:

5LK50.23 - Segment 5LK50.23 should be avoided by all project impacts, including heavy vehicle use and upgrading. If avoidance is not possible, the portion of the grade to be impacted should be photographically documented to Athearn's (1990) Level II standards prior to disturbance.

5LK50.24 - Railroad spur 5LK50.24 is recommended as a contributing element (criterion a) of the Denver & Rio Grande Railroad system, a National Register-eligible site. The segment retains good visual integrity and is readily identifiable as a railroad grade over most of its length. The grade appears to have been built specifically to serve the mill adjacent to the Resurrection No. 1 Mine. Because of the grade's visual integrity, it is also considered to be a contributing element of the Leadville Mining District (5LK856).

5LK50.25 - Railroad spur 5LK50.25 is not recommended as a contributing element of the Denver & Rio Grande Railroad system, a National Register-eligible site. The segment retains little visual integrity and is not readily identifiable as a railroad grade. Because of the grade's poor visual integrity, it is also not recommended as a contributing element of the Leadville Mining District (5LK856).

5LK50.26 - Railroad spur 5LK50.26 is recommended as a contributing element (criterion a) of the Denver & Rio Grande Railroad system, a National Register-eligible site. Except for the two locations where the grade is completely obscured by vegetation, the segment retains excellent visual integrity and is readily identifiable as a railroad grade. Because of the grade's visual integrity, it is also considered to be a contributing element of the Leadville Mining District (5LK856).

5LK50.27 - Railroad spur 5LK50.27 is not recommended as a contributing element of the Denver & Rio Grande Railroad system, a National Register-eligible site. The segment is in overall poor condition and is not easily recognizable as a railroad grade. Because of the grade's poor physical and visual integrity, it is not recommended as a contributing element of the Leadville Mining District (5LK856).

5LK50.28 - Railroad spur 5LK50.28 is recommended as a contributing element (criterion a) of the Denver & Rio Grande Railroad system, a National Register-eligible site. The segment retains excellent visual integrity and is readily identifiable as a railroad grade. Because of the grade's visual integrity, it is also considered to be a contributing element of the Leadville Mining District (5LK856).

5LK50.29 - Railroad grade segment 5LK50.29 is not recommended as a contributing element of the Denver & Rio Grande Railroad system, a National Register-eligible site. The segment has been altered through upgrading and is no longer readily identifiable as a railroad grade. For the same reason, it is not considered to be a contributing element of the Leadville Mining District (5LK856).

5LK50.30 - Railroad spur 5LK50.30 is recommended as a contributing element (criterion a) of the Denver & Rio Grande Railroad system, a National Register-eligible site. The segment retains excellent visual integrity and is readily identifiable as a railroad grade. The grade appears to have been built to serve the Ibx No. 1 Mine nearby. Because of the grade's visual integrity, it is also considered to be a contributing element of the Leadville Mining District (5LK856).

5LK50.31 - Railroad spur 5LK50.31 is recommended as a contributing element (criterion a) of the Denver & Rio Grande Railroad system, a National Register-eligible site. The segment retains excellent visual integrity and is readily identifiable as a railroad grade. The grade appears to have been built specifically to serve the Little Vinnie Mine. Because of the grade's visual integrity, it is also considered to be a contributing element of the Leadville Mining District (5LK856).

**Colorado Cultural Resource Survey
Management Data Form
Continuation (page 5 of 7)**

State Site #: 5LK50.5-9 and 5LK50.23-36

Temporary #: N/A

36. Eligibility Recommendation (Cont'd):

Statement of Significance/N.R.H.P. Justification:

5LK50.32 - Railroad spur 5LK50.32 is recommended as a contributing element (criterion a) of the Denver & Rio Grande Railroad system, a National Register-eligible site. The segment retains excellent visual integrity and is readily identifiable as a railroad grade except where covered by mine waste rock. The grade appears to have been built specifically to serve the tipple at the Ibox No. 3 Mine. The tipple is still standing and the grade is an integral component of the feature. Because of the grade's visual integrity and its association with the Ibox Mine complex, it is also considered to be a contributing element of the Leadville Mining District (5LK856).

5LK50.33 - Railroad spur 5LK50.33 is not recommended as a contributing element of the Denver & Rio Grande Railroad system, a National Register-eligible site. The segment consists of only two small remnants of the grade and has been mostly covered with mine waste rock. Because of the grade's poor physical integrity, it is not recommended as a contributing element of the Leadville Mining District (5LK856).

5LK50.34 - Railroad spur 5LK50.34 is recommended as a contributing element (criterion a) of the Denver & Rio Grande Railroad system, a National Register-eligible site. Although the spur is not as visually impressive as others in the area, it is the only piece of grade with a distinct side track in association. In addition, the grade has good association with the machinery area of the Ibox No. 2 Mine. Because of the grade's physical characteristics and association with the Ibox No. 2 Mine, it is also considered to be a contributing element of the Leadville Mining District (5LK856).

5LK50.35 - Railroad spur 5LK50.35 is recommended as a contributing element (criterion a) of the Denver & Rio Grande Railroad system, a National Register-eligible site. The segment retains excellent visual integrity and is readily identifiable as a railroad grade. The grade appears to have been built specifically to serve the Garbutt Mine. Because of the grade's visual integrity, it is also considered to be a contributing element of the Leadville Mining District (5LK856).

5LK50.36 - Railroad spur 5LK50.36 is not recommended as a contributing element of the Denver & Rio Grande Railroad system, a National Register-eligible site. The segment has poor physical and visual integrity and is not readily identifiable as a railroad grade. Because of the grade's poor integrity and its association with the Ibox Mine complex, it is not recommended as a contributing element of the Leadville Mining District (5LK856).

43. Management Recommendations (Cont'd):

5LK50.5 - Segment 5LK50.5 should be avoided by all project impacts, including heavy vehicle use and upgrading. If avoidance is not possible, the areas that will be impacted should be photographically documented prior to disturbance.

5LK50.6 - No further historical or archaeological work should be required for segment 5LK50.6. Recordation has sufficiently documented the segment.

5LK50.7 - No further historical or archaeological work should be required for segment 5LK50.7. Recordation has sufficiently documented the segment.

5LK50.8 - Segment 5LK50.8 should be avoided by all project impacts, including heavy vehicle use and upgrading. If avoidance is not possible, the areas that will be impacted should be photographically documented prior to disturbance.

**Colorado Cultural Resource Survey
Management Data Form
Continuation (page 6 of 7)**

State Site #: 5LK50.5-9 and 5LK50.23-36
Temporary #: N/A

43. Management Recommendations (Cont'd):

5LK50.9 - Segment 5LK50.9 should be avoided by all project impacts, including heavy vehicle use and upgrading. If avoidance is not possible, the areas that will be impacted should be photographically documented prior to disturbance.

5LK50.23 - Segment 5LK50.23 should be avoided by all project impacts, including heavy vehicle use and upgrading. If avoidance is not possible, the portion of the grade to be impacted should be photographically documented to Athearn's (1990) Level II standards prior to disturbance.

5LK50.24 - The western portion of segment 5LK50.24, west of the road intersection on the east side of South Evans Creek, should be avoided by all project impacts, including heavy vehicle use and upgrading. If avoidance is not possible, the portion of the grade to be impacted should be photographically documented to Athearn's (1990) Level II standards prior to disturbance. East of the road intersection on the east side of South Evans Creek, the grade has seen some upgrading, so additional minor upgrading would not adversely impact the grade. If major upgrading which will seriously alter the appearance of the grade is necessary, the grade in this area should be photographically documented to Level II standards as well.

5LK50.25 - No further historical or archaeological work is recommended for 5LK50.25.

5LK50.26 - Segment 5LK50.21 should be avoided by all project impacts, including heavy vehicle use and upgrading. If avoidance is not possible, the portion of the grade to be impacted should be photographically documented to Athearn's (1990) Level II standards prior to disturbance.

5LK50.27 - No further historical or archaeological work is recommended for 5LK50.27.

5LK50.28 - Segment 5LK50.28 should be avoided by all project impacts, including heavy vehicle use and upgrading. If avoidance is not possible, the portion of the grade to be impacted should be photographically documented to Athearn's (1990) Level II standards prior to disturbance.

5LK50.29 - No further historical or archaeological work is recommended for 5LK50.29.

5LK50.30 - Segment 5LK50.30 should be avoided by all project impacts, including heavy vehicle use and upgrading. If avoidance is not possible, the portion of the grade to be impacted should be photographically documented to Athearn's (1990) Level II standards prior to disturbance.

5LK50.31 - Segment 5LK50.31 should be avoided by all project impacts, including heavy vehicle use and upgrading. If avoidance is not possible, the portion of the grade to be impacted should be photographically documented to Athearn's (1990) Level II standards prior to disturbance.

5LK50.32 - The visible portions of segment 5LK50.32 should be avoided by all project impacts, including heavy vehicle use and upgrading. If avoidance is not possible, the portion of the grade to be impacted should be photographically documented to Athearn's (1990) Level II standards prior to disturbance.

5LK50.33 - No further historical or archaeological work is recommended for 5LK50.33.

5LK50.34 - Segment 5LK50.34 should be avoided by all project impacts, including heavy vehicle use and upgrading. If avoidance is not possible, the portion of the grade to be impacted should be photographically documented to Athearn's (1990) Level II standards prior to disturbance.

**Colorado Cultural Resource Survey
Management Data Form
Continuation (page 7 of 7)**

State Site #: 5LK50.5-9 and 5LK50.23-36
Temporary #: N/A

43. Management Recommendations (Cont'd):

5LK50.35 - Segment 5LK50.35 should be avoided by all project impacts, including heavy vehicle use and upgrading. If avoidance is not possible, the portion of the grade to be impacted should be photographically documented to Atheam's (1990) Level II standards prior to disturbance.

5LK50.36 - No further historical or archaeological work is recommended for 5LK50.36.

General Site Description:

The Denver & Rio Grande Railroad was the first railroad to extend its tracks to Leadville, reaching the town by way of Salida and Buena Vista. They began operation on August 2, 1880, and started building a line to the mines around Fryer Hill in 1881. Because of the large expense it had gone to in expanding their lines throughout Colorado, the Denver & Rio Grande Railroad went into receivership and was sold and reorganized in 1886. The Denver & Rio Grande extended its line 8 miles to Ibex in 1898 (*Leadville Herald Democrat*, January 1, 1899). In 1913, the Denver & Rio Grande added a third rail to the Graham Park and Wolfstone branches. In 1917, track from Leadville to Graham Park Junction and to Ibex was converted to standard gauge. On July 27, 1921, the Denver & Rio Grande Western Railroad took over the Denver & Rio Grande system. In 1941, the Denver & Rio Grande Western track to Graham park, Wolfstone, North Moyer, and in California Gulch was removed because so few mines were in operation. In 1944, the Denver & Rio Grande Western branches to the Ibex and Chrysolite Mines were abandoned and the track removed (Osterwald 1991).

Elsewhere in the state, the Denver & Rio Grande Railroad grade has been considered to be a significant cultural resource. This has largely been because of its role in the growth of transportation in Colorado, particularly in expanding into mining areas. Arguably, the mines around Leadville were the most important in Colorado. The Denver & Rio Grande Railroad system that served the mines east of Leadville was a vital transportation link and contributed to the success of those mines.

Appendix F-8

**COLORADO DEPARTMENT OF TRANSPORTATION ACCESS
AGREEMENT**

EXHIBIT F

Lockland, LLC

Hopemore Shaft-Lake County

Leadville, Colorado

Colorado Division of Reclamation Mining and Safety

110(2) Permit Application

**Lockland, LLC
Hopemore Shaft
Leadville, Colorado**

EXHIBIT G

SOURCE OF LEGAL RIGHT TO ENTER

(Section 6.3.7)

Hopemore Shaft

Lake County, Colorado

Lockland LLC

Property Sale and Transfer background Information

Capital Gold Corporation sold the Hopemore Shaft, mine property, equipment, supplies and lease rights to Mr. Robert Calder, whereas, the mill property, equipment, supplies and access agreements to Constructive Investment LLC in 2008-09. Calais Resources Colorado as permit operator of the mine and mill (M-1990-057) filed a Transfer of Permit and Succession of Operation (SOO) application. On April 6, 2009, the Division approved the successor of operators from Capital Gold Corporation to Calais Resources Colorado, Inc.

According to recent correspondence, (July 28, 2009) Calais Resources, Colorado has no financial or operational interest in the Hopemore Shaft and that the Hopemore Shaft will be excluded from future Calais Resource permitting activities.

When the Hopemore Shaft mine permit is approved, Lockland, LLC will be mine owner and operator.

Appendices

Appendix G-1 Surface Owner Adjudication File

Appendix G-2 Mineral Ownership Adjudication File

January, 2013

**Lockland, LLC
Hopemore Shaft
Leadville, Colorado**

APPENDIX G

EXHIBIT G

SOURCE OF LEGAL RIGHT TO ENTER

**Lockland, LLC
Hopemore Shaft-Lake County
Leadville, Colorado
Colorado Division of Reclamation Mining and Safety
110(2) Permit Application**

**Appendix G-1 Surface Ownership
Appendix G-2 Mineral Ownership**

**Lockland, LLC
Hopemore Shaft
Leadville, Colorado**

Print Details

Property Detail	
Account	10011903
Name	CALDER, ROBERT
Address line 1	
Address line 2	
Address line 3	902 E 6TH STREET
Address line 4	LEADVILLE
State	CO
Zip Code	80461-0000
File Flag	M
Legal Description	#00538 ROBERT BURNS 20-09-79 CALIF 9.859 A 442/250 475/235 475/392 528/183 349622
Address (Property)	538 ROBERT BURNS
Master Acres	9.86

Values	
Land	\$2,169.00
Building	\$0.00
Extra Features	\$25,524.00
Total	\$27,693.00

Features	
Feature	Unit (number, sq ft, etc.)
PAT. MINE IMPROVEMTS	270
PAT. MINE IMPROVEMTS	324
PAT. MINE IMPROVEMTS	1152

Previous Sales							
Date	Price	Book	Page	Buyer/Grantee	Seller/Grantor	Reception Number	Sales Instrument Type
07/23/2008	\$0.00			CALDER, ROBERT	LEADVILLE MINING & MILLING CORPORATION *	349909	CORR. QUIT CLAIM
07/23/2008	\$0.00			CALDER, ROBERT	LEADVILLE MINING & MILLING CORPORATION *	349909	CORR. QUIT CLAIM

Photo unavailable

Sketch unavailable

Print Details

ACCOUNT FILE MAINTENANCE

Account Name CALDER,, ROBERT #00538 ROBERT BURNS
 Address 1 20-09-79 CALIF 986
 Address 2 9.859 A
 Address 3 902 E 6TH STREET 442/250 475/235 475/392
 Address 4 LEADVILLE 528/183 349622

Date/Zip CO, 80461, 0000
 Property 538, ROBERT, BURNS THIS ACCOUNT HAS COMMENTS
 Map Num 2631-204-00-024

Prev Name1 LEADVILLE MINING & MILLING COR
 Prev Name2

	VALUES-ASSD	TAXABLE	EXEMPT
Use 51400, City 00000, Subdv 1800,	LAND	629	
Anlys 000, Tax/Dst 191, Zone 5,	IMPROVMENT	7402	
Exempt .. Late Filing .. Advrt Y Bnkrupt N	TOTALS	8031	
ACRES: Master Legal Value	Ignore PP \$	1595	Exemption N,
00000000986 986	NOV # 4334	NOD #	

CHANGES

Parcel On 08/28/2012 By LCOLLINS	CMD1-Value Change	CMD2-Legal Change
Name On 08/28/2008 By MKALBACH	CMD3-Both Changes	CMD4-Sales Change
Values On 02/08/2012 By BVIGIL	CMD11-HOMESTEAD	CMD12-ID# CHANGE
Legal On 08/28/2012 By LCOLLINS	CMD22-Abort Entry	HELP-More Details

Name: CALDER, ROBERT LEGAL DESCRIPTION MAINTENANCE ACCOUNT: 10011903

SEQ.	-----LEGAL1-----	-----LEGAL2-----	Acres
	Description	Description	
900	IMPROVEMENTS (2) CLASSIFIED AS 5250 ARE LOCATED ON		
901	COMSTOCK #3613, AN UNPATENT ED CLAIM, BUT ASSESSED ON		
902	THIS SCH#.		
903	THE HUNTER SHAFT SITS ON	THE ROBERT BURNS	
904	THE COMSTOCK I & II #3613	IS UNPATENTED AND THERE IS	
905	ALSO A SMALL SLIVER OF BLM	LAND	

Roll-For Data CMD3-Return CMD5-Position at Seq CMD22-Abort
 CMD9-Insert CMD11-Mobile CMD1/CMD12-ALT CMD14-Comments CMD16-Dup
 Enter: Seq. 0,0,0 COMMENTS

Legal1	Legal2	Acres
-----		<u>0000000</u>

Number of Seq.: 6 Last Comment Sequence: 905
 THIS ACCOUNT HAS COMMENTS LAST 08/28/2012 BY LCOLLINS
 CMD3 TO EXIT COMMENTS

Appendix G-1

SURFACE OWNERSHIP

EXHIBIT G

**Lockland, LLC
Hopemore Shaft-Lake County
Leadville, Colorado
Colorado Division of Reclamation Mining and Safety
110(2) Permit Application**

**Lockland, LLC
Hopemore Shaft
Leadville, Colorado**

Print Details

Property Detail	
Account	10011903
Name	CALDER, ROBERT
Address line 1	
Address line 2	
Address line 3	902 E 6TH STREET
Address line 4	LEADVILLE
State	CO
Zip Code	80461-0000
File Flag	M
Legal Description	#00538 ROBERT BURNS 20-09-79 CALIF 9.859 A 442/250 475/235 475/392 528/183 349622
Address (Property)	538 ROBERT BURNS
Master Acres	9.86

Values	
Land	\$2,169.00
Building	\$0.00
Extra Features	\$25,524.00
Total	\$27,693.00

Features	
Feature	Unit (number, sq ft, etc.)
PAT. MINE IMPROVEMTS	270
PAT. MINE IMPROVEMTS	324
PAT. MINE IMPROVEMTS	1152

Previous Sales							
Date	Price	Book	Page	Buyer/Grantee	Seller/Grantor	Reception Number	Sales Instrument Type
07/23/2008	\$0.00			CALDER, ROBERT	LEADVILLE MINING & MILLING CORPORATION *	349909	CORR. QUIT CLAIM
07/23/2008	\$0.00			CALDER, ROBERT	LEADVILLE MINING & MILLING CORPORATION *	349909	CORR. QUIT CLAIM

Photo unavailable

Sketch unavailable

Print Details

ACCOUNT FILE MAINTENANCE

Account 10011903 Flag M LEGAL DESCRIPTION Acres
 Name CALDER,, ROBERT, #00538 ROBERT BURNS
 Address 1 20-09-79 CALIF 986
 Address 2 9.859 A
 Address 3 902, E 6TH STREET, 442/250 475/235 475/392
 Address 4 LEADVILLE, 528/183 349622

State/Zip CO, 80461, 0000
 Property 538, ROBERT, BURNS, THIS ACCOUNT HAS COMMENTS
 Map Num 2631-204-00-024

Prev Name1 LEADVILLE MINING & MILLING COR
 Prev Name2

	VALUES-ASSD	TAXABLE	EXEMPT
	LAND	629	
	IMPROVMENT	7402	
Use 51400, City 00000, Subdv 1800,,			
Anlys 000, Tax/Dst 191, Zone 5,			
Exempt Late Filing, Advrt Y Bnkprt N	TOTALS	8031	
ACRES: Master Legal Value	Ignore PP \$	1595	Exemption N,
00000000986, 986	NOV # 4334	NOD #	

CHANGES

Parcel On 08/28/2012 By LCOLLINS	CMD1-Value Change	CMD2-Legal Change
Name On 08/28/2008 By MKALBACH	CMD3-Both Changes	CMD4-Sales Change
Values On 02/08/2012 By BVIGIL	CMD11-HOMESTEAD	CMD12-ID# CHANGE
Legal On 08/28/2012 By LCOLLINS	CMD22-Abort Entry	HELP-More Details

LEGAL DESCRIPTION MAINTENANCE

Name: CALDER, ROBERT ACCOUNT: 10011903

SEQ.	-----LEGAL1-----	-----LEGAL2-----	Acres
	Description	Description	
900	IMPROVEMENTS (2) CLASSIFIED AS 5250 ARE LOCATED ON		
901	COMSTOCK #3613, AN UNPATENT ED CLAIM, BUT ASSESSED ON		
902	THIS SCH#.		
903	THE HUNTER SHAFT SITS ON	THE ROBERT BURNS	
904	THE COMSTOCK I & II #3613	IS UNPATENTED AND THERE IS	
905	ALSO A SMALL SLIVER OF BLM	LAND	

Roll-For Data CMD3-Return CMD5-Position at Seq CMD22-Abort
 CMD9-Insert CMD11-Mobile CMD1/CMD12-ALT CMD14-Comments CMD16-Dup
 Enter: Seq. 0,0,0 COMMENTS
 Legal1 Legal2 Acres
 ----- - -----
 0000000

Number of Seq.: 6 Last Comment Sequence: 905
 THIS ACCOUNT HAS COMMENTS

LAST 08/28/2012 BY LCOLLINS

CMD3 TO EXIT COMMENTS

Appendix G-2

MINERAL OWNERSHIP

EXHIBIT G

Lockland, LLC

Hopemore Shaft-Lake County

Leadville, Colorado

Colorado Division of Reclamation Mining and Safety

110(2) Permit Application

**Lockland, LLC
Hopemore Shaft
Leadville, Colorado**

United States Department of the Interior
 Bureau of Land Management
 DIV OF SUPPORT SERVICES
 2850 YOUNGFIELD STREET
 LAKEWOOD, CO 80215 -7076
 Phone: (303) 239-3600

Receipt

No: 2620311

Patricia Berger
 Lake County Recorder
 10/4/2012 2:55 PM
 R\$51.50 D\$0.00
 MD
 359765
 2 of 9

Transaction #: 2700645	
Date of Transaction: 08/01/2012	
CUSTOMER:	
ROBERT W CALDER 902 E 6TH ST LEADVILLE, CO 80461-3179 US	

LINE #	QTY	DESCRIPTION	REMARKS	UNIT PRICE	TOTAL
1	1.00	LOCATABLE MINERALS / MINING CLAIMS- NOT NEW-UNADJUD, ONE AUTH NO. ONLY / MINING CLAIM MONEY RECEIVED CASES: CMC278317/\$30.00		- n/a -	30.00
TOTAL:					\$30.00

PAYMENT INFORMATION			
1	AMOUNT:	30.00	POSTMARKED: N/A
	TYPE:	CASH	RECEIVED: 08/01/2012
	NAME:	CALDER, ROBERT W 902 E 6TH ST LEADVILLE CO 80461-3179 US	

REMARKS

This receipt was generated by the automated BLM Collections and Billing System and is a paper representation of a portion of the official electronic record contained therein.

RECORDS UPDATED

___ 396 ___ 635
 ___ 483 ___ 682
X 480 ___ 481

For 2013 Assessment Yr
 Rcpt # 2620311
 Initials Jc Date 5/2/12
 CMC 278317-319

FILE COPY

10 claim limit

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAINTENANCE FEE WAIVER CERTIFICATION

FORM APPROVED
OMB NO. 1004-0114
Expires: August 31, 2013

SEE INSTRUCTIONS ON PAGE 2

1. This small miner waiver is filed for the assessment year beginning on September 1, 2012 and ending on September 1, 2013.
2. The undersigned and all related parties owned ten or fewer mining claims, mill, or tunnel sites located and maintained on Federal lands in the United States of America on September 1, 2012.
3. The undersigned have performed the assessment work required by law for each mining claim listed prior to filing this waiver and understand that by filing this form, an affidavit of assessment work must be recorded by the December 30th following the filing of this waiver.
4. The undersigned understand that if the assessment work obligation has not yet come due under 30 U.S.C. 28 (for those claims in their first assessment year only), a notice of intent to hold reciting this condition must be recorded by the December 30th following the filing of this waiver.
5. The undersigned understand that mill and tunnel sites may also be listed upon this waiver and be waived from payment of the maintenance fee, and that a notice of intent to hold for these sites is required to be recorded by the December 30th immediately following the filing of this waiver.
6. The undersigned understand and acknowledge that pursuant to 43 U.S.C. 1212 and 18 U.S.C. 1001, the filing or recording of a false, fictitious, or fraudulent document with the Bureau of Land Management may result in a fine of up to \$250,000, a prison term not to exceed five years, or both.
7. The mining claims, mill or tunnel sites for which this waiver from payment of the maintenance fees is requested are:

CLAIM OR SITE NAME	BLM RECORDATION SERIAL NUMBER
1. <u>LOCKLAND KIRBY PLACER CLAIM</u>	<u>CMC 278317</u> <u>9/13/12</u>
2. <u>NEW COMSTOCK #1</u>	<u>CMC 278318</u> <u>8/2/12</u>
3. <u>NEW COMSTOCK #2</u>	<u>CMC 278319</u> <u>8/2/12</u>
4.	
5.	
6.	
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8.	
9.	
10.	

RECORDS UPDATED

396 _____ 635
 ✓ 483 _____ 682
 480 _____ 481
 For 2013 Assessment Yr
 Rcpt # _____
 Initials jp Date 9-27-12 Robert Calder

The owner(s) (claimants) of the above mining claims and sites are:

ROBERT W. CALDER
 (Owner's Name - Please Print)
902 E. 6th STREET
 (Street or P.O. Box)
LEADVILLE, CO. 80461
 (City) (State) (Zip Code)

Robert W. Calder
 (Owner's Signature)

U.S. DEPT. OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
 2012 AUG 11 9:12 AM '12

(Owner's Name - Please Print)

(Street or P.O. Box)

(City) (State) (Zip Code)

(Owner's Name - Please Print)

(Street or P.O. Box)

(City) (State) (Zip Code)

RECORDS UPDATED

396 _____ 635
 ✓ 483 _____ 682
 480 _____ 481
 For 2013 Assessment Yr
 Rcpt # _____
 Initials jp Date 9-26-12

(Owner's Signature)





359765 10/4/2012 2:55 PM
4 of 9 MD R\$51.50 D\$0.00

Patricia Berger
Lake County Recorder

AFFIDAVIT OF LABOR AND IMPROVEMENT

I ROBERT W. CALDER SWEAR THAT I DID \$500 WORTH OF IMPROVEMENT UPON EACH OF THE CLAIMS:

<u>mc</u>		<u>TP</u>	<u>Rq</u>	<u>Sec</u>	<u>MER</u>
278317	LOCKLAND KIRBY PLACER CLAIM	9S	81W	1	6
278318	NEW COMSTOCK #1	9S	79W	20	6
278319	NEW COMSTOCK #2	9S	79W	20	6

IN LAKE COUNTY, STATE OF COLORADO BETWEEN THE 1ST DAY OF SEPTEMBER 2011 AND THE 31ST DAY OF AUGUST 2012

Robert W. Calder LOCKLAND LLC
902 E. 6th ST
LEADVILLE, CO. 80461

U.S. DEPT. OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COLORADO STATE OFFICE DENVER
2012AUG-1 PM 12:39

ENCLOSED IS MY RECORDING FEE 3 CLAIMS
x \$10/CLAIM OR SITE

RECORDS UPDATED

___ 396	___ 635
<u>X</u> 483	___ 682
___ 480	___ 481

For 2012 Assessment Yr

Rcpt # 50020311

Initials [Signature] Date 8/2/12

TOTAL DUE BLM \$ 30,00

KNOW ALL MEN BY THESE PRESENTS, That DONALD W. WILSON
700 CABE ST., LAKEWOOD, CO. 80214
has located the NEW COMSTOCK No. 1 AMENDED lode mining claim, and by
this certificate, and by right of discovery and location, claim

1500 feet, linear and horizontal measurement along the vein thereof, with
all its dips, angles and variations as allowed by law 150
feet on said vein running NORTH 47° WEST from the center of
the discovery LOCATION POST and 1350
feet running SOUTH 47° EAST from the center of the discovery
LOCATION POST, together with 300

feet on each side of the middle of said vein at the surface, and all veins, lodes, ledges, deposits and
surface ground within the lines of said claim, situate in CALIFORNIA
Mining District, County of LAKE, and State of COLORADO
and described by metes and bounds as follows, to wit:

Beginning at Corner No. 1, a PORPHYRY STONE SET IN THE GROUND, WITH
CHISELED MARKINGS 3/13 AND 5/8, BEING ESTABLISHED AS A
COMMON CORNER No. 1 OF SURVEY No. 538 ROBERT BUONS LODE AND
CORNER No. 1 OF SURVEY No. 3613 OF THE ORIGINAL COMSTOCK LODE
AND CORNER No. 1 OF THE NEW COMSTOCK No. 1 AMENDED LODE, CORNER No
2 BEARS S 47° E 750 FEET TO THE EAST SIDELINE POST; THENCE
S 47° E 750 FEET TO CORNER No. 2; THENCE S 11° 53' E 521.5 FEET
TO THE S.E. CENTERLINE POST, THENCE S 11° 53' E 521.5 FEET TO
CORNER No. 3; THENCE N 47° W 750 FEET TO THE WEST SIDELINE
POST, THENCE N 47° W 750 FEET TO CORNER No. 4; THENCE
N 11° 53' W 521.5 FEET TO THE NW CENTERLINE POST, AT WHICH
POINT THERE EXISTS A 12" X 18" PORPHYRY STONE CHISELED 3/13
A CORNER OF THE ORIGINAL COMSTOCK LODE CLAIM; THENCE N 11° 53' W
521.5 FEET TO CORNER No. 1, THE PLACE OF BEGINNING
ALL BOUNDARY MARKERS ARE 4" X 4" X 5' POSTS.
THE DISCOVERY LOCATION POST BEARS S 19° 23' E FROM COR #1
A DISTANCE OF 1633.5 FEET.
THE TOTAL ACCEAGE CLAIMED AFTER EXCLUDING THE RIGHTS OF
OTHERS IS 10.72 ACRES

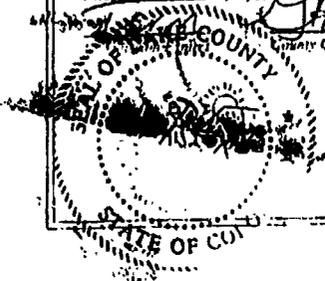
Said lode was discovered on the 1st day of MAY, 2004
and located on the 3rd day of MAY, 2004
Dated this 4th day of MAY, 2004

Donald W. Wilson [SEAL]

STATE OF COLORADO)
COUNTY OF LAKE) SS.

The foregoing instrument was acknowledged
before me by Donald W. Wilson
this 4th day of MAY, 2004

Anna Pacheco
County Clerk or Deputy Public



[SEAL]
[SEAL]
[SEAL]
[SEAL]
[SEAL]
[SEAL]

NOTICE OF LOCATION CMC 248955

NOTICE IS HEREBY GIVEN that the undersigned, having complied with Section 2324 of the Revised Statutes of the United States, and the local Laws, Customs and Regulations of the California Mining District, has located Fifteen Hundred Feet in length by Six Hundred Feet in width on a lode, vein or deposit bearing gold, silver, uranium or other precious minerals situated in Lake and _____ Counties, State of Colorado and extending 1300 feet in a NW direction and 200 feet in a SE direction from the location post 300 feet on either side. This mining claim shall be known as New Comstock No. 1 claim.

Located this 19th day of SEPTEMBER, 1996.

Posted by DONALD W. WILSON, AGENT BY LEADVILLE MINING & MILLING CORP.
700 CARR STREET
LAKEWOOD, COLO 80215

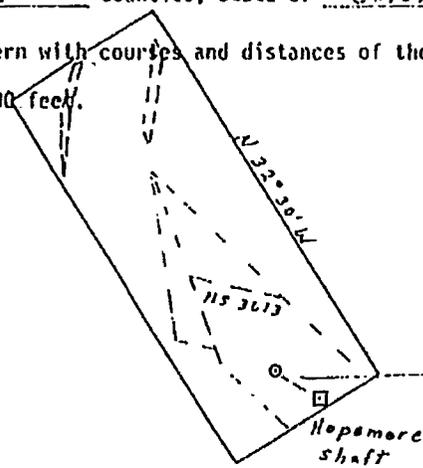
MAP OF New Comstock No. 1 LODE

Attached to and hereby made a part of the Location Certificate, which map is prepared from an actual field survey of said lode claim.

- Name and address of discoverer of claim:
DONALD W. WILSON
700 CARR STREET
LAKEWOOD, COLO, 80215
- The claim is in Section(s) SE 1/4, T 20, R 79 W, and 6th P.M.
Section(s) _____, T _____, R _____ and _____
Lake Counties, State of Colorado.

3. Claim pattern with courses and distances of the boundary lines.

1 inch = 500 feet.



tie:
Location point is
N 5° W 130 feet from
center of shaft.

Note: Section lines are
approximate.
Corner not found.

20 | 21

Dated this 19th day of SEPT, 1996

Recpt# 712562 Lake County Recorder Patricia A Berger
Page 1 of 1
0245PM Rec-Fee Doc-Fee Book 522 LOC
09/20/96 6.25 .00 Page 385

96 SEP 19 P4:47

SUBMITTED TO COUNTY CLERK

NOTICE OF LOCATION CMC 248956

NOTICE IS HEREDY GIVEN that the undersigned, having complied with Section 2324 of the Revised Statutes of the United States, and the local Laws, Customs and Regulations of the California Mining District, has located Fifteen Hundred Feet in length by Six Hundred Feet in width on a lode, vein or deposit bearing gold, silver, uranium or other precious minerals situated in Lake and _____ Counties, State of Colorado and extending 200 feet in a NE direction and 700 feet in a SW direction from the location post 300 feet on either side. This mining claim shall be known as New Comstock No. 2 lode claim.

Located this 19th day of SEPTEMBER, 1996

Posted by DONALD W. WILSON, AGENT By LEADVILLE MINING & MILLING CORP
700 CARL STREET
LAKWOOD, COLO 80215

MAP OF New Comstock No. 2 LODE

Attached to and hereby made a part of the Location Certificate, which map is prepared from an actual field survey of said lode claim.

1. Name and address of discoverer of claim:

DONALD W. WILSON
700 CARL STREET
LAKWOOD, COLO 80215

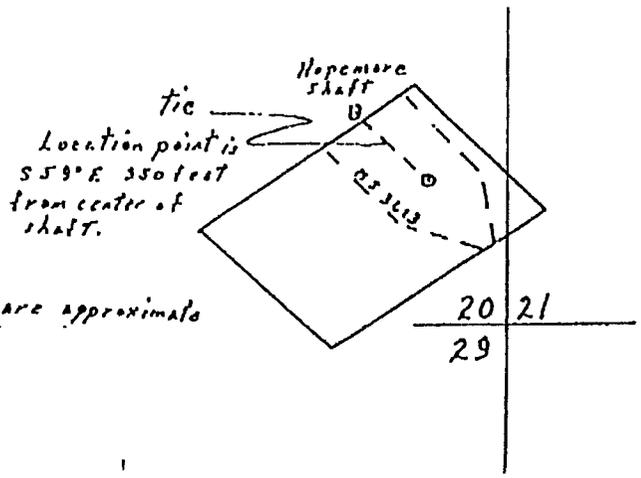
SW 1/4 21, NE 1/4 29

2. The claim is in Section(s) 20, T 9 S, R 79 W, and 6th P. 11.

Section(s) _____, T _____, R _____ and _____
Lake Counties, State of Colorado

Claim pattern with courses and distances of the boundary lines.

1 inch = 500 feet.



Note: Section lines are approximate

Dated this 19th day of SEPT, 1996

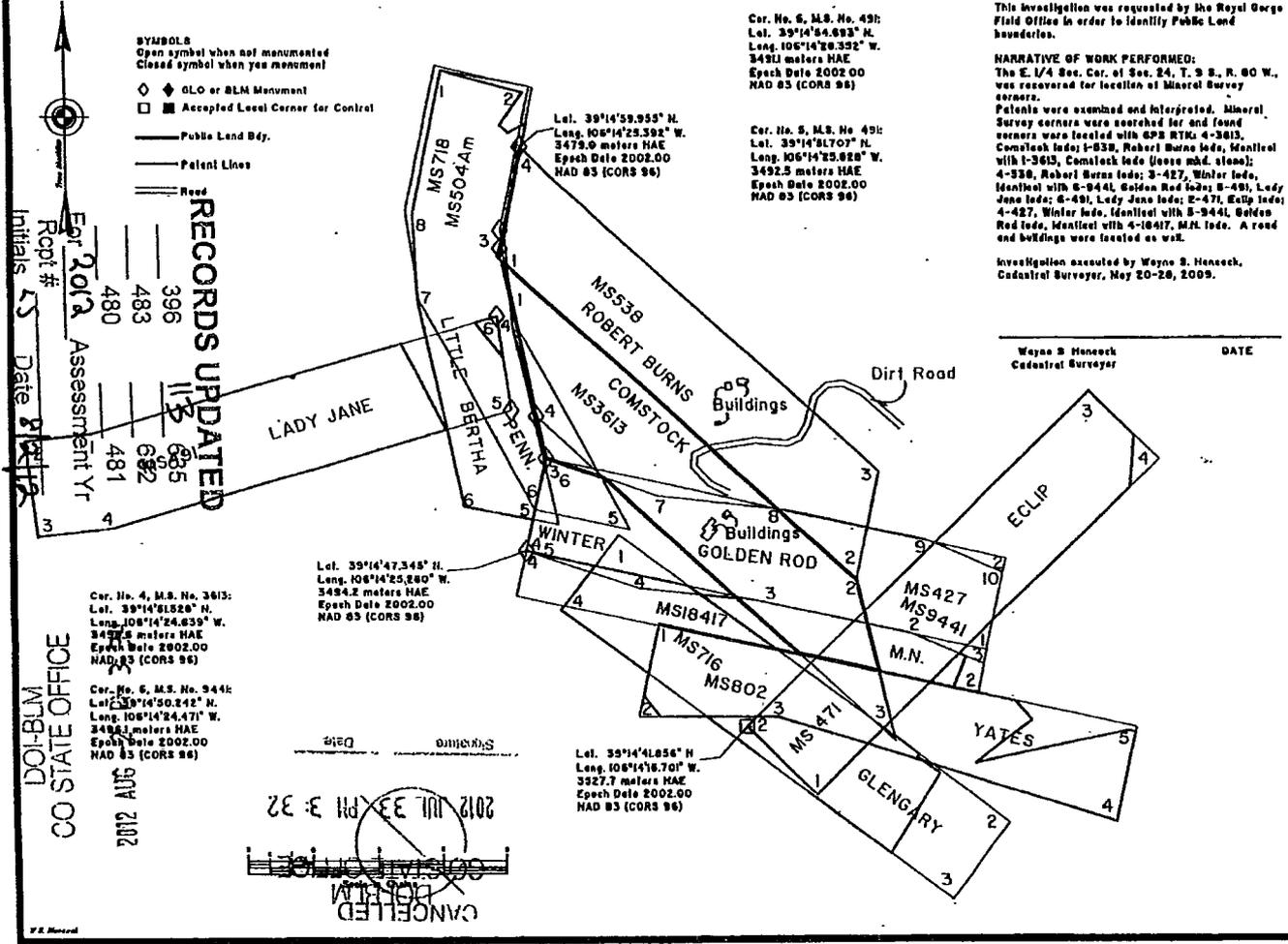
Recpt# 312561 Lake County Recorder 0245PM Rec-Fee Doc-Fee Book 522 LOC
Page 1 of 1 Patricia A Berger 09/20/96 5.25 .00 Page 384

26 SEP 19 96
P 4:47
COR

DRAFT

UNSURVEYED TOWNSHIP 9 SOUTH, RANGE 79 WEST, OF THE SIXTH PRINCIPAL MERIDIAN, COLORADO.

FIELD INVESTIGATION



This investigation was requested by the Royal Gorge Field Office in order to identify Public Land boundaries.

NARRATIVE OF WORK PERFORMED:
 The E. 1/4 Sec. Cor. of Sec. 24, T. 9 S., R. 80 W. was recovered for location of Mineral Survey corners.
 Patents were examined and interpreted. Mineral Survey corners were searched for and found corners were located with GPS RTK: 4-3613, Comstock lode; 1-538, Robert Burns lode, identical with 1-3613, Comstock lode (same mtd. stone); 4-338, Robert Burns lode; 3-427, Winter lode, identical with 6-944, Golden Rod lode; 8-491, Lady Jane lode; 6-491, Lady Jane lode; 2-471, Eclip lode; 4-427, Winter lode, identical with 5-944, Golden Rod lode, identical with 4-10417, M.N. lode. A road and buildings were located as well.

Investigation executed by Wayne S. Heneck, Cadastral Surveyor, May 20-28, 2009.

359765
 8 of 9
 MD R351.50 D\$0.00

10/4/2012 2:55 PM
 Patricia Berger
 Lake County Recorder

T. 9 S., R. 79 W., 6TH P.M.

349909
2 of 3

8/26/2008 2:13 PM
QCD R\$0.00 D\$0.00

Patricia Berger
Lake County Recorder

349622
2 of 3

7/23/2008 1:30 PM
QCD R\$16.75 D\$0.00

Patricia Berger
Lake County Recorder

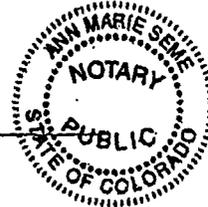
STATE OF COLORADO)
) ss.
COUNTY OF LAKE)

The foregoing instrument was acknowledged before me on this 23rd day of July, 2008, by J. Scott Hazlett, Vice-President Mine Development of Capital Gold Corporation, a Delaware corporation.

Witness my hand and official seal.

My commission expires: 5/30/2011

Ann Marie Seme
Notary Public



[SEAL]

My Commission Expires 05/30/2011

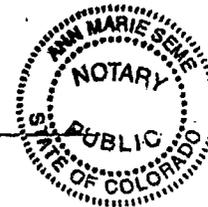
STATE OF COLORADO)
) ss.
COUNTY OF LAKE)

The foregoing instrument was acknowledged before me on this 23rd day of July, 2008, by Robert Calder.

Witness my hand and official seal.

My commission expires: 5/30/2011

Ann Marie Seme
Notary Public



[SEAL]

My Commission Expires 05/30/2011

349939
2 of 3

8/29/2008 1:30 PM
QCC R\$0.00 D\$0.00

Patricia Berger
Lake County Recorder

359765
6 of 9

10/4/2012 2:55 PM
MD R\$51.50 D\$0.00

Patricia Berger
Lake County Recorder



THE CLAIMS

The following patented and unpatented lode mining claims located in Section 20,
Township 9 South, Range 79 West, California Mining District, Lake County, Colorado

1. Unpatented Claims

<u>Name of Claim</u>	<u>Recorded in Lake County</u>			<u>BLM Serial No.</u>
	<u>Date</u>	<u>Book</u>	<u>Page</u>	
New Comstock #1				CMC 248955
New Comstock #2				CMC 248956

2. Patented Claims

<u>Name of Claim</u>	<u>Mineral Survey No.</u>	<u>Recorded in Lake County</u>		
		<u>Date</u>	<u>Book</u>	<u>Page</u>
Robert Burns	MS-538	RECEPTION # 349909	8/26/2008	
		RECEPTION # 349622	7/23/2008	



349909
1 of 3

8/26/2008 2:13 PM
QCD R\$0.00 D\$0.00

Patricia Berger
Lake County Recorder

349622
1 of 3

7/23/2008 1:30 PM
QCD R\$16.75 D\$0.00

Patricia Berger
Lake County Recorder

When recorded, please return to:

Robert Calder
902 East Sixth Street
Leadville, CO 80461

STATE DOCUMENTARY FEE

LAKE COUNTY COLORADO

QUITCLAIM DEED

THIS QUITCLAIM DEED is made and entered into this 23rd day of July, 2008, by and between Capital Gold Corporation ("CGC"), a Delaware corporation, formerly known as Leadville Mining and Milling Corporation, a Nevada corporation, whose address for purposes hereof is 9428 West U.S. Highway 50, Salida, Colorado 81201, and Robert Calder ("Buyer"), whose address is 902 East Sixth Street, Leadville, Colorado 80461.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which are hereby acknowledged, CGC does hereby remise, release and forever quitclaim unto Buyer, his heirs, executors, successors and assigns forever, all of CGC's right, title and interest in and to those patented and unpatented mining claims listed on Exhibit A attached hereto and incorporated herein by reference (the "Claims").

CGC MAKES NO REPRESENTATIONS OR WARRANTIES WHATSOEVER as to its title to or the validity of or otherwise with respect to the Claims.

IN WITNESS WHEREOF, the parties have executed this Quitclaim Deed the day and year first set forth above.

CAPITAL GOLD CORPORATION,
a Delaware corporation, formerly known as
Leadville Mining and Milling Corporation,
a Nevada corporation

By

J. Scott Hazlitt
J. Scott Hazlitt
Vice-President Mine Development

Robert Calder
Robert Calder

349939
1 of 3

8/29/2008 1:30 PM
QCC R\$0.00 D\$0.00

Patricia Berger
Lake County Recorder

359765
5 of 9

10/4/2012 2:55 PM
MD R\$51.50 D\$0.00

Patricia Berger
Lake County Recorder

CLERKS NOTE: RE-RECORDED TO CORRECT LEGAL DESCRIPTION.

EXHIBIT A

THE CLAIMS

The following patented and unpatented lode mining claims located in Section 20,
Township 9 South, Range 79 West, California Mining District, Lake County, Colorado

1. Unpatented Claims

<u>Name of Claim</u>	<u>Recorded in Lake County</u>			<u>BLM Serial No.</u>
	<u>Date</u>	<u>Book</u>	<u>Page</u>	
New Comstock #1				CMC 248955
New Comstock #2				CMC 248956

2. Patented Claims

<u>Name of Claim</u>	<u>Mineral Survey No.</u>	<u>Recorded in Lake County</u>		
		<u>Date</u>	<u>Book</u>	<u>Page</u>
Robert Burns	MS-538	RECEPTION # 349 909	8/26/2008	
		RECEPTION # 349 622	7/23/2008	



349939
3 of 3

8/29/2008 1:30 PM
QCC R\$0.00 DS\$0.00

Patricia Berger
Lake County Recorder

When recorded, please return to:

Robert Calder
902 East Sixth Street
Leadville, CO 80461

STATE DOCUMENTARY FEE

LAKE COUNTY COLORADO

QUITCLAIM DEED

THIS QUITCLAIM DEED is made and entered into this 23rd day of July, 2008, by and between Capital Gold Corporation ("CGC"), a Delaware corporation, formerly known as Leadville Mining and Milling Corporation, a Nevada corporation, whose address for purposes hereof is 9428 West U.S. Highway 50, Salida, Colorado 81201, and Robert Calder ("Buyer"), whose address is 902 East Sixth Street, Leadville, Colorado 80461.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which are hereby acknowledged, CGC does hereby remise, release and forever quitclaim unto Buyer, his heirs, executors, successors and assigns forever, all of CGC's right, title and interest in and to those patented and unpatented mining claims listed on Exhibit A attached hereto and incorporated herein by reference (the "Claims").

CGC MAKES NO REPRESENTATIONS OR WARRANTIES WHATSOEVER as to its title to or the validity of or otherwise with respect to the Claims.

IN WITNESS WHEREOF, the parties have executed this Quitclaim Deed the day and year first set forth above.

CAPITAL GOLD CORPORATION,
a Delaware corporation, formerly known as
Leadville Mining and Milling Corporation,
a Nevada corporation

By J. Scott Hazlitt
J. Scott Hazlitt
Vice-President Mine Development

Robert Calder
Robert Calder

CLERKS NOTE: RE RECORDED TO CORRECT LEGAL DESCRIPTION.

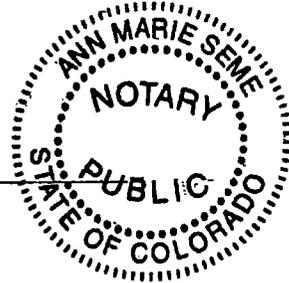
STATE OF COLORADO)
) ss.
COUNTY OF LAKE)

The foregoing instrument was acknowledged before me on this 23rd day of July, 2008, by J. Scott Hazlitt, Vice-President Mine Development of Capital Gold Corporation, a Delaware corporation.

Witness my hand and official seal.

My commission expires: 5/30/2011

Ann Marie Semere
Notary Public



[SEAL]

My Commission Expires 05/30/2011

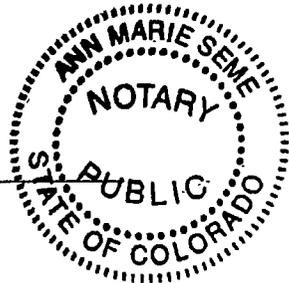
STATE OF COLORADO)
) ss.
COUNTY OF LAKE)

The foregoing instrument was acknowledged before me on this 23rd day of July, 2008, by Robert Calder.

Witness my hand and official seal.

My commission expires: 5/30/2011

Ann Marie Semere
Notary Public



[SEAL]

My Commission Expires 05/30/2011





349622
3 of 3

7/23/2008 1:30 PM
QCD R\$16.75 D\$0.00

Patricia Berger
Lake County Recorder

EXHIBIT A

THE CLAIMS

The following patented and unpatented lode mining claims located in Section 9,
Township 20 North, Range 79 East, California Mining District, Lake County, Colorado:

1. Unpatented Claims

<u>Name of Claim</u>	<u>Recorded in Lake County</u>			<u>BLM Serial No.</u>
	<u>Date</u>	<u>Book</u>	<u>Page</u>	
New Comstock #1				CMC 248955
New Comstock #2				CMC 248956

2. Patented Claims

<u>Name of Claim</u>	<u>Mineral Survey No.</u>	<u>Recorded in Lake County</u>		
		<u>Date</u>	<u>Book</u>	<u>Page</u>
Robert Burns	MS-538			

EXHIBIT A



THE CLAIMS

349909
3 of 3

8/26/2008 2:13 PM
QCD R\$0.00 D\$0.00

Patricia Berger
Lake County Recorder

The following patented and unpatented lode mining claims located in Section 20,
Township 9 North, Range 79 East, California Mining District, Lake County, Colorado

1. Unpatented Claims

<u>Name of Claim</u>	<u>Recorded in Lake County</u>			<u>BLM Serial No.</u>
	<u>Date</u>	<u>Book</u>	<u>Page</u>	
New Comstock #1				CMC 248955
New Comstock #2				CMC 248956

2. Patented Claims

<u>Name of Claim</u>	<u>Mineral Survey No.</u>	<u>Recorded in Lake County</u>		
		<u>Date</u>	<u>Book</u>	<u>Page</u>
Robert Burns	MS-538			

RECPT# 349622
RECORDED 7/23/08

QUITCLAIM DEED

STATE DOCUMENTARY FEE
0
LAKE COUNTY, COLORADO

THIS QUITCLAIM DEED (the "Deed") is made and entered into effective the 30th day of June 2004, from Donald W. Wilson, whose address is 700 Carr Street, Lakewood, Colorado 80214 ("Wilson"), to Capital Gold Corporation, a Nevada corporation, whose address for purposes hereof is 76 Beaver Street, 26th Floor, New York, NY 10005 ("Capital Gold").

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which are hereby acknowledged, Wilson does hereby remise, release and forever quitclaim unto Capital Gold all of Wilson's right, title and interest in and to the New Comstock No. 1 Amended lode mining claim, BLM Serial No. CMC 252676, located in the SE1/4 of Section 20, Township 9 South, Range 79 West, Lake County, Colorado, the location certificate for which was recorded in the official records of Lake County, Colorado on May 4, 2004 in Book 598 at Page 103 (the "Claim").

TOGETHER WITH all of Wilson's right, title and interest in all lodes, ledges, veins and mineral bearing rock, both known and unknown, intralimital and extralateral, lying within the boundaries of the Claim, all dips, spurs, and angles, and all the ores, mineral-bearing quartz, rock and earth or other deposits therein or thereon and all of the rights, privileges and franchises thereto incident, and all and singular the tenements and hereditaments thereunto or in anywise appertaining, and the rents, issues and profits thereof; and also all the estate, right, title, interest, property, possession, claim and demand whatsoever, as well in law as in equity of Wilson, of, in or to the Claim and every part and parcel thereof, including all after acquired title.

TO HAVE AND TO HOLD all and singular the Claim, unto Capital Gold, its successors and assigns forever.

IN WITNESS WHEREOF, Wilson has executed this instrument as of the date first set forth above.

Donald W. Wilson
Donald W. Wilson

ACKNOWLEDGMENT

STATE OF COLORADO)
) ss.
COUNTY OF JEFFERSON)

This instrument was acknowledged before me on this 30 day of June, 2004, by Donald W. Wilson.

Witness my hand and official seal.

My commission expires: MY COMMISSION EXPIRES 12/09/2006

Roselie R Garcia
Notary Public

ROSELIE R GARCIA
NOTARY PUBLIC
STATE OF COLORADO

STATE DOCUMENTARY FEE

QUITCLAIM DEED

LAKE COUNTY, COLORADO

THIS QUITCLAIM DEED (the "Deed") is made and entered into effective the 30th day of June 2004, from Donald W. Wilson, whose address is 700 Carr Street, Lakewood, Colorado 80214 ("Wilson"), to Capital Gold Corporation, a Nevada corporation, whose address for purposes hereof is 76 Beaver Street, 26th Floor, New York, NY 10005 ("Capital Gold").

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which are hereby acknowledged, Wilson does hereby remise, release and forever quitclaim unto Capital Gold all of Wilson's right, title and interest in and to the New Comstock No. 1 Amended lode mining claim, BLM Serial No. CMC 252676, located in the SE1/4 of Section 20, Township 9 South, Range 79 West, Lake County, Colorado, the location certificate for which was recorded in the official records of Lake County, Colorado on May 4, 2004 in Book 598 at Page 103 (the "Claim").

TOGETHER WITH all of Wilson's right, title and interest in all lodes, ledges, veins and mineral bearing rock, both known and unknown, intralimital and extralateral, lying within the boundaries of the Claim, all dips, spurs, and angles, and all the ores, mineral-bearing quartz, rock and earth or other deposits therein or thereon and all of the rights, privileges and franchises thereto incident, and all and singular the tenements and hereditaments thereunto or in anywise appertaining, and the rents, issues and profits thereof; and also all the estate, right, title, interest, property, possession, claim and demand whatsoever, as well in law as in equity of Wilson, of, in or to the Claim and every part and parcel thereof, including all after acquired title.

TO HAVE AND TO HOLD all and singular the Claim, unto Capital Gold, its successors and assigns forever.

IN WITNESS WHEREOF, Wilson has executed this instrument as of the date first set forth above.

Donald W. Wilson
Donald W. Wilson

ACKNOWLEDGMENT

STATE OF COLORADO)
) ss.
COUNTY OF JEFFERSON)

This instrument was acknowledged before me on this 30 day of June, 2004, by Donald W. Wilson.

Witness my hand and official seal.

My commission expires: MY COMMISSION EXPIRES 12/09/2006

Roselie R Garcia
Notary Public



63136

(4-482.)

GENERAL LAND OFFICE
No. 17698

MINERAL CERTIFICATE
No. 1695

The United States of America,

To all to Whom these Presents shall Come--GREETING:

WHEREAS, In pursuance of the provisions of the Revised Statutes of the United States, Chapter Six, Title Thirty-two, and legislation supplemental thereto, there have been deposited in the GENERAL LAND OFFICE of the United States the Plat and Field Notes of survey and the Certificate, No. 1695, of the Register of the Land Office at Leadville, in the State of Colorado, accompanied by other evidence, whereby it appears that

The Highland Coal Consolidated Mining Company

did, on the *twelfth* day of *May*, A. D. 1883, duly enter and pay for that certain mining claim or premises, known as the *Robert Burns Lode, remaining claim*

designated by the Surveyor General as Lot No. 528, embracing a portion of Township nine South of range eighty-nine west, sixth principal meridian

in the *California* Mining District, in the County of *Lake* and State of *Colorado*, in the District of Lands subject to sale at *Leadville*

and bounded, described and platted as follows, with magnetic variation *five degrees east*

BEGINNING at Corner/Point on top of large stone 11 x 6 x 4 inches marked 1-538 from which the east-quarter corner is a distance twenty-four in township nine south of range eighty west, sixth principal meridian bears north eighty-three degrees twenty-one minutes and seventeen seconds west, nine thousand two hundred and fifty-six and twelve hundredths feet distant, discovery shaft No. 1, bears north forty-three degrees and

Now Know Ye, That there is therefore hereby GRANTED by the UNITED STATES unto the said

The Highland Chief Consolidated Mining Company

and to *its Successors* and assigns, the said mining premises heretofore described, and not expressly excepted from these presents, and all that portion of the said *Robert Thomas* vein, lode or ledge, and of all other veins, lodes and ledges throughout their entire depth, the top or apex of which lie inside of the surface boundary lines of said granted premises in said Lot No. *T.G.E.* extended downward vertically, although such veins, lodes or ledges in their downward course may so far depart from a perpendicular as to extend outside the vertical side lines of said premises: PROVIDED, That the right of possession to such outside parts of said veins, lodes or ledges shall be confined to such portions thereof as lie between vertical planes drawn downward through the end lines of said Lot No. *S.G.* so continued in their own direction that such planes will intersect such exterior parts of said veins, lodes or ledges: AND PROVIDED FURTHER, That nothing herein contained shall authorize the grantee herein to enter upon the SURFACE of a claim owned or possessed by another.

TO HAVE AND TO HOLD Said mining premises, together with all the rights, privileges, immunities and appurtenances of whatsoever nature thereunto belonging unto the said grantee above named, and to *its Successors* and assigns forever; subject, nevertheless, to the above mentioned and to the following conditions and stipulations:

FIRST—That the premises hereby granted, WITH THE EXCEPTION OF THE SURFACE, may be entered by the proprietor of any other vein, lode or ledge, the top or apex of which lies outside of the boundary of said granted premises, should the same in its dip be found to penetrate, intersect or extend into said premises, for the purpose of extracting and removing the ore from such other vein, lode or ledge.

SECOND—That the premises hereby granted shall be held subject to any vested and accrued water rights for mining, agricultural, manufacturing, or other purposes, and rights to ditches and reservoirs used in connection with such water rights as may be recognized and acknowledged by the local laws, customs and decisions of courts.

THIRD—That in the absence of necessary legislation by Congress, the Legislature of *Colorado* may provide rules for working the mining claim or premises hereby granted, involving easements, drainage, and other necessary means to its complete development.

IN TESTIMONY WHEREOF, I, *Benjamin Harrison*, PRESIDENT OF THE UNITED STATES OF AMERICA, have caused these letters to be made PATENT, and the SEAL OF THE GENERAL LAND OFFICE to be hereunto affixed.

GIVEN under my hand at the City of Washington, the *Sixth* day of *May* in the year of our Lord one thousand eight hundred and *nineteen* and of the INDEPENDENCE OF THE UNITED STATES the one hundred and *fiftieth*.

By the PRESIDENT: *Benjamin Harrison*

By *Allen Macfarland*
 West Secretary.

J. J. Townsend
 Recorder of the General Land Office.

Recorded Vol. *181* Pages *417* to *420* inclusion.

Filed for Record the *22* day of *June* A. D. 1891, at *12* o'clock P. M.

Edw. Dale

By *R. F. Coffrey* Deputy.



Examined

7

and thirty two, minutes east two hundred and twenty five feet distant; it is every way No. 2 bears north forty one degrees and seven, minutes east forty eight feet distant, a fine tree fourteen inches in diameter, bears north twenty nine degrees and forty five minutes east twenty feet distant; and a fine tree twenty inches in diameter bears south eighty eight degrees and forty five minutes west, thirty and seven tenths feet distant.

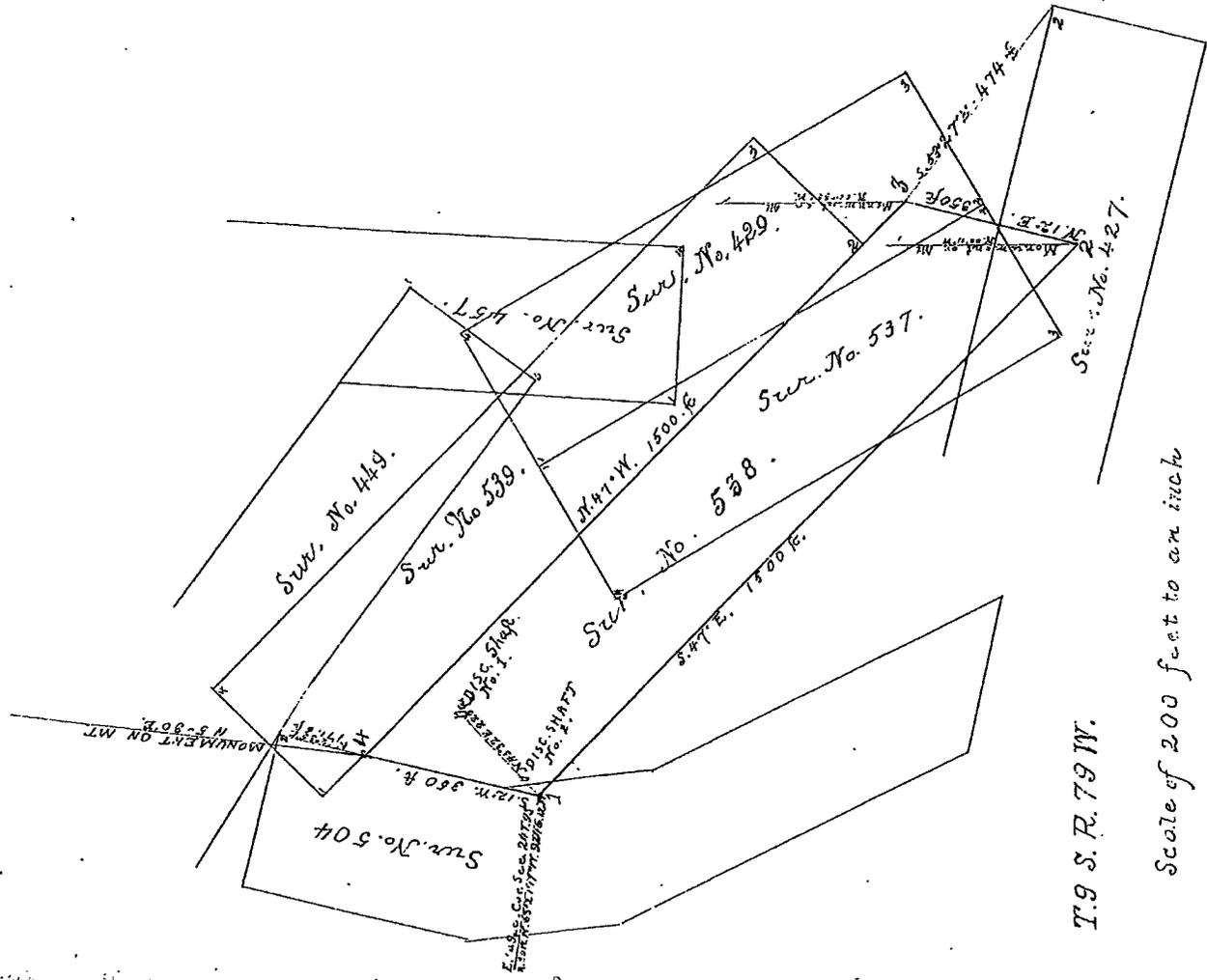
Thence first course south forty seven degrees, east one hundred and one hundred and eighty seven and eight tenths feet intersects north side line of survey No. 427, the Printer's old claim, one thousand five hundred feet to corner No. 2.

Thence second course north twelve degrees east one hundred and fifty eight and five tenths feet, intersects north side line of said survey No. 427; three hundred and fifty feet to corner No. 3.

Thence third course north forty seven degrees west one thousand five hundred feet to corner No. 4.

Thence fourth course south twelve degrees west three hundred and fifty feet to corner No. 1. The place of beginning, especially excepting and excluding from these courses all that portion of the ground herein before described embraced in said mining claim or survey No. 427, and also all that portion of said Robert Towns vein or lode, and of all veins, lodes and ledges throughout their entire depth, the top or apex of which is inside of such excluded ground, said lot No. 58 extending one thousand five hundred feet in length along said Robert Towns vein or lode; the granted premises in said lot containing nine acres and eighty five hundredths of an acre of lands more or less as represented by yellow shading in the following plat

E. S. C. Co.
No. 427



T. 9 S. R. 79 W.

Scale of 200 feet to an inch

EXHIBIT H
MUNICIPALITIES WITHIN TWO MILES
(Section 6.3.8)

Hopemore Shaft
Lake County, Colorado
Lockland LLC

No municipality is within 2 miles of the Hopemore Shaft (Figure E-1)

HOPEMORE

January, 2013

Lockland, LLC
Hopemore Shaft
Leadville, Colorado

EXHIBIT I
PROOF OF FILING WITH COUNTY CLERK AND RECORDER

(Section 6.3.9)

Hopemore Shaft
Lake County, Colorado
Lockland LLC

Lake County Clerk and Recorder
505 Harrison Avenue
Leadville, CO 80461

719.486-4100

HOPEMORE

January, 2013

Lockland, LLC
Hopemore Shaft
Leadville, Colorado



My Commission Expires 06/30/2014

EXHIBIT J

PROOF OF MAILING OF NOTICES TO COUNTY COMMISSIONERS

AND SOIL CONSERVATION DISTRICTS

(Section 6.3.10)

Hopemore Shaft

Lake County, Colorado

Lockland LLC

Natural Resource Conservation Service (NRCS)

Colorado Area 3

La Junta Area Office

381 Lacey Avenue

La Junta, CO 81050-2039

719 384-5408

Lake County Commissioners

505 Harrison Avenue

Leadville, CO 80461

719.486-4100

January, 2013

**Lockland, LLC
Hopemore Shaft
Leadville, Colorado**

Certified Mail – 7012 0470 0000 8277 5994

*Rec'd at
Post Office 4-19-13
at 11:45 a.m.
Lithium Minerals
Robert Calder*

April 15, 2013

Lake County Commissioners
505 Harrison Avenue
PO Box 917
Leadville, CO 80461

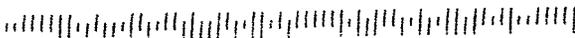
Dear Commissioners,

Lockland, LLC , operator of the Hopemore Mine, 2921 County Road 1, Leadville, CO is preparing permit filings for inclusion in a (110(2)) Hard Rock / Metal Mining , Limited Impact Operations permit in accordance with the Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board. This filing requires Lockland, LLC to send a copy of the application to your office pursuant to the regulation 1.6.2. Please find enclosed Lockland, LLC's application form.

If you have any questions I can be reached at 719 486-7926 or [leadlocks@net zero.net](mailto:leadlocks@netzero.net). Another phone number is 719 486- 0301.

Sincerely, *Robert W. Calder*

Robert W. Calder , Owner /Operator
Lockland, LLC
902 E. 6TH Street
Leadville, CO.



19461
 LOCKLAND, LLC
 902 E. 6th ST.
 LEWISVILLE, CO.

• Sender: Please print your name, address, and ZIP+4 in this box •

First-Class Mail
 USPS
 Postage & Fees Paid
 Permit No. G-10



UNITED STATES POSTAL SERVICE

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery <i>Lisa Hough</i> 4.22.03</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
<p>1. Article Addressed to:</p> <p>NATURAL RESOURCES CONSERVATION 325 W. RAINBOW BLVD. SALIDA, CO. 81201-2233</p>	<p>3. Service Type</p> <p><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>
<p>2. Article Number (Transfer from service label)</p>	<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>7012 0470 0000 8277 6007</p>	
<p>PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540</p>	

EXHIBIT K

Reserved

(Section 6.3.11)

Hopemore Shaft

Lake County, Colorado

Lockland LLC

HOPEMORE

January, 2013

**Lockland, LLC
Hopemore Shaft
Leadville, Colorado**

EXHIBIT L
PERMANENT MAN-MADE STRUCTURES

(Section 6.3.12)

Hopemore Shaft
Lake County, Colorado
Lockland LLC

Table L-1 summarizes the names and addresses of the owners of man-made structures within 200 feet of the mine site permit boundary. Figure E-2 illustrates the location of the following man-made structures:

- County Road 1;
- Xcel Power ; and
- Century Link Telephone Company;

January, 2013

Lockland, LLC
Hopemore Shaft
Leadville, Colorado



222 West 5th Street
Pueblo, CO 81003
TEL 719-584-6484
FAX 719-584-6462

December 19, 2012

Mr. Robert Calder
Lockland LLC
902 East 6th St.
Leadville, CO 80461

Re: Structure Agreement

Dear Mr. Calder,

Please be advised that CenturyLink has no objection to the proposed mining activities in the area of the Hopemore Shaft area, Leadville, CO.

Enclosed please find the signed Structure Agreement.

Yours truly,

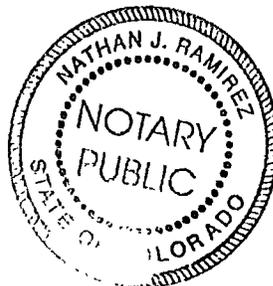
Murk Mansell
Right of Way Manager
719-584-6484

STATE OF COLORADO
COUNTY OF PUEBLO

The foregoing was acknowledged before me this 21st day of December, 2012, by Murk Mansell as Right of Way Manager of CenturyLink.

Notary Public

My Commission Expires: 6-23-2013





An example Structure Agreement which meets the requirements of the Statutes is shown below.

Structure Agreement

This letter has been provided to you as the owner of a structure on or within two hundred (200) feet of a proposed mine site. The State of Colorado, Division of Reclamation, Mining and Safety ("Division") requires that where a mining operation will adversely affect the stability of any significant, valuable and permanent man-made structure located within two hundred (200) feet of the affected land, the Applicant shall either:

- a) Provide a notarized agreement between the Applicant and the Person(s) having an interest in the structure, that the Applicant is to provide compensation for any damage to the structure; or
- b) Where such an agreement cannot be reached, the Applicant shall provide an appropriate engineering evaluation that demonstrates that such structure shall not be damaged by activities occurring at the mining operation; or
- c) Where such structure is a utility, the Applicant may supply a notarized letter, on utility letterhead, from the owner(s) of the utility that the mining and reclamation activities, as proposed, will have "no negative effect" on their utility. (*Construction Materials Rule 6.3.12 and Rule 6.4.19 & Hard Rock/Metal Mining Rule 6.3.12 and Rule 6.4.20*)

The Colorado Mined Land Reclamation Board ("Board") has determined that this form, if properly executed, represents an agreement that complies with Construction Materials Rule 6.3.12(a), Rule 6.4.19(a), and C.R.S. § 34-32.5-115(4)(e) and with Hard Rock/Metal Mining Rule 6.3.12(a), Rule 6.4.20(a), and C.R.S. § 34-32-115(4)(d). This form is for the sole purpose of ensuring compliance with the Rules and Regulations and shall not make the Board or Division a necessary party to any private civil lawsuit to enforce the terms of the agreement or create any enforcement obligations in the Board or the Division.

The following structures are located on or within 200 feet of the proposed affected area:

County road 1 past entrance to Hopemore Shaft

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

(Please list additional structures on a separate page)



360425
3 of 4

12/27/2012 4:30 PM
CAG R\$0.00 D\$0.00

Patricia Berger
Lake County Recorder

NOTARY FOR STRUCTURE OWNER

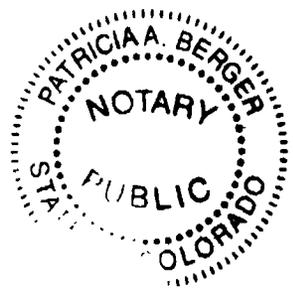
ACKNOWLEDGED BY:

Structure Owner LAKE County Name Carl F. Schaefer Commissioner
Date 12-20-12 Title Commissioner Chair

STATE OF Colorado)
) ss.
COUNTY OF Lake)

The foregoing was acknowledged before me this 20th day of December, 2012, by
Carl F. Schaefer as Commissioner of Lake County.

Patricia A. Berger My Commission Expires: My commission expires 07/26/2015
Notary Public





Forrest Jenkins
Director, Contracting and Utility Services

5901 North Sheridan Blvd.
Arvada, CO 80003
Phone: 303.425-3965

January 7, 2013

Lockland Mining, LLC
ATTN: Robert Calder
902 E 6th Street
Leadville, CO 80461

RE: Hopemore Shaft operations and permitting

Dear Mr. Calder:

In response to your November 27, 2012 letter, Public Service Company of Colorado ("PSCo") has reviewed the Shaft general facilities arrangement and the proposed disturbance anticipated from future operations. The mining and reclamation activities, as proposed should have no negative impact on our facilities within the 200 feet of the constructed impoundment.

By this review PSCo does not intend to release the Shaft facility nor waive any claims PSCo may have should the Shaft's activities and operations in fact damage PSCo's facilities, and PSCo specifically reserves all rights accordingly.

Sincerely,

Forrest M. Jenkins
Director, Contracting and Utility Services
Public Service Company of Colorado

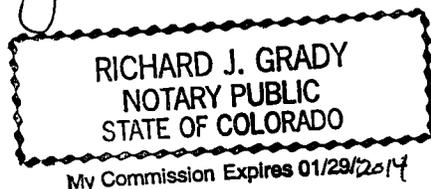
State of Colorado)
)ss.
County of Jefferson)

The foregoing instrument was acknowledged before me this 7th day of January, 2013, by Forrest M. Jenkins as Director, Contracting and Utility Services for Public Service Company of Colorado, a Colorado corporation.

Witness my hand and official seal.

Notary Public

My Commission Expires: 1-29-2014



An example Structure Agreement which meets the requirements of the Statutes is shown below.

Structure Agreement

This letter has been provided to you as the owner of a structure on or within two hundred (200) feet of a proposed mine site. The State of Colorado, Division of Reclamation, Mining and Safety ("Division") requires that where a mining operation will adversely affect the stability of any significant, valuable and permanent man-made structure located within two hundred (200) feet of the affected land, the Applicant shall either:

- a) Provide a notarized agreement between the Applicant and the Person(s) having an interest in the structure, that the Applicant is to provide compensation for any damage to the structure; or
- b) Where such an agreement cannot be reached, the Applicant shall provide an appropriate engineering evaluation that demonstrates that such structure shall not be damaged by activities occurring at the mining operation; or
- c) Where such structure is a utility, the Applicant may supply a notarized letter, on utility letterhead, from the owner(s) of the utility that the mining and reclamation activities, as proposed, will have "no negative effect" on their utility. (*Construction Materials Rule 6.3.12 and Rule 6.4.19 & Hard Rock/Metal Mining Rule 6.3.12 and Rule 6.4.20*)

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The following structures are located on or within 200 feet of the proposed affected area:

- 1. Xcel overhead power lines
- 2. _____
- 3. _____
- 4. _____
- 5. _____

(Please list additional structures on a separate page)

UNSURVEYED TOWNSHIP 9 SOUTH, RANGE 79 WEST, OF THE SIXTH PRINCIPAL MERIDIAN, COLORADO.

FIELD INVESTIGATION



SYMBOLS

Open symbol when not monumented
Closed symbol when you monument

◇ ◆ GLO or BLM Monument

□ ■ Accepted Local Corner for Control

— Public Land Bdy.

— Patent Lines

— Road

Cor. No. 6, M.S. No. 49:
Lat. 39°14'54.693" N.
Long. 106°14'26.352" W.
3491.1 meters HAE
Epoch Date 2002.00
NAD 83 (CORS 96)

Cor. No. 5, M.S. No. 49:
Lat. 39°14'51.707" N.
Long. 106°14'25.829" W.
3492.5 meters HAE
Epoch Date 2002.00
NAD 83 (CORS 96)

This investigation was requested by the Royal Gorge Field Office in order to identify Public Land boundaries.

NARRATIVE OF WORK PERFORMED:

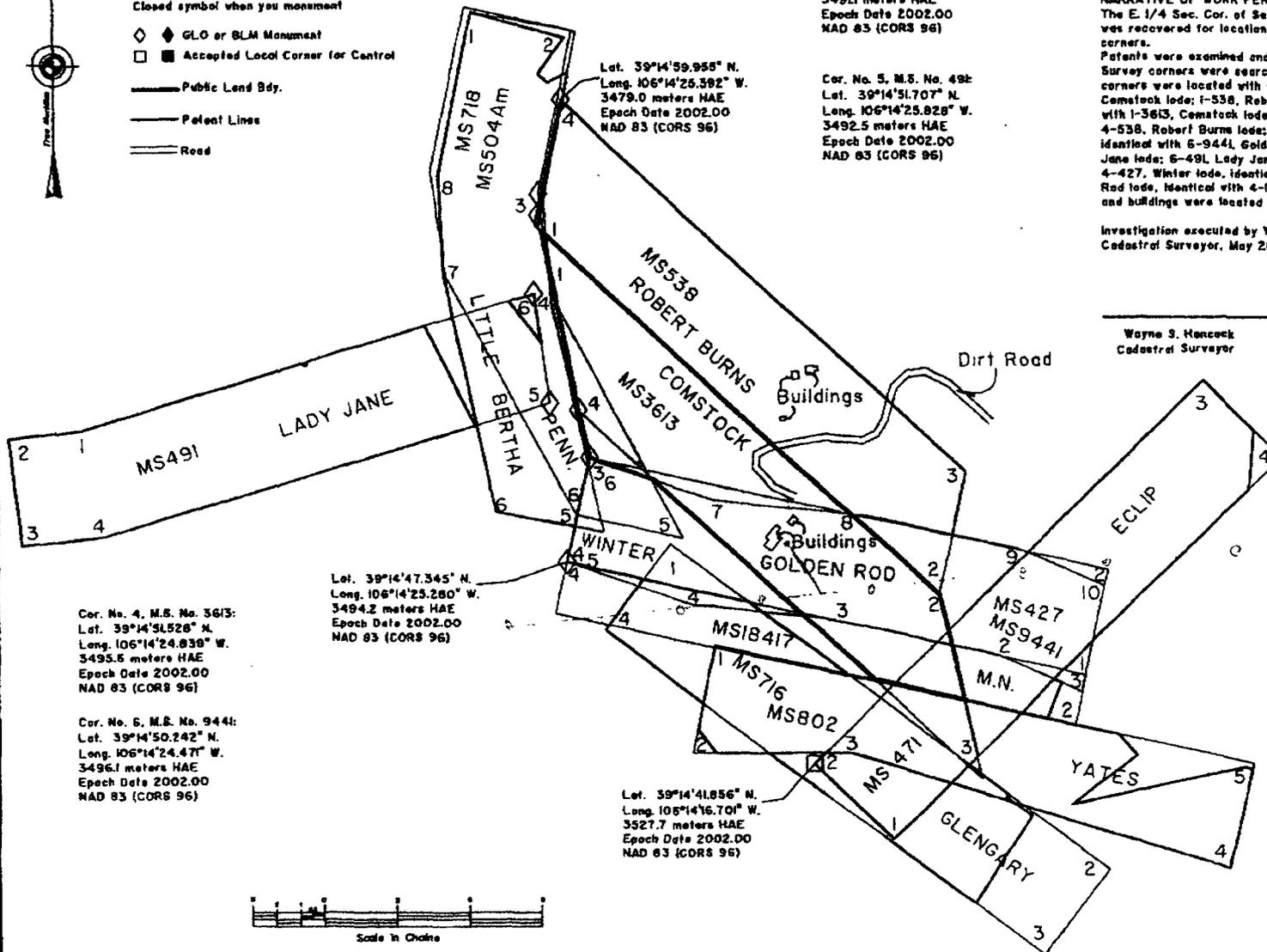
The E 1/4 Sec. Cor. of Sec. 24, T. 9 S., R. 80 W. was recovered for location of Mineral Survey corners.

Patents were examined and interpreted. Mineral Survey corners were searched for and found corners were located with GPS RTK: 4-3613, Comstock lode; 1-538, Robert Burns lode, identical with 1-3613, Comstock lode (loose mxd. stone); 4-538, Robert Burns lode; 3-427, Winter lode, identical with 6-9441, Golden Rod lode; 5-491, Lady Jane lode; 6-491, Lady Jane lode; 2-471, Eclip lode; 4-427, Winter lode, identical with 4-18417, M.N. lode. A road and buildings were located as well.

Investigation executed by Wayne S. Hancock, Cadastral Surveyor, May 20-28, 2009.

Wayne S. Hancock
Cadastral Surveyor

DATE



Cor. No. 4, M.S. No. 3613:
Lat. 39°14'51.526" N.
Long. 106°14'24.839" W.
3495.6 meters HAE
Epoch Date 2002.00
NAD 83 (CORS 96)

Lat. 39°14'47.345" N.
Long. 106°14'25.260" W.
3494.2 meters HAE
Epoch Date 2002.00
NAD 83 (CORS 96)

Cor. No. 6, M.S. No. 9441:
Lat. 39°14'50.242" N.
Long. 106°14'24.471" W.
3496.1 meters HAE
Epoch Date 2002.00
NAD 83 (CORS 96)

Lat. 39°14'41.856" N.
Long. 106°14'16.701" W.
3527.7 meters HAE
Epoch Date 2002.00
NAD 83 (CORS 96)



An example Structure Agreement which meets the requirements of the Statutes is shown below.

Structure Agreement

This letter has been provided to you as the owner of a structure on or within two hundred (200) feet of a proposed mine site. The State of Colorado, Division of Reclamation, Mining and Safety ("Division") requires that where a mining operation will adversely affect the stability of any significant, valuable and permanent man-made structure located within two hundred (200) feet of the affected land, the Applicant shall either:

- a) Provide a notarized agreement between the Applicant and the Person(s) having an interest in the structure, that the Applicant is to provide compensation for any damage to the structure; or
- b) Where such an agreement cannot be reached, the Applicant shall provide an appropriate engineering evaluation that demonstrates that such structure shall not be damaged by activities occurring at the mining operation; or
- c) Where such structure is a utility, the Applicant may supply a notarized letter, on utility letterhead, from the owner(s) of the utility that the mining and reclamation activities, as proposed, will have "no negative effect" on their utility. (*Construction Materials Rule 6.3.12 and Rule 6.4.19 & Hard Rock/Metal Mining Rule 6.3.12 and Rule 6.4.20*)

The Colorado Mined Land Reclamation Board ("Board") has determined that this form, if properly executed, represents an agreement that complies with Construction Materials Rule 6.3.12(a), Rule 6.4.19(a), and C.R.S. § 34-32.5-115(4)(e) and with Hard Rock/Metal Mining Rule 6.3.12(a), Rule 6.4.20(a), and C.R.S. § 34-32-115(4)(d). This form is for the sole purpose of ensuring compliance with the Rules and Regulations and shall not make the Board or Division a necessary party to any private civil lawsuit to enforce the terms of the agreement or create any enforcement obligations in the Board or the Division.

The following structures are located on or within 200 feet of the proposed affected area:

- 1. Overhead phone line _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

(Please list additional structures on a separate page)

UNSURVEYED TOWNSHIP 9 SOUTH, RANGE 79 WEST, OF THE SIXTH PRINCIPAL MERIDIAN, COLORADO.

FIELD INVESTIGATION



SYMBOLS

Open symbol when not monumented
Closed symbol when you monument

- ◇ ◆ GLO or BLM Monument
- ■ Accepted Local Corner for Control
- Public Land Bdy.
- Patent Lines
- == Road

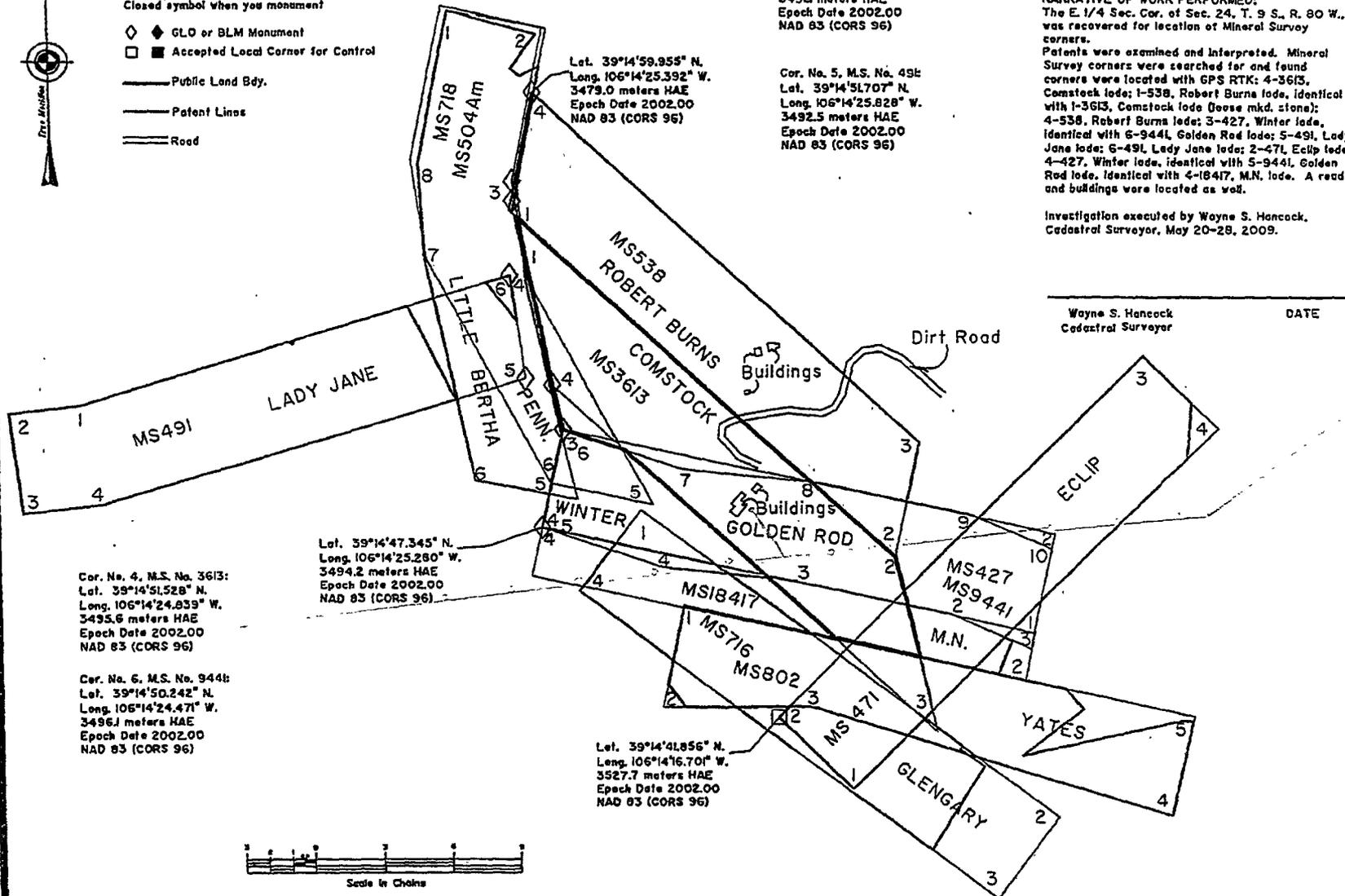
Cor. No. 6, M.S. No. 491:
 Lat. 39°14'54.693" N.
 Long. 106°14'26.352" W.
 3491 meters HAE
 Epoch Date 2002.00
 NAD 83 (CORS 96)

Cor. No. 5, M.S. No. 49E
 Lat. 39°14'51.707" N.
 Long. 106°14'25.828" W.
 3492.5 meters HAE
 Epoch Date 2002.00
 NAD 83 (CORS 96)

This investigation was requested by the Royal Gorge
 Field Office in order to identify Public Land
 boundaries.

NARRATIVE OF WORK PERFORMED:
 The E. 1/4 Sec. Cor. of Sec. 24, T. 9 S., R. 80 W.,
 was recovered for location of Mineral Survey
 corners.
 Patents were examined and interpreted. Mineral
 Survey corners were searched for and found
 corners were located with GPS RTK: 4-3613,
 Comstock lode; 1-538, Robert Burns lode, identical
 with 1-3613, Comstock lode (oose mkd. stone);
 4-538, Robert Burns lode; 3-427, Winter lode,
 identical with 6-944L, Golden Rod lode; 5-491, Lady
 Jane lode; 6-491, Lady Jane lode; 2-47L, Eclip lode;
 4-427, Winter lode, identical with 5-944L, Golden
 Rod lode, identical with 4-18417, M.N. lode. A road
 and buildings were located as well.

Investigation executed by Wayne S. Hancock,
 Cadastral Surveyor, May 20-28, 2009.



Wayne S. Hancock
 Cadastral Surveyor

DATE

Cor. No. 4, M.S. No. 3613:
 Lat. 39°14'51.528" N.
 Long. 106°14'24.833" W.
 3495.6 meters HAE
 Epoch Date 2002.00
 NAD 83 (CORS 96)

Lat. 39°14'47.345" N.
 Long. 106°14'25.280" W.
 3494.2 meters HAE
 Epoch Date 2002.00
 NAD 83 (CORS 96)

Cor. No. 6, M.S. No. 944E:
 Lat. 39°14'50.242" N.
 Long. 106°14'24.471" W.
 3496J meters HAE
 Epoch Date 2002.00
 NAD 83 (CORS 96)

Lat. 39°14'41.856" N.
 Long. 106°14'16.701" W.
 3527.7 meters HAE
 Epoch Date 2002.00
 NAD 83 (CORS 96)



(RULE 6.5)

GEOTECHNICAL STABILITY EXHIBIT

Hopemore Shaft

Lake County, Colorado

Lockland LLC

Potential Geological Hazards

The Hopemore Shaft mine was opened in the early 1900's when the Hopemore and Hunter shafts were completed to a depth of 500 feet. The mine was not extensively developed. As of 2012 there have been no reported incidences of mine or shaft failure. No geotechnical data has been collected and concerns related to shaft failure or subsidence is minimal.

There have been no recorded slope failures associated with the access road, dumps or embankment failures within the permit boundary

Blasting

Blasting will be conducted in accordance with MSHA regulations and criteria.

January, 2013

**Lockland, LLC
Hopemore Shaft
Leadville, Colorado**

3.

Enclosed are rock characterization sheets from USGS plate 148. Also cross sections of geology are enclosed. (A) These sheet will describe the common use of rock.

If a change occurs such as ore, rock types will be updated along with composition assays from milled ore.

This information will be continually reviewed during operations, to minimize potential negative impacts.

A.

CHEMICAL COMPOSITION

In chemical composition the Leadville limestone has been shown by Emmons to be singularly uniform and to approach closely the composition of a normal dolomite. The question of dolomitization was not thoroughly considered during the early survey, and in the smaller area covered by the second survey no evidence

was found that would add appreciably to that already published on the origin of dolomite. The original chief constituent of the rock was presumably calcium carbonate, which was replaced by dolomite before the rock became consolidated. The four analyses quoted by Emmons are repeated below, together with two made in the laboratory of the United States Geological Survey by J. G. Fairchild.

Analyses of Leadville limestone

	1	2	3	4	5	6	
						Soluble in 1:3 HCl	Insoluble
CaO	30.79	30.43	29.97	27.26	29.84	30.64	
MgO	21.14	20.78	21.52	20.05	21.32	21.23	
FeO	.24	.38	.13	.57	.71	.27	
MnO	Trace.	.05	.20	.06	.19	Trace.	
CO ₂	46.84	46.93	47.39	43.79	45.18	46.88	
SiO ₂	.21	.70	.27	7.76	.34	.04	0.19
Al ₂ O ₃	.27	.17	.04	.11	.22	.06	.15
Fe ₂ O ₃	.21	.11	.22	.10	.09	.00	
Na ₂ O	.062	.094	.016	.037	.59		.11
K ₂ O	.03	.046	.013	.017	Trace.		
H ₂ O	.22	.04	.07	.05	.15	.00	
H ₂ O+					.32	.18	
SO ₃	Trace.			Trace.		.03	
P ₂ O ₅	Trace.	.12	.03	.07	Trace.	Trace.	
Cl	.10	.143	.041	.062	Trace.	.08	
FeS ₂	Trace.	Trace.		Trace.	.35		.00
TiO ₂					.00		.00
Organic matter	.03	.025	.015	.07	.17		.26
	100.142	100.018	99.925	100.006	99.47	100.12	

° Approximate.

- Upper part of Leadville ("Blue") limestone, Silver Wave mine. Analyst, W. F. Hillebrand.
- Upper part of Leadville ("Blue") limestone, Dugan quarry. Analyst, Anthony Guyard.
- Partly disintegrated rock from upper part of Leadville ("Blue") limestone, Glass-Pendery mine. Analyst, Anthony Guyard.
- Near base of Leadville ("Blue") limestone, Montgomery quarry. Analyst, Anthony Guyard.
- Dump of Stephen's mine; exact horizon not known. Analyst, J. G. Fairchild. Specific gravity in hand specimen, 2.774; specific gravity of powder, 2.865; calculated porosity by volume, 0.0319 per cent.
- Lower beds in quarry at south end of Iron Hill. Shows no weathering or other alteration. Sample collected in 1922. Analyst, J. G. Fairchild.

Calculated mineral composition of Leadville limestone

	1	2	3	4	5	6
Dolomite { CaCO ₃	53.18	52.00	53.40	48.53	53.30	52.82
{ MgCO ₃	44.39	43.68	44.86	42.03	44.77	44.40
{ FeCO ₃	.38	.70	.24	.92	1.16	.44
{ MnCO ₃	Trace.	.08	.35	.07	.36	Trace.
Calcite	.10	2.00	.00	.00	.00	.00
Calcium phosphate	Trace.	.27	.07	.15	Trace.	Trace.
Excess lime	.95	.00	.00	.00	.00	.64
Gypsum (or anhydrite)	Trace.			Trace.		.07
Quartz	.55	.50	.23	7.65	.62	.55
Feldspar and aluminum silicate		.36	.09	.24		
Ferric oxide	.21	.11	.22	.10	.09	.00
Sodium chloride	.12	.18	.05	.07	Trace.	.00
Potassium chloride	.07	.07	.02	.03	Trace.	.00
Calcium chloride						.13
Water	.22	.04	.07	.06		.17
Pyrite	Trace.	Trace.		Trace.	.35	
Organic matter	.03	.03	.02	.07	.17	.26
Lead carbonate	100.20	100.02	99.62	99.92	100.82	99.51
		Trace.			.42	

° Aside from experimental error the excess CaO may be largely combined with organic matter.

None of the distinct six-sided muscovite crystals were seen in thin section by the present writers. The muscovite seen occurred partly as distinct flakes scattered through the rock or in clusters, and partly as aggregates of minute sericite grains. The single flakes reach 1 millimeter or more in diameter and form a network with quartz grains. Only rarely do they appear to replace feldspar. Some of them appear to have crystallized a little later than the quartz and others earlier, and the two minerals on the whole appear contemporaneous. The only cluster of muscovite seen in thin section was in an elliptical geodelike body about 3 millimeters in diameter. It was in parallel intergrowth with quartz, the two minerals forming a shell which was filled with calcite. The muscovite and quartz are similar in appearance to the grains disseminated in the groundmass. The evidence as a whole implies that the muscovite grew under pneumatolytic conditions, which marked the last stage of the White porphyry intrusion. Biotite phenocrysts may have been replaced by muscovite at that time. In some places, presumably where pneumatolytic activity was vigorous, the rock consists essentially of quartz and muscovite, with only a few remnants of altered feldspar.

The sericite that impregnates the feldspars and forms fringes around some of the larger muscovite crystals is distinctly later than the mica already described, and may be correlated with the period of ore deposition. A little epidote and calcite, distinctly later than the quartz and earlier muscovite, are scattered through the groundmass and may be contemporaneous with the sericite. Small crystals of pyrite are present in the vicinity of ore bodies. Its prominence in some places led to the designation of a special type of "pyritiferous porphyry" in the Leadville monograph, but later studies have shown that the rock so named consists in part of pyritized White porphyry but mostly of pyritized Gray porphyry. Kaolin and similar clay-like materials are products of weathering and are prominent along the contact of the White porphyry and the Blue limestone in the vicinity of oxidized ore bodies.

CHEMICAL COMPOSITION AND CLASSIFICATION

The chemical composition of the White porphyry is shown below in column 1, quoted from the Leadville monograph, and column 2, quoted from Ricketts.⁷ A sample intended to illustrate the pyritized rock but exceptionally high in orthoclase is represented in analysis 3, and muscovite phenocrysts in analysis 4.

⁷ Op. cit., p. 21.

Analyses of White porphyry and its muscovite

	1	2	3	4
SiO ₂	70.74	74.98	66.37	45.03
Al ₂ O ₃	14.68	15.27	11.15	38.14
Fe ₂ O ₃ .....	.69	1.27	None.	A little.
FeO .....	.58		.32	
MgO .....	.28	Trace.	Trace.	
CaO	4.12	1.03	.18	Trace.
Na ₂ O	2.29	1.89	.56	.71
K ₂ O	2.59	2.10	9.03	9.44
H ₂ O+	2.09	2.00	.44	4.08
H ₂ O- .....			.14	
CO ₂	2.14		None.	
TiO ₂ .....			.23	
ZrO ₂ .....			.02	
P ₂ O ₅		Trace.	None.	
MnO .....	.06	1.07		
BaO .....	.03		.10	
SrO	Trace.			
SO ₃		Trace.	.35	
Cl	Trace.			
FeS ₂			10.75	
Specific gravity	100.29 2.680	99.61	99.64	97.38

1. White porphyry from quarry in California Gulch at the southwest base of Iron Hill. Specimen somewhat altered. Analysis made by W. F. Hillebrand for Leadville monograph (Mon. 12, p. 326).

2. White porphyry presumably from Evening Star or Morning Star claim on Carbonate Hill. Analysis quoted from "The ores of Leadville," p. 21, published at Princeton in 1883 as thesis for the degree of Ph. D. by L. D. Ricketts.

3. Pyritiferous White porphyry (?) from Yak tunnel. The specimen was one of the least decomposed fragments of supposedly White porphyry obtainable, but its chemical composition is so different from that of the White porphyry as a whole that its exact relationship to typical White porphyry is open to question. The only evidence of alteration was the presence of minute crystals of pyrite. Analysis made by R. C. Wells. Specific gravity of specimen, 2.652; of powder, 2.736. Calculated porosity 3.07 per cent.

4. Muscovite from White porphyry, south slope of Little Zion. Mon. 12, p. 589, 1886. Not complete; made to prove identity of mineral.

Nos. 1 and 2 both represent rock that was somewhat altered but as fresh as could be obtained. The excess of silica in No. 2 is balanced by the excess of lime and carbon dioxide in No. 1, which appears to be the more altered rock. Iron oxides in both rocks and magnesia in No. 1 are surprisingly high, in view of the scarcity of mafic minerals and magnetite. The magnesia and ferrous oxide may be present in part as carbonate. The alkalis in both rocks are lower than in typical unaltered rocks of similar composition, and their ratio to alumina reflects the abundance of mica, as does the rather high content of water.

The norms of rocks so greatly altered as Nos. 1 and 2 would be of little significance. The mode or mineral composition has been approximately calculated below,

however, on the assumption that the analysis of muscovite in column 4 (equivalent to $2\text{H}_2\text{O} \cdot (\text{K}, \text{Na})_2\text{O} \cdot 3\text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2$) is fairly representative.

Mineral composition of White porphyry

[Corresponding to analysis 1, p. 45]

	Per cent
Quartz (SiO_2)	43.8
Orthoclase ($\text{K}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2$)	1.4
Muscovite ($2\text{H}_2\text{O} \cdot \text{K}_2\text{O} \cdot 3\text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2$)	20.3
Kaolin ($2\text{H}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$)	.0
Excess water (H_2O)	1.0
Albite ($\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2$)	19.4
Anorthite ($\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$)	7.0
Chlorite (pennine) ($4\text{H}_2\text{O} \cdot 5(\text{Mg}, \text{Fe})\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 3\text{SiO}_2$)	1.9
Magnetite (Fe_3O_4)	.9
Calcite (CaCO_3)	4.9
Baryta (BaO) and manganous oxide (MnO)	.1
	100.7

If all the alumina is present in feldspars, muscovite, and chlorite there is 1 per cent of excess water. If this apparent excess water represents kaolin that mineral amounts to nearly 7 per cent, muscovite drops to 11 per cent, and orthoclase rises to 8 per cent. The true percentages of these minerals are doubtless somewhere between the limits stated above. According to the ratios of the feldspars the White porphyry is a granodiorite porphyry, but it is unusually low in mafic minerals or their alteration products. The abundance of muscovite and its close association with quartz would favor its designation as a sodic muscovite granite porphyry.

The pyritic porphyry represented by analysis 3 was not found among the specimens left by Irving, and no petrographic description of it is available. It evidently contains very little muscovite and much more orthoclase than the rocks represented by analyses 1 and 2. If the lime and soda are calculated as plagioclase the ratio of the remaining alumina to potash allows for only 0.8 per cent of muscovite and 52.8 per cent of orthoclase. Even if all the alumina were available, muscovite would amount to only 5.6 per cent and orthoclase to 49.5 per cent. Quartz also is lower than in the other samples, amounting to 28 per cent. These data, even with allowance for the pyritic replacement, suggest an alkali granite, which is an unusual variation from the typical White porphyry, if indeed it is not a different rock whose relations have been obscured by alteration.

GRAY PORPHYRY GROUP

As originally used in the Leadville monograph the term "Gray porphyry" was applied only to a variety of porphyry represented by a type specimen from Johnson Gulch. It has since become customary, however, to use the term to distinguish all varieties of porphyry that are markedly porphyritic from the White por-

phyry, just described. The Gray porphyry group therefore includes several varieties, some of them granodiorite porphyries, some quartz monzonite porphyries, and perhaps some quartz diorite porphyries, although no members of the last-named group are represented by chemical analyses, and none have been definitely recognized even by a careful restudy of the original thin sections used by Cross.

Quartz-free varieties are shown by the microscope to be entirely absent in the Leadville mining district, and Emmons's descriptions include few from the entire Mosquito Range area.

Four varieties of the Gray porphyry are recognized within the Leadville district—the Lincoln porphyry, the Johnson Gulch porphyry, the Evans Gulch porphyry, and the Mount Zion porphyry.

LINCOLN PORPHYRY

DISTRIBUTION

The Lincoln porphyry was named from Lincoln Mountain, northeast of the Leadville district, where it is best developed. It forms the summit of that mountain and the summit and parts of the slopes of Mount Bross, to the south, and is reported by Emmons to occur also on the east side of the Platte Valley. In the area represented on Plate 11 it forms several sheets at the top of the Blue limestone and in the lower part of the "Weber grits," one sheet in the Cambrian quartzite, and some small dikes in the pre-Cambrian rocks. Within the Leadville district rock similar in megascopic appearance to the Lincoln porphyry and therefore correlated with it is found on Little Ellen Hill, on Printer Boy Hill, and in the Yak tunnel. In the Yak area the rock is locally known as the "Bazoo porphyry," on account of its prominent development on the Bazoo claim. It closely resembles the quartz monzonite porphyry of Brewery Hill, in the Breckenridge district, described by Ransome, but seems to be generally so high in plagioclase that it should be classed as a granodiorite porphyry.

PETROGRAPHY

The rock on weathered surfaces and where intensely altered is of a light cream color but elsewhere is gray to greenish gray. It contains large phenocrysts of orthoclase and quartz and smaller phenocrysts of plagioclase and of altered biotite and hornblende, embedded in a dense matrix. The large orthoclase crystals are Carlsbad twins, usually pink, and range from half an inch to 2 inches in length. They contain numerous inclusions of altered plagioclase and biotite, and some are impregnated with calcite. In thin section they appear clouded by minute specks of kaolin and iron oxide, and a few cracks contain sericite, which is evidently derived from the inclosed plagioclase. Though these phenocrysts are very conspicuous, they are shown by measurements to constitute only 8 per cent

be required by the orthoclase to place the rock in the quartz monzonite group. The feldspars would then have the following approximate composition: Orthoclase (Or_3Ab_1); plagioclase (Ab_1An_1). As the plagioclase identified optically was near Ab_3An_2 , the rock appears to be intermediate between granodiorite and quartz monzonite.

Ransome,¹ who has made a comparative study of the intrusive rocks in the Leadville, Breckenridge, and neighboring districts, quotes the foregoing analysis and refers to the Lincoln porphyry as siliceous quartz monzonite. The prevailing monzonitic character of the intrusive rocks is a marked feature of the region in general.

JOHNSON GULCH PORPHYRY

DISTRIBUTION

The variety here called Johnson Gulch porphyry is the Gray porphyry of the Leadville monograph. Next to the White porphyry it is the most widespread intrusive rock within the Leadville district (pl. 13), but it is not definitely recognized elsewhere. It forms the extensive sheet that overlies the White porphyry in the northwestern quarter of the district and the intrusive sheets exposed in mine workings under Iron Hill, Carbonate Hill, and elsewhere. The stocklike mass at Breece Hill, where not too much altered, is closely similar to if not identical with the Johnson Gulch porphyry, and probably represents the conduit through which it rose; but the stock may include also one or more later intrusions.

PETROGRAPHY

The Johnson Gulch porphyry is very similar to the Lincoln porphyry, just described, but generally lacks the large phenocrysts of orthoclase and quartz. A few of these are present, but they are sporadic and not a distinctive feature of the rock. This rock, like the other porphyries, is considerably altered throughout the district, but some only slightly altered specimens have been found.

The color of the specimens ranges from greenish gray to dark green as the percentage of dark minerals increases. In the lighter-colored varieties biotite occurs with little or no hornblende; in the darker varieties hornblende or its alteration products are abundant. In the darkest facies the hornblende is chiefly in the groundmass. The darker varieties, which may correspond to the porphyries described by Cross in the original report, occur in small masses, but the lighter and intermediate varieties form large masses and are typically represented by the porphyry at Johnson Gulch.

The minerals of the Johnson Gulch porphyry are orthoclase, plagioclase, quartz, biotite, and hornblende,

with accessory magnetite, apatite, titanite, and allanite. As alteration products sericite and chlorite are invariably present; pyrite, epidote, calcite, and siderite (?) are common; and quartz occurs here and there. Calcite is very abundant in the darker varieties. Kaolin appears to some extent in rocks near the surface but is entirely absent in the deeper-seated masses.

The phenocrysts are plagioclase, a few large orthoclase crystals, quartz, biotite, and hornblende. The large orthoclase phenocrysts are essentially identical in character with those in the Lincoln porphyry and contain inclusions of sericitized plagioclase and chloritized biotite, as well as impregnations of calcite. A chemical analysis of those from the Johnson Gulch porphyry, quoted from the Leadville monograph, is given below.

Chemical analysis of orthoclase phenocryst from Gray [Johnson Gulch] porphyry

[W. F. Hillebrand, analyst]

Analysis		Approximate mineral composition	
SiO ₂	62.22	Orthoclase.....	38
Al ₂ O ₃	20.33	Albite.....	29
CaO.....	2.95	Anorthite.....	8
Na ₂ O.....	3.45	Quartz.....	8
K ₂ O.....	8.31	Sericite.....	15
Loss on ignition.....	1.90	Calcite.....	2
	99.16		100

Without separate determinations of water and carbon dioxide, both included in "loss on ignition," only the above rough calculation of the composition of the mineral and its inclusions can be made. It serves, however, to indicate the sodic character of the orthoclase.

The plagioclase phenocrysts vary within wide limits in their abundance and size. Their length is usually between 0.5 and 5 millimeters. In the more salic varieties they are of nearly the same color as the groundmass and are not readily discernible, but in the more mafic varieties they form a striking contrast with the dark-green groundmass. They range from nearly 30 per cent by volume down to approximately 3 per cent, but plagioclase in the groundmass is abundant where the phenocrysts are scarce and absent where they are present in large numbers.

Quartz phenocrysts are invariably present. They are commonly much resorbed and of very irregular outline. Many of them are broken and their fragments separated by subsequently crystallized groundmass. They range from a maximum of 8 millimeters to a fraction of a millimeter in diameter. The larger ones are relatively few but are so prominent that they make

¹ Ransome, F. L., *Geology and ore deposits of the Breckenridge district, Colo.*: U. S. Geol. Survey Prof. Paper 75, p. 44, 1911.

the percentage of quartz appear larger than it really is. The smaller ones are more widely scattered. In number they are everywhere subordinate to the plagioclase phenocrysts, and in this respect the rock presents a marked contrast to some facies of the Lincoln porphyry.

In the lighter-colored varieties biotite is generally absent from the groundmass but present as phenocrysts, which are much less abundant than those of plagioclase. It occurs in hexagonal plates, generally thin but locally thick, which range from 0.1 to 2 millimeters in diameter. Where it is unaltered it has typical pleochroism from yellowish to deep brown. Nearly everywhere, however, the biotite is altered to an aggregate of muscovite and chlorite, accompanied in places by a white opaque mineral (leucoxene?), carbonate (siderite?), minute needles of rutile, and grains of magnetite. This alteration has generally caused a distortion of cleavage plates. The phenocrysts of biotite inclose numerous crystals of apatite.

Hornblende phenocrysts are much less common than those of biotite, except in the more mafic varieties, and are altered largely to chlorite. In one specimen from the Comstock mine altered hornblende phenocrysts as much as 5 millimeters long and 3 millimeters thick are unusually abundant, but hornblende is entirely absent from the groundmass, which is itself much lighter than the usual hornblendic variety. Large phenocrysts of quartz are also prominent in this rock.

In some varieties the hornblende has the form of small needlelike crystals about 3 millimeters long and 1 millimeter thick.

Under the microscope the groundmass of lighter varieties is found to consist chiefly of quartz and untwinned alkalic feldspar with subordinate, variable quantities of recognizable plagioclase. The individual grains of quartz and alkalic feldspar in both the coarser and the moderately fine grained varieties are roughly circular, as in most of the White porphyry. In the peripheral portions of the rock many of the individuals are so small that their separate identification is impossible. The feldspar is considerably altered to minute flakes of sericite. Sericite is also present to some extent in the quartz.

Biotite in minute irregular flakes, usually much altered, is present in the groundmass of some varieties. The dark-green groundmass owes its color to chlorite derived from hornblende and biotite. It contains numerous crystals of apatite and irregular grains and in places crystals of titanite, and a few sections contain allanite.

CHEMICAL COMPOSITION AND CLASSIFICATION

Of the two chemical analyses given below, No. 1, quoted from the Leadville monograph, represents the type rock in Johnson Gulch. No. 2 represents a somewhat pyritic variety collected by J. D. Irving, but its exact locality is not recorded. More analyses would probably show considerably wider variations in composition.

Analyses of Johnson Gulch porphyry

Analyses							
	1	2	1		2		
			Norm	Mode	Norm	Mode	
SiO ₂	68.10	68.91	Quartz.....	32.28	32.64	28.74	29.16
Al ₂ O ₃	14.97	14.27	Orthoclase.....	17.24	9.73	42.26	35.00
Fe ₂ O ₃	2.78	.90	Albite.....	29.34	29.34	16.77	16.77
FeO.....	1.10	.23	Anorthite.....	8.34	8.34	.56	.56
MgO.....	1.10	.67	Corundum.....	3.06		3.06	
CaO.....	3.04	.60	Sericite.....		10.72		10.67
Na ₂ O.....	3.46	1.96	Hypersthene.....	1.50		1.50	
K ₂ O.....	2.93	7.15	Chlorite.....		1.66		1.66
H ₂ O.....	1.28	.43	Magnetite.....	3.38	3.38		
H ₂ O+.....		1.12				.46	.46
TiO ₂.....	.07	.41	Ilmenite.....			.96	.96
CO ₂.....	.92	.26	Hematite.....	.32	.32	.16	.16
P ₂ O ₅.....	.16	.16	Rutile.....			.34	.34
Cl.....	.08		Apatite.....	2.10	2.10	.60	.60
MnO.....	.09	.02	Calcite.....			3.32	3.32
SrO.....	.08	Undet.	Pyrite.....	1.28	.57		.38
BaO.....	Undet.	.08	Water.....	.24	.24	1.81	.19
FeS ₂	Undet.	3.32	Rest.....				
	100.11	100.49		99.41	99.38	100.49	100.14

Specific gravity of No. 1 at 16° C., 2.636.

CLARIFY

1) Reclamation / SHAFT CLOSURES.

11' feet down in the shaft a 2x8 inch wooden bulkhead seal will be constructed. Foam concepts PUF foam product will be used, atop the wood bulkhead, filling the shaft to 4 feet from ground level. Dirt backfill will be filled on foam to ground level. A ventilation pipe of 6 inch diameter screen covered at surface, will be placed as to allow shaft to breathe. PUF product will not breakdown or leach when in contact with dirt or water, and is environmentally sound. This product is widely used in reclamation enclosures. Fill will be approx 10.5 cubic yards of shaft. The cost is reflected in CDRMS application for Permit.

② mining

All mining at this time will take place from underground workings. 5 x 7' tunnels are mined using compressed air operated equipment. This type of mining equipment has been in use for many years.

Rock drilling with jack-legs, mucking with 12 B Rail muckers and air powered slushers.

The general configuration of the ore bodies in the Breece Hill area as described in records of past production indicates relatively small ore bodies of three to twenty feet thick. Possibly occurring in strikes of 200 feet. If it can be done inert mine waste will be disposed of underground. Some exploration will be done from surface to coincide with underground exploration. Only light truck mounted equipment is necessary, and drill holes will be plugged and site reclamation completed as soon as practical after completion of drilling. Final reclamation of a drill site will be completed before starting work from a future site.

(Any ore will be shipped 0.3 miles to the main road)

All CORMS application and permits will be applied, and followed. -

Mining tours will not be conducted in the same footprint as work at this time. Work and Tours will not be conducted at the same time unless seperated by 100 feet or more of seperate mine levels. This will be pending MSHA rules and regulations.

4.15

~~Don't~~ 88

We expect mine activity that would cause any degradation to be extremely minimal. The disturbance area at this time is 1.9 acre area. Partially on unpatented and partially on patented claim. Any ore could possibly have sulfides mixed in the rock. One will be placed on a dugout circular pad that will retain any possible runoff water. The pad excavation is in an extremely clay type material previously excavated from the mine. This clay type material should prevent any possible vertical seepage. The ore extraction from the mine entrance to the pad is only approx 100 feet, which is a very minimal amount of movement on the surface. (Plans for future are to have a storage bin at mine shaft entrance so ore will be directly loaded to bin, to truck, to mill.)

Trucks will be loaded directly from pad storage area. The road can be dry in mid summer, but dust is not a problem. Fugitive dust in either pad or road should be very minimal.

Monitoring

All areas of the mine will be visually monitored daily, simply by working on the site. With the small, 1.9 acre disturbance area it is easy to observe any changes in drainage or runoff etc. Also monitoring will

be recorded weekly by the mine manager or designated responsible employee. Any changes in SWMP locations are recorded and regulated by CDPHE: SWP permits and protocol.

There are to be no types of liquids or chemicals in any bulk form, to be stored at the mine.

Small quantities of petroleum products, fuel and oil are stored in one area. Monitored for possible spills and spill cleaning materials in the location. There will be no storage of liquids or chemicals other than normal household type products. Stored in metal cabinet.

Daily routine checks will be taken in observations. Any problems will be dealt with as soon as possible. Weekly a list will be updated and noted for records.

List may contain:

- Excessive dust
- Any uncontained deleterious material
- Any runoff or drainage problems, changes?
- Does ore pad have ore stored? How long? Any seepage?
- Are Bmp's in there place? in good repair?
- Equipment leaks?
- Any spills? How cleaned?
- Petroleum products stored and ok?
- Any environmental changes occurred on property? notes:

① Clarify: Rock/ore storage pad.

The rock/ore storage pad as marked in the new map will be a level sunken hole on the existing 1.9 acre disturbance. It will be approx. 50-75 feet in diameter, about 2-3 feet deep. The composition of the location is previously mined clay type material, therefore no liner will be put down. Any ore placed here will be stored for short periods of time, and trucked as quickly as possible to the mill site. Pad will connect to drainage and sediment runoff areas in case of heavy rains, and runoff might ~~occur~~ occur. Generally ore from this property has sulfides composition, although if the ore is moved in a timely fashion, elements of weather should cause minimal erosion.

② CLARIFY

Weed control: Seed Mix.

Soil conservation maps and seeding mixtures have been obtained in prior years of permitting. Exhibit B.

Also seed mixes and types of planting are included in prior paperwork. I have attempted to obtain an inspection report by Larry Walker, weed control expert. In 2009 he inspected the property and said the only problem was a small patch of toadflax which could be hand picked. Also this patch was on the patented claim.

Soil Conservation District in Salida has told me all information from sheets, still pertains today.

UNITED STATES
DEPARTMENT OF
AGRICULTURE

SOIL
CONSERVATION
SERVICE

230 West 16th Street
Salida, CO 81201
Phone No. 719 539-7331

4-18-90

TO: Mr. Donald Wilson
Leadville Mining & Milling Corp.
700 Carr Street
Lakewood, CO 80215

Canon City
NRC5- 719 275-4465

LAKWOOD
539-3455

L. L. Schaffer

(Salida) 539-4962

Dear Mr. Wilson,

Enclosed is the information on soils, vegetation and reclamation you requested on the Hopemore mining area (Sec. 20, T9S R79W) and your millsite area (Sec. 28 & 33, T9S, R80W) located near Leadville, CO.

The Hopemore mining site is located southeast of Leadville, Colorado at an elevation of approximately 11,550 feet. This site falls within the Lake County soil survey of which two soil or land types are described, Mine Pits or Dumps (Mp) and the Troutville gravelly sandy loam (TrE). Neither of these soil types is assigned to a range site and therefore a form SCS-ECS-2 (Range Inventory) is not included for this site. Please see attached soils maps and soils descriptions.

Slopes in this area range from 3 to 35 percent but in the area to be disturbed are less than 35 percent. When mining operations begin, topsoil should be saved and stock piled for future reclamation work. Saving of the topsoil may be difficult due to shallow soil and rock.

When reclamation of the site begins, slopes to be seeded should not be greater than 3 to 1 and south facing slopes should be no steeper than 6 to 1 if possible. The seedbed should be smooth and firm with any compacted areas ripped or chiseled before seeding.

Seeding of the site may be accomplished with either of the enclosed seeding recommendations found on forms CO-ECS-5. Recommendation 1 is based on the plant inventory found at your site and uses grass species that are native to the site. These plants include fescue, bluegrass, nodding brome, junegrass, western yarrow, several herbaceous plants, bull thistle, and moss. Willow and spruce are also found in the surrounding area. See attached seeding recommendation 1. Recommendation 2 uses introduced grass species that are known to do well in the Leadville area. Cost and availability of seed may determine which of the two recommendations to use. Seeding rates in both recommendations are for broadcast seeding only, if seed is drilled use 1/2 of the recommended seeding rates.

At the present time there is little or no erosion at the Hopemore site. Existing mine dumps are supporting vegetative growth and there are no signs of toxic heavy metals or excessive pH levels.

The millsite area is located approximately 2 miles southwest of Leadville, Colorado at an elevation of 9750 feet. This site also falls within the Lake County soil survey of which only one soil series has been mapped, the Leadville sandy loam (LeE). This is a woodland soil and therefore a form CO-ECS-5 (Range Inventory) has not been completed for this site. Please see attached soil map and soil description.

This site will be used to dispose of mill tailings with a basic pH. All topsoil encountered in this area should be stockpiled for future reclamation work.

The above mentioned seeding recommendations and rates may also be used in the millsite area, especially in areas where topsoil is placed over mill tailings. In addition, the owners have requested that several "seeding test plots" be established at this site to help determine which plant materials will be best suited for reclamation work in higher pH soils. Plant materials and future monitoring of these test plots will be provided by the Lake County Soil Conservation District and the Soil Conservation Service.

In addition to the above recommendations, future seedings may be enhanced by the use of fertilizers, mulches and manure. The amount of fertilizer should be determined by use of soil tests. However, nitrogen can be applied at a rate of at least 50 pounds per acre, and phosphate at a rate of 40 pounds per acre. If straw mulches are used, they should be crimped into the soil with a disc, cleats on heavy equipment or with hand tools. Manure should be available locally and would do much to improve the soil condition.

Taking care of the seeding during the first year or two of growth may also help in establishing a successful stand of grass. Keeping wildlife and possibly livestock off the seeding during at least the first growing season will help new seedings establish themselves. This may be accomplished with fencing. In addition, if water is available, watering during the first growing season would do more than anything else to help the stand establish itself.

If you have any additional questions please contact me at (719) 539-7331.

Sincerely,



John F. Nelson
District Conservationist

SOIL MAP

Owner Leadville Mining & Milling Corp. Operator Same

County Lake State Colorado

Soil survey sheet (s) or code nos. 4, 5, 7 & 8 Approximate scale 1:20,000

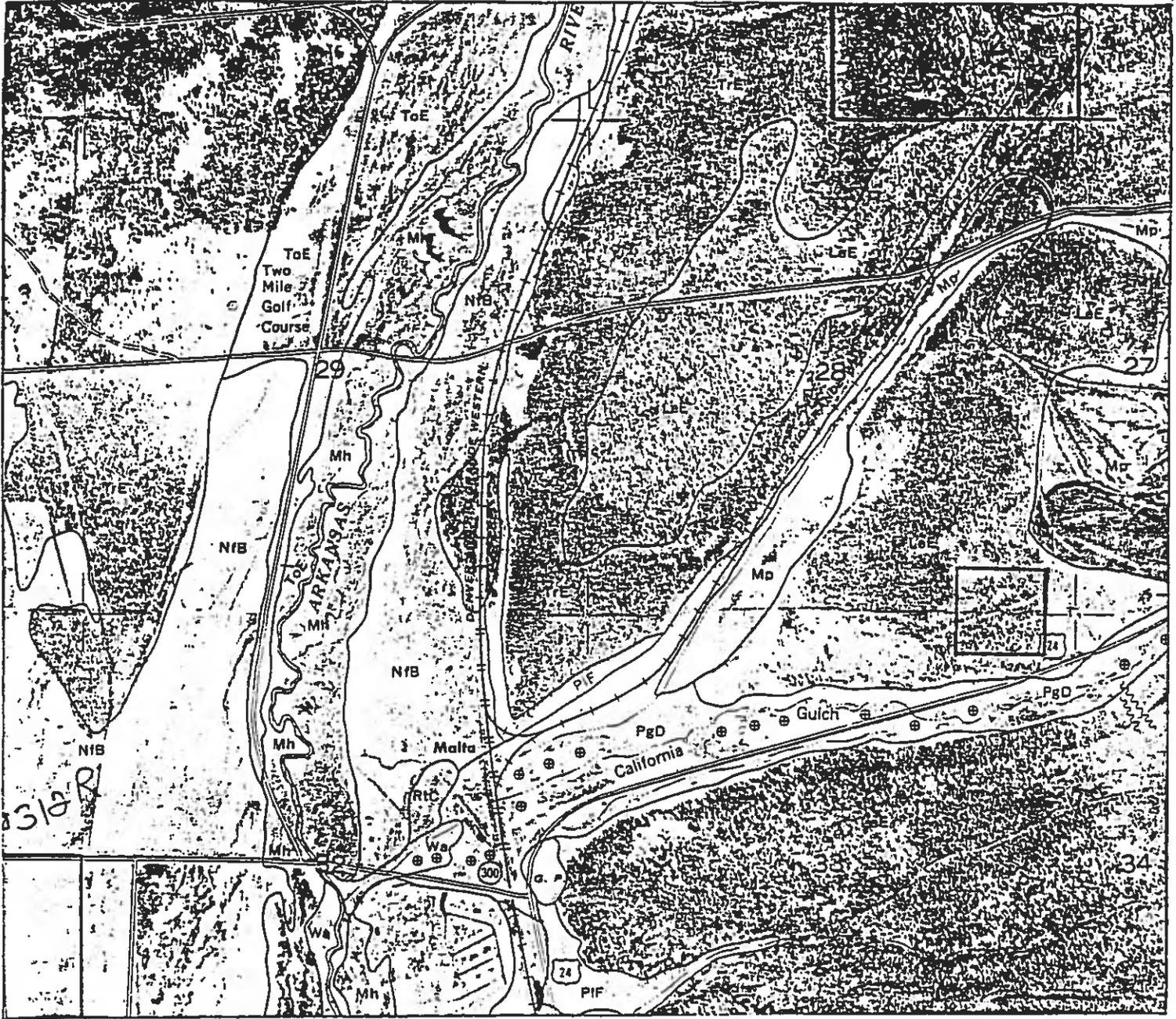
Prepared by U. S. Department of Agriculture, Soil Conservation Service cooperating
with Lake County Soil Conservation District



Sec. 20, T9S, R79W Hopemore Area.

SOIL MAP

Owner Leadville Mining & Milling Corp. Operator Same
 County Lake State Colorado
 Soil survey sheet (s) or code nos. Sheet No. 6 Approximate scale 1:20,000
 Prepared by U. S. Department of Agriculture, Soil Conservation Service cooperating
 with Lake County Soil Conservation District



Sec. 28 & 33, T9S, R80W

Millsite Area

SOIL DESCRIPTION REPORT

SURVEY AREA - CHAFFEE-LAKE AREA, COLORADO. PARTS OF CHAFFEE AND LAKE

Map Unit

Symbol Description

- LeE LEADVILLE SANDY LOAM, 3 TO 35 PERCENT SLOPES
Leadville soil is very deep and well drained. It formed in glacial outwash. Typically, the surface layer consists of dark grayish brown sandy loam 1 inch thick. The subsurface layer is pink stony sandy loam 7 inches thick. The subsoil is extremely stony clay loam 32 inches thick. The substratum is extremely stony loam to a depth of 60 inches or more. The soil is medium acidic to a depth of 8 inches and slightly acidic and neutral below that depth. Permeability is moderately slow, and available water capacity is moderate. Surface runoff is medium to very rapid, and the hazard of erosion of unprotected soil by water is moderate to very high.
- Mp MINE PITS AND DUMPS
Mine pits and dumps are piles of waste rock or waste smelter materials.
- TrE TROUTVILLE GRAVELLY SANDY LOAM, 3 TO 35 PERCENT SLOPES
Troutville soil is very deep and will drained. It formed in glacial outwash and till. Typically, the surface layer is dark grayish brown gravelly sandy loam 2 inches thick. The subsurface layer is pale brown gravelly sandy loam 12 inches thick. The lower subsurface layer is very gravelly sandy loam 6 inches thick, and the subsoil is extremely stony sandy loam 20 inches thick. The latter two layers include lamella of sandy clay loam. The substratum is a layer of stones, cobbles, gravel, and sand to depth of 60 inches or more. The soil is slightly acidic to a depth of 14 inches and neutral below that depth. Permeability is moderately rapid, and available water capacity is low. Surface runoff is slow to very rapid, and the hazard of erosion of unprotected soil by water is slight to very high.

Category Codes: soi

Recommendation #1

PART I - GRASS SEEDING PLANNED

Planner: Nelson Date: 4-90
Producer: Leadville Mine & Mill Corp.

Contract or Agreement # NA

1. Field No. NA Ac. 2 Contract Item No. NA Practice No. and Name 342-Critical Area Planting
Land Resource Area 48A Irrigated _____ Dryland X Range Site NA - Woodland site.

2. Planned:

Seedbed Prep: (a) Method Disc or Chisel
(b) Approximate dates _____
(c) Clean tilled _____
Firm seedbed X
Stubble cover _____
Interseed _____
Other _____

Seeding Operation: (a) Method: drill _____
interseed _____
broadcast X

(b) Drill spacing _____ (c) Date _____
Type _____ (d) planting depth _____

Fertilizer: Should depend on soil test

Pounds actual per acre N₂ _____
(available) P₂O₅ _____
K _____

Weed Control: Only if needed.

Mowing: _____
Chemical: _____ Type & Amount: _____
Dates: _____

Mulch:

Kind: Straw - 2000 lbs per Acre
Amount: _____ pounds/Ac
How-applied: _____
How-anchored: _____
Anchorage depth: _____

Seed:

Variety	Species	(1) Required PLS rates per acre (100%)	(2) % of species in mixture
<u>Redondo</u>	<u>Arizona Fescue</u>	<u>9.0</u>	<u>50</u>
	<u>Nodding Brome</u>	<u>38.0</u>	<u>10</u>
	<u>Junegrass</u>	<u>20.0</u>	<u>20</u>
<u>Arriba</u>	<u>Western Wheatgrass</u>	<u>32.0</u>	<u>20</u>

(3) PLS seeding rate per species/Ac. (1)x(2)	(4) Planned Acres	(5) Total PLS lbs/ species planned (3)x(4)
<u>4.5</u>	<u>2</u>	<u>9.0 PLS</u>
<u>3.8</u>	<u>2</u>	<u>7.6 PLS</u>
<u>4.0</u>	<u>2</u>	<u>8.0 PLS</u>
<u>6.4</u>	<u>2</u>	<u>12.8 PLS</u>

$$\text{Bulk Seed} = \frac{\text{PLS Recommended}}{\text{Germ \% times Purity \%}} \times 100$$

Remarks: Amount of bulk seed to plant = Bulk seed needed to plant is equal to the Pure Live Seed (PLS) recommended divided by the germination percent times the purity percent.

Recommendation #2

PART I - GRASS SEEDING PLANNED

Planner: Nelson Date: 4-90
 Producer: Leadville Mining and Milling
Corp.
 Contract or Agreement # NA

1. Field No. NA Ac. 2 Contract Item No. NA Practice No. and Name 342-Critical Area Planting
 Land Resource Area 48A Irrigated _____ Dryland X Range Site NA - Woodland site

2. Planned:

Seedbed Prep: (a) Method Disc or Chisel
 (b) Approximate dates _____
 (c) Clean tilled _____
 Firm seedbed X
 Stubble cover _____
 Interseed _____
 Other _____

Seeding Operation: (a) Method: drill _____
 Interseed _____
 broadcast X

(b) Drill spacing _____ (c) Date _____
 Type _____ (d) planting depth _____

Fertilizer:

Pounds actual per acre (available)
 N₂ _____
 P₂O₅ _____
 K _____

Weed Control:

Mowing: _____
 Chemical: _____ Type & Amount: _____
 Dates: _____

Mulch:

Kind: Straw - 2000 lbs per Acre
 Amount: _____ pounds/Ac
 How-applied: _____
 How-anchored: _____
 Anchorage depth: _____

Seed:

Variety	Species	(1) Required PLS rates per acre (100%)	(2) % of species in mixture
<u>Manchar</u>	<u>Smooth Brome</u>	<u>26</u>	<u>50</u>
<u>Regar</u>	<u>Meadow Brome</u>	<u>34</u>	<u>20</u>
<u>Climax</u>	<u>Timothy</u>	<u>4</u>	<u>20</u>
	<u>Mt. Brome</u>	<u>38</u>	<u>5</u>
	<u>Yellow Sweetclover</u>	<u>14</u>	<u>5</u>

(3) PLS seeding rate per species/Ac. (1)x(2)	(4) Planned Acres	(5) Total PLS lbs/ species planned (3)x(4)
<u>13</u>	<u>2</u>	<u>26 PLS</u>
<u>6.8</u>	<u>2</u>	<u>13.6 PLS</u>
<u>0.8</u>	<u>2</u>	<u>1.6 PLS</u>
<u>1.9</u>	<u>2</u>	<u>3.8 PLS</u>
<u>0.1</u>	<u>2</u>	<u>1.4 PLS</u>

$$\text{Bulk Seed} = \frac{\text{PLS Recommended}}{\text{Germ \% times Purity \%}} \times 100$$

Remarks: Amount of bulk seed to plant. Bulk seed needed to plant is equal to the Pure Live Seed (PLS) recommended divided by the germination percent times the purity percent.

PLANTING PLAN FOR FIELD, SPECIAL,
AND INCREASE PLANTINGS

Year 1990 Field Planting No. - Field Office Salida, Colorado
 County FIPS Code 065 Adms. Area No. 03 State Alpha Code 08
 Cooperator Leadville Mining & Milling Corporation Purpose Test Plots
 Soil Series Name Leadville Texture Modifier - Texture Type Sandy loam

Common Name	Cultivar	Accession Number	Seeding or Pltg. Rate	Total Needed	Supplied By
1. Mammoth Wildrve	Volga	-	Sprigs		Meeker PMC
2. Mt. Brome	Bromar	-	25 Lbs PLS		Meeker PMC
3. Arizona Fescue	Redondo	-	5 Lbs PLS		Meeker PMC
4. Saltgrass	-	-	-		?
5. Alkali Sacaton	-	-	2 Lbs PLS		?
6.					
7. Any other species you feel may do well at high elevations in high pH soils.					
8.					

Legal Description: TWP 9S Range 80W Section 28 & 33 Quarter Section

Irrig. No. Precip. 16 Elev. 9750 Slope 3 - 35% Exposure -
 (yes or no) (inches) (feet) (percent)

Site history for previous three years:

1989 Woodland site - Modified by old smelter or mill.
 1988 Same as above
 19 Same as above

Method of planting to be used Hand - seed and sprigs Seeding Date: Spring 1990

Materials needed	Rate	Total	Materials needed	Rate	Total
Lime			Mulch		
Fertilizer			Other		

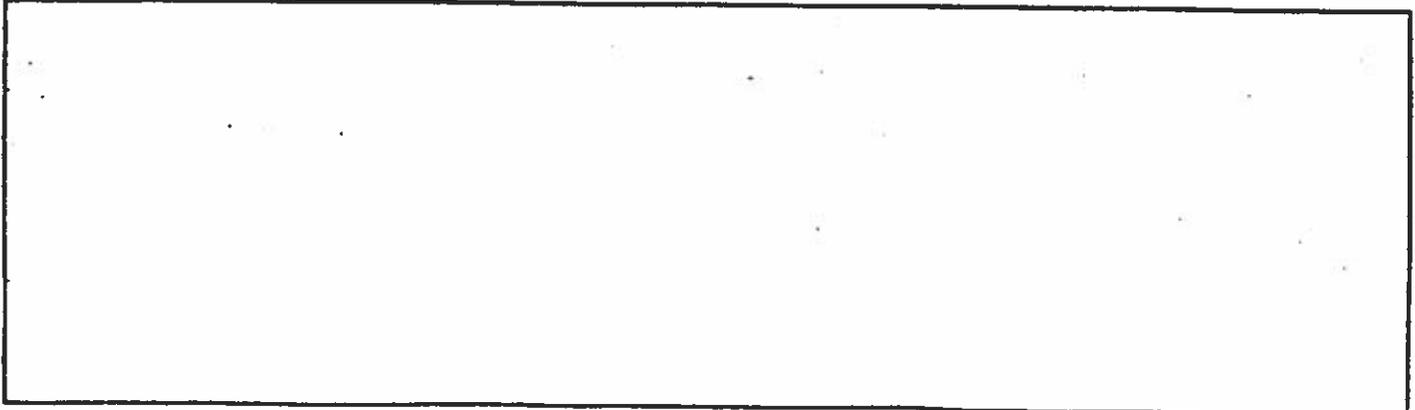
LEADVILLE MINING & MILLING CORP.

Cooperator *Frank W. Wilson* Date 4-23-90 Submitted by Date
 (signature)

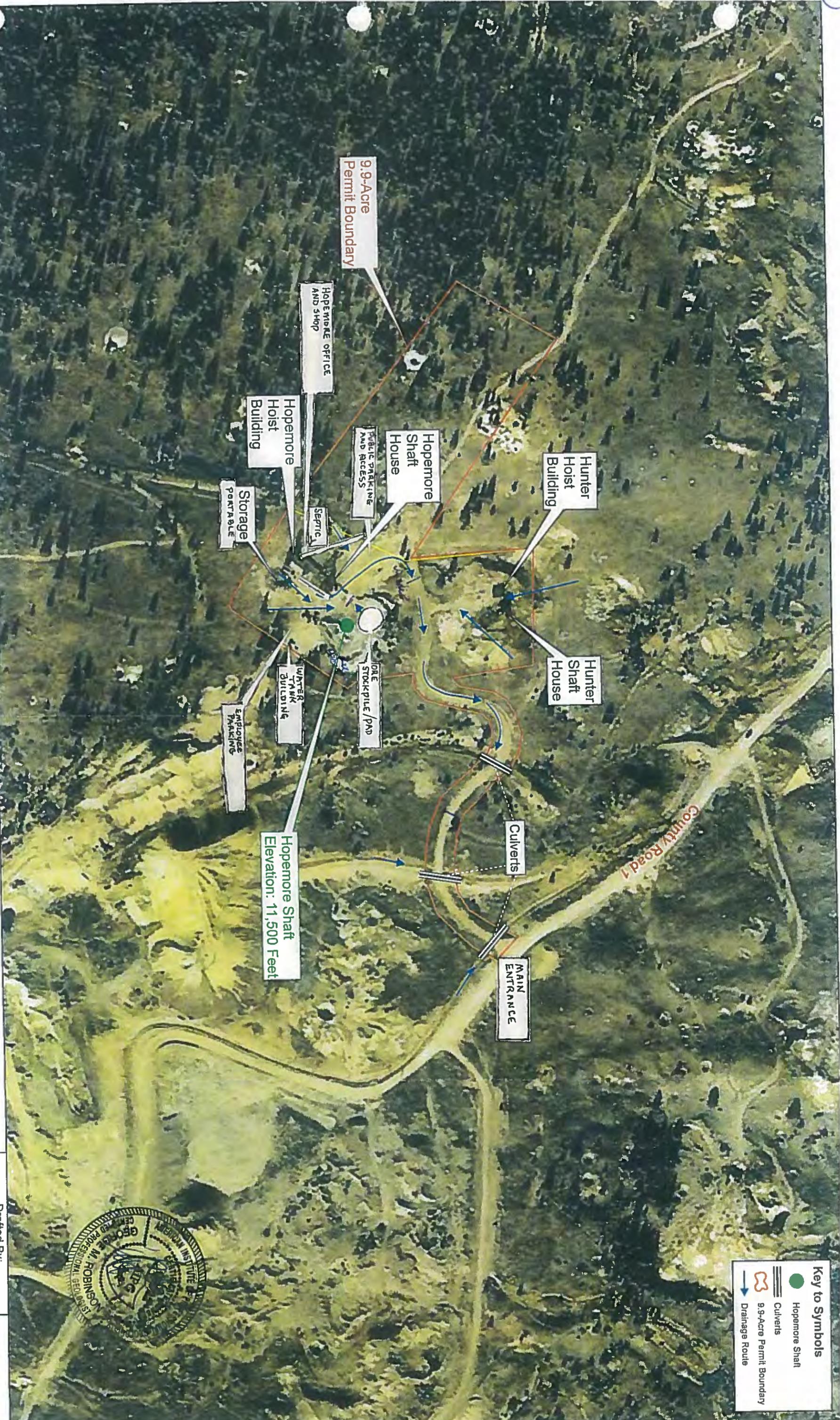
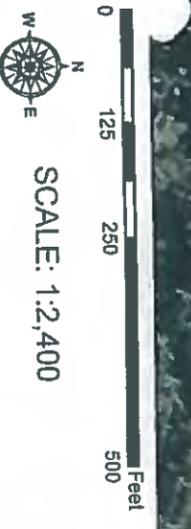
Approved Date
 (Chairman, District Board)

Approved Date
 (SRC or PMS)

Location Map



REVIEW INSTRUCTIONS AND COMPLETE CHECKLIST ON BACK OF ORIGINAL



Key to Symbols

- Hopemore Shaft
- Culverts
- 9.9-Acre Permit Boundary
- Drainage Route

HOPEMORE MINE SITE MAP

HOPEMORE SHAFT
 LOCKLAND, LLC - LEADVILLE, COLORADO



Drafted By:
 C. Rice

Draft Date:
 18 December 2012

Attachment B

Stormwater Management Permit

Prepared by Lockland LLC

Leadville, Colorado

Hopemore Mine

STATE OF COLORADO

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
(303) 692-2000
(303) 691-7700
Located in Glendale, Colorado
http://www.cdph.state.co.us



Colorado Department
of Public Health
and Environment

For Agency Use Only	
COR-	_____
Date Received	____/____/____ Month Day Year
REGULATION	_____
WATER BODY ID	_____

APPLICATION for STORMWATER DISCHARGES ASSOCIATED WITH:

**HEAVY and LIGHT INDUSTRIAL ACTIVITY
METAL MINING (and some Coal Mining)
RECYCLING INDUSTRY**

Please print or type. Original signatures are required. **FAXED COPIES OR PDF COPIES WILL NOT BE ACCEPTED.**

This application is for use by all industrial stormwater dischargers engaged in **heavy and light industrial activity, metal mining (and some coal mining), and the recycling industry** as categorized by Standard Industrial Classification Code (SIC code) (see Appendix A.)

The application must be submitted to the Water Quality Control Division (the Division) at least **30 days** prior to the anticipated date of discharge, and must be considered complete by the Division before it will begin the review and approval process. The Division will notify the applicant if additional information is needed to complete the application. If more space is required to answer any question, please attach additional sheets to the application form. Applications must be mailed or delivered to:

*Colorado Department of Public Health and Environment
Water Quality Control Division
4300 Cherry Creek Drive South
WQCD-P-B2
Denver, Colorado 80246-1530*

PERMIT TYPE

Indicate the stormwater discharge permit type this application applies to. Refer to Appendix A for appropriate permit type based on the primary industrial activity conducted at the facility. **Note:** Applications for Heavy Industrial Activity and the Recycling Industry stormwater discharge permit types must include a copy of the Stormwater Management Plan.

- Heavy Industrial Activity (A copy of the Stormwater Management Plan must be submitted to the Division with the application.)
- Light Industrial Activity
- Metal Mining Inactive mine active over 10 acres active under 10 acres
- Recycling Industry (A copy of the Stormwater Management Plan must be submitted to the Division with the application.)

APPLICANT

The applicant must be a legal entity that meets the definition of either the owner and/or operator of the industrial activities that occur at the facility for this application to legally cover the industrial activities. The applicant must have day-to-day supervision and control over activities at the facility and implementation of the Stormwater Management Plan (SWMP).

Alternative Permittees: Other agents may also obtain permit coverage if they have clear contractual responsibility and operational control to address the impacts industrial activities may have on stormwater quality (including SWMP implementation). Examples include consultants or property owners acting as facility managers under contract with the owner or operator of the industrial activities, as long as the contractual relationship clearly delegates responsibility for stormwater management. A property owner that is not associated with the actual industrial activities at the site or under contract to adequately perform the stormwater management responsibilities at the site, as discussed above, may not legally maintain permit coverage for industrial activities at their property.

Applicant is:

Property Owner

Contractor/Operator

Robert Calder-2921 County Road 1, Leadville, Colorado 80461

Permit number COR-_____

a. CONTACT INFORMATION - NOT ALL CONTACT TYPES MAY APPLY * indicates required

*PERMITTEE (If more than one please add additional pages)

*ORGANIZATION FORMAL NAME: Leadlocks Mining, LLC

1) *PERMITTEE the person authorized to sign and certify the permit application. This person receives all permit correspondences and is legally responsible for compliance with the permit.

Responsible Position (Title): Mine Manager

Currently Held By (Person): Robert W. Calder

Telephone No: 719-486-7926

email address leadlocks@netzero.com

Organization: Leadlocks Mining, LLC-Hopemore Shaft

Mailing Address: 2921 County Road 1

City: Leadville State: Colorado Zip: 80461

This form must be signed by the Permittee to be considered complete.

Per Regulation 61 In all cases, it shall be signed as follows:

- a) In the case of corporations, by a responsible corporate officer. For the purposes of this section, the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the application originates.
- b) In the case of a partnership, by a general partner.
- c) In the case of a sole proprietorship, by the proprietor.
- d) In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official

2) DMR COGNIZANT OFFICIAL (i.e. authorized agent) the person or position authorized to sign and certify reports required by permits including Discharge Monitoring Reports *DMR's+, Annual Reports, Compliance Schedule submittals, and other information requested by the Division. The Division will transmit pre-printed reports (ie. DMR's) to this person. If more than one, please add additional pages.

X Same As 1) Permittee

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Per Regulation 61 : All reports required by permits, and other information requested by the Division shall be signed by the permittee or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (i) The authorization is made in writing by the permittee
- (ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position)
- (iii) Submitted in writing to the Division

3) *SITE CONTACT local contact for questions relating to the facility & discharge authorized by this permit for the facility.

x Same As 1) Permittee

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing _____ Address:

City: _____ State: _____ Zip: _____

4) OPERATOR in Responsible: Charge Same As 1) Permittee

Responsible _____ Position _____ (Title):

Currently _____ Held _____ By _____ (Person):

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Certification Type _____ Certification Number _____

5) * BILLING CONTACT if different than the permittee

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing _____ Address:

City: _____ State: _____ Zip: _____

6) OTHER CONTACT TYPES (check below) Add pages if necessary:

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing _____ Address:

City: _____ State: _____ Zip: _____

Pretreatment Coordinator

Environmental Contact

Biosolids Responsible Party

Property Owner

Inspection Facility Contact

Consultant

Compliance Contact

**Stormwater MS4 Responsible
Person**

**Stormwater Authorized
Representative**

Other _____

B. Permitted Project/Facility Information

Project/Facility Name: Hopemore Shaft

Street Address or cross streets 2921 County Road 1

City, Leadville Zip Code 80461 County Lake

Facility Latitude/Longitude— (approximate center of site to nearest 15 seconds using one of following formats

001A Latitude _____ Longitude _____ (e.g., 39.703°, 104.933°)
degrees (to 3 decimal places) degrees (to 3 decimal places)

or

001A Latitude 39 ° 50 ' 14 " Longitude 106 ° 14 ' 11 " (e.g., 39°46'11"N, 104°53'11"W)
degrees minutes seconds degrees minutes seconds

C. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE(S) FOR THIS FACILITY

(See Appendix A - include up to 4 in order of importance).

a. 10 b. _____ c. _____ d. _____

D DESCRIBE THE INDUSTRIAL ACTIVITIES WHICH TAKE PLACE ON THIS SITE

Describe the primary industrial activities at this facility (e.g., trucking firm with vehicle maintenance; computer equipment manufacturer; automobile or scrap metal recycling; precious metal mining, milling, metal mining services; coal mine etc.). Indicate whether or not the facility has a coal pile. If this application is for any of the following types of facilities, also provide the additional information indicated:

Airport: state the estimated volume of deicers used, and the volume of fuel sold, on an annual basis.

Wastewater treatment plant: include the design flow and pretreatment program status.

Steam electric power plant: indicate the primary and backup fuel sources.

Paving and roofing materials manufacturing: indicate whether or not the facility manufactures asphalt emulsion.

Asphalt or concrete batch plant: indicate whether or not the plant is portable.

Description:

The Hopemore is an underground mining operation. Wastewater consists of domestic waste which will be managed using Port-A-Lets.

E. RECEIVING WATERS

Identify the receiving water of the stormwater from the industrial facility. Receiving waters are any waters of the State of Colorado including all water courses, even if they are usually dry. If stormwater from the facility enters a ditch or storm sewer system, identify that system and indicate the ultimate receiving water for the ditch or storm sewer. **Note:** a stormwater discharge permit does not allow a discharge into a ditch or storm sewer system without the approval of the owner/operator of that system.

Immediate Receiving Water(s): Ephemeral Draining into South Evans Gulch thence into Evans Gulch

Ultimate Receiving Water(s): Arkansas River

F. OTHER ENVIRONMENTAL PERMITS

Does this facility currently have any environmental permits, or is it subject to regulation, under either of the following programs?

Permit Name	Yes	No	Application Date	Permit No.
a. Colorado Division of Reclamation, Mining and Safety— permit anniversary:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	December, 2012	
b. Underground Injection Control	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
c. Clean Water Act (CWA) Section 404 permit (Army Corps of Engineers)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
d. Resource Conservation and Recovery Act (RCRA)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
e. Colorado Discharge Permit System (CDPS)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
f. Colorado State Air Pollution Emission	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pending	
g. Other MSHA,	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pending	

G. MAP (Provide as an attachment to the application) Map attached? NO YES
Map: Attach a map that indicates the site location and that CLEARLY shows the boundaries of the area subject to the application. Maps must be no larger than 11 x 17 inches.

H. REQUIRED SIGNATURES (Both parts i. and ii. must be signed)

STOP! A Stormwater Management Plan must be completed prior to signing the following certifications!

The Stormwater Management Plan (SWMP) requirement applies to all facilities. A SWMP must be prepared prior to submitting an application for coverage under a stormwater discharge general permit, and the Stormwater Management Plan Certification (below) signed. See the Division's website (www.coloradowaterpermits.com) for SWMP preparation guidance documents (identified by permit category – heavy and light industrial activity, metal mining, or the recycling industry).

Note: Applications for Heavy Industrial Activity and the Recycling Industry stormwater discharge permit types must include a copy of the Stormwater Management Plan.

Heavy Industrial Activity and the Recycling industry SWMP attached? NO YES

i. Stormwater Management Plan 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 gather and evaluate 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."

Robert W. Calder 1/8/2013
 Applicant or duly authorized representative signature (submission must include original ink signature) Date Signed
Robert Calder Mine Manager
 Name (printed) Title

ii. Signature of Permit Legal Contact

The application must be signed to be considered complete. In all cases, it shall be signed as follows:

- a. In the case of corporations, by a responsible corporate officer. The responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the form originates;
- b. In the case of partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor;
- d. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer has responsibility for the overall operation of the facility from which the discharge originates.

"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 gather and evaluate 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."

Robert W. Calder

1/8/2013

Applicant Signature (submission must include original ink signature)

Date Signed

Robert Calder

Mine Manager

Name (printed)

Title

DO NOT INCLUDE PAYMENT – AN INVOICE WILL BE SENT AFTER THE PERMIT CERTIFICATION IS ISSUED.

APPENDIX A

INDUSTRIES REQUIRED TO OBTAIN STORMWATER DISCHARGE PERMIT COVERAGE

The Standard Industrial Classification (SIC) Code or codes for the facility usually determines permit coverage. SIC Codes are assigned according to the primary activities performed by a company. They are often assigned for insurance purposes or when a business registers as a corporation. Industries can also determine their SIC Code by checking with their trade association, Chamber of Commerce, legal counsel, library for the SIC Manual, or on-line at <http://www.osha.gov/pls/imis/sicsearch.html>.

The industries are listed here by their SIC Code. The manufacturing industries are generally represented by SIC Codes 20-39. (A two digit code, such as 42, means that all industries under that heading, from 4200 to 4299, are covered.) Use this table to determine which of the Division's general permits is appropriate for your facility.

SIC Code	Industry Type	Notes	Permit Type
10	Metal mining and milling	(a) (b)	M
12	Coal mining	(a) (b)	C
13	Oil and gas extraction	(c) (d)	L
14	Mining and quarrying of nonmetallic minerals except fuels	(a) (b)	S
NA	Construction	(b)	N
20	Food and kindred products (except)		L
2011	Meat packing plants		H
2015	Poultry slaughtering and processing		H
2077	Animal and marine fats and oils		H
21	Tobacco products		L
22	Textile mills		L
23	Apparel and other finished products made from fabric and similar material		L
24	Lumber and wood products except furniture (except)		L
2491	Wood preserving		H
25	Furniture and fixtures		L
26	Paper and allied products		L
27	Printing, publishing, and allied products		L
28	Chemicals and allied products (except)	(b)	H
283	Drugs		H
285	Paints and allied products		H
29	Petroleum refining and related industries (except)	(b)	H
2951	Asphalt batch plants	(e)	L,N,S
30	Rubber and miscellaneous plastics products		H
31	Leather Products (except)		L
311	Leather tanning and finishing		L
32	Stone, clay, glass and concrete products (except)		L
3241	Cement manufacturing	(b)	H
3273	Ready-mix concrete facilities	(e)	L,N,S
33	Primary metals industries		H
34	Fabrication of metal products, except machinery and transportation equipment (except)		L
3441	Fabricated structural metal		L
35	Industrial and commercial machinery and computer equipment		L
36	Electronic and other electrical equipment and components, except computer equipment		L
37	Transportation equipment		L
38	Measuring, analyzing, and controlling instruments: photographic, medical, and optical goods, watches and clocks		L
39	Miscellaneous manufacturing industries		L
40	Railroad transportation	(f)	L
41	Local and suburban transit and interurban highway passenger transportation	(f)	L
42	Motor freight transportation and warehousing (except)	(f)	L
4221	Farm Product warehousing and storage		L
4222	Refrigerated warehousing and storage		L
4225	General warehousing and storage		L
43	US Postal Facilities	(f)	L
44	Water Transportation	(f)	L
45	Transportation by Air	(f)(g)	L,H
4911	Steam electric power generation (all fuel types)	(b)	H
4952	Wastewater treatment plants with a design flow of 1.0 MGD or more, or required to have an approved pretreatment program under 40 CFR 403	(b)	L

APPENDIX A (continued)

SIC Code	Industry Type	Permit Notes	Permit Type
4953	Hazardous waste treatment, storage or disposal facilities; incinerators (including boilers and industrial furnaces) that burn hazardous waste; and active or inactive landfills, land application sites, or open dumps with industrial waste and without a stabilized final cover	(b)	H
5015	Motor vehicle parts, used		R
5093	Scrap and waste materials		R
5171	Petroleum bulk stations and terminals	(f)	L

Notes:

- (a) For this SIC Code, a stormwater permit is required only if runoff contacts overburden, raw material, intermediate or finished product, or waste products.
- (b) For most facilities covered by the stormwater regulations, SIC codes are used to indicate the **primary** function of the facility. This footnote denotes industries which, in most cases, are covered under the stormwater regulations regardless of what other activities are conducted at the site (contact Division for details).
- (c) This SIC Code only refers to the *operation* of oil and gas facilities (exploration, production, processing, or treatment operations, or transmission facilities). *Construction* activities at oil and gas facilities (e.g., construction of well pads, roads, pipelines, etc.) are covered under the Construction general permit.
- (d) For facilities under this SIC Code, as per the Colorado Discharge Permit System Regulations, Section 61.4(3)(b)(i)(C), the operator of an existing or new discharge composed entirely of stormwater from an oil or gas exploration, production, processing, or treatment operation, or transmission facility is not required to submit a permit application unless the facility has had a discharge of a reportable quantity, or contributes to a violation of a water quality standard:
- (e) Facilities at sand and gravel operations may be covered under the Sand and Gravel general permit; facilities at construction sites may be covered under the Construction general permit; other facilities, including mobile plants, may be covered under the Light Industry general permit.
- (f) In this SIC Code, only facilities with vehicle maintenance (including fueling), equipment cleaning, or airport deicing need a stormwater permit.
- (g) Airports that use 1000 gallons of deicer(s) or more annually, and that have annual fuel sales of one million gal/year or more, are covered under the Heavy Industry general permit. Airports that do not meet these criteria need the Light Industry general permit.

Permit types:

- L: **Light Industry** General Permit (Permit No. COR-010000)
H: **Heavy Industry** General Permit (Permit No. COR-020000)
N: **Construction** General Permit (Permit No. COR-030000)
M: **Metal Mining** General Permit (Permit No. COR-040000)
C: **Coal Mining** General Permit (Permit No. COG-850000)
S: **Sand and Gravel** General Permit (Permit No. COR-340000)
R: **Recycling Industry** General Permit (Permit No. COR-060000)

STORM WATER MANAGEMENT PLAN

**CERTIFICATION OF THE
STORM WATER MANAGEMENT PLAN**

CDPS GENERAL PERMITS

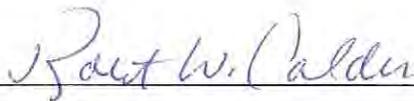
FOR

**STORM WATER DISCHARGES ASSOCIATED WITH
METAL MINING OPERATIONS**

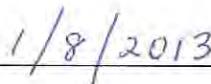
(COR-040000)
Certification No. COR

**LOCKLAND, LLC
2921 COUNTY ROAD 1
LAKE COUNTY
LEADVILLE, COLORADO 80461**

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 gather and evaluate 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.



Robert Calder
Mine Manager-Owner



Date

INTRODUCTION AND PROJECT DESCRIPTION

The Hopemore Shaft (Mine) is a gold mine owned by Lockland LLC, (Locklands) with their offices located in Leadville Colorado. Over the last few years, Lockland has been operating the mine as a tourist attraction. Mr. Robert Calder formed Lockland LLC on March 12, 2004. The Hopemore Shaft was formerly included as a mine permitted under Calais Resources -Permit number M-1990-057. Lockland is permitting the facility as a separate standalone 110 (2) hard rock and tourist mine which will occupy a 9.9 acre permit area.

The facility is located in Lake County approximately 3.5 miles east of Leadville, Colorado, 11,500 feet above sea level. The mine has a Lake County Tourist Mine Conditional Use Permit other permits.

BACKGROUND OF THE SITE

The Hopemore Shaft continues operation as a tourist mine with the intentions of producing ore in 2013. Ore will be removed at a rate of 1,500 tons a month. Run of mine ore will be hauled approximately 8 miles west to the Leadville Mill located at 13815 U.S. Highway 24, Leadville, Colorado. The mine was developed in 1907 and has periodically produced ore from the day the mine opened to the present. The mine complex is approximately 9.9 acres and disturbs approximately 1.9 surface acres. During 2011 and 2012, mine activities included:

- maintaining erosion and sedimentation structures;
 - maintaining the hoist, cage, and compressors;
 - maintaining the board walks, parking and a viewing deck;
 - rehabilitation of the underground mine levels;'
 - implementing the weed control plan (Exhibit F); and,
 - the continuance of extensive care and maintenance.
1. **Proposed Sequence of Activities:** Once the DRMS permit is issued, the following construction activities will commence:
 - a. install access road Best Management Practices BMPs; (See Storm Water Management Plan (SWMP) Figure E-1 and E-2)
 - b. install or repair other BMP structures adjacent to the Hopemore and Hunter shafts;
 2. **Estimates of the total affected area, and the area and location expected to be disturbed by clearing, excavation, grading or other construction activities includes:**
 - The mine permit area occupies approximately 9.9 acres;
 - Pre-existing mine disturbance includes, access roads, two shafts (Hopemore and Hunter and mine building;

Stormwater Management Plan

3. **Site Soil Information:** Existing soils data for the drainage area within the permit and affected areas are provided through the National Resource Conservation Service (NRCS) Custom Soil Resource Report for the Lake County Area, Colorado. The soils are thin, well drained, well vegetated with the existing rocky slopes ranging from 3-35 percent. The soils are considered to be relatively stable to limit offsite erosion and sedimentation impacts.
4. **Existing vegetation:** Sparse vegetation (grass) covers the site, except for the disturbance where the Hopemore and Hunter Shafts and mine buildings are located.
5. **Potential pollution sources:** Historical mine features are identified on the attached Site Map (see Figure E-2). The following table provides a general description of each potential source.

Hopemore Shaft, Lake County, Colorado

Frequency	Activity	Containment
Two to four twenty ton ore haul trucks per day	Ore haulage to offsite processing mine	Ore stockpiles will be removed within 60 days of mining. Ore will be stockpiled on a lined pad.

- a) Truck haulage - to control fugitive dust within the permit area, speed limits of 25 miles per hour for haul trucks will be posted to limit road dust;
- b) When necessary, roads will be periodically sprayed with water to control fugitive dust;
- c) BMPs will be inspected twice a month and after significant precipitation during construction, and monthly thereafter during mining from April through November, when accessible (see Inspection and Maintenance section for more details);
- d) Road construction and maintenance will be routinely conducted to maintain BMP structures, road grades and sediment control structures;

6. Non-stormwater discharge locations:

Non-stormwater discharges are not anticipated to occur. No man-induced springs, landscape irrigation, construction dewatering or concrete washout is anticipated.

7. Receiving Waters:

The 9.9 acre (ac) mine site is located in South Evans Gulch which ultimately drains to the East Fork Arkansas. The unnamed ephemeral channel draining the mine site only flows in response to snow melt and thunderstorm runoff events.

8. Wetlands:

There are no designated wetlands or riparian lands within the permit boundary or waters considered under the jurisdiction of the U.S. Corp of Engineers.

Stormwater Management Plan

Site Map - see Figure E-1 and E-2

Stormwater Management Controls

1. SWMP Administration

Contact: Mr. Robert Calder or his designated representative

LOCKLAND, LLC
2921 COUNTY ROAD 1
LEADVILLE, COLORADO 80461
719.486.0301

2. Identification of Potential Pollutant Sources:

a. Disturbed soils and stockpiled soils

Topsoil has not stockpiled. The soils are typically less than 2 inches. The future operations will require stockpiling of run of mine rock adjacent to the Hopemore Shaft. BMPs are illustrated on Figure BMP-1 through BMP-3

b. Vehicle tracking of sediments

Because the mine site consists of coarse rock with minimal fines, sediment tracking from vehicular traffic is not anticipated. The access road will have a coarse road base, and a construction mud clean out area (USEPA, 1992) or suitable alternative will be constructed and maintained to minimize vehicle tracking on County Road 1.

c. Management of contaminated soils

No contaminated or acid producing ores will be disposed on site as a result of the Hopemore mining operation. If acid or toxic material is identified during mining, the material will be isolated from water to mitigate the possibility of offsite impacts to surface or groundwater resources. Isolation may include covering the material with geosynthetic materials or constructing a roof. If necessary, the ore storage foundation may be lined with an impermeable barrier

d. Loading and unloading operations

Loading and unloading of liquids and solids during site operation will be conducted under the supervision of trained Hopemore personnel. Liquids (petroleum products), used in the mining process will be placed in primary and secondary containment structures.

Stormwater Management Plan

e. Outdoor storage activities

No chemicals will be stored outside of designated buildings.

f. Vehicle and equipment maintenance and fueling

Routine equipment maintenance will include fueling mine vehicles, generators, including oil and hydraulic fluid replacement and mine processing equipment. Fuels and lubricants will be appropriately stored in secondary containments when the volume exceeds 55 gallons. Working areas will have BMPs including emergency response kits available or sediment control structures will be put in place to prevent off site erosion and sedimentation impacts.

g. Significant dust or particulate generating processes

CDPHE air quality emissions regulatory criteria having the potential to be emitted from the mine site has been addressed. Hopemore has demonstrated emission rates from the mining operation will not trigger the need to file an Air Pollutant Emission Notice (APEN) to CDPHE. When necessary, Hopemore will control fugitive dust from access roads or other site construction activities using water spray.

h. Routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc.

Use of process chemicals will be conducted in accordance with BMPs and the approval of DRMS, and in accordance with County regulations. Most of the maintenance activities will occur within the 1.9 acre surface area including fueling equipment and the application of herbicides/pesticides. The use of fertilizers and pesticides will be conducted using certified contractors approved by Lake County and in accordance with the guidelines presented in the Weed Management Permit.

i. On-site waste management practices

Generated solid waste will be hauled off site and disposed in a licensed sanitary landfill. Substances including but not limited to used oil, tires, solvents, paints etc. will be hauled offsite and disposed in accordance with State and County waste management criteria.

j. Concrete truck/equipment washing including the concrete truck chute and associated fixtures and equipment

Concrete trucks operators will not be permitted to wash their equipment within the mine permitted area without approval from the County or DRMS.

k. Dedicated asphalt and concrete batch plants

No asphalt or concrete batch plants are planned.

Stormwater Management Plan

l. Non-industrial waste sources

Worker trash will be removed from the mine site once a week. Biodegradable garbage will be placed in bear proof dumpsters. Generated waste will be removed from the site and disposed in a County or State Approved waste disposal facilities. The Hopemore Shaft facility has an approved use of Port a lets.

m. Other areas or procedures

Spill kits will be located in the mine and in areas where the potential for a spill is possible. In the event of an accidental spill, immediate action will be undertaken by the mine manager or his designated representative to contain and remove the spilled material. All materials will be disposed under the direction of the mine manger in the manner specified by federal, state and local regulations and by the manufacturer of such products. As soon as possible, and in consultation with the Mine Manager or his designated representative, the spill will be reported to the appropriate agencies. As required under the provisions of the Clean Water Act, any spill or discharge entering waters of the United States will be properly reported. The Mine Manager will prepare a written record of any spill and associated clean-up activities of petroleum products or hazardous materials in excess of 1 gallon or reportable quantities, whichever is less. The Mine Manager will provide notice to the Mine Manager or his designated representative immediately upon identification of a reportable spill. A spill report form is presented in Appendix SWMP- A

Any spills of petroleum products or hazardous materials in excess of Reportable Quantities as defined by EPA or the state or local agency regulations, shall be immediately reported, in consultation with the Mine Manager or his designated representative, to the EPA National Response Center (1-800-424-8802), the Colorado Department of Public Health and Environment (877-518-5608) and the Division of Reclamation, Mining and Safety (303-866-3567).

3. **BMPs** Figure BMP-1 BMP-2 and BMP-3) will be implemented to manage stormwater and to prevent sediment from entering the waters of the State at the following locations:

- a. Hopemore Mine
- a. Rock disposal and snow storage areas;
- b. Appropriate locations along mine access roads; and
- c. Fuel storage locations.

4. When appropriate, the following stormwater management controls will be adopted:

- a. Berms;
- b. Check Dams;
- c. Riprap;
- d. Sediment Traps/Debris Basins;
- e. Sediment Basins and Rock Dams;
- f. Silt Fences; and
- g. Fiber Rolls (Wattles).

Stormwater Management Plan

BMPs are summarized in Figure BMP 1, BMP-2 and BMP-3.

Inspection and Maintenance

a. Inspection Schedules

- a. BMPs will be inspected at least once every 14 calendar days, and within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion, after completing BMP construction and during months where there is no snow on the ground and no melting conditions posing a risk of surface erosion. The Construction Activity and Site Stabilization Log included in Appendix SWMP-B shall be updated following each major construction activity or monthly. Following tailings storage facility construction, and during mining operations, BMPs will be inspected monthly from April through November.
- b. During snowy months (November through April) the mine is closed. BMPs will be inspected and maintained as field conditions dictate. BMPs will be inspected quarterly when the mine is open.

c. Inspection Procedures

- Verify and maintain the integrity of silt fences (USEPA, 1992), erosion ditches, bar ditches, swales, check dams (US EPA, 1992)(VDCR, 2005), debris basins and impoundments;
- Identify and repair rills and gullies that are greater than 12 inches deep; and
- Record maintenance activities.

d. BMP Maintenance/Replacement and Failed BMPs

Assuming access is achievable, BMP maintenance will be completed within 7 calendar days after the identification of the need for improvement or replacement.

e. Record Keeping and Documenting Inspections

Inspections and maintenance activities (SWMP Appendix A) will be documented and records will be kept in mine office.

f. Agency Storm Water Inspections

The project mine manager or his designated representative will walk the site with the regulatory inspector and document any deficiencies noted during the inspection. The mine manager shall prepare an Inspection Report (Appendix SWMP-C) for the day of the agency inspection. Deficiencies of any type, field or documentation-related, identified during the regulatory inspection must be noted on the Inspection Report as a deficiency and resolved as soon as practicable or as directed.

All storm water or erosion and sediment (E&S) agency visits to the jobsite, whether an official inspection occurred or not, must be reported to the Mine Manager or his designated representative. Any agency inspector, including OSHA and utility inspectors that comment on

Stormwater Management Plan

storm water BMPs (inlet protection, track out, etc.) must be reported to the Mine Manager or his designated representative.

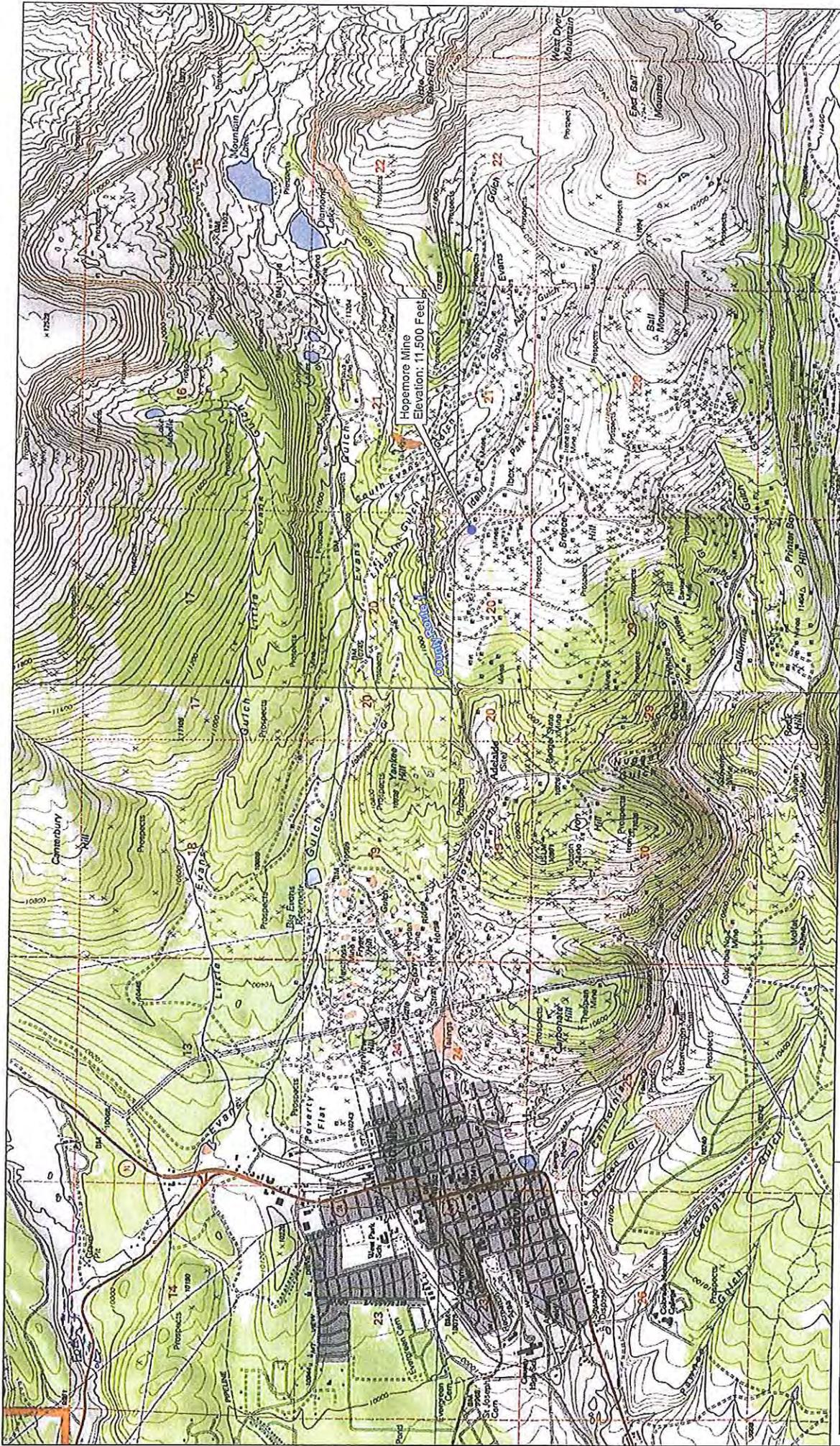
A log of all inspections by Federal, State, or local storm water or other environmental agencies shall be kept in the SWMP Binder. The log form can be found in Appendix SWMP- D and must include the date and time of the visit and whether a report was issued or will be issued as a result of the inspection. All inspection reports issued by an agency must be faxed or e-mailed to Mine Manager or his designated representative immediately, but no later 24-hours of receipt.

References

- Casados, A., and Leyba, P. Forest Engineers, Santa Fe National Forest, February 7, 2000.
- CASQA (California Stormwater Quality Association), 2003, California Stormwater BMP Handbook (<http://www.cabmphandbook.com/documents/construction/SE-5.pdf>)
- Chow, V.T., 1959, Open Channel Hydraulics, McGraw-Hill, New York.
- FHWA (Federal Highway Administration), 1995. Best Management Practices for Erosion and Sediment Control FHWA-SLP-94-005. Federal Highway Administration, Sterling VA.
- Highway Task Force, 1071 Handbook of Steel Drainage & Highway Construction Products, second Edition, American Iron and Steel Institute, Washington, D.C.
- Smolen, M.D., D.W. Mineer, L.C. Wyantt, J.Lichhardt and A.L. Lanier, 1988. Erosion and Sediment Control Planning and Design Manual North Carolina Sedimentation Control Commission; North Carolina Department of Environmental Health, and Natural Resources and Division of Land Resources Land Quality Section, Raleigh, NC.
- Soil Conservation Service, Soil Conservation National Engineering Handbook, Section 4-Hydrology NEH-4.
- VDCR (Virginia Department of Conservation and Recreation). 1995, Virginia Erosion & Sediment Control Field Manual 2nd ed. Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, Richmond, VA.
- U.S. Department of Commerce, 1961, Technical Paper 40-Rainfall Frequency Atlas of the United States for Durations from 30 minutes to 24 hours and Return Periods from 1 to 100 years, Washington, D.C.
- USEPA (U.S. Environmental Protection Agency). 1992, Stormwater Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices. EPA 832-R-92-005. U.S. Environmental Protection Agency, Office of Water, Washington. D.C.)
- Wilkes, S.G and E.C. King, 1975, Procedures for Determining Peak Flows in Colorado, Incorporates and Supplements Technical Release No. 55, Urban Hydrology for Small Water Sheds, Soil Conservation Service, U.S. Department of Agriculture.

FIGURES

HOPEMORE SHAFT MINE
LOCKLAND MINING COMPANY, LLC
STORMWATER MANAGEMENT PLAN



0 0.25 0.5 1 Miles

SCALE: 1:24,000

Photographic Map Source: USGS

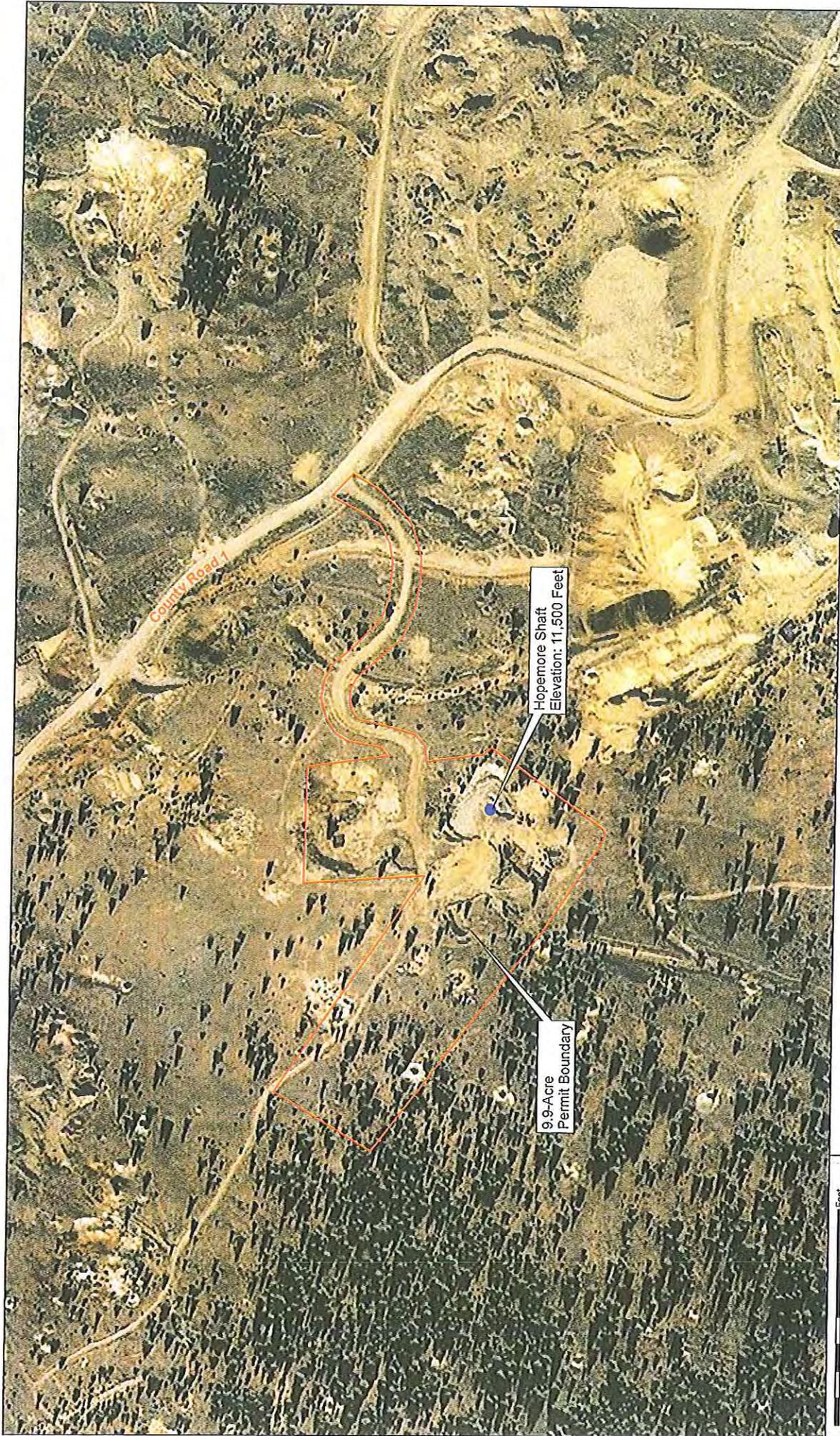


HOPEMORE MINE GENERAL LOCATION EXHIBIT
 HOPEMORE SHAFT
 LOCKLAND, LLC - LEADVILLE, COLORADO

Drafted By:
C. Rice

Draft Date:
18 December 2012

FIGURE E-1



0 125 250 500 Feet



SCALE: 1:2,400

Imagery Source: ESRI, Aerial, GeoEye

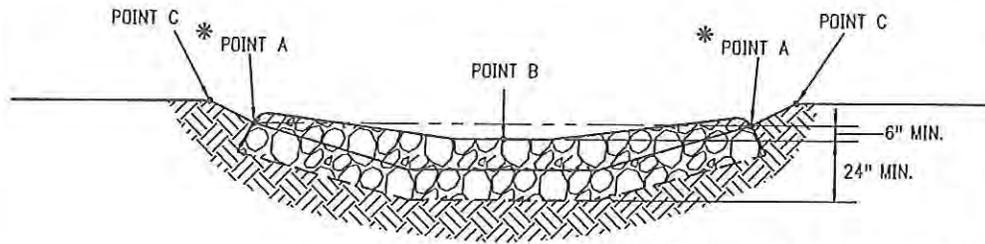
HOPEMORE MINE SITE SPECIFIC MAP

HOPEMORE SHAFT
LOCKLAND, LLC - LEADVILLE, COLORADO

Drafted By:
C. Rice

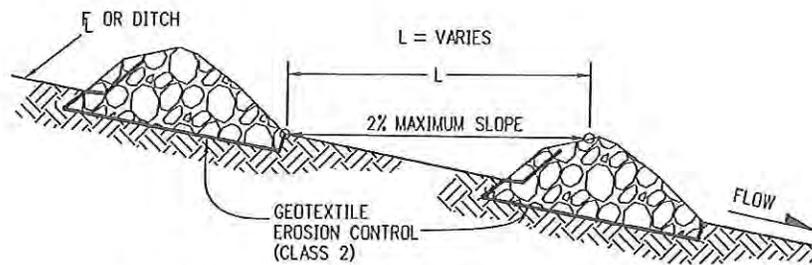
Draft Date:
18 December 2012

FIGURE
E-2

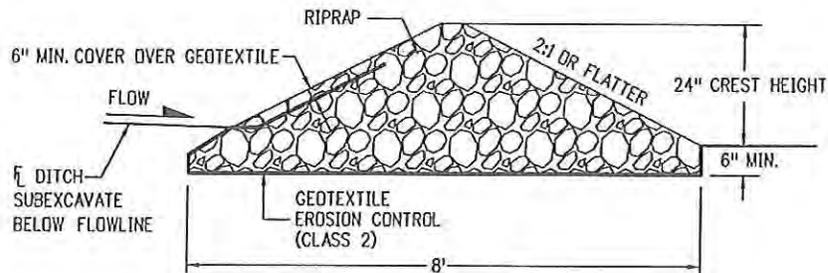


* POINTS "A" SHALL BE HIGHER THAN POINT "B" AND BELOW POINTS "C".

TYPICAL SECTION VIEW



SECTION VIEW ALONG DITCH FLOWLINE



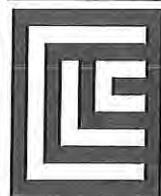
SECTION DETAIL

NOTES:

1. RIPRAP SIZE D_{50} = 6" OR AS SHOWN ON THE PLANS.
2. THE ENDS OF RIPRAP CHECK DAM SHALL BE A MINIMUM OF 6 IN. HIGHER THAN CENTER OF CHECK DAM.

ROCK CHECK DAM

PROGRESS PRINT (SUBJECT TO REVISIONS) 7-19-2011



CLC ASSOCIATES



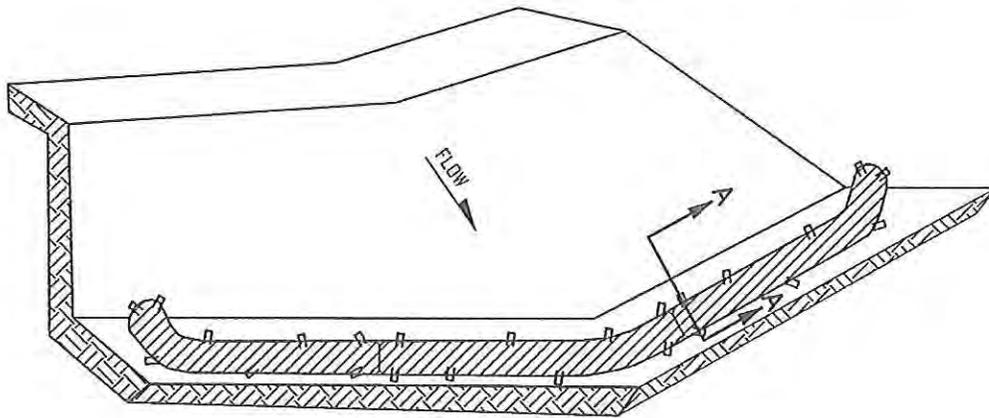
R Squared Inc.

WILDCAT MINING CORPORATION
5555 DTD PARKWAY
SUITE A-4000
GREENWOOD VILLAGE, CO 80111

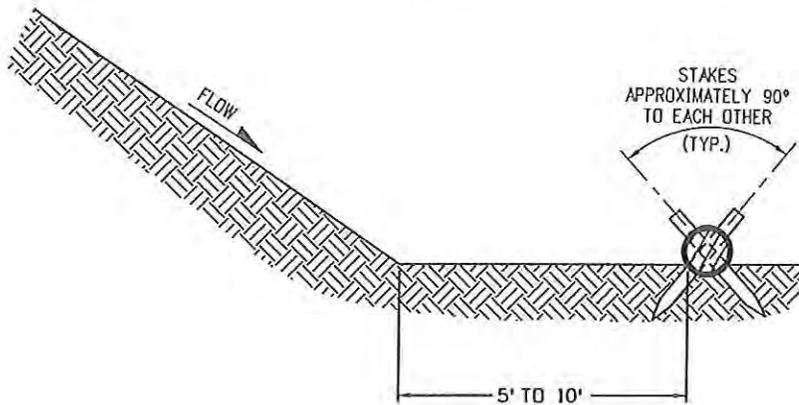
**BMP DETAILS
ROCK CHECK DAM**

PREPARED BY: DJM
REVIEWED BY: DJM
REVISION DATE: 07-28-11

FIGURE BMP 1



ISOMETRIC VIEW



SECTION A-A

NOTES:

1. EROSION LOGS USED AT TOE OF SLOPE SHALL BE PLACED 5 TO 10 FEET BEYOND TOE OF SLOPE TO PROVIDE STORAGE CAPACITY.
2. EROSION LOGS SHALL BE PLACED ON THE CONTOUR, WITH ENDS FLARED UP SLOPE.

EROSION LOG TOE OF SLOPE PROTECTION

PROGRESS PRINT (SUBJECT TO REVISIONS) 7-19-2011



CLC ASSOCIATES



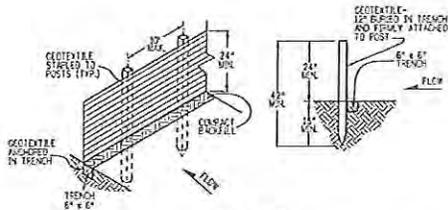
R Squared Inc.

WILDCAT MINING CORPORATION
5555 DTC PARKWAY
SUITE A-4000
GREENWOOD VILLAGE, CO 80111

BMP DETAILS
EROSION CONTROL LOGS

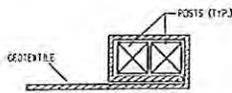
PREPARED BY: DJM
REVIEWED BY: DJM
REVISION DATE: 07-28-11

FIGURE BMP 2



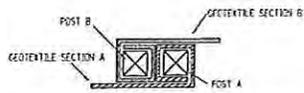
SILT FENCE

GEOTEXTILE SHALL BE ATTACHED TO WOOD POSTS WITH THREE OR MORE STAPLES PER POST.
 STAPLES SHALL BE 1/2"
 WOOD POST SHALL BE 1 1/2" X 1 1/2" ROUND.



END SECTION DETAIL (PLAN VIEW)

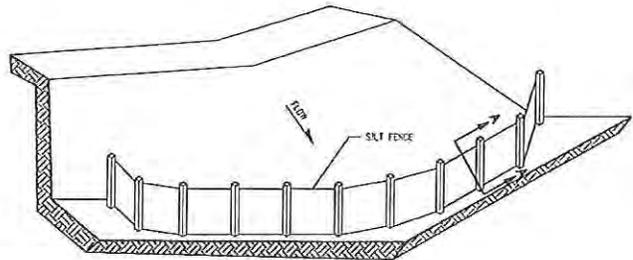
GEOTEXTILE SHALL BE FOLDED AROUND TWO POSTS ONE FULL TURN SECURE GEOTEXTILE TO POST WITH THREE STAPLES MINIMUM.



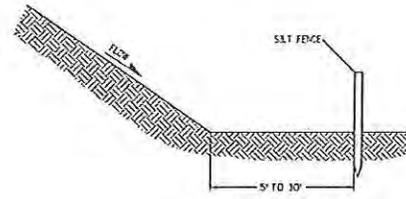
JOINING SECTION DETAIL (PLAN VIEW)

FOLD GEOTEXTILE AROUND EACH POST ONE FULL TURN SECURE GEOTEXTILE TO POST WITH THREE STAPLES MINIMUM.

POSTS SHALL BE TIGHTLY ADJUSTED WITH NO GAPS TO PREVENT POTENTIAL FLOW THROUGH OF SEGMENT AT JOINT.



ISOMETRIC VIEW



SECTION A-A

TOE OF SLOPE PROTECTION

NOTES

1. SILT FENCE SHALL HAVE A MINIMUM DRAINAGE AREA OF ONE-QUARTER ACRE PER 100 FEET OF SILT FENCE LENGTH; MINIMUM SLOPE LENGTH BEHIND BARRIER IS 100 FEET; MINIMUM GRADIENT BEHIND THE BARRIER IS 2%.
2. SILT FENCE USED AT TOE OF SLOPE SHALL BE PLACED 5 TO 10 FEET BEYOND TOE OF SLOPE TO PROVIDE STORAGE CAPACITY.
3. SILT FENCE SHALL BE PLACED ON THE CONTOUR, WITH ENDS FLARED UP SLOPE.

SILT FENCE APPLICATION

PROGRESS PRINT (SUBJECT TO REVISIONS) 7-19-2011



CLC ASSOCIATES



R Squared Inc.

WILDCAT MINING CORPORATION
 5555 DTC PARKWAY
 SUITE A-4000
 GREENWOOD VILLAGE, CO 80111

**BMP DETAILS
 SILT FENCE**

PREPARED BY: DJM
 REVIEWED BY: DJM
 REVISION DATE: 07-28-11

FIGURE BMP 3

**Robert Calder-Lockland LLC
Hopemore Mine
902 East 6th Street
Leadville, Co 80461**

July 25, 2013

Ms. Carissa D. Snyder
Geologist Intern
BLM Royal Gorge Field Office
3028 Main Street.
Canon City, CO 81212

**Re: Plan of Operation Response-Environment Assessment Supporting Documentation
Lockland LLC Hopemore Mine –
Robert W. Calder (Mine Manager)
902 East 6th Street
Leadville, CO 80461**

Mine Number: M 2013-026

Dear Ms. Snyder,

On behalf of Lockland LLC and the Hopemore, R Squared, Inc. is responding to your Plan of Operation (POO) and Environmental Assessment (EA) data inquiry. R Squared has elected to respond to each of your data needs in the order of your request. The Hopemore Mine (M-2013-026) permit is currently under review by the Colorado Department of Reclamation Mining and Safety (CDRMS). Mr. Dustin Czapla is the Environmental Specialist (CDRMS) responsible for the technical review. Mr. Czapla can be reached at 970.243.6299 Dustin.Czapla@state.co.us

Your questions are in **bold** letters followed by Hopemore's response.

Background

The mine site occupies an area of 9.9 acres, located in Lake County, Colorado approximately 3.5 miles east of Leadville. The mine property is located on a 20 acre patented and unpatented claim under the jurisdiction of the U.S. Bureau of Land Management (BLM) Royal Gorge District. Ten and half acres is an unpatented claim known as the Comstock and 9.85 acres is a patented claim known as the Robert Burns. The site is a historical mine site is located on the Mount Sherman USGS 7.5 quadrangle map at an elevation of 11,500 feet above sea level. The permit area is marked with survey monuments whereas the patent claims have been established by BLM. The mine has been operating periodically from 1907 to the present.

The mine is accessed by County Road No. 1 where the mine permit boundary is approximately 300 feet from the mine entrance. Within the permit boundary includes electrical and telephone utility lines, two head frames, parking lot, a rock storage area, a septic system and an office building.

QUESTION 1

43 CFR 3809.401(b) (1)

Need Taxpayer Identification Number

Tax ID-# XXX-XX-XXX

QUESTION 2

43 CFR 3809.401(b) (2)

Need additional details of equipment, devices, or practices proposed for use during operations.

What kind of equipment is to be used (especially on surface)

Surface equipment will include 20 ton dump truck, loader, field support trucks, and a backup generator. Underground equipment will include a ventilation and electrical system, jack legs, trackless loader, ore bins and core drills.

Will the Hopemore shaft be the only access during the life of the mine?

The Hopemore and Hunter shafts will be used during the mining operation.

Which structures are existing? Of those existing structures, which have been/will be modified and used in operation?

The submitted mine plan (Colorado Division of Reclamation Mining and Safety Permit No. 2013-026) has the existing structures identified on the aerial photo. (See Attachment A) No modifications to the existing structure are anticipated. Major changes to the existing structures will be constructed in conformance with Lake County Building permit. All existing surface structures will be used during future mining and mine tour activities.

Are there any new structures?

No new structures are contemplated. If new structures are required, Hopemore will obtain the necessary permits from Lake County.

Where/how will explosives be stored?

Explosives will be stored in accordance with Mine Safety and Health Administration (MSHA) and the Bureau of Alcohol, Tobacco and Firearms (ATF) regulations.

Underground H₂O – dewatering?

No dewatering activities are contemplated. If dewatering is required, appropriate permits will be obtained from the Colorado Department of Public Health and the Environment (CDPHE).

QUESTION 3

Need Preliminary Operating Plans

Mining phases, directions, methods/equipment, timeframe?

The Hopemore mine is currently in the exploration phase which means a mine plan has not been prepared. Exploration will occur over the next few months on several mine levels which will provide the information to define the direction, methods and equipment needed to move ore for processing. Hopemore does not have exploration data or financial information to predict the life of mine at this juncture in this planning phase. Currently Hopemore is anticipating operating the mine through 2035.

What levels are to be mined (phases, timeframe, etc.)?

See response above.

What level does the tour operate on?

Mine tours are conducted on Level 5.

Need Rock characterization and handling plans

Mine rock has not been geochemically characterized. Run of Mine rock will be directly moved from the underground workings, dumped on a designated storage pad, loaded onto 20 ton dump trucks, and delivered to an offsite mill for processing. The mill will be responsible for characterizing, processing and disposing the mined material.

Stormwater in regards to acid or toxic materials/isolation

Mine rock will not be stored on site for extended periods of time. There is no historical indication the mine rock is acid or toxic producing. A stormwater management plan (SWMP) is included in the DRMS permit application. A SWMP permit will be obtained from CDPHE.

Is CDPHE permit in place? We need a copy?

CDPHE's Stormwater permit is under review. (Attachment B) Hopemore will be implementing Best Management Practices (BMPs) to manage surface water runoff. The BMPs are summarized in the DRMS permit application.

Rock Characterization and Handling plan?

See response above. Rock characterization will be conducted by the Mill processing the Hopemore ore.

Storage pad location and design

Run of mine rock will be placed on the existing storage pad prior to loading on dump trucks. The storage pad has been used as a staging area in the past. No environmental concerns have been identified from past storage activities.

Need Quality Assurance Plans

A Quality Assurance plan to manage run of mine rock will be development upon completion of exploration. Mine rock will be characterized to determine mineral values as well as assessing if the rock is acid or toxic producing. Typical assessment may include determining Net Acid Generation or Acid Base Accounting analytical techniques.

Need Spill Contingency plans

The Hopemore mine will not store petroleum hydrocarbons in excess of 300 gallons. Stored hydrocarbons in excess of 55 gallons will be placed in a secondary containment structure. A separate spill contingency plan per existing federal and state regulation is not required.

QUESTION 4

43 CFR 3809.401(b)(3)

Need general description of equipment, devices, or practices proposed for use during operations.

See response above

Mine Closure methods and details

Mine closure will be conducted in accordance with DRMS approved closure plan. In summary, equipment, the head frames and buildings will be removed, the areas disturbed (1.9 acres) will be graded, and scarified, alternative growth material will be placed (if available) on disturbed areas, and revegetated to support a "wildlife habitat" post mine land use. Alternative growth material will be used because topsoil is less than 2 inches thick and is not suitable for salvaging or storage. Topsoil was not salvaged prior to construction of the existing structures. The proposed seed mix to support the proposed land use has been approved by the Natural Resource Conservation Service (NRCS). During the reclamation process stormwater control structures will be installed to control runoff prior to and maintained until vegetation is reestablished.

Wildlife habitat rehabilitation

The proposed revegetation plan for the 9.9 acre permit area is designed to support the existing wildlife habitat. The current vegetation consists of native grasses fescue, bluegrass, nodding brome,

junegrass, western yarrow (NRCS, 1990). Similar grass seeds, as approved by NRCS, are planned to be used to revegetate the area upon mine closure.

Topsoil Handling

How much topsoil will be stored on site and where will it come from?

Soils within the permit area are thin (less than 2 inches thick) well drained gravelly sandy loam. Slopes within in permit area are generally less than 3 percent. No topsoil has or will be salvaged during mining. Alternative growth material will be used as an alternative to salvaged topsoil. (See comment above)

Need details on plan to Isolate and Control toxic or deleterious material during/after reclamation?

Over the last 100 years, no toxic or deleterious materials have been identified on site. Therefore plans to isolate or control toxic or deleterious materials are not proposed.

Remove/stabilize buildings, structures and facilities

Any buildings that Calder/Lockland LLC have modified or built must be removed. BLM needs a list of such structures and a description of removal/stabilization.

The following structures will be removed.

- hoist room and shop building;
- water tank storage building;
- Hopemore head frames;
- a mine office; and
- viewing stand

Buildings will be removed by a third party contractor and the material will be salvaged or disposed in a local landfill.

The shafts will be closed in accordance with MSHA and DRMS closure criteria. The Hunter Shaft will remain as approved by Lake County Commissioners and Historic Preservation offices

Provisions for Post Closure Management

Other than periodically monitoring vegetation, no post closure management activities are planned.

QUESTION 5

43 CFR 3809.401(b)(4)

Monitoring Plan needs to be described more completely, there are few details in the PoO

Who will monitor, how often, for how long, what are parameters, etc.?

No surface or groundwater quality will be monitored. The mine is dry and no perennial drainage from the site is present. The small disturbed area and limited traffic will not produce fugitive dust to be in non-

compliance with existing air quality regulations. The storm water control structures will be periodically inspected to determine if the structures are performing as designed.

Question 6

43 CFR 3809.401(b)(5)

Interim Management Plan is needed

Hopemore Mining upon receipt of mining permits will implement an exploration and operation plan as outlined in the Colorado Division of Reclamation Mining and Safety mining permit and Lake County Use Permit.

Question 7

43 CFR 3809.401(c)

Site specific hydrology is not adequate

The mine is dry and the mine disturbed area is located on a ridge at an elevation of 11,500 feet. We respectfully request guidance what information we can provide to define site hydrology other than what has been provided in the DRMS permit and the PoO. Please review Attachment C which is a response from the Colorado Division of Water Resources regarding there preliminary hydrology site assessment.

The following was presented in the DRMS permit.

“Leadville and the mine site are located in the Arkansas River Basin flowing south-southeast before it turns east near Pueblo, Colorado. The Arkansas River Basin defines the Colorado Division of Water Resources Management Division 2 with its division office located in Pueblo.

A thin veneer of soil with moderate to high permeability generally less than 5 feet thick overlies the bedrock. The surficial materials are generally not extensive enough to yield suitable quantities of water but are an important unit for recharge and shallow, seasonal groundwater. Recent studies suggest approximately 84% of the available precipitation is evaporated and only a fraction of the 16 % of the available moisture recharges the aquifer systems.

The porosity of the Precambrian crystalline rocks is very low (<1%). Transmissivities are less than 10 gallons per day per foot (Apodaca and others, 1996). Groundwater discharge and storage in crystalline rocks occurs in fractures. Predominant recharge is from snowmelt between the middle of May and the first part of July. Water levels can vary as much as 10 feet depending on the season and amount of precipitation. Depths to water in crystalline rocks generally are less than 150 feet deep and depend on the topography and the fracture system. Water well yields from the majority of domestic wells are generally less than 5 gallons per minute (gpm).

The alluvium and alluvial terrace deposits are the primary groundwater sources for domestic uses with well yields ranging from a few gallons a minute (gpm) to over 50 gpm with a mean production rate of 25 gpm.

Alluvial well depths range from less than 10 feet to over 100 feet with the mean depth of 53 feet. Many of the upper basin wells record strong seasonal fluctuations with the highest water levels correlating to snow melt and spring runoff events.

Prior to the closure of the Black Cloud mine, the Black Cloud mine was the greatest producer of pumped groundwater in Lake County. Today, the groundwater provides water for Lake County domestic uses.

Water quality in the upper Arkansas River basin alluvium is generally potable with a few exceptions of elevated metals produced by effluent natural acid rock drainage and septic system effluent contamination. (Groundwater Atlas of Colorado, 2003)."

Any additional details on site specific geology are welcomed (mineral suites, rock types, etc.)

The following is an excerpt of the site geology from Hopemore's DRMS permit application.

"The district is a highly faulted area, intruded with Tertiary quartz monzonite porphyries, on the east side of the Arkansas River graben, part of the Rio Grande Rift system.

The silver occurs in association with manganese and lead veins, stockworks, and manto-type deposits in the Mississippian Leadville Limestone (here a dolomite), the Devonian Dyer Dolomite, and the Ordovician Manitou Dolomite. Ore minerals are pyrite, sphalerite, and galena, in jasperoid and manganosiderite gangue. In upper levels, the ore minerals are oxidized to cerussite, anglesite, and smithsonite.

The site is located between the Mosquito Range to the east and the Sawatch Range to the west in Southern Rocky Mountain province. The province elevation ranges from 6,000 feet to over 14,000 feet. The rocks range in age from the Precambrian (950 to 1,800 million years old) consisting of igneous and metasediments largely granites, gneiss, and schist; and geologically recent Tertiary volcanic and intrusive rocks. The units are fractured crystalline aquifers that supply most of the domestic needs in the mountainous portion of the state. (Groundwater Atlas of Colorado, 2003)

The deposits in the Leadville district include precious and base metal massive sulfide veins and carbonate hosted deposits near surface oxidized deposits, gold bearing magnetite skarns, and gold rich veins. The major ore bodies are hosted in Paleozoic aged, shelf carbonate rocks with a total thickness of 600 feet.

These sedimentary rocks have been intruded by a series of sills and dikes and faulted, resulting in complex geology. Our properties are located on Breece Hill, which is a major intrusive center, containing deposits of gold, silver and base metal mineralization."

Question 8

43 CFR 3809.401(c)(2)

Need a copy of all State and Federal permits

A copy of the requested permits and approvals are available in Hopemore's DRMS permit application. The permits are summarized below:

State Permits and Approvals

- Stormwater Permit (Operating)-Lockland Company, LLC-In Process (Attachment B);
- Air Quality-CDPHE Letter stating the mine facility is exempt from air permitting requirements;
- Industrial Discharge Permit-Lockland Company, LLC is a “no discharge facility” therefore a CPDES industrial discharge permit is not required;
- Colorado Division of Wildlife Consultation-no permit required;
- Weed Permit-Natural Resources Conservation Services (NRCS)
- State Historic Preservation Office Consultation-no permit required; and
- Colorado Department of Transportation-County approved road access permit

Federal Permits and Approvals

- Mine Safety Health and Administration (MSHA)-Identification Number will be activated when all operating permits have been obtained;
- Bureau of Alcohol, Tobacco, Firearms and Explosives-Blasting Permit (to be submitted); and
- Bureau of Land Management-Royal Gorge District Office (under review)

QUESTION 9

43 CFR 3809.401(d)

Does bond have BLM on it?

No, only if required by BLM and/or the State.

Does Bond include demolish of all modified/new structures?

Yes

Miscellaneous Information:

What year did Calder obtain ownership?

Mr. Calder obtained ownership in 2008.

If you have any questions please do not hesitate to call me at 719.486.7926 or please send me an e-mail at leadlocks@netzero.com. Alternatively you can contact George Robinson at Georgerobinson@r2incorporated.com telephone number is 303.832.7664

Yours truly,

By  for

Robert Calder
Mine Manager

Attachment A

Hopemore Mine Site

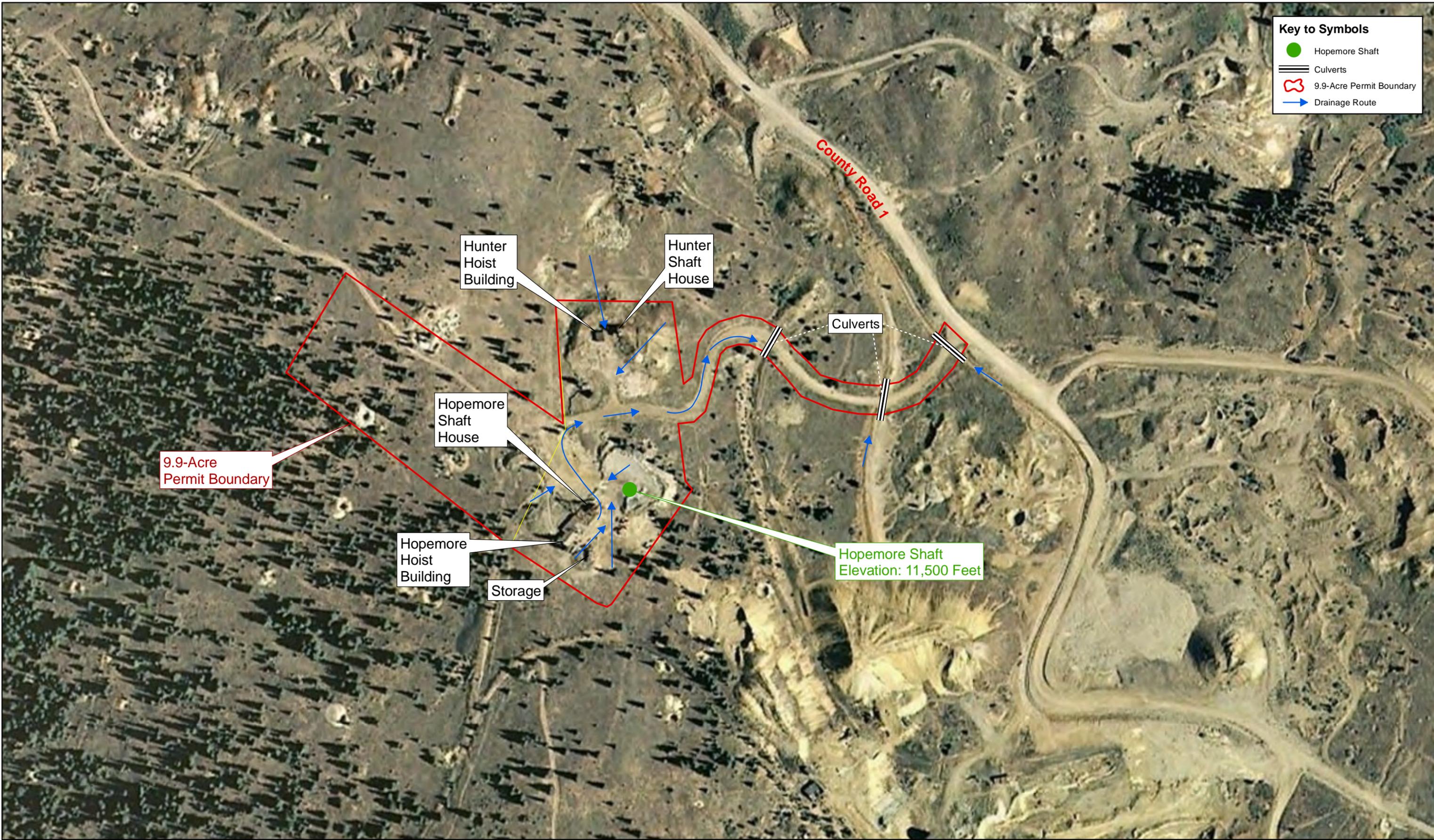
Prepared by Lockland LLC

Leadville, Colorado

Hopemore Mine

Key to Symbols

- Hopemore Shaft
- Culverts
- 9.9-Acre Permit Boundary
- Drainage Route



0 125 250 500 Feet

SCALE: 1:2,400

Imagery Source: ESRI, i-cubed, GeoEye

HOPEMORE MINE SITE MAP

HOPEMORE SHAFT
LOCKLAND, LLC - LEADVILLE, COLORADO

Drafted By:
C. Rice

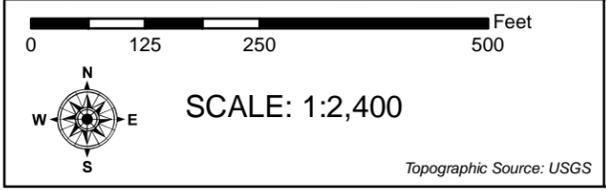
Draft Date:
18 December 2012

FIGURE
E-2



9.9-Acre
Permit Boundary

Hopemore Shaft
Elevation: 11,500 Feet



HOPEMORE MINE SITE SPECIFIC MAP

HOPEMORE SHAFT
LOCKLAND, LLC - LEADVILLE, COLORADO

Drafted By:
C. Rice

Draft Date:
18 December 2012

FIGURE
E-3

Attachment B

Stormwater Management Permit

Prepared by Lockland LLC

Leadville, Colorado

Hopemore Mine

STATE OF COLORADO

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
(303) 692-2000
(303) 691-7700
Located in Glendale, Colorado
http://www.cdph.state.co.us



Colorado Department
of Public Health
and Environment

For Agency Use Only	
COR-	_____
Date Received	____/____/____ Month Day Year
REGULATION	_____
WATER BODY ID	_____

APPLICATION for STORMWATER DISCHARGES ASSOCIATED WITH:

**HEAVY and LIGHT INDUSTRIAL ACTIVITY
METAL MINING (and some Coal Mining)
RECYCLING INDUSTRY**

Please print or type. Original signatures are required. **FAXED COPIES OR PDF COPIES WILL NOT BE ACCEPTED.**

This application is for use by all industrial stormwater dischargers engaged in **heavy and light industrial activity, metal mining (and some coal mining), and the recycling industry** as categorized by Standard Industrial Classification Code (SIC code) (see Appendix A.)

The application must be submitted to the Water Quality Control Division (the Division) at least **30 days** prior to the anticipated date of discharge, and must be considered complete by the Division before it will begin the review and approval process. The Division will notify the applicant if additional information is needed to complete the application. If more space is required to answer any question, please attach additional sheets to the application form. Applications must be mailed or delivered to:

*Colorado Department of Public Health and Environment
Water Quality Control Division
4300 Cherry Creek Drive South
WQCD-P-B2
Denver, Colorado 80246-1530*

PERMIT TYPE

Indicate the stormwater discharge permit type this application applies to. Refer to Appendix A for appropriate permit type based on the primary industrial activity conducted at the facility. **Note:** Applications for Heavy Industrial Activity and the Recycling Industry stormwater discharge permit types must include a copy of the Stormwater Management Plan.

- Heavy Industrial Activity (A copy of the Stormwater Management Plan must be submitted to the Division with the application.)
- Light Industrial Activity
- Metal Mining Inactive mine active over 10 acres active under 10 acres
- Recycling Industry (A copy of the Stormwater Management Plan must be submitted to the Division with the application.)

APPLICANT

The applicant must be a legal entity that meets the definition of either the owner and/or operator of the industrial activities that occur at the facility for this application to legally cover the industrial activities. The applicant must have day-to-day supervision and control over activities at the facility and implementation of the Stormwater Management Plan (SWMP).

Alternative Permittees: Other agents may also obtain permit coverage if they have clear contractual responsibility and operational control to address the impacts industrial activities may have on stormwater quality (including SWMP implementation). Examples include consultants or property owners acting as facility managers under contract with the owner or operator of the industrial activities, as long as the contractual relationship clearly delegates responsibility for stormwater management. A property owner that is not associated with the actual industrial activities at the site or under contract to adequately perform the stormwater management responsibilities at the site, as discussed above, may not legally maintain permit coverage for industrial activities at their property.

Applicant is: Property Owner Contractor/Operator

Robert Calder-2921 County Road 1, Leadville, Colorado 80461

Permit number COR-_____

a. CONTACT INFORMATION - NOT ALL CONTACT TYPES MAY APPLY * indicates required

*PERMITTEE (If more than one please add additional pages)

*ORGANIZATION FORMAL NAME: Leadlocks Mining, LLC

1) *PERMITTEE the person authorized to sign and certify the permit application. This person receives all permit correspondences and is legally responsible for compliance with the permit.

Responsible Position (Title): Mine Manager

Currently Held By (Person): Robert W. Calder

Telephone No: 719-486-7926

email address leadlocks@netzero.com

Organization: Leadlocks Mining, LLC-Hopemore Shaft

Mailing Address: 2921 County Road 1

City: Leadville State: Colorado Zip: 80461

This form must be signed by the Permittee to be considered complete.

Per Regulation 61 In all cases, it shall be signed as follows:

- a) In the case of corporations, by a responsible corporate officer. For the purposes of this section, the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the application originates.
- b) In the case of a partnership, by a general partner.
- c) In the case of a sole proprietorship, by the proprietor.
- d) In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official

2) DMR COGNIZANT OFFICIAL (i.e. authorized agent) the person or position authorized to sign and certify reports required by permits including Discharge Monitoring Reports *DMR's+, Annual Reports, Compliance Schedule submittals, and other information requested by the Division. The Division will transmit pre-printed reports (ie. DMR's) to this person. If more than one, please add additional pages.

X Same As 1) Permittee

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Per Regulation 61 : All reports required by permits, and other information requested by the Division shall be signed by the permittee or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (i) The authorization is made in writing by the permittee
- (ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position)
- (iii) Submitted in writing to the Division

3) *SITE CONTACT local contact for questions relating to the facility & discharge authorized by this permit for the facility.

x Same As 1) Permittee

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing _____ Address:

City: _____ State: _____ Zip: _____

4) OPERATOR in Responsible: Charge Same As 1) Permittee

Responsible _____ Position _____ (Title):

Currently _____ Held _____ By _____ (Person):

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Certification Type _____ Certification Number _____

5) * BILLING CONTACT if different than the permittee

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing _____ Address:

City: _____ State: _____ Zip: _____

6) OTHER CONTACT TYPES (check below) Add pages if necessary:

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing _____ Address:

City: _____ State: _____ Zip: _____

Pretreatment Coordinator

Environmental Contact

Biosolids Responsible Party

Property Owner

Inspection Facility Contact

Consultant

Compliance Contact

Stormwater MS4 Responsible
Person

Stormwater Authorized
Representative

Other _____

B. Permitted Project/Facility Information

Project/Facility Name: Hopemore Shaft

Street Address or cross streets 2921 County Road 1

City, Leadville Zip Code 80461 County Lake

Facility Latitude/Longitude— (approximate center of site to nearest 15 seconds using one of following formats

001A Latitude _____ Longitude _____ (e.g., 39.703°, 104.933°)
degrees (to 3 decimal places) degrees (to 3 decimal places)

or

001A Latitude 39 ° 50 ' 14 " Longitude 106 ° 14 ' 11 " (e.g., 39°46'11"N, 104°53'11"W)
degrees minutes seconds degrees minutes seconds

C. STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE(S) FOR THIS FACILITY

(See Appendix A - include up to 4 in order of importance).

a. 10 b. _____ c. _____ d. _____

D DESCRIBE THE INDUSTRIAL ACTIVITIES WHICH TAKE PLACE ON THIS SITE

Describe the primary industrial activities at this facility (e.g., trucking firm with vehicle maintenance; computer equipment manufacturer; automobile or scrap metal recycling; precious metal mining, milling, metal mining services; coal mine etc.). Indicate whether or not the facility has a coal pile. If this application is for any of the following types of facilities, also provide the additional information indicated:

Airport: state the estimated volume of deicers used, and the volume of fuel sold, on an annual basis.

Wastewater treatment plant: include the design flow and pretreatment program status.

Steam electric power plant: indicate the primary and backup fuel sources.

Paving and roofing materials manufacturing: indicate whether or not the facility manufactures asphalt emulsion.

Asphalt or concrete batch plant: indicate whether or not the plant is portable.

Description:

The Hopemore is an underground mining operation. Wastewater consists of domestic waste which will be managed using Port-A-Lets.

E. RECEIVING WATERS

Identify the receiving water of the stormwater from the industrial facility. Receiving waters are any waters of the State of Colorado including all water courses, even if they are usually dry. If stormwater from the facility enters a ditch or storm sewer system, identify that system and indicate the ultimate receiving water for the ditch or storm sewer. **Note:** a stormwater discharge permit does not allow a discharge into a ditch or storm sewer system without the approval of the owner/operator of that system.

Immediate Receiving Water(s): Ephemeral Draining into South Evans Gulch thence into Evans Gulch

Ultimate Receiving Water(s): Arkansas River

F. OTHER ENVIRONMENTAL PERMITS

Does this facility currently have any environmental permits, or is it subject to regulation, under either of the following programs?

Permit Name	Yes	No	Application Date	Permit No.
a. Colorado Division of Reclamation, Mining and Safety— permit anniversary:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	December, 2012	
b. Underground Injection Control	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
c. Clean Water Act (CWA) Section 404 permit (Army Corps of Engineers)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
d. Resource Conservation and Recovery Act (RCRA)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
e. Colorado Discharge Permit System (CDPS)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
f. Colorado State Air Pollution Emission	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pending	
g. Other MSHA,	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Pending	

G. MAP (Provide as an attachment to the application) Map attached? NO YES
Map: Attach a map that indicates the site location and that CLEARLY shows the boundaries of the area subject to the application. Maps must be no larger than 11 x 17 inches.

H. REQUIRED SIGNATURES (Both parts i. and ii. must be signed)

STOP! A Stormwater Management Plan must be completed prior to signing the following certifications!

The Stormwater Management Plan (SWMP) requirement applies to all facilities. A SWMP must be prepared prior to submitting an application for coverage under a stormwater discharge general permit, and the Stormwater Management Plan Certification (below) signed. See the Division's website (www.coloradowaterpermits.com) for SWMP preparation guidance documents (identified by permit category – heavy and light industrial activity, metal mining, or the recycling industry).

Note: Applications for Heavy Industrial Activity and the Recycling Industry stormwater discharge permit types must include a copy of the Stormwater Management Plan.

Heavy Industrial Activity and the Recycling industry SWMP attached? NO YES

i. Stormwater Management Plan 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 gather and evaluate 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."

Robert W. Calder 1/8/2013
 Applicant or duly authorized representative signature (submission must include original ink signature) Date Signed
Robert Calder Mine Manager
 Name (printed) Title

ii. Signature of Permit Legal Contact

The application must be signed to be considered complete. In all cases, it shall be signed as follows:

- a. In the case of corporations, by a responsible corporate officer. The responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the form originates;
- b. In the case of partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor;
- d. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer has responsibility for the overall operation of the facility from which the discharge originates.

"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 gather and evaluate 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."

Robert W. Calder

1/8/2013

Applicant Signature (submission must include original ink signature)

Date Signed

Robert Calder

Mine Manager

Name (printed)

Title

DO NOT INCLUDE PAYMENT – AN INVOICE WILL BE SENT AFTER THE PERMIT CERTIFICATION IS ISSUED.

APPENDIX A

INDUSTRIES REQUIRED TO OBTAIN STORMWATER DISCHARGE PERMIT COVERAGE

The Standard Industrial Classification (SIC) Code or codes for the facility usually determines permit coverage. SIC Codes are assigned according to the primary activities performed by a company. They are often assigned for insurance purposes or when a business registers as a corporation. Industries can also determine their SIC Code by checking with their trade association, Chamber of Commerce, legal counsel, library for the SIC Manual, or on-line at <http://www.osha.gov/pls/imis/sicsearch.html>.

The industries are listed here by their SIC Code. The manufacturing industries are generally represented by SIC Codes 20-39. (A two digit code, such as 42, means that all industries under that heading, from 4200 to 4299, are covered.) Use this table to determine which of the Division's general permits is appropriate for your facility.

SIC Code	Industry Type	Notes	Permit Type
10	Metal mining and milling	(a) (b)	M
12	Coal mining	(a) (b)	C
13	Oil and gas extraction	(c) (d)	L
14	Mining and quarrying of nonmetallic minerals except fuels	(a) (b)	S
NA	Construction	(b)	N
20	Food and kindred products (except)		L
2011	Meat packing plants		H
2015	Poultry slaughtering and processing		H
2077	Animal and marine fats and oils		H
21	Tobacco products		L
22	Textile mills		L
23	Apparel and other finished products made from fabric and similar material		L
24	Lumber and wood products except furniture (except)		L
2491	Wood preserving		H
25	Furniture and fixtures		L
26	Paper and allied products		L
27	Printing, publishing, and allied products		L
28	Chemicals and allied products (except)	(b)	H
283	Drugs		H
285	Paints and allied products		H
29	Petroleum refining and related industries (except)	(b)	H
2951	Asphalt batch plants	(e)	L,N,S
30	Rubber and miscellaneous plastics products		H
31	Leather Products (except)		L
311	Leather tanning and finishing		L
32	Stone, clay, glass and concrete products (except)		L
3241	Cement manufacturing	(b)	H
3273	Ready-mix concrete facilities	(e)	L,N,S
33	Primary metals industries		H
34	Fabrication of metal products, except machinery and transportation equipment (except)		L
3441	Fabricated structural metal		L
35	Industrial and commercial machinery and computer equipment		L
36	Electronic and other electrical equipment and components, except computer equipment		L
37	Transportation equipment		L
38	Measuring, analyzing, and controlling instruments: photographic, medical, and optical goods, watches and clocks		L
39	Miscellaneous manufacturing industries		L
40	Railroad transportation	(f)	L
41	Local and suburban transit and interurban highway passenger transportation	(f)	L
42	Motor freight transportation and warehousing (except)	(f)	L
4221	Farm Product warehousing and storage		L
4222	Refrigerated warehousing and storage		L
4225	General warehousing and storage		L
43	US Postal Facilities	(f)	L
44	Water Transportation	(f)	L
45	Transportation by Air	(f)(g)	L,H
4911	Steam electric power generation (all fuel types)	(b)	H
4952	Wastewater treatment plants with a design flow of 1.0 MGD or more, or required to have an approved pretreatment program under 40 CFR 403	(b)	L

APPENDIX A (continued)

SIC Code	Industry Type	Permit Notes	Permit Type
4953	Hazardous waste treatment, storage or disposal facilities; incinerators (including boilers and industrial furnaces) that burn hazardous waste; and active or inactive landfills, land application sites, or open dumps with industrial waste and without a stabilized final cover	(b)	H
5015	Motor vehicle parts, used		R
5093	Scrap and waste materials		R
5171	Petroleum bulk stations and terminals	(f)	L

Notes:

- (a) For this SIC Code, a stormwater permit is required only if runoff contacts overburden, raw material, intermediate or finished product, or waste products.
- (b) For most facilities covered by the stormwater regulations, SIC codes are used to indicate the **primary** function of the facility. This footnote denotes industries which, in most cases, are covered under the stormwater regulations regardless of what other activities are conducted at the site (contact Division for details).
- (c) This SIC Code only refers to the *operation* of oil and gas facilities (exploration, production, processing, or treatment operations, or transmission facilities). *Construction* activities at oil and gas facilities (e.g., construction of well pads, roads, pipelines, etc.) are covered under the Construction general permit.
- (d) For facilities under this SIC Code, as per the Colorado Discharge Permit System Regulations, Section 61.4(3)(b)(i)(C), the operator of an existing or new discharge composed entirely of stormwater from an oil or gas exploration, production, processing, or treatment operation, or transmission facility is not required to submit a permit application unless the facility has had a discharge of a reportable quantity, or contributes to a violation of a water quality standard:
- (e) Facilities at sand and gravel operations may be covered under the Sand and Gravel general permit; facilities at construction sites may be covered under the Construction general permit; other facilities, including mobile plants, may be covered under the Light Industry general permit.
- (f) In this SIC Code, only facilities with vehicle maintenance (including fueling), equipment cleaning, or airport deicing need a stormwater permit.
- (g) Airports that use 1000 gallons of deicer(s) or more annually, and that have annual fuel sales of one million gal/year or more, are covered under the Heavy Industry general permit. Airports that do not meet these criteria need the Light Industry general permit.

Permit types:

- L: **Light Industry** General Permit (Permit No. COR-010000)
H: **Heavy Industry** General Permit (Permit No. COR-020000)
N: **Construction** General Permit (Permit No. COR-030000)
M: **Metal Mining** General Permit (Permit No. COR-040000)
C: **Coal Mining** General Permit (Permit No. COG-850000)
S: **Sand and Gravel** General Permit (Permit No. COR-340000)
R: **Recycling Industry** General Permit (Permit No. COR-060000)

STORM WATER MANAGEMENT PLAN

**CERTIFICATION OF THE
STORM WATER MANAGEMENT PLAN**

CDPS GENERAL PERMITS

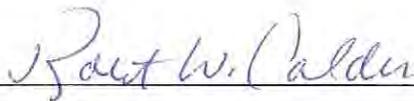
FOR

**STORM WATER DISCHARGES ASSOCIATED WITH
METAL MINING OPERATIONS**

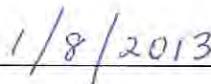
(COR-040000)
Certification No. COR

**LOCKLAND, LLC
2921 COUNTY ROAD 1
LAKE COUNTY
LEADVILLE, COLORADO 80461**

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 gather and evaluate 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.



Robert Calder
Mine Manager-Owner



Date

INTRODUCTION AND PROJECT DESCRIPTION

The Hopemore Shaft (Mine) is a gold mine owned by Lockland LLC, (Locklands) with their offices located in Leadville Colorado. Over the last few years, Lockland has been operating the mine as a tourist attraction. Mr. Robert Calder formed Lockland LLC on March 12, 2004. The Hopemore Shaft was formerly included as a mine permitted under Calais Resources -Permit number M-1990-057. Lockland is permitting the facility as a separate standalone 110 (2) hard rock and tourist mine which will occupy a 9.9 acre permit area.

The facility is located in Lake County approximately 3.5 miles east of Leadville, Colorado, 11,500 feet above sea level. The mine has a Lake County Tourist Mine Conditional Use Permit other permits.

BACKGROUND OF THE SITE

The Hopemore Shaft continues operation as a tourist mine with the intentions of producing ore in 2013. Ore will be removed at a rate of 1,500 tons a month. Run of mine ore will be hauled approximately 8 miles west to the Leadville Mill located at 13815 U.S. Highway 24, Leadville, Colorado. The mine was developed in 1907 and has periodically produced ore from the day the mine opened to the present. The mine complex is approximately 9.9 acres and disturbs approximately 1.9 surface acres. During 2011 and 2012, mine activities included:

- maintaining erosion and sedimentation structures;
 - maintaining the hoist, cage, and compressors;
 - maintaining the board walks, parking and a viewing deck;
 - rehabilitation of the underground mine levels;'
 - implementing the weed control plan (Exhibit F); and,
 - the continuance of extensive care and maintenance.
1. **Proposed Sequence of Activities:** Once the DRMS permit is issued, the following construction activities will commence:
 - a. install access road Best Management Practices BMPs; (See Storm Water Management Plan (SWMP) Figure E-1 and E-2)
 - b. install or repair other BMP structures adjacent to the Hopemore and Hunter shafts;
 2. **Estimates of the total affected area, and the area and location expected to be disturbed by clearing, excavation, grading or other construction activities includes:**
 - The mine permit area occupies approximately 9.9 acres;
 - Pre-existing mine disturbance includes, access roads, two shafts (Hopemore and Hunter and mine building;

Stormwater Management Plan

3. **Site Soil Information:** Existing soils data for the drainage area within the permit and affected areas are provided through the National Resource Conservation Service (NRCS) Custom Soil Resource Report for the Lake County Area, Colorado. The soils are thin, well drained, well vegetated with the existing rocky slopes ranging from 3-35 percent. The soils are considered to be relatively stable to limit offsite erosion and sedimentation impacts.
4. **Existing vegetation:** Sparse vegetation (grass) covers the site, except for the disturbance where the Hopemore and Hunter Shafts and mine buildings are located.
5. **Potential pollution sources:** Historical mine features are identified on the attached Site Map (see Figure E-2). The following table provides a general description of each potential source.

Hopemore Shaft, Lake County, Colorado

Frequency	Activity	Containment
Two to four twenty ton ore haul trucks per day	Ore haulage to offsite processing mine	Ore stockpiles will be removed within 60 days of mining. Ore will be stockpiled on a lined pad.

- a) Truck haulage - to control fugitive dust within the permit area, speed limits of 25 miles per hour for haul trucks will be posted to limit road dust;
- b) When necessary, roads will be periodically sprayed with water to control fugitive dust;
- c) BMPs will be inspected twice a month and after significant precipitation during construction, and monthly thereafter during mining from April through November, when accessible (see Inspection and Maintenance section for more details);
- d) Road construction and maintenance will be routinely conducted to maintain BMP structures, road grades and sediment control structures;

6. Non-stormwater discharge locations:

Non-stormwater discharges are not anticipated to occur. No man-induced springs, landscape irrigation, construction dewatering or concrete washout is anticipated.

7. Receiving Waters:

The 9.9 acre (ac) mine site is located in South Evans Gulch which ultimately drains to the East Fork Arkansas. The unnamed ephemeral channel draining the mine site only flows in response to snow melt and thunderstorm runoff events.

8. Wetlands:

There are no designated wetlands or riparian lands within the permit boundary or waters considered under the jurisdiction of the U.S. Corp of Engineers.

Stormwater Management Plan

Site Map - see Figure E-1 and E-2

Stormwater Management Controls

1. SWMP Administration

Contact: Mr. Robert Calder or his designated representative

LOCKLAND, LLC
2921 COUNTY ROAD 1
LEADVILLE, COLORADO 80461
719.486.0301

2. Identification of Potential Pollutant Sources:

a. Disturbed soils and stockpiled soils

Topsoil has not stockpiled. The soils are typically less than 2 inches. The future operations will require stockpiling of run of mine rock adjacent to the Hopemore Shaft. BMPs are illustrated on Figure BMP-1 through BMP-3

b. Vehicle tracking of sediments

Because the mine site consists of coarse rock with minimal fines, sediment tracking from vehicular traffic is not anticipated. The access road will have a coarse road base, and a construction mud clean out area (USEPA, 1992) or suitable alternative will be constructed and maintained to minimize vehicle tracking on County Road 1.

c. Management of contaminated soils

No contaminated or acid producing ores will be disposed on site as a result of the Hopemore mining operation. If acid or toxic material is identified during mining, the material will be isolated from water to mitigate the possibility of offsite impacts to surface or groundwater resources. Isolation may include covering the material with geosynthetic materials or constructing a roof. If necessary, the ore storage foundation may be lined with an impermeable barrier

d. Loading and unloading operations

Loading and unloading of liquids and solids during site operation will be conducted under the supervision of trained Hopemore personnel. Liquids (petroleum products), used in the mining process will be placed in primary and secondary containment structures.

Stormwater Management Plan

e. Outdoor storage activities

No chemicals will be stored outside of designated buildings.

f. Vehicle and equipment maintenance and fueling

Routine equipment maintenance will include fueling mine vehicles, generators, including oil and hydraulic fluid replacement and mine processing equipment. Fuels and lubricants will be appropriately stored in secondary containments when the volume exceeds 55 gallons. Working areas will have BMPs including emergency response kits available or sediment control structures will be put in place to prevent off site erosion and sedimentation impacts.

g. Significant dust or particulate generating processes

CDPHE air quality emissions regulatory criteria having the potential to be emitted from the mine site has been addressed. Hopemore has demonstrated emission rates from the mining operation will not trigger the need to file an Air Pollutant Emission Notice (APEN) to CDPHE. When necessary, Hopemore will control fugitive dust from access roads or other site construction activities using water spray.

h. Routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc.

Use of process chemicals will be conducted in accordance with BMPs and the approval of DRMS, and in accordance with County regulations. Most of the maintenance activities will occur within the 1.9 acre surface area including fueling equipment and the application of herbicides/pesticides. The use of fertilizers and pesticides will be conducted using certified contractors approved by Lake County and in accordance with the guidelines presented in the Weed Management Permit.

i. On-site waste management practices

Generated solid waste will be hauled off site and disposed in a licensed sanitary landfill. Substances including but not limited to used oil, tires, solvents, paints etc. will be hauled offsite and disposed in accordance with State and County waste management criteria.

j. Concrete truck/equipment washing including the concrete truck chute and associated fixtures and equipment

Concrete trucks operators will not be permitted to wash their equipment within the mine permitted area without approval from the County or DRMS.

k. Dedicated asphalt and concrete batch plants

No asphalt or concrete batch plants are planned.

Stormwater Management Plan

l. Non-industrial waste sources

Worker trash will be removed from the mine site once a week. Biodegradable garbage will be placed in bear proof dumpsters. Generated waste will be removed from the site and disposed in a County or State Approved waste disposal facilities. The Hopemore Shaft facility has an approved use of Port a lets.

m. Other areas or procedures

Spill kits will be located in the mine and in areas where the potential for a spill is possible. In the event of an accidental spill, immediate action will be undertaken by the mine manager or his designated representative to contain and remove the spilled material. All materials will be disposed under the direction of the mine manger in the manner specified by federal, state and local regulations and by the manufacturer of such products. As soon as possible, and in consultation with the Mine Manager or his designated representative, the spill will be reported to the appropriate agencies. As required under the provisions of the Clean Water Act, any spill or discharge entering waters of the United States will be properly reported. The Mine Manager will prepare a written record of any spill and associated clean-up activities of petroleum products or hazardous materials in excess of 1 gallon or reportable quantities, whichever is less. The Mine Manager will provide notice to the Mine Manager or his designated representative immediately upon identification of a reportable spill. A spill report form is presented in Appendix SWMP- A

Any spills of petroleum products or hazardous materials in excess of Reportable Quantities as defined by EPA or the state or local agency regulations, shall be immediately reported, in consultation with the Mine Manager or his designated representative, to the EPA National Response Center (1-800-424-8802), the Colorado Department of Public Health and Environment (877-518-5608) and the Division of Reclamation, Mining and Safety (303-866-3567).

3. **BMPs** Figure BMP-1 BMP-2 and BMP-3) will be implemented to manage stormwater and to prevent sediment from entering the waters of the State at the following locations:

- a. Hopemore Mine
- a. Rock disposal and snow storage areas;
- b. Appropriate locations along mine access roads; and
- c. Fuel storage locations.

4. When appropriate, the following stormwater management controls will be adopted:

- a. Berms;
- b. Check Dams;
- c. Riprap;
- d. Sediment Traps/Debris Basins;
- e. Sediment Basins and Rock Dams;
- f. Silt Fences; and
- g. Fiber Rolls (Wattles).

Stormwater Management Plan

BMPs are summarized in Figure BMP 1, BMP-2 and BMP-3.

Inspection and Maintenance

a. Inspection Schedules

- a. BMPs will be inspected at least once every 14 calendar days, and within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion, after completing BMP construction and during months where there is no snow on the ground and no melting conditions posing a risk of surface erosion. The Construction Activity and Site Stabilization Log included in Appendix SWMP-B shall be updated following each major construction activity or monthly. Following tailings storage facility construction, and during mining operations, BMPs will be inspected monthly from April through November.
- b. During snowy months (November through April) the mine is closed. BMPs will be inspected and maintained as field conditions dictate. BMPs will be inspected quarterly when the mine is open.

c. Inspection Procedures

- Verify and maintain the integrity of silt fences (USEPA, 1992), erosion ditches, bar ditches, swales, check dams (US EPA, 1992)(VDCR, 2005), debris basins and impoundments;
- Identify and repair rills and gullies that are greater than 12 inches deep; and
- Record maintenance activities.

d. BMP Maintenance/Replacement and Failed BMPs

Assuming access is achievable, BMP maintenance will be completed within 7 calendar days after the identification of the need for improvement or replacement.

e. Record Keeping and Documenting Inspections

Inspections and maintenance activities (SWMP Appendix A) will be documented and records will be kept in mine office.

f. Agency Storm Water Inspections

The project mine manager or his designated representative will walk the site with the regulatory inspector and document any deficiencies noted during the inspection. The mine manager shall prepare an Inspection Report (Appendix SWMP-C) for the day of the agency inspection. Deficiencies of any type, field or documentation-related, identified during the regulatory inspection must be noted on the Inspection Report as a deficiency and resolved as soon as practicable or as directed.

All storm water or erosion and sediment (E&S) agency visits to the jobsite, whether an official inspection occurred or not, must be reported to the Mine Manager or his designated representative. Any agency inspector, including OSHA and utility inspectors that comment on

Stormwater Management Plan

storm water BMPs (inlet protection, track out, etc.) must be reported to the Mine Manager or his designated representative.

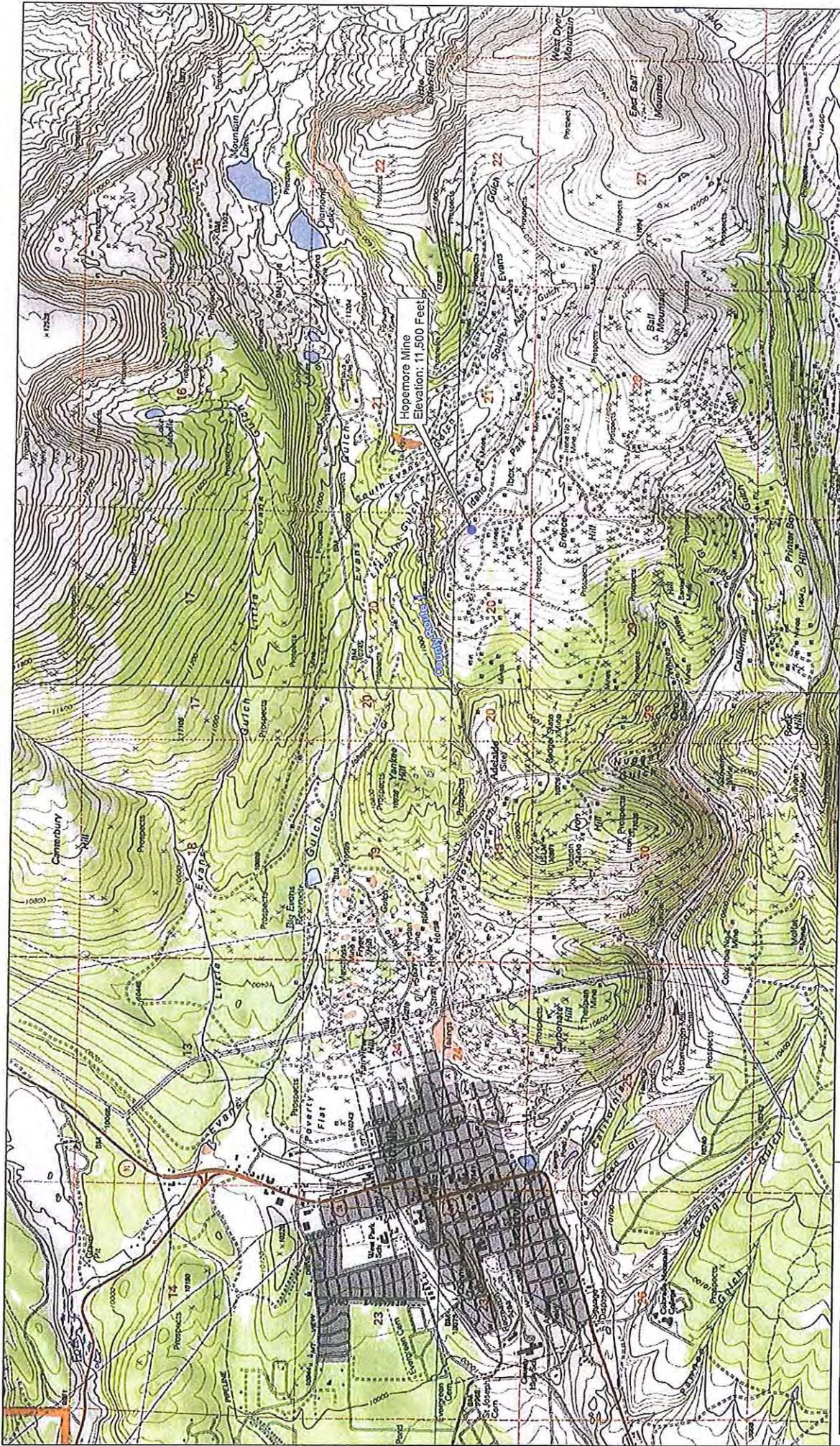
A log of all inspections by Federal, State, or local storm water or other environmental agencies shall be kept in the SWMP Binder. The log form can be found in Appendix SWMP- D and must include the date and time of the visit and whether a report was issued or will be issued as a result of the inspection. All inspection reports issued by an agency must be faxed or e-mailed to Mine Manager or his designated representative immediately, but no later 24-hours of receipt.

References

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- CASQA (California Stormwater Quality Association), 2003, California Stormwater BMP Handbook (<http://www.cabmphandbook.com/documents/construction/SE-5.pdf>)
- Chow, V.T., 1959, Open Channel Hydraulics, McGraw-Hill, New York.
- FHWA (Federal Highway Administration), 1995. Best Management Practices for Erosion and Sediment Control FHWA-SLP-94-005. Federal Highway Administration, Sterling VA.
- Highway Task Force, 1071 Handbook of Steel Drainage & Highway Construction Products, second Edition, American Iron and Steel Institute, Washington, D.C.
- Smolen, M.D., D.W. Mineer, L.C. Wyantt, J.Lichhardt and A.L. Lanier, 1988. Erosion and Sediment Control Planning and Design Manual North Carolina Sedimentation Control Commission; North Carolina Department of Environmental Health, and Natural Resources and Division of Land Resources Land Quality Section, Raleigh, NC.
- Soil Conservation Service, Soil Conservation National Engineering Handbook, Section 4-Hydrology NEH-4.
- VDCR (Virginia Department of Conservation and Recreation). 1995, Virginia Erosion & Sediment Control Field Manual 2nd ed. Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, Richmond, VA.
- U.S. Department of Commerce, 1961, Technical Paper 40-Rainfall Frequency Atlas of the United States for Durations from 30 minutes to 24 hours and Return Periods from 1 to 100 years, Washington, D.C.
- USEPA (U.S. Environmental Protection Agency). 1992, Stormwater Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices. EPA 832-R-92-005. U.S. Environmental Protection Agency, Office of Water, Washington. D.C.)
- Wilkes, S.G and E.C. King, 1975, Procedures for Determining Peak Flows in Colorado, Incorporates and Supplements Technical Release No. 55, Urban Hydrology for Small Water Sheds, Soil Conservation Service, U.S. Department of Agriculture.

FIGURES

HOPEMORE SHAFT MINE
LOCKLAND MINING COMPANY, LLC
STORMWATER MANAGEMENT PLAN



0 0.25 0.5 1 Miles

SCALE: 1:24,000

Photographic Map Source: USGS

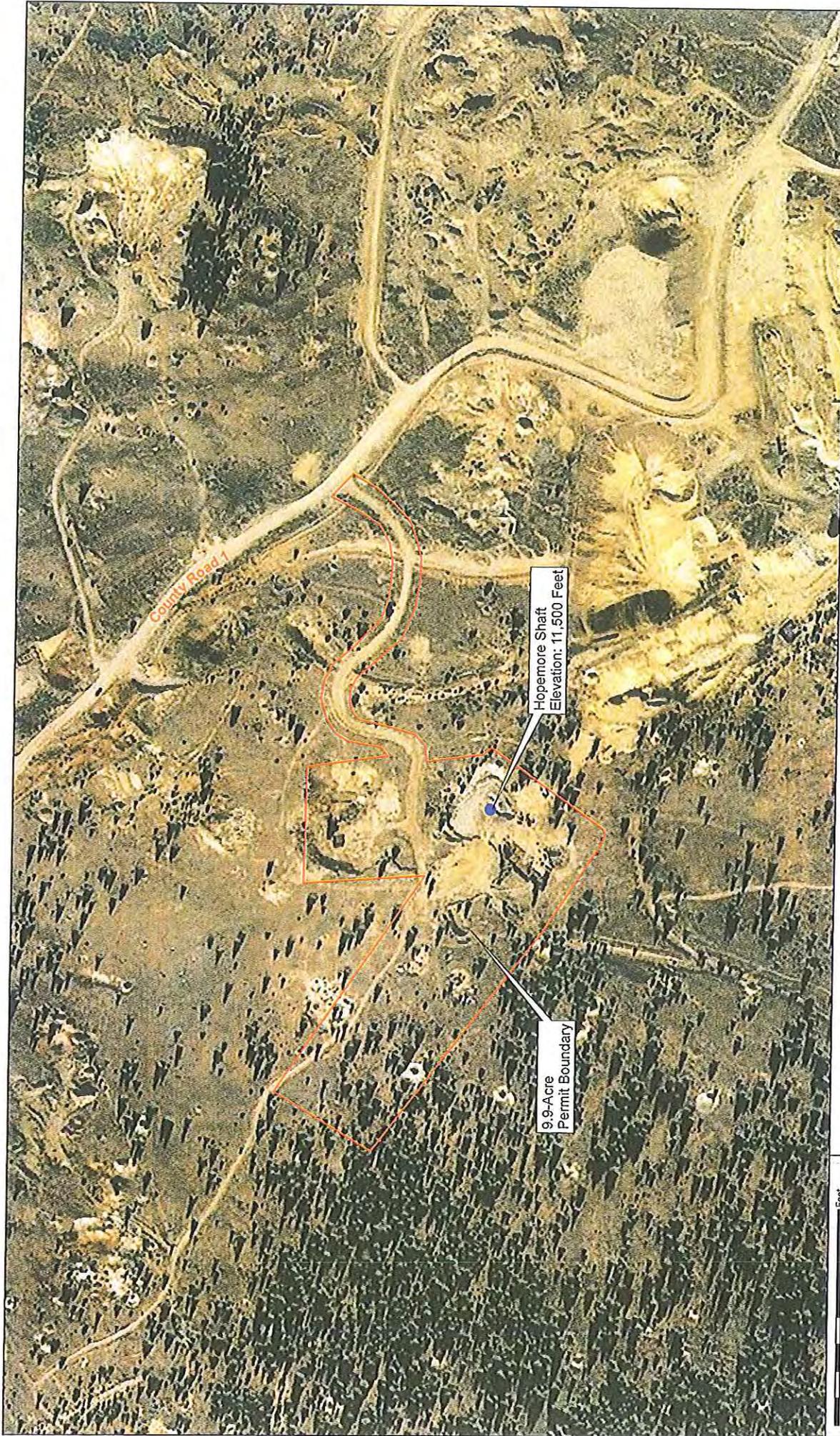


HOPEMORE MINE GENERAL LOCATION EXHIBIT
 HOPEMORE SHAFT
 LOCKLAND, LLC - LEADVILLE, COLORADO

Drafted By:
C. Rice

Draft Date:
18 December 2012

FIGURE E-1



0 125 250 500 Feet



SCALE: 1:2,400

Imagery Source: ESRI, Aerial, GeoEye

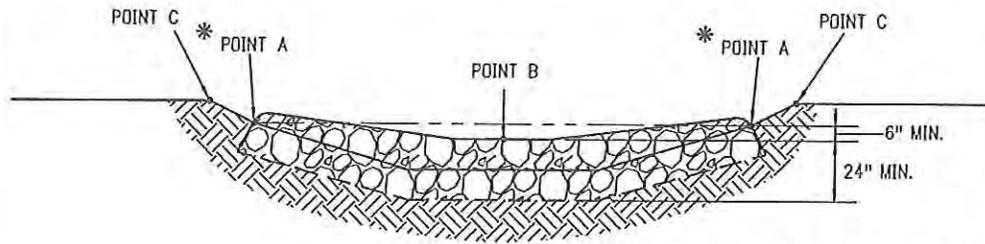
HOPEMORE MINE SITE SPECIFIC MAP

HOPEMORE SHAFT
 LOCKLAND, LLC - LEADVILLE, COLORADO

Drafted By:
 C. Rice

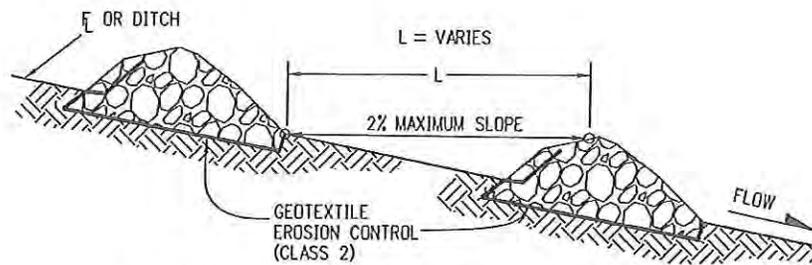
Draft Date:
 18 December 2012

FIGURE
E-2

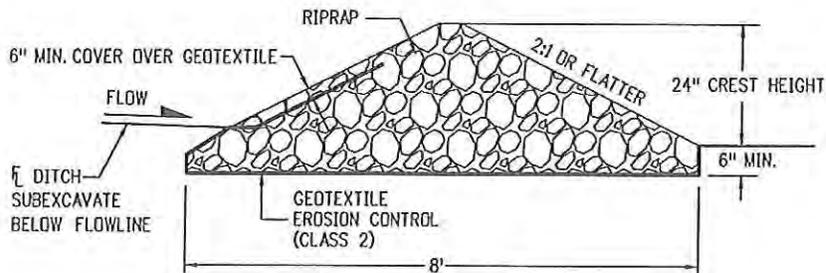


* POINTS "A" SHALL BE HIGHER THAN POINT "B" AND BELOW POINTS "C".

TYPICAL SECTION VIEW



SECTION VIEW ALONG DITCH FLOWLINE



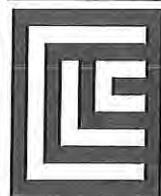
SECTION DETAIL

NOTES:

1. RIPRAP SIZE $D_{50} = 6"$ OR AS SHOWN ON THE PLANS.
2. THE ENDS OF RIPRAP CHECK DAM SHALL BE A MINIMUM OF 6 IN. HIGHER THAN CENTER OF CHECK DAM.

ROCK CHECK DAM

PROGRESS PRINT (SUBJECT TO REVISIONS) 7-19-2011



CLC ASSOCIATES



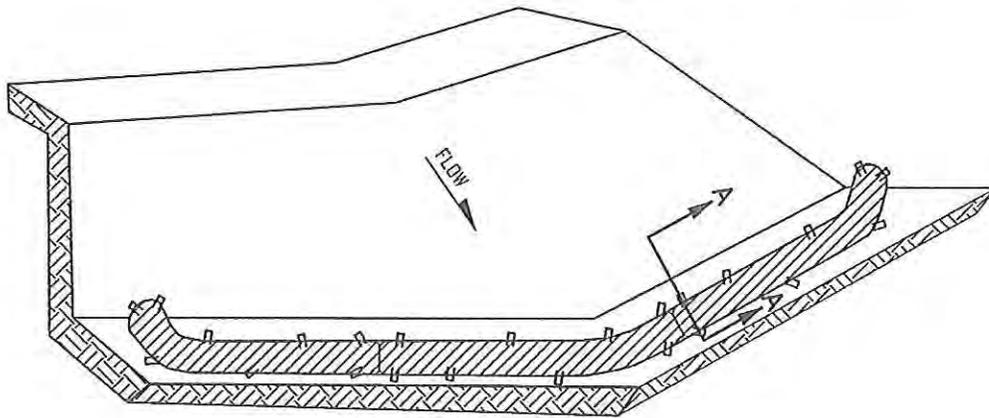
R Squared Inc.

WILDCAT MINING CORPORATION
5555 DTD PARKWAY
SUITE A-4000
GREENWOOD VILLAGE, CO 80111

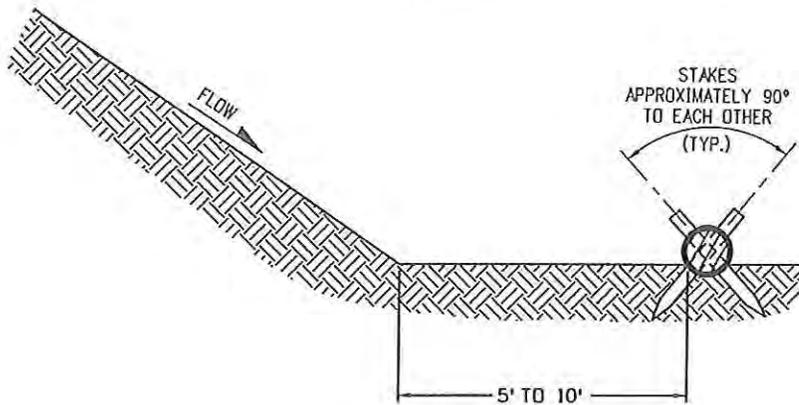
**BMP DETAILS
ROCK CHECK DAM**

PREPARED BY: DJM
REVIEWED BY: DJM
REVISION DATE: 07-28-11

FIGURE BMP 1



ISOMETRIC VIEW



SECTION A-A

NOTES:

1. EROSION LOGS USED AT TOE OF SLOPE SHALL BE PLACED 5 TO 10 FEET BEYOND TOE OF SLOPE TO PROVIDE STORAGE CAPACITY.
2. EROSION LOGS SHALL BE PLACED ON THE CONTOUR, WITH ENDS FLARED UP SLOPE.

EROSION LOG TOE OF SLOPE PROTECTION

PROGRESS PRINT (SUBJECT TO REVISIONS) 7-19-2011



CLC ASSOCIATES



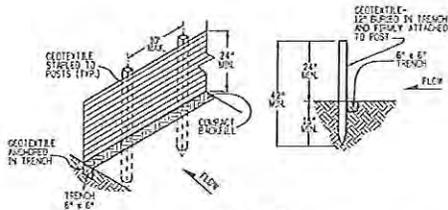
R Squared Inc.

WILDCAT MINING CORPORATION
5555 DTC PARKWAY
SUITE A-4000
GREENWOOD VILLAGE, CO 80111

**BMP DETAILS
EROSION CONTROL LOGS**

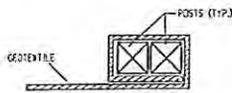
PREPARED BY: DJM
REVIEWED BY: DJM
REVISION DATE: 07-28-11

FIGURE BMP 2



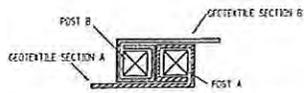
SILT FENCE

GEOTEXTILE SHALL BE ATTACHED TO WOOD POSTS WITH THREE OR MORE STAPLES PER POST.
 STAPLES SHALL BE 1/2"
 WOOD POST SHALL BE 1 1/2" X 1 1/2" ROUND.



END SECTION DETAIL (PLAN VIEW)

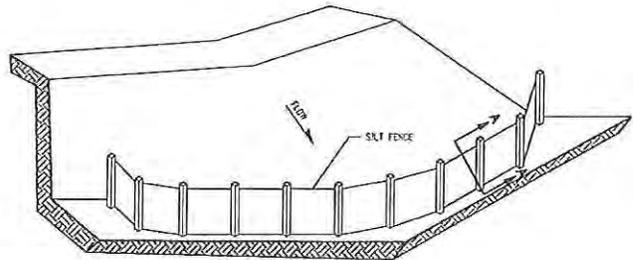
GEOTEXTILE SHALL BE FOLDED AROUND TWO POSTS ONE FULL TURN SECURE GEOTEXTILE TO POST WITH THREE STAPLES MINIMUM.



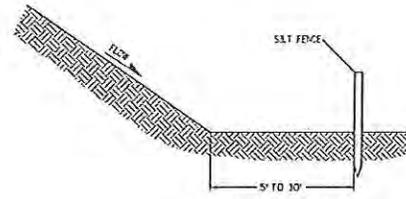
JOINING SECTION DETAIL (PLAN VIEW)

FOLD GEOTEXTILE AROUND EACH POST ONE FULL TURN SECURE GEOTEXTILE TO POST WITH THREE STAPLES MINIMUM.

POSTS SHALL BE TIGHTLY ADJUSTED WITH NO GAPS TO PREVENT POTENTIAL FLOW THROUGH OF SEGMENT AT JOINT.



ISOMETRIC VIEW



SECTION A-A

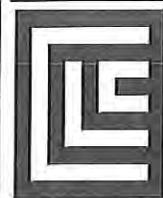
TOE OF SLOPE PROTECTION

NOTES

1. SILT FENCE SHALL HAVE A MINIMUM DRAINAGE AREA OF ONE-QUARTER ACRE PER 100 FEET OF SILT FENCE LENGTH; MINIMUM SLOPE LENGTH BEHIND BARRIER IS 100 FEET; MINIMUM GRADIENT BEHIND THE BARRIER IS 2%.
2. SILT FENCE USED AT TOE OF SLOPE SHALL BE PLACED 5 TO 10 FEET BEYOND TOE OF SLOPE TO PROVIDE STORAGE CAPACITY.
3. SILT FENCE SHALL BE PLACED ON THE CONTOUR, WITH ENDS FLARED UP SLOPE.

SILT FENCE APPLICATION

PROGRESS PRINT (SUBJECT TO REVISIONS) 7-19-2011



CLC ASSOCIATES



R Squared Inc.

WILDCAT MINING CORPORATION
 5555 DTC PARKWAY
 SUITE A-4000
 GREENWOOD VILLAGE, CO 80111

**BMP DETAILS
 SILT FENCE**

PREPARED BY: DJM
 REVIEWED BY: DJM
 REVISION DATE: 07-28-11

FIGURE BMP 3

APPENDIX SWMP A
SPILL REPORT FORM

HOPEMORE SHAFT MINE
LOCKLAND MINING COMPANY, LLC
STORMWATER MANAGEMENT PLAN

SPILL REPORT FORM

NOTES to Mine Manager:

- 1) Contact the appropriate regulatory agency if the spill exceeds the applicable reportable quantity.
- 2) Complete this form in full for each spill that exceeds 1-gallon or exceeds the reportable quantity for the Governing Agency and submit to Mine Manager or his designated representative.
- 3) Call the Mine Manager or his designated representative ***see below**
- 4) Transfer spill information to the Inspection Report and resolve as appropriate.

The Mine Manager or his designated representative recommends taking photos to document spill clean-up measures and saving the photos on-site.

***When calling the Mine Manager or his designated representative to report a spill the representative should leave the following information:**

1. Caller (full name & firm)
2. Caller Telephone Number
3. Spill Date
4. Type of material spilled
5. Amount spilled
 - 5a. Was the amount above the applicable reportable quantity (Yes or No)?
 - 5b. If yes, has the governing agency been notified of the spill (Yes or No)?
 - 5c. If yes, what agency was notified (agency name and how notified):
6. Location of the spill on the jobsite
7. Did the spill impact surface water, leave the site, or enter an inlet (Yes or No)?
 - 7a. If yes, elaborate on impacts to surface water, off-site area &/or inlet:
8. Has spilled material and contaminated media (soil, pavement, etc.) been removed and/or cleaned (Yes or No)?

Stormwater Management Plan

- 8a. If no, what additional measures need to be completed to remediate the spill?
9. Was the spill noted as a deficiency on the Inspection Report & resolved (or will be resolved) as soon as practicable (Yes or No)?
- 9a. If no, add to Inspection Report as a deficiency & resolve.
10. Has the Spill Report Form been completed and submitted to the Mine Manager or his designated representative (Yes or No)?
- 10a. If no, complete and submit the Spill Report Form.

**Spill Report Form
Hopemore Shaft Mine, Lake County Colorado**

Spill Reported by: _____

Date/Time Spill: _____

Date/Time Spill reported to Mine Manager or his designated representative: _____

Date/Time Spill Report Form faxed to the Mine Manager or his designated representative: _____

Describe spill location and events leading to spill: _____

Material spilled: _____

Source of spill: _____

Amount spilled: _____ Amount spilled to waterway: _____

Containment or clean up action: _____

Approximate depth of soil excavation: _____

List Injuries or Personal Contamination: _____

Action to be taken to prevent future spills: _____

Modifications to the SWPPP, including required sampling, necessary due to this spill: _____

Agencies notified of the spill: _____

Stormwater Management Plan

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 gather and evaluate 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.

Mine Manager

Date

IMMEDIATELY COMPLETE AND FAX THIS FORM to Robert Calder

IMMEDIATELY CALL 719-486-7926 IF THE SPILL EXCEEDS 1-GALLON or EXCEEDS THE REPORTABLE QUANTITY FOR THE GOVERNING AGENCY.

SEE SECTION V, PART B.9. OF THE SWPPP TO DETERMINE THE REPORTABLE QUANTITY FOR THE APPROPRIATE REGULATORY AGENCY.

**APPENDIX SWMP-B
SITE STABILIZATION
AND
CONSTRUCTION ACTIVITY**

**HOPEMORE SHAFT MINE
LOCKLAND MINING COMPANY, LLC
STORMWATER MANAGEMENT PLAN**

SITE STABILIZATION and CONSTRUCTION ACTIVITY DATES

A record of dates when BMPs are installed or removed, stabilization measures are initiated, major grading activities occur, and construction activities temporarily or permanently cease on a portion of the site shall be maintained until final site stabilization is achieved and the Notice of Termination (NOT) is filed. This form must be updated continuously throughout the project until the NOT is filed. NOTE: The Mine Manager shall complete at least 1-pg of stabilization and grading activities for each month of active construction. Activities noted in this log must reflect information provided on Site Maps.

MAJOR STABILIZATION AND GRADING ACTIVITIES

Description of Activity: _____
Contractor performing Activity: _____ Begin (date): _____ End (date): _____
Location: _____

Description of Activity: _____
Contractor performing Activity: _____ Begin (date): _____ End (date): _____
Location: _____

Description of Activity: _____
Contractor performing Activity: _____ Begin (date): _____ End (date): _____
Location: _____

Description of Activity: _____
Contractor performing Activity: _____ Begin (date): _____ End (date): _____
Location: _____

Description of Activity: _____
Contractor performing Activity: _____ Begin (date): _____ End (date): _____
Location: _____

Description of Activity: _____
Contractor performing Activity: _____ Begin (date): _____ End (date): _____
Location: _____

Description of Activity: _____
Contractor performing Activity: _____ Begin (date): _____ End (date): _____
Location: _____

APPENDIX SWMP-C
INSPECTION REPORTS

HOPEMORE SHAFT MINE
LOCKLAND MINING COMPANY, LLC
STORMWATER MANAGEMENT PLAN

**Storm Water Construction Activities
And Metal Mining Operations
Site Inspection Report**

I. GENERAL INFORMATION

Project Name	Hopemore Mine		
NPDES Tracking Nos.		Location	
Date of Inspection		Start/End Time	
Inspector's Name(s)			
Inspector's Title(s)			
Inspector's Contact Information			
Inspector's Qualifications			
Describe present phase of construction			
Type of Inspection: <input type="checkbox"/> Regular <input type="checkbox"/> Pre-storm event <input type="checkbox"/> During storm event <input type="checkbox"/> Post-storm event			
Weather Information			
Has there been a storm event since the last inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, provide: Storm Start Date & Time: Storm Duration (hrs): Approximate Amount of Precipitation (in):			
Weather at time of this inspection? <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain <input type="checkbox"/> Sleet <input type="checkbox"/> Fog <input type="checkbox"/> Snowing <input type="checkbox"/> High Winds <input type="checkbox"/> Other: Temperature: Date seasonal snow cover occurred: Date melting conditions began:			
Have any discharges occurred since the last inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe:			
Are there any discharges at the time of inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe:			
Are there any previously unidentified sources of pollutants at the time of inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe the location and any BMPs implemented to address:			

Stormwater Management Plan

II. SITE SPECIFIC BMPS

	BMP	BMP Installed?	BMP Maintenance Required?	Corrective Action Needed and Notes Please indicate specific location(s) of BMP(s)
1	Chemical/Fuel Storage	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	Waste Disposal	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	Earth/Rock Berms	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	Run Outs	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	Debris Basins	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	Drainage Swales	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	Access Roads	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	Check Dams	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
9	Culverts/Outfall Protection	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
10	Straw Bales	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
11	Erosion Control Blankets	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
12	Guard Rails	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
13	Rip Rap	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
14	Staging Areas	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
15	Construction Entrance	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
16	Equipment Storage	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
17	Vehicle Maintenance	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
18	Fuel Storage	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
19	Sediment Ponds	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
20	Snow Removal	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
21	Preventative Maintenance	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Stormwater Management Plan

III. OVERALL SITE CONDITIONS

	BMP/activity	Implemented?	Maintenance Required?	Corrective Action Needed and Notes
1	Are all slopes and disturbed areas not actively being worked properly stabilized?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
2	Are natural resource areas (e.g., streams, wetlands, mature trees, etc.) protected with barriers or similar BMPs?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
3	Are perimeter controls and sediment barriers adequately installed (keyed into substrate) and maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	Are discharge points and receiving waters free of any sediment deposits?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	Are storm drain inlets properly protected?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	Is the construction exit preventing sediment from being tracked into the street?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	Is trash/litter from work areas collected and placed in covered dumpsters?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	Are washout facilities (e.g., paint, stucco, concrete) available, clearly marked, and maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
9	Are vehicle and equipment fueling, cleaning, and maintenance areas free of spills, leaks, or any other deleterious material?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
10	Are materials that are potential stormwater contaminants stored inside or under cover?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
11	Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
12	Are there any locations where additional BMPs are needed that were not in place at the time of the inspection?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
13	(Other)	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Stormwater Management Plan

IV. NON-COMPLIANCE

Describe any incidents of non-compliance not described above:

V. CERTIFICATION STATEMENT

"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."

Print name and title: _____

Signature _____ Date: _____

APPENDIX SWMP-D

FEDERAL, STATE OR LOCAL STORM WATER OR OTHER
ENVIRONMENTAL INSPECTOR SITE VISIT LOG

HOPEMORE SHAFT MINE
LEADCLOCKS MINING COMPANY, LLC
STORMWATER MANAGEMENT PLAN

**FEDERAL, STATE, OR LOCAL STORM WATER OR OTHER
ENVIRONMENTAL INSPECTOR SITE VISIT LOG**

NOTES to Mine Manager or his designated representative:

Upon completion of a storm water or erosion & sediment control agency inspection or site visit the Mine Manager shall:

- 1) Call the Mine Manager or his designated representative **see below*
- 2) Complete an Inspection Report
- 3) Transfer all noted deficiencies to the Inspection Report and resolve as appropriate
- 4) Complete the inspector site visit log
- 5) Submit agency inspection reports if/when received to the Mine Manager or his designated representative
- 6) Take photos of any area or item that is photographed by the inspector.

The General Contractor is not required to complete the above noted steps if the agency inspection is not storm water related (*i.e.*, MSHA, Fire Marshal, etc.); however, if any agency representative comments on storm water-related BMPs while on-site the above noted steps must be followed.

**When calling the Mine Manager or his designated representative to report an agency inspection the mine manager should leave the following information:*

1. Caller (full name & firm)
2. Caller Telephone Number
3. Inspection Date
4. Name of Agency & Agency Representative (Inspector)
5. Was the inspection storm water / erosion-related (Yes or No)?
 - 5a. If no, what was inspected?

Note: If the inspection was not storm water-related remaining questions can be skipped.

Stormwater Management Plan

6. Deficiencies or items requested for improvement (add additional lines as needed):

1)

2)

7. Were all issues noted by the Inspector, from question 6, added to the Inspection Report as deficiencies (Yes or No)?

7a. If no, add deficiencies to Inspection Report and resolve.

8. Did the inspector provide a report while on site (Yes or No)?

8a. If yes, submit the report the Mine Manager or his designated representative by fax or email.

8b. If no, submit a report, if received, to the Mine Manager or his designated representative by fax or email.

9. Was a Notice of Violation or similar warning issued or verbally referenced by the Inspector (Yes or No)?

9a. If yes, what specifically did the Inspector find in violation?

10. Is an inspection response due (Yes or No)?

10a. If yes, when is the response due date?

11. Did the Inspector reference a follow-up inspection (Yes or No)?

11a. If yes, when is the follow-up inspection?

12. Was the Agency Inspection Log in the SWMP Binder updated (Yes or No)?

12a. If no, update the Inspection Log.

Stormwater Management Plan

Federal, State, or Local Storm Water or other
Environmental Inspector Site Visit Log

Inspectors Name: _____ Agency: _____

Contractors Representative Present: _____

Others Present: _____

Comments: _____

Time and Date: _____ Report Prepared: Yes No

Date/Time Inspection Reported to /MINE MANAGER: _____

Date/Time Inspection Report faxed to /MINE MANAGER (N/A if not applicable): _____

Inspectors Name: _____ Agency: _____

Contractors Representative Present: _____

Others Present: _____

Comments: _____

Time and Date: _____ Report Prepared: Yes No

Date/Time Inspection Reported to /MINE MANAGER: _____

Date/Time Inspection Report faxed to /MINE MANAGER (N/A if not applicable): _____

Inspectors Name: _____ Agency: _____

Contractors Representative Present: _____

Others Present: _____

Comments: _____

Time and Date: _____ Report Prepared: Yes No

Date/Time Inspection Reported to /MINE MANAGER: _____

Date/Time Inspection Report faxed to /MINE MANAGER (N/A if not applicable): _____

The Mine Manager or his designated representative must be contacted at the conclusion of any storm water-related agency inspection. Caller must provide as a minimum the date, inspection beginning and completion times, inspecting agency, agency inspector name, all contractor representative names, and a brief summary of any comments, observations or deficiencies noted during the inspection.

APPENDIX SWMP-E

SITE-SPECIFIC PERMITS AND RELATED INFORMATION

**HOPEMORE SHAFT MINE
LOCKLAND MINING COMPANY, LLC
STORMWATER MANAGEMENT PLAN**

SITE-SPECIFIC PERMITS AND RELATED INFORMATION

**Hopemore Shaft
Lake County, Colorado
Lockland LLC**

County Permits and Approvals

- Lake County Conditional Use Permit – approved December 2, 1987
- Parkville Water District -Lake County- (Appendix F-2)-e-mail commitment to provide mine facility water;
- Noxious Weed Management Plan;
- Building Permit;
- Certificate of Occupancy;
- County Septic System Permit; and
- Division of Water Resources Water Well Permits

State Permits and Approvals

- Stormwater Permit (Operating)-Lockland Company, LLC-In Process;
- Air Quality-CDPHE Letter stating the mine facility is exempt from air permitting requirements;
- Air Quality-CDPHE ore haulage APENs are in progress;
- Industrial Discharge Permit-Lockland Company, LLC is a “no discharge facility” therefore a CPDES industrial discharge permit is not required;
- Colorado Division of Wildlife Consultation
- State Historic Preservation Office Consultation; and
- Colorado Department of Transportation-County approved road access permit ;

Federal Permits and Approvals

- Mine Safety Health and Administration (MSHA)-Identification Number (requested);
- Bureau of Alcohol, Tobacco, Firearms and Explosives-Blasting Permit (to be submitted)

Attachment C

Hydrology

Colorado Division of Reclamation Mining and Safety

Prepared by Lockland LLC

Leadville, Colorado

Hopemore Mine

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY
Department of Natural Resources

1313 Sherman St., Room 215
Denver, Colorado 80203
Phone: (303) 866-3567
FAX: (303) 832-8106



June 28, 2013

Robert Calder
Lockland, LLC
902 East 6th Street
Leadville, CO
80461

John W. Hickenlooper
Governor

Mike King
Executive Director

Loretta Piñeda
Director

RE: Hopemore Shaft, File No. M-2013-026, Comments Regarding 110(2) Application

Dear Mr. Calder,

On June 28, 2013 the Division of Reclamation, Mining and Safety (Division) received comments regarding the above referenced application from the Division of Water Resources (DWR).

Please be advised of the jurisdictional issues presented by the DWR.

If you require additional information, or have questions or concerns, please contact me at the DRMS Grand Junction Field Office.

Sincerely,



Dustin Czaplá
Environmental Protection Specialist
Department of Natural Resources
Division of Reclamation, Mining and Safety
101 South 3rd, Suite 301
Grand Junction, CO 81501
Phone: (970) 243-6299
Fax: (970) 241-1516

Enc. DWR Comments dated June 28, 2013



DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES

John W. Hickenlooper
Governor

Mike King
Executive Director

Dick Wolfe, P.E.
Director/State Engineer

Response to Reclamation Permit Application Consideration

DATE: June 28, 2013
TO: Dustin M. Czapla, Environmental Protection Specialist
CC: Division 2 Office; District 11 Water Commissioner
FROM: Caleb Foy, E.I.T. *CFY*
RE: Hopemore Shaft, File No. M-2013-026
Operator: Robert W. Calder
Contact: Robert W. Calder, (719) 486-7926
Sec. 20, Twp. 9S, Rng. 79W, 6th P.M., Lake County

RECEIVED

JUN 28 2013
GRAND JUNCTION FIELD OFFICE
DIVISION OF
RECLAMATION MINING & SAFETY

CONDITIONS FOR APPROVAL

- The proposed operation does not anticipate exposing groundwater. Therefore, exposure of ground water must not occur during or after mining operations. If stormwater is contained on-site, it must infiltrate into the ground or be released to the natural stream system within 72 hours, or all work must cease until a substitute water supply plan, or augmentation plan approved by water court, is obtained. Reclamation plans must ensure water will not be retained onsite for more than 72 hours unless an augmentation plan approved by water court is obtained.
- Other: All water brought on site for mining and drinking needs shall be a legal supply of water provided by an appropriate supplier.

COMMENTS: The local Water Commissioner, David Kelly, may be contacted at (719) 966-9139 or David.Kelly@state.co.us regarding legal supplies of water in the area.

Office of the State Engineer

1313 Sherman Street, Suite 818 • Denver, CO 80203 • Phone: 303-866-3581 • Fax: 303-866-3589

www.water.state.co.us

Robert Calder-Lockland LLC
Hopemore Mine
902 East 6th Street
Leadville, Co 80461

September 1, 2013

Ms. Stephanie Carter
Geologist Intern
BLM Royal Gorge Field Office
3028 Main Street.
Canon City, CO 81212

**Re: Plan of Operation Response-Environment Assessment Supporting Documentation
Letter Dated August 29, 2013
Lockland LLC Hopemore Mine –
Robert W. Calder (Mine Manager)
902 East 6th Street
Leadville, CO 80461**

Dear Ms. Carter,

The following is response to your “Second Information Request Regarding Hoper Plan of Operation Submittal”. The response is formatted where your question is presented followed by a Hopemore response.

1. A map showing the location of all current structures/disturbances (the one provided does not include all existing structures and disturbances listed in the DRMS application or PoO submission).

Response:

The structures and disturbances are visible on the attached aerial photo and are now labeled. (Attachment A)

2. A map demonstrating the anticipated mine traffic patterns and speed limits, including but not limited to, ore transport at the surface, haul roads, public access, etc.

Response:

There is only one entrance to the mine site-mine site speed limit is 15 mph, workers (less than 5 employees), and the public have the same parking areas. (See Attachment A)

Robert Calder-Lockland LLC
Hopemore Mine
902 East 6th Street
Leadville, Co 80461

3. A general description of common practices and directions for mining. This was previously discussed and could include providing a cross section, anticipated operating plans, etc. Also include provisions addressing safety of the public, to include underground where mining and tours will occur in the same footprint.

Response:

A cross-section is included, exploration activities (bulk and grab samples will be obtained from multiple levels within the mine with focus on the 5th and 8th level. (Attachment B) Mining and mine tourist activities will not be concurrently conducted. MSHA mine safety procedures and training activities are required to operate the mine. The Hopemore mine tourist activities are conducted in accordance with State regulations and in accordance with the County approved Conditional Use Permit (CUP).

4. A copy of the weed control plan and permit referenced in the Plan of Operations.

Response:

See Attachment C

5. Rock characterization and handling plans are still needed. Recent information you provided references that the mill will be doing a test when they receive material from Hopemore and that those records will be made available at that time. However, as previously discussed, understanding the general nature of the material

Associated with the mine and mill or even from a good understanding of the geology and prior to managing and storage of it is needed. This information may be available from historic records chemistry and how the raw material will behave when exposed to the elements.

Response:

Representative ore geochemical characteristics are presented in Attachment D.

6. A quality assurance plan should include measures taken to ensure no undue or unnecessary degradation will occur during the life of the mine. This will include measures implemented from your SWMP, Rock handling and characterization plans, fugitive dust, security, safety training, etc. as well as the day to day protocols on how operations are conducted and inspected.

***Robert Calder-Lockland LLC
Hopemore Mine
902 East 6th Street
Leadville, Co 80461***

Response:

The mine manager or his designated representative will conduct and be responsible for inspections. Equipment and security inspections will be conducted daily during mine operation. During mining, ore will be stockpiled, and shipped off site as approved by the mine manager. Ore will be shipped off site and tracked to the processing facility. Analytical test data results will be maintained by the mill with copies returned and filed at the Hopemore mine office.

7. The monitoring plan, which is not described in current submissions, is one part of the quality assurance plan. All types of monitoring should include provisions for what is to be monitored, the parameters used to determine good or bad standing, the position of the person responsible for the monitoring, monitoring frequency, etc.

Response:

Monitoring to be initiated by the Hopemore mine will be under the direction of the mine manager or his designated representative includes:

- *Site security-locked gates; storage units;*
- *Stormwater –BMPs will be periodically inspected to determine if the BMP is functioning as designed;*
- *Spilled liquids or solids;*
- *MSHA inspection requirements;*
 - *Signs;*
 - *Fire Extinguishers;*
 - *Hoist maintenance*
- *DRMS annual reports summarizing monitoring results;*
- *Maintaining good housekeeping practices;*

8. You have provided a good framework for the interim management plan. However, the parameters used for monitoring the inactive site, what staff position will be responsible for carrying out this plan, frequency of implementation, etc. needs to be addressed. The plan should also include monitoring for toxic and deleterious materials, SWMP, security, etc.

Response:

All site activities will be under the management of the mine manager or his designated representative. During periods of inactivity or when the site is inaccessible due to snow cover, the site will be inspected twice a year or more frequently as necessary to maintain equipment,

Robert Calder-Lockland LLC
Hopemore Mine
902 East 6th Street
Leadville, Co 80461

security or reclamation obligations. Because the site is located at an elevation 11,500 feet, the site is not very accessible to visitors or hunters; therefore a twice a year inspection frequency is adopted.

9. Please provide a copy of the Final SWMP.

Response:

The SWMP has not been submitted to CDPHE until comments have been received from DRMS and BLM. The SWMP draft permit will be modified based on received comments and submitted for CDPHE approval. Please review and provide comments to the Draft SWMP included in the mine permit application. Hopemore Mine will delete to cement trucks and cleanout activities when the SWMP is submitted to CDPHE.

10. Under section 2 part h of the SWMP, there is discussion regarding chemicals and BMPs. Please provide a list of chemical types and any applicable BMPs pertaining to management and storage of these chemicals.

Response:

Potential on site chemicals may include household quantities of paint, gasoline, diesel, oils, herbicides, antifreeze, and other lubricants. No processing chemicals will be stored or used on site. Applicable BMPs include a spill kit, and locked storage units. If liquids are stored on site in 55 gallon drums, the drums will be placed in a secondary containment structure capable of containing 150 % of the stored liquid.

Clarification needed:

1. The plan to isolate any toxic or deleterious materials is not well understood, due to the different information provided in the various submissions. There are multiple discrepancies between the PoO submittal and information provided in the SWMP. Please add clarification in the PoO that management and response actions will be in accordance with the SWMP. The ultimate goal is to have the pad lined and some type of mitigation to control surface runoff and its interaction with the storage area. If there are plans to disturb the existing stockpiles as well, they will also need to be incorporated into this proposed management process.

Response:

Run of mine rock storage pad, if determined to be toxic or hazardous producing, will be placed in a location and lined as necessary to minimize or prevent impacts to human health and the environment. The pad will incorporate BMPs (wattles etc.) to control potential surface water

Robert Calder-Lockland LLC
Hopemore Mine
902 East 6th Street
Leadville, Co 80461

erosion and sedimentation from the stock pile. A synthetic or natural compacted liner will installed as necessary to mitigate or prevent vertical seepage migration to the groundwater table which is in excess of 500 feet below ground surface.

RECLAMATION PLAN

Additional Information needed:

1. The most recent information provided references an approved seed mix from NRCS. This documentation needs to be provided.

Response:

The seed mix included in the DRMS permit application is the approved NRCS seed mix.

Recommended seed mix for Leadville Mills include;

- *Arizona Fescue, 4.5pounds live seed (PLS) per acre. 50% of seed mix;*
- *Nodding Brome, 19 PLS per acre. 10% of seed mix;*
- *Junegrass, 10 PLS per acre. 20% of seed mix; and*
- *Western Wheatgrass, 16 PLS per acre. 20% of seed mix.*

Clarification needed:

1. The method of seeding differs between the DRMS application and the information recently provided to the BLM. Please clarify which method is anticipated to be used.

Response:

Hopemore mine reclamation activities include the following:

The disturbed areas within the 9.9 acre permit area will be reclaimed upon mine closure in 2035. Reclamation activities will include the following:

- *Remove trash and debris;*
- *Remove machinery, and utilities;*
- *Grade the disturbed areas to blend with the existing topography (Exhibit E, Figure E-4);*

***Robert Calder-Lockland LLC
Hopemore Mine
902 East 6th Street
Leadville, Co 80461***

- *Construct steel reinforced concrete bulk heads for the Hopemore and Hunter shafts in accordance with MSHA closure requirements;*
- *Stormwater control (BMPs) will be installed to convey water around or through disturbed areas to minimize on and off site erosion and sedimentation impacts;*
- *As needed, scarify disturbed areas including the access road;*
- *Place suitable alternative growth material on disturbed areas; (Section 6.3.4 (1)(c))*
- *Seed (USDA approved); apply weed free mulch (2 ton straw/acre equivalent). Seeds will be applied at a rate of approximately 19 pounds (lbs.) per acre) using drill seeding methods. If broad cast seeding methods are used, the seed application rates will be twice the amount recommended for drill seeding methods; and*
- *fertilize (as determined by soil analyzes);*
- *As necessary, apply and crimp weed free straw mulch at a rate of 1,500 to 2,000 pounds per acre.*

Following the completion of initial reclamation activities, the mine site will be placed under a monitoring program. Monitoring activities will identify areas requiring sign repair; the repair of eroded reclaimed lands; the control of noxious weeds and reclaiming areas were revegetated area had failed.

2. Current reclamation and post closure management discusses both vegetation and BMP monitoring. Other documentation states that only vegetation or the SWMP will be monitored. Please clarify this and, as previously discussed, also include measures for monitoring the mine closure itself, to include remaining toxic or deleterious materials and also security/public safety.

Response:

Toxic and acid producing material from the mining operation will be removed during the reclamation program. The mine area will be fenced and gates will be locked during the post closure bonding period. As necessary, BMPs and Revegetation will be maintained during this post closure period.

***Robert Calder-Lockland LLC
Hopemore Mine
902 East 6th Street
Leadville, Co 80461***

The information submitted states that closure plans include a bulkhead. As these features are typically used to close off tunnels or portals where water is an issue and the PoO states that the mine is dry, please clarify if this is in fact the plan or if the closure method has been modified.

Response:

The bulk head referred to in this instance is a cover for the shafts. The cover will be design, and constructed as approved by DRMS and MSHA criteria.

4. Under section 2 part j of the SWMP, there is discussion regarding concrete trucks on site.

According to the information submitted, there are no plans for construction. Is this discussion referring to using concrete trucks for construction of the bulkhead? If not, please clarify (considering discussion above under #3).

Response:

The reference to a “concrete trucks on site” will be removed when the Draft SWMP is reviewed and finalized. When the SWMP comments are incorporated, Hopemore Mining will submit the permit to CDPHE for approval.

As stated previously, BLM is processing this submittal as a Mining Plan of Operations that includes some limited underground exploration activity. Therefore, the information we have requested is required in order to continue processing the PoO.

Response:

Exploration activities will be conducted where 50 lb. samples or less will be sent to a laboratory for assay purposes. The samples will be obtained from areas to define faults, joints, mineralogy and potential areas to develop the mine operation.

Robert Calder-Lockland LLC
Hopemore Mine
902 East 6th Street
Leadville, Co 80461

If you have any questions or comments, please send your response to my address and copy Mr. George Robinson (R Squared, Inc.) @ georgerobinson@r2incorporated.com.

Yours truly,

Robert Calder
Mine Manager

Cc George M.L. Robinson-R Squared, Inc.

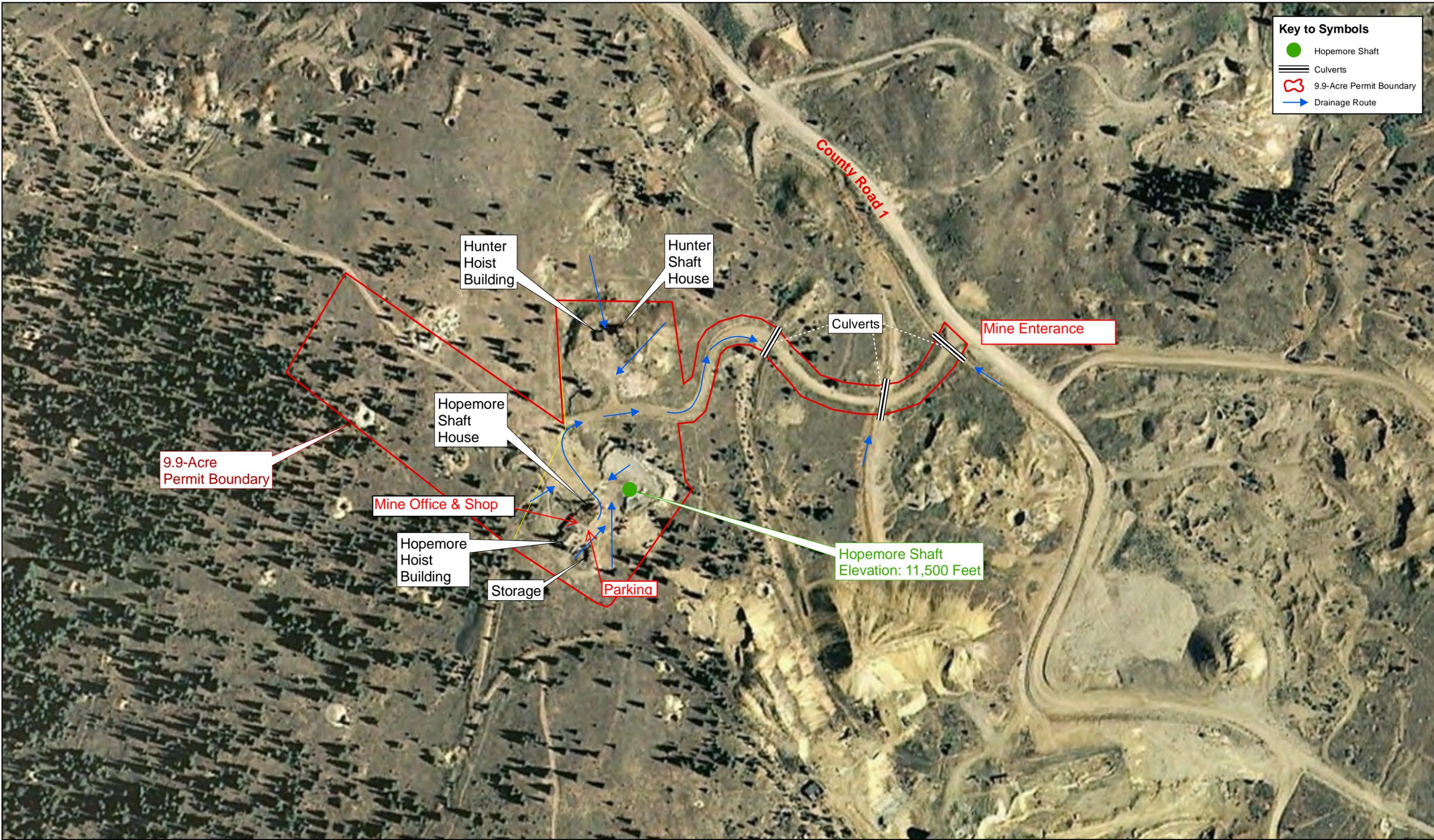
Robert Calder-Lockland LLC
Hopemore Mine
902 East 6th Street
Leadville, Co 80461

Attachment A

Figure-Structure and Mine Entrance Labeled
Hopemore Mine
Leadville, Colorado

Key to Symbols

- Hopemore Shaft
- Culverts
- 9.9-Acre Permit Boundary
- Drainage Route



0 125 250 500 Feet

SCALE: 1:2,400

Imagery Source: ESRI, i-cubed, GeoEye

HOPEMORE MINE SITE MAP

HOPEMORE SHAFT
LOCKLAND, LLC - LEADVILLE, COLORADO

Drafted By:
C. Rice

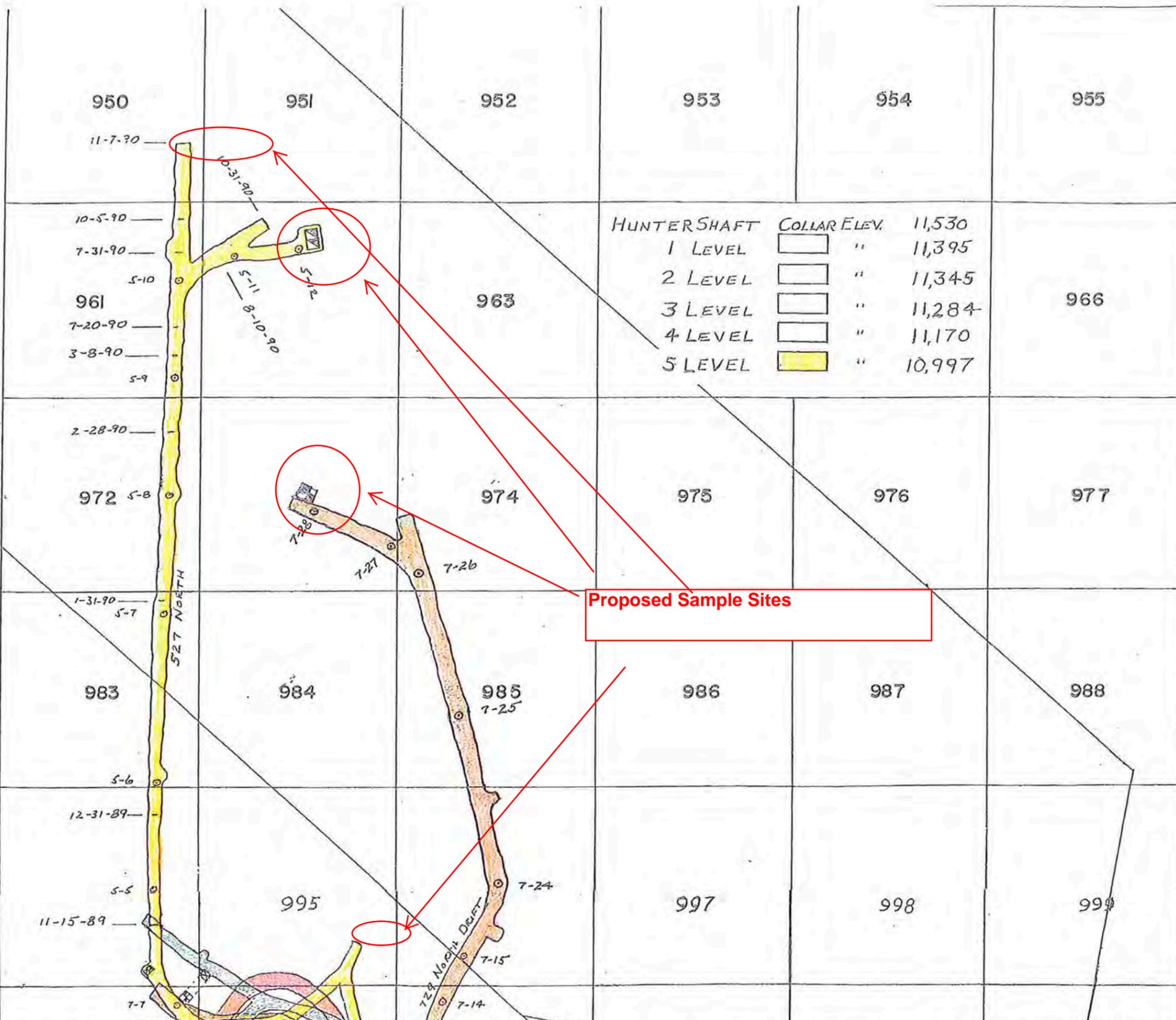
Draft Date:
18 December 2012

FIGURE
E-2

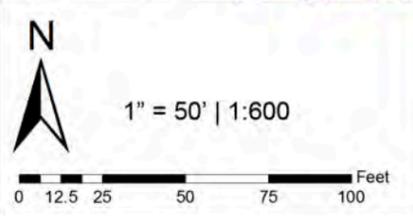
Robert Calder-Lockland LLC
Hopemore Mine
902 East 6th Street
Leadville, Co 80461

Attachment B

Underground Cross Section
Hopemore Mine
Leadville, Colorado



HUNTER SHAFT	COLLAR ELEV.	
	11,530	
1 LEVEL	"	11,395
2 LEVEL	"	11,345
3 LEVEL	"	11,284
4 LEVEL	"	11,170
5 LEVEL	"	10,997

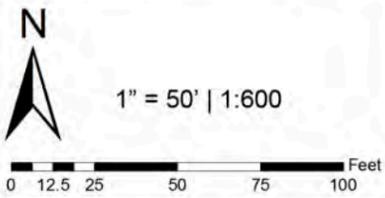
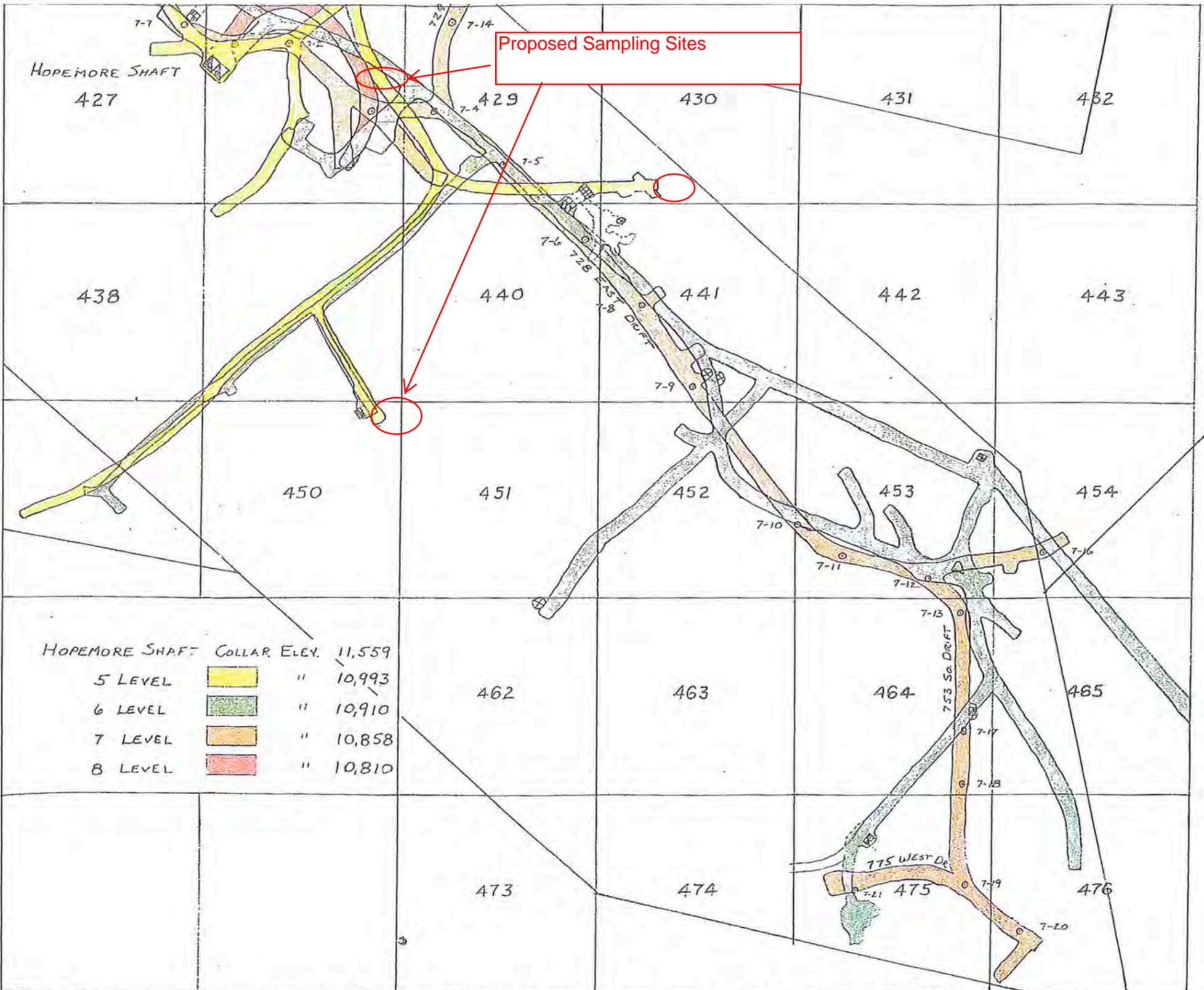


HOPEMORE MINE PLAN - NORTHERN EXTENT

Lockland, LLC - Hopemore Shaft
Leadville, Colorado

Drawn by:	Date:
Approved:	Figure:

NOTES:



HOPEMORE MINE PLAN - SOUTHERN EXTENT

Lockland, LLC - Hopemore Shaft
Leadville, Colorado

Drawn by: _____ Date: _____

Approved: _____ Figure: _____

Robert Calder-Lockland LLC
Hopemore Mine
902 East 6th Street
Leadville, Co 80461

Attachment C

Noxious Weed Management Plan
Hopemore Mine
Leadville, Colorado

Noxious Weed Management Plan

Union Milling Company

Leadville Mill

Leadville, Colorado

August 2009

1. Plan Objective

The objectives for the Union Milling Company (UMC) Noxious Weed Management Plan for the Leadville Mill are to:

1. provide the steps necessary for the Leadville Mill to assess the existence of noxious weeds within and adjacent to the property boundaries;
2. provide the Leadville Mill with preventive and treatment measures which will control the spread and establishment of noxious weeds; and
3. identify monitoring needs and frequency of monitoring.

2. Description of the Project

The Leadville Mill site permitted area consist of 9.9 acres located about 2.5 miles south of the town of Leadville. It is on the north side of Highway 24 in a heavily wooded area on the lee side of an east-west trending hill at an elevation of 9,750 feet.

3. Weed Inventory

UMC requested that Larry Walker, Chaffee County Weed Department, inspect the mill site. He found some Oxeye daisies on the fence line next to the water treatment plant (outside of the permitted area) and a few Canada thistle on the pond dike and the south west corner of the mill (inside the permitted area). Canada thistle was also observed earlier in the year around the mill and the tailings pond. See attached map for weed infestation locations.

4. Weed Management Techniques

The key principle to Canada thistle control is to stress the plant and force it to use stored root nutrients. Canada thistle can recover from almost any stress, including control attempts, because of root nutrient stores. Therefore, returning infested land to a productive state occurs only over time. Success requires a sound management plan implemented over several years.

The techniques below are based on the CSU web site's recommendations but have been modified because the Leadville Mill is not a range or grass land environment.

Cultural control. Grasses can compete effectively with Canada thistle if their growth is favored by good management. Fertility and moisture must be maintained at optimum levels to favor grass growth. Soil analysis can easily determine fertility needs, however, caution must be used with nitrogen fertilizers because excess available soil nitrogen will favor weed growth.

These are essential management steps to ensure optimum desirable plant growth and competition. However, competition alone seldom is effective against Canada thistle.

Chemical control. Research at Colorado State University shows that Tordon 22K (picloram), Milestone (aminopyralid), Transline (clopyralid), Banvel/Vanquish/Clarity (dicamba) and Telar (chlorsulfuron) are effective against Canada thistle. Canada thistle is difficult to control and re-treatment for one to three or more years after the initial application is common. These herbicides are most effective when combined with cultural and/or mechanical control.

UMC chooses to use Milestone as the chemical control. It is a broadleaf herbicide that works well in the mountainous area where the mill is located.

Milestone will be used at the rate of 5 to 7 fl oz /acre modified for a two gallon weed sprayer. The thistle will be spot sprayed during July and Aug before they bloom.

Mechanical control. Mowing may be combined with the cultural and chemical control.

Biological control. No biological control will be used.

5. Monitoring Plan

The Leadville Mill will monitor the site for any noxious weed species on the state A list or the Chaffee/Lake county list. The company will have the local weed control expert inspect the property in late July. He will be asked to identify any new noxious weed infestations and make any recommendations to the current management techniques.

The company will review both the local weed inspector's recommendations and the Colorado State University's web site for noxious weed control and implement suggested techniques to manage any newly identified species or to make changes to the existing control methods.

References: Colorado State University's web site for weed control - <http://www.ext.colostate.edu/pubs/natres/03108.html>

Robert Calder-Lockland LLC
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Leadville, Co 80461

Attachment D

Representative ore geochemical properties
Hopemore Mine
Leadville, Colorado

MILL FEED – RoM ORE

The mill receives RoM ore from the Cross Mine in Nederland, CO. Table C-6 presents the ore composition for individual veins and a composite of all the veins. Table C-7 presents the metal content for the same veins. Table C-8 and C-9 present the gold/silver metal content and the copper/lead/zinc content of the veins. All Cross Mine ore is sulfide ore. No Cross Mine ore is oxide gold/silver/lead carbonate ore. No leaching of gold, silver ores by the cyanide process is considered.

Table C-6: Ore Composition^(1,2)

	Composite	Individual Vein Samples				XRF Check Values		
	All Veins (wt.%)	Rare Metals (wt.%)	Romeo (wt.%)	Apache (wt.%)	Crown Point (wt.%)	SY3 XRF (wt.%)	SY3 known (wt.%)	Variance (wt.%)
Na ₂ O Sodium Oxide	0.06	0.08	0.06	0.10	0.08	4.20	4.15	(0.05)
MgO Magnesium Oxide	0.67	0.67	0.33	1.25	0.24	2.46	2.67	0.21
Al ₂ O ₃ Aluminum Oxide	8.58	10.60	6.01	11.80	6.79	12.00	11.80	(0.20)
SiO ₂ Silica	77.8	77.20	85.30	64.60	84.00	60.30	59.70	(0.60)
P ₂ O ₅ Phosphorus Pentoxide	0.13	0.05	0.05	0.53	0.10	0.79	0.54	(0.25)
S Sulfur	1.34	1.31	0.91	1.93	0.10	0.05	0.05	-
Cl Chlorine	0.02	0.02	0.02	0.02	0.02	0.02	0.01	(0.01)
K ₂ O Potassium Oxide	4.23	4.96	2.55	6.56	3.09	4.13	4.20	0.07
CaO Calcium Oxide	0.74	0.05	0.06	3.44	0.07	8.41	8.26	(0.15)
TiO ₂ Titanium Dioxide	0.35	0.47	0.25	0.52	0.19	0.12	0.15	0.03
MnO Manganese Oxide	0.1	0.07	0.06	0.21	0.04	0.33	0.32	(0.01)
Fe ₂ O ₃ Iron Oxide	5.51	4.41	4.16	6.25	4.28	5.97	6.45	0.48
BaO Barium Oxide	0.14	0.06	0.24	0.04	0.15	0.05	0.05	-
Total	99.67	99.95	100.00	97.25	99.15	98.83	98.35	(0.48)

(1) All samples taken on Adit Level on 17 December, 2007.

(2) XRF Results as determined by The Mineral Lab, Inc., Golden Colorado

Table C-7: Metal Content^(1,2)

	Composite	Individual Vein Samples			
	All Veins (ppm)	Rare Metals (ppm)	Romeo Vein (ppm)	Apache Vein (ppm)	Crown Point (ppm)
V - Vanadium	43	47	30	72	41
Cr - Chromium	50	65	55	<10	51
Co - Cobalt	28	14	19	47	13
Ni - Nickel	<10	<10	<10	<10	<10
W - Tungsten	<10	10	<10	<10	<10
Cu - Copper	2,120	696	1,390	2,780	290
Zn - Zinc	7,400	8,730	5,620	30,400	955
As - Arsenic	56	49	59	<20	<20
Sn - Tin	98	58	91	<50	<50
Pb - Lead	9,650	4,580	9,790	12,400	6,260
Mo - Molybdenum	967	169	544	1,240	1,510
Sr - Strontium	362	134	302	292	777
U - Uranium	<50	<50	<50	<50	<50
Th - Thorium	<50	<50	<50	<50	<50
Nb - Niobium	15	15	14	20	11
Zr - Zirconium	137	130	89	126	167
Rb - Rubidium	91	112	61	122	69
Y - Yttrium	38	39	26	43	24

(1) All samples taken on Adit Level on 17 December, 2007.

(2) XRF Results as determined by The Mineral Lab, Inc., Golden Colorado

Table C-8: Gold & Silver Content^(1,2)

	Composite	Individual Vein Samples			
	All Veins (ppm)	Rare Metals (ppm)	Romeo Vein (ppm)	Apache Vein (ppm)	Crown Point (ppm)
Au - Gold	17	25	26	14	18
Ag - Silver	316	347	304	950	142

(1) All samples taken on Adit Level on 17 December, 2007.

(2) XRF Results as determined by The Mineral Lab, Inc., Golden Colorado

Table C-9: Copper, Lead & Zinc Content^(1,2)

	Composite	Individual Vein Samples			
	All Veins (ppm)	Rare Metals (ppm)	Romeo Vein (ppm)	Apache Vein (ppm)	Crown Point (ppm)
Cu - Copper	1,816	1,086	1,792	4,780	354
Pb - Lead	11,980	6,620	16,220	19,160	8,060
Zn - Zinc	11,640	7,180	6,520	32,400	1,158

(1) All samples taken on Adit Level on 17 December, 2007.

(2) XRF Results as determined by The Mineral Lab, Inc., Golden Colorado