Mining Division
Date Rec'd.
JUL 27 1953
BUREAU OF MINES
Denver, Colorado

GENERAL OFFICES
ROSENWALD BUILDING
ALBUQUERQUE, N. M.

MINES AND MILLING
SAN JUAN COUNTY
COLORADO

COLORADO MINES AND METALS CO.

ALBUQUERQUE, N. M.

July 23, 1953

DMEA-3057

W. H. King and G. H. Koschmann
U. S. Department of the Interior
222 New Custom House
Denver 2, Colorado

Gentlemen:

Mr. Carl A. Larson, our Ass't. Secretary, has forwarded to me your letter of the 15th inst. regarding the exploration loan desired by us.

We request that before this loan is denied that we have the opportunity of clearing up certain matters of which you are in error. The most important being a contract between ourselves and the Great Eastern Mining Company whereby we share with them on a 50 - 50 basis in all ore recovered from Great Eastern properties (below the present workings) and moved thru the proposed extension of the tunnel.

We will submit certified copy of this contract which also provides that Great Eastern will pay Colorado Mines & Metals Co. $1.50 a ton on all ore moved theough the tunnel and $1.00 a ton on all waste (From Great Eastern properties).

Upon my return to Colorado, I will phone you for an appointment.

Sincerely,

E T Chase Pres. Colorado Mines and Metals Co.

E. T. Chase
President

ETC/mjh

7/27/53

To: ~~King~~ W.K.K.

For: Shaw

Letter from E. T. Chase, Colorado Mines & Metals Co., re our letter 7/15

Inaccessible on account of fog air. 6/17/53
Shaw & Berkenkotter.

Mining Division
Region IV

July 15, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 3057 (Lead-Zinc), Colorado Mines and Metals Company, San Juan County, Colorado.

Enclosed are eight copies of the final engineering report on the subject docket.

Lack of ventilation prevented an examination of the Silver Wing tunnel and the examiners found that the applicant had no right to mine the Great Eastern vein which was the main objective of the proposed exploration.

For these reasons the examiners recommend the denial of the application in the amount of $50,000.00.

We concur in this recommendation.

W. H. King
W. H. King

Enclosures

HMC:cwm

cc: Contract
AHKoschmann (2)
Chron.

[illegible] New Customhouse
Denver 2, Colorado

July 15, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 3037 (Lead-Zinc), Colorado Mines and Metals Company, Silver Wing Mine, San Juan County, Colorado.

Enclosed are four copies of the final report on the subject docket, a copy of the letter of denial to the applicant, and two copies of Form 3b.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosures W.H.K
HMC:cwm

cc: WMTraver w/copy of Final Report
AHKoschmann w/copy of Final Report
DMEA w/copy of Final Report
Mining Division w/copy of Final Report
✓Subject
AHKoschmann (2)
Chron.

824 New Customhouse
Denver 2, Colorado

July 15, 1953.

Mr. Carl A. Larson, Secretary
Colorado Mines and Metals Company
Silverton, Colorado

Re: Docket No. DMEA-3057 (Lead-Zinc)

Dear Mr. Larson:

Reference is made to your application for Government aid on the Silver Wing Mine.

The objective of your proposed exploration project was the Great Eastern vein, on which you do not have the right to mine ore at the present time. Bad air, encountered about 300 feet from the portal, made impossible an examination of the Silver Wing tunnel.

Under these circumstances, we regret to advise that your application for exploration aid is denied.

Very truly yours,

W. H. King
W. H. King
Field Team, Region IV

W.H.K.

A. H. Koschmann
A. H. Koschmann
Field Team, Region IV

HMC:cwm

cc: Administrator, DMEA
WMTraver
Subject
AHKoschmann (2)
Chron.

DMEA Form 3b
(Revised)

DEFENSE MINERALS EXPLORATION ADMINISTRATION

CONTROLLED DOCUMENT
Revised Abstract

DMEA Docket No. 3057

Name of Applicant Colorado Mines and Metals Company

Change:	From		To	
	III 1	☐	III 1	☐
	III 2	☐	III 2	☒ 7-14-53
	III 3	☐	III 3	☐
	III 4	☒	III 4	☐
	III 5	☐	III 5	☐
			III 6	☐
			III 7	☐

Add:

II 7 $ 50,000.00

II 8 $ None

II 8a % _____

II 9 $ _____

Remarks:

Initials of person preparing sheet H.M.C.

Date sheet prepared 7-14-53

33978

EXTRA COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
June 29, 1953

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3057 (Lead-zinc), Colorado Mines and Metals Company (Silver Wing mine), San Juan County, Colorado

Please find enclosed the original and eight copies of an engineering report by W. L. Dare on the above Defense Minerals Exploration docket.

It is impossible to make an examination due to lack of ventilation in the Silver Wing tunnel. The conflicting ownership will have to be straightened out and a request submitted on a more realistic basis before it can be acted on. For these reasons, Dare recommends denial. I concur.

The brochure submitted by the Region IV Field Team is returned herewith.

W. M. Traver

W. M. Traver

Enclosures

WMT/eb

cc: 4
DMEA 3057
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
June 29, 1953

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: W. L. Dere

Subject: DWT 3037 (Lead-zinc), Colorado Mines and Metals Company (Silver Wing mine), San Juan County, Colorado

On June 17, 1953, R. D. Berkenkotter and W. L. Dere visited the Silver Wing mine, San Juan County, Colorado. The Silver Wing tunnel is reported to be 1,750 feet long but bad air prevented access to all but about the first 350 feet.

For safety reasons a burning candle was carried when entering the portal. Lack of oxygen extinguished the candle at about 330 feet from the portal, and at about 350 feet the carbide lights were on the verge of going out. Two air samples were taken at this point, one at the back and the other near the floor. Two additional samples were taken at about 360 feet from the portal. Attached are copies of the analysis report of the four samples made by Albert Waxion, Analytical Chemist, Coal Branch.

The conflict of claim ownership is covered in the memorandum by E. H. Harshman, Geological Survey.

Due to conflicting ownership and inaccessibility on account of bad air, it is recommended that the loan request of the Colorado Mines and Metals Company for $50,000.00 be denied until both conditions are rectified.

W. L. Dare
Mining Engineer

WLD/eb

enclosures

cc: 8
DMEA 3057
Chron.

6-213

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
MINE ATMOSPHERE ANALYSIS REPORT

Mine Silver Wing Operator Colorado Mines and Metal Company Coal bed
State Colorado County San Jaun Town Silverton Collector W. L. Dare, Mining Engineer

Bottle No.	C-8335	C-8334	C-8385	C-8386
Laboratory No.	1121	1124	1122	1123
Kind of sample	General air	General air	General air	General air
Location in mine	Back - 350 ft. from portal of Silver Wing tunnel	Floor - 350 ft. from portal of Silver Wing tunnel	Back - 380 ft. from portal of Silver Wing tunnel	Floor - 380 ft. from portal of Silver Wing tunnel
Date and hour sampled	6-17-53 10:00 AM	6-17-53 10:00 AM	6-17-53 10:00 AM	6-17-53 10:00 AM
Air quantity				
Pressure on seal				
Barometer (inside)				
Carbon dioxide (CO_2)	2.25	2.33	2.43	2.35
Oxygen (O_2)	15.26	14.92	14.78	14.90
Hydrogen (H_2)				
Carbon monoxide (CO)				
Methane (CH_4)	0.00	0.00	0.00	0.00
Nitrogen (N_2)	82.49	82.75	82.79	82.75

Date [illegible] (Signed) [illegible] Chemist.

U. S. GOVERNMENT PRINTING OFFICE 16—28282-1

224 New Customhouse
Denver 2, Colorado

June 9, 1953

Memorandum

To: W. M. Traver, Jr. (with brochure)
A. H. Koschmann (with brochure)

From: Field Team, Region IV

Subject: Docket DMEA No. 3057 (Lead-Zinc), Colorado Mines and Metals Co., San Juan County, Colorado

Enclosed is an application for exploration assistance submitted by the Colorado Mines and Metals Company estimated to cost $50,000.00.

A field examination should be made and a report submitted.

John F. Shaw, for
A. H. King

A. H. Koschmann
A. H. Koschmann

Enclosure

JFS:fwo

cc Subject
Chron

224 New Customhouse
Denver 2, Colorado

May 19, 1953

Colorado Mines & Metals Company
Carl A. Larson, Assistant Secretary
Silverton, Colorado

Re: Silver Wing Mine, San Juan County, Colorado (Lead-Zinc)

Dear Mr. Larson:

This is to inform you that effective April 15, 1953, the commitment of funds allocated to the Defense Minerals Exploration Administration for exploration assistance under the Defense Production Act was restricted to certain specified metals and minerals still in short supply. Lead and Zinc were not specified, and consequently were automatically removed from the list of metals or minerals eligible for exploration assistance.

We regret to advise you that, since your application relates to lead-zinc and was pending on the date of the restrictive order, we are without authority or funds to enter into a contract for exploration and your application is accordingly denied. This action is taken without prejudice to the merits of the proposed project.

The staff of the Defense Minerals Exploration Administration wishes to express its appreciation for your interest in the exploration program and for your cooperation during the period your application has been under consideration.

Sincerely yours,

W. H. King

W. H. King
Field Team, Region IV

for A. H. Koschmann
Field Team, Region IV

HMC:es

cc: Mittendorf
Docket
Chron.
Traver
Koschmann (2)

224 New Customhouse
Denver 2, Colorado

May 29, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: Code 200

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docketing for Exploration Assistance

Enclosed herewith in duplicate is DMA Form 3a and MF-103, and supporting data pertaining to the following applications for Government assistance in exploration work:

Colorado Mines and Metals Company
Carl A. Larson, Assistant Secretary
Silverton, Colorado

R.A.M. Mining Company (Spotted Wolf Mine)
302 Main Street
Grand Junction, Colorado

R.A.M. Mining Company (Grand Discovery & Morrison Claims)
302 Main Street
Grand Junction, Colorado

Charles M. Taylor
P. O. Box 1710
Tucson, Arizona

for Robt F. Shaw
W. H. KING
W. H. King

Enclosures

cwm

cc: Code 200
Docket (Colo. Mines & Metals Co.)
Docket (R.A.M. Mining Co., Spotted Wolf Mine)
Docket (R.A.M. Mining Co., Grand Discovery & Morrison)
Docket (Charles M. Taylor)
AHKoschmann (2)
Chron.

DMEA Form 3a
(Revised)

DEFENSE MINERALS EXPLORATION ADMINISTRATION

CONTROLLED DOCUMENT
Abstract

I. 3

II. Fill in each item:

1. _____ 2. _____

3. Colorado Mines and Metals Company

Carl A. Larson, Asst. Sec'y. Silverton, Colorado

_____ (Code) _____

4. Silver Wing Mine

5. State Colorado County San Juan

_____ (Code) _____ (Code)

6. Copper-Zinc-Lead

7. $ 50,000.00

8. $ _____ 8a. % 50

III. Check one:

1 ☐ 2 ☐ 3 ☐ 4 ☐

Remarks:

Initials of person preparing sheet BMC

Date sheet prepared 5-26-53

17367

224 New Customhouse
Denver 2, Colorado

May 26, 1953

Mr. Carl Larson, Assistant Secretary
Colorado Mines and Metal Company
Silverton, Colorado

Dear Mr. Larson:

This will acknowledge receipt of your application dated May 8, 1953 on the Silver Wing Mine.

Because your answer to question 5(a) on the application was lead and Zinc, our letter to you dated May 19, 1953 denied the application.

Information elsewhere contained in your application indicates that Copper values in the Silver Wing vein might be worthy of further consideration. We are, therefore, placing your application in the active file.

Very truly yours,

W. H. KING

W. H. King
Executive Officer
Field Team, Region IV

HMC:es

cc: Chron.
Subject
Traver
Mittendorf
Koschmann (2)

224 New Customhouse
Denver 2, Colorado

May 26, 1953

Mr. Carl Larson, Assistant Secretary
Colorado Mines and Metal Company
Silverton, Colorado

Dear Mr. Larson:

This will acknowledge receipt of your application dated May 8, 1953 on the Silver Wing Mine.

Because your answer to question 5(a) on the application was Lead and Zinc, our letter to you dated May 19, 1953 denied the application.

Information elsewhere contained in your application indicates that Copper values in the Silver Wing vein might be worthy of further consideration. We are, therefore, placing your application in the active file.

Very truly yours,

W. H. King

W. H. King
Executive Officer
Field Team, Region IV

HMC:es

cc: Chron.
Subject
Traver
Mittendorf
Koschmann (2)

GENERAL OFFFICES
ROSENWALD BUILDING
ALBUQUERQUE, N. M.

MINES AND MILLING
SAN JUAN COUNTY
COLORADO

COLORADO MINES AND METALS CO.

~~ALBUQUERQUE, N.M.~~
Silverton, Colorado.

Mining Division
Date Rec'd
JUN 1 - 1953
BUREAU OF MINES
Denver, Colorado

U. S. Department of the Interior
224 New Customhouse,
Denver 2, Colorado.

Attention: W. H. King:

As copper values in the Silver Wing vein might be worthy of a government loan for development. Please do whatever you can toward obtaining a government loan for the Colorado Mines & Metals Co as our application has been placed in the active file.

Yours very truly
Colorado Mines & Metals Co.,
By Earl A. Larson
Assistant Secretary

See our letter May 26

GENERAL OFFFICES
ROSENWALD BUILDING
ALBUQUERQUE, N. M.

MINES AND MILLING
SAN JUAN COUNTY
COLORADO

COLORADO MINES AND METALS CO.

~~[illegible]~~
ALBUQUERQUE, N. M.
Silverton, Colo.

May 6, 1953

U. S. Department of the Interior
DMSA, 526 New Customhouse, Building,
Denver, Colorado.

Application for a $23,000.00 Aid in an Exploration Project.

1. Name of Applicant
   Colorado Mines & Metals Co.,
   Silverton, Colorado.

3. Map of Claims inclosed.

   b. Silver Wing Mine

   c. Colorado Mines & Metals Company are the owners of the property.

   e. None

   f. Patented Claims

4. Physical Description
   Maps are enclosed with this application, also previous reports that have been made on the property.

   e. Manpower is available due to shutting down of mines due to lead & Zinc Price. Material and supplies are available, it will be necessary to purchase a compressor, install rail, vent. pipe and other pipe as this equipment has all been taken out. Elec. power lines run by the portal of the tunnel, necessary transformers are on hand. Some equipment will be furnished by the Great Eastern Mining Company.

5. Will develop largetonnage of Lead and Zinc if Great Eastern proven in depth.

GENERAL OFFFICES
ROSENWALD BUILDING
ALBUQUERQUE, N. M.

MINES AND MILLING
SAN JUAN COUNTY
COLORADO

COLORADO MINES AND METALS CO.

ALBUQUERQUE, N. M.
Silverton, Colo.

SHEET #2

Proposed Work

1000 Ft Crosscut
500 Ft Drifting
500 Ft Raising

c. Work will start as soon as approved. Completion depends upon winter conditions.

d. William L. Chase, graduate of the School of Mines

6 Estimate of Costs

1000 Ft Crosscut @ $20.00 ft.
500 Ft Drifting @ $25.00 ft.
500 Ft Raising @ $35.00 ft.

Approximate cost will be $50,000.00

Crosscut will intersect several major veins with good surface indications. Will develop large tonnage of Lead and Zinc if Great Eastern proves in depth, and will allow much longer operating season with lower costs.

e. There is a compressor room at the portal, some repair work would have to be done on the building, as snowhas broken some of the roof rafters and doors and windows would have to be replaced.

7. a. Yes

b. Money and Use of equipment owned.

Yours very truly
Colorado Mines & Metal Co.,
by Earl A. Larson
Assistant Secretary

Certification signed and attached.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

JUL 13 1953

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA-3057
Metal or Mineral
Date Received 6/2/53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Colorado Mines & Metals Company

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore .....

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within ..... days and be completed within ..... months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(*b*) How do you propose to furnish your share of the costs?

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated May 8, 1953

Colorado Mines & Metals Company
(Applicant)

By Earl A. Larson

Assistant Secretary

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

REPORT OF SILVER WING
AND FREDERICA GROUP OF CLAIMS

LOCATION AND GENERAL SURROUNDINGS

The Silver Wing is situated on the northwest end of Jones Mountain, about 2 miles in a northerly direction from the town of Eureka, and about 2 miles in a southerly direction from Animas Forks. The Silver Wing is a beautiful spot, nestling in a grove of pines at the foot of Jones Mountain, making it an ideal spot in summer, and a safe place of abode in winter. The timber being a heavy and extensive belt, proves the property to be immune from snowslides.

The aforesaid property is very accessible, and can be reached by road from Silverton on the southwest a distance of 11 miles; it can also be approached from Lake City, a distance of 23 miles in a northeasterly direction; and from Ouray in a northwesterly direction, a distance of 16 miles. The Silverton road is the best and shortest.

TITLE AND DESCRIPTION OF PROPERTY

There are 22 claims in the group, 9 of which are patented, covering an area of about 200 acres. The claims are named as follows: Patented -- Silver Wing, Rocky Mountain Chief, Denver Bell, Manitou, Whale, Cynic, Edward, Rob Roy and Frederica.

Unpatented -- Cliff, LaPlata, Lilly, Morning Star, Nanon, Little Joe, Wild Cat, Mable, Stanley, Van Diest, Ada, Ada No. 2, and Lake View.

~~As of 1952 all claims are patented.~~

TOPOGRAPHY

While the topography of Jones Mountain is quite rugged, yet in the immediate vicinity of the tunnel, it is quite smooth and covered with grass, trees and flowers. As I said before, the mine is in one of the most beautiful, as well as the most accessible, locations in the San Juan, being easy of approach from these different points. It has an elevation of about 10,500 feet above tide water, by barometric measurement.

E.M.

A. C.

GEOLOGY AND CHARACTER OF ORE

In a general sense, the geology of Jones Mountain is like that of other San Juan Mountain; it is precipitous, composed chiefly of andesite, both massive and fragmental (tuff braccias) belonging to the Silverton series. In its lower portions occurs some rhyolite and intrusive masses of monzonite as may be seen, reference to the map, where some of the most prominent veins are shown. The veins of this group form a complete network in which certain dominant directions of fissuring are plainly recognizable. There is a series of strong continuous lodes represented by the Silver Wing, Frederica, Great Eastern, Noah's Ark, Denver Bell, Whale, Tom Moore, et al., which by their hold outcrop can be traced for miles with the naked eye. They pass through Jones Mountain in a southeasterly direction.

The Silver Wing is a true fissure vein encased between walls of andesite. The dip is vertical and the strike about north 75 degrees east and parallel Jones Mountain.

The vein filling is a gangue of quartz and talc, the ore minerals of the vein are galena, spahlerite, chalcopyrite, pyrite, tetrahedrite, sulphurbisumthite, bornite and silver, with gold appearing sparingly. The average width of this vein is approximately 9 feet, the length of the ore body cannot be determined, but the ore shoots show on the surface to be sereral hundred feet in length. The Denver Bell is a true fissure carrying gold, silver and copper, cut at a depth of 900 feet; there has been no drifting of any consequence at the present state of development, but assays taken from this vein average $15.55 per ton, the ore being suitable for concentration and amalgamation, running 7 into 1. The vein filling is quartz, the mineral galena, sphalerite, chalcopyrite, gold and silver and copper.

The Frederica is also a true fissure vein encased between walls of andesite. The vein filling is a quartz, the ore minerals are galena, chalcopyrite, pyrite, gold and silver. These veins will be better described in the following pages of this report.

E. M.

A. C.

The Frederica is not only a true fissure vein, but a very persistent one. Its bold outcrop can be traced for thousands of feet on the surface. It has been opened up in several places on the lead, and shows ore bodies of great size. From tests taken, the ore seems to be of good milling values. The extent of this ore body or the quality thereof cannot be determined until ascertained by depth of the main tunnel. This ore body is situated near the top of Jones Mountain. The tunnel will have to be run to a distance of 2000 feet to intersect this vein. The Frederica was one of the early producers of San Juan; but little, if any, data can be obtained about those early shipments. One of the exhibit sheets will show smelter returns on ore shipped in recent years. There are many openings on the vein, but the ore is in such shape that it is hard to ascertain what, if any, ore bodies are available. It will be well to mention this property as the aforesaid tunnel will cut this vein at a depth of 2200 feet, by running a distance of 2000 feet, and also many other veins in this group of which I will not speak now as they have not been very extensively developed, consequently cannot go into details as to their ore bodies, but assays from all of them show excellent results. There will be a map which will show the veins and underground workings of the property in the main tunnel.

DEVELOPMENT

This consists of a crosscut tunnel 1750 feet in length, cutting the veins almost at right angles, at a depth of 500 feet to 1000 feet. The property is also developed by several crosscuts and drifts in the way of surface workings in the upper portion of the veins to depths varying from 10 to 100 feet below the surface. The Denver Bell 900 feet from the surface. There are 150 feet driven on the Silver Wing vein, 100 feet of which is timbered ready for stoping. From the level of the crosscut tunnel to the surface is 560 feet.

E. M.

A. C.

ORE IN SIGHT

Measurements have been carefully taken and the amount of ore in sight has been computed in the Silver Wing vein, omitting for the sake of brevity details of the measurement and calculations, the following summary is given. Ore blocked out on the Silver Wing vein, taking into consideration the depth of this ore body together with the width and length, gives you a total of 50,400 tons of ore at $12.35 per ton and will give the sum of $622,400.00. A smelter return exhibit sheet will be attached to this report showing the value of the ore.

The Denver Bell lode is a true fissure 3 feet wide between walls and out at a depth of 900 feet showing values across the streak of $15.55 per ton. It is hard to determine the length of this ore shoot with the limited amount of development, but judging from surface indications and the outcrop of the ore body, the vein is of great magnitude. As the ore on the surface proved by assays and smelter returns to be of high grade value, and judging from the depth of this ore body from the main tunnel to the surface as heretofore stated, by proper development on the tunnel level, the Denver Bell will be equal to or greater than the Silver Wing, as it has already shown such excellent values. Another feature in favor of this vein is that it is a milling proposition, and will concentrate 7 into 1, thus cutting down smelting and transportation charges. By running on this vein 300 feet in the main tunnel to gain an idea of its size and value, 300 feet by 900 feet, by 3 feet, gives a total of over 50,000 tons, at $15.55 per ton, making a grand total of over $750,000.00.

RECOMMENDATIONS

I would recommend the drift on the Silver Wing vein be extended 750 feet, each way from the main tunnel to the end that greater quantities of ore can be obtained.

The Denver Bell should also be drifted upon to the extent of 750 feet each way from the main tunnel, to ascertain the length

E. M.
A. C.

of the ore shoots, block the ore out for stoping, and at a later date I would suggest the extension of the tunnel to the Frederica as I have every reason to believe the values at the depth of 2200 feet will justify the expense incurred.

CONCLUDING REMARKS

A careful study of the Silver Wing mine in its present state of development would convince the most skeptical that it is a property of much value, and possesses splendid future possibilities. The ore is of considerable magnitude, and will have large reserves to draw from, if my recommendations are adhered to. There would be enough ore to keep the mine running for at least 40 years without further development than above recommended. 100,000 tons of an average value of $13.00 per ton would make a total of $1,300,000.

All of this independent of the improvements and equipment of the mine makes a mining property of rare occurrence.

In addition to the foregoing remarks, when taking into consideration the firm walls and dryness of the mine, all of which favor cheap mining, the proposition as a whole would seem to be an exceptionally favorable one, and should invite and command the most serious attention and consideration from the investor, speculator and capitalist.

Very respectfully

/s/ Arthur Rice, E. M.

Denver Colorado, Jan. 2, 1907

EXHIBIT SHEET #4

FREDERICA

ASSAYS	NO.			PER TON
	1	Fourth level		$ 16.08
	2	" "		10.64
	3	Third "	75 ft. from mouth	46.68
	4	" "	100 ft. from mouth	11.16
	5	" "	125 " " "	6.00
	6	" "	175 " " "	4.32
	7	" "	200 " " "	11.78
	8	" "	Iron streak in breast	72.50
	9	" "	General sample vein 10' wide	7.48
	10	Second "	15 ft. from mouth	30.84
	11	" "	40 ft. from mouth	84.25
	12	" "	56 ft. " "	4.80
	13	" "	80 ft. " "	44.76
	14	House level breast		9.24
	15	" "	iron streak	97.36

ORE SHIPPED FROM ABOVE

23046 # Oz.	Silver per T. 13.58% lead per T.	46.05
25024 # Oz.	" " "	46.05
13572 # Oz.	"" " "	28.80
10962 # Oz.	" " "	41.55

NANON LODE

ASSAYS	NO.			
	1	Surface		22.72
	2	"	Honeycomb	18.24
	3	"	Cut	18.24
	4	"	Small streak	121.68
	5	"	Middle of cut	18.24

EXHIBIT SHEET #5

DENVER BELL

ASSAYS

NO.		PER TON
1	Upper workings	$ 26.20
2	" "	21.60
3	" " South end	8.20

SILVER WING VEIN

1	Surface, Ore shoot, copper ore	3.10
2	" " " Lead ore	16.20
3	Lower or main tunnel, 576 ft. vein left drift	13.10
4	576 ft. vein right drift	10.60
5	Iron vein	77.38
6	" "	54.84
7	Copper vein	76.00
8	Main upper tunnel vein	6.50
9	General Sample	38.40
10	" "	6.40
11	" "	6.80
12	" "	52.00
13	" "	13.40
14	" "	23.85

EXHIBIT SHEET #7

Copied from settlement sheet of the ore shipped from the Silver Wing mine to the R. & M. Co. from May 1 to September 1, 1907.

Smelter No.	Net Lbs.	Oz. Silver	% Copper	Price Per Unit	Gross Val. Per Ton	Net val. after deducting S. Charge
611	41578	4.97	4.93	3.35	14.53	$198.70
613	40489	5.56	4.58	3.35	13.75	221.35
618	39699	5.36	54.85	3.35	14.53	189.19
620	40286	5.15	4.52	3.30	13.16	164.35
622	58212-	5.38	4.64	3.30	13.71	253.50
626	37725	5.40	4.41	3.30	12.96	150.20
631	33638	6.36	4.87	3.30	15.07	169.51
636	39792	5.12	4.41	3.30	12.79	154.96
642	45045	5.13	4.41	3.35	12.95	179.26
643	56848	4.38	3.77	3.35	10.35	98.47
651	50666	4.77	3.54	3.35	9.82	122.11
652	62544	4.48	2.84	3.35	7.27	69.76
656	46410	4.81	3.07	3.35	8.24	75.25
658	53018	4.65	3.31	3.35	8.94	104.52
659	43242	4.78	3.25	3.275	8.69	79.90
662	43464	3.06	3.25	3.275	7.62	57.11
669	45540	4.43	3.37	3.275	8.87	88.15
671	41382	4.39	3.43	3.275	9.05	83.69
674	43262	4.36	3.48	3.275	1.19	90.60
679	32818	5.27	3.95	3.275	11.29	1 03.23
688	48462	5.36	4.36	3.285	12.72	187.07
692	48064	5.10	4.29	3.25	12.32	175.94
694	52718	7.07	4.38	3.25	15.74	283.39
701	47916	7.37	5.11	3.25	16.43	273.94
705	42470	5.07	5.23	3.25	15.55	219.94
708	44550	6.47	4.65	3.25	14.36	208.64
709	43312	4.16	5.05	3.25	14.19	199.10
711	42224	6.16	4.82	3.25	14.72	205.21
717	42224	4.57	4.22	3.25	11.75	142.62
718	46184	6.06	4.16	3.25	12.57	173.55
722-	44102	6.96	5.02	3.085	15.26	226.38
727/732	45668	6.66	5.93	3.10	17.28	291.27
728	38066	5.60	4.98	3.05	14.18	174.78
726	42422	8.37	6.52-	3.10-	20.92	337.85
737	42470	5.56	4.57	3.05	12.90	167.90
746	48410	4.37	3.84	2.90	9.58	110.95
747	39650	4.76	3.84	2.90	9.83	96.05
751	49302	16.36	10.31	2.95	36.14	714.00
752	48658	4.66	4.02	2.90	10.29	128.72
758	43064	5.06	3.83	2.90	9.99	107.27
762	46530	5.56	3.88	2.90	10.46	127.09
767	47372	6.07	3.20	2.75	8.57	84.68
768	16038	8.67	8.49	2.95	26.17	149.72
769	44450	5.26	3.88	2.75	9.92	109.46
770	22324	13.76	11.08	2.80	35.66	314.88
786	45094	5.51	3.32	2.75	8.59	81.05
791	47272	4.96	3.68	2.75	9.22	99.91
792	49244	17.36	9.80	2.80	34.55	666.10
798	37865	4.50	3.82	3.82	9.53	76.28
812	45460	3.70	4.48	2.80	10.64	122.66
823	42768	3.36	3.03	2.75	6.53	30.62
825	41382	4.50	3.15	2.75	7.51	52.07
840	47966	5.12	3.80	2.75	9.72	113.10
852	39946	5.74	2.20	2.35	5.39	7.85
859	44996	4.39	3.81	2.35	8.29	74.73
862	45738	5.38	3.28	2.35	7.69	61.66
865	12770	10.55	8.40	2.40	23.45	117.80
866-	39254	19.90	8.37	2.25	28.36	409.42
874	44700	4.91	2.68	2.225	5.80	17.89
880	38064	5.38	4.35	2.225	9.82	115.85
886	39698	7.52	4.31	2.225	11.11	151.95
894	44252	6.68	4.76	2.225	11.57	145.44

1344 tons of an average value of about $12.60 per ton.

EXHIBIT SHEET #6

Copies from settlement sheets of the ore shipped from the Silver Wing mine to the Ross Mining and Milling during the latter part of 1906.

Car No.	Net Pounds	Oz. Silver Per T	% Copper Per Ton	Pride Pd Per Unit Copper	Gross Value Per T	Net Amount Recd from Smelter
1782	32848	6.17	4.90	2.21	$11.35	$103.29
3401	40986	5.60	4.96	2.45	11.88)	
9465	46382	5.60	4.96	2.45	11.88)	296.36
3203	53955	3.13	4.08	2.45	8.75	98.07
3057	57966	7.42	4.85	2.46	13.80	184.21
3163	47816	8.57	5.36	2.40	14.15	227.98
1565	47768	7.30	4.67	2.45	11.78	165.52
3278	48955	8.38	5.40	2.45	14.78)	
4496	55836	7.18	4.70	2.45	12.29)	436.24
3569	52677	8.05	5.16	2.30	13.42	219.32
3545	50580	7.75	4.70	2.35	12.02	178.25
5003	48658	6.52	4.42	2.35	10.82	138.59
5962	38016-	6.54	5.	2.30	12.09	131.76
3029	45491	6.44	4.10	2.30	10.03	111.40
3493	10890	6.18	6.15	2.45	15.38	53.51
"	19980	6.18	4.99	2.45	12.44	74.32
1671	46134	4.98	3.13	2.45	7.12	45.00
3744-	50936	4.44	3.46	2.45	7.59	62.96
9517	47372	5.24	3.93	2.45	9.27	98.13
3251	45243	6.90	4.08	2.425	10.69	125.72
3612	38609	6.02	3.72	2.425	9.24	100.05
3285	48630	7.79	5.43	2.425	14.55	228.72
3008	37372	5.21	3.75	2.50	9.00	71.74
3554	41778	6.60	4.95	2.50	12.90	162.52
4967	30690	6.96	4.52	2.60	12.38	110.24
3130	32862	8.94	4.53	2.60	13.68	130.64
3494	34798	6.95	4.56	2.60	12.62	129.57
3571	36947	8.08	4.44	2.95	13.99	163.07
4379	40740	7.24	4.59	3.01	14.21	182.73
3579	38328	8.	4.60	3.06	14.91	186.91

Total of about 635 tons.

Net value per ton after paying all charges except $1.00 per ton freight from mine to Silverton as shown above was $6.65 per ton, or after all expenses of treatment and freight are deducted will leave $5.65 per ton for mining and profit. When mine is properly developed and equipped, this ore can be mined for less than $2.00 per ton, leaving a net profit above cost of mining smelting and freight of $3.65 per ton.

ADDENDA

In order that those interested in the Silver Wing and Frederica properties may more fully understand the future possibilities of these two groups combined on one property, I will give several reasons in support of my views.

First, the large area of mineralized ground included in these properties makes it very desirable for anyone wanting a large mining property.

Second, the accessibility makes it possible to operate at all seasons of the year.

Third, the possibility of working all of the veins through the main cross cut tunnel and the great depths that this tunnel will cut the veins, saves the expense of hoisting the ore to the surface, and the complete drainage of the mine through this tunnel saves the expense of pumping the water from the mine, one of the most expensive propositions that most mines have to contend with, especially where they are operated through a shaft.

Fourth, this tunnel in time will be the outlet for most of the mines on both Jones and Grouse Mountains, and the revenue from royalties will pay a good dividend on a large capital, and this will be a net profit.

Fifth, the large amount of good timber on this property is a good asset, both as timber for mining purposes, and as protection from snowdlides. The mouth of the main crosscut tunnel and the buildings are located so that they are absolutely protected, something that cannot be said of any other property above Eureka.

Sixth, the tonnage will be unlimited when the property is properly developed. It is an ideal smelting proposition, and with a pyritic smelter in connection, the expense should be very little except for mining.

Seventh, and being located in a district that is noted for large and productive mines, such as the Sunnyside, Pride of the West, Gold King, Gold Prince, Mogul, Old Hundred, Iowa, Silver Lake

and many others that I could mention, a long life is assured.

Eighth, with the showing that this property has made with the small area developed, both in assays and shippments, I believe that for the development done there is not another property in the district that will compare with the Silver Wing and Frederica properties.

Very respectfully,

s/ Theo Ivens

Manager

The above report undated, but probably was written about the same time as the Rice report.

Dec. 15, 1948

Colorado Mines and Metals Company
Silverton, Colorado

Gentlemen:

Enclosed is a resume of metal prices over a period of years that may be of interest to you. The price of silver and copper during the time the Silver Wing was shipping was as follows:

	Silver	Copper
1905	.604/oz.	
1906	.668	.12/lb.
1907	.653	.135/lb.
1908	.529	

There is no way from the Rice report in which I can determine what the present value of the assays would be since there is no breakdown as to the metal content. They would certainly be much higher today.

I have calculated the present average value of the 4000 tons of ore that was shipped to the smelter during 1906 and 1907 from the Silver Wing. It is as follows:

		1948 value
1906		
Average silver content	6.62/oz./ton	$ 6.02/ton
Average copper content	4.60%	21.60
		$27.62
1907		
Average silver content	5.07/oz./ton	5.14
Average copper content	4.62%	21.70
		$26.84

The 4000 tons is a wonderful assay and was mined from two small stopes about 50 feet high at the Wing Tunnel level. Since there is over 500 feet from this level to the surface and since the surface ore was of better grade than this ore, a tremendous tonnage is indicated.

Assuming only two blocks of ore 500 feet high by 150 feet long by 14 feet wide (which is conservative) the tonnage in block would be 150,000 tons. This does not include the possible continuous tonnage laterally along the Silver Wing vein or the probable tonnage from the many other veins.

It is impossible for us to make any shipments from the Wing as we have no ore bin to load from, and it would be too costly and hazardous to attempt to construct one with so much snow on the ground.

I am told on reliable information that the failure of the Silver Wing Company in 1909 was due to the inability of their stamp mill, jigs and tables to separate the iron from the copper or beneficiate the ore. Their heads, tails and concentrates all assayed about the same.

This would be no problem for a modern mill. It could easily achieve a 10-1 concentration ratio and recover 90% of the values.

I will keep you advised of further developments.

Respectfully submitted,

William L. Chase, Geol. Engr.

ADDENDA

June 15,1949

Colorado Mines and Metals Company
Silverton, Colorado

Gentlemen:

Since writing the above report the Great Eastern Mining Company has spent in behalf of Colorado Mines and Metals Company $23,525.00 in further development of the Silver Wing property. The expenditure of this money has convinced me that the Rice report was essentially correct. The Silver Wing group should prove one of the outstanding producers of the San Juan District. It is true that an additional expenditure of probably $50,000 should be made to put the property in full production. Nevertheless, a large amount of this expenditure should be recovered from the sale of ore mined during the time this money was being spent as exploratory work was continued.

The Colorado Mines and Metals Company should have no problem in the milling of this ore as both the Shenandoah-Dives custom mill (capacity 1000 tons per day) and the Pride of West mill will actively compete for this ore. Both mills are situate within a few miles from the Silver Wing properties. Furthermore, the above properties are located on a main highway which is maintained by the County of San Juan and kept open the entire year.

It might be of interest to note that since the Rice report was written, two large mills, each with a capacity exceeding 1,000 tons per day, were built, both these mills being within a few miles of your property. The Mayflower (Shenandoah-Dives Company) is still operating. United States Smelting, Refining and Mining Company, who operated the Sunnyside, closed several years ago after producing many millions of dollars worth of ore. In one year this company's production exceeded $4,000,000. The United States Smelting, Refining and Mining Company are still the owners of the property, and the rumor has persisted recently that the company will soon resume operations. The Idarado Mining Company, after an expenditure of over a million dollars in developing their property near Silverton, is now milling in excess of 1000 tons of ore a day, said to be of very high grade ore. The Idarado property is considered the outstanding mining property in southwestern

Colorado. Ex-President Hoover made the following statement several years ago at a mining convention in Denver: "The San Juan Mining District of Colorado is the greatest base metal area in the world, and the next several years will see stupenduous mining developments in that region." It seems from recent developments that Ex-President Hoover's statement was not over-optimistic.

Respectfully submitted,

William L. Chase, Geol. Engr.

January 1, 1950

Colorado Mines and Metals Company
Silverton, Colorado

Gentlemen:

In looking over some additional records in our office, I find a signed report pertaining to the Silver Wing group by S. A. Spellmeyer, a mining engineer and geologist of very considerable standing. The report was addressed to Sam B. Mosher, President of Signal Oil Company of Los Angeles. Exerpts of this report as pertaining to the Silver Wing group are as follows:

"Great Eastern-Silver Wing Group. About 25 mining claims upon which a number of veins are found, some of which have proved productive. Group is 11 miles northwest from Silverton, about 2 miles north of Eureka, Colorado. Elevation at foot of mountain about 10,500 feet rising about 1,600 feet higher in a mile to the east. Country rock is andesite. Vein fractures are persistent and well marked. Veins are not parallel but the fracture system could not be studied at this time. Habit of the country in general seems to be for the continuity of base metal values for considerable depth. The Silver Wing Tunnel is nearly 1,800 feet long S. 61E. with a turn to N. 80E. for the last 250 feet. It cuts the Silver Wing, Denver Belle and other veins and is pointed to cut other veins which were productive on the surface.

"The Silver Wing vein is cut at about 1,000 feet from the portal where there is a stope that produced 4,000 tons of ore in 1906 and 1907, averaging 6 ounces of silver and 4.61% copper. Just north of the stope a diamond drill hole was being drilled across the vein at the time of my visit. For 25 feet of core seen (hole not completed) calcopyrite was seen scattered through the whole length in sufficient quantity to look like ore. The present day value of an assay of 6 ounces of silver and 4.61% copper is $26.06 per ton gross and should leave an operating profit of $7.94 after mining, milling and smelting. The vein was developed for more than 150 feet in length and is 500 feet below the surface. This creates a possible target of 156,000 tons of ore having a net value of $1,250,000.00. Development work is justified by that showing.

"Other veins cut in the tunnel should be sampled and explored as some low grade values are encountered.

"Beyond the end of the Silver Wing Tunnel toward the east an important vein called the Sioux City projects to the tunnel level at about 500 feet. This vein strike N-S and dips 70° West. At 1,000 feet the great Eastern Vein striking N. 40E. dipping 70° N.W. projects to the tunnel level. These two veins should intersect about 1,000 feet southeast from the face.

"During the summer and fall just passed a stope was worked on the Great Eastern vein, which produced 3,563 tons of shipping ore having gross metal content of $283,528 and which netted from the smelter $91,714.82 after shipping and treatment. It probably cost $36,000.00 to mine. If a mill had been available, the net return from that ore would have been about $167,000.00 This is a lead-zinc, silver vein.

"Exploration beyond the stope has indicated another ore body that may be continuation of another lens. From talking to Chase the impression was gained that the ore bodies in the Great Eastern Vein are lenticular, open space, filling and more valuable in unit content, as well as total, when wide. This indicates that vein intersections may be good place to explore. It was impossible to get to the Great Eastern working because of heavy snow conditions, so all I know of it except the smelter liquidation sheets is hearsay.

"Another important vein on the surface is the Frederica about 2,000 feet northeast of the Silver Wing Tunnel face. Considerable shallow values high in silver have been mined, particularly where cross veins are encountered.

"On the whole the Group deserves exploration work either by drilling flat holes or by drifts, crosscuts and raises. A lot of preliminary work is already done and future exploration should largely be on vein with good hopes of finding payable ore. With a mill available it would appear that any money advances for exploration would be quickly returned, and the operation would become self-sustaining and at the same time build up capital assests."

Respectfully submitted,

William L. Chase, Gen'l Mgr.

Mr. King -
Please note pages 8 + 9
re copper.
ETC

REPORT OF SILVER WING
AND FREDERICA GROUP OF CLAIMS

LOCATION AND GENERAL SURROUNDINGS

The Silver Wing is situated on the northwest end of Jones Mountain, about 2 miles in a northerly direction from the town of Eureka, and about 2 miles in a southerly direction from Animas Forks. The Silver Wing is a beautiful spot, nestling in a grove of pines at the foot of Jones Mountain, making it an ideal spot in summer, and a safe place of abode in winter. The timber being a heavy and extensive belt, proves the property to be immune from snowslides.

The aforesaid property is very accessible, and can be reached by road from Silverton on the southwest a distance of 11 miles; it can also be approached from Lake City, a distance of 23 miles in a northeasterly direction; and from Ouray in a northwesterly direction, a distance of 16 miles. The Silverton road is the best and shortest.

TITLE AND DESCRIPTION OF PROPERTY

There are 22 claims in the group, 9 of which are patented, covering an area of about 200 acres. The claims are named as follows: Patented -- Silver Wing, Rocky Mountain Chief, Denver Bell, Manitou, Whale, Cynic, Edward, Rob Roy and Frederica.

Unpatented -- Cliff, LaPlata, Lilly, Morning Star, Nanon, Little Joe, Wild Cat, Mable, Stanley, Van Diest, Ada, Ada No. 2, and Lake View.

~~As of 1952 all claims are patented~~.

TOPOGRAPHY

While the topography of Jones Mountain is quite rugged, yet in the immediate vicinity of the tunnel, it is quite smooth and covered with grass, trees and flowers. As I said before, the mine is in one of the most beautiful, as well as the most accessible, locations in the San Juan, being easy of approach from these different points. It has an elevation of about 10,500 feet above tide water, by barometric measurement.

E.M.

A. C.

GEOLOGY AND CHARACTER OF ORE

In a general sense, the geology of Jones Mountain is like that of other San Juan Mountain; it is precipitous, composed chiefly of andesite, both massive and fragmental (tuff braccias) belonging to the Silverton series. In its lower portions occurs some rhyolite and intrusive masses of monzonite as may be seen, reference to the map, where some of the most prominent veins are shown. The veins of this group form a complete network in which certain dominant directions of fissuring are plainly recognizable. There is a series of strong continucus lodes represented by the Silver Wing, Frederica, Great Eastern, Noah's Ark, Denver Bell, Whale, Tom Moore, et al., which by their hold outcrop can be traced for miles with the naked eye. They pass through Jones Mountain in a southeasterly direction.

The Silver Wing is a true fissure vein encased between walls of andesite. The dip is vertical and the strike about north 75 degrees east and parallel Jones Mountain.

The vein filling is a gangue of quartz and talc, the ore minerals of the vein are galena, spahlerite, chalcopyrite, pyrite, tetrahedrite, sulphurbisumthite, bornite and silver, with gold appearing sparingly. The average width of this vein is approximately 9 feet, the length of the ore body cannot be determined, but the ore shoots show on the surface to be sereral hundred feet in length. The Denver Bell is a true fissure carrying gold, silver and copper, cut at a depth of 900 feet; there has been no drifting of any consequence at the present state of development, but assays taken from this vein average $15.55 per ton, the ore being suitable for concentration and amalgamation, running 7 into 1. The vein filling is quartz, the mineral galena, sphalerite, chalcopyrite, gold and silver and copper.

The Frederica is also a true fissure vein encased between walls of andesite. The vein filling is a quartz, the ore minerals are galena, chalcopyrite, pyrite, gold and silver. These veins will be better described in the following pages of this report.

E. M.

A. C.

The Frederica is not only a true fissure vein, but a very persistent one. Its bold outcrop can be traced for thousands of feet on the surface. It has been opened up in several places on the lead, and shows ore bodies of great size. From tests taken, the ore seems to be of good milling values. The extent of this ore body or the quality thereof cannot be determined until ascertained by depth of the main tunnel. This ore body is situated near the top of Jones Mountain. The tunnel will have to be run to a distance of 2000 feet to intersect this vein. The Frederica was one of the early producers of San Juan; but little, if any, data can be obtained about those early shipments. One of the exhibit sheets will show smelter returns on ore shipped in recent years. There are many openings on the vein, but the ore is in such shape that it is hard to ascertain what, if any, ore bodies are available. It will be well to mention this property as the aforesaid tunnel will cut this vein at a depth of 2200 feet, by running a distance of 2000 feet, and also many other veins in this group of which I will not speak now as they have not been very extensively developed, consequently cannot go into details as to their ore bodies, but assays from all of them show excellent results. There will be a map which will show the veins and underground workings of the property in the main tunnel.

DEVELOPMENT

This consists of a crosscut tunnel 1750 feet in length, cutting the veins almost at right angles, at a depth of 500 feet to 1000 feet. The property is also developed by several crosscuts and drifts in the way of surface workings in the upper portion of the veins to depths varying from 10 to 100 feet below the surface. The Denver Bell 900 feet from the surface. There are 150 feet driven on the Silver Wing vein, 100 feet of which is timbered ready for stoping. From the level of the crosscut tunnel to the surface is 560 feet.

E. M.

A. C.

ORE IN SIGHT

Measurements have been carefully taken and the amount of ore in sight has been computed in the Silver Wing vein, omitting for the sake of brevity details of the measurement and calculations, the following summary is given. Ore blocked out on the Silver Wing vein, taking into consideration the depth of this ore body together with the width and length, gives you a total of 50,400 tons of ore at $12.35 per ton and will give the sum of $622,400.00. A smelter return exhibit sheet will be attached to this report showing the value of the ore.

The Denver Bell lode is a true fissure 3 feet wide between walls and out at a depth of 900 feet showing values across the streak of $15.55 per ton. It is hard to determine the length of this ore shoot with the limited amount of development, but judging from surface indications and the outcrop of the ore body, the vein is of great magnitude. As the ore on the surface proved by assays and smelter returns to be of high grade value, and judging from the depth of this ore body from the main tunnel to the surface as heretofore stated, by proper development on the tunnel level, the Denver Bell will be equal to or greater than the Silver Wing, as it has already shown such excellent values. Another feature in favor of this vein is that it is a milling proposition, and will concentrate 7 into 1, thus cutting down smelting and transportation charges. By running on this vein 300 feet in the main tunnel to gain an idea of its size and value, 300 feet by 900 feet, by 3 feet, gives a total of over 50,000 tons, at $15.55 per ton, making a grand total of over $750,000.00.

RECOMMENDATIONS

I would recommend the drift on the Silver Wing vein be extended 750 feet, each way from the main tunnel to the end that greater quantities of ore can be obtained.

The Denver Bell should also be drifted upon to the extent of 750 feet each way from the main tunnel, to ascertain the length

E. M.
A. C.

of the ore shoots, block the ore out for stoping, and at a later date I would suggest the extension of the tunnel to the Frederica as I have every reason to believe the values at the depth of 2200 feet will justify the expense incurred.

CONCLUDING REMARKS

A careful study of the Silver Wing mine in its present state of development would convince the most skeptical that it is a property of much value, and possesses splendid future possibilities. The ore is of considerable magnitude, and will have large reserves to draw from, if my recommendations are adhered to. There would be enough ore to keep the mine running for at least 40 years without further development than above recommended. 100,000 tons of an average value of $13.00 per ton would make a total of $1,300,000.

All of this independent of the improvements and equipment of the mine makes a mining property of rare occurrence.

In addition to the foregoing remarks, when taking into consideration the firm walls and dryness of the mine, all of which favor cheap mining, the proposition as a whole would seem to be an exceptionally favorable one, and should invite and command the most serious attention and consideration from the investor, speculator and capitalist.

Very respectfully

/s/ Arthur Rice, E. M.

Denver Colorado, Jan. 2, 1907

EXHIBIT SHEET #4

FREDERICA

ASSAYS	NO.			PER TON
	1	Fourth level		$ 16.08
	2	" "		10.64
	3	Third "	75 ft. from mouth	46.68
	4	" "	100 ft. from mouth	11.16
	5	" "	125 " " "	6.00
	6	" "	175 " " "	4.32
	7	" "	200 " " "	11.78
	8	" "	Iron streak in breast	72.50
	9	" "	General sample vein 10' wide	7.48
	10	Second "	15 ft. from mouth	30.84
	11	" "	40 ft. from mouth	84.25
	12	" "	56 ft. " "	4.80
	13	" "	80 ft. " "	44.76
	14	House level breast		9.24
	15	" "	iron streak	97.36

ORE SHIPPED FROM ABOVE

23046 # Oz.	Silver per T. 13.58% lead per T.	46.05
25024 # Oz.	" " "	46.05
13572 # Oz.	"" " "	28.80
10962 # Oz.	" " "	41.55

NANON LODE

ASSAYS	NO.			
	1	Surface		22.72
	2	"	Honeycomb	18.24
	3	"	Cut	18.24
	4	"	Small streak	121.68
	5	"	Middle of cut	18.24

EXHIBIT SHEET #5

DENVER BELL

ASSAYS

NO.		PER TON
1	Upper workings	$ 26.20
2	" "	21.60
3	" " South end	8.20

SILVER WING VEIN

1	Surface, Ore shoot, copper ore	3.10
2	" " " Lead ore	16.20
3	Lower or main tunnel, 576 ft. vein left drift	13.10
4	576 ft. vein right drift	10.60
5	Iron vein	77.38
6	" "	54.84
7	Copper vein	76.00
8	Main upper tunnel vein	6.50
9	General Sample	38.40
10	" "	6.40
11	" "	6.80
12	" "	52.00
13	" "	13.40
14	" "	23.85

EXHIBIT SHEET #7

Copied from settlement sheet of the ore shipped from the Silver Wing mine to the R. & M. Co. from May 1 to September 1, 1907.

Smelter No.	Net Lbs.	Oz. Silver	% Copper	Price Per Unit	Gross Val. Per Ton	Net val. after deducting S. Charge
611	41578	4.97	4.93	3.35	14.53	$198.70
613	40489	5.56	4.58	3.35	13.75	221.35
618	39699	5.36	54.85	3.35	14.53	189.19
620	40286	5.15	4.52	3.30	13.16	164.35
622	58212-	5.38	4.64	3.30	13.71	253.50
626	37725	5.40	4.41	3.30	12.96	150.20
631	33638	6.36	4.87	3.30	15.07	169.51
636	39792	5.12	4.41	3.30	12.79	154.96
642	45045	5.13	4.41	3.35	12.95	179.26
643	56848	4.38	3.77	3.35	10.35	98.47
651	50666	4.77	3.54	3.35	9.82	122.11
652	62544	4.48	2.84	3.35	7.27	69.76
656	46410	4.81	3.07	3.35	8.24	75.25
658	53018	4.65	3.31	3.35	8.94	104.52
659	43242	4.78	3.25	3.275	8.69	79.90
662	43464	3.06	3.25	3.275	7.62	57.11
669	45540	4.43	3.37	3.275	8.87	88.15
671	41382	4.39	3.43	3.275	9.05	83.69
674	43262	4.36	3.48	3.275	1.19	90.60
679	32818	5.27	3.95	3.275	11.29	1 03.23
688	48462	5.36	4.36	3.285	12.72	187.07
692	48064	5.10	4.29	3.25	12.32	175.94
694	52718	7.07	4.38	3.25	15.74	283.39
701	47916	7.37	5.11	3.25	16.43	273.94
705	42470	5.07	5.23	3.25	15.55	219.94
708	44550	6.47	4.65	3.25	14.36	208.64
709	43312	4.16	5.05	3.25	14.19	199.10
711	42224	6.16	4.82	3.25	14.72	205.21
717	42224	4.57	4.22	3.25	11.75	142.62
718	46184	6.06	4.16	3.25	12.57	173.55
722-	44102	6.96	5.02	3.085	15.26	226.38
727/732	45668	6.66	5.93	3.10	17.28	291.27
728	38066	5.60	4.98	3.05	14.18	174.78
726	42422	8.37	6.52-	3.10-	20.92	337.85
737	42470	5.56	4.57	3.05	12.90	167.90
746	48410	4.37	3.84	2.90	9.58	110.95
747	39650	4.76	3.84	2.90	9.83	96.05
751	49302	16.36	10.31	2.95	36.14	714.00
752	48658	4.66	4.02	2.90	10.29	128.72
758	43064	5.06	3.83	2.90	9.99	107.27
762	46530	5.56	3.88	2.90	10.46	127.09
767	47372	6.07	3.20	2.75	8.57	84.68
768	16038	8.67	8.49	2.95	26.17	149.72
769	44450	5.26	3.88	2.75	9.92	109.46
770	22324	13.76	11.08	2.80	35.66	314.88
786	45094	5.51	3.32	2.75	8.59	81.05
791	47272	4.96	3.68	2.75	9.22	99.91
792	49244	17.36	9.80	2.80	34.55	666.10
798	37865	4.50	3.82	3.82	9.53	76.28
812	45460	3.70	4.48	2.80	10.64	122.66
823	42768	3.36	3.03	2.75	6.53	30.62
825	41382	4.50	3.15	2.75	7.51	52.07
840	47966	5.12	3.80	2.75	9.72	113.10
852	39946	5.74	2.20	2.35	5.39	7.85
859	44996	4.39	3.81	2.35	8.29	74.73
862	45738	5.38	3.28	2.35	7.69	61.66
865	12770	10.55	8.40	2.40	23.45	117.80
866-	39254	19.90	8.37	2.25	28.36	409.42
874	44700	4.91	2.68	2.225	5.80	17.89
880	38064	5.38	4.35	2.225	9.82	115.85
886	39698	7.52	4.31	2.225	11.11	151.95
894	44252	6.68	4.76	2.225	11.57	145.44

1344 tons of an average value of about $12.60 per ton.

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EXHIBIT SHEET #6

Copies from settlement sheets of the ore shipped from the Silver Wing mine to the Ross Mining and Milling during the latter part of 1906.

Car No.	Net Pounds	Oz. Silver Per T	% Copper Per Ton	Pride Pd Per Unit Copper	Gross Value Per T	Net Amount Recd from Smelter
1782	32848	6.17	4.90	2.21	$11.35	$103.29
3401	40986	5.60	4.96	2.45	11.88)	
9465	46382	5.60	4.96	2.45	11.88)	296.36
3203	53955	3.13	4.08	2.45	8.75	98.07
3057	57966	7.42	4.85	2.46	13.80	184.21
3163	47816	8.57	5.36	2.40	14.15	227.98
1565	47768	7.30	4.67	2.45	11.78	165.52
3278	48955	8.38	5.40	2.45	14.78)	
4496	55836	7.18	4.70	2.45	12.29)	436.24
3569	52677	8.05	5.16	2.30	13.42	219.32
3545	50580	7.75	4.70	2.35	12.02	178.25
5003	48658	6.52	4.42	2.35	10.82	138.59
5962	38016-	6.54	5.	2.30	12.09	131.76
3029	45491	6.44	4.10	2.30	10.03	111.40
3493	10890	6.18	6.15	2.45	15.38	53.51
"	19980	6.18	4.99	2.45	12.44	74.32
1671	46134	4.98	3.13	2.45	7.12	45.00
3744-	50936	4.44	3.46	2.45	7.59	62.96
9517	47372	5.24	3.93	2.45	9.27	98.13
3251	45243	6.90	4.08	2.425	10.69	125.72
3612	38609	6.02	3.72	2.425	9.24	100.05
3285	48630	7.79	5.48	2.425	14.55	228.72
3008	37372	5.21	3.75	2.50	9.00	71.74
3554	41778	6.60	4.95	2.50	12.90	162.52
4967	30690	6.96	4.52	2.60	12.38	110.24
3130	32862	8.94	4.53	2.60	13.68	130.64
3494	34798	6.95	4.56	2.60	12.62	129.57
3571	36947	8.08	4.44	2.95	13.99	163.07
4379	40740	7.24	4.59	3.01	14.21	182.73
3579	38328	8.	4.60	3.06	14.91	186.91

Total of about 635 tons.

Net value per ton after paying all charges except $1.00 per ton freight from mine to Silverton as shown above was $6.65 per ton, or after all expenses of treatment and freight are deducted will leave $5.65 per ton for mining and profit. When mine is properly developed and equipped, this ore can be mined for less than $2.00 per ton, leaving a net profit above cost of mining smelting and freight of $3.65 per ton.

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ADDENDA

In order that those interested in the Silver Wing and Frederica properties may more fully understand the future possibilities of these two groups combined on one property, I will give several reasons in support of my views.

First, the large area of mineralized ground included in these properties makes it very desirable for anyone wanting a large mining property.

Second, the accessibility makes it possible to operate at all seasons of the year.

Third, the possibility of working all of the veins through the main cross cut tunnel and the great depths that this tunnel will cut the veins, saves the expense of hoisting the ore to the surface, and the complete drainage of the mine through this tunnel saves the expense of pumping the water from the mine, one of the most expensive propositions that most mines have to contend with, especially where they are operated through a shaft.

Fourth, this tunnel in time will be the outlet for most of the mines on both Jones and Grouse Mountains, and the revenue from royalties will pay a good dividend on a large capital, and this will be a net profit.

Fifth, the large amount of good timber on this property is a good asset, both as timber for mining purposes, and as protection from snowdlides. The mouth of the main crosscut tunnel and the buildings are located so that they are absolutely protected, something that cannot be said of any other property above Eureka.

Sixth, the tonnage will be unlimited when the property is properly developed. It is an ideal smelting proposition, and with a pyritic smelter in connection, the expense should be very little except for mining.

Seventh, and being located in a district that is noted for large and productive mines, such as the Sunnyside, Pride of the West, Gold King, Gold Prince, Mogul, Old Hundred, Iowa, Silver Lake

and many others that I could mention, a long life is assured.

Eighth, with the showing that this property has made with the small area developed, both in assays and shippments, I believe that for the development done there is not another property in the district that will compare with the Silver Wing and Frederica properties.

Very respectfully,

s/ Theo Ivens
Manager

The above report undated, but probably was written about the same time as the Rice report.

Dec. 15, 1948

Colorado Mines and Metals Company
Silverton, Colorado

Gentlemen:

Enclosed is a resume of metal prices over a period of years that may be of interest to you. The price of silver and copper during the time the Silver Wing was shipping was as follows:

	Silver	Copper
1905	.604/oz.	
1906	.668	.12/lb.
1907	.653	.135/lb.
1908	.529	

There is no way from the Rice report in which I can determine what the present value of the assays would be since there is no breakdown as to the metal content. They would certainly be much higher today.

I have calculated the present average value of the 4000 tons of ore that was shipped to the smelter during 1906 and 1907 from the Silver Wing. It is as follows:

		1948 value
1906		
Average silver content	6.62/oz./ton	$ 6.02/ton
Average copper content	4.60%	21.60
		$27.62
1907		
Average silver content	5.07/oz./ton	5.14
Average copper content	4.62%	21.70
		$26.84

The 4000 tons is a wonderful assay and was mined from two small stopes about 50 feet high at the Wing Tunnel level. Since there is over 500 feet from this level to the surface and since the surface ore was of better grade than this ore, a tremendous tonnage is indicated.

Assuming only two blocks of ore 500 feet high by 150 feet long by 14 feet wide (which is conservative) the tonnage in block would be 150,000 tons. This does not include the possible continuous tonnage laterally along the Silver Wing vein or the probable tonnage from the many other veins.

It is impossible for us to make any shipments from the Wing as we have no ore bin to load from, and it would be too costly and hazardous to attempt to construct one with so much snow on the ground.

I am told on reliable information that the failure of the Silver Wing Company in 1909 was due to the inability of their stamp mill, jigs and tables to separate the iron from the copper or beneficiate the ore. Their heads, tails and concentrates all assayed about the same.

This would be no problem for a modern mill. It could easily achieve a 10-1 concentration ratio and recover 90% of the values.

I will keep you advised of further developments.

Respectfully submitted,

William L. Chase, Geol. Engr.

ADDENDA

June 15,1949

Colorado Mines and Metals Company
Silverton, Colorado

Gentlemen:

Since writing the above report the Great Eastern Mining Company has spent in behalf of Colorado Mines and Metals Company $23,525.00 in further development of the Silver Wing property. The expenditure of this money has convinced me that the Rice report was essentially correct. The Silver Wing group should prove one of the outstanding producers of the San Juan District. It is true that an additional expenditure of probably $50,000 should be made to put the property in full production. Nevertheless, a large amount of this expenditure should be recovered from the sale of ore mined during the time this money was being spent as exploratory work was continued.

The Colorado Mines and Metals Company should have no problem in the milling of this ore as both the Shenandoah-Dives custom mill (capacity 1000 tons per day) and the Pride of West mill will actively compete for this ore. Both mills are situate within a few miles from the Silver Wing properties. Furthermore, the above properties are located on a main highway which is maintained by the County of San Juan and kept open the entire year.

It might be of interest to note that since the Rice report was written, two large mills, each with a capacity exceeding 1,000 tons per day, were built, both these mills being within a few miles of your property. The Mayflower (Shenandoah-Dives Company) is still operating. United States Smelting, Refining and Mining Company, who operated the Sunnyside, closed several years ago after producing many millions of dollars worth of ore. In one year this company's production exceeded $4,000,000. The United States Smelting, Refining and Mining Company are still the owners of the property, and the rumor has persisted recently that the company will soon resume operations. The Idarado Mining Company, after an expenditure of over a million dollars in developing their property near Silverton, is now milling in excess of 1000 tons of ore a day, said to be of very high grade ore. The Idarado property is considered the outstanding mining property in southwestern

Colorado. Ex-President Hoover made the following statement several years ago at a mining convention in Denver: "The San Juan Mining District of Colorado is the greatest base metal area in the world, and the next several years will see stupenduous mining developments in that region." It seems from recent developments that Ex-President Hoover's statement was not over-optimistic.

Respectfully submitted,

William L. Chase, Geol. Engr.

January 1, 1950

Colorado Mines and Metals Company
Silverton, Colorado

Gentlemen:

In looking over some additional records in our office, I find a signed report pertaining to the Silver Wing group by S. A. Spellmeyer, a mining engineer and geologist of very considerable standing. The report was addressed to Sam B. Mosher, President of Signal Oil Company of Los Angeles. Exerpts of this report as pertaining to the Silver Wing group are as follows:

"Great Eastern-Silver Wing Group. About 25 mining claims upon which a number of veins are found, some of which have proved productive. Group is 11 miles northwest from Silverton, about 2 miles north of Eureka, Colorado. Elevation at foot of mountain about 10,500 feet rising about 1,600 feet higher in a mile to the east. Country rock is andesite. Vein fractures are persistent and well marked. Veins are not parallel but the fracture system could not be studied at this time. Habit of the country in general seems to be for the continuity of base metal values for considerable depth. The Silver Wing Tunnel is nearly 1,800 feet long S. 61E. with a turn to N. 80E. for the last 250 feet. It cuts the Silver Wing, Denver Belle and other veins and is pointed to cut other veins which were productive on the surface.

"The Silver Wing vein is cut at about 1,000 feet from the portal where there is a stope that produced 4,000 tons of ore in 1906 and 1907, averaging 6 ounces of silver and 4.61% copper. Just north of the stope a diamond drill hole was being drilled across the vein at the time of my visit. For 25 feet of core seen (hole not completed) calcopyrite was seen scattered through the whole length in sufficient quantity to look like ore. The present day value of an assay of 6 ounces of silver and 4.61% copper is $26.06 per ton gross and should leave an operating profit of $7.94 after mining, milling and smelting. The vein was developed for more than 150 feet in length and is 500 feet below the surface. This creates a possible target of 156,000 tons of ore having a net value of $1,250,000.00. Development work is justified by that showing.

"Other veins cut in the tunnel should be sampled and explored as some low grade values are encountered.

"Beyond the end of the Silver Wing Tunnel toward the east an important vein called the Sioux City projects to the tunnel level at about 500 feet. This vein strike N-S and dips 70° West. At 1,000 feet the great Eastern Vein striking N. 40E. dipping 70° N.W. projects to the tunnel level. These two veins should intersect about 1,000 feet southeast from the face.

"During the summer and fall just passed a stope was worked on the Great Eastern vein, which produced 3,563 tons of shipping ore having gross metal content of $283,528 and which netted from the smelter $91,714.82 after shipping and treatment. It probably cost $36,000.00 to mine. If a mill had been available, the net return from that ore would have been about $167,000.00 This is a lead-zinc, silver vein.

"Exploration beyond the stope has indicated another ore body that may be continuation of another lens. From talking to Chase the impression was gained that the ore bodies in the Great Eastern Vein are lenticular, open space, filling and more valuable in unit content, as well as total, when wide. This indicates that vein intersections may be good place to explore. It was impossible to get to the Great Eastern working because of heavy snow conditions, so all I know of it except the smelter liquidation sheets is hearsay.

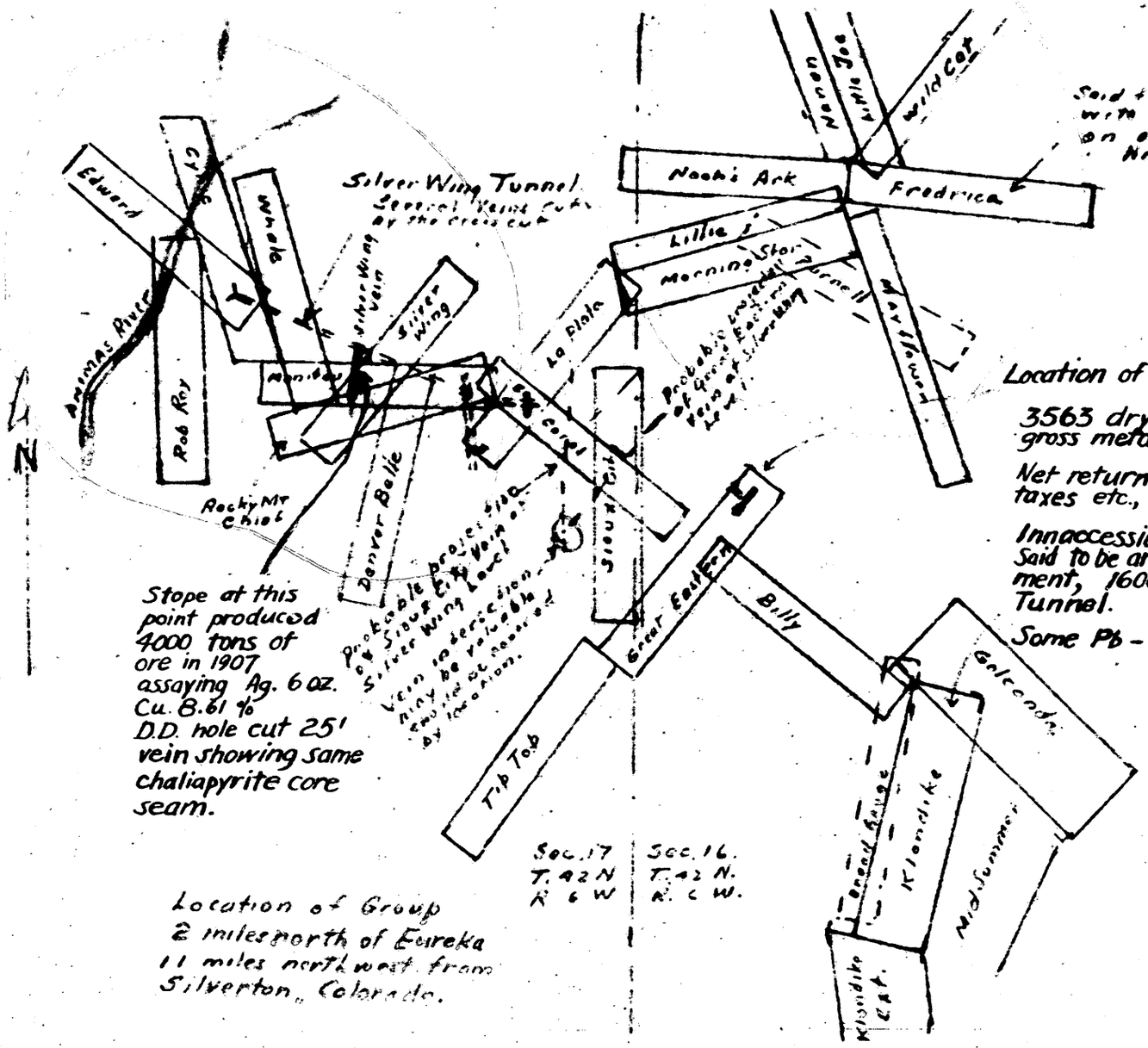
"Another important vein on the surface is the Frederica about 2,000 feet northeast of the Silver Wing Tunnel face. Considerable shallow values high in silver have been mined, particularly where cross veins are encountered.

"On the whole the Group deserves exploration work either by drilling flat holes or by drifts, crosscuts and raises. A lot of preliminary work is already done and future exploration should largely be on vein with good hopes of finding payable ore. With a mill available it would appear that any money advances for exploration would be quickly returned, and the operation would become self-sustaining and at the same time build up capital assests."

Respectfully submitted,

William L. Chase, Gen'l Mgr.

S. A. SPELLMEYER
MINING ENGINEER



Said to be very persistent vein with many small workings on cross veins. Not visited

Location of work done in 1948

3563 dry tons shipped which had a gross metal content of $253,528.00.

Net return after losses, freight, treatment, taxes etc., $91714.82.

Innaccessible at present because of snow. Said to be another stope ready for development, 1600' higher than Silver Wing Tunnel.

Some Pb - Zn - Ag. ore has been shipped.

Stope at this point produced 4000 tons of ore in 1907 assaying Ag. 6 oz. Cu. 8.61 % D.D. hole cut 25' vein showing same chaliapyrite core seam.

Location of Group
2 miles north of Eureka
11 miles northwest from Silverton, Colorado.

Great Eastern Mining Company
Silverton, Colo.
Sketch copy of claim map showing location of work on Silver Wing and Great Eastern Groups.
Scale 1" = 1000'
12/20/48

GREAT EASTERN MINING COMPANY

RECONCILIATION OF ORE SHIPMENTS

YEAR 1952

	Dry Tons	Gold Oz.	Silver Oz.	Lead Lb.	Copper Lb.	Zinc Lb.	Gross	Trucking	Milling	Umpire	Pride	Leasors
#5-Level Lease												
Shenandoah-Dives Mining Co.	9,125.568	592.232	74,364.48	1,265,754	67,603	318,449	255,746.18	10,027.84	31,939.48	375.75	106,701.48	106,701.63
American, Zinc, Lead Co.	418.578	65.28	2,140.91	60,826	3,628	15,676	10,173.50	1,899.45	1,883.60	36.00	3,177.23	3,177.22
David-Lease												
Shenandoah-Dives Mining Co.	761.647	38.36	1,489.68	80,683	3,388	24,375	9,471.16	998.34	2,665.77	56.00	2,875.50	2,875.55
American, Zinc, Lead Co.	259.8325	16.70	709.34	46,370	2,539	12,790	6,361.48	1,168.25	1,169.24	22.00	2,001.00	2,000.99
Ethrig Grey-Lease												
Shenandoah-Dives Mining Co.	297.907	26.81	668.83	35,687	1,200	6,214	4,100.36	317.07	1,042.68	18.00	1,361.30	1,361.31
Knoll & Slade-Lease												
Shenandoah-Dives Mining Co.	208.832	11.28	782.28	14,618	877	4,177	2,174.69	273.27	730.91	6.00	582.25	582.26
Green Mountain-Lease												
Shenandoah-Dives Mining Co.	1,768.559	149.518	10,251.10	231,592	15,240	55,076	31,071.83	2,073.35	6,189.96	69.00	11,369.75	11,369.77
American, Zinc, Lead Co.	101.635	7.11	648.43	31,405	1,118	2,998	4,402.83	475.43	457.36	6.00	1,732.02	1,732.02
Green Mountain Dumps-Lease												
Shenandoah-Dives Mining Co.	721.281	41.80	3,203.24	49,918	2,774	52,379	8,510.27	1,526.25	2,524.48	62.50	439.70	3,957.34
TOTAL-PRIDE & GREEN MOUNTAIN	13,663.8395	949.090	94,258.29	1,816,853	98,367	492,134	$332,012.30	$18,759.25	$48,603.48	$651.25	$130,240.23	$133,758.09
Great Eastern-Lease												
Shenandoah-Dives Mining Co.	2,316.994	23.96	15,221.26	622,699	2,817	100,087	62,699.45	6,853.88	8,109.47	108.00	21,432.62	26,195.48
American Smelting & Ref. Co.	48.746	.49	480.15	19,177		3,168	2,601.09	852.65	537.67	10.00	540.35	660.42
TOTAL-GREAT EASTERN	2,365.740	24.45	15,701.41	641,876	2,817	103,255	65,300.54	7,706.53	8,647.14	118.00	21,972.97	26,855.90

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

June 9, 1953

Memorandum

To: W. M. Traver, Jr. (with brochure)
A. H. Koschmann (with brochure)

From: Field Team, Region IV

Subject: Docket DMEA No. 3057 (Lead-Zinc), Colorado Mines and Metals Co., San Juan County, Colorado

Enclosed is an application for exploration assistance submitted by the Colorado Mines and Metals Company estimated to cost $50,000.00.

A field examination should be made and a report submitted.

John F. Shaw
John F. Shaw, for
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosure

GENERAL OFFFICES
ROSENWALD BUILDING
ALBUQUERQUE, N. M.

MINES AND MILLING
SAN JUAN COUNTY
COLORADO

COLORADO MINES AND METALS CO.

~~ALBUQUERQUE, N. M.~~
Silverton, Colo.

May 8, 1953

U. S. Department of the Interior
DMEA, 224 New Customhouse, Building,
Denver, Colorado.

Appliciation for a $25,000.00 Aid in an Exploration Project.

1. Name of Applicant
   Colorado Mines & Metals Co.,
   Silverton, Colorado.

3. Map of Claims inclosed.

   b. Silver Wing Mine

   c. Colorado Mines & Metals Company are the owners of the property.

   e. None

   f. Patented Claims

4. Physical Description
   Maps are enclosed with this application, also previous reports that have been made on the property.

   e. Manpower is available due to shutting down of mines due to lead & Zinc Price. Material and supplies are available, it will be necessary to purchase a compressor, install rail, vent. pipe and other pipe as this equipment has all been taken out. Elec. power lines run by the portal of the tunnel, necessary transformers are on hand. Some equipment will be furnished by the Great Eastern Mining Company.

5. Will develop largetonnage of Lead and Zinc if Great Eastern proves in depth.

GENERAL OFFFICES
ROSENWALD BUILDING
ALBUQUERQUE, N. M.

MINES AND MILLING
SAN JUAN COUNTY
COLORADO

COLORADO MINES AND METALS CO.

~~ALBUQUERQUE, N. M.~~
Silverton, Colo.

SHEET #2

Proposed Work

1000 Ft Crosscut
500 Ft Drifting
500 Ft Raising

c. Work will start as soon as approved, Completion depends upon winter conditions.

d. William L. Chase, graduate of the School of Mines

6 Estimate of Costs

1000 Ft Crosscut @ $20.00 Ft.
500 Ft Drifting @ $25.00 Ft.
500 Ft Raising @ $35.00 Ft.

Approximte cost will be $50,000.00

Crosscut will intersect several major veins with good surface indications. Will develop large tonnage of Lead and Zinc if Great Eastern proves in depth, and will allow much longer operating season with lower costs.

e. There is a compressor room at the portal, some repair work would have to be done on the building, as snowhas broken some of the roof rafters and doors and windows would have to be replaced.

7. a. Yes

b. Money and Use of equipment ~~owned~~ owned.

Yours very truly
Colorado Mines & Metal Co.,
by Earl A. Larson
Assistant Secretary

Certification signed and attached.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 3057
Metal or Mineral
Date Received
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Colorado Mines & Metals Company

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore .....

.....

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within ..... days and be completed within ..... months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(*b*) How do you propose to furnish your share of the costs?

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated May 8, 1953

Colorado Mines & Metals Company
(Applicant)

By Earl A. Larson

Assistant Secretary

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

REPORT OF SILVER WING
AND FREDERICA GROUP OF CLAIMS

LOCATION AND GENERAL SURROUNDINGS

The Silver Wing is situated on the northwest end of Jones Mountain, about 2 miles in a northerly direction from the town of Eureka, and about 2 miles in a southerly direction from Animas Forks. The Silver Wing is a beautiful spot, nestling in a grove of pines at the foot of Jones Mountain, making it an ideal spot in summer, and a safe place of abode in winter. The timber being a heavy and extensive belt, proves the property to be immune from snowslides.

The aforesaid property is very accessible, and can be reached by road from Silverton on the southwest a distance of 11 miles; it can also be approached from Lake City, a distance of 23 miles in a northeasterly direction; and from Ouray in a northwesterly direction, a distance of 16 miles. The Silverton road is the best and shortest.

TITLE AND DESCRIPTION OF PROPERTY

There are 22 claims in the group, 9 of which are patented, covering an area of about 200 acres. The claims are named as follows: Patented -- Silver Wing, Rocky Mountain Chief, Denver Bell, Manitou, Whale, Cynic, Edward, Rob Roy and Frederica.

Unpatented -- Cliff, LaPlata, Lilly, Morning Star, Nanon, Little Joe, Wild Cat, Mable, Stanley, Van Diest, Ada, Ada No. 2, and Lake View.

As of 1952 all claims are patented.

TOPOGRAPHY

While the topography of Jones Mountain is quite rugged, yet in the immediate vicinity of the tunnel, it is quite smooth and covered with grass, trees and flowers. As I said before, the mine is in one of the most beautiful, as well as the most accessible, locations in the San Juan, being easy of approach from these different points. It has an elevation of about 10,500 feet above tide water, by barometric measurement.

E.M.

A. C.

GEOLOGY AND CHARACTER OF ORE

In a general sense, the geology of Jones Mountain is like that of other San Juan Mountain; it is precipitous, composed chiefly of andesite, both massive and fragmental (tuff braccias) belonging to the Silverton series. In its lower portions occurs some rhyolite and intrusive masses of monzonite as may be seen, reference to the map, where some of the most prominent veins are shown. The veins of this group form a complete network in which certain dominant directions of fissuring are plainly recognizable. There is a series of strong continucus lodes represented by the Silver Wing, Frederica, Great Eastern, Noah's Ark, Denver Bell, Whale, Tom Moore, et al., which by their hold outcrop can be traced for miles with the naked eye. They pass through Jones Mountain in a southeasterly direction.

The Silver Wing is a true fissure vein encased between walls of andesite. The dip is vertical and the strike about north 75 degrees east and parallel Jones Mountain.

The vein filling is a gangue of quartz and talc, the ore minerals of the vein are galena, spahlerite, chalcopyrite, pyrite, tetrahedrite, sulphurbisumthite, bornite and silver, with gold appearing sparingly. The average width of this vein is approximately 9 feet, the length of the ore body cannot be determined, but the ore shoots show on the surface to be sereral hundred feet in length. The Denver Bell is a true fissure carrying gold, silver and copper, cut at a depth of 900 feet; there has been no drifting of any consequence at the present state of development, but assays taken from this vein average $15.55 per ton, the ore being suitable for concentration and amalgamation, running 7 into 1. The vein filling is quartz, the mineral galena, sphalerite, chalcopyrite, gold and silver and copper.

The Frederica is also a true fissure vein encased between walls of andesite. The vein filling is a quartz, the ore minerals are galena, chalcopyrite, pyrite, gold and silver. These veins will be better described in the following pages of this report.

E. M.

A. C.

The Frederica is not only a true fissure vein, but a very persistent one. Its bold outcrop can be traced for thousands of feet on the surface. It has been opened up in several places on the lead, and shows ore bodies of great size. From tests taken, the ore seems to be of good milling values. The extent of this ore body or the quality thereof cannot be determined until ascertained by depth of the main tunnel. This ore body is situated near the top of Jones Mountain. The tunnel will have to be run to a distance of 2000 feet to intersect this vein. The Frederica was one of the early producers of San Juan; but little, if any, data can be obtained about those early shipments. One of the exhibit sheets will show smelter returns on ore shipped in recent years. There are many openings on the vein, but the ore is in such shape that it is hard to ascertain what, if any, ore bodies are available. It will be well to mention this property as the aforesaid tunnel will cut this vein at a depth of 2200 feet, by running a distance of 2000 feet, and also many other veins in this group of which I will not speak now as they have not been very extensively developed, consequently cannot go into details as to their ore bodies, but assays from all of them show excellent results. There will be a map which will show the veins and underground workings of the property in the main tunnel.

DEVELOPMENT

This consists of a crosscut tunnel 1750 feet in length, cutting the veins almost at right angles, at a depth of 500 feet to 1000 feet. The property is also developed by several crosscuts and drifts in the way of surface workings in the upper portion of the veins to depths varying from 10 to 100 feet below the surface. The Denver Bell 900 feet from the surface. There are 150 feet driven on the Silver Wing vein, 100 feet of which is timbered ready for stoping. From the level of the crosscut tunnel to the surface is 560 feet.

E. M.

A. C.

ORE IN SIGHT

Measurements have been carefully taken and the amount of ore in sight has been computed in the Silver Wing vein, omitting for the sake of brevity details of the measurement and calculations, the following summary is given. Ore blocked out on the Silver Wing vein, taking into consideration the depth of this ore body together with the width and length, gives you a total of 50,400 tons of ore at $12.35 per ton and will give the sum of $622,400.00. A smelter return exhibit sheet will be attached to this report showing the value of the ore.

The Denver Bell lode is a true fissure 3 feet wide between walls and out at a depth of 900 feet showing values across the streak of $15.55 per ton. It is hard to determine the length of this ore shoot with the limited amount of development, but judging from surface indications and the outcrop of the ore body, the vein is of great magnitude. As the ore on the surface proved by assays and smelter returns to be of high grade value, and judging from the depth of this ore body from the main tunnel to the surface as heretofore stated, by proper development on the tunnel level, the Denver Bell will be equal to or greater than the Silver Wing, as it has already shown such excellent values. Another feature in favor of this vein is that it is a milling proposition, and will concentrate 7 into 1, thus cutting down smelting and transportation charges. By running on this vein 300 feet in the main tunnel to gain an idea of its size and value, 300 feet by 900 feet, by 3 feet, gives a total of over 50,000 tons, at $15.55 per ton, making a grand total of over $750,000.00.

RECOMMENDATIONS

I would recommend the drift on the Silver Wing vein be extended 750 feet, each way from the main tunnel to the end that greater quantities of ore can be obtained.

The Denver Bell should also be drifted upon to the extent of 750 feet each way from the main tunnel, to ascertain the length

E. M.
A. C.

of the ore shoots, block the ore out for stoping, and at a later date I would suggest the extension of the tunnel to the Frederica as I have every reason to believe the values at the depth of 2200 feet will justify the expense incurred.

CONCLUDING REMARKS

A careful study of the Silver Wing mine in its present state of development would convince the most skeptical that it is a property of much value, and possesses splendid future possibilities. The ore is of considerable magnitude, and will have large reserves to draw from, if my recommendations are adhered to. There would be enough ore to keep the mine running for at least 40 years without further development than above recommended. 100,000 tons of an average value of $13.00 per ton would make a total of $1,300,000.

All of this independent of the improvements and equipment of the mine makes a mining property of rare occurrence.

In addition to the foregoing remarks, when taking into consideration the firm walls and dryness of the mine, all of which favor cheap mining, the proposition as a whole would seem to be an exceptionally favorable one, and should invite and command the most serious attention and consideration from the investor, speculator and capitalist.

Very respectfully

/s/ Arthur Rice, E. M.

Denver Colorado, Jan. 2, 1907

EXHIBIT SHEET #4

FREDERICA

ASSAYS	NO.			PER TON
	1	Fourth level		$ 16.08
	2	" "		10.64
	3	Third "	75 ft. from mouth	46.68
	4	" "	100 ft. from mouth	11.16
	5	" "	125 " " "	6.00
	6	" "	175 " " "	4.32
	7	" "	200 " " "	11.78
	8	" "	Iron streak in breast	72.50
	9	" "	General sample vein 10' wide	7.48
	10	Second "	15 ft. from mouth	30.84
	11	" "	40 ft. from mouth	84.25
	12	" "	56 ft. " "	4.80
	13	" "	80 ft. " "	44.76
	14	House level breast		9.24
	15	" "	iron streak	97.36

ORE SHIPPED FROM ABOVE

23046 # Oz.	Silver per T. 13.58% lead per T.	46.05
25024 # Oz.	" " "	46.05
13572 # Oz.	"" " "	28.80
10962 # Oz.	" " "	41.55

NANON LODE

ASSAYS	NO.			
	1	Surface		22.72
	2	"	Honeycomb	18.24
	3	"	Cut	18.24
	4	"	Small streak	121.68
	5	"	Middle of cut	18.24

EXHIBIT SHEET #5

DENVER BELL

ASSAYS

NO.		PER TON
1	Upper workings	$ 26.20
2	" "	21.60
3	" " South end	8.20

SILVER WING VEIN

1	Surface, Ore shoot, copper ore	3.10
2	" " " Lead ore	16.20
3	Lower or main tunnel, 576 ft. vein left drift	13.10
4	576 ft. vein right drift	10.60
5	Iron vein	77.38
6	" "	54.84
7	Copper vein	76.00
8	Main upper tunnel vein	6.50
9	General Sample	38.40
10	" "	6.40
11	" "	6.80
12	" "	52.00
13	" "	13.40
14	" "	23.85

EXHIBIT SHEET #6

Copies from settlement sheets of the ore shipped from the Silver Wing mine to the Ross Mining and Milling during the latter part of 1906.

Car No.	Net Pounds	Oz. Silver Per T	% Copper Per Ton	Pride Pd Per Unit Copper	Gross Value Per T	Net Amount Recd from Smelter
1782	32848	6.17	4.90	2.21	$11.35	$103.29
3401	40986	5.60	4.96	2.45	11.88)	
9465	46382	5.60	4.96	2.45	11.88)	296.36
3203	53955	3.13	4.08	2.45	8.75	98.07
3057	57966	7.42	4.85	2.46	13.80	184.21
3163	47816	8.57	5.36	2.40	14.15	227.98
1565	47768	7.30	4.67	2.45	11.78	165.52
3278	48955	8.38	5.40	2.45	14.78)	
4496	55836	7.18	4.70	2.45	12.29)	436.24
3569	52677	8.05	5.16	2.30	13.42	219.32
3545	50580	7.75	4.70	2.35	12.02	178.25
5003	48658	6.52	4.42	2.35	10.82	138.59
5962	38016-	6.54	5.	2.30	12.09	131.76
3029	45491	6.44	4.10	2.30	10.03	111.40
3493	10890	6.18	6.15	2.45	15.38	53.51
"	19980	6.18	4.99	2.45	12.44	74.32
1671	46134	4.98	3.13	2.45	7.12	45.00
3744-	50936	4.44	3.46	2.45	7.59	62.96
9517	47372	5.24	3.93	2.45	9.27	98.13
3251	45243	6.90	4.08	2.425	10.69	125.72
3612	38609	6.02	3.72	2.425	9.24	100.05
3285	48630	7.79	5.43	2.425	14.55	228.72
3008	37372	5.21	3.75	2.50	9.00	71.74
3554	41778	6.60	4.95	2.50	12.90	162.52
4967	30690	6.96	4.52	2.60	12.38	110.24
3130	32862	8.94	4.53	2.60	13.68	130.64
3494	34798	6.95	4.56	2.60	12.62	129.57
3571	36947	8.08	4.44	2.95	13.99	163.07
4379	40740	7.24	4.59	3.01	14.21	182.73
3579	38328	8.	4.60	3.06	14.91	186.91

Total of about 635 tons.

Net value per ton after paying all charges except $1.00 per ton freight from mine to Silverton as shown above was $6.65 per ton, or after all expenses of treatment and freight are deducted will leave $5.65 per ton for mining and profit. When mine is properly developed and equipped, this ore can be mined for less than $2.00 per ton, leaving a net profit above cost of mining smelting and freight of $3.65 per ton.

EXHIBIT SHEET #7

Copied from settlement sheet of the ore shipped from the Silver Wing mine to the R. & M. Co. from May 1 to September 1, 1907.

Smelter No.	Net Lbs.	Oz. Silver	% Copper	Price Per Unit	Gross Val. Per Ton	Net val. after deducting S. Charge
611	41578	4.97	4.93	3.35	14.53	$198.70
613	40489	5.56	4.58	3.35	13.75	221.35
618	39699	5.36	54.85	3.35	14.53	189.19
620	40286	5.15	4.52	3.30	13.16	164.35
622	58212-	5.38	4.64	3.30	13.71	253.50
626	37725	5.40	4.41	3.30	12.96	150.20
631	33638	6.36	4.87	3.30	15.07	169.51
636	39792	5.12	4.41	3.30	12.79	154.96
642	45045	5.13	4.41	3.35	12.95	179.26
643	56848	4.38	3.77	3.35	10.35	98.47
651	50666	4.77	3.54	3.35	9.82	122.11
652	62544	4.48	2.84	3.35	7.27	69.76
656	46410	4.81	3.07	3.35	8.24	75.25
658	53018	4.65	3.31	3.35	8.94	104.52
659	43242	4.78	3.25	3.275	8.69	79.90
662	43464	3.06	3.25	3.275	7.62	57.11
669	45540	4.43	3.37	3.275	8.87	88.15
671	41382	4.39	3.43	3.275	9.05	83.69
674	43262	4.36	3.48	3.275	1.19	90.60
679	32818	5.27	3.95	3.275	11.29	1 03.23
688	48462	5.36	4.36	3.285	12.72	187.07
692	48064	5.10	4.29	3.25	12.32	175.94
694	52718	7.07	4.38	3.25	15.74	283.39
701	47916	7.37	5.11	3.25	16.43	273.94
705	42470	5.07	5.23	3.25	15.55	219.94
708	44550	6.47	4.65	3.25	14.36	208.64
709	43312	4.16	5.05	3.25	14.19	199.10
711	42224	6.16	4.82	3.25	14.72	205.21
717	42224	4.57	4.22	3.25	11.75	142.62
718	46184	6.06	4.16	3.25	12.57	173.55
722-	44102	6.96	5.02	3.085	15.26	226.38
727/732	45668	6.66	5.93	3.10	17.28	291.27
728	38066	5.60	4.98	3.05	14.18	174.78
726	42422	8.37	6.52-	3.10-	20.92	337.85
737	42470	5.56	4.57	3.05	12.90	167.90
746	48410	4.37	3.84	2.90	9.58	110.95
747	39650	4.76	3.84	2.90	9.83	96.05
751	49302	16.36	10.31	2.95	36.14	714.00
752	48658	4.66	4.02	2.90	10.29	128.72
758	43064	5.06	3.83	2.90	9.99	107.27
762	46530	5.56	3.88	2.90	10.46	127.09
767	47372	6.07	3.20	2.75	8.57	84.68
768	16038	8.67	8.49	2.95	26.17	149.72
769	44450	5.26	3.88	2.75	9.92	109.46
770	22324	13.76	11.08	2.80	35.66	314.88
786	45094	5.51	3.32	2.75	8.59	81.05
791	47272	4.96	3.68	2.75	9.22	99.91
792	49244	17.36	9.80	2.80	34.55	666.10
798	37865	4.50	3.82	3.82	9.53	76.28
812	45460	3.70	4.48	2.80	10.64	122.66
823	42768	3.36	3.03	2.75	6.53	30.62
825	41382	4.50	3.15	2.75	7.51	52.07
840	47966	5.12	3.80	2.75	9.72	113.10
852	39946	5.74	2.20	2.35	5.39	7.85
859	44996	4.39	3.81	2.35	8.29	74.73
862	45738	5.38	3.28	2.35	7.69	61.66
865	12770	10.55	8.40	2.40	23.45	117.80
866-	39254	19.90	8.37	2.25	28.36	409.42
874	44700	4.91	2.68	2.225	5.80	17.89
880	38064	5.38	4.35	2.225	9.82	115.85
886	39698	7.52	4.31	2.225	11.11	151.95
894	44252	6.68	4.76	2.225	11.57	145.44

1344 tons of an average value of about $12.60 per ton.

ADDENDA

In order that those interested in the Silver Wing and Frederica properties may more fully understand the future possibilities of these two groups combined on one property, I will give several reasons in support of my views.

First, the large area of mineralized ground included in these properties makes it very desirable for anyone wanting a large mining property.

Second, the accessibility makes it possible to operate at all seasons of the year.

Third, the possibility of working all of the veins through the main cross cut tunnel and the great depths that this tunnel will cut the veins, saves the expense of hoisting the ore to the surface, and the complete drainage of the mine through this tunnel saves the expense of pumping the water from the mine, one of the most expensive propositions that most mines have to contend with, especially where they are operated through a shaft.

Fourth, this tunnel in time will be the outlet for most of the mines on both Jones and Grouse Mountains, and the revenue from royalties will pay a good dividend on a large capital, and this will be a net profit.

Fifth, the large amount of good timber on this property is a good asset, both as timber for mining purposes, and as protection from snowdlides. The mouth of the main crosscut tunnel and the buildings are located so that they are absolutely protected, something that cannot be said of any other property above Eureka.

Sixth, the tonnage will be unlimited when the property is properly developed. It is an ideal smelting proposition, and with a pyritic smelter in connection, the expense should be very little except for mining.

Seventh, and being located in a district that is noted for large and productive mines, such as the Sunnyside, Pride of the West, Gold King, Gold Prince, Mogul, Old Hundred, Iowa, Silver Lake

and many others that I could mention, a long life is assured.

Eighth, with the showing that this property has made with the small area developed, both in assays and shippments, I believe that for the development done there is not another property in the district that will compare with the Silver Wing and Frederica properties.

Very respectfully,

s/ Theo Ivens
Manager

The above report undated, but probably was written about the same time as the Rice report.

Dec. 15, 1948

Colorado Mines and Metals Company
Silverton, Colorado

Gentlemen:

Enclosed is a resume of metal prices over a period of years that may be of interest to you. The price of silver and copper during the time the Silver Wing was shipping was as follows:

	Silver	Copper
1905	.604/oz.	
1906	.668	.12/lb.
1907	.653	.135/lb.
1908	.529	

There is no way from the Rice report in which I can determine what the present value of the assays would be since there is no breakdown as to the metal content. They would certainly be much higher today.

I have calculated the present average value of the 4000 tons of ore that was shipped to the smelter during 1906 and 1907 from the Silver Wing. It is as follows:

		1948 value
1906		
Average silver content	6.62/oz./ton	$ 6.02/ton
Average copper content	4.60%	21.60
		$27.62
1907		
Average silver content	5.07/oz./ton	5.14
Average copper content	4.62%	21.70
		$26.84

The 4000 tons is a wonderful assay and was mined from two small stopes about 50 feet high at the Wing Tunnel level. Since there is over 500 feet from this level to the surface and since the surface ore was of better grade than this ore, a tremendous tonnage is indicated.

Assuming only two blocks of ore 500 feet high by 150 feet long by 14 feet wide (which is conservative) the tonnage in block would be 150,000 tons. This does not include the possible continuous tonnage laterally along the Silver Wing vein or the probable tonnage from the many other veins.

It is impossible for us to make any shipments from the Wing as we have no ore bin to load from, and it would be too costly and hazardous to attempt to construct one with so much snow on the ground.

I am told on reliable information that the failure of the Silver Wing Company in 1909 was due to the inability of their stamp mill, jigs and tables to separate the iron from the copper or beneficiate the ore. Their heads, tails and concentrates all assayed about the same.

This would be no problem for a modern mill. It could easily achieve a 10-1 concentration ratio and recover 90% of the values.

I will keep you advised of further developments.

Respectfully submitted,

William L. Chase, Geol. Engr.

ADDENDA

June 15,1949

Colorado Mines and Metals Company
Silverton, Colorado

Gentlemen:

Since writing the above report the Great Eastern Mining Company has spent in behalf of Colorado Mines and Metals Company $23,525.00 in further development of the Silver Wing property. The expenditure of this money has convinced me that the Rice report was essentially correct. The Silver Wing group should prove one of the outstanding producers of the San Juan District. It is true that an additional expenditure of probably $50,000 should be made to put the property in full production. Nevertheless, a large amount of this expenditure should be recovered from the sale of ore mined during the time this money was being spent as exploratory work was continued.

The Colorado Mines and Metals Company should have no problem in the milling of this ore as both the Shenandoah-Dives custom mill (capacity 1000 tons per day) and the Pride of West mill will actively compete for this ore. Both mills are situate within a few miles from the Silver Wing properties. Furthermore, the above properties are located on a main highway which is maintained by the County of San Juan and kept open the entire year.

It might be of interest to note that since the Rice report was written, two large mills, each with a capacity exceeding 1,000 tons per day, were built, both these mills being within a few miles of your property. The Mayflower (Shenandoah-Dives Company) is still operating. United States Smelting, Refining and Mining Company, who operated the Sunnyside, closed several years ago after producing many millions of dollars worth of ore. In one year this company's production exceeded $4,000,000. The United States Smelting, Refining and Mining Company are still the owners of the property, and the rumor has persisted recently that the company will soon resume operations. The Idarado Mining Company, after an expenditure of over a million dollars in developing their property near Silverton, is now milling in excess of 1000 tons of ore a day, said to be of very high grade ore. The Idarado property is considered the outstanding mining property in southwestern

Colorado. Ex-President Hoover made the following statement several years ago at a mining convention in Denver: "The San Juan Mining District of Colorado is the greatest base metal area in the world, and the next several years will see stupenduous mining developments in that region." It seems from recent developments that Ex-President Hoover's statement was not over-optimistic.

Respectfully submitted,

William L. Chase, Geol. Engr.

January 1, 1950

Colorado Mines and Metals Company
Silverton, Colorado

Gentlemen:

In looking over some additional records in our office, I find a signed report pertaining to the Silver Wing group by S. A. Spellmeyer, a mining engineer and geologist of very considerable standing. The report was addressed to Sam B. Mosher, President of Signal Oil Company of Los Angeles. Exerpts of this report as pertaining to the Silver Wing group are as follows:

"Great Eastern-Silver Wing Group. About 25 mining claims upon which a number of veins are found, some of which have proved productive. Group is 11 miles northwest from Silverton, about 2 miles north of Eureka, Colorado. Elevation at foot of mountain about 10,500 feet rising about 1,600 feet higher in a mile to the east. Country rock is andesite. Vein fractures are persistent and well marked. Veins are not parallel but the fracture system could not be studied at this time. Habit of the country in general seems to be for the continuity of base metal values for considerable depth. The Silver Wing Tunnel is nearly 1,800 feet long S. 61E. with a turn to N. 80E. for the last 250 feet. It cuts the Silver Wing, Denver Belle and other veins and is pointed to cut other veins which were productive on the surface.

"The Silver Wing vein is cut at about 1,000 feet from the portal where there is a stope that produced 4,000 tons of ore in 1906 and 1907, averaging 6 ounces of silver and 4.61% copper. Just north of the stope a diamond drill hole was being drilled across the vein at the time of my visit. For 25 feet of core seen (hole not completed) calcopyrite was seen scattered through the whole length in sufficient quantity to look like ore. The present day value of an assay of 6 ounces of silver and 4.61% copper is $26.06 per ton gross and should leave an operating profit of $7.94 after mining, milling and smelting. The vein was developed for more than 150 feet in length and is 500 feet below the surface. This creates a possible target of 156,000 tons of ore having a net value of $1,250,000.00. Development work is justified by that showing.

"Other veins cut in the tunnel should be sampled and explored as some low grade values are encountered.

"Beyond the end of the Silver Wing Tunnel toward the east an important vein called the Sioux City projects to the tunnel level at about 500 feet. This vein strike N-S and dips 70° West. At 1,000 feet the great Eastern Vein striking N. 40E. dipping 70° N.W. projects to the tunnel level. These two veins should intersect about 1,000 feet southeast from the face.

"During the summer and fall just passed a stope was worked on the Great Eastern vein, which produced 3,563 tons of shipping ore having gross metal content of $283,528 and which netted from the smelter $91,714.82 after shipping and treatment. It probably cost $36,000.00 to mine. If a mill had been available, the net return from that ore would have been about $167,000.00 This is a lead-zinc, silver vein.

"Exploration beyond the stope has indicated another ore body that may be continuation of another lens. From talking to Chase the impression was gained that the ore bodies in the Great Eastern Vein are lenticular, open space, filling and more valuable in unit content, as well as total, when wide. This indicates that vein intersections may be good place to explore. It was impossible to get to the Great Eastern working because of heavy snow conditions, so all I know of it except the smelter liquidation sheets is hearsay.

"Another important vein on the surface is the Frederica about 2,000 feet northeast of the Silver Wing Tunnel face. Considerable shallow values high in silver have been mined, particularly where cross veins are encountered.

"On the whole the Group deserves exploration work either by drilling flat holes or by drifts, crosscuts and raises. A lot of preliminary work is already done and future exploration should largely be on vein with good hopes of finding payable ore. With a mill available it would appear that any money advances for exploration would be quickly returned, and the operation would become self-sustaining and at the same time build up capital assests."

Respectfully submitted,

William L. Chase, Gen'l Mgr.

GENERAL OFFFICES
ROSENWALD BUILDING
ALBUQUERQUE, N. M.

Mining Division
Date Rec'd.
MAY 11 1953
BUREAU OF MINES
Denver, Colorado

MINES AND MILLING
SAN JUAN COUNTY
COLORADO

COLORADO MINES AND METALS CO.

~~ALBUQUERQUE~~
Silverton, Colo.

May 8, 1953

U. S. Department of the Interior
DMEA, 224 New Customhouse, Building,
Denver, Colorado.

Appliciation for a $25,000.00 Aid in an Exploration Project.

1. Name of Applicant
   Colorado Mines & Metals Co.,
   Silverton, Colorado.

3. Map of Claims inclosed.

   b. Silver Wing Mine

   c. Colorado Mines & Metals Company are the owners of the property.

   e. None

   f. Patented Claims

4. Physical Description
   Maps are enclosed with this application, also previous reports that have been made on the property.

   e. Manpower is available due to shutting down of mines due to lead & Zinc Price. Material and supplies are available, it will be necessary to purchase a compressor, install rail, vent. pipe and other pipe as this equipment has all been taken out. Elec. power lines run by the portal of the tunnel, necessary transformers are on hand. Some equipment will be furnished by the Great Eastern Mining Company.

5. Will develop largetonnage of Lead and Zinc if Great Eastern proves in depth.

GENERAL OFFFICES
ROSENWALD BUILDING
ALBUQUERQUE, N. M.

MINES AND MILLING
SAN JUAN COUNTY
COLORADO

COLORADO MINES AND METALS CO.

~~XXXXXXXXXXXXXX~~
Silverton, Colo.

SHEET #2

Proposed Work

1000 Ft Crosscut
500 Ft Drifting
500 Ft Raising

c. Work will start as soon as approved, Completion depends upon winter conditions.

d. William L. Chase, graduate of the School of Mines

6 Estimate of Costs

1000 Ft Crosscut @ $20.00 Ft.
500 Ft Drifting @ $25.00 Ft.
500 Ft Raising @ $35.00 Ft.

Approximte cost will be $50,000.00

Crosscut will intersect several major veins with good surface indications. Will develop large tonnage of Lead and Zinc if Great Eastern proves in depth, and will allow much longer operating season with lower costs.

e. There is a compressor room at the portal, some repair work would have to be done on the building, as snowhas broken some of the roof rafters and doors and windows would have to be replaced.

7. a. Yes

b. Money and Use of equipment ~~owned~~ owned.

Yours very truly
Colorado Mines & Metal Co.,
by Earl A. Larson
Assistant Secretary

Certification signed and attached.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. 3059
Metal or Mineral
Date Received
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Colorado Mines & Metals Company

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract

(*b*) State any mine name by which the property is known.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore .....

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc.

(*c*) The work will start within ..... days and be completed within ..... months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)?

(*b*) How do you propose to furnish your share of the costs?

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated May 8, 1953

Colorado Mines & Metals Company
(Applicant)

By Earl A. Larson

Assistant Secretary

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

REPORT OF SILVER WING AND FREDERICA GROUP OF CLAIMS

LOCATION AND GENERAL SURROUNDINGS

The Silver Wing is situated on the northwest end of Jones Mountain, about 2 miles in a northerly direction from the town of Eureka, and about 2 miles in a southerly direction from Animas Forks. The Silver Wing is a beautiful spot, nestling in a grove of pines at the foot of Jones Mountain, making it an ideal spot in summer, and a safe place of abode in winter. The timber being a heavy and extensive belt, proves the property to be immune from snowslides.

The aforesaid property is very accessible, and can be reached by road from Silverton on the southwest a distance of 11 miles; it can also be approached from Lake City, a distance of 23 miles in a northeasterly direction; and from Ouray in a northwesterly direction, a distance of 16 miles. The Silverton road is the best and shortest.

TITLE AND DESCRIPTION OF PROPERTY

There are 22 claims in the group, 9 of which are patented, covering an area of about 200 acres. The claims are named as follows: Patented -- Silver Wing, Rocky Mountain Chief, Denver Bell, Manitou, Whale, Cynic, Edward, Rob Roy and Frederica.

Unpatented -- Cliff, LaPlata, Lilly, Morning Star, Nanon, Little Joe, Wild Cat, Mable, Stanley, Van Diest, Ada, Ada No. 2, and Lake View.

As of 1952 all claims are patented.

TOPOGRAPHY

While the topography of Jones Mountain is quite rugged, yet in the immediate vicinity of the tunnel, it is quite smooth and covered with grass, trees and flowers. As I said before, the mine is in one of the most beautiful, as well as the most accessible, locations in the San Juan, being easy of approach from these different points. It has an elevation of about 10,500 feet above tide water, by barometric measurement.

E.M.

A. C.

GEOLOGY AND CHARACTER OF ORE

In a general sense, the geology of Jones Mountain is like that of other San Juan Mountain; it is precipitous, composed chiefly of andesite, both massive and fragmental (tuff braccias) belonging to the Silverton series. In its lower portions occurs some rhyolite and intrusive masses of monzonite as may be seen, reference to the map, where some of the most prominent veins are shown. The veins of this group form a complete network in which certain dominant directions of fissuring are plainly recognizable. There is a series of strong continuous lodes represented by the Silver Wing, Frederica, Great Eastern, Noah's Ark, Denver Bell, Whale, Tom Moore, et al., which by their hold outcrop can be traced for miles with the naked eye. They pass through Jones Mountain in a southeasterly direction.

The Silver Wing is a true fissure vein encased between walls of andesite. The dip is vertical and the strike about north 75 degrees east and parallel Jones Mountain.

The vein filling is a gangue of quartz and talc, the ore minerals of the vein are galena, spahlerite, chalcopyrite, pyrite, tetrahedrite, sulphurbisumthite, bornite and silver, with gold appearing sparingly. The average width of this vein is approximately 9 feet, the length of the ore body cannot be determined, but the ore shoots show on the surface to be sereral hundred feet in length. The Denver Bell is a true fissure carrying gold, silver and copper, cut at a depth of 900 feet; there has been no drifting of any consequence at the present state of development, but assays taken from this vein average $15.55 per ton, the ore being suitable for concentration and amalgamation, running 7 into 1. The vein filling is quartz, the mineral galena, sphalerite, chalcopyrite, gold and silver and copper.

The Frederica is also a true fissure vein encased between walls of andesite. The vein filling is a quartz, the ore minerals are galena, chalcopyrite, pyrite, gold and silver. These veins will be better described in the following pages of this report.

E. M.

A. C.

The Frederica is not only a true fissure vein, but a very persistent one. Its bold outcrop can be traced for thousands of feet on the surface. It has been opened up in several places on the lead, and shows ore bodies of great size. From tests taken, the ore seems to be of good milling values. The extent of this ore body or the quality thereof cannot be determined until ascertained by depth of the main tunnel. This ore body is situated near the top of Jones Mountain. The tunnel will have to be run to a distance of 2000 feet to intersect this vein. The Frederica was one of the early producers of San Juan; but little, if any, data can be obtained about those early shipments. One of the exhibit sheets will show smelter returns on ore shipped in recent years. There are many openings on the vein, but the ore is in such shape that it is hard to ascertain what, if any, ore bodies are available. It will be well to mention this property as the aforesaid tunnel will cut this vein at a depth of 2200 feet, by running a distance of 2000 feet, and also many other veins in this group of which I will not speak now as they have not been very extensively developed, consequently cannot go into details as to their ore bodies, but assays from all of them show excellent results. There will be a map which will show the veins and underground workings of the property in the main tunnel.

DEVELOPMENT

This consists of a crosscut tunnel 1750 feet in length, cutting the veins almost at right angles, at a depth of 500 feet to 1000 feet. The property is also developed by several crosscuts and drifts in the way of surface workings in the upper portion of the veins to depths varying from 10 to 100 feet below the surface. The Denver Bell 900 feet from the surface. There are 150 feet driven on the Silver Wing vein, 100 feet of which is timbered ready for stoping. From the level of the crosscut tunnel to the surface is 560 feet.

ORE IN SIGHT

Measurements have been carefully taken and the amount of ore in sight has been computed in the Silver Wing vein, omitting for the sake of brevity details of the measurement and calculations, the following summary is given. Ore blocked out on the Silver Wing vein, taking into consideration the depth of this ore body together with the width and length, gives you a total of 50,400 tons of ore at $12.35 per ton and will give the sum of $622,400.00. A smelter return exhibit sheet will be attached to this report showing the value of the ore.

The Denver Bell lode is a true fissure 3 feet wide between walls and out at a depth of 900 feet showing values across the streak of $15.55 per ton. It is hard to determine the length of this ore shoot with the limited amount of development, but judging from surface indications and the outcrop of the ore body, the vein is of great magnitude. As the ore on the surface proved by assays and smelter returns to be of high grade value, and judging from the depth of this ore body from the main tunnel to the surface as heretofore stated, by proper development on the tunnel level, the Denver Bell will be equal to or greater than the Silver Wing, as it has already shown such excellent values. Another feature in favor of this vein is that it is a milling proposition, and will concentrate 7 into 1, thus cutting down smelting and transportation charges. By running on this vein 300 feet in the main tunnel to gain an idea of its size and value, 300 feet by 900 feet, by 3 feet, gives a total of over 50,000 tons, at $15.55 per ton, making a grand total of over $750,000.00.

RECOMMENDATIONS

I would recommend the drift on the Silver Wing vein be extended 750 feet, each way from the main tunnel to the end that greater quantities of ore can be obtained.

The Denver Bell should also be drifted upon to the extent of 750 feet each way from the main tunnel, to ascertain the length

E. M.
A. C.

of the ore shoots, block the ore out for stoping, and at a later date I would suggest the extension of the tunnel to the Frederica as I have every reason to believe the values at the depth of 2200 feet will justify the expense incurred.

CONCLUDING REMARKS

A careful study of the Silver Wing mine in its present state of development would convince the most skeptical that it is a property of much value, and possesses splendid future possibilities. The ore is of considerable magnitude, and will have large reserves to draw from, if my recommendations are adhered to. There would be enough ore to keep the mine running for at least 40 years without further development than above recommended. 100,000 tons of an average value of $13.00 per ton would make a total of $1,300,000.

All of this independent of the improvements and equipment of the mine makes a mining property of rare occurrence.

In addition to the foregoing remarks, when taking into consideration the firm walls and dryness of the mine, all of which favor cheap mining, the proposition as a whole would seem to be an exceptionally favorable one, and should invite and command the most serious attention and consideration from the investor, speculator and capitalist.

Very respectfully

/s/ Arthur Rice, E. M.

Denver Colorado, Jan. 2, 1907

EXHIBIT SHEET #4

FREDERICA

ASSAYS	NO.			PER TON
	1	Fourth level		$ 16.08
	2	" "		10.64
	3	Third "	75 ft. from mouth	46.68
	4	" "	100 ft. from mouth	11.16
	5	" "	125 " " "	6.00
	6	" "	175 " " "	4.32
	7	" "	200 " " "	11.78
	8	" "	Iron streak in breast	72.50
	9	" "	General sample vein 10' wide	7.48
	10	Second "	15 ft. from mouth	30.84
	11	" "	40 ft. from mouth	84.25
	12	" "	56 ft. " "	4.80
	13	" "	80 ft. " "	44.76
	14	House level breast		9.24
	15	" "	iron streak	97.36

ORE SHIPPED FROM ABOVE

23046 # Oz.	Silver per T. 13.58% lead per T.	46.05
25024 # Oz.	" " "	46.05
13572 # Oz.	"" " "	28.80
10962 # Oz.	" " "	41.55

NANON LODE

ASSAYS	NO.			
	1	Surface		22.72
	2	"	Honeycomb	18.24
	3	"	Cut	18.24
	4	"	Small streak	121.68
	5	"	Middle of cut	18.24

EXHIBIT SHEET #5

DENVER BELL

ASSAYS

NO.		PER TON
1	Upper workings	$ 26.20
2	" "	21.60
3	" " South end	8.20

SILVER WING VEIN

1	Surface, Ore shoot, copper ore	3.10
2	" " " Lead ore	16.20
3	Lower or main tunnel, 576 ft. vein left drift	13.10
4	576 ft. vein right drift	10.60
5	Iron vein	77.38
6	" "	54.84
7	Copper vein	76.00
8	Main upper tunnel vein	6.50
9	General Sample	38.40
10	" "	6.40
11	" "	6.80
12	" "	52.00
13	" "	13.40
14	" "	23.85

EXHIBIT SHEET #6

Copies from settlement sheets of the ore shipped from the Silver Wing mine to the Ross Mining and Milling during the latter part of 1906.

Car No.	Net Pounds	Oz. Silver Per T	% Copper Per Ton	Pride Pd Per Unit Copper	Gross Value Per T	Net Amount Recd from Smelter
1782	32848	6.17	4.90	2.21	$11.35	$103.29
3401	40986	5.60	4.96	2.45	11.88)	
9465	46382	5.60	4.96	2.45	11.88)	296.36
3203	53955	3.13	4.08	2.45	8.75	98.07
3057	57966	7.42	4.85	2.46	13.80	184.21
3163	47816	8.57	5.36	2.40	14.15	227.98
1565	47768	7.30	4.67	2.45	11.78	165.52
3278	48955	8.38	5.40	2.45	14.78)	
4496	55836	7.18	4.70	2.45	12.29)	436.24
3569	52677	8.05	5.16	2.30	13.42	219.32
3545	50580	7.75	4.70	2.35	12.02	178.25
5003	48658	6.52	4.42	2.35	10.82	138.59
5962	38016-	6.54	5.	2.30	12.09	131.76
3029	45491	6.44	4.10	2.30	10.03	111.40
3493	10890	6.18	6.15	2.45	15.38	53.51
"	19980	6.18	4.99	2.45	12.44	74.32
1671	46134	4.98	3.13	2.45	7.12	45.00
3744-	50936	4.44	3.46	2.45	7.59	62.96
9517	47372	5.24	3.93	2.45	9.27	98.13
3251	45243	6.90	4.08	2.425	10.69	125.72
3612	38609	6.02	3.72	2.425	9.24	100.05
3285	48630	7.79	5.43	2.425	14.55	228.72
3008	37372	5.21	3.75	2.50	9.00	71.74
3554	41778	6.60	4.95	2.50	12.90	162.52
4967	30690	6.96	4.52	2.60	12.38	110.24
3130	32862	8.94	4.53	2.60	13.68	130.64
3494	34798	6.95	4.56	2.60	12.62	129.57
3571	36947	8.08	4.44	2.95	13.99	163.07
4379	40740	7.24	4.59	3.01	14.21	182.73
3579	38328	8.	4.60	3.06	14.91	186.91

Total of about 635 tons.

Net value per ton after paying all charges except $1.00 per ton freight from mine to Silverton as shown above was $6.65 per ton, or after all expenses of treatment and freight are deducted will leave $5.65 per ton for mining and profit. When mine is properly developed and equipped, this ore can be mined for less than $2.00 per ton, leaving a net profit above cost of mining smelting and freight of $3.65 per ton.

EXHIBIT SHEET #7

Copied from settlement sheet of the ore shipped from the Silver Wing mine to the R. & M. Co. from May 1 to September 1, 1907.

Smelter No.	Net Lbs.	Oz. Silver	% Copper	Price Per Unit	Gross Val. Per Ton	Net val. after deducting S. Charge
611	41578	4.97	4.93	3.35	14.53	$198.70
613	40489	5.56	4.58	3.35	13.75	221.35
618	39699	5.36	54.85	3.35	14.53	189.19
620	40286	5.15	4.52	3.30	13.16	164.35
622	58212-	5.38	4.64	3.30	13.71	253.50
626	37725	5.40	4.41	3.30	12.96	150.20
631	33638	6.36	4.87	3.30	15.07	169.51
636	39792	5.12	4.41	3.30	12.79	154.96
642	45045	5.13	4.41	3.35	12.95	179.26
643	56848	4.38	3.77	3.35	10.35	98.47
651	50666	4.77	3.54	3.35	9.82	122.11
652	62544	4.48	2.84	3.35	7.27	69.76
656	46410	4.81	3.07	3.35	8.24	75.25
658	53018	4.65	3.31	3.35	8.94	104.52
659	43242	4.78	3.25	3.275	8.69	79.90
662	43464	3.06	3.25	3.275	7.62	57.11
669	45540	4.43	3.37	3.275	8.87	88.15
671	41382	4.39	3.43	3.275	9.05	83.69
674	43262	4.36	3.48	3.275	1.19	90.60
679	32818	5.27	3.95	3.275	11.29	1 03.23
688	48462	5.36	4.36	3.285	12.72	187.07
692	48064	5.10	4.29	3.25	12.32	175.94
694	52718	7.07	4.38	3.25	15.74	283.39
701	47916	7.37	5.11	3.25	16.43	273.94
705	42470	5.07	5.23	3.25	15.55	219.94
708	44550	6.47	4.65	3.25	14.36	208/64
709	43312	4.16	5.05	3.25	14.19	199.10
711	42224	6.16	4.82	3.25	14.72	205.21
717	42224	4.57	4.22	3.25	11.75	142.62
718	46184	6.06	4.16	3.25	12.57	173.55
722-	44102	6.96	5.02	3.085	15.26	226.38
727/732	45668	6.66	5.93	3.10	17.28	291.27
728	38066	5.60	4.98	3.05	14.18	174.78
726	42422	8.37	6.52-	3.10-	20.92	337.85
737	42470	5.56	4.57	3.05	12.90	167.90
746	48410	4.37	3.84	2.90	9.58	110.95
747	39650	4.76	3.84	2.90	9.83	96.05
751	49302	16.36	10.31	2.95	36.14	714.00
752	48658	4.66	4.02	2.90	10.29	128.72
758	43064	5.06	3.83	2.90	9.99	107.27
762	46530	5.56	3.88	2.90	10.46	127.09
767	47372	6.07	3.20	2.75	8.57	84.68
768	16038	8.67	8.49	2.95	26.17	149.72
769	44450	5.26	3.88	2.75	9.92	109.46
770	22324	13.76	11.08	2.80	35.66	314.88
786	45094	5.51	3.32	2.75	8.59	81.05
791	47272	4.96	3.68	2.75	9.22	99.91
792	49244	17.36	9.80	2.80	34.55	666.10
798	37865	4.50	3.82	3.82	9.53	76.28
812	45460	3.70	4.48	2.80	10.64	122.66
823	42768	3.36	3.03	2.75	6.53	30.62
825	41382	4.50	3.15	2.75	7.51	52.07
840	47966	5.12	3.80	2.75	9.72	113.10
852	39946	5.74	2.20	2.35	5.39	7.85
859	44996	4.39	3.81	2.35	8.29	74.73
862	45738	5.38	3.28	2.35	7.69	61.66
865	12770	10.55	8.40	2.40	23.45	117.80
866-	39254	19.90	8.37	2.25	28.36	409.42
874	44700	4.91	2.68	2.225	5.80	17.89
880	38064	5.38	4.35	2.225	9.82	115.85
886	39698	7.52	4.31	2.225	11.11	151.95
894	44252	6.68	4.76	2.225	11.57	145.44

1344 tons of an average value of about $12.60 per ton.

ADDENDA

In order that those interested in the Silver Wing and Frederica properties may more fully understand the future possibilities of these two groups combined on one property, I will give several reasons in support of my views.

First, the large area of mineralized ground included in these properties makes it very desirable for anyone wanting a large mining property.

Second, the accessibility makes it possible to operate at all seasons of the year.

Third, the possibility of working all of the veins through the main cross cut tunnel and the great depths that this tunnel will cut the veins, saves the expense of hoisting the ore to the surface, and the complete drainage of the mine through this tunnel saves the expense of pumping the water from the mine, one of the most expensive propositions that most mines have to contend with, especially where they are operated through a shaft.

Fourth, this tunnel in time will be the outlet for most of the mines on both Jones and Grouse Mountains, and the revenue from royalties will pay a good dividend on a large capital, and this will be a net profit.

Fifth, the large amount of good timber on this property is a good asset, both as timber for mining purposes, and as protection from snowdlides. The mouth of the main crosscut tunnel and the buildings are located so that they are absolutely protected, something that cannot be said of any other property above Eureka.

Sixth, the tonnage will be unlimited when the property is properly developed. It is an ideal smelting proposition, and with a pyritic smelter in connection, the expense should be very little except for mining.

Seventh, and being located in a district that is noted for large and productive mines, such as the Sunnyside, Pride of the West, Gold King, Gold Prince, Mogul, Old Hundred, Iowa, Silver Lake

and many others that I could mention, a long life is assured.

Eighth, with the showing that this property has made with the small area developed, both in assays and shippments, I believe that for the development done there is not another property in the district that will compare with the Silver Wing and Frederica properties.

Very respectfully,

s/ Theo Ivens
Manager

The above report undated, but probably was written about the same time as the Rice report.

Dec. 15, 1948

Colorado Mines and Metals Company
Silverton, Colorado

Gentlemen:

Enclosed is a resume of metal prices over a period of years that may be of interest to you. The price of silver and copper during the time the Silver Wing was shipping was as follows:

	Silver	Copper
1905	.604/oz.	
1906	.668	.12/lb.
1907	.653	.135/lb.
1908	.529	

There is no way from the Rice report in which I can determine what the present value of the assays would be since there is no breakdown as to the metal content. They would certainly be much higher today.

I have calculated the present average value of the 4000 tons of ore that was shipped to the smelter during 1906 and 1907 from the Silver Wing. It is as follows:

		1948 value
1906		
Average silver content	6.62/oz./ton	$ 6.02/ton
Average copper content	4.60%	21.60
		$27.62
1907		
Average silver content	5.07/oz./ton	5.14
Average copper content	4.62%	21.70
		$26.84

The 4000 tons is a wonderful assay and was mined from two small stopes about 50 feet high at the Wing Tunnel level. Since there is over 500 feet from this level to the surface and since the surface ore was of better grade than this ore, a tremendous tonnage is indicated.

Assuming only two blocks of ore 500 feet high by 150 feet long by 14 feet wide (which is conservative) the tonnage in block would be 150,000 tons. This does not include the possible continuous tonnage laterally along the Silver Wing vein or the probable tonnage from the many other veins.

It is impossible for us to make any shipments from the Wing as we have no ore bin to load from, and it would be too costly and hazardous to attempt to construct one with so much snow on the ground.

I am told on reliable information that the failure of the Silver Wing Company in 1909 was due to the inability of their stamp mill, jigs and tables to separate the iron from the copper or beneficiate the ore. Their heads, tails and concentrates all assayed about the same.

This would be no problem for a modern mill. It could easily achieve a 10-1 concentration ratio and recover 90% of the values.

I will keep you advised of further developments.

Respectfully submitted,

William L. Chase, Geol. Engr.

ADDENDA

June 15,1949

Colorado Mines and Metals Company
Silverton, Colorado

Gentlemen:

Since writing the above report the Great Eastern Mining Company has spent in behalf of Colorado Mines and Metals Company $23,525.00 in further development of the Silver Wing property. The expenditure of this money has convinced me that the Rice report was essentially correct. The Silver Wing group should prove one of the outstanding producers of the San Juan District. It is true that an additional expenditure of probably $50,000 should be made to put the property in full production. Nevertheless, a large amount of this expenditure should be recovered from the sale of ore mined during the time this money was being spent as exploratory work was continued.

The Colorado Mines and Metals Company should have no problem in the milling of this ore as both the Shenandoah-Dives custom mill (capacity 1000 tons per day) and the Pride of West mill will actively compete for this ore. Both mills are situate within a few miles from the Silver Wing properties. Furthermore, the above properties are located on a main highway which is maintained by the County of San Juan and kept open the entire year.

It might be of interest to note that since the Rice report was written, two large mills, each with a capacity exceeding 1,000 tons per day, were built, both these mills being within a few miles of your property. The Mayflower (Shenandoah-Dives Company) is still operating. United States Smelting, Refining and Mining Company, who operated the Sunnyside, closed several years ago after producing many millions of dollars worth of ore. In one year this company's production exceeded $4,000,000. The United States Smelting, Refining and Mining Company are still the owners of the property, and the rumor has persisted recently that the company will soon resume operations. The Idarado Mining Company, after an expenditure of over a million dollars in developing their property near Silverton, is now milling in excess of 1000 tons of ore a day, said to be of very high grade ore. The Idarado property is considered the outstanding mining property in southwestern

Colorado. Ex-President Hoover made the following statement several years ago at a mining convention in Denver: "The San Juan Mining District of Colorado is the greatest base metal area in the world, and the next several years will see stupenduous mining developments in that region." It seems from recent developments that Ex-President Hoover's statement was not over-optimistic.

Respectfully submitted,

William L. Chase, Geol. Engr.

January 1, 1950

Colorado Mines and Metals Company
Silverton, Colorado

Gentlemen:

In looking over some additional records in our office, I find a signed report pertaining to the Silver Wing group by S. A. Spellmeyer, a mining engineer and geologist of very considerable standing. The report was addressed to Sam B. Mosher, President of Signal Oil Company of Los Angeles. Exerpts of this report as pertaining to the Silver Wing group are as follows:

"Great Eastern-Silver Wing Group. About 25 mining claims upon which a number of veins are found, some of which have proved productive. Group is 11 miles northwest from Silverton, about 2 miles north of Eureka, Colorado. Elevation at foot of mountain about 10,500 feet rising about 1,600 feet higher in a mile to the east. Country rock is andesite. Vein fractures are persistent and well marked. Veins are not parallel but the fracture system could not be studied at this time. Habit of the country in general seems to be for the continuity of base metal values for considerable depth. The Silver Wing Tunnel is nearly 1,800 feet long S. 61E. with a turn to N. 80E. for the last 250 feet. It cuts the Silver Wing, Denver Belle and other veins and is pointed to cut other veins which were productive on the surface.

"The Silver Wing vein is cut at about 1,000 feet from the portal where there is a stope that produced 4,000 tons of ore in 1906 and 1907, averaging 6 ounces of silver and 4.61% copper. Just north of the stope a diamond drill hole was being drilled across the vein at the time of my visit. For 25 feet of core seen (hole not completed) calcopyrite was seen scattered through the whole length in sufficient quantity to look like ore. The present day value of an assay of 6 ounces of silver and 4.61% copper is $26.06 per ton gross and should leave an operating profit of $7.94 after mining, milling and smelting. The vein was developed for more than 150 feet in length and is 500 feet below the surface. This creates a possible target of 156,000 tons of ore having a net value of $1,250,000.00. Development work is justified by that showing.

"Other veins cut in the tunnel should be sampled and explored as some low grade values are encountered.

"Beyond the end of the Silver Wing Tunnel toward the east an important vein called the Sioux City projects to the tunnel level at about 500 feet. This vein strike N-S and dips 70° West. At 1,000 feet the great Eastern Vein striking N. 40E. dipping 70° N.W. projects to the tunnel level. These two veins should intersect about 1,000 feet southeast from the face.

"During the summer and fall just passed a stope was worked on the Great Eastern vein, which produced 3,563 tons of shipping ore having gross metal content of $283,528 and which netted from the smelter $91,714.82 after shipping and treatment. It probably cost $36,000.00 to mine. If a mill had been available, the net return from that ore would have been about $167,000.00 This is a lead-zinc, silver vein.

"Exploration beyond the stope has indicated another ore body that may be continuation of another lens. From talking to Chase the impression was gained that the ore bodies in the Great Eastern Vein are lenticular, open space, filling and more valuable in unit content, as well as total, when wide. This indicates that vein intersections may be good place to explore. It was impossible to get to the Great Eastern working because of heavy snow conditions, so all I know of it except the smelter liquidation sheets is hearsay.

"Another important vein on the surface is the Frederica about 2,000 feet northeast of the Silver Wing Tunnel face. Considerable shallow values high in silver have been mined, particularly where cross veins are encountered.

"On the whole the Group deserves exploration work either by drilling flat holes or by drifts, crosscuts and raises. A lot of preliminary work is already done and future exploration should largely be on vein with good hopes of finding payable ore. With a mill available it would appear that any money advances for exploration would be quickly returned, and the operation would become self-sustaining and at the same time build up capital assests."

Respectfully submitted,

William L. Chase, Gen'l Mgr.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

224 New Customhouse
Denver 2, Colorado

July 15, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 3057 (Lead-Zinc), Colorado Mines and Metals Company, Silver Wing Mine, San Juan County, Colorado.

Enclosed are four copies of the final report on the subject docket, a copy of the letter of denial to the applicant, and two copies of Form 3b.

W. H. King
W. H. King

A. H. Koschmann
A. H. Koschmann

Enclosures

HMC:cwm

cc: WMTraver w/copy of Final Report
AHKoschmann w/copy of Final Report
DMEA w/copy of Final Report
Mining Division w/copy of Final Report
Subject
AHKoschmann (2)
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

July 15, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 3057 (Lead-Zinc), Colorado Mines and Metals Company, San Juan County, Colorado.

Enclosed are eight copies of the final engineering report on the subject docket.

Lack of ventilation prevented an examination of the Silver Wing tunnel and the examiners found that the applicant had no right to mine the Great Eastern vein which was the main objective of the proposed exploration.

For these reasons the examiners recommend the denial of the application in the amount of $50,000.00.

We concur in this recommendation.

W. H. King

W. H. King

Enclosures

Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
June 29, 1953

Mining Division
Date Rec'd
JUN 30 1953
BUREAU OF MINES
Denver, Colorado

Memorandum

To: Executive Officer, Field Team, Region IV

From: Chief, Mineral Resources Branch, Mining Division, Region IV

Subject: DMEA 3057 (Lead-zinc), Colorado Mines and Metals Company (Silver Wing mine), San Juan County, Colorado

Please find enclosed the original and eight copies of an engineering report by W. L. Dare on the above Defense Minerals Exploration docket.

It is impossible to make an examination due to lack of ventilation in the Silver Wing tunnel. The conflicting ownership will have to be straightened out and a request submitted on a more realistic basis before it can be acted on. For these reasons, Dare recommends denial. I concur.

The brochure submitted by the Region IV Field Team is returned herewith.

W. M. Traver

W. M. Traver

Enclosures

WMT/cb

cc: 8
DMEA 3057
Chron.

June 29, 1953

Memorandum

To: Mr. A. H. Koschmann

From: E. N. Harshman, Geologist, U. S. Geological Survey

Subject: DMEA Docket 3057, Colorado Mines and Metals Company, San Juan County, Colorado

The Colorado Mines and Metals Company, Silverton, Colorado, has applied for assistance, DMEA Docket 3057, to explore for lead-zinc ore by extending the Silver Wing tunnel to intersect the Great Eastern vein, drifting on the vein, and raising from the drift level. The proposed exploration includes 1000 feet of crosscut, 500 feet of drift, and 500 feet of raise at an estimated cost of $50,000.00.

The property was visited on June 19, 1953. Bad air, encountered about 300 feet from the portal, made impossible an examination of the Silver Wing tunnel. All workings on the Great Eastern vein were examined.

It appeared from the application that the objective of the program was to explore for ore shoots on the Great Eastern vein at and above the Silver Wing tunnel level. Furthermore, it appeared that the applicant, Colorado Mines and Metals Company, has no legal interest in the Great Eastern Claim.

The application was discussed with Carl A. Larson, Assistant Secretary of the Colorado Mines and Metals Company and their representative in Silverton. He confirmed the opinion that the Great Eastern claim is not owned by the applicant and that the Great Eastern vein is the only exploration objective. He furnished additional data regarding claim

ownership, location of the Silver Wing tunnel, and location of the proposed exploration. These data have been added in red pencil to Figure I submitted by the applicant with his Form M.F. 103.

Mr. Elmo Slade, P. O. Box 402, Silverton, Colorado, is at present leasing the Great Eastern claim from the owners, and is actively mining the one known ore shoot. His lease expires June 25, 1953, but it is in the process of being renewed for a 2 year period.

Before further action can be taken on this application, it appears that the Colorado Mines and Metals Company should prove their legal right to enter upon the Great Eastern claim and to mine ore from the Great Eastern vein which apexes on that claim. Furthermore, they should prove their right to enter all ground along the present or proposed extension of the Silver Wing tunnel as well as their right to mine ore from any vein encountered in the tunnel extension.

Should the Colorado Mines and Metals Company reconcile the apparent ownership difficulties, it will be necessary for them to ventilate the Silver Wing tunnel to permit access to the lower Silver Wing workings before further action on the application can be taken. Their proposed exploration will be from 1350 to 1750 feet below the known ore bodies on the Great Eastern vein and information on the character of mineralization at these depths can be obtained only on the Silver Wing vein.

Approved
A. H. Koschmann
7/2/53

Region IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Building 20, Room 137
Denver Federal Center
Denver 14, Colorado
June 29, 1953

Memorandum

To: Chief, Mineral Resources Branch, Mining Division, Region IV

From: W. L. Dare

Subject: DMEA 3057 (Lead-zinc), Colorado Mines and Metals Company (Silver Wing mine), San Juan County, Colorado

On June 17, 1953, R. D. Berkenkotter and W. L. Dare visited the Silver Wing mine, San Juan County, Colorado. The Silver Wing tunnel is reported to be 1,750 feet long but bad air prevented access to all but about the first 350 feet.

For safety reasons a burning candle was carried when entering the portal. Lack of oxygen extinguished the candle at about 330 feet from the portal, and at about 350 feet the carbide lights were on the verge of going out. Two air samples were taken at this point, one at the back and the other near the floor. Two additional samples were taken at about 330 feet from the portal. Attached are copies of the analysis report of the four samples made by Albert Maxian, Analytical Chemist, Coal Branch.

The conflict of claim ownership is covered in the memorandum by E. N. Harshman, Geological Survey.

Due to conflicting ownership and inaccessibility on account of bad air, it is recommended that the loan request of the Colorado Mines and Metals Company for $50,000.00 be denied until both conditions are rectified.

W. L. Dare
Mining Engineer

WLD/cb

enclosures

cc: 8
DMEA 3057
Chron.

6-213

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

MINE ATMOSPHERE ANALYSIS REPORT

Mine: Silver Wing Operator: Colorado Mines and Metal Company Coal bed:
State: Colorado County: San Jaun Town: Silverton Collector: W. L. Dare, Mining Engineer

Bottle No.	C-8335	C-8334	C-8385	C-8386
Laboratory No.	1121	1124	1122	1123
Kind of sample	General air	General air	General air	General air
Location in mine	Back - 350 ft. from portal of Silver Wing tunnel	Floor - 350 ft. from portal of Silver Wing tunnel	Back - 380 ft. from portal of Silver Wing tunnel	Floor - 380 ft. from portal of Silver Wing tunnel
Date and hour sampled	6-17-53 10:00 AM	6-17-53 10:00 AM	6-17-53 10:00 AM	6-17-53 10:00 AM
Air quantity				
Pressure on seal				
Barometer (inside)				
Carbon dioxide (CO_2)	2.25	2.33	2.43	2.35
Oxygen (O_2)	15.26	14.92	14.78	14.90
Hydrogen (H_2)				
Carbon monoxide (CO)				
Methane (CH_4)	0.00	0.00	0.00	0.00
Nitrogen (N_2)	82.49	82.75	82.79	82.75

Date: 6/23/53 (Signed) Albert Mayhan, Chemist.

U. S. GOVERNMENT PRINTING OFFICE 16—28282-1

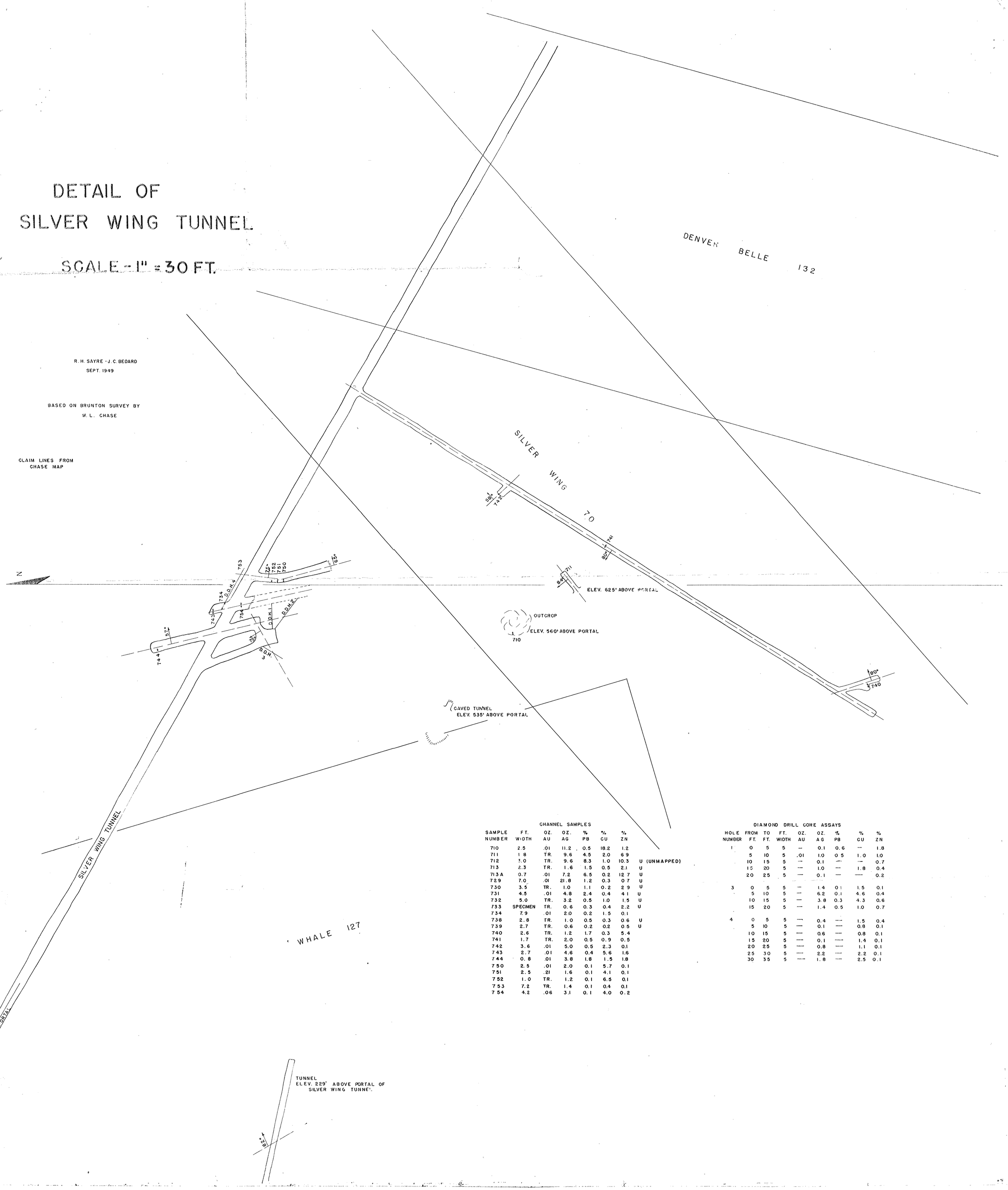
DETAIL OF SILVER WING TUNNEL

SCALE - 1" = 30 FT.

R. H. SAYRE - J. C. BEDARD
SEPT. 1949

BASED ON BRUNTON SURVEY BY
W. L. CHASE

CLAIM LINES FROM
CHASE MAP



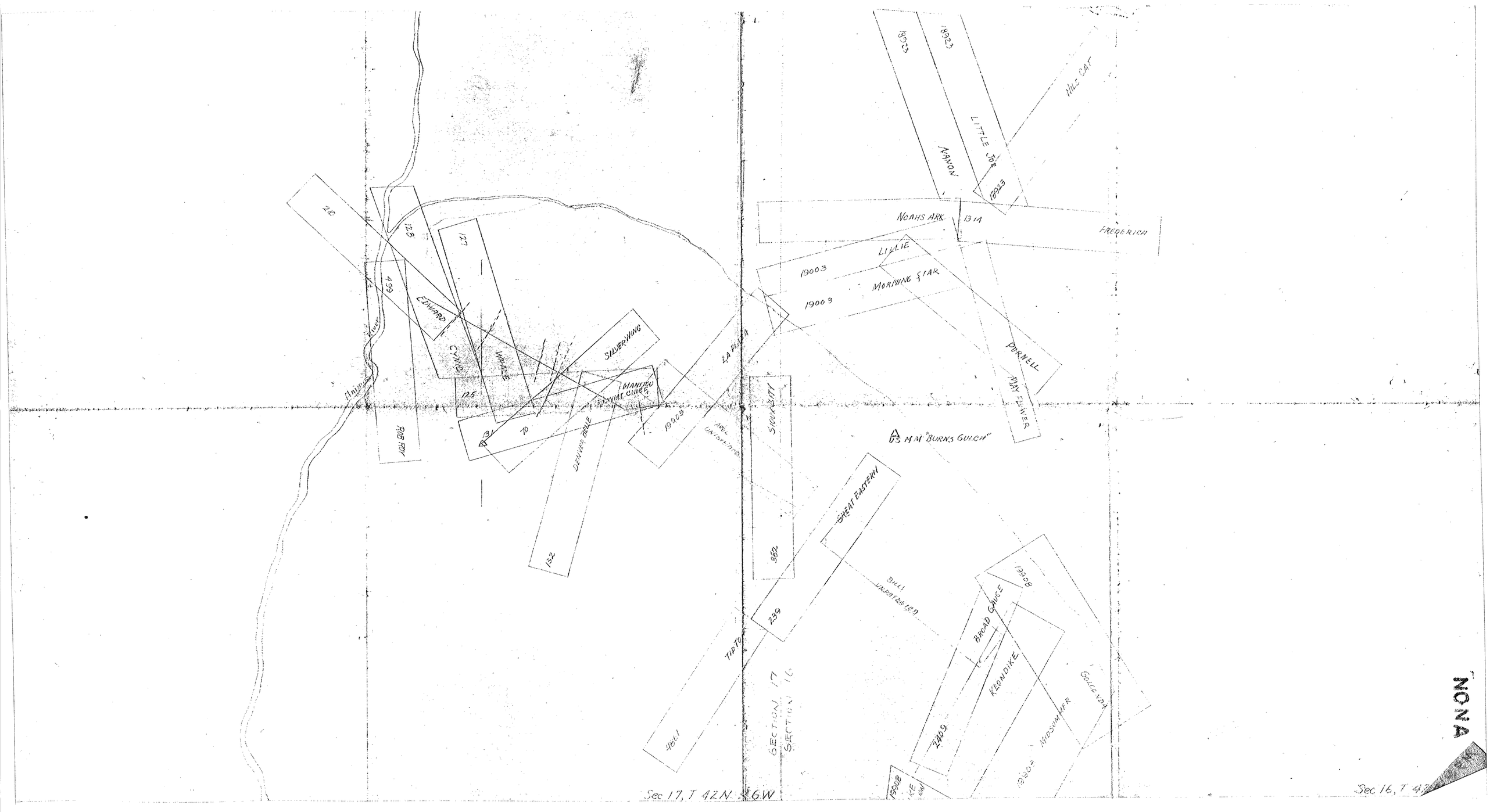
CHANNEL SAMPLES

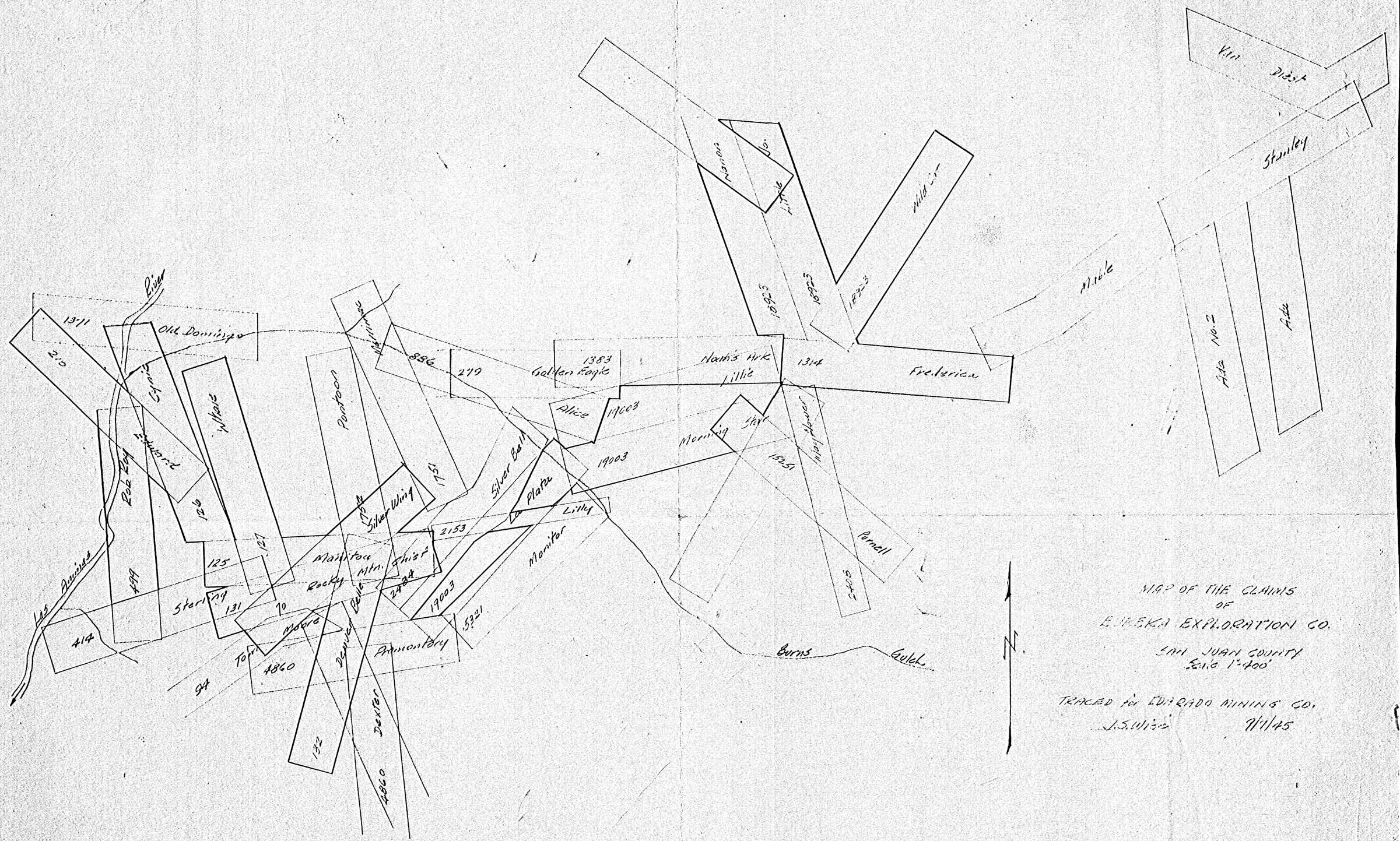
SAMPLE NUMBER	FT. WIDTH	OZ. AU	OZ. AG	% PB	% CU	% ZN	
710	2.5	.01	11.2	0.5	18.2	1.2	
711	1.8	TR.	9.6	4.5	2.0	6.9	
712	3.0	TR.	9.6	8.3	1.0	10.3	U (UNMAPPED)
713	2.3	TR.	1.6	1.5	0.5	2.1	U
713A	0.7	.01	7.2	6.5	0.2	12.7	U
729	7.0	.01	21.8	1.2	0.3	0.7	U
730	3.5	TR.	1.0	1.1	0.2	2.9	U
731	4.5	.01	4.8	2.4	0.4	4.1	U
732	5.0	TR.	3.2	0.5	1.0	1.5	U
733	SPECIMEN	TR.	0.6	0.3	0.4	2.2	U
734	7.9	.01	2.0	0.2	1.5	0.1	
738	2.8	TR.	1.0	0.5	0.3	0.6	U
739	2.7	TR.	0.6	0.2	0.2	0.5	U
740	2.6	TR.	1.2	1.7	0.3	5.4	
741	1.7	TR.	2.0	0.5	0.9	0.5	
742	3.6	.01	5.0	0.5	2.3	0.1	
743	2.7	.01	4.6	0.4	5.6	1.6	
744	0.8	.01	3.8	1.8	1.5	1.8	
750	2.5	.01	2.0	0.1	5.7	0.1	
751	2.5	.21	1.6	0.1	4.1	0.1	
752	1.0	TR.	1.2	0.1	6.5	0.1	
753	7.2	TR.	1.4	0.1	0.4	0.1	
754	4.2	.06	3.1	0.1	4.0	0.2	

DIAMOND DRILL CORE ASSAYS

HOLE NUMBER	FROM FT.	TO FT.	FT. WIDTH	OZ. AU	OZ. AG	% PB	% CU	% ZN
1	0	5	5	—	0.1	0.6	—	1.8
	5	10	5	.01	1.0	0.5	1.0	1.0
	10	15	5	—	0.1	—	—	0.7
	15	20	5	—	1.0	—	1.8	0.4
	20	25	5	—	0.1	—	—	0.2
3	0	5	5	—	1.4	0.1	1.5	0.1
	5	10	5	—	6.2	0.1	4.6	0.4
	10	15	5	—	3.8	0.3	4.3	0.6
	15	20	5	—	1.4	0.5	1.0	0.7
4	0	5	5	—	0.4	—	1.5	0.4
	5	10	5	—	0.1	—	0.8	0.1
	10	15	5	—	0.6	—	0.8	0.1
	15	20	5	—	0.1	—	1.4	0.1
	20	25	5	—	0.8	—	1.1	0.1
	25	30	5	—	2.2	—	2.2	0.1
	30	35	5	—	1.8	—	2.5	0.1

EDWARD 2nd
CYNIC 12
WHALE 127
SILVER WING TUNNEL
ROCKY MT. CHIEF 199
MANITOU 131
SILVER WING 70
ROCKY MT. CHIEF
DENVER BELLE 132
VEIN "SILVER WING"
LA PLATA
SEC 17 T42N R6W
SAN JUAN CO. COLO

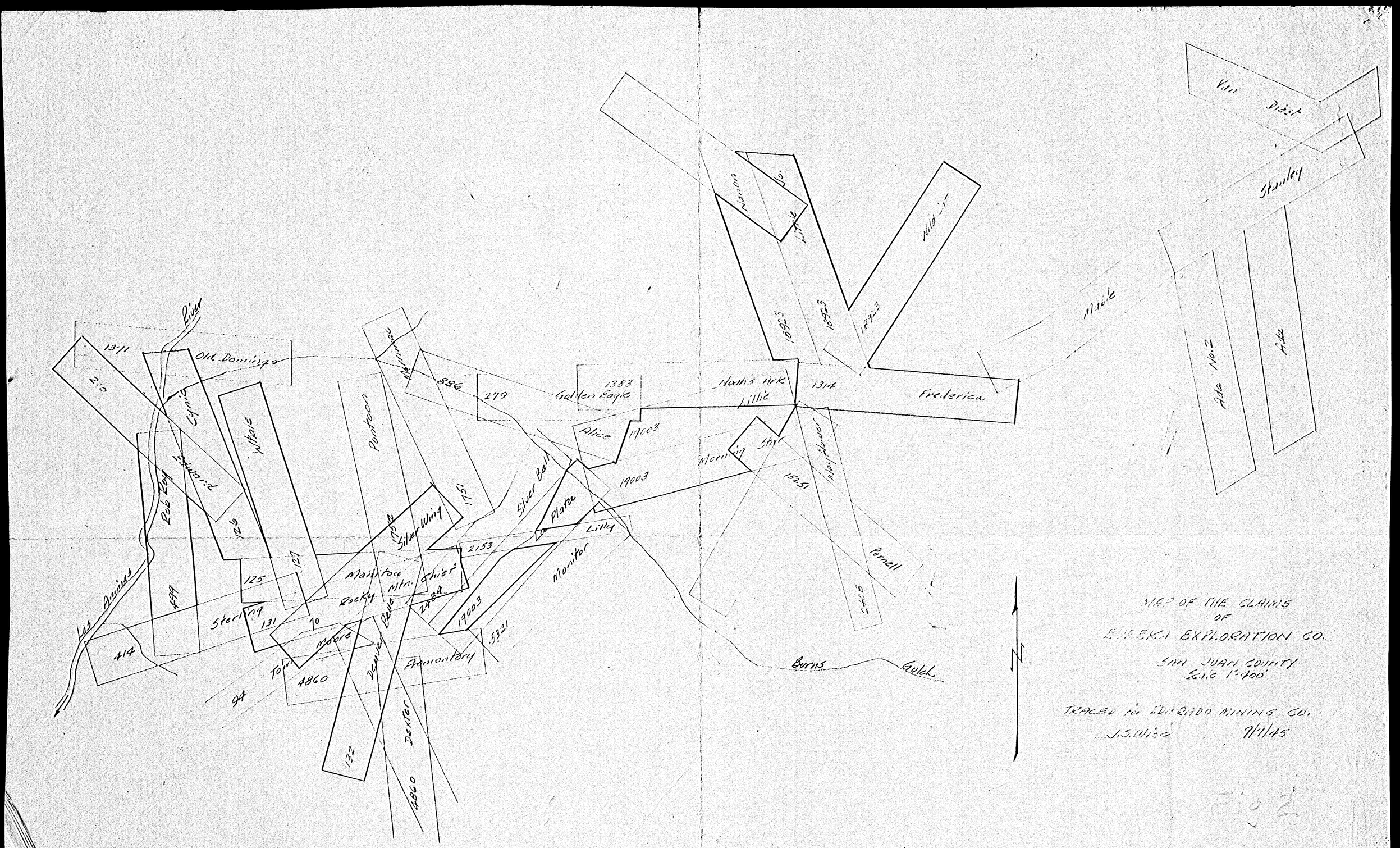

19003
19023
LITTLE JOE
NANON
MILE CAR
NOAHS ARK
131A
FREDERICK
LILLIE
19003
MORNING STAR
19003
DURNELL
MAY FLOWER
216
128
127
499
EDWARD
CYNTHIA
HARTLEY
SILVERWING
MANITOU
POINT CLAIM
125
131
70
DENVER BELLE
19003
LA PLATA
SNOWBERRY
ROB ROY
132
US M M "BURNS GULCH"
GREAT EASTERN
BILLI
UNPATENTED
239
TIP TOP
BROAD GAUGE
KLONDIKE
MIDSUMMER
GOLCONDA
SECTION 17
SECTION 16
Sec 17, T 42N R 6W
Sec 16, T 42
NONA



MAP OF THE CLAIMS
OF
EUREKA EXPLORATION CO.

SAN JUAN COUNTY
SCALE 1"=400'

TRACED FOR EDWARDO MINING CO.
J.S. Wise 9/1/45



MAP OF THE CLAIMS
OF
EUREKA EXPLORATION CO.

SAN JUAN COUNTY
SCALE 1"=400'

TRACED for EL DORADO MINING CO.
J.S. Wise 9/1/45

Fig 2

Fig. 4.

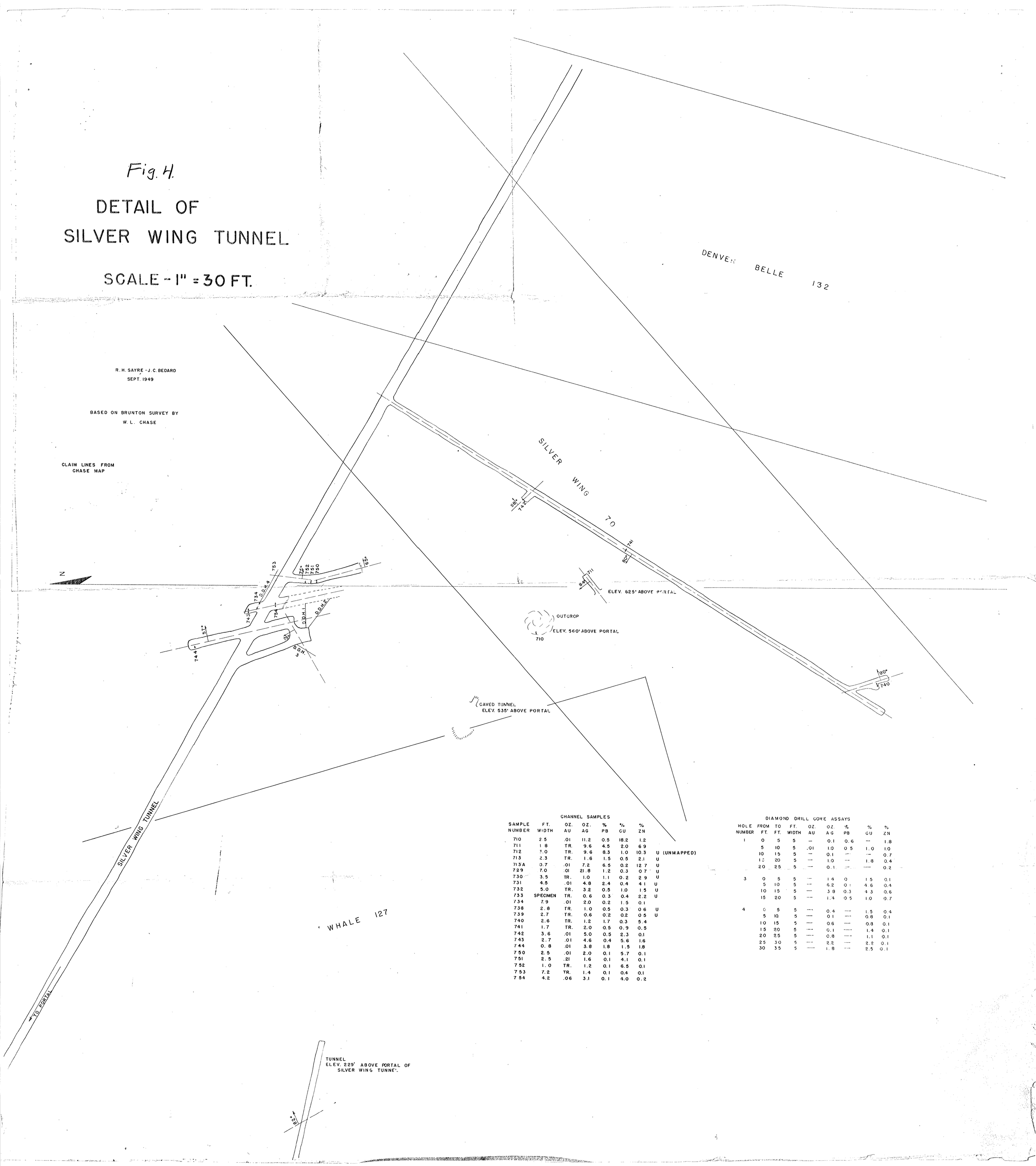
DETAIL OF SILVER WING TUNNEL

SCALE - 1" = 30 FT.

R. H. SAYRE - J. C. BEDARD
SEPT. 1949

BASED ON BRUNTON SURVEY BY
W. L. CHASE

CLAIM LINES FROM
CHASE MAP



CHANNEL SAMPLES

SAMPLE NUMBER	FT. WIDTH	OZ. AU	OZ. AG	% PB	% CU	% ZN	
710	2.5	.01	11.2	0.5	18.2	1.2	
711	1.8	TR.	9.6	4.5	2.0	6.9	
712	3.0	TR.	9.6	8.3	1.0	10.3	U (UNMAPPED)
713	2.3	TR.	1.6	1.5	0.5	2.1	U
713A	0.7	.01	7.2	6.5	0.2	12.7	U
729	7.0	.01	21.8	1.2	0.3	0.7	U
730	3.5	TR.	1.0	1.1	0.2	2.9	U
731	4.5	.01	4.8	2.4	0.4	4.1	U
732	5.0	TR.	3.2	0.5	1.0	1.5	U
733	SPECIMEN	TR.	0.6	0.3	0.4	2.2	U
734	7.9	.01	2.0	0.2	1.5	0.1	
738	2.8	TR.	1.0	0.5	0.3	0.6	U
739	2.7	TR.	0.6	0.2	0.2	0.5	U
740	2.6	TR.	1.2	1.7	0.3	5.4	
741	1.7	TR.	2.0	0.5	0.9	0.5	
742	3.6	.01	5.0	0.5	2.3	0.1	
743	2.7	.01	4.6	0.4	5.6	1.6	
744	0.8	.01	3.8	1.8	1.5	1.8	
750	2.5	.01	2.0	0.1	5.7	0.1	
751	2.5	.21	1.6	0.1	4.1	0.1	
752	1.0	TR.	1.2	0.1	6.5	0.1	
753	7.2	TR.	1.4	0.1	0.4	0.1	
754	4.2	.06	3.1	0.1	4.0	0.2	

DIAMOND DRILL CORE ASSAYS

HOLE NUMBER	FROM FT.	TO FT.	FT. WIDTH	OZ. AU	OZ. AG	% PB	% CU	% ZN
1	0	5	5	—	0.1	0.6	—	1.8
	5	10	5	.01	1.0	0.5	1.0	1.0
	10	15	5	—	0.1	—	—	0.7
	15	20	5	—	1.0	—	1.8	0.4
	20	25	5	—	0.1	—	—	0.2
3	0	5	5	—	1.4	0	1.5	0.1
	5	10	5	—	6.2	0.1	4.6	0.4
	10	15	5	—	3.8	0.3	4.3	0.6
	15	20	5	—	1.4	0.5	1.0	0.7
4	0	5	5	—	0.4	—	1.5	0.4
	5	10	5	—	0.1	—	0.8	0.1
	10	15	5	—	0.6	—	0.8	0.1
	15	20	5	—	0.1	—	1.4	0.1
	20	25	5	—	0.8	—	1.1	0.1
	25	30	5	—	2.2	—	2.2	0.1
	30	35	5	—	1.8	—	2.5	0.1

Fig. 3

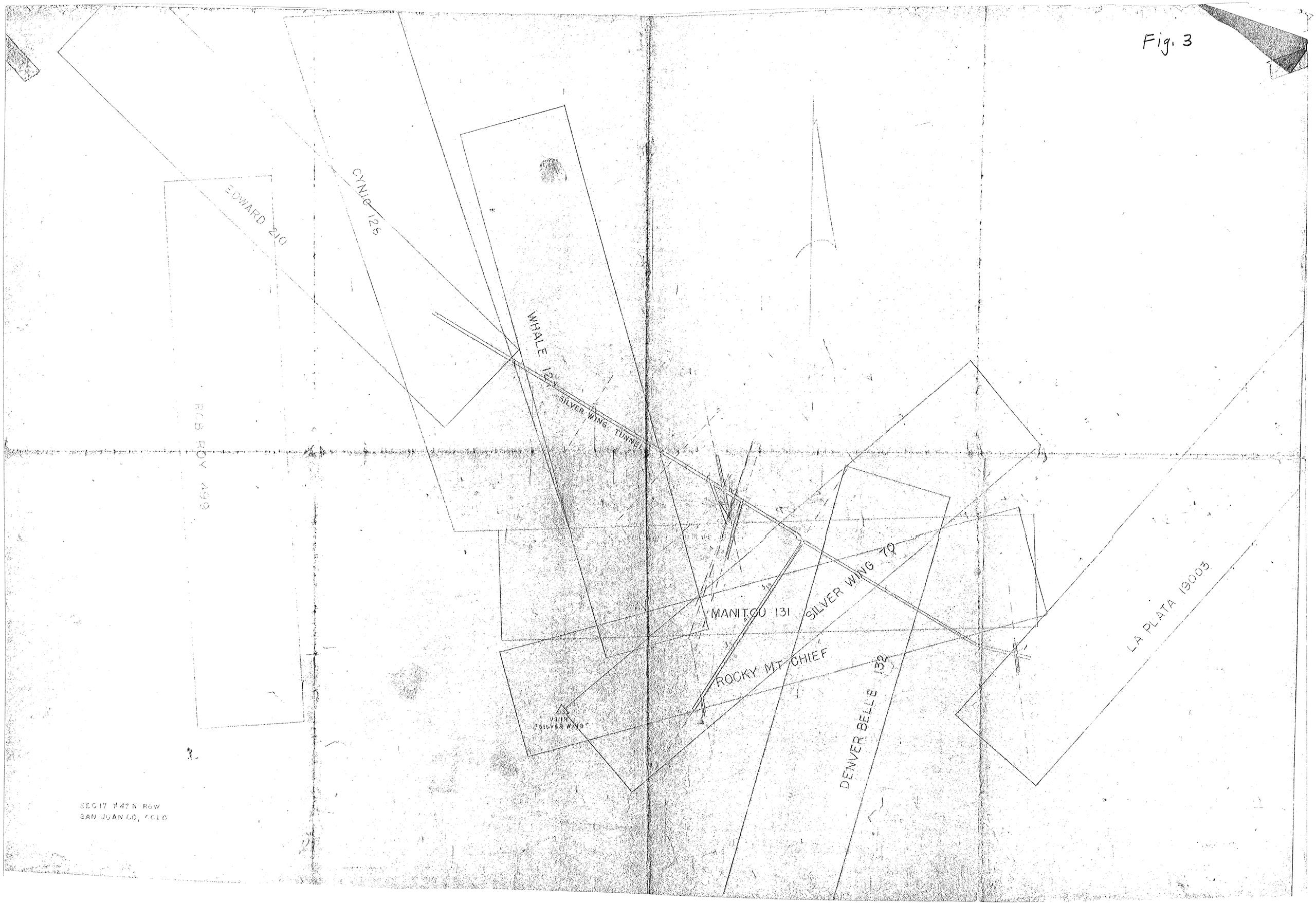
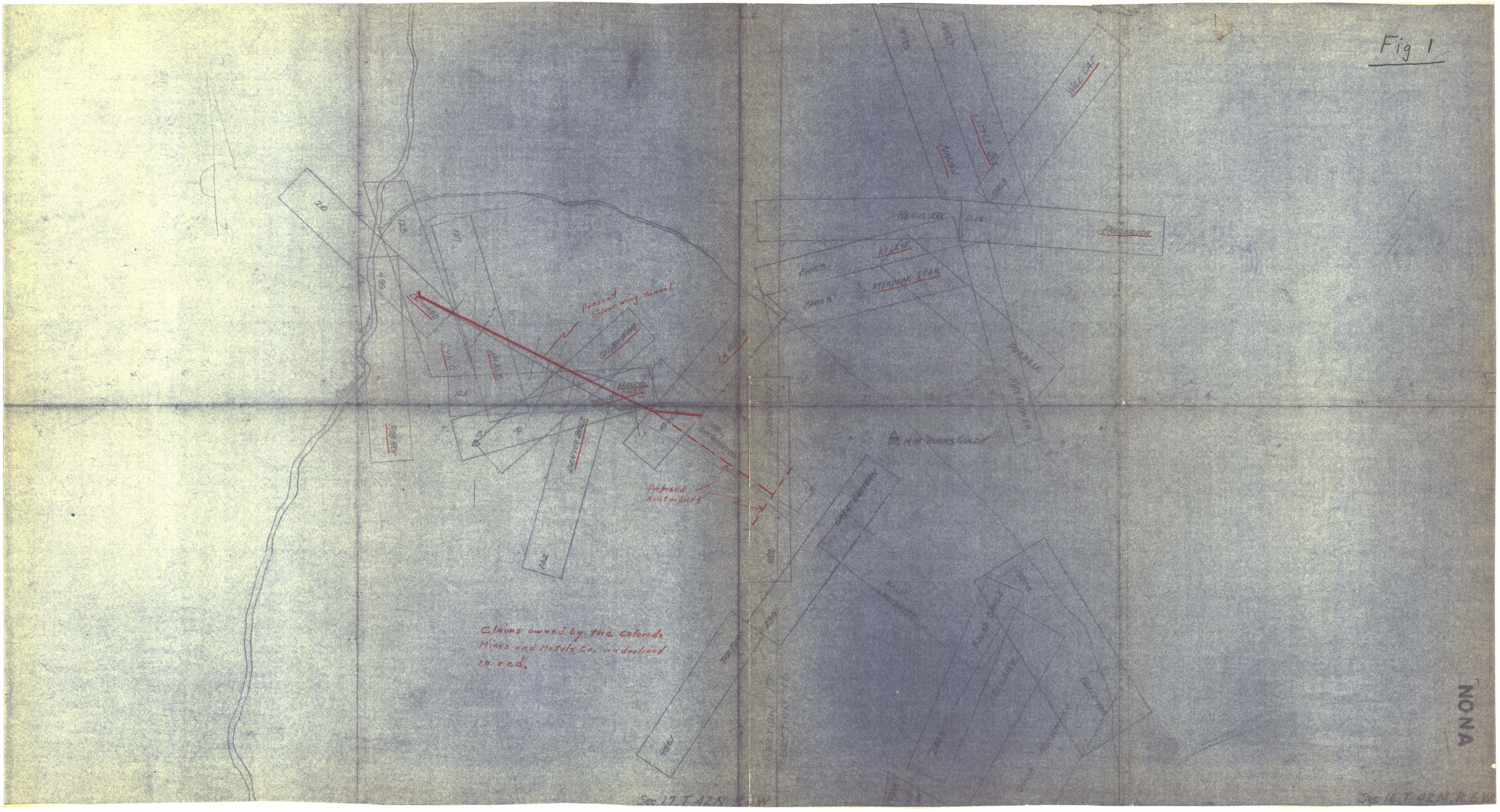

EDWARD 210
CYNIC 128
WHALE 12
SILVER WING TUNNEL
R.C.S. ROY 459
MANITOU 131
SILVER WING 79
ROCKY MT CHIEF
DENVER BELLE 132
LA PLATA 19003
VEIN "SILVER WING"
SEC 17 T42N R6W
SAN JUAN CO, COLO

Fig 1


Present Silver King tunnel
Proposed Xcut tunnel
Claims owned by the Colonial Mines and Metals Co. underlined in red.
SILVER KING
MAYNOW
WHALE
DENVER BELLE
BUR ROY
NOAHS ARK
LILLIE
MORNING STAR
FREDERICK
WILD CAT
LITTLE BOY
MAYNOW
DORSELL
MT TIVER
M M BURNS GULCH
GREAT WESTERN
SECTION 17
SECTION 16
Sec 17 T 42 N R 6 W
Sec 16 T 42 N R 6 W

NONA