DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMEA ~~DMA~~ Docket No. 2676

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

EXPLORATION PROJECT

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Routing Slip

Copies to USBM, USGS, and Region IV.

To: Code 700, Rm. 4640 Date 8-27-52

To: _____ Date _____

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CONTROLLED DOCUMENT

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

March 31, 1953

Memorandum

To: Mails & Files

From: Ernest Wm. Ellis, Chief
Rare and Misc. Metals Division

Subject: Docket No. DMEA-2676 (Uranium and Copper)
Rare Minerals Mining and Milling Company
c/o Leahy and Leahy
Laura Dunmore and Colleen Brawn Claims
Red Mountain Mining District
Ouray County, Colorado

Reference is made to our letter dated February 26, 1953, requesting certain data required to process this application, and advising the Applicant that the docket would be closed on March 30, 1953, if no response was received. Since no reply has been received, we request that you close this docket on your records.

Ernest Wm. Ellis

Ernest Wm. Ellis

700 FILE COPY
SURNAME:

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

FEB 26 1953

Mr. Harold A. Sandrup, President
Rare Minerals Mining and Milling Company
c/o Leahy and Leahy
1105, 418 Olive Street
St. Louis 2, Missouri

Re: Docket No. R A-2676 (Uranium & Copper)
Laura Darmore and Colleen Brown Claims
Red Mountain Mining District
Ouray County, Colorado

Dear Mr. Sandrup:

Further reference is made to your letter dated January 8, 1953, and our response of January 14, to which we have received no reply.

As previously stated, we are unable to proceed with the processing of your application until the information requested in our letter of October 8, 1952, is supplied by you. Accordingly, if you are unable to proceed with the project, as referred to in your letter of January 8, we will close the docket on our records as of March 30, 1953, without prejudice to the filing of a new application at a future date.

Sincerely yours,

SIGNED

Ernest M. Ellis, Chief
Rare and Misc. Metals Division

GLAult/FLKnouse/gla
2/26/53
cc to: Adm. Reading File
Docket
Messrs. HDKeiser-3641
ARButler-3206 GSA
Ellis
Knouse
DMEA Field Team, Region IV (2)

FILE COPY
750 SURNAME:

F. L. Knouse
Ellis

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

Mr. Harold A. Sandrup, President
Rare Minerals Mining and Milling Company
c/o Leahy and Leahy
1105, 418 Olive Street
St. Louis 2, Missouri

JAN 14 1953

Re: Docket No. 9[illegible]-2676 (Uranium & Copper)
Laura Dunmore and Colleen Brown Claims
Red Mountain Mining District
Ouray County, Colorado

Dear Mr. Sandrup:

Reference is made to your letter dated January 8, 1953, regarding the period of time required to obtain the information to process the captioned application requested in our letter dated October 8, 1952.

We wish to cooperate with you in the matter of allowing ample time in the collection of this information. However, will you please advise when we may expect this requested data.

Sincerely yours,

Clement W. Ellis, Chief
Rare and Misc. Metals Division

FLKnouse/jem
1/14/53
cc to: Adm. Reading File
Docket
Messrs. HDKeiser-3641
APButler-3206 GSA
Ellis Knouse
Field Team, Region IV (2)

J. C. 1/14/53

1/13/53 gmw

Salt Lake City, Utah.

Jan 8 1953

Re; Docket no DMEA. 2676
(Uranium & Copper) Laurel
Dunmore & Colleen Bravo Claims
Red Mt Mining District, Ouray County
Colorado.

r Ernest Williams Ellis;
hief of Rare and Miscellanious
ntal Division of Department
of Interior Washington, D.C.

Dear Mr Ellis;

In regards to your letter of Dec 1952 and to the additional information necessary to process my application I wish to state I am unable to give you that information at this time, owing to the fact that I have incountered some difficulties I had not anticipated. I am trying to work out a plan to overcome this situation but at present I have not had time.

If no more time is available then I will have to pass it up for the present.

But I do appreciate all your kindness, help & your time. And I want to thank you very much.

Wishing you the Best for a Happy New Year

I remain

Respt.

Harold A. Gendrop.

Salt Lake City

Utah.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JAN 13 1953

P.S. Should you for any Reason answer this letter Please mail it to the old address at St. Louis, Mo.

FILE COPY
SURNAME:
TW

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

DEC 18 1952

F.L. Knouse
Ellis
Returned

Mr. Harold A. Gandrup, President
Rare Minerals Mining and Milling Company
c/o Leahy and Leahy
1105, 418 Olive Street
St. Louis 2, Missouri

Re: Docket No. DMEA-2676 (Uranium & Copper)
Laura Dunmore and Collen Brown Claims
Red Mountain Mining District
Ouray County, Colorado

Dear Mr. Gandrup:

A review of your application of August 27, 1952, for an exploration contract in the amount of $63,532.00, reveals that a letter dated October 8, 1952, requested additional information necessary to process your application.

Inasmuch as we have received no reply, we assume that you no longer desire to proceed with the application. We wish to cooperate with you in the matter of allowing ample time, but if the needed data has not been received by January 19, 1953, we will then consider the docket closed.

Sincerely yours,

SIGNED

Ernest Wm. Ellis, Chief
Rare and Misc. Metals Division

FLKnouse/jem
12-17-52
cc to: Adm. Hearing File
Docket
Messrs. A.P. Butler, Jr. Rm. 3206 GSA
H.D. Keiser, Rm. 3647
Mr. Ellis
Mr. Knouse
DMEA Field Team, Region IV (2)

FILE COPY
700 SURNAME:
Hochert
F2 Kuzum
Butler
Hollywood
Ellis

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

OCT 8 1952

Mr. Harold A. Gandrup, President
Rare Minerals Mining and Milling Company
c/o Leahy and Leahy
1105, 418 Olive Street
St. Louis 2, Missouri

Re: Docket No. DMEA-2676 (Uranium & Copper)
Laura Dunmore and Collen Brawn Claims
Red Mountain Mining District
Ouray County, Colorado

Dear Mr. Gandrup:

Reference is made to the captioned application being processed by this office. Before we can proceed further, we will require the following data:

1. Kindly furnish maps or sketches drawn approximately to scale, outlining the known uranium and copper mineralization, on plan and section, showing geology, sample data and location of proposed work in relation to the mining claim lines as justification for the proposed work.
   In order for your application to be considered for a project to explore for uranium, as well as copper, the sample data to be shown on the above maps or sketches must indicate sufficient presence of uranium mineralization, otherwise your application can be processed only as a copper exploration project for which this Agency is authorized to participate to the extent of 50 percent of the total cost of the project.

2. The copy of the lease which you sent to us names you as the lessee. As The Rare Minerals Mining and Milling Company is the applicant, it is necessary that the Company hold the interest in land for the purposes of an exploration project contract. In this regard, it is noted that the lease provides specifically for assignment to the Colleen Brawn Company, on a certain condition, but does not provide for assignment to any one else. Therefore, evidence of the written consent of the owner to such an assignment is required.

3. It is noted also that the lease covers only a two-thirds interest in the Laura Dunmore claim and a one-half interest in the Colleen Brawn claim, and that the lessee is bound by the lease to maintain rights of those owners who have not joined in the lease. As this lease purports to put the lessee in full possession of the claims we will require an explanation supported by a citation of legal authority, which permits leasing in this manner. In the absence of such legal authority a new lease executed by all owners of interest in the claims must be obtained, and a copy furnished to this office.

We shall be pleased to process your application further, upon receipt of the information required by this letter.

Sincerely yours,

Signed 10-8-52

Ernest Wm. Ellis, Chief
Rare and Misc. Metals Division

FLKnouse/jem
10/6/52
cc to: Adm. Reading File
Docket
Messrs. H.D.Keiser-R. 1347
A.P.Butler-R.3006 GSA
Ellis Knouse
Field Team, Region IV(2)

FILE COPY
SURNAME:

Rubin

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

October 1, 1952

Memorandum

To: Mr. E. W. Ellis n.s. in R. v R.

From: Chief Counsel

Subject: The Rare Minerals Mining and Milling Company
Docket No. DMEA-2676

Pursuant to your informal request, we have reviewed the above-described application.

In connection with the lease and the Owner's Consent to Lien we note that:

1. The lease expires on October 14, 1958, leaving a term of only approximately six years remaining, instead of the required ten years.

2. The lessee is named as H. A. Gandrup, and the lease recites that permission to assign the lease extends specifically to the Colleen Brawn Mining and Milling Co. only on a condition of furnishing and maintaining a cash deposit. Therefore, express permission to assign to the applicant, The Rare Minerals Mining and Milling Company, must be obtained.

3. The lease covers only a two-thirds interest in the Laura Dunmore claim and a one-half interest in the Colleen Brawn claim. The lessee is bound by the lease to maintain rights of those owners who have not joined in the lease. There is no explanation as to why the lease covers only fractional interests in the claims. As the lease purports to put the lessee in full possession of the claims, an explanation must be made, supported by a citation of legal authority, which permits leasing in this manner. In the absence of such legal authority, a new lease executed by all owners of interests in the claims must be obtained.

4. The Owner's Consent to Lien is signed by only one of the three lessors. It must be signed by all owners of an interest in the claims, or at least all the lessors if the lease is valid in its present form, and is extended for a full ten year term.

HCRubin/mef
cc to: Mails and Files
Mr. Hofflund
Mr. Rubin
Chron.

J. L. Hofflund
Chief Counsel

Attachment

140 10/3/52 2 gm

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

October 1, 1952

Memorandum

To: Mr. E. W. Ellis 4640

From: Chief Counsel

Subject: The Rare Minerals Mining and Milling Company
Docket No. DMEA-2676

Pursuant to your informal request, we have reviewed the above-described application.

In connection with the lease and the Owner's Consent to Lien we note that:

1. The lease expires on October 14, 1958, leaving a term of only approximately six years remaining, instead of the required ten years.

2. The lessee is named as H. A. Gandrup, and the lease recites that permission to assign the lease extends specifically to the Colleen Brawn Mining and Milling Co. only on a condition of furnishing and maintaining a cash deposit. Therefore, express permission to assign to the applicant, The Rare Minerals Mining and Milling Company, must be obtained.

3. The lease covers only a two-thirds interest in the Laura Dunmore claim and a one-half interest in the Colleen Brawn claim. The lessee is bound by the lease to maintain rights of those owners who have not joined in the lease. There is no explanation as to why the lease covers only fractional interests in the claims. As the lease purports to put the lessee in full possession of the claims, an explanation must be made, supported by a citation of legal authority, which permits leasing in this manner. In the absence of such legal authority, a new lease executed by all owners of interests in the claims must be obtained.

4. The Owner's Consent to Lien is signed by only one of the three lessors. It must be signed by all owners of an interest in the claims, or at least all the lessors if the lease is valid in its present form, and is extended for a full ten year term.

J. L. Hofflund
J. L. Hofflund
Chief Counsel

Attachment

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C. October 1, 1952

Memorandum

To: Mr. E. W. Ellis

From: Chief Counsel

Subject: The Rare Minerals Mining and Milling Company
Docket No. DMRA-2676

Pursuant to your informal request, we have reviewed the above-described application.

In connection with the lease and the Owner's Consent to Lien we note that:

1. The lease expires on October 14, 1958, leaving a term of only approximately six years remaining, instead of the required ten years.

2. The lessee is named as H. A. Gandrup, and the lease recites that permission to assign the lease extends specifically to the Colleen Brawn Mining and Milling Co. only on a condition of furnishing and maintaining a cash deposit. Therefore, express permission to assign to the applicant, The Rare Minerals Mining and Milling Company, must be obtained.

3. The lease covers only a two-thirds interest in the Laura Dunmore claim and a one-half interest in the Colleen Brawn claim. The lessee is bound by the lease to maintain rights of those owners who have not joined in the lease. There is no explanation as to why the lease covers only fractional interests in the claims. As the lease purports to put the lessee in full possession of the claims, an explanation must be made, supported by a citation of legal authority, which permits leasing in this manner. In the absence of such legal authority, a new lease executed by all owners of interests in the claims must be obtained.

4. The Owner's Consent to Lien is signed by only one of the three lessors. It must be signed by all owners of an interest in the claims, or at least all the lessors if the lease is valid in its present form, and is extended for a full ten year term.

J. L. Hofflund
Chief Counsel

Attachment

9/23/52 [illegible]

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

September 22, 1952

Memorandum

To: E. W. Ellis, DMEA

From: C. H. Johnson, Bureau of Mines

Subject: DMEA-2676 (Copper) Rare Minerals Mining and Milling Company, Colleen Brawn and Laura Dunmore claims, Red Mountain District, Ouray County, Colorado

I have reviewed the subject application and recommend referral to the field for consideration, although the project seems to be poorly set up and is justified only by two assay reports on what surely must have been specimens rather than samples, taken 25 years ago.

The application is returned herewith.

C. H. Johnson

C. H. Johnson

Attachment

Copy to - Mr. Nelson, USGS
Minerals Division
Base Metals Branch
Mr. Johnson
Files

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 22 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

September 22, 1952

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From: C. H. Johnson, Bureau of Mines

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C. H. Johnson

Attachment

CHJohnson:ks

Copy to - Mr. Nelson, USGS
Minerals Division
Base Metals Branch
Mr. Johnson
Files

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 22 1952

9/12/52 gla

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

September 11, 1952

Memorandum

To: Mr. E. Wm. Ellis

From: Edwin T. McKnight

Subject: Field referral

Re: DMEA-2676
Rare Minerals Mining and Milling Company
Laura Dunmore Claim
Red Mountain District, Colo.
"Copper, silver, iron, germanium, uranium, gold"
$63,532

This is an amateurish application from "persons . . . (who) have had a number of years of experience, but request Government supervision". Their property is on a small mineralized pipe not far from the famous Yankee Girl ore pipe in the Red Mountain district. Some of such ore pipes have produced rich copper-silver-lead ore, The Yankee Girl having extended to a depth of perhaps 1,000 feet. Thus, the property may have some geologic merit for exploration, but there is considerable question as to whether the operators are competent to carry out the operation that is proposed. The application should be referred to the field team for both a geologic and engineering appraisal and recommendation. It is not evident from the application whether the existing workings are accessible.

Edwin T. McKnight

Edwin T. McKnight
Geologist

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

September 11, 1952

Memorandum

To: Mr. E. Wm. Ellis

From: Edwin T. McKnight

Subject: Field referral

Re: EMEA-2676
Rare Minerals Mining and Milling Company
Laura Dunmore Claim
Red Mountain District, Colo.
"Copper, silver, iron, germanium, uranium, gold"
063,532

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Edwin T. McKnight
Geologist

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

September 4, 1952

Memorandum

To: Ernest William Ellis, DMEA Member,
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member,
Uranium Commodity Committee

Subject: DMEA Docket 2676, The Rare Minerals Mining and Milling Co., c/o Mr. H. A. Grandup, R.F.D., Ouray, Colorado

I have reviewed the application included in the subject docket with Arthur P. Butler, Geological Survey Member, and have consulted reconnaissance reports by W. S. Burbank, Geologist of the Geological Survey, on lands nearby those mentioned in the application.

Attention is invited to the fact that the applicant has failed to show in his application any evidence of the occurrence of uranium on the lands involved under the application.

Recommendation is made that either the applicant be called upon to show evidence of the occurrence of uranium on the lands involved or the application be referred to other commodity groups concerned with the other metals mentioned by the applicant.

H D Keiser
H. D. Keiser

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

September 4, 1952

Memorandum

To: Ernest William Ellis, DMEA Member,
Uranium Commodity Committee, Room 4640

From: H. D. Keiser, Bureau of Mines Member,
Uranium Commodity Committee

Subject: DMEA Docket 2676, The Rare Minerals Mining and Milling Co., c/o Mr. H. A. Grandup, R.F.D., Ouray, Colorado

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H. D. Keiser

Enclosure

9/4/52 gla

IN REPLY REFER TO:

G:TEPCO:APB

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

SEP - 3 1952

Memorandum

To: Ernest Wm. Ellis, DMEA Member, Uranium Commodity Committee

From: A. P. Butler, Jr., USGS Member, Uranium Commodity Committee

Subject: DMEA Docket 2676 (Uranium) The Rare Minerals Mining and Milling Company Applicant, Colleen Brawn and Laura Dunmore Claims, Red Mountain District, Ouray County, Colorado.

I have reviewed the application identified above and discussed it with Mr. H. D. Kaiser, Bureau of Mines, Member of the Commodity Committee.

The applicant does not give any information that would indicate the presence of uranium on these claims and although uranium has been discovered within the last year on some properties in this district, there is no information in the Washington files of Geological Survey that would indicate the presence of uranium on the applicant's property. Under the circumstances, I believe that the application cannot be considered as a possibility for finding uranium. I believe it should be referred to the Copper Commodity group for their consideration.

Arthur P. Butler, Jr.

Arthur P. Butler, Jr.

Attachments

Copy to: E. Wm. Ellis

IN REPLY REFER TO:
G:TEPCO:APB

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

SEP - 3 1952

Memorandum

To: Ernest Wm. Ellis, DMEA Member, Uranium Commodity Committee

From: A. P. Butler, Jr., USGS Member, Uranium Commodity Committee

Subject: DMEA Docket 2676 (Uranium) The Rare Minerals Mining and Milling Company Applicant, Colleen Brawn and Laura Dunmore Claims, Red Mountain District, Ouray County, Colorado.

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Arthur P. Butler, Jr.

Attachments

Copy to: E. Wm. Ellis

Mr. Harold A. Gandrup
c/o Mr. Wesley Park
Rare Minerals Mining and Milling Co.
Delta, Colorado

Subject: DMEA-2676
Re: Exploration Assistance
Laura Dunmore, Colleen Drawn
August 27, 1952

My dear Mr. Gandrup:

The receipt of your application dated August 15, 1952, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-2676 and referred to the Rare and Miscellaneous Metals Division.

Kindly refer to DMEA-2676 in any future correspondence relating to your application.

Sincerely yours,

SIGNED
Mingfield Chamberlain
Acting Chief, Operation's
Control and Statistics Division

cc: H. A. Gandrup
Original to: M.L. Lucas

25451

4:30 p.m.

Mr. Ellis:

The three gentlemen to whom you talked yesterday brought in the attached application on The Rare Minerals Mining and Milling Company and the Owner's Consent to Lien. They asked that the acknowledgment (which I explained would be written in Mails & Files) be sent as follows:

Original to: Morton J. Lucas
c/o John S. Leahy
418 Olive Street
St. Louis 2, Mo.

Copy to: H. A. Gandrup
c/o Wesley Park, Delta, Colorado

THE RARE MINERALS MINING AND MILLING COMPANY

Care of Leahy and Leahy,
1105, 418 Olive Street,
St. Louis 2, Missouri.

United States Department of the Interior,
Defense Minerals Exploration Administration,
Washington, D. C.

Gentlemen:

On behalf of the undersigned, the Rare Minerals Mining and Milling Company, a Colorado corporation, I, as President, submit herewith four copies of application for aid in an exploration project pursuant to D.M.E.A. Order 1, under the Defense Production Act of 1950, as amended. Attached to these applications are various photostatic copies of instruments which, in my opinion, would give you a clear picture of the situation respecting the mine my company desires to develope and in order to do so, it will be necessary to secure financial aid, for which we are applying herewith.

If any additional information is desired, it will be presented, if such information is available.

In the event you deem it advisable for me and my associates to visit Washington, we will come on your request.

Yours very truly,

Harold A. Gandrup

Harold A. Gandrup, President,
The Rare Mineral Mining and
Milling Company.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 27 1952

2676

THE RARE MINERALS MINING AND MILLING COMPANY

Care of Leahy and Leahy,
1105, 418 Olive Street,
St. Louis 2, Missouri.

AUG 22 1950
DEFENSE MINERALS ADMIN.
MINERALS DIV. OF DEF.

United States Department of the Interior,
Defense Minerals Exploration Administration,
Washington, D. C.

Gentlemen:

On behalf of the undersigned, the Rare Minerals Mining and Milling Company, a Colorado corporation, I, as President, submit herewith four copies of application for aid in an exploration project pursuant to D.M.E.A. Order 1, under the Defense Production Act of 1950, as amended. Attached to these applications are various photostatic copies of instruments which, in my opinion, would give you a clear picture of the situation respecting the mine my company desires to develope and in order to do so, it will be necessary to secure financial aid, for which we are applying herewith.

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In the event you deem it advisable for me and my associates to visit Washington, we will come on your request.

Yours very truly,

Harold A. Gandrup

Harold A. Gandrup, President,
The Rare Mineral Mining and
Milling Company.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
AUG 27 1952

THE RARE MINERAL MINING AND MILLING COMPANY

Care of Leahy and Leahy,
1105, 418 Olive Street,
St. Louis 2, Missouri.

United States Department of the Interior,
Defense Minerals Exploration Administration,
Washington, D. C.

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If any additional information is desired, it will be presented, if such information is available.

In the event you deem it advisable for me and my associates to visit Washington, we will come on your request.

Yours very truly,

Harold A. Sandrup

Harold A. Sandrup, President,
The Rare Mineral Mining and
Milling Company.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
AUG 27 1952
RECEIVED

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-2676
Metal or Mineral
Date Received 8-27-52
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: The Hare Minerals Mining and Milling Company, a Colorado corporation, Care Mr. H. A. Gandrup, R.F.D., Ouray, Colorado, President. Vice Pres. Herman Lark, Steeleville, Mo. Secretary Merle Park, Delta, Colorado. Treasurer, Wesley Park, Delta, Colorado.

(*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. See attached list.

(*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 Lessee 1/3 interest in mining property known as Colleen Brawn Mining Claim, Lode #4644, Red Mountain, and a 2/3 interest in mining property known as Laura Dunmore Mining Claim, Lode #1922, Red Mountain; Red Mountain Mining District, at base of Red Mountain #3.

(*b*) State any mine name by which the property is known. Laura Dunmore and Colleen Brawn.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee. Lease expires 1956 with right of renewal.

(*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. Copy of lease attached.

(*e*) If you own the land, describe any liens or encumbrances on it No encumbrances.

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

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. See attached list.

(*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. See attached list.

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

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

16—66551-1

Colorado Power Co.'s supply line is within 400 feet of project.

A full quota of men experienced in the mining business is available and an abundant supply of water and electric power almost unlimited.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you will explore Copper, silver, iron, germanium, uranium, gold and silver.

(*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. See attached list.

(*c*) The work will start within 10 days after available capital is supplied and be completed within 24 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. See attached list.

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: See attach

(*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.). None

(*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. See attached list.

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

(*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. See attached list.

(*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. See attached list.

(*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. See attached

(*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. See attached list.

(*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)? Yes.

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

☐ 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.

THE RARE MINERALS MINING & MILLING CO.

Dated August 15, 1952

By Harold A. Gandrup
(Applicant)
President.

By

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

The Rare Minerals Mining & Milling Co., Ouray, Colorado

4 (a) 155 feet deep shaft which is a two compartment shaft, 4x8 in the clear, 4x4 manway and 4x4 cage way. There is a 20 ft. drift about 60 feet down in the shaft. There is a 70 foot tunnel in the shaft at 20 foot depth for the purpose of water drainage and for ventilation and for purpose of escape in the case of fire or cave in.

4 (b) From 1919 worked in a desultory way until 1928. Past production approximately 100 tons of peacock copper ore was removed. It runs from 16% to 24% in copper; 30% in iron and 31% in sulphur; about 15 ounces of silver per ton and about $4.00 in gold per ton.

4 (c) Shaft is cribbed with timbers all the way from the surface to the bottom of the cage way is lined with 1x12s and the manway has a station every 10 feet with ladders; a tunnel which intersects the shaft 20 feet below the surface. Tunnel is approximately 70 feet in length, 5½ feet high and 4 feet wide. The tunnel was put in for the purpose of water drainage and ventilation. The tunnel empties into Red Mountain Creek. Property is accessible by use of ladders in the manway, and property is located about 11 miles south of Ouray, Colorado, and the mine is located 600 feet from the Million Dollar Highway. Attached is photostatic copy of excerpts from U.S.G.S. Bulletin No. 182, Report on Economic Geology of the Silverton Quadrangle, Colorado - Ransome, and also report on Laura Dunmore Mining Property, Ouray, Colorado, by Carr W. Pritchett, Mining Engineer, dated April 19, 1928; also map showing location of entire property and surrounding properties.

4 (d) See description of road and accessibility in paragraph (c). Trucking, 11 miles to Ouray and to Denver & Rio Grande Railroad, supplying residence points Ouray, Colorado.

5 (b) 1. Rehabilitate shaft and buildings.
2. Run water to shaft 3,000 ft.
3. Run electric power line to shaft and buildings.
4. Install electrical equipment. One 250 ft. air compressor. One 30"x7' air receiver. One U.S.-55 Rock Drill hand hold. 500 ft. air Tool Air Hose. 3 sets of rods and bitts. One automatic full motor magnetic starter for 440 volts. Vertical pump 60 gal. per. m. at 400 ft. One 6 .B.-34 stage vertical turbine pump with 400'4" column and 1" shaft. One 15 H.P. Vertical Hollow shaft motor 3/60/220/440 motor. Pipe, fitting suction hose, etc. We have hoist 2 ton cap.

5. Sink shaft approximately 250' deeper to a depth of 400 ft. or to secondary enrichment. Because of limited dimensions of chimney, it is deemed inexpedient to seek lode with diamond drills. Shaft borders chimney. Drills proceeding from multiple angles may miss ore body.

6. Two compartment shaft. Manway 4x4 in clear, cage way 4x4 in clear.

7. Cribb shaft and line cage way with 1" boards. Install stations every 10 feet using wood ladders made of 2x4. Also use lagging between manway and cage way.

8. Sinking shaft on edge of chimney so three sides of shaft will be in the solid. Cut hitches every four or five feet and install timbers so as to give firm bearing. Dove tail all timbers and wedge with soft pine wedges. All timbers shall be of lodge pole pine, white spruce, or its equal.

9. Save all ore encountered in shaft and leave stations wherever stringers or ore bodies show and can later be developed or extracted.

10. Miners are available at the present and no shortage of man power in this area.

11. We will run two eight-hour shifts which has proven the best and most economical.

12. We will comply with state and federal rules and regulations in regard to insurance, state compensation taxes, social security, etc.

13. This shaft will be inspected from time to time by the state mine inspector.

14. We will use approximately 11 men consisting of 4 shaft men, two hoist men, one master mechanic, one carpenter and timber-man, three helpers.

15. Bookkeeping will be done by some banking firm such as Colorado Bank & Trust Company at Delta, Colorado.

16. The Board of Directors shall appoint a supervisor who in turn shall be advised by a capable mining engineer. One of the shaft men will be appointed as foreman or shift boss on each shift.

17. It will take approximately seven months to complete shaft.

18. We will sell stock in this company to meet Government requirements pertaining to the loan granted.

5 (d) Persons interested in project have had a number of years of experience, but request government supervision.

6 The mining timber for cribbing shaft cost 10¢ per running foot. The machinery and equipment necessary to start this operation:

1 Compressor Worthington Model M-50 Radiol Air Compressor, size 6/6/5x5, Displacement 284 C.F.M. Actual capacity 229 C.F.M. at 125 psi Disch pressure, complete with suction filter, and flange mounted induction Motor, 50 H.P. 3/60/440 880 RPM, weight 3150 pounds, Price	$3,399.00
Onee size 30" x 7' Air Receiver, Weight 700 lbs.	322.00
One automatic Full Motor Magnetic Starter for 440 volts	105.60
One U. S. - 55 Rock Drill, hand held	101.50
500 ft. of Air Tool Hose - Estimate	500.00
3 sets of Rods and Bits, Estimate	82.50
1000 Bits, Estimate	600.00
Vertical pump for 60 G.P.M. at 400 feet, One 6-H.P. - 34 state Vertical Turbine Pump with 400' of 4" column and 1" shaft	2,530.00
One 15 H.P. Vertical Hollow Shaft Motor 3/60/220/440 Motor	431.20
Pipe and fittings - Suction Hose, etc.	600.00
	$9,041.80
Sales Tax	180.83
	$9,222.63

6 (b) Number of employees 11. Classes: Timbermen, carpenters, shaftmen, muckers, blacksmith, machinist and electrician. On engineering we would like advice from the Government.

Rates and wages or salaries: Timbermen and carpenters $1.75 an hour. Shaftmen $15.00 an 8-hour shift. Electrician, $1.75 an hour; Muckers, $1.40 an hour; Blacksmith, $1.75 an hour. Machinist, $2.00 an hour; Mine Superintendent, $500.00 a month. Mining Engineer, $25.00 a day when necessary.

6(c) Power will cost 1½¢ per kilowatt. 25 tons of coal at $20.00 a ton, $500.00.

6 (d) Repairing bunk house, shaft house and supplying additional timbers for shaft will cost $7,500.00.

6 (e) -

Water Line - 400' - 4" pipe	
40'4" suction hose.	
4" pipe fittings and valves	$ 600.00
Air line 500'/1/4" pipe and fitting valves	250.00
Powder - 3000 lbs. at $30.00 per 100#	900.00
Cost of power line, etc.	1,250.00
Transformer leased at $15 per month, 7 months	105.00
4000 No Delay Electric Primers, 1, 3, 5, 7 at 20¢ each	800.00
Shaft timber, 250' at $8.50 per foot	2,125.00
Stations every ten feet in manway, 5000 feet at $150 per M	750.00
Lining shaft - 4000 board feet at $150 per M.	600.00
Ladders - 2000 board feet at $150 per M.	300.00
Replacing metal roofing on buildings, 24 squares at $11 per square	264.00
Replacing 20 squares of Lateriate Roofing at $4 per square	80.00
Nails - ten kegs at $12 per keg	120.00
Mining tools, picks, saws, hammers, crow bars, shovels, etc.	525.00
Blacksmith outfit	230.00
Water line, 3000 feet 2½" black pipe and fittings	1,750.00
Electric Power - 7 months at $1,125 per month	7,875.00
Wages paid out "Estimate" $6,000 per month, 7 months	42,000.00

Labor per day

4-Shaftmen @15.00 per day, 8 hrs.	$15.00 each	$ 60.00
2-Hoish men @$1.75 per hr., 8 hrs.	14.00 each	28.00
1-Carpenter at $1.75 per hr., 8 hrs.	14.00 each	14.00
1-Machinist at $2.00 per hr, 8 hrs.	16.00 each	16.00
3-Laborers or muckers at $1.40 per hr., 8 hrs.	11.20 each	33.60
Cost of labor per day		$151.60

Cost of labor per Mo. (26 days x 151.60) approx.	$3,941.60
Superintendent per mo. $500.00	500.00
Auditing	250.00
Consulting	150.00
Machinery Maintenance	500.00
Workmans compensation per mo.	104.00
State & Federal tax per month (est.)	100.00
Group Hospital	110.00
Overtime, emergency & misc.	204.40
	$6,000.00 Per Month

7 months at $6,000 - $42,000.00.

Miscellaneous	3,000.00
	$63,532.00

6 (f) Present buildings, when rehabilitated will be sufficient.

6 (g) Detailed list of cost of repairs and maintenance of operation after rehabilitation: No exact detail can be given, an estimate of such cost will be $500.00 per month. Analytical work approximately $40.00 a car holding 25 tons of ore. Accounting $250.00 a month. Workmen's compensation and employer's liability insurance $1,250.00 per year. Pay roll taxes $100.00 per month.

7 (b) We have now approximately $10,000 available and will secure all additional necessary cash for our share from sale of corporate stock. This will be augmented by money we receive for ore as produced, as we are sinking the shaft. We will furnish the equipment as above set out.

R E P O R T

O N

THE LAURA DUNMORE MINING PROPERTY

Ouray, Colorado

b y
CARR W. PRITCHETT,
Mining Engineer,
Denver, Colorado.
April 19, 1928.

Hon. J. D. F. Schneider,
Chisholm & Chapman, Bankers,
52 Broadway,
New York City, New York.

The report which you commissioned me to make on the Laura Dunmore Mining Claim must necessarily be incomplete on account of the deep snow which still covers that region and which makes a study of the surface geology impossible.

Enough information was, however, obtained from the underground workings of the Laura Dunmore, which, taken in connection with the well known and recorded history of the camp, enables me to make certain positive recommendations to you regarding the immediate development of the property.

I think the showing you have in the 25' shaft on the Laura Dunmore is amply sufficient to warrant you in at once providing a fund of $25,000.00 for the further development of the property with modern equipment,

This equipment should consist of a small electric hoist, a small electrically driven air compressor of about 250 cubic feet capacity, two jackhammer drills, blacksmith outfit, small mining tools and other necessary accessories. A power line runs within 100 feet of the property and the state highway from Ouray to Durango passes within a very short distance of the shaft.

LOCATION

The property, consisting of one full claim 1500' by 150', is located in the heart of the Red Mountain mining district, about 12 miles south of Ouray, Colorado, at an altitude of about 10,500' above the sea level. The following picture gives a general view of the Red Mountain district and the snow conditions.

HISTORY

While this camp has been practically abandoned for 25 to 30 years, -- previous to this time it was one of the most famous and richest small districts in the State and has a recorded production of many millions of dollars, -- before the rich ore shoots were worked out. The Yankee Girl and Guston Mines were the largest producers and richest and are said to have produced over $4,000,000. The opinion, according to U. S. Geologists, seems to be that these two properties were near the center of the activity which produced the ore bodies of the district. If this is true, the Laura Dunmore Claim is very favorably located, as you will see by the blue print.

ORE OCCURRENCE AND CHARACTER OF ORE

The occurrence and character of the ore in this district is different from that of any other district in the State. While there are apparently one or possibly two main fracture zones in the district having a general direction of North 20 degrees East or North 30 degrees East -- along which most of the best mines were located, the ore does not occur in vein form along these fracture zones but as isolated chimneys or pipes of rough elliptical section, practically vertical and formed in these main cross fissures. These chimneys have never been large in cross section, averaging probably 60' by 15', though some have been larger and they have extended down a vertical distance of approximately 1,000 feet. The richness of the ore has more than made up for the small tonnage produced.

In the Yankee Girl some of the ore ran as high as 30% copper, 14,000 ounces silver and 3 ounces gold per ton.

These ore chimneys in the older mines usually showed an outcrop of oxidized lead ore carrying silver, and according to Dr. Ransome, of the U. S. Geological Survey, "there is a remarkable uniformity in change in less than 300 feet in depth from an argentiferous Galena to a highly argentiferous copper ore, and then a gradual diminution downward through the increasing proportion of low grade pyrite."

The rich ores found in the Yankee Girl and other mines at a depth of about 450' were caused partly by secondary enrichment, the copper and silver being leached out of the upper portion of the vein and re-deposited in an enriched form at this depth. Besides the minerals of secondary enrichment in this zone, a great deal of very rich silver ore is composed of the mineral called Stromeverite, a silver-copper sulphide which, when pure, is composed of approximately 31% cop per, 53% silver and 16% sulphur.

The ore in these chimneys is usually confined to the periphery of the chimney. The deposits are the result of Metasomatic replacement and they are all found in the Silverton Andesite in which all the big mines of the district occur. It has also been found to be the case in all the older mines in the district that near the surface the ore has a tendency to ramify and to occur in what is locally termed "boulders".

Lower down, this condition ceases and the ore becomes solid. The ore in this 25' shaft has conformed to these conditions from surface down and now is becoming more solid in the bottom, as you can see by samples enclosed, which I personally took from the bottom of the shaft. The ore also shows the characteristics met with in the outer edges of these chimneys, from which I infer that the shaft is being sunk on the edge of the chimney. The ore seems to be widening with depth and now fills about half the bottom of the shaft.

The fact has been established beyond doubt that the ore in this district occurs in chimneys along well defined fracture zones and at the intersection of cross factures with these main fracture zones. Where such conditions have existed, ore shoots or chimneys have been found, and they have usually proved persistent in depth, and rich.

The Laura Dunmore Claim, as I understand it, has been owned by Eastern parties for many years and no systematic work has ever been done on it until within a short time ago, when a one-third interest was acquired by some local mining men and some prospecting of the claim was inaugurated -- with the result that an intersection was located in ore and a 4' x 8' shaft was started with the crudest equipment and sunk in ore to a depth of 25 feet, under most adverse conditions.

There seems to be no doubt but that a chimney of ore exists here and from appearances the shaft seems to be going down on the edge of the chimney, where the ore is naturally poorer.

I understand the ore taken out in this exploration will run around 25% copper, 10 ounces silver and a little gold, with a gross value of over $70.00 per ton. It is beautiful ore and gives every evidence of permanency.

A more detailed examination of this property and district can and should be made later, when snow is gone, but to me the important thing now is to provide the necessary money so that the proper equipment can be purchased at once and ready to install as soon as the snow has gone, about the middle of May, that no delay may be had in sinking this shaft another 100' or 150' to properly explore and develop this ore chimney, -- all of which I believe to be amply warranted by conditions as found in the mine, and which I recommend to your serious and immediate consideration. The fact that the top of the Laura Dunmore shaft is about 150' lower than the top of the Yankee Girl shaft probably will eliminate the lead ore usually found in the upper portion of the vein, and will enable you to reach your zone of secondary enrichment and rich silver-copper ore that much sooner.

Yours truly,

CARR W. PRITCHETT
2735 Federal Boulevard,
Denver, Colorado.

ST. LOUIS SAMPLING & TESTING WORKS, INC.

CERTIFICATE OF ANALYSIS.

31169 St. Louis, Mo. Sept. 30, 1925.

The sample of Ore submitted to us for examination contains:-

	Amount per Ton.	Value per Ton.
Copper	21.15 %	$60.28
Lead	Trace	
Gold	0.02 oz.	0.41
Silver	12.80 Oz	8.96.

Total Value per Ton.....$69.65

Yours truly,

ST. LOUIS SAMPLING & TESTING WORKS, INC.

Signed Robert W. Barrell, Pres.

To Messrs. J.A.Hart & Chas. Lucas,
Room 204, 806 Chestnut Street,
St. Louis, Mo.

COPY.

ST. LOUIS SAMPLING & TESTING WORKS, INC.

CERTIFICATE OF ANALYSIS.

31895

St. Louis, Mo.
Sept. 17, 1926.

The sample of ore submitted to us contains upon examination:-

	Amount per Ton	Value per Ton
Gold	0.05 Oz	$1.00
Silver	11.80 Oz.	7.20
Copper	24.19%	67.75
Iron	20.47%	
Lead	0.10%	
Zinc	0.63%	
Total value per Ton.....		75.95

This should be a very good smelting ore as it contains very little Zinc and only a small percent of Silica and a high percentage of Iron.

Yours truly,

ST.LOUIS SAMPLING & TESTING WORKS, INC.

Signed Robert W. Barrell, Pres.

To Mr. John A Hart,
806 Chestnut Street,
St. Louis, Mo.

EXCERPTS FROM

U. S. G. S. BULLETIN No. 182

REPORT ON THE ECONOMIC GEOLOGY OF THE SILVERTON

QUADRANGLE, COLORADO. -- Ransome

****

"The Yankee Girl ore body was struck in 1882, and, with the Guston shipped large quantities of high-grade silver ore for over fourteen years. These two mines alone have probably produced at least $6,000,000 or $7,000,000 ----------"

****

"The stocks of the Silverton quadrangle are nearly vertical, irregularly lenticular or spindle-shaped bodies of almost solid ore, surrounded by an envelope of much altered, partly silicified country rock, which is usually impregnated with pyrite. Neighboring ore bodies are commonly connected by fissures, usually filled with wet clay gouge or kaolin. The sizes of the individual ore bodies vary greatly. In plan, lengths of 40 or 50 feet and widths of 10 or 15 feet appear to have been not uncommon. Accurate sections of actual stocks are not now available, but individual ore bodies appear to have been followed in many cases through several levels and therefore to have had a nearly vertical maximum dimension of several hundred feet. Although sometimes nearly circular, the ore bodies generally showed a more or less elongated or elliptical plan, the longer axis of which usually lay more nearly north and south than east and west. The direction of the longer axis was not, however, always constant for all depths of a given stock."

****

"Although no continuous fissures or veins can be detected on the surface, it is noteworthy that the St. Paul, Congress, Senate, Hudson, Enterprice, Charter Oak, Genesee-Vanderbilt, Yankee Girl, Robinson, Guston, White Cloud, and Silver Bell mines all lie close to a straight line bear-in about N. 21° E. The National Belle, Paymaster, and Grand Prize Mines, and a host of less-noted claims, are apparently irregularly disposed on either side of this line."

****

" ------ The following general conclusions are cited from Mr. Schwarz's paper:

1. The secondary ores are richer than the sulphide ores occurring below them.

2. The cave walls are a porous sandy quartz, the sand from the disintegration of which forms part of the cave filling.

3. The line of change from oxidized to unoxidiced ores, or the former water lever, is very marked. It varies as much as 100 feet in elevation in properties within 1,000 feet of each other, rising to the south and west. The quartz outcrop rarely rises more than 200 feet above it.

"The ores of the stocks, like those of the lodes, vary widely in value. In 1883, 3,000 tons of ore extracted from the Yankee Girl averaged nearly $150.00 per ton. A lot of 10 tons from the richest stopes of the same mine carried 3,270 ounces of silver per ton and 29 per cent of copper, corresponding to an average value per ton of about $3,000. Much richer ore than this occurred in small quantities in the Yankee Girl and Guston. The average sales value per ton of the ore of the latter mine has been given as $91.81 for a period of eight years. The highest annual average was $363.25 per ton, and the lowest $10.70. These, it should be borne in mind, are the prices for which the ore was actually sold to the smelters. Values based directly upon metallic contents, without reference to cost of treatment, would be higher. The highest annual average represents the ore from the rich stopes above the seventh level. The lowest corresponds to the low-grade pyritic ore of the deeper levels. The richest ore recorded from this district was some take in 1891 from the Guston at a depth of 378 feet, which carried 15,000 ounces of silver and 3 ounces of gold per ton, worth, at the then current price of silver, $14,880.00."

****

"---It seems to be a well attested fact that at a depth of about 500 feet there was encountered in the Yankee Girl and Guston mines a fault or "slip plane" with low westerly dip, and further, that the richest ore occurred just above this seam, which was filled with clay-like gouge."---

****

"Yankee Girl Mine. --- The Yankee Girl ore body was discovered in the autumn of 1881 by John Robinson. In 1882 it was being opened by two shafts, each about 50 feet deep. At that depth the ore is said to have been about 9 feet wide, consisting chiefly of galena with bunches of chalcopyrite, and carrying as much as 80 ounces of silver and 65 per cent of lead. The ore body was rapidly opened up and proved large and rich. In 1883, with a thousand feet of drifts and shafts, about 3,000 tons of ore were extracted, with an average value of nearly $150 per ton. The product of this year is given in the Mint report as $400,000, and the ore is said to have carried a high percentage of lead. In 1884, according to the same authority, the mine was producing about 40 tons a day, which, at $150 per ton, would be something over $2,000,000 for the year. This, however, is obviously an excessive estimate. In 1887 the output is not known, but was probably much less than $200,000. In 1890 it is credited with $1,352,994, the silver, as usual, being given at its coinage value and no return being made for copper or lead. In 1891 the product is given as $701,465 in gold and silver, and in 1892 it had fallen to $95,445. Of this amount $5,200 was in gold, $48,333 in silver (coinage value), $3,632 in lead, and $38,280 in copper. Thus these fragmentary records show that in the course of ten years' working the ore changed, within a vertical distance of 1,000 feet, from one carrying chiefly galena to one rich in copper."

THIS INDENTURE, made and entered into this Eighth day of October, A. D. 1948, by and between

MARY LUCAS HART, of the City of St. Augustine, State of Florida; CHARLES LUCAS and MORTON J. LUCAS, of the City of St. Louis, State of Missouri, all of the aforesaid being children and heirs at law of J. B. C. Lucas, and as owners of an undivided four-fifths (4/5ths) interest of an undivided interest of the hereinafter described mining claims owned by J. B. C. Lucas at the time of his death,

all of whom are hereinafter designated as Lessors, and

HAROLD A. GANDRUP,

of Ouray, Colorado, hereinafter called the Lessee,

WITNESSETH that whereas the said Lessors are the owners of a one-half (1/2) interest and a two-thirds (2/3) interest respectively, in the mining claims hereinafter described, and are desirous of having the said property operated and developed,

NOW, THEREFORE, for and in consideration of the royalties to be paid and of the covenants to be performed by the Lessee, and hereinafter set forth, the Lessors have leased, let and demised, and by these presents do lease, let and demise unto said Lessee the following described mining property, situated in the Red Mountain Mining District located in Ouray County, about eleven miles from the City of Ouray, State of Colorado, to-wit:

A one-half (1/2) interest in the mining property known as the Colleen Brawn Mining Claim, Lode Number 4844, Red Mountain, and a two-thirds (2/3) interest in the mining property known as the Laura Dunmore Mining Claim, Lode Number 1922, Red Mountain; Red Mountain Mining District, at the Base of Red Mountain No. 3;

TO HAVE AND TO HOLD the same for the purpose of mining and developing the same and of marketing ores therefrom for a period beginning the 15th day of October 1948, and ending at noon on the 14th day of October, 1958, or unless sooner terminated by the provisions of this instrument hereinafter set forth, and all subject to the conditions, covenants and terms as herein set forth.

Lessee agrees, in consideration of the foregoing lease and of the further covenants of the Lessors as hereinafter set forth, as follows:

1. That he will allow the Lessors or their duly authorized agents or representatives, access to said demised premises and all nearby premises which it may be leasing or operating in connection with the development or operation of the premises herein leased, and to every portion of them, at all reasonable times during the continuance of this lease, for the purpose of inspection and of taking samples of ore therefrom; that he will post and keep posted in a conspicuous place at the mouth of the main adit tunnel on said premises and at the mouth of any other tunnel which may be used for the development or operation of said premises and at such other place or places as may be necessary to give adequate notice, a notice to all who may come to or upon said premises to work or to deliver supplies, stating that the owner will not be responsible in any manner to any person or persons furnishing labor or supplies in connection with such work for work or materials furnished; that he will insure and keep insured against death and injury all persons

employed by him in or upon said demised premises in accordance with the Statutes of Colorado relating to Workmen's Compensation, and at his own expense; that he will hold Lessors harmless as against all claims or demands of every kind or nature which may be made upon it for or on account of acts done, permitted or omitted to be done under this agreement by him, his agents or his employees.

2. That he will, in due season, and in the manner and form prescribed by the Laws of the State of Colorado, make, prepare and deliver to the owner or owners of the remaining one-half and one-third interests, respectively, in and to the within demised premises, a statement setting forth the operations, expenses and returns from said demised premises, all at his own expense. It will be sufficient for the said Lessee to send to the persons aforesaid and to these Lessors a copy of a report the said Lessee makes to the State of Colorado on or before the 15th day of March of each calendar year for the term of this lease.

3. That the Lessee shall keep a correct account of all mineral mined, the amounts and receipts thereof, to whom sold and the price received therefor; which accounts shall be open to the inspection of the Lessors at all times. The Lessee shall on the first day of each month render to the Lessors a correct statement of the kind and weights of all minerals sold during the preceding month, to whom, and the prices received therefor.

4. Lessee further agrees that he will at the end of every six months, from the date of this lease, at his own expense, also prepare and deliver to Lessors a correct copy of the "log" of his operation of the mining premises herein leased by him. The first of these statements shall be made on July 1, 1949, and each six months thereafter during the term of this lease.

5. That he will observe the rights in law and in equity of the owner or owners of the remaining one-half and two-third interests respectively, in and to the demised premises herein and in the operation of the said demised premises, will conduct his said operations in strict accordance with said laws so made and provided, expressly agreeing to hold the said Lessors harmless for any act done, permitted or omitted to be done under this lease.

6. That he will pay as royalty on all ore marketed by him from the said premises two-third (2/3rds) of ten per centum (10%) of the net value of the same, regardless of the tonnage value thereof. These payments will be made on the first of each calendar month and a check for the same will be forwarded to Morton J. Lucas at 418 Olive Street, St. Louis 2, Missouri, and he will make the proper division of the same to the persons interested herein.

7. That the title to all ore mined or extracted by Lessee from said demised premises shall remain in Lessors until sold by Lessee and when sold by Lessee, Lessors shall nevertheless have and retain a lien therein to secure the payment of the royalties herein provided to be paid by Lessee, and that he will immediately notify the Lessors or their designated agents whenever any shipment of ore is made from said premises, as well as furnish them with full information as to the amount of ore shipped, the name or names of the consigners, and the prices at which he has sold the same; also that he will immediately notify the above mentioned lessors whenever any shipment of ore is made from said premises and furnish the said Lessors with full information as to the amount of ore shipped and the name or names of the consignors and the prices at which he has sold the same. He shall with each shipment send a copy of the smelter sheets.

8. That upon the termination of this lease, either by forfeiture or the expiration of the terms hereof, the Lessee will return said premises and improvements made or placed thereon by him (he expressly warrants that he has received said premises and improvements in good condition and repair and will return the same in like good condition and repair at the termination of this lease, either by forfeiture or the expiration of the terms hereof), all operation machinery and tools to be included, to the Lessors.

9. It is herein further mutually agreed that the provisions herein made by the Lessee to operate the demised premises, to pay the said royalty and to make the reports and the accounting required are warranties and any estate of Lessee hereby created without any notice at all to Lessee; and thereupon Lessors shall have the right to dispossess Lessee immediately. However, the failure of Lessors to exercise any of their rights hereunder to terminate this lease and dispossess Lessee, shall not be and constitute a waiver thereof, but shall be deemed a courtesy or sufferance extended to Lessee; that on his failure to keep and perform any other covenant or covenants than said warranties herein contained, or by him to be kept and performed within ten (10) days after written notice of his default in the performance thereof, of such other covenant or covenants, than said warranties, and demand for performance thereof shall have been served upon him, the Lessors shall have the right to declare this lease terminated and all rights of the Lessee hereunder forfeited, and thereafter Lessors shall have the right to immediately re-enter into possession of said premises and every part thereof with or without process of law and with or without force, and to dispossess therefrom Lessee and all persons holding under or through him, provided, however, that when forfeiture is declared, Lessee shall have ten (10) days in which to remove his possessions and to clean up and make shipment of any ore broken and ready for shipment.

10. That all returns for Ore or Concentrate shall be made by the Lessee or purchaser directly to Morton J. Lucas, 418 Olive Street, St. Louis 2, Missouri, who shall distribute the funds when so received to the parties entitled to such under the terms of this lease.

11. If the Lessors elect to terminate said lease at that time by giving notice to the Lessee to that effect, in the absence of such written notice terminating this lease from Lessors to Lessee, this lease shall terminate absolutely without any notice whatsoever October 14, 1958.

12. The following work is to be done: First year, twelve hundred (1,200) shifts; second year, and each succeeding year of the life of this lease, two thousand (2,000) shifts, per year (by shift we mean one man working eight (8) hours, per day.)

13. This lease is made with the distinct understanding between the parties hereto that Lessee may assign this lease to the Colleen Brawn Mining and Milling Company, a corporation created under the laws of the State of Colorado on or about the 5th day of October, 1948, provided and conditioned upon the said Colleen Brawn Mining and Milling Company at all times keeping the said Lessee in possession of at least One Thousand Dollars ($1,000.00) in cash for pay-roll, purchases of necessary equipment or materials, etc.; and it shall be the duty of the Lessee if and when the said Colleen Brawn Mining and Milling Company has failed to keep him in possession of at least One Thousand Dollars ($1,000.00) in cash for operating purposes, to notify in writing Morton J. Lucas, at 418 Olive Street, St. Louis 2, Missouri, and it is agreed that when any default in keeping the said Lessee in possession of at least One Thousand Dollars ($1,000.00) should continue for a period of thirty (30) days,

then and in that event, the failure to so keep Lessee in said funds shall act as a termination of whatever agreement the said Lessee has made with the said Colleen Brawn Mining and Milling Company.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and affixed their seals this Eighth Day of October, A. D. 1948.

Mary Lucas Hart
Mary Lucas Hart.

Charles Lucas
Charles Lucas

Morton J. Lucas
Morton J. Lucas.

Lessors.

Harold A. Gandrup
Harold A. Gandrup,

Lessee.

STATE OF FLORIDA)
) SS.
COUNTY OF ST. JOHNS)

On this 29th day of October, A. D. 1948, before me, a Notary Public in and for the County of St. Johns, State of Florida, duly commissioned and qualified, personally appeared the within named Mary Lucas Hart, whose name is subscribed to the foregoing instrument, personally known to me to be the identical person mentioned in, and who executed the same, and duly acknowledged to me that she executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

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

Willard Hewatt
Notary Public.

My Commission expires:

Notary Public State of Florida at Large
My Commission Expires March 11, 1950

STATE OF MISSOURI)
) SS.
CITY OF ST. LOUIS)

On this 25th day of October, A. D. 1948, before me, a Notary Public in and for the said City of St. Louis, State of Missouri, duly commissioned and qualified, personally appeared the within named Charles Lucas and Morton J. Lucas, whose names are subscribed to the foregoing instrument, personally known to me to be the identical persons mentioned in, and who executed the same, and duly acknowledged to me that they executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

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

Clara J. Hagaman
Notary Public.

My Commission expires: June 2, 1950

STATE OF MISSOURI)
) SS.
CITY OF ST. LOUIS)

On the 8th day of October, A. D. 1948, before me, a Notary Public in and for the said City of St. Louis, State of Missouri, duly commissioned and qualified, personally appeared the within named Harold A. Gandrup, whose name is subscribed to the foregoing instrument, personally known to me to be the identical person mentioned in, and who executed the same, and duly acknowledged to me that he executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

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

Clara J. Hagaman
Notary Public.

My Commission expires: June 2, 1950

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MF-103
(Revised April 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 27 1952

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-2676
Metal or Mineral
Date Received 8-27-52
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: The Rare Minerals Mining and Milling Company, a Colorado corporation, Care Mr. H. A. Gandrup, R.F.D., Ouray, Colorado, President. (Vice Pres. Herman Lark, Steeleville, Mo. Secretary Merle Park, Delta, Colorado. Treasurer, Wesley Park, Delta, Colorado.)

(*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. ~~See attached list~~

(*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 Lessee ½ interest in mining property known as Colleen Brawn Mining Claim, Lode #4844, Red Mountain, and a 2/3 interest in mining property known as Laura Dunmore Mining Claim, Lode #1922, Red Mountain; Red Mountain Mining District, at base of Red Mountain #3.

(*b*) State any mine name by which the property is known. Laura Dunmore and Colleen Brawn.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee. Lease expires 1958 with right of renewal.

(*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. Copy of lease attached.

(*e*) If you own the land, describe any liens or encumbrances on it No encumbrances.

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

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. See attached list.

(*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. See attached list.

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

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

16—66551-1

Colorado Power Co.'s supply line is within 400 feet of project.
A full quota of men experienced in the mining business is available and an abundant supply of water and electric power almost unlimited.

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Copper, Silver, iron, germanium, uranium, gold and silver.

(*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. See attached list.

(*c*) The work will start within 10 days after available capital is supplied and be completed within 24 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. See attached list.

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: See attache

(*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.). None

(*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. See attached list.

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

(*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. See attached list.

(*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. See attached list.

(*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. See attached

(*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. See attached list.

(*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)? Yes.

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

☐ 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 August 15, 1952

THE RARE MINERALS MINING & MILLING CO.
(Applicant)

By Harold A Gandrup
President

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

[illegible] Minerals Mining & Milling Co., Ouray, Colorado

4 (a) 155 feet deep shaft which is a two compartment shaft, 4x8 in the clear, 4x4 manway and 4x4 cageway. There is a 20 ft. drift about 40 feet down in the shaft. There is a 7[illegible] foot tunnel into the shaft at 20 feet depth for the purpose of water drainage and for ventilation and for purpose of escape in the case of fire or cave in.

4 (b) From 1917 worked in a desultory way until 192[illegible]. Past production approximately 100 tons of [illegible] copper ore was recovered. Ore runs from 10% to 2[illegible]% in copper; 30% in iron and 31% in sulphur; about 15 ounces of silver per ton and about [illegible] oz gold per ton.

4 (c) Shaft is cribbed with timbers all the way from the surface to the bottom of the cage way and lined with 1x12 and the manway has a station every 15 feet with ladders; a tunnel which intersects the shaft 20 feet below the surface. Tunnel is approximately 70 feet in length, 5[illegible] feet high and 4 feet wide. The tunnel was put in for the purpose of water drainage and ventilation. The tunnel empties into Red Mountain Creek. Property is accessible by use of ladders in the manway, and property is located about 11 miles south of Ouray, Colorado, and the mine is located 200 feet from the Million Dollar Highway. Attached is photostatic copy of excerpts from U.S.G.S. Bulletin No. 182, Report on Economic Geology of the Silverton Quadrangle, Colorado – Ransome, and also report on Laura [illegible] Mining Property, Ouray, Colorado, by Harry [illegible]. Pritchett, Mining Engineer, dated April 19, 192[illegible]; also map showing location of entire property and surrounding properties.

4 (d) See description of road and accessibility in paragraph (c). Trucking, 11 miles to Ouray and to Denver & Rio Grande Railroad, supplying residence points Ouray, Colorado.

5 (a) 1. Rehabilitate shaft and buildings.
2. [illegible] water to shaft 3,[illegible] ft.
3. [illegible] electric power line to shaft and buildings.
4. Install electrical equipment. One 2[illegible] ft. air compressor. One 3'x8' air receiver. [illegible] and [illegible]. [illegible] ft. air [illegible] air hose. 3 [illegible] and [illegible]. [illegible] motor [illegible] for [illegible]. [illegible] and [illegible] engine and [illegible] [illegible] motor [illegible] etc. [illegible] [illegible].

5. The shaft approximately 250' deep to a depth of 1,00 ft. or to secondary objective. Because of limited dimension of ledge, it is deemed inexpedient to sink with [illegible] drills. Shaft barred [illegible] drills proceeding from multiple angles [illegible] ledge.

6. The [illegible] shaft. [illegible] ledge, [illegible] ledge.

7. Drift shaft and line as [illegible] levels. [illegible] stations every 10 feet with good timbers [illegible] of 2d. [illegible] laying [illegible] way.

8. Sinking shaft on edge of ledge so that some [illegible] shaft will be in the solid. [illegible] every [illegible] or five feet and install timbers so as to give [illegible] bearing. [illegible] all timbers and wedge with soft pine wedges. All timbers shall be of lodge pole pine, white spruce, or its equal.

9. Have all ore encountered in shaft and leave stations wherever stringers or ore bodies are found and later be developed or extracted.

10. Timbers are available at the present and no shortage of timber in this area.

11. We will run two eight- our shifts which has proven the best and most economical.

12. We will comply with state and federal rules and regulations [illegible], and to insurance, state compensation taxes, social security, etc.

13. This shaft will be inspected from time to time by the state mine inspector.

14. We will use a [illegible] approximately 11 men consisting of [illegible] men, two [illegible], one master [illegible], one [illegible] and [illegible] men, three helpers.

15. Cookhouse [illegible] will be done by some [illegible] such as Colorado [illegible] Company at [illegible], Colorado.

16. The board of directors shall appoint a [illegible] or [illegible] in turn shall be governed by a capable [illegible] engineer. One of the shaft men will be appointed as foreman or shift boss on each shift.

17. It will take approximately [illegible] months to complete shaft.

18. We will sell stock in this company to meet [illegible] requirements according to the loan [illegible].

5 (e) Persons interested in project have had a number of years of experience, but [illegible] supervision.

6 The mining labor for sinking shaft cost [illegible] per running foot. The machinery and equipment necessary to start this operation:

1 Compressor Worthington [illegible] Air Compressor, size [illegible], [illegible] capacity [illegible] c.f.m. at [illegible] psi [illegible] pressure, complete with suction filter, and [illegible] Induction Motor, 50 H.P. [illegible], weight [illegible] pounds, price	[illegible]
Tank size [illegible] Air receiver, height [illegible]	[illegible]
One automatic [illegible] Motor [illegible] starter for the units	[illegible]
[illegible] Jack Drill, hand held	[illegible]
[illegible] ft. of [illegible] Rope — [illegible]	[illegible]
3 sets of [illegible] and [illegible], [illegible]	[illegible]
[illegible] Drill, [illegible]	[illegible]
Vertical pump for [illegible] G.P.M. at [illegible] feet, [illegible] — [illegible] Vertical Turbine Pump with [illegible]' of [illegible] column and [illegible] shaft	[illegible]
One 25 H.P. Vertical Hollow Shaft Motor 3/60/220/440 Motor	[illegible]
Pipe and fittings — [illegible], etc.	[illegible]
	[illegible]
Sales Tax	[illegible]
	[illegible]

6 (b) Number of employees 11. [illegible], carpenters, [illegible], electrician, [illegible] and [illegible]. [illegible] from the Government.

Rates and wages or salaries: [illegible] and carpenters [illegible] an hour. [illegible] an hour [illegible]. [illegible] an hour; [illegible] an hour [illegible], [illegible] an hour. [illegible], [illegible] an hour; [illegible] [illegible] a month. [illegible] [illegible] a day [illegible] [illegible].

6(c) Power will cost [illegible] per kilowatt. [illegible] tons of coal at [illegible] a ton, [illegible].

6 (d) Repairing [illegible] house, [illegible] and supplying additional [illegible] for shaft will cost [illegible].

7 (b) [illegible] approximately 10,[illegible] available will secure all additional necessary cash for our share from sale of common stock. It is well [illegible] adequate to [illegible] for ore [illegible] and, as we are sinking the shaft. We will [illegible] the equipment [illegible] out.

THIS INDENTURE, made and entered into this Eighth day of October, A. D. 1948, by and between

MARY LUCAS HART, of the City of St. Augustine, State of Florida; CHARLES LUCAS and MORTON J. LUCAS, of the City of St. Louis, State of Missouri, all of the aforesaid being children and heirs at law of J. B. C. Lucas, and as owners of an undivided four-fifths (4/5ths) interest of an undivided interest of the hereinafter described mining claims owned by J. B. C. Lucas at the time of his death,

all of whom are hereinafter designated as Lessors, and

HAROLD A. GANDRUP,

of Ouray, Colorado, hereinafter called the Lessee,

WITNESSETH that whereas the said Lessors are the owners of a one-half (1/2) interest and a two-thirds (2/3) interest respectively, in the mining claims hereinafter described, and are desirous of having the said property operated and developed,

NOW, THEREFORE, for and in consideration of the royalties to be paid and of the covenants to be performed by the Lessee, and hereinafter set forth, the Lessors have leased, let and demised, and by these presents do lease, let and demise unto said Lessee the following described mining property, situated in the Red Mountain Mining District located in Ouray County, about eleven miles from the City of Ouray, State of Colorado, to-wit:

A one-half (1/2) interest in the mining property known as the Colleen Brawn Mining Claim, Lode Number 4844, Red Mountain, and a two-thirds (2/3) interest in the mining property known as the Laura Dunmore Mining Claim, Lode Number 1922, Red Mountain; Red Mountain Mining District, at the Base of Red Mountain No. 3;

TO HAVE AND TO HOLD the same for the purpose of mining and developing the same and of marketing ores therefrom for a period beginning the 15th day of October 1948, and ending at noon on the 14th day of October, 1958, or unless sooner terminated by the provisions of this instrument hereinafter set forth, and all subject to the conditions, covenants and terms as herein set forth.

Lessee agrees, in consideration of the foregoing lease and of the further covenants of the Lessors as hereinafter set forth, as follows:

1. That he will allow the Lessors or their duly authorized agents or representatives, access to said demised premises and all nearby premises which it may be leasing or operating in connection with the development or operation of the premises herein leased, and to every portion of them, at all reasonable times during the continuance of this lease, for the purpose of inspection and of taking samples of ore therefrom; that he will post and keep posted in a conspicuous place at the mouth of the main adit tunnel on said premises and at the mouth of any other tunnel which may be used for the development or operation of said premises and at such other place or places as may be necessary to give adequate notice, a notice to all who may come to or upon said premises to work or to deliver supplies, stating that the owner will not be responsible in any manner to any person or persons furnishing labor or supplies in connection with such work for work or materials furnished; that he will insure and keep insured against death and injury all persons

employed by him in or upon said demised premises in accordance with the Statutes of Colorado relating to Workmen's Compensation, and at his own expense; that he will hold Lessors harmless as against all claims or demands of every kind or nature which may be made upon it for or on account of acts done, permitted or omitted to be done under this agreement by him, his agents or his employees.

2. That he will, in due season, and in the manner and form prescribed by the Laws of the State of Colorado, make, prepare and deliver to the owner or owners of the remaining one-half and one-third interests, respectively, in and to the within demised premises, a statement setting forth the operations, expenses and returns from said demised premises, all at his own expense. It will be sufficient for the said Lessee to send to the persons aforesaid and to these Lessors a copy of a report the said Lessee makes to the State of Colorado on or before the 15th day of March of each calendar year for the term of this lease.

3. That the Lessee shall keep a correct account of all mineral mined, the amounts and receipts thereof, to whom sold and the price received therefor; which accounts shall be open to the inspection of the Lessors at all times. The Lessee shall on the first day of each month render to the Lessors a correct statement of the kind and weights of all minerals sold during the preceding month, to whom, and the prices received therefor.

4. Lessee further agrees that he will at the end of every six months, from the date of this lease, at his own expense, also prepare and deliver to Lessors a correct copy of the "log" of his operation of the mining premises herein leased by him. The first of these statements shall be made on July 1, 1949, and each six months thereafter during the term of this lease.

5. That he will observe the rights in law and in equity of the owner or owners of the remaining one-half and two-third interests respectively, in and to the demised premises herein and in the operation of the said demised premises, will conduct his said operations in strict accordance with said laws so made and provided, expressly agreeing to hold the said Lessors harmless for any act done, permitted or omitted to be done under this lease.

6. That he will pay as royalty on all ore marketed by him from the said premises two-third (2/3rds) of ten per centum (10%) of the net value of the same, regardless of the tonnage value thereof. These payments will be made on the first of each calendar month and a check for the same will be forwarded to Morton J. Lucas at 418 Olive Street, St. Louis 2, Missouri, and he will make the proper division of the same to the persons interested herein.

7. That the title to all ore mined or extracted by Lessee from said demised premises shall remain in Lessors until sold by Lessee and when sold by Lessee, Lessors shall nevertheless have and retain a lien therein to secure the payment of the royalties herein provided to be paid by Lessee, and that he will immediately notify the Lessors or their designated agents whenever any shipment of ore is made from said premises, as well as furnish them with full information as to the amount of ore shipped, the name or names of the consigners, and the prices at which he has sold the same; also that he will immediately notify the above mentioned lessors whenever any shipment of ore is made from said premises and furnish the said Lessors with full information as to the amount of ore shipped and the name or names of the consignors and the prices at which he has sold the same. He shall with each shipment send a copy of the smelter sheets.

8. That upon the termination of this lease, either by forfeiture or the expiration of the terms hereof, the Lessee will return said premises and improvements made or placed thereon by him (he expressly warrants that he has received said premises and improvements in good condition and repair and will return the same in like good condition and repair at the termination of this lease, either by forfeiture or the expiration of the terms hereof), all operation machinery and tools to be included, to the Lessors.

9. It is herein further mutually agreed that the provisions herein made by the Lessee to operate the demised premises, to pay the said royalty and to make the reports and the accounting required are warranties and any estate of Lessee hereby created without any notice at all to Lessee; and thereupon Lessors shall have the right to dispossess Lessee immediately. However, the failure of Lessors to exercise any of their rights hereunder to terminate this lease and dispossess Lessee, shall not be and constitute a waiver thereof, but shall be deemed a courtesy or sufferance extended to Lessee; that on his failure to keep and perform any other covenant or covenants than said warranties herein contained, or by him to be kept and performed within ten (10) days after written notice of his default in the performance thereof, of such other covenant or covenants, than said warranties, and demand for performance thereof shall have been served upon him, the Lessors shall have the right to declare this lease terminated and all rights of the Lessee hereunder forfeited, and thereafter Lessors shall have the right to immediately re-enter into possession of said premises and every part thereof with or without process of law and with or without force, and to dispossess therefrom Lessee and all persons holding under or through him, provided, however, that when forfeiture is declared, Lessee shall have ten (10) days in which to remove his possessions and to clean up and make shipment of any ore broken and ready for shipment.

10. That all returns for Ore or Concentrate shall be made by the Lessee or purchaser directly to Morton J. Lucas, 418 Olive Street, St. Louis 2, Missouri, who shall distribute the funds when so received to the parties entitled to such under the terms of this lease.

11. If the Lessors elect to terminate said lease at that time by giving notice to the Lessee to that effect, in the absence of such written notice terminating this lease from Lessors to Lessee, this lease shall terminate absolutely without any notice whatsoever October 14, 1958.

12. The following work is to be done: First year, twelve hundred (1,200) shifts; second year, and each succeeding year of the life of this lease, two thousand (2,000) shifts, per year (by shift we mean one man working eight (8) hours, per day.)

13. This lease is made with the distinct understanding between the parties hereto that Lessee may assign this lease to the Colleen Brawn Mining and Milling Company, a corporation created under the laws of the State of Colorado on or about the 5th day of October, 1948, provided and conditioned upon the said Colleen Brawn Mining and Milling Company at all times keeping the said Lessee in possession of at least One Thousand Dollars ($1,000.00) in cash for pay-roll, purchases of necessary equipment or materials, etc.; and it shall be the duty of the Lessee if and when the said Colleen Brawn Mining and Milling Company has failed to keep him in possession of at least One Thousand Dollars ($1,000.00) in cash for operating purposes, to notify in writing Morton J. Lucas, at 418 Olive Street, St. Louis 2, Missouri, and it is agreed that when any default in keeping the said Lessee in possession of at least One Thousand Dollars ($1,000.00) should continue for a period of thirty (30) days,

then and in that event, the failure to so keep Lessee in said funds shall act as a termination of whatever agreement the said Lessee has made with the said Colleen Brawn Mining and Milling Company.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and affixed their seals this Eighth Day of October, A. D' 1948.

Mary Lucas Hart.

Charles Lucas

Morton J. Lucas.

Lessors.

Harold A. Gandrup,

Lessee.

STATE OF FLORIDA)
) SS.
COUNTY OF ST. JOHNS)

On this 29th day of October, A. D. 1948, before me, a Notary Public in and for the County of St. Johns, State of Florida, duly commissioned and qualified, personally appeared the within named Mary Lucas Hart, whose name is subscribed to the foregoing instrument, personally known to me to be the identical person mentioned in, and who executed the same, and duly acknowledged to me that she executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

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

Willard Hewatt
Notary Public.

My Commission expires:

Notary Public State of Florida at Large
My Commission Expires March 11, 1950

STATE OF MISSOURI)
) SS.
CITY OF ST. LOUIS)

On this 25th day of October, A. D. 1948, before me, a Notary Public in and for the said City of St. Louis, State of Missouri, duly commissioned and qualified, personally appeared the within named Charles Lucas and Morton J. Lucas, whose names are subscribed to the foregoing instrument, personally known to me to be the identical persons mentioned in, and who executed the same, and duly acknowledged to me that they executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

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

Clara J. Hagaman
Notary Public.

My Commission expires: June 2, 1950

STATE OF MISSOURI)
) SS.
CITY OF ST. LOUIS)

On the 8th day of October, A. D. 1948, before me, a Notary Public in and for the said City of St. Louis, State of Missouri, duly commissioned and qualified, personally appeared the within named Harold A. Gandrup, whose name is subscribed to the foregoing instrument, personally known to me to be the identical person mentioned in, and who executed the same, and duly acknowledged to me that he executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

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

Clara J. Hagaman
Notary Public.

My Commission expires: June 2, 1950

5

EXCERPTS FROM

U. S. G. S. BULLETIN No. 182

REPORT ON THE ECONOMIC GEOLOGY OF THE SILVERTON

QUADRANGLE, COLORADO. -- Ransome

****

"The Yankee Girl ore body was struck in 1882, and, with the Guston shipped large quantities of high-grade silver ore for over fourteen years. These two mines alone have probably produced at least $6,000,000 or $7,000,000 ----------"

****

"The stocks of the Silverton quadrangle are nearly vertical, irregularly lenticular or spindle-shaped bodies of almost solid ore, surrounded by an envelope of much altered, partly silicified country rock, which is usually impregnated with pyrite, Neighboring ore bodies are commonly connected by fissures, usually filled with wet clay gouge or kaolin. The sizes of the individual ore bodies vary greatly. In plan, lengths of 40 or 50 feet and widths of 10 or 15 feet appear to have been not uncommon. Accurate sections of actual stocks are not now available, but individual ore bodies appear to have been followed in many cases through several levels and therefore to have had a nearly vertical maximum dimension of several hundred feet. Although sometimes nearly circular, the ore bodies generally showed a more or less elongated or elliptical plan, the longer axis of which usually lay more nearly north and south than east and west. The direction of the longer axis was not, however, always constant for all depths of a given stock."

****

"Although no continuous fissures or veins can be detected on the surface, it is noteworthy that the St. Paul, Congress, Senate, Hudson, Enterprice, Charter Oak, Genesee-Vanderbilt, Yankee Girl, Robinson, Guston, White Cloud, and Silver Bell mines all lie close to a straight line bear-in about N. 21° E. The National Belle, Paymaster, and Grand Prize Mines, and a host of less-noted claims, are apparently irregularly disposed on either side of this line."

****

" ------ The following general conclusions are cited from Mr. Schwarz's paper:

1. The secondary ores are richer than the sulphide ores occurring below them.

2. The cave walls are a porous sandy quartz, the sand from the disintegration of which forms part of the cave filling.

3. The line of change from oxidized to unoxidiced ores, or the former water lever, is very marked. It varies as much as 100 feet in elevation in properties within 1,000 feet of each other, rising to the south and west. The quartz outcrop rarely rises more than 200 feet above it.

"The ores of the stocks, like those of the lodes, vary widely in value. In 1883, 3,000 tons of ore extracted from the Yankee Girl averaged nearly $150.00 per ton. A lot of 10 tons from the richest stopes of the same mine carried 3,270 ounces of silver per ton and 29 per cent of copper, corresponding to an average value per ton of about $3,000. Much richer ore than this occurred in small quantities in the Yankee Girl and Guston. The average sales value per ton of the ore of the latter mine has been given as $91.81 for a period of eight years. The highest annual average was $363.25 per ton, and the lowest $10.70. These, it should be borne in mind, are the prices for which the ore was actually sold to the smelters. Values based directly upon metallic contents, without reference to cost of treatment, would be higher. The highest annual average represents the ore from the rich stopes above the seventh level. The lowest corresponds to the low-grade pyritic ore of the deeper levels. The richest ore recorded from this district was some take in 1891 from the Guston at a depth of 378 feet, which carried 15,000 ounces of silver and 3 ounces of gold per ton, worth, at the then current price of silver, $14,880.00."

****

"---It seems to be a well attested fact that at a depth of about 500 feet there was encountered in the Yankee Girl and Guston mines a fault or "slip plane" with low westerly dip, and further, that the richest ore occurred just above this seam, which was filled with clay-like gouge."---

****

"Yankee Girl Mine. --- The Yankee Girl ore body was discovered in the autumn of 1881 by John Robinson. In 1882 it was being opened by two shafts, each about 50 feet deep. At that depth the ore is said to have been about 9 feet wide, consisting chiefly of galena with bunches of chalcopyrite, and carrying as much as 80 ounces of silver and 65 per cent of lead. The ore body was rapidly opened up and proved large and rich. In 1883, with a thousand feet of drifts and shafts, about 3,000 tons of ore were extracted, with an average value of nearly $150 per ton. The product of this year is given in the Mint report as $400,000, and the ore is said to have carried a high percentage of lead. In 1884, according to the same authority, the mine was producing about 40 tons a day, which, at $150 per ton, would be something over $2,000,000 for the year. This, however, is obviously an excessive estimate. In 1887 the output is not known, but was probably much less than $200,000. In 1890 it is credited with $1,352,994, the silver, as usual, being given at its coinage value and no return being made for copper or lead. In 1891 the product is given as $701,465 in gold and silver, and in 1892 it had fallen to $95,445. Of this amount $5,200 was in gold, $48,333 in silver (coinage value), $3,632 in lead, and $38,280 in copper. Thus these fragmentary records show that in the course of ten years' working the ore changed, within a vertical distance of 1,000 feet, from one carrying chiefly galena to one rich in copper."

12—

R E P O R T

O N

THE LAURA DUNMORE MINING PROPERTY

Ouray, Colorado

b y
CARR W. PRITCHETT,
Mining Engineer,
Denver, Colorado.
April 19, 1928.

Hon. J. D. F. Schneider,
Chisholm & Chapman, Bankers,
52 Broadway,
New York City, New York.

The report which you commissioned me to make on the Laura Dunmore Mining Claim must necessarily be incomplete on account of the deep snow which still covers that region and which makes a study of the surface geology impossible.

Enough information was, however, obtained from the underground workings of the Laura Dunmore, which, taken in connection with the well known and recorded history of the camp, enables me to make certain positive recommendations to you regarding the immediate development of the property.

I think the showing you have in the 25' shaft on the Laura Dunmore is amply sufficient to warrant you in at once providing a fund of $25,000.00 for the further development of the property with modern equipment.

This equipment should consist of a small electric hoist, a small electrically driven air compressor of about 250 cubic feet capacity, two jackhammer drills, blacksmith outfit, small mining tools and other necessary accessories. A power line runs within 100 feet of the property and the state highway from Ouray to Durango passes within a very short distance of the shaft.

LOCATION

The property, consisting of one full claim 1500' by 150', is located in the heart of the Red Mountain mining district, about 12 miles south of Ouray, Colorado, at an altitude of about 10,500' above the sea level. The following picture gives a general view of the Red Mountain district and the snow conditions.

HISTORY

While this camp has been practically abandoned for 25 to 30 years, -- previous to this time it was one of the most famous and richest small districts in the State and has a recorded production of many millions of dollars, -- before the rich ore shoots were worked out. The Yankee Girl and Guston Mines were the largest producers and richest and are said to have produced over $4,000,000. The opinion, according to U. S. Geologists, seems to be that these two properties were near the center of the activity which produced the ore bodies of the district. If this is true, the Laura Dunmore Claim is very favorably located, as you will see by the blue print.

ORE OCCURRENCE AND CHARACTER OF ORE

The occurrence and character of the ore in this district is different from that of any other district in the State. While there are apparently one or possibly two main fracture zones in the district having a general direction of North 20 degrees East or North 30 degrees East -- along which most of the best mines were located, the ore does not occur in vein form along these fracture zones but as isolated chimneys or pipes of rough elliptical section, practically vertical and formed in these main cross fissures. These chimneys have never been large in cross section, averaging probably 60' by 15', though some have been larger and they have extended down a vertical distance of approximately 1,000 feet. The richness of the ore has more than made up for the small tonnage produced.

In the Yankee Girl some of the ore ran as high as 30% copper, 14,000 ounces silver and 3 ounces gold per ton.

These ore chimneys in the older mines usually showed an outcrop of oxidized lead ore carrying silver, and according to Dr. Ransome, of the U. S. Geological Survey, "there is a remarkable uniformity in change in less than 300 feet in depth from an argentiferous Galena to a highly argentiferous copper ore, and then a gradual diminution downward through the increasing proportion of low grade pyrite."

The rich ores found in the Yankee Girl and other mines at a depth of about 450' were caused partly by secondary enrichment, the copper and silver being leached out of the upper portion of the vein and re-deposited in an enriched form at this depth. Besides the minerals of secondary enrichment in this zone, a great deal of very rich silver ore is composed of the mineral called Stromeverite, a silver-copper sulphide which, when pure, is composed of approximately 31% cop per, 53% silver and 16% sulphur.

The ore in these chimneys is usually confined to the periphery of the chimney. The deposits are the result of Metasomatic replacement and they are all found in the Silverton Andesite in which all the big mines of the district occur. It has also been found to be the case in all the older mines in the district that near the surface the ore has a tendency to ramify and to occur in what is locally termed "boulders".

Lower down, this condition ceases and the ore becomes solid. The ore in this 25' shaft has conformed to these conditions from surface down and now is becoming more solid in the bottom, as you can see by samples enclosed, which I personally took from the bottom of the shaft. The ore also shows the characteristics met with in the outer edges of these chimneys, from which I infer that the shaft is being sunk on the edge of the chimney. The ore seems to be widening with depth and now fills about half the bottom of the shaft.

The fact has been established beyond doubt that the ore in this district occurs in chimneys along well defined fracture zones and at the intersection of cross factures with these main fracture zones. Where such conditions have existed, ore shoots or chimneys have been found, and they have usually proved persistent in depth, and rich.

The Laura Dunmore Claim, as I understand it, has been owned by Eastern parties for many years and no systematic work has ever been done on it until within a short time ago, when a one-third interest was acquired by some local mining men and some prospecting of the claim was inaugurated -- with the result that an intersection was located in ore and a 4' x 8' shaft was started with the crudest equipment and sunk in ore to a depth of 25 feet, under most adverse conditions.

There seems to be no doubt but that a chimney of ore exists here and from appearances the shaft seems to be going down on the edge of the chimney, where the ore is naturally poorer.

I understand the ore taken out in this exploration will run around 25% copper, 10 ounces silver and a little gold, with a gross value of over $70.00 per ton. It is beautiful ore and gives every evidence of permanency.

A more detailed examination of this property and district can and should be made later, when snow is gone, but to me the important thing now is to provide the necessary money so that the proper equipment can be purchased at once and ready to install as soon as the snow has gone, about the middle of May, that no delay may be had in sinking this shaft another 100' or 150' to properly explore and develop this ore chimney, -- all of which I believe to be amply warranted by conditions as found in the mine, and which I recommend to your serious and immediate consideration. The fact that the top of the Laura Dunmore shaft is about 150' lower than the top of the Yankee Girl shaft probably will eliminate the lead ore usually found in the upper portion of the vein, and will enable you to reach your zone of secondary enrichment and rich silver-copper ore that much sooner.

Yours truly,

CARR W. PRITCHETT
2735 Federal Boulevard,
Denver, Colorado.

ST. LOUIS SAMPLING & TESTING WORKS, INC.

CERTIFICATE OF ANALYSIS.

31169 St. Louis, Mo. Sept. 30, 1925.

The sample of Ore submitted to us for examination contains:-

	Amount per Ton.	Value per Ton.
Copper	21.15 %	$60.28
Lead	Trace	
Gold	0.02 oz.	0.41
Silver	12.80 Oz	8.96.

Total Value per Ton.....$69.65

Yours truly,

ST. LOUIS SAMPLING & TESTING WORKS, INC.

Signed Robert W. Barrell, Prex.

To Messrs. J.A.Hart & Chas. Lucas,
Room 204, 806 Chestnut Street,
St. Louis, Mo.

COPY.

ST. LOUIS SAMPLING & TESTING WORKS, INC.

CERTIFICATE OF ANALYSIS.

31895

St. Louis, Mo.
Sept. 17, 1926.

The sample of ore submitted to us contains upon examination:-

	Amount per Ton	Value per Ton
Gold	0.05 Oz	$1.00
Silver	11.80 Oz.	7.20
Copper	24.19%	67.75
Iron	20.47%	
Lead	0.10%	
Zinc	0.63%	
Total value per Ton.....		75.95

This should be a very good smelting ore as it contains very little Zinc and only a small percent of Silica and a high percentage of Iron.

Yours truly,

ST.LOUIS SAMPLING & TESTING WORKS, INS.

Signed Robert W. Barrell, Pres.

To Mr. John A Hart,
806 Chestnut Street,
St. Louis, Mo.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved:
Budget Bureau No.

AUG 7 1952

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-2676
Metal or Mineral
Date Received 8-27-52
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: The Rare Minerals Mining and Milling Company, a Colorado corporation, Care Mr. H. A. Gandrup, R.F.D., Ouray, Colorado, President. (Vice Pres. Herman Lark, Steeleville, Mo. Secretary Merle Park, Delta, Colorado. Treasurer, Wesley Park, Delta, Colorado.)

(*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. ~~See attached list~~

(*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 Lessee ½ interest in mining property known as Colleen Brawn Mining Claim, Lode #4844, Red Mountain, and a 2/3 interest in mining property known as Laura Dunmore Mining Claim, Lode #1922, Red Mountain; Red Mountain Mining District, at base of Red Mountain #3.

(*b*) State any mine name by which the property is known. Laura Dunmore and Colleen Brawn.

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Lessee. Lease expires 1958 with right of renewal.

(*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. Copy of lease attached.

(*e*) If you own the land, describe any liens or encumbrances on it No encumbrances.

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

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. See attached list.

(*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. See attached list.

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

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

16—66551-1

Colorado Power Co.'s supply line is within 400 feet of project.
A full quota of men experienced in the mining business is available and an abundant supply of water and electric power almost unlimited.

5. *The exploration project.*—(*a*) [redacted]e the mineral or minerals for which you wis[redacted] explore Copper, silver, iron, germanium, uranium, gold and silver.

(*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. See attached list.

(*c*) The work will start within 10 days after available capital is supplied and be completed within 24 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. See attached list.

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: See attache

(*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.). None ?

(*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. See attached list.

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

(*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. See attached list.

(*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. See attached list.

(*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. See attached

(*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. See attached list.

(*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)? Yes.

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

☐ 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 August 15, 1952 THE RARE MINERALS MINING & MILLING CO.

By Harold A Sandrup (Applicant)

By President.

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

The Rare Minerals Mining & Milling Co., Ouray, Colorado

4 (a) 155 feet deep shaft which is a two compartment shaft, 4x8 in the clear, 4x4 manway and 4x4 cage way. There is a 20 ft. drift about 60 feet down in the shaft. There is a 70 foot tunnel into the shaft at 20 foot depth for the purpose of water drainage and for ventilation and for purpose of escape in the case of fire or cave in.

4 (b) From 1919 worked in a desultory way until 1928. Past production approximately 100 tons of peacock copper ore was removed. It runs from 16% to 24% in copper; 30% in iron and 31% in sulphur; about 15 ounces of silver per ton and about $4.00 in gold per ton.

4 (c) Shaft is cribbed with timbers all the way from the surface to the bottom of the cage way is lined with 1x12s and the manway has a station every 10 feet with ladders; a tunnel which intersects the shaft 20 feet below the surface. Tunnel is approximately 70 feet in length, 5½ feet high and 4 feet wide. The tunnel was put in for the purpose of water drainage and ventilation. The tunnel empties into Red Mountain Creek. Property is accessible by use of ladders in the manway, and property is located about 11 miles south of Ouray, Colorado, and the mine is located 600 feet from the Million Dollar Highway. Attached is photostatic copy of excerpts from U.S.G.S. Bulletin No. 182, Report on Economic Geology of the Silverton Quadrangle, Colorado - Ransome, and also report on Laura Dunmore Mining Property, Ouray, Colorado, by Carr W. Pritchett, Mining Engineer, dated April 19, 1928; also map showing location of entire property and surrounding properties.

4 (d) See description of road and accessibility in paragraph (c). Trucking, 11 miles to Ouray and to Denver & Rio Grande Railroad, supplying residence points Ouray, Colorado.

5 (b)
1. Rehabilitate shaft and buildings.
2. Run water to shaft 3,000 ft.
3. Run electric power line to shaft and buildings.
4. Install electrical equipment. One 250 ft. air compressor. One 30"x7' air receiver. One U.S.-55 Rock Drill hand held. 500 ft. air Tool Air Hose. 3 sets of rods and bitts. One automatic full motor magnetic starter for 440 volts. Vertical pump 60 gal. per. m. at 400 ft. One 6Q.E.-34 stage vertical turbine pump with 400'4" column and 1" shaft. One 15 H.P. Vertical Hollow shaft motor 3/60/220/440 motor. Pipe, fitting suction hose, etc. We have hoist 2 ton cap.

5. Sink shaft approximately 250' deeper to a depth of 400 ft. or to secondary enrichment. Because of limited dimensions of chimney, it is deemed inexpedient to seek lode with diamond drills. Shaft borders chimney. Drills proceeding from multiple angles may miss ore body.

6. Two compartment shaft. Manway 4x4 in clear, cage way 4x4 in clear.

7. Cribb shaft and line cage way with 1" boards. Install stations every 10 feet using wood ladders made of 2x4. Also use lagging between manway and cage way.

8. Sinking shaft on edge of chimney so three sides of shaft will be in the solid. Cut hitches every four or five feet and install timbers so as to give firm bearing. Dove tail all timbers and wedge with soft pine wedges. All timbers shall be of lodge pole pine, white spruce, or its equal.

9. Save all ore encountered in shaft and leave stations wherever stringers or ore bodies show and can later be developed or extracted.

10. Miners are available at the present and no shortage of man power in this area.

11. We will run two eight-hour shifts which has proven the best and most economical.

12. We will comply with state and Federal rules and regulations in regard to insurance, state compensation taxes, social security, etc.

13. This shaft will be inspected from time to time by the state mine inspector.

14. We will use approximately 11 men consisting of 4 shaft men, two hoist men, one master mechanic, one carpenter and timberman, three helpers.

15. Bookkeeping will be done by some banking firm such as Colorado Bank & Trust Company at Delta, Colorado.

16. The Board of Directors shall appoint a supervisor who in turn shall be advised by a capable mining engineer. One of the shaft men will be appointed as foreman or shift boss on each shift.

17. It will take approximately seven months to complete shaft.

18. We will sell stock in this company to meet Government requirements pertaining to the loan granted.

5 (d) Persons interested in project have had a number of years of experience, but request government supervision.

6 The mining timber for cribbing shaft cost 10¢ per running foot. The machinery and equipment necessary to start this operation:

1 Compressor Worthington Model M-50 Radiol Air Compressor, size 6/6/5x5, Displacement 284 C.F.M. Actual capacity 229 C.F.M. at 125 psi Disch pressure, complete with suction filter, and flange mounted induction Motor, 50 H.P. 3/60/440 880 RPM, weight 3150 pounds, Price	$3,399.00
One size 30" x 7' Air Receiver, Weight 700 lbs.	332.00
One automatic Full Motor Magnetic Starter for 440 volts	105.60
One U. S. - 55 Rock Drill, hand held	401.50
500 ft. of Air Tool Hose - Estimate	500.00
3 sets of Rods and Bits, Estimate	82.50
1000 Bits, Estimate	600.00
Vertical pump for 60 G.P.M. at 400 feet, One 6-Q.E. - 34 state Vertical Turbine Pump with 400' of 4" column and 1" shaft	2,530.00
One 15 H.P. Vertical Hollow Shaft Motor 3/60/220/440 Motor	431.20
Pipe and fittings - Suction Hose, etc.	660.00
	$9,041.80
Sales Tax	180.83
	$9,222.63

6 (b) Number of employees 11. Classes: Timbermen, carpenters, shaftmen, muckers, blacksmith, machinist and electrician. On engineering we would like advice from the Government.

Rates and wages or salaries: Timbermen and carpenters $1.75 an hour. Shaftmen $15.00 an 8-hour shift. Electrician, $1.75 an hour; Muckers, $1.40 an hour; Blacksmith, $1.75 an hour. Machinist, $2.00 an hour; Mine Superintendent, $500.00 a month. Mining Engineer, $25.00 a day when Necessary.

6(c) Power will cost 1½¢ per kilowatt. 25 tons of coal at $20.00 a ton, $500.00.

6 (d) Repairing bunk house, shaft house and supplying additional timbers for shaft will cost $7,500.00.

6 (e) -

Water Line - 400' - 4" pipe
40'4" suction hose.

4" pipe fittings and valves	$ 600.00
Air line 500'1-1/4" pipe and fitting valves	250.00
Powder - 3000 lbs. at $30.00 per 100#	900.00
Cost of power line, etc.	1,250.00
Transformer leased at $15 per month, 7 months	105.00
4000 No Delay Electric Primers, 1, 3, 5, 7 at 20¢ each	800.00
Shaft timber, 250' at $8.50 per foot	2,125.00
Stations every ten feet in manway, 5000 feet at $150 per M	750.00
Lining shaft - 4000 board feet at $150 per M.	600.00
Ladders - 2000 board feet at $150 per M.	300.00
Replacing metal roofing on buildings, 24 squares at $11 per square	264.00
Replacing 20 squares of Lateriate Roofing at $4 per square	80.00
Nails - ten kegs at $12 per keg	120.00
Mining tools, picks, saws, hammers, crow bars, shovels, etc.	525.00
Blacksmith outfit	238.00
Water line, 3000 feet 2½" black pipe and fittings	1,750.00
Electric Power - 7 months at $1,125 per month	7,875.00
Wages paid out "Estimate" $6,000 per month, 7 months	42,000.00

Labor per day		
4-shaftmen @$15.00 per day, 8 hrs.	$15.00 each	$ 60.00
2-Hoish men @ $1.75 per hr., 8 hrs.	14.00 each	28.00
1-Carpenter at $1.75 per hr., 8 hrs.	14.00 each	14.00
1-Machinist at $2.00 per hr, 8 hrs.	16.00 each	16.00
3-Laborers or muckers at $1.40 per hr., 8 hrs.	11.20 each	33.60
Cost of labor per day		$151.60

Cost of labor per Mo. (26 days @ $151.60) approx.	$3,941.60	
Superintendent per mo. $500.00	500.00	
Auditing	250.00	
Consulting	150.00	
Machinery Maintenance	500.00	
Workmans compensation per mo.	104.00	
State & Federal tax per month (est.)	180.00	
Group hospital	110.00	
Overtime, emergency & misc.	264.40	
	$6,000.00	Per Month

7 months at $6,000 - $42,000.00.

Miscellaneous	3,000.00
	$63,532.00

6 (f) Present buildings, when rehabilitated will be sufficient.

6 (g) Detailed list of cost of repairs and maintenance of operation after rehabilitation: No exact detail can be given, an estimate of such cost will be $500.00 per month. Analytical work approximately $40.00 a car holding 25 tons of ore. Accounting $250.00 a month. Workmen's compensation and employer's liability insurance $1,250.00 per year. Pay roll taxes $180.00 per month.

7 (b) We have now approximately $10,000 available and will secure all additional necessary cash for our share from sale of corporate stock. This will be augmented by money we receive for ore as produced, as we are sinking the shaft. We will furnish the equipment as above set out.

THIS INDENTURE, made and entered into this Eighth day of October, A. D. 1948, by and between

MARY LUCAS HART, of the City of St. Augustine, State of Florida; CHARLES LUCAS and MORTON J. LUCAS, of the City of St. Louis, State of Missouri, all of the aforesaid being children and heirs at law of J. B. C. Lucas, and as owners of an undivided four-fifths (4/5ths) interest of an undivided interest of the hereinafter described mining claims owned by J. B. C. Lucas at the time of his death,

all of whom are hereinafter designated as Lessors, and

HAROLD A. GANDRUP,

of Ouray, Colorado, hereinafter called the Lessee,

WITNESSETH that whereas the said Lessors are the owners of a one-half (1/2) interest and a two-thirds (2/3) interest respectively, in the mining claims hereinafter described, and are desirous of having the said property operated and developed,

NOW, THEREFORE, for and in consideration of the royalties to be paid and of the covenants to be performed by the Lessee, and hereinafter set forth, the Lessors have leased, let and demised, and by these presents do lease, let and demise unto said Lessee the following described mining property, situated in the Red Mountain Mining District located in Ouray County, about eleven miles from the City of Ouray, State of Colorado, to-wit:

A one-half (1/2) interest in the mining property known as the Colleen Brawn Mining Claim, Lode Number 4844, Red Mountain, and a two-thirds (2/3) interest in the mining property known as the Laura Dunmore Mining Claim, Lode Number 1922, Red Mountain; Red Mountain Mining District, at the Base of Red Mountain No. 3;

TO HAVE AND TO HOLD the same for the purpose of mining and developing the same and of marketing ores therefrom for a period beginning the 15th day of October 1948, and ending at noon on the 14th day of October, 1958, or unless sooner terminated by the provisions of this instrument hereinafter set forth, and all subject to the conditions, covenants and terms as herein set forth.

Lessee agrees, in consideration of the foregoing lease and of the further covenants of the Lessors as hereinafter set forth, as follows:

1. That he will allow the Lessors or their duly authorized agents or representatives, access to said demised premises and all nearby premises which it may be leasing or operating in connection with the development or operation of the premises herein leased, and to every portion of them, at all reasonable times during the continuance of this lease, for the purpose of inspection and of taking samples of ore therefrom; that he will post and keep posted in a conspicuous place at the mouth of the main adit tunnel on said premises and at the mouth of any other tunnel which may be used for the development or operation of said premises and at such other place or places as may be necessary to give adequate notice, a notice to all who may come to or upon said premises to work or to deliver supplies, stating that the owner will not be responsible in any manner to any person or persons furnishing labor or supplies in connection with such work for work or materials furnished; that he will insure and keep insured against death and injury all persons

employed by him in or upon said demised premises in accordance with the Statutes of Colorado relating to Workmen's Compensation, and at his own expense; that he will hold Lessors harmless as against all claims or demands of every kind or nature which may be made upon it for or on account of acts done, permitted or omitted to be done under this agreement by him, his agents or his employees.

2. That he will, in due season, and in the manner and form prescribed by the Laws of the State of Colorado, make, prepare and deliver to the owner or owners of the remaining one-half and one-third interests, respectively, in and to the within demised premises, a statement setting forth the operations, expenses and returns from said demised premises, all at his own expense. It will be sufficient for the said Lessee to send to the persons aforesaid and to these Lessors a copy of a report the said Lessee makes to the State of Colorado on or before the 15th day of March of each calendar year for the term of this lease.

3. That the Lessee shall keep a correct account of all mineral mined, the amounts and receipts thereof, to whom sold and the price received therefor; which accounts shall be open to the inspection of the Lessors at all times. The Lessee shall on the first day of each month render to the Lessors a correct statement of the kind and weights of all minerals sold during the preceding month, to whom, and the prices received therefor.

4. Lessee further agrees that he will at the end of every six months, from the date of this lease, at his own expense, also prepare and deliver to Lessors a correct copy of the "log" of his operation of the mining premises herein leased by him. The first of these statements shall be made on July 1, 1949, and each six months thereafter during the term of this lease.

5. That he will observe the rights in law and in equity of the owner or owners of the remaining one-half and two-third interests respectively, in and to the demised premises herein and in the operation of the said demised premises, will conduct his said operations in strict accordance with said laws so made and provided, expressly agreeing to hold the said Lessors harmless for any act done, permitted or omitted to be done under this lease.

6. That he will pay as royalty on all ore marketed by him from the said premises two-third (2/3rds) of ten per centum (10%) of the net value of the same, regardless of the tonnage value thereof. These payments will be made on the first of each calendar month and a check for the same will be forwarded to Morton J. Lucas at 418 Olive Street, St. Louis 2, Missouri, and he will make the proper division of the same to the persons interested herein.

7. That the title to all ore mined or extracted by Lessee from said demised premises shall remain in Lessors until sold by Lessee and when sold by Lessee, Lessors shall nevertheless have and retain a lien therein to secure the payment of the royalties herein provided to be paid by Lessee, and that he will immediately notify the Lessors or their designated agents whenever any shipment of ore is made from said premises, as well as furnish them with full information as to the amount of ore shipped, the name or names of the consignors, and the prices at which he has sold the same; also that he will immediately notify the above mentioned lessors whenever any shipment of ore is made from said premises and furnish the said Lessors with full information as to the amount of ore shipped and the name or names of the consignors and the prices at which he has sold the same. He shall with each shipment send a copy of the smelter sheets.

8. That upon the termination of this lease, either by forfeiture or the expiration of the terms hereof, the Lessee will return said premises and improvements made or placed thereon by him (he expressly warrants that he has received said premises and improvements in good condition and repair and will return the same in like good condition and repair at the termination of this lease, either by forfeiture or the expiration of the terms hereof), all operation machinery and tools to be included, to the Lessors.

9. It is herein further mutually agreed that the provisions herein made by the Lessee to operate the demised premises, to pay the said royalty and to make the reports and the accounting required are warranties and any estate of Lessee hereby created without any notice at all to Lessee; and thereupon Lessors shall have the right to dispossess Lessee immediately. However, the failure of Lessors to exercise any of their rights hereunder to terminate this lease and dispossess Lessee, shall not be and constitute a waiver thereof, but shall be deemed a courtesy or sufferance extended to Lessee; that on his failure to keep and perform any other covenant or covenants than said warranties herein contained, or by him to be kept and performed within ten (10) days after written notice of his default in the performance thereof, of such other covenant or covenants, than said warranties, and demand for performance thereof shall have been served upon him, the Lessors shall have the right to declare this lease terminated and all rights of the Lessee hereunder forfeited, and thereafter Lessors shall have the right to immediately re-enter into possession of said premises and every part thereof with or without process of law and with or without force, and to dispossess therefrom Lessee and all persons holding under or through him, provided, however, that when forfeiture is declared, Lessee shall have ten (10) days in which to remove his possessions and to clean up and make shipment of any ore broken and ready for shipment.

10. That all returns for Ore or Concentrate shall be made by the Lessee or purchaser directly to Morton J. Lucas, 418 Olive Street, St. Louis 2, Missouri, who shall distribute the funds when so received to the parties entitled to such under the terms of this lease.

11. If the Lessors elect to terminate said lease at that time by giving notice to the Lessee to that effect, in the absence of such written notice terminating this lease from Lessors to Lessee, this lease shall terminate absolutely without any notice whatsoever October 14, 1958.

12. The following work is to be done: First year, twelve hundred (1,200) shifts; second year, and each succeeding year of the life of this lease, two thousand (2,000) shifts, per year (by shift we mean one man working eight (8) hours, per day.)

13. This lease is made with the distinct understanding between the parties hereto that Lessee may assign this lease to the Colleen Brawn Mining and Milling Company, a corporation created under the laws of the State of Colorado on or about the 5th day of October, 1948, provided and conditioned upon the said Colleen Brawn Mining and Milling Company at all times keeping the said Lessee in possession of at least One Thousand Dollars ($1,000.00) in cash for pay-roll, purchases of necessary equipment or materials, etc.; and it shall be the duty of the Lessee if and when the said Colleen Brawn Mining and Milling Company has failed to keep him in possession of at least One Thousand Dollars ($1,000.00) in cash for operating purposes, to notify in writing Morton J. Lucas, at 418 Olive Street, St. Louis 2, Missouri, and it is agreed that when any default in keeping the said Lessee in possession of at least One Thousand Dollars ($1,000.00) should continue for a period of thirty (30) days,

then and in that event, the failure to so keep Lessee in said funds shall act as a termination of whatever agreement the said Lessee has made with the said Colleen Brawn Mining and Milling Company.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and affixed their seals this Eighth Day of October, A. D. 1948.

Mary Lucas Hart
Mary Lucas Hart.

Charles Lucas
Charles Lucas.

Morton J. Lucas
Morton J. Lucas.

Lessors.

Harold A. Gandrup
Harold A. Gandrup,

Lessee.

STATE OF FLORIDA)
) SS.
COUNTY OF ST. JOHNS)

On this 29th day of October, A. D. 1948, before me, a Notary Public in and for the County of St. Johns, State of Florida, duly commissioned and qualified, personally appeared the within named Mary Lucas Hart, whose name is subscribed to the foregoing instrument, personally known to me to be the identical person mentioned in, and who executed the same, and duly acknowledged to me that she executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

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

Willard Hewatt
Notary Public.

My Commission expires:

Notary Public State of Florida at Large
My Commission Expires March 11, 1950

STATE OF MISSOURI)
) SS.
CITY OF ST. LOUIS)

On this 25th day of October, A. D. 1948, before me, a Notary Public in and for the said City of St. Louis, State of Missouri, duly commissioned and qualified, personally appeared the within named Charles Lucas and Morton J. Lucas, whose names are subscribed to the foregoing instrument, personally known to me to be the identical persons mentioned in, and who executed the same, and duly acknowledged to me that they executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

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

Clara J. Hagaman
Notary Public.

My Commission expires: June 2, 1950

STATE OF MISSOURI)
) SS.
CITY OF ST. LOUIS)

On the 8th day of October, A. D. 1948, before me, a Notary Public in and for the said City of St. Louis, State of Missouri, duly commissioned and qualified, personally appeared the within named Harold A. Gandrup, whose name is subscribed to the foregoing instrument, personally known to me to be the identical person mentioned in, and who executed the same, and duly acknowledged to me that he executed the same freely and voluntarily, and for the uses and purposes therein mentioned.

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

Clara J. Hagaman
Notary Public.

My Commission expires: June 2, 1950

5

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Colorado, County of Ouray, described ~~as follows~~:1/

in a lease dated October 8, 1948.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ The Rare Minerals Mining and Milling Company, a Colorado corp. and recorded in Ouray, county seat of Ouray County, Colorado

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ 72,754.63, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 26 day of August, 195 2.

Mary Lucas Hart [Seal]

Morton J. Lucas [Seal]

Morton J. Lucas

Charles Lucas [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

418 Olive Street
St. Louis 2, Missouri

August 26, 1952

Mr. C. O. Mittendorf
Acting Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Dear Mr. Mittendorf:

Attached hereto is Owner's Consent to Lien Form (MF-203), Department of Interior, which I have executed. The fee involved is jointly owned by me, my brother Charles Lucas of St. Louis, and my sister Mary Lucas Hart, a widow of St. Augustine, Florida. The reason that the other owners of the fee have not signed this form is that they are not presently in Washington. I have communicated with them and they have indicated an unqualified willingness to join me in the execution of this form in the event that favorable consideration is given this application.

Yours very truly,

Morton J. Lucas

Morton J. Lucas

MJL:JA

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Colorado, County of Ouray, described ~~as follows~~: 1/

in a lease dated October 8, 1948.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ The Rare Minerals Mining and Milling Company, a Colorado corp. and recorded in Ouray, county seat of Ouray County, Colorado.

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production 3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ _____, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 26 day of August, 195 2.

Mary Lucas Hart [Seal]

Morton J. Lucas [Seal]

Morton J. Lucas

Charles Lucas [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

[illegible] Olive Street
St. Louis 2, Missouri

[illegible] August 25, 1959

Mr. [illegible]
Acting Director
Office of Minerals Exploration & Assistance
Department of the Interior
Washington 25, D. C.

Dear Mr. [illegible]:

[illegible] enclosed herewith is Permit [illegible] (11-802), [illegible] of Interior, which I have executed. The [illegible] involved is jointly owned by me, my brother Charles [illegible] of St. Louis, and a sister [illegible], a resident of St. Augustine, Florida. The reason that the other owners of the four have not signed this form is that they are not presently in [illegible]. I have [illegible] that they are [illegible] and [illegible] to join in the execution of this permit in the event that favorable consideration is given to the application.

Very truly yours,

Morton J. Lucas

Morton J. Lucas

MJL:[illegible]

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Colorado, County of Ouray, described ~~as follows~~:1/

in a lease dated October 8, 1948.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ The Rare Minerals Mining and Milling Company, a Colorado corp. and recorded in Ouray, County seat of Ouray County, Colorado.

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ 72,754.63, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 26 day of August, 195 2.

Mary Lucas Hart [Seal]

Morton J. Lucas [Seal]
Morton J. Lucas

Charles Lucas [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

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(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

416 Olive Street
St. Louis 2, Missouri

August 26, 1952

Mr. C. O. Mittendorf
Acting Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Dear Mr. Mittendorf:

Attached hereto is Owner's Consent to Lien Form (MF-203), Department of Interior, which I have executed. The fee involved is jointly owned by me, my brother Charles Lucas of St. Louis, and my sister Mary Lucas Hart, a widow of St. Augustine, Florida. The reason that the other owners of the fee have not signed this form is that they are not presently in Washington. I have communicated with them and they have indicated an unqualified willingness to join me in the execution of this form in the event that favorable consideration is given this application.

Yours very truly,

Morton J. Lucas

MJL:JA

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Colorado, County of Ouray, described ~~as follows~~: 1/

in a lease dated October 8, 1948.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ The Rare Minerals Mining and Milling Company, a Colorado Corp. and recorded in Ouray, county seat of Ouray County, Colorado.

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production 3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ 72,754.63, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 26 day of August, 195 2.

Mary Lucas Hart [Seal]

Morton L. Lucas [Seal]

Morton L. Lucas

Charles Lucas [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

[illegible] Olive Street
St. Louis 3, Missouri

August 20, 1952

Mr. C. O. Mittendorf
Acting Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Dear Mr. Mittendorf:

Attached hereto is Owner's Consent to Lien form (M-203), Department of Interior, which I have executed. The fee involved is jointly owned by me, my brother Charles Lucas of St. Louis, and my sister Mary Lucas Hart, a widow of St. Augustine, Florida. The reason that the other owners of the fee have not signed this form is that they are not presently in Washington. I have communicated with them and they have indicated an unqualified willingness to join me in the execution of this form in the event that favorable consideration is given this application.

Yours very truly,

Morton J. Lucas

Morton J. Lucas

MJLJA

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Colorado, County of Ouray, described ~~as follows~~: 1/ in a lease dated October 8, 1948.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ The Rare Minerals Mining and Milling Company, a Colorado corp. and recorded in Ouray, county seat of Ouray County, Colorado.

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production 3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ 72,754.63, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 26 day of August, 195 2.

Mary Lucas Hart [Seal]

Morton J. Lucas [Seal]

Charles Lucas [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

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4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

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(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

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110 Olive Street
St. Louis 2, Missouri

August 26, 1952

Mr. C. O. Mittendorf
Acting Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Dear Mr. Mittendorf:

Attached hereto is Owner's Consent to Lien Form (LE-203), Department of Interior, which I have executed. The fee involved is jointly owned by me, my brother Charles Lucas of St. Louis, and my sister Mary Lucas Hart, a widow of St. Augustine, Florida. The reason that the other owners of the fee have not signed this form is that they are not presently in Washington. I have communicated with them and they have indicated an unqualified willingness to join me in the execution of this form in the event that favorable consideration is given this application.

Yours very truly,

Morton J. Lucas

MJL:JA

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Colorado, County of Ouray, described ~~as follows~~:1/

in a lease dated October 8, 1948.

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Dated this 26 day of August, 195 2.

Mary Lucas Hart [Seal]

Morton J. Lucas [Seal]

Morton J. Lucas

Charles Lucas [Seal]

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[illegible] Olive Street
St. Louis 2, Missouri

[illegible] 26, 1[illegible]2

Mr. [illegible] Dittenhorf
Acting Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Dear Mr. Dittenhorf:

Attached hereto is Mr. [illegible] Document No. [illegible] (DM-203), Department of Interior, which I have executed. The fee involved is jointly owned by me, my brother Charles [illegible] of St. Louis, and my sister [illegible], a resident of St. Augustine, Florida. The reason that the other owners of the fee have not signed this form is that they are not presently in St. Louis. I have conferred with them and they have indicated an unqualified willingness to join with me in the execution of the form in the event that favorable consideration is given this application.

Yours very truly,

Norton J. Lucas

NJL:jt

MF-203

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of Colorado, County of Ouray, described ~~as follows~~ 1/

in a lease dated October 8, 1948.

which is the subject of a proposed exploration project contract, hereinafter called the "contract", between the United States of America, hereinafter called the "Government", and

2/ The Rare Minerals Mining and Milling Company, a Colorado corp. and recorded in Ouray, county seat of Ouray County, Colorado.

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

NOW THEREFORE, the undersigned, in consideration of said contract and as an inducement to the Government to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ 72,754.63, or ten years have elapsed from the date of the contract.

3. The undersigned shall commit no act nor assert any claim that may contravene or conflict with the lien, claim, or rights of the Government under the provisions of said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this 26 day of August, 195 2.

Mary Lucas Hart [Seal]

Morton J. Lucas [Seal]

Morton J. Lucas

Charles Lucas [Seal]

1/ Either (a) insert the legal description of the land, or (b) strike out the words "as follows" and insert "in a lease [or contract, deed, or other document] dated _____, and recorded in book _____ page _____ official records of said county." If (b) is used, the book and page of recordation cannot be dispensed with. If the space provided is insufficient, use an Annex, and refer to the Annex in the space.

2/ Insert the name of the Operator as it will appear in the exploration project contract.

3/ Mining or production from the land is not required, and in the absence of production there is no obligation to repay the Government.

4/ Insert the maximum amount of the Government's contribution.

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

410 Olive Street
St. Louis 2, Missouri

August 21, 1952

Mr. C. C. Mittendorf
Acting Administrator
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.

Dear Mr. Mittendorf:

Attached hereto is Owner's Consent to Lien Form (DMEA-203), Department of Interior, which I have executed. The fee involved is jointly owned by me, my brother Charles Lucas of St. Louis, and my sister Mary Lucas Hart, a widow of St. Augustine, Florida. The reason that the other owners of the fee have not signed this form is that they are not presently in an option. I have communicated with them and they have indicated an unqualified willingness to join in the execution of this form in the event that favorable consideration is given this application.

Yours very truly,

Morton J. Lucas

Morton J. Lucas

MJL:jl

EXCERPTS FROM

U. S. G. S. BULLETIN No. 182

REPORT ON THE ECONOMIC GEOLOGY OF THE SILVERTON

QUADRANGLE, COLORADO. -- Ransome

****

"The Yankee Girl ore body was struck in 1882, and, with the Guston shipped large quantities of high-grade silver ore for over fourteen years. These two mines alone have probably produced at least $6,000,000 or $7,000,000 ----------"

****

"The stocks of the Silverton quadrangle are nearly vertical, irregularly lenticular or spindle-shaped bodies of almost solid ore, surrounded by an envelope of much altered, partly silicified country rock, which is usually impregnated with pyrite, Neighboring ore bodies are commonly connected by fissures, usually filled with wet clay gouge or kaolin. The sizes of the individual ore bodies vary greatly. In plan, lengths of 40 or 50 feet and widths of 10 or 15 feet appear to have been not uncommon. Accurate sections of actual stocks are not now available, but individual ore bodies appear to have been followed in many cases through several levels and therefore to have had a nearly vertical maximum dimension of several hundred feet. Although sometimes nearly circular, the ore bodies generally showed a more or less elongated or elliptical plan, the longer axis of which usually lay more nearly north and south than east and west. The direction of the longer axis was not, however, always constant for all depths of a given stock."

****

"Although no continuous fissures or veins can be detected on the surface, it is noteworthy that the St. Paul, Congress, Senate, Hudson, Enterprice, Charter Oak, Genesee-Vanderbilt, Yankee Girl, Robinson, Guston, White Cloud, and Silver Bell mines all lie close to a straight line bear-in about N. 21° E. The National Belle, Paymaster, and Grand Prize Mines, and a host of less-noted claims, are apparently irregularly disposed on either side of this line."

****

" ------ The following general conclusions are cited from Mr. Schwarz's paper:

1. The secondary ores are richer than the sulphide ores occurring below them.

2. The cave walls are a porous sandy quartz, the sand from the disintegration of which forms part of the cave filling.

3. The line of change from oxidized to unoxidiced ores, or the former water lever, is very marked. It varies as much as 100 feet in elevation in properties within 1,000 feet of each other, rising to the south and west. The quartz outcrop rarely rises more than 200 feet above it.

THE RARE MINERALS MINING & MILLING CO., OURAY, COLORADO.

4 (c)

"The ores of the stocks, like those of the lodes, vary widely in value. In 1883, 3,000 tons of ore extracted from the Yankee Girl averaged nearly $150.00 per ton. A lot of 10 tons from the richest stopes of the same mine carried 3,270 ounces of silver per ton and 29 per cent of copper, corresponding to an average value per ton of about $3,000. Much richer ore than this occurred in small quantities in the Yankee Girl and Guston. The average sales value per ton of the ore of the latter mine has been given as $91.81 for a period of eight years. The highest annual average was $363.25 per ton, and the lowest $10.70. These, it should be borne in mind, are the prices for which the ore was actually sold to the smelters. Values based directly upon metallic contents, without reference to cost of treatment, would be higher. The highest annual average represents the ore from the rich stopes above the seventh level. The lowest corresponds to the low-grade pyritic ore of the deeper levels. The richest ore recorded from this district was some take in 1891 from the Guston at a depth of 378 feet, which carried 15,000 ounces of silver and 3 ounces of gold per ton, worth, at the then current price of silver, $14,880.00."

****

"---It seems to be a well attested fact that at a depth of about 500 feet there was encountered in the Yankee Girl and Guston mines a fault or "slip plane" with low westerly dip, and further, that the richest ore occurred just above this seam, which was filled with clay-like gouge."---

****

"Yankee Girl Mine. --- The Yankee Girl ore body was discovered in the autumn of 1881 by John Robinson. In 1882 it was being opened by two shafts, each about 50 feet deep. At that depth the ore is said to have been about 9 feet wide, consisting chiefly of galena with bunches of chalcopyrite, and carrying as much as 80 ounces of silver and 65 per cent of lead. The ore body was rapidly opened up and proved large and rich. In 1883, with a thousand feet of drifts and shafts, about 3,000 tons of ore were extracted, with an average value of nearly $150 per ton. The product of this year is given in the Mint report as $400,000, and the ore is said to have carried a high percentage of lead. In 1884, according to the same authority, the mine was producing about 40 tons a day, which, at $150 per ton, would be something over $2,000,000 for the year. This, however, is obviously an excessive estimate. In 1887 the output is not known, but was probably much less than $200,000. In 1890 it is credited with $1,352,994, the silver, as usual, being given at its coinage value and no return being made for copper or lead. In 1891 the product is given as $701,465 in gold and silver, and in 1892 it had fallen to $95,445. Of this amount $5,200 was in gold, $48,333 in silver (coinage value), $3,632 in lead, and $38,280 in copper. Thus these fragmentary records show that in the course of ten years' working the ore changed, within a vertical distance of 1,000 feet, from one carrying chiefly galena to one rich in copper."

R E P O R T

O N

THE LAURA DUNMORE MINING PROPERTY

Ouray, Colorado

b y
CARR W. PRITCHETT,
Mining Engineer,
Denver, Colorado.
April 19, 1928.

Hon. J. D. F. Schneider,
Chisholm & Chapman, Bankers,
52 Broadway,
New York City, New York.

The report which you commissioned me to make on the Laura Dunmore Mining Claim must necessarily be incomplete on account of the deep snow which still covers that region and which makes a study of the surface geology impossible.

Enough information was, however, obtained from the underground workings of the Laura Dunmore, which, taken in connection with the well known and recorded history of the camp, enables me to make certain positive recommendations to you regarding the immediate development of the property.

I think the showing you have in the 25' shaft on the Laura Dunmore is amply sufficient to warrant you in at once providing a fund of $25,000.00 for the further development of the property with modern equipment.

This equipment should consist of a small electric hoist, a small electrically driven air compressor of about 250 cubic feet capacity, two jackhammer drills, blacksmith outfit, small mining tools and other necessary accessories. A power line runs within 100 feet of the property and the state highway from Ouray to Durango passes within a very short distance of the shaft.

LOCATION

The property, consisting of one full claim 1500' by 150', is located in the heart of the Red Mountain mining district, about 12 miles south of Ouray, Colorado, at an altitude of about 10,500' above the sea level. The following picture gives a general view of the Red Mountain district and the snow conditions.

HISTORY

While this camp has been practically abandoned for 25 to 30 years, -- previous to this time it was one of the most famous and richest small districts in the State and has a recorded production of many millions of dollars, -- before the rich ore shoots were worked out. The Yankee Girl and Guston Mines were the largest producers and richest and are said to have produced over $4,000,000. The opinion, according to U. S. Geologists, seems to be that these two properties were near the center of the activity which produced the ore bodies of the district. If this is true, the Laura Dunmore Claim is very favorably located, as you will see by the blue print.

ORE OCCURRENCE AND CHARACTER OF ORE

The occurrence and character of the ore in this district is different from that of any other district in the State. While there are apparently one or possibly two main fracture zones in the district having a general direction of North 20 degrees East or North 30 degrees East -- along which most of the best mines were located, the ore does not occur in vein form along these fracture zones but as isolated chimneys or pipes of rough elliptical section, practically vertical and formed in these main cross fissures. These chimneys have never been large in cross section, averaging probably 60' by 15', though some have been larger and they have extended down a vertical distance of approximately 1,000 feet. The richness of the ore has more than made up for the small tonnage produced.

In the Yankee Girl some of the ore ran as high as 30% copper, 14,000 ounces silver and 3 ounces gold per ton.

These ore chimneys in the older mines usually showed an outcrop of oxidized lead ore carrying silver, and according to Dr. Ransome, of the U. S. Geological Survey, "there is a remarkable uniformity in change in less than 300 feet in depth from an argentiferous Galena to a highly argentiferous copper ore, and then a gradual diminution downward through the increasing proportion of low grade pyrite."

The rich ores found in the Yankee Girl and other mines at a depth of about 450' were caused partly by secondary enrichment, the copper and silver being leached out of the upper portion of the vein and re-deposited in an enriched form at this depth. Besides the minerals of secondary enrichment in this zone, a great deal of very rich silver ore is composed of the mineral called Stromeverite, a silver-copper sulphide which, when pure, is composed of approximately 31% cop per, 53% silver and 16% sulphur.

The ore in these chimneys is usually confined to the periphery of the chimney. The deposits are the result of Metasomatic replacement and they are all found in the Silverton Andesite in which all the big mines of the district occur. It has also been found to be the case in all the older mines in the district that near the surface the ore has a tendency to ramify and to occur in what is locally termed "boulders".

Lower down, this condition ceases and the ore becomes solid. The ore in this 25' shaft has conformed to these conditions from surface down and now is becoming more solid in the bottom, as you can see by samples enclosed, which I personally took from the bottom of the shaft. The ore also shows the characteristics met with in the outer edges of these chimneys, from which I infer that the shaft is being sunk on the edge of the chimney. The ore seems to be widening with depth and now fills about half the bottom of the shaft.

The fact has been established beyond doubt that the ore in this district occurs in chimneys along well defined fracture zones and at the intersection of cross factures with these main fracture zones. Where such conditions have existed, ore shoots or chimneys have been found, and they have usually proved persistent in depth, and rich.

The Laura Dunmore Claim, as I understand it, has been owned by Eastern parties for many years and no systematic work has ever been done on it until within a short time ago, when a one-third interest was acquired by some local mining men and some prospecting of the claim was inaugurated -- with the result that an intersection was located in ore and a 4' x 8' shaft was started with the crudest equipment and sunk in ore to a depth of 25 feet, under most adverse conditions.

There seems to be no doubt but that a chimney of ore exists here and from appearances the shaft seems to be going down on the edge of the chimney, where the ore is naturally poorer.

I understand the ore taken out in this exploration will run around 25% copper, 10 ounces silver and a little gold, with a gross value of over $70.00 per ton. It is beautiful ore and gives every evidence of permanency.

A more detailed examination of this property and district can and should be made later, when snow is gone, but to me the important thing now is to provide the necessary money so that the proper equipment can be purchased at once and ready to install as soon as the snow has gone, about the middle of May, that no delay may be had in sinking this shaft another 100' or 150' to properly explore and develop this ore chimney, -- all of which I believe to be amply warranted by conditions as found in the mine, and which I recommend to your serious and immediate consideration. The fact that the top of the Laura Dunmore shaft is about 150' lower than the top of the Yankee Girl shaft probably will eliminate the lead ore usually found in the upper portion of the vein, and will enable you to reach your zone of secondary enrichment and rich silver-copper ore that much sooner.

Yours truly,

CARR W. PRITCHETT
2735 Federal Boulevard,
Denver, Colorado.

ST. LOUIS SAMPLING & TESTING WORKS, INC.

CERTIFICATE OF ANALYSIS.

31169 St. Louis, Mo. Sept. 30, 1925.

The sample of Ore submitted to us for examination contains:-

	Amount per Ton.	Value per Ton.
Copper	21.15 %	$60.28
Lead	Trace	
Gold	0.02 oz.	0.41
Silver	12.80 Oz	8.96.
Total Value per Ton		$69.65

Yours truly,

ST. LOUIS SAMPLING & TESTING WORKS, INC.

Signed Robert W. Barrell, Pres.

To Messrs. J.A.Hart & Chas. Lucas,
Room 204, 806 Chestnut Street,
St. Louis, Mo.

COPY.

ST. LOUIS SAMPLING & TESTING WORKS, INC.

CERTIFICATE OF ANALYSIS.

31895

St. Louis, Mo.
Sept. 17, 1926.

The sample of ore submitted to us contains upon examination:-

	Amount per Ton	Value per Ton
Gold	0.05 Oz	$1.00
Silver	11.80 Oz.	7.20
Copper	24.19%	67.75
Iron	20.47%	
Lead	0.10%	
Zinc	0.63%	
Total value per Ton.....		75.95

This should be a very good smelting ore as it contains very little Zinc and only a small percent of Silica and a high percentage of Iron.

Yours truly,

ST.LOUIS SAMPLING & TESTING WORKS, INS.

Signed Robert W. Barrell, Pres.

To Mr. John A Hart,
806 Chestnut Street,
St. Louis, Mo.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE $300
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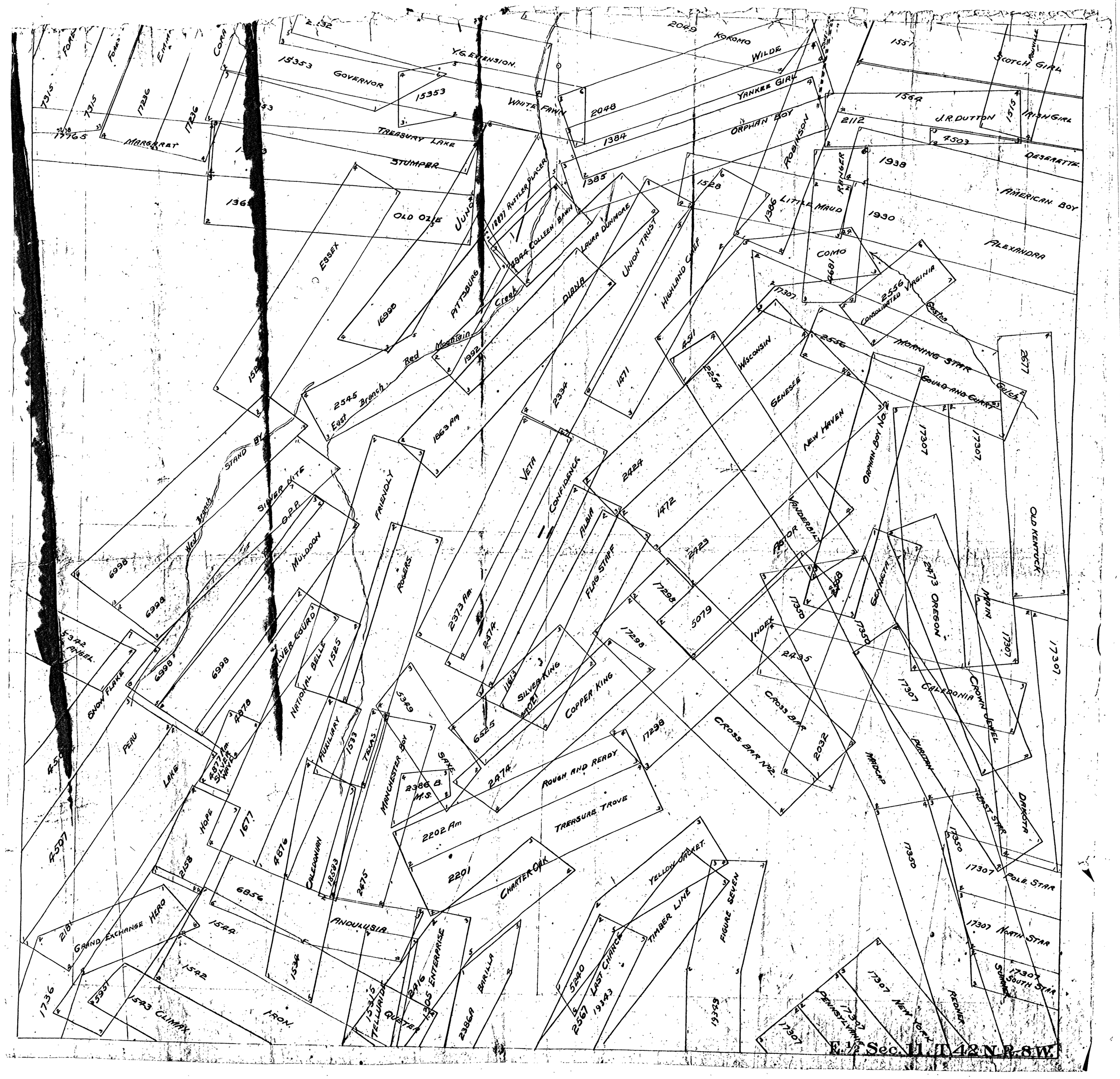
Mr. Frank E. Johnson, Chairman
Operating Committee
Defense Minerals Exploration Administration
Department of the Interior
Washington 25, D. C.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SILVER COURD
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GRAND EXCHANGE
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GOVERNOR
WHITE FAWN
TREASURY LAKE
STUMPER
MARGARET
KOKOMO
WILDE
YANKEE GIRL
ORPHAN BOY
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POLE STAR
NORTH STAR
SOUTH STAR
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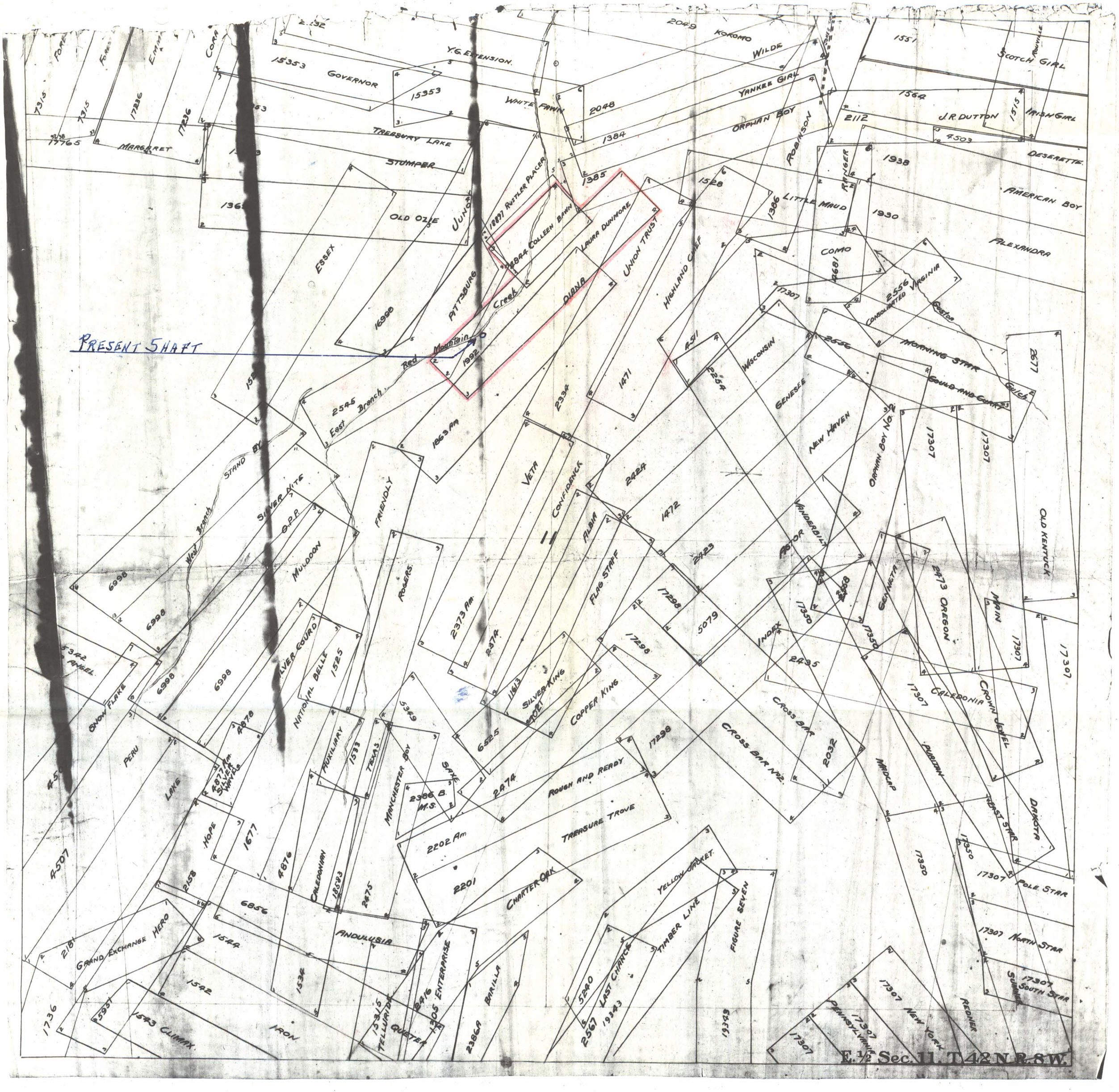
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ROUGH AND READY
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