415 New Customhouse
Denver 2, Colorado

January 15, 1952

Memorandum

To: Administrator, DMEA, Attention: [illegible]

From: Field Team, DMEA, Region IV

Subject: Final Report, DMA Docket [illegible], Tungsten No. 1 Mine, ([illegible]) Gila County, Arizona

Enclosed herewith are the original and one copy of Form DMA [illegible], a copy of the letter of denial and a copy of the Final Report pertaining to the subject application.

for W. H. King
[illegible], Jr.

A. H. Koschmann
A. H. Koschmann

Enclosures

[illegible]
cc: [illegible] w/copy of final report
GA[illegible] " " " "
Mining Div. " " " "
AHKoschmann " " " "
DMA Final Report,
DMA Subject, Chron.
AHKoschmann

234 Bear Customhouse
Denver 2, Colorado

January 15, 1952

Mr. L. W. Racine
Box 128
Globe, Arizona

Re: DMEA Docket 2068

Dear Mr. Racine:

Your application for Government assistance in exploration work on the Tungsten No. 1 Mine, Gila County, Arizona, DMEA Docket 2068, has been reviewed by the Defense Minerals Exploration Administration and a Geologic Report prepared.

From a study of present exposures and geologic data, it has been concluded that the deposit is too small and too low grade to be worked at a profit. The complex nature of the ore precludes an economical process of treatment to obtain a marketable product. Therefore, your application for Government assistance is denied.

We wish to thank you for bringing this property to our attention.

Very truly yours,

W. H. King
for J. H. Rast, Jr.
Field Team, Region IV

JWT:oc

W.H.K.

cc: Administrator, DMEA,
Attention: 210
WRStorms
AHKoschmann
DMEA Subject Guren.

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

DMA Form 3b.

DEFENSE MINERALS ADMINISTRATION

CONTROLLED DOCUMENT
Revised Abstract

DMA Docket No. 2084

Change: From		To		
I 1	☐	I 1	☐	
I 2	☐	I 2	☐	
I 3	☒	I 3	☒	
I 4	☐	I 4	☐	
I 5	☐	I 5	☐	
I 6	☐	I 6	☐	
III 1	☐	III 1	☐	
III 2	☐	III 2	☒	1/14/52
III 3	☐	III 3	☐	
III 4	☒	III 4	☐	

Add:

II 7 $ 10,400

II 8 $

II 8a % 75

Initials of person preparing sheet J.W.T.

Date sheet prepared 1/14/52

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

224 New Customhouse
Denver 2, Colorado

January 3, 1952

Kosch: Please note that brochure was separated from the report and returned to me the day that you called me. This is the missing one.
Andy

Memorandum

To: W. R. Storms, Chief, Arizona-New Mexico Branch (with brochure)

(Through Chief, Mining Div., Region IV)

C. A. Anderson

From: Field Team, Region IV

Subject: Docket DMA-2084, (Tungsten), L. W. Racine, Box 128, Globe, Arizona

Enclosed herewith is the subject application for Government assistance in exploration work estimated to cost $10,400.

The applicants estimate of costs appear low, and the time limit for completion of contemplated work too short.

J. H. East, Jr.

J. H. East, Jr.

A. H. Koschmann

A. H. Koschmann

Enclosure

JAN 1952
RECEIVED
U.S. Geological Survey
Mineral Resources Branch
Denver

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

Not To Be Filled in by Applicant

Docket No. D M A - 2054
Metal or Mineral Lithium
Date Received 9/7/51
Amount $ 10,400
Participation (Government %) 75

Name and address of applicant: L.W. RACINE
Box 128 - Globe
ARIZONA -

Date Sept. 3-51

If you have already filed MF-100, give date filed Aug-28-51, type of assistance requested Loan,

DMA Docket Number (if available) _____

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

RACINE – BROCKWAY (Name of company) By L. W. Racine (Signature of authorized official)

Sept-3-51 (Date) Co-Partner (Title)

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—64067-2

L. W. Racine
Box 128, Globe, Arizona

1a Legal description -

Name - Tungsten No. 1

Located on the 23rd day of June , in the Globe Mining District, and recorded in Book 49, on Page 309, Records of Gila County, Arizona, by L. W. RACINE and A. R. BROCKWAY.

Located in Section 14, R. 14 E., and is 600' in width and 1500' in length.

1b The work to be carried on in the tunnel, located in the center of said claim, 300' from each side line and 400' from the North east end line. Both areas are the same.

1c To be operated by owners.

2 a The ore discovered in our presence.

2 b Exploration is Tungsten and Lead. The full width of the ledge is 10', with a high grade width of 4', assaying average 3.75% tungsten and 1% WO_3 for the low grade section, which includes at present about 6' of the ledge with this work is at the apex of the deposit and the ledge is widening as it descends. It has a contact of schist and diorite bearing 48° west. The general strike is from the southeast to the northwest. A rough concentrate runs 30% tungsten and 50% lead. Final treatment will produce a very high grade product.

The proposed work will be a shaft 110' in depth with tunnels at 50' levels. The tunnels to be run the fulllength of the commercial ore deposit. The length of the tunnels will be determined by the values.

The total estimated cost of the project will be as follows:

110' shaft, 4'x8' with timber	$6,600.00
Head frame	300.00
50' Ore bin	500.00
200' of drift with timber to stope	2,000.00
Repair road	1,000.00
TOTAL	$10,400.00

3 b To complete this work will take 6 months (estimate)

5 None

6 None

L. W. Racine
Box 128, Globe, Arizona

7 List of equipment furnished by us:

1- Chicago Pneumatic Compressor 160 cu.ft.
1- S.55 Jackhammer - Chicago Pneumatic
2- Chocise Jackhammers
1- Ingersoll-Rand Stoper
50' Air hose
75' Water hose
2- 20 cu.ft. mine cars
1000' mine rail
500' 1" Air and water pipe
1- 4x6' Air Receiver, with cooling tank, with all miscellaneous fittings, pipe connections and tools to carry on operations.

Depreciation or replacement cost	$600.00
Per month - times 6 months	3600.00

8. Labor - 2 miners at $14.00 per day
1 Hoist & top man 14.00
1 Supervisor &/or operator for primary work 18.00

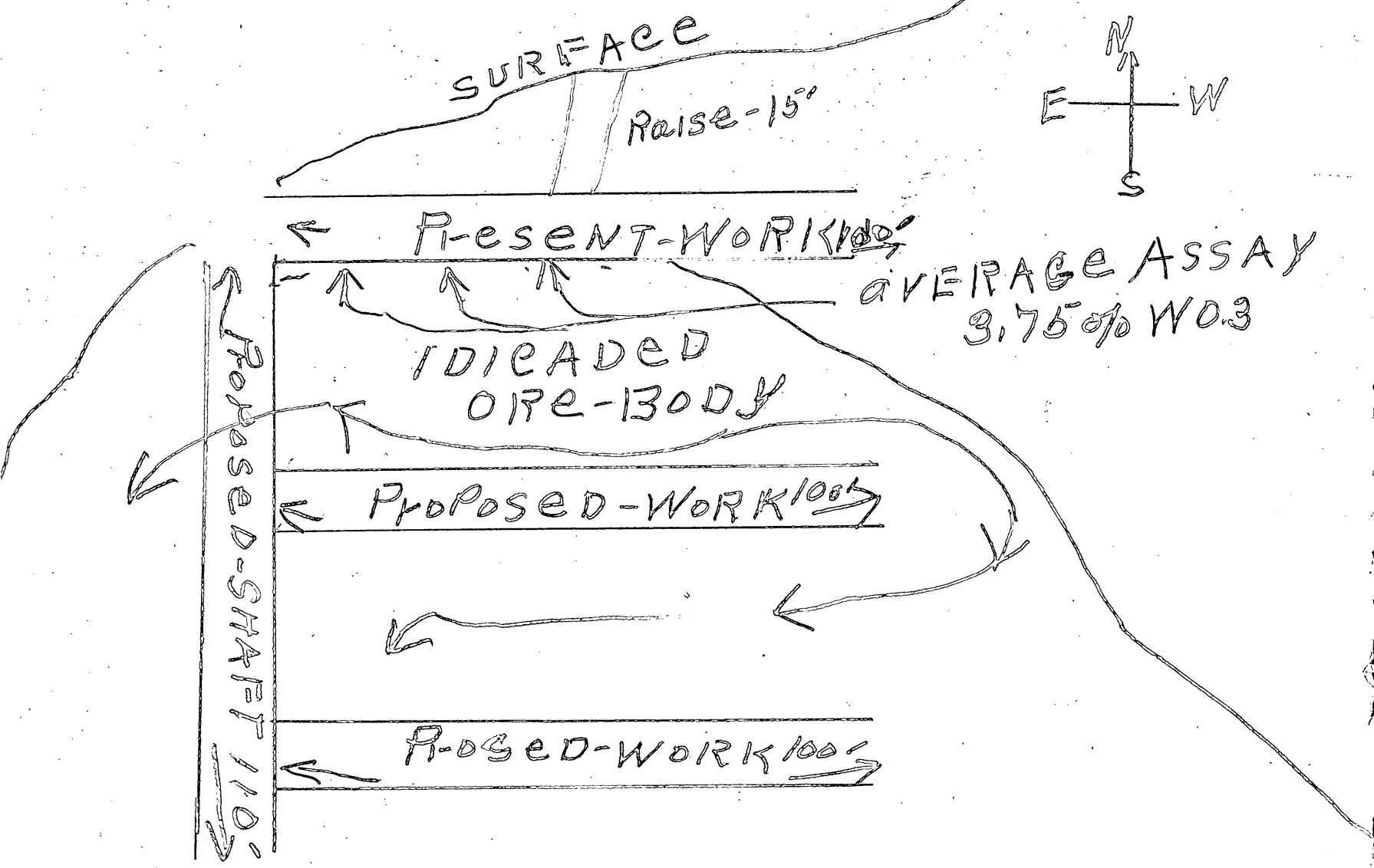
9. Assaying per day, $10.00 estimate
Water per day $ 5.00

10. We are prepared to invest $3600.00 or equivalent should cover the initial cost of the project.

11. No comment.

TUNGSTEN-NO-1.

L.W. RACINE
BOX 128
GLOBE, ARIZ.



Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

Not To Be Filled in by Applicant

Docket No. 2684
Metal or Mineral Tungsten
Date Received 9/17/51
Amount $ 10,400
Participation (Government %) 75%

Name and address of applicant: L.W. RACINE
BOX 128
GLOBE, ARIZONA

Date Sept-3-51

If you have already filed MF-100, give date filed Aug-28-51, type of assistance requested Loan,

DMA Docket Number (if available) _____

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

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7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

RACINE-BROCKWAY
(Name of company)

By L. W. Racine
(Signature of authorized official)

Sept-3-51
(Date)

Co-Partner
(Title)

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—64067-2

L. W. Racine
Box 128, Globe, Arizona

1a Legal description -

Name - Tungsten No. 1

Located on the 23rd day of June , in the Globe Mining District, and recorded in Book 49, on Page 309, Records of Gila County, Arizona, by L. W. RACINE and A. R. BROCKWAY.

Located in Section 14, R. 14 E., and is 600' in width and 1500' in length.

1b The work to be carried on in the tunnel, located in the center of said claim, 300' from each side line and 400' from the North east end line. Both areas are the same.

1c To be operated by owners.

2 a The ore discovered in our presence.

2 b Exploration is Tungsten and Lead. The full width of the ledge is 10', with a high grade width of 4', assaying average 3.75% tungsten and 1% WO_3 for the low grade section, which includes at present about 6' of the ledge with this work is at the apex of the deposit and the ledge is widening as it descends. It has a contact of schist and diorite bearing 48° west. The general strike is from the southeast to the northwest. A rough concentrate runs 30% tungsten and 50% lead. Final treatment will produce a very high grade product.

The proposed work will be a shaft 110' in depth with tunnels at 50' levels. The tunnels to be run the fulllength of the commercial ore deposit. The length of the tunnels will be determined by the values.

The total estimated cost of the project will be as follows:

110' shaft, 4'x8' with timber	$6,600.00
Head frame	300.00
50' Ore bin	500.00
200' of drift with timber to stope	2,000.00
Repair road	1,000.00
TOTAL	$10,400.00

3 b To complete this work will take 6 months (estimate)

5 None

6 None

L. W. Racine
Box 128, Globe, Arizona

7 List of equipment furnished by us:

1- Chicago Pneumatic Compressor 160 cu.ft.
1- S.55 Jackhammer - Chicago Pneumatic
2- Chocise Jackhammers
1- Ingersoll-Rand Stoper
50' Air hose
75' Water hose
2- 20 cu.ft. mine cars
1000' mine rail
500' 1" Air and water pipe
1- 4x6' Air Receiver, with cooling tank, with all miscellaneous fittings, pipe connections and tools to carry on operations.

Depreciation or replacement cost	$600.00
Per month - times 6 months	3600.00

8. Labor - 2 miners at $14.00 per day
1 Hoist & top man 14.00
1 Supervisor &/or operator for primary work 18.00

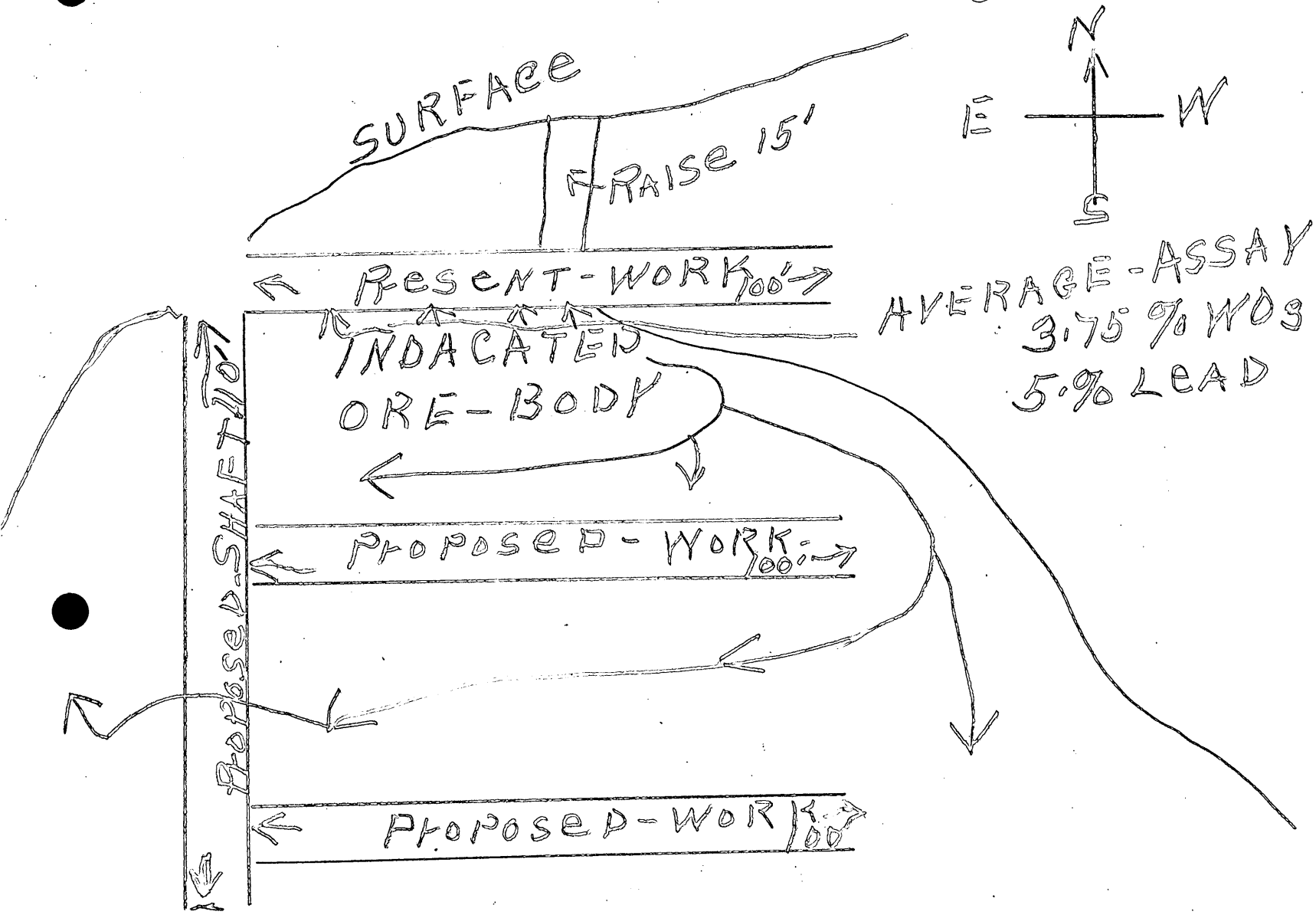
9. Assaying per day, $10.00 estimate
Water per day $ 5.00

10. We are prepared to invest $3600.00 or equivalent should cover the initial cost of the project.

11. No comment.

TUNGSTEN - NO. 1

L. W. RACINE
BOX 128
GLOBE - ARIZONA



AVERAGE - ASSAY
3.75 % WO3
5 % LEAD

Entire

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

224 New Customhouse
Denver 2, Colorado

January 15, 1952

Memorandum

To: Administrator, DMEA, Attention: 210

From: Field Team, DMEA, Region IV

Subject: Final Report, DMA Docket 2008, Tungsten No. 1 Mine, (L. W. Rosine) Gila County, Arizona

Enclosed herewith are the original and one copy of Form DMA 3b, a copy of the letter of denial and a copy of the Final Report pertaining to the subject application.

for W. H. King
J. H. Ent, Jr.

A. H. Koschmann
A. H. Koschmann

Enclosures

JWT:oc
cc: WHStorms w/copy of final report
CAAnderson " " " "
Mining Div. " " " "
AHKoschmann " " " "
DMA Final Report

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

Extra

200 New Customhouse
Denver 2, Colorado

January 7, 1951

Memorandum

To: DMA Field Team, Region IV

From: A. H. Koschmann

Subject: DMA Docket 2084, Tungsten No. 1 Mine (L. W. Racine), Gila County, Arizona -- Tungsten-Lead

Enclosed are the original and 7 copies of the final geologic report by J. N. Faick and J. A. MacKallor of the U. S. Geological Survey covering the above docket.

It has been recommended that the loan be denied.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (9)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P.O.Box 4126, University Station
Tucson, Arizona

December 23, 1951

Memorandum

To: Mr. A. H. Koschmann, Denver, Colorado

From: Mr. A. F. Shride, Tucson, Arizona

Subject: Final Report, DMA 2064, Tungsten No. 1 Mine (L. W. Racine), Gila County, Arizona — Tungsten-Lead

Enclosed are the original and 7 copies of the above report by J. N. Faick and J. A. MacKallor of the Geological Survey. This report and the recommendation that an exploration loan be denied have my approval. This application should be denied for lack of geologic probability of discovering sufficient tungsten ore that can be concentrated to a suitable product for marketing.

The Bureau of Mines will not submit a separate report. The brochure is enclosed.

A. F. Shride
Acting District Supervisor
Arizona-New Mexico

Enclosures 9

TUNGSTEN NO. 1 MINE (L. W. RACINE)
TUNGSTEN-LEAD
GILA COUNTY, ARIZONA
IMA 2084

Geology

By
John H. Faick
and
Jules A. MacKallor
Geologists, U. S. Geological Survey

TUNGSTEN NO. 1 MINE (L. W. RACINE)
TUNGSTEN-LEAD
GILA COUNTY, ARIZONA
DMA 2081

CONTENTS

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Proposed Project	6
Conclusions and Recommendations	6

LOCATION AND TOPOGRAPHY

The Tungsten No. 1 prospect is located in the extreme northern portion of Sec. 14, T. 1 N., R. 14 E., Gila County, Arizona, on the southwest side of Lost Gulch. The property is approximately 1½ miles northwest of the Inspiration Smelter at Miami and about 1½ miles southeast of the new Copper Cities' porphyry copper deposit being developed by Miami Copper Company at Sleeping Beauty Peak. From Miami, Arizona, the prospect is reached by four miles of graded road, and two miles of unimproved road, which ends about one-half mile from the property.

The prospect is located at an altitude of approximately 4000 feet on a steep, debris-covered hillside that rises 400 feet to the northwest. An arroyo lies 100 feet southeast and 35 feet below the prospect and drains northeasterly into Lost Gulch.

HISTORY AND OWNERSHIP

About 15 years ago Mr. L. W. Racine discovered some old mine workings consisting of a hundred feet adit and a short raise to the surface. From these workings he obtained samples which contained gold, silver, lead and tungsten. The original work was probably done prior to the turn of the century when Lost Gulch was prospected for lode and placer gold. Gold has been produced intermittently from the area since about 1880, but little has been produced from the old workings. These were relocated and recorded as the Tungsten No. 1 claim in June, 1951 by Mr. Racine and Mr. A. R. Brockway. Mr. G. F. Smith, Chief Chemist and Ore Buyer for Anaconda's Inspiration Smelter, has been doing the assaying for Racine and Brockway and acts in an advisory capacity on the possible treatment and sale of the complex ore.

GEOLOGIC SETTING

Four types of rock crop out on the Tungsten No. 1 claim; quartz monzonite, schist, diabase, and dacite. The Lost Gulch quartz monzonite is shown on Ransome's areal geologic map in the Globe Folio No. 111 as being Precambrian and is intrusive into the Pinal schist. Within the immediate vicinity of the Tungsten No. 1 prospect, a few patches of Pinal schist, only a few feet square in area, are exposed as xenoliths in the quartz monzonite. Ransome's map shows the Lost Gulch monzonite almost completely bounded by faults, and on the western side there is a prominent north-south fault that lies only a few hundred feet beyond the prospect. The diabase, of Mesozoic age, forms an irregular intrusion into the Lost Gulch monzonite, and is the country rock in which the tungsten deposit occurs.

Dacite crops out several hundred feet northwest of the prospect and caps the hill on which the prospect is located. The dacite capping is part of an extensive Tertiary flow that is later than the mineralization of the area. Somewhat rounded boulders of talus from this dacite effectively cover much of the area around the prospect and conceal some of the pertinent geological features.

DESCRIPTION OF THE DEPOSIT

The Tungsten No. 1 prospect is in a diabase intrusion and is located on a mineralized fault striking east-west and dipping 87 degrees to the north. About 200 feet east of the prospect on what might be the extension of the fault are scattered outcrops, and float containing traces of material similar to that at the main prospect.

The ores of the Tungsten No. 1 claim are localized in a brecciated and fractured zone which ranges in width from about 6 inches

to 5 feet and averages about 4 feet where exposed in the 100 foot adit. The ore is thoroughly oxidized and consists largely of limonite and fills interstices in the fractured diabase. Scheelite was observed only in a single small stringer about 1 inch wide and 4 inches long, and in a few isolated grains, all of which fluoresce pale blue under the ultraviolet light. Traces of galena and molybdenite have been reported by the applicant, Mr. Racine, but could not be found by the examining field geologists.

Disseminated in the limonite and lining vugs along the fracture zones are thin, tabular, honey-yellow crystals, usually less than one-quarter inch in diameter, and containing lead, molybdenum and tungsten. These crystals have been tentatively identified as chillagite ($3PbWO_4.PbMoO_4$) by Mr. C. F. Smith who assayed some panned concentrate with the following results:

WO_3	21.74 percent	PbO	49.3 percent
MoO_3	11.2 percent	V_2O_5	0.81 percent

This mineral identification was confirmed by Luther G. Evans, Petrographer of the U. S. Bureau of Mines, Tucson, Arizona. To verify optical and spectrographic data Mr. Evans prepared a high grade gravity concentrate of the mineral which yielded the following analysis:

WO_3	23.9 percent	CaO	0.8 percent
MoO_3	9.3 "	P_2O_3	1.4 "
PbO	56.3 "	SiO_2	0.4 "
As_2O_5	3.6 "	P_2O_5	.73 "

Assays on hand specimens containing a fair amount of the mineral have yielded from 2 to 6 percent tungsten. Four regularly spaced samples were taken by the writers at the prospect to determine the grade of the run-of mine ore and the assays are as follows:

No.	Location	Grade in Percent		
		WO_3	MoO_3	Pb
11479	At portal	Trace	Trace	1.85
11480	35 ft. from portal	0.03	Trace	0.12
11481	75 ft. from portal	0.04	0.16	1.15
11482	At face	0.04	0.11	1.75

Although chillagite is a rare and unusual mineral, preliminary examination indicated that there was some hope for a small production from this deposit. In its favor are the obvious ease with which a high grade gravity concentrate could be made, the size and continuity of the deposit, and what at first appeared to be possible commercial amounts of the mineral. The writers assume the mineral is of supergene origin, in which case primary ores might exist at depth. The question of grade, size, and depth of the primary ore then becomes pre-eminent, but there is no satisfactory answer to the question. The writers are tentatively of the opinion that the chillagite is confined to the zone of oxidation and that it probably represents secondary enrichment. However, if the mineral is of hypogene origin, then the lead-tungsten ratio of the ore should remain constant for increased depths, and the grade of the ore will be directly proportional to the amount of chillagite. The data available is insufficient to indicate that a change of grade is to be expected with increased depths, but it should be noted

that a great increase in the amount of tungsten is necessary to make the deposit commercial. The deposit is small, containing only 15 to 20 tons per foot of depth; however, this might be increased by a possible eastward extension of the deposit under the debris of an arroyo. Exploration to determine this potential extension might at best result in doubling the 15-20 tons per foot of depth estimate.

Sampling reveals that the average tenor of the ore is too low grade to justify additional exploration as shown by the assays on page 4, and that the total amount of recoverable concentrate would amount to only a very few tons. The concentrated mineral will not meet purchase specifications concerning tungsten, consequently there is no known market for it. To prepare this material for market will require chemical treatment to separate the tungsten from the lead, molybdenum and impurities. There is insufficient chillagite to justify the expense of exploration, development, mining and processing for tungsten, and the lead content is too low to operate as a lead mine.

PROPOSED PROJECT

The application requested $10,400 for the purpose of sinking a 4 ft. by 8 ft. timbered shaft and driving about 200 feet of drifts through the ore on 50 and 100 foot levels. Accessory head frame, ore bin and road construction were also requested. The proposed exploration project is quite feasible, but inadvisable because the character and the very low grade of the deposit preclude possible production.

CONCLUSIONS AND RECOMMENDATIONS

As a result of this examination it is concluded that:

1. The deposit is too small and too low grade to be worked at a profit for lead, tungsten, or any other metal.

2. The ore mineral, chillagite, will probably not extend below the zone of oxidation and the deeper primary or hypogene ore is probably also low grade.

3. A concentrate containing 20 to 25 percent WO_3, 8 to 12 percent MoO_3, and 45 to 55 percent lead can be produced but cannot be marketed for tungsten. It could be rendered marketable by chemical processes but the cost would be prohibitive for the small amount of concentrate that might be obtained.

Therefore, the writers recommend denial of the application for an exploration loan of $10,400 for the Tungsten No. 1 claim.

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

200 New Customhouse
Denver 2, Colorado

Extra

January 7, 1951

Memorandum

To: DMA Field Team, Region IV

From: A. H. Koschmann

Subject: DMA Docket 2084, Tungsten No. 1 Mine (L. W. Racine), Gila County, Arizona -- Tungsten-Lead

Enclosed are the original and 7 copies of the final geologic report by J. N. Faick and J. A. MacKallor of the U. S. Geological Survey covering the above docket.

It has been recommended that the loan be denied.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (9)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P.O.Box 4126, University Station
Tucson, Arizona

December 23, 1951

Memorandum

To: Mr. A. H. Koschmann, Denver, Colorado

From: Mr. A. F. Shride, Tucson, Arizona

Subject: Final Report, DMA 2084, Tungsten No. 1 Mine (L. W. Racine), Gila County, Arizona -- Tungsten-lead

Enclosed are the original and 7 copies of the above report by J. N. Faick and J. A. MacFallor of the Geological Survey. This report and the recommendation that an exploration loan be denied have my approval. This application should be denied for lack of geologic probability of discovering sufficient tungsten ore that can be concentrated to a suitable product for marketing.

The Bureau of Mines will not submit a separate report. The brochure is enclosed.

A. F. Shride
Acting District Supervisor
Arizona-New Mexico

Enclosures 9

TUNGSTEN NO. 1 MINE (L. W. RACINE)
TUNGSTEN-LEAD
GILA COUNTY, ARIZONA
IMA 208b

Geology

by
John M. Patrick
and
Jules A. MacKallor
Geologists, U. S. Geological Survey

TUNGSTEN NO. 1 MINE (L. W. RACINE)
TUNGSTEN-LEAD
GILA COUNTY, ARIZONA
BMA 2064

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Proposed Project	6
Conclusions and Recommendations	6

LOCATION AND TOPOGRAPHY

The Tungsten No. 1 prospect is located in the extreme northeast portion of Sec. 14, T. 1 N., R. 14 E., Gila County, Arizona, on the southeast side of Lost Gulch. The property is approximately 1½ miles northeast of the Inspiration Smelter at Miami and about 1½ miles southeast of the new Copper Cities' porphyry copper deposit being developed by Miami Copper Company at Sleeping Beauty Peak. From Miami, Arizona, the prospect is reached by four miles of graded road, and two miles of unimproved road, which ends about one-half mile from the property.

The prospect is located at an altitude of approximately 4000 feet on a steep, debris-covered hillside that rises 400 feet to the northwest. An arroyo lies 100 feet southeast and 35 feet below the prospect and drains northeasterly into Lost Gulch.

HISTORY AND OWNERSHIP

About 15 years ago Mr. L. W. Racine discovered some old mine workings consisting of a hundred feet adit and a short raise to the surface. From these workings he obtained samples which contained gold, silver, lead and tungsten. The original work was probably done prior to the turn of the century when Lost Gulch was prospected for lode and placer gold. Gold has been produced intermittently from the area since about 1880, but little has been produced from the old workings. These were relocated and recorded as the Tungsten No. 1 claim in June, 1951 by Mr. Racine and Mr. A. R. Brockway. Mr. C. F. Smith, Chief Chemist and Ore Buyer for Anaconda's Inspiration Smelter, has been doing the assaying for Racine and Brockway and acts in an advisory capacity on the possible treatment and sale of the complex ore.

GEOLOGIC SETTING

Four types of rock crop out on the Tungsten No. 1 claim; quartz monzonite, schist, diabase, and dacite. The Lost Gulch quartz monzonite is shown on Ransome's areal geologic map in the Globe Folio No. 111 as being Precambrian and is intrusive into the Pinal schist. Within the immediate vicinity of the Tungsten No. 1 prospect, a few patches of Pinal schist, only a few feet square in area, are exposed as xenoliths in the quartz monzonite. Ransome's map shows the Lost Gulch monzonite almost completely bounded by faults, and on the western side there is a prominent north-south fault that lies only a few hundred feet beyond the prospect. The diabase, of Mesozoic age, forms an irregular intrusion into the Lost Gulch monzonite, and is the country rock in which the tungsten deposit occurs.

Dacite crops out several hundred feet northwest of the prospect and caps the hill on which the prospect is located. The dacite capping is part of an extensive Tertiary flow that is later than the mineralization of the area. Somewhat rounded boulders of talus from this dacite effectively cover much of the area around the prospect and conceal some of the pertinent geological features.

DESCRIPTION OF THE DEPOSIT

The Tungsten No. 1 prospect is in a diabase intrusion and is located on a mineralized fault striking east-west and dipping 87 degrees to the north. About 200 feet east of the prospect on what might be the extension of the fault are scattered outcrops, and float containing traces of material similar to that at the main prospect.

The ores of the Tungsten No. 1 claim are localized in a brecciated and fractured zone which ranges in width from about 6 inches

to 5 feet and averages about 4 feet where exposed in the 100 foot adit. The ore is thoroughly oxidized and consists largely of limonite and fills interstices in the fractured diabase. Scheelite was observed only in a single small stringer about 1 inch wide and 4 inches long, and in a few isolated grains, all of which fluoresce pale blue under the ultraviolet light. Traces of galena and molybdenite have been reported by the applicant, Mr. Racine, but could not be found by the examining field geologists.

Disseminated in the limonite and lining vugs along the fracture zones are thin, tabular, honey-yellow crystals, usually less than one-quarter inch in diameter, and containing lead, molybdenum and tungsten. These crystals have been tentatively identified as chillagite ($3PbWO_4 \cdot PbMoO_4$) by Mr. C. F. Smith who assayed some panned concentrate with the following results:

WO_3	21.74 percent	PbO	49.3 percent
MoO_3	11.2 percent	V_2O_5	0.81 percent

This mineral identification was confirmed by Lester G. Evans, Petrographer of the U. S. Bureau of Mines, Tucson, Arizona. To verify optical and spectrographic data Mr. Evans prepared a high grade gravity concentrate of the mineral which yielded the following analysis:

WO_3	23.9 percent	CaO	0.8 percent
MoO_3	9.3 "	P_2O_3	1.4 "
PbO	56.3 "	SiO_2	0.4 "
As_2O_5	3.6 "	P_2O_5	.73 "

Assays on hand specimens containing a fair amount of the mineral have yielded from 2 to 6 percent tungsten. Four regularly spaced samples were taken by the writers at the prospect to determine the grade of the run-of mine ore and the assays are as follows:

No.	Location	Grade in Percent		
		WO_3	MoO_3	Pb
11479	At portal	Trace	Trace	1.85
11480	35 ft. from portal	0.03	Trace	0.12
11481	75 ft. from portal	0.04	0.16	1.15
11482	At face	0.04	0.11	1.75

Although chillagite is a rare and unusual mineral, preliminary examination indicated that there was some hope for a small production from this deposit. In its favor are the obvious ease with which a high grade gravity concentrate could be made, the size and continuity of the deposit, and what at first appeared to be possible commercial amounts of the mineral. The writers assume the mineral is of supergene origin, in which case primary ores might exist at depth. The question of grade, size, and depth of the primary ore then becomes pre-eminent, but there is no satisfactory answer to the question. The writers are tentatively of the opinion that the chillagite is confined to the zone of oxidation and that it probably represents secondary enrichment. However, if the mineral is of hypogene origin, then the lead-tungsten ratio of the ore should remain constant for increased depths, and the grade of the ore will be directly proportional to the amount of chillagite. The data available is insufficient to indicate that a change of grade is to be expected with increased depths, but it should be noted

that a great increase in the amount of tungsten is necessary to make the deposit commercial. The deposit is small, containing only 15 to 20 tons per foot of depth; however, this might be increased by a possible eastward extension of the deposit under the debris of an arroyo. Exploration to determine this potential extension might at best result in doubling the 15-20 tons per foot of depth estimate.

Sampling reveals that the average tenor of the ore is too low grade to justify additional exploration as shown by the assays on page 4, and that the total amount of recoverable concentrate would amount to only a very few tons. The concentrated mineral will not meet purchase specifications concerning tungsten, consequently there is no known market for it. To prepare this material for market will require chemical treatment to separate the tungsten from the lead, molybdenum and impurities. There is insufficient chillagite to justify the expense of exploration, development, mining and processing for tungsten, and the lead content is too low to operate as a lead mine.

PROPOSED PROJECT

The application requested $10,400 for the purpose of sinking a 4 ft. by 8 ft. timbered shaft and driving about 200 feet of drifts through the ore on 50 and 100 foot levels. Accessory head frame, ore bin and road construction were also requested. The proposed exploration project is quite feasible, but inadvisable because the character and the very low grade of the deposit preclude possible production.

CONCLUSIONS AND RECOMMENDATIONS

As a result of this examination it is concluded that:

1. The deposit is too small and too low grade to be worked at a profit for lead, tungsten, or any other metal.

2. The ore mineral, chillagite, will probably not extend below the zone of oxidation and the deeper primary or hypogene ore is probably also low grade.

3. A concentrate containing 20 to 25 percent WO_3, 8 to 12 percent MnO_2, and 45 to 55 percent lead can be produced but cannot be marketed for tungsten. It could be rendered marketable by chemical processes but the cost would be prohibitive for the small amount of concentrate that might be obtained.

Therefore, the writers recommend denial of the application for an exploration loan of $10,400 for the Tungsten No. 1 claim.

226 New Customhouse
Denver 2, Colorado

September 14, 1951

Memorandum

To: Defense Minerals Administration, Attention: Code 210

From: Executive Officer, DMA Field Team, Region IV

Subject: Docketing for Exploration Assistance

Enclosed herewith in duplicate are DMA Form 3a and Form MP-103 pertaining to the following three applications for exploration loans:

L. W. Racine, Tungsten No. 1, Gila County, Arizona

Harvey S. Meyer, Hook King Lode, Chaffee County, Arizona

Vastoc Leasing Co, Vasco Nos. 4, 7 & 10, Boulder County, Colorado

Paul T. Allsman, Alternate

Enclosures

WDM:oj

cc: DMA Code 210
DMA Docket
DMA Chron.
Koschmann

DMA Form 3a

DEFENSE MINERALS ADMINISTRATION

CONTROLLED DOCUMENT
Abstract

I. Check One:

1 ☐ 2 ☐ 3 ☒ 4 ☐ 5 ☐ 6 ☐

II. Fill in each item:

CWH 2084 2. 9/17/51 2a

3. L. W. Racine

Box 128, Globe, Arizona

(Code)

4. Tungsten No. 1

5. Country U. S. A. State Arizona County Gila

(Code) (Code)

6. Tungsten

7. $ 10,400

8. $ % 75

9. Est. Ann. Increase - Unit of Measure -

10. $

111

III. Check one:

1 ☐ 2 ☐ 3 ☐ 4 ☒ By Field Team, Region IV

Initials of person preparing sheet W.D.M.

Date sheet prepared 9/13/51

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

MF-103 Should Be Filed With General Technical Data Form MF-100

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

Not To Be Filled in by Applicant

Docket No. DMA-2084
Metal or Mineral
Date Received 9-11-51
Amount $
Participation (Government %)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 17 1951

Name and address of applicant
L.W. RACIVE
BOX-128-
GLOBE, ARIZONA

Date Sept-3-51

If you have already filed MF-100, give date filed Aug. 28-51, type of assistance requested Loan,

DMA Docket Number (if available) 2084

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four copies each, of the signed application form, General Technical Data Form MF-100, and answers to questions as specified, to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive office thereof, with your name and address on each sheet of the application and all accompanying papers. If you have previously filed MF-100, it is not necessary to file it again. However, you should indicate in space provided above the type of assistance previously applied for (loans, procurement contracts, etc.) and DMA Docket Number, if available. *When a question is inapplicable it should be so stated in the form.* Additional sheets should be attached in answering any questions or in supplying additional information. IF YOU CANNOT ANSWER A QUESTION, SO STATE.

1. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

   (*b*) If you are not the owner of the property, submit a copy of the lease, purchase option, or other agreements under which you are authorized to operate the property with each copy of your application.

   (*c*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

   NOTE: (1) If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*c*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

   (2) If applicant is not the owner of the property or if there are any liens or encumbrances against the property, copy of agreements of claimants, lienors, encumbrances, and lessors subordinating their interests in the property to the interest of the Government under the Exploration Project Contract will be required for attachment to the Contract.

2. (*a*) What metals or minerals do you expect to find?

   (*b*) Furnish statement of the geologic features of your property, giving type of ore deposit and reasons for expecting to find commercial ore bodies. Illustrate with maps or sketches. If you have a geologic or engineering report, or assay maps showing width and grade, please send them with application, stating whether or not you wish to have them returned.

The information requested in questions 3, 4, 5, 6, 7, 8, and 9 below should be answered specifically and in detail, as this information will be attached to and incorporated as part of the Exploration Project Contract, if such contract is entered into with you by the Government.

ANSWER EACH QUESTION ON SEPARATE SHEETS OF PAPER AND SUBMIT A COPY OF EACH ANSWER FOR EACH COPY OF YOUR APPLICATION.

3. (*a*) Describe fully the proposed work and give the total cost of the project.

   (*b*) State the time required to start the project and to complete it.

4. Submit a map or sketch of the property involved showing a plan (and cross section, if needed) of the present mine workings and the *location of the proposed exploration work* as related to geologic features, such as contacts, veins, ore-bearing beds, etc.

5. Furnish an itemized list of existing facilities, buildings, installations, and fixtures with a statement of the cost of any necessary rehabilitation or repairs to put into useful and operable condition.

6. Furnish a detailed list of additional facilities, buildings, and fixtures to be purchased, installed, or erected by you, with the estimated cost of each item.

7. Furnish a detailed list of operating equipment, separated into items to be—

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

   with the rental, purchase price, or depreciation of each item, as the case may be, to be charged as a cost of the project.

8. Furnish an itemized schedule of labor, by numbers and classes (miners, muckers, etc.) and of supervisors by numbers and positions, with the maximum wages or salaries to be paid to each.

9. Furnish a detailed list with estimated cost of each item for materials, supplies, engineering, assaying, accounting, power, water, utilities, and any other items not provided for above.

10. (*a*) How much are you prepared to invest in the proposed project?

    (*b*) Is this amount sufficient to pay your part of the cost of the project, in accordance with the regulations on Government participation (Sec. 9 of MO–5)?

11. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

RACINE - BROEKWAY
(Name of company)

By L. W. Racine
(Signature of authorized official)

Sept-3-51
(Date)

Co-Partner
(Title)

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—64067-2

L. W. Racine
Box 128, Globe, Arizona

1a Legal description -

Name - Tungsten No. 1

Located on the 23rd day of June , in the Globe Mining District, and recorded in Book 49, on Page 309, Records of Gila County, Arizona, by L. W. RACINE and A. R. BROCKWAY.

Located in Section 14, R. 14 E., and is 600' in width and 1500' in length.

1b The work to be carried on in the tunnel, located in the center of said claim, 300' from each side line and 400' from the North east end line. Both areas are the same.

1c To be operated by owners.

2 a The ore discovered in our presence.

2 b Exploration is Tungsten and Lead. The full width of the ledge is 10', with a high grade width of 4', assaying average 3.75% tungsten and 1% WO_3 for the low grade section, which includes at present about 6' of the ledge with this work is at the apex of the deposit and the ledge is widening as it descends. It has a contact of schist and diorite bearing 48° west. The general strike is from the southeast to the northwest. A rough concentrate runs 30% tungsten and 50% lead. Final treatment will produce a very high grade product.

The proposed work will be a shaft 110' in depth with tunnels at 50' levels. The tunnels to be run the fulllength of the commercial ore deposit. The length of the tunnels will be determined by the values.

The total estimated cost of the project will be as follows:

110' shaft, 4'x8' with timber	$6,600.00
Head frame	300.00
50' Ore bin	500.00
200' of drift with timber to stope	2,000.00
Repair road	1,000.00
TOTAL	$10,400.00

3 b To complete this work will take 6 months (estimate)

5 None

6 None

L. W. Racine
Box 128, Globe, Arizona

7 List of equipment furnished by us:

1- Chicago Pneumatic Compressor 160 cu.ft.
1- S.55 Jackhammer - Chicago Pneumatic
2- Chocise Jackhammers
1- Ingersoll-Rand Stoper
50' Air hose
75' Water hose
2- 20 cu.ft. mine cars
1000' mine rail
500' 1" Air and water pipe
1- 4x6' Air Receiver, with cooling tank, with all miscellaneous fittings, pipe connections and tools to carry on operations.

Depreciation or replacement cost	600.00
Per month - times 6 months	3600.00

8. Labor - 2 miners at 14.00 per day
1 Hoist & top man 14.00
1 Supervisor &/or operator for primary work 18.00

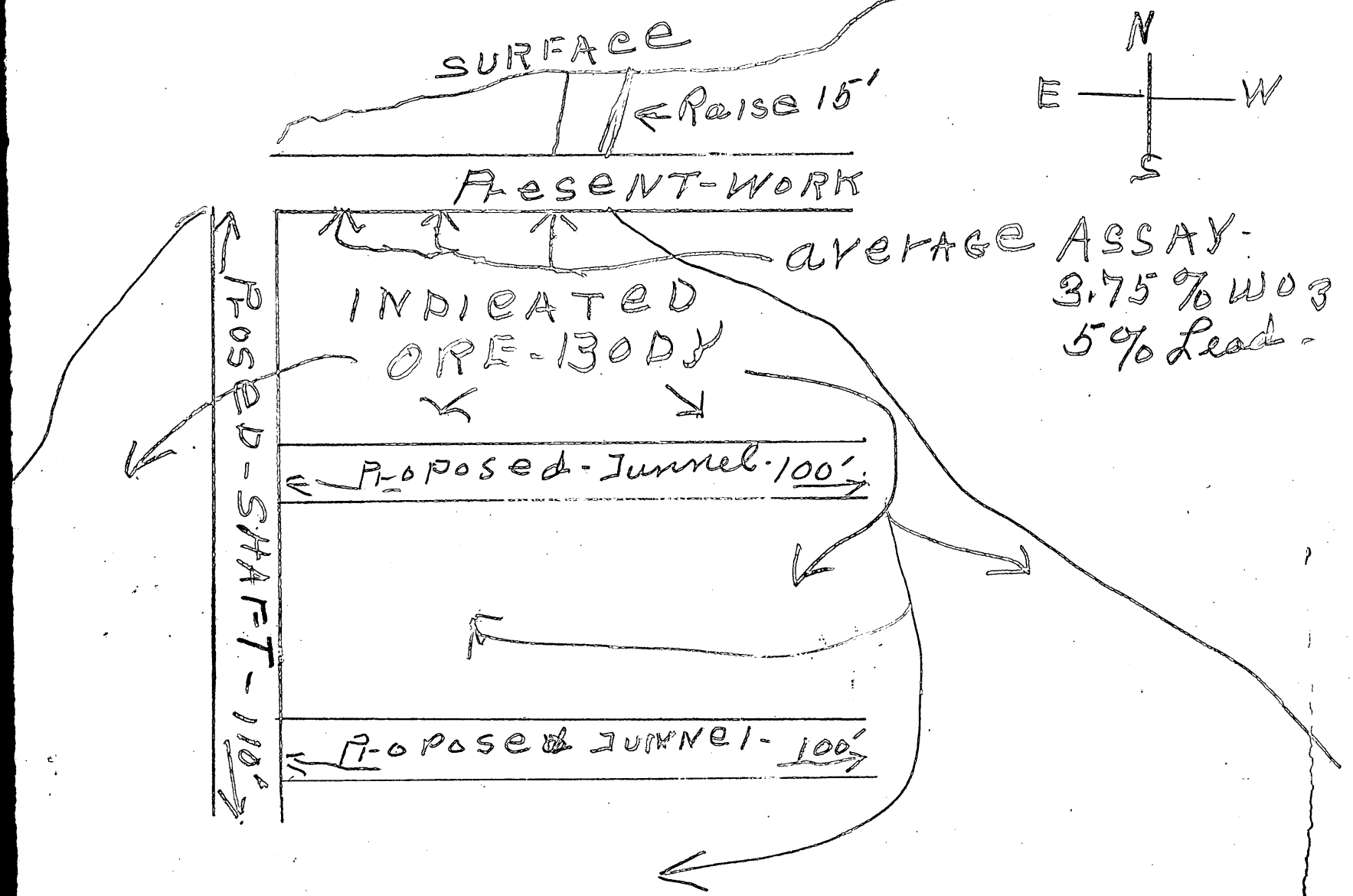
9. Assaying per day, $10.00 estimate
Water per day $ 5.00

10. We are prepared to invest $3600.00 or equivalent should cover the initial cost of the project.

11. No comment.

JONGSTEI - No. 1 -

L. W. RACINE
BOX 128
GLOBE, ARIZONA



Globe, Arizona
Sept-3-51-

Dear Sir-

I am sending you a copy of MF 100 with the enclosed Forms- I sent the MF 100 to washington aug-26- but have not received a Serial no-as yet-

Very Truly yours-

L. W. Roerie
Box 138
Globe, Ariz-

REGIONAL DIRECTOR'S
OFFICE
REGION IV
SEP 7 1951
BUREAU OF MINES
DENVER, COLORADO

Form MF-100
(May 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. .....

Date received .....

Copy filed aug-28-51

L.W. Raeine
Box 128
Globe, Arizona.
Name and address of applicant

Date Aug. 28-51

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (5) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products? Tungsten.
   (*b*) What are the byproducts, if any? Lead
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits. 100 ft.
   (*d*) Linear feet of other mine openings (explain briefly). Raise 15'

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district. — — Globe
   (*c*) Township, Section, Range. — T.1.N. R. 13-14
   (*d*) County, State. Gila, Arizona
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☒ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production 3 months.

   If not in production or operation, estimated date when production will begin .....
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project. 25 years Experience
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation: Common (e)	Number of Shares Held in Applicant Corporation: Preferred (f)	Life Insurance Carried for Benefit of Applicant: Amount (g)	Life Insurance Carried for Benefit of Applicant: Net Cash Surrender Value After Loans (h)
L.W. RACINE	Co Partner						
A.R. BROOKWAY	"						
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)	Tungsten ore		Development.		
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

Fissure Ledge 10 ft. wide 100 ft Length is Extent of development.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved) 210 Short	210	2.75-4.75 % WO3	22650		
Indicated (probable) unknown					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor: 2-Miners

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities: Compressor-Drills & Misel, Equipment.

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

Racine & Brockway
(Name of company)

By L. W. Racine
(Signature of authorized official)

7-28-51
(Date)

Co-Partner
(Title)

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—63792-1

224 New Customhouse
Denver 2, Colorado

January 3, 1952

Memorandum

To: W. R. Storms, Chief, Arizona-New Mexico Branch (with brochure)

(Through Chief, Mining Div., Region IV)

C. A. Anderson

From: Field Team, Region IV

Subject: Docket DMA-2084, (Tungsten), L. W. Racine, Box 128, Globe, Arizona

Enclosed herewith is the subject application for Government assistance in exploration work estimated to cost $10,400.

The applicants estimate of costs appear low, and the time limit for completion of contemplated work too short.

J. H. East, Jr.

A. H. Koschmann

Enclosure

JWT:oc
cc: DMA Subject, Chron.
AhKoschmann

224, New Customhouse
Denver 2, Colorado

October 1, 1951

Memorandum

To: C. A. Andersen (with brochure)

(Through Chief, Mining Division, Region IV)

W. R. Sherman (with brochure)

From: DMA Field Team, Region IV

Subject: DMA Docket 2084, L. W. Racine, P. O. Box 128, Globe, Arizona, applicant, Tungsten No. 1 Mine, Tungsten and Lead, Gila County, Arizona

Enclosed herewith is application of the subject docket for an exploration loan with an estimated cost of $10,400.

The proposed work consists of 100 feet of shaft sinking and 200 feet of drifting each of the 50 and 100 foot levels.

A field investigation is required to determine the geologic probability of discovery and the respective value of the two metals. If the project offers merits, the applicant should be assisted in preparing exhibits and maps for an exploration project.

J. H. East, Jr.

for A. H. Koschmann

Enclosures

WDM:oj
cc: DMA Subject and Chron.
AHKoschmann

[redacted]
Denver 2, Colorado

March 13, 1958

Memorandum

To: Acting Administrator, Defense Minerals Exploration Administration, Attention: Code [illegible]

From: Field Team, Region IV

Subject: DMA Project [illegible], Nash King Lode, Tungsten Mining District, Chaffee County, Colorado - Final Report

Enclosed are the original and three copies of the final report on DMA Project [illegible], the original and one copy of DMA Form [illegible], and a copy of the letter of denial to the applicants.

[redacted]

J. E. Rush, Jr.

A. H. Koschmann
[redacted]

Enclosures

JERush:[illegible]

cc: [redacted]Director w/copy of final report
AHKoschmann " " " "
[redacted]. Dir. " " " "
DMA Final Report

DMA Sub. and Chron.
AHKoschmann (2)

DMA Form 3b.

DEFENSE MINERALS ADMINISTRATION

CONTROLLED DOCUMENT
Revised Abstract

DMA Docket No. 2085

Change: From		To	
I 1	☐	I 1	☐
I 2	☐	I 2	☐
I 3	☒	I 3	☒
I 4	☐	I 4	☐
I 5	☐	I 5	☐
I 6	☐	I 6	☐
III 1	☐	III 1	☐
III 2	☐	III 2	☒ 3-13-5
III 3	☐	III 3	☐
III 4	☒	III 4	☐

Add:

II 7 $ _____

II 8 $ _____

II 8a % _____

_____

_____

Initials of person preparing sheet H.M.C.

Date sheet prepared 3-13-52

224 New Customhouse
Denver 2, Colorado

March 13, 1952

Mr. Harvey S. Meyer
c/o Allen W. Breadstreet
117 West Second Street
Salida, Colorado

Dear Mr. Meyer:

Your application for aid, DMA Docket No. 2085, in the amount of $5,000.00 for the exploration of your property known as Rock King Lode, located in the Turret Mining District, Chaffee County, Colorado has been processed.

Examination and careful consideration indicate that the small size of the deposit and the low, erratic mineral content of the pegmatite makes it improbable that a significant quantity of strategic minerals will be found. We therefore regret to inform you that your request for exploration aid under the Defense Production Act of 1950 is denied.

Very truly yours,

J. H. East

J. H. East, Jr.
Field Team, Region IV

HMC
HMC:cp
cc: Acting Administrator, DMEA
HMTrevor
AHKoschmann (2)
DMA Docket, Chron.

A. H. Koschmann

A. H. Koschmann
Field Team, Region IV

Mining Division
Region IV

March 13, 1952

Memorandum

To: Field Team, DMA, Region IV

From: Acting Chief, Mining Division, Region IV

Subject: DMA Docket 2085, Rock King Lode, Tenrek Mining District, Chaffee County, Colorado

Enclosed are eight copies of the report by C. H. Harrar, Mining Engineer, covering the Rock King Lode.

Due to the small size of the deposit and the low, erratic mineral content of the pegmatite, we agree with the recommendation of the examining engineer that the application for exploration aid in the amount of $5,000.00 be denied.

W. H. King
W. H. King

Enclosures

HMC:oc HMC

cc: DMA Docket, Chron.
AHKosehmann (2)

J-18

224 New Customhouse
Denver 2, Colorado

September 14, 1951

Memorandum

To: Defense Minerals Administration, Attention: Code 210

From: Executive Officer, DMA Field Team, Region IV

Subject: Docketing for Exploration Assistance

Enclosed herewith in duplicate are DMA Form 3a and Form NF-103 pertaining to the following three applications for exploration loans:

L. W. Rasine, Tungsten No. 1, Gila County, Arizona

Harvey S. Meyer, Hook King Lode, Chaffee County, ~~Arizona~~ Colo.

Vasco Leasing Co, Vasco Nos. 4, 7 & 10, Boulder County, Colorado

Paul T. Allsman, Alternate

Enclosures

WDM:oj

cc: DMA Code 210
DMA Docket
DMA Chron.
Koschmann

DMA Form 3a

DEFENSE MINERALS ADMINISTRATION

CONTROLLED DOCUMENT
Abstract

I. Check One:

1 ☐ 2 ☐ 3 ☒ 4 ☐ 5 ☐ 6 ☐

II. Fill in each item:

1. DMA 2085 2. 9-21-51 2a

3. Harvey S. Moyer, c/o Allen W. Broadstreet
117 West Second St., Salida, Colorado
(Code)

4. Rock King Lode

5. Country U. S. A. State Colorado County Chaffee
(Code) (Code)

6. Rare Metals

7. $ 5000.00

8. $ % 90

9. Est. Ann. Increase - Unit of Measure -

10. $

11

III. Check one:

1 ☐ 2 ☐ 3 ☐ 4 ☒ By Field Team Region IV 1/

Initials of person preparing sheet W.D.M.

Date sheet prepared 9/13/51

1/- Attempts to obtain a more specific proposal have been unsuccessful. Field Examination to be made on return of DMA Form 3a.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. Gun 4-208v

Date received 9-17-51

Participation

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 17 1951

Harvey S. Moyer
c/o Allen W. Broadstreet
Attorney at Law
117 West Second Street
Salida, Colorado

Name and address of applicant

Date August 1, 1951

FILL IN THIS BLOCK

Date of application August 1, 1951

Estimated cost Five thousand dollars

Mineral or metal See attached sheet "A"

Percentage of Government participation 90%

Location of mine Turret Mining District, Salida, Chaffee County, Colorado.

Date of filing MF-100

DMA Docket Number, if available 208v

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? --Individual

*2. If a partnership, state names and addresses of partners.--No partners

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.--Inapplicable

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.--See annexed sheet

*5. Are you the owner or the lessee of the property?--Owner

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. --None

7. If lessee, attach a copy of the lease and state if it is in good standing. --No lease

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. --None available

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?--See annexed sheet

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. --Se annexed sheet
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.--See annexed sheet

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads. --See annexed sheet

*13. State source and quantity of water available for operations and its sufficiency at all seasons.--See annexed sheet State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work. --See annexed Sheet

15. State in detail how the ore could be shipped and how and where milled. --See annexed sheet

*16. History: --See annexed sheet
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production: --Information not available
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)--See annexed sheet
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions. ----

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? See annexed

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. --See annexed sheet

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data. --None Available at this time.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each. ~~Three~~ $1200 Per Day
    (*b*) Supervisors, by numbers and positions, with salaries of each. Myself No Fixed Salary
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings. None
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings. Compressor Bldg $500.00 Ore Bin 500.00
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each. Compressor $2000.00
    (*f*) Cost of rental for equipment which the operator proposes to rent. None
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work. None
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each. ~~Ore Bin 500.00~~ Jack Hammer Hoists $400.00
    (*i*) Cost of power, water, utilities, and any other items not provided for above. --See annexed sheet None

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent. --See annexed sheet

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

(Name of company)	By Harvey S. Moyer (Signature of authorized official)
August 1, 1951 (Date)	Owner (Title)

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Attach to form MF-103, Harvey S. Moyer, August 1, 1951

"A" The minerals and metals are: Tantalum, Columbite, Beryl, Mica, Feldspar (Three kinds), Berilium (six kinds), and Tungsten.

4. Applicant has been engaged in active mining periodically since 1918. Since 1932, the applicant has been wholly engaged in the mining industry. The applicant has been employed with the Chaffee County Mines of Salida, Colorado and he has been employed with the Kramer Mine of Salida, Colorado. He has also worked with the American Mine and, since 1942, the applicant has been engaged in private mining operations and has also worked for the Colorado Fluorspar Corporation.

9. The operator will be able to procure funds sufficient to pay his part of the cost of the project.

10. (a and b) Legal description which appears in Location Certificate which is recorded in Book 236, Page 175 of the records of Chaffee County, Colorado:

> Beginning at corner No. 1, N. E. Corner, pitch pine post 4"x6"x32" in mound of rock, whence, S¼ Cor. Section 34, T. 51 N. R. 9 E. N.M. P.M., bears, S24° 16' W., 940 feet. Thence, S2° 15' W., 250 feet to a point east of well on Turret road in Railroad Gulch, 300 feet to a point N 87° 45' W., of Government sign, 3 M. Turret. 600 feet to S. E. Cor. No. 2, and aspen post 3"x3"x32" set in ground mound of stone. Thence, N87° 45' W. 750 feet to south side center, 1500 feet to S. W. Cor. No. 3, pine post, 4"x4"x34" in mound of stone, south side of road in Railroad Gulch. Thence N2° 15' E. 300 feet to center west end line, whence, Corner no. 3, Sur. 16682 Manitou Lode bears, N44° 10' E., 160 feet to N. W. Cor. No. 4, pine post 4"x6"x34" in mound of stone. Thence, S87° 45' E., 750 feet to north side center, 1300 feet to Cor. No. 1, and place of beginning.

11. Rock King Lode in Turret Mining District.

12. The Property described in Section 10 lies North of Salida, Colorado in Railroad Gulch. County roads in good condition lead from this property into Salida, Chaffee, County, Colorado, which is the central shipping point.

13. There is approximately two (2) cubic feet of water per second of time available for use in the operation of the mining property. The source of this water is from a well and from a mountain lake.

14. There are existing, usable items of equipment such as picks, shovels, bars, and drills. There is a cabin and a shed located on the property, all of which will be devoted to the exploration work.

15. The beryl can be shipped at the buyer's cost, to Arvada, Colorado and the spar can be shipped to Parkdale, Colorado.

16. (a, b, and c) The analysis of the beryl ore shows approximately 13% BEO, the Tantalum is shown to be 71%. The fluorspar has been analyzed by the mill at Parkdale, Colorado and it shows over 90%. The analyses of the other ores are not yet available.

Attach as page 2 to form MF-103, Harvey S. Moyer, August 1, 1951

18. (a, b, and c) The body of ore is 1200 feet long and 200 feet wide and it outcrops at a point approximately 50 feet higher than the surrounding area. It is estimated by the operator to contain at least 200,000 tons of good ore. It is felt by the applicant that the ore will assay at a figure sufficient for the government's stockpile of critical minerals.

20-21. Exploration will be conducted for Tantalum, Columbite, Beryl, Mica, Feldspar, Berilium, and Tungston and it is estimated that the applicant will be able to ship approximately a carload, or 60 tons of ore within three to six months.

22. None available at this time.

23. Statement of the estimated cost of the Project:

Items a, b, c, and d cannot now be properly estimated in that the operator does not anticipate repair to existing facilities or structures. The expense of labor will depend solely upon the government's wishes as to the amount of ore that they desire the applicant to produce.

Items e, f, g, h, and i. The applicant wishes to purchase a bin, a jack hammer, a compressor, pipe, hose, and dynamite. The cost of these items will depend upon the feasibility of a capital investment or, whether it will be more satisfactory to begin operation by renting these items of equipment.

24. It is the opinion of the applicant that the above and foregoing information, although it is not in detail, will be sufficient to give the government a general idea of the extent of his operation. Additional data will, of course, be available at the government's request.

THE REQUIREMENTS AND COSTS

Item 23

(A) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each. Two $12.00 per day.
(B) Supervisors, by numbers and positions, with salaries of each. Myself no fixed salary.
(C) Cost of necessary repairs to existing facilities, structures, and buildings. None
(D) Cost of necessary installation or construction of additional facilities, structures, and buildings. Compressor Bldg. $500. Ore Bin $500.00 Jack Hammer and Hose etc., $400.00.
(E) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50. or more each. Compressor $2,000.00.
(F) Cost of rental for equipment which the operator proposes to rent. None.
(G) Rental value of items of equipment which the operator now owns and which will be devoted to the work. None.
(H) Cost of materials and supplies, including items of equipment costing less than $50.00 each.
(I) Cost of power, water, utilities, and any other items not provided for above. None.

To [illegible]

~~[illegible]~~ W. H. K.
Shaw.

CITY ATTORNEY

OFFICE PHONE 538

ALLEN W. BROADSTREET
ATTORNEY -- AT -- LAW
117 WEST SECOND STREET
SALIDA, COLORADO

REGIONAL DIRECTOR'S OFFICE
REGION IV
JAN 5 1952
BUREAU OF MINES
DENVER, COLORADO

January 4, 1952

J. H. East, Jr.
Executive Officer
D. M. A. Field Team, Region IV
224 New Customhouse
Denver, Colorado

Re: Harvey S. Moyer Application
for exploration loan
DMA Docket No. 2085

Dear Mr. East:

In conformance with the request set forth in your letter of October 2, 1951, I am enclosing geological maps and a statement of the purposed work and the estimated time to complete it and other date in regard to the above entitled exploration loan as requested in your letter.

I trust that this additional information will be adequate to enable Mr. Moyer to secure his exploration loan. I will appreciate hearing from you at your earliest convenience.

Very truly yours,

Allen W. Broadstreet
ALLEN W. BROADSTREET

AWB: jc

Enclosures

TURRET MINING DISTRICT

The old Turret Mining District is situated about nine miles north of Salida, Colorado. It is generally accessible throughout the year and is reached by dirt and gravel County roads numbered 180 and 190. Although this district was extensively worked in the early days, no large important mines were discovered. However, in recent years resulting mostly from emergency conditions brought on by wars, this district is coming to life by its production of non-metallics and strategic minerals.

Within this district is a six-mile square made up mostly of granitic pegmatites. It is bound by Railroad Gulch on the north; Hanson Gulch on the south; Ute Trail Road (number 180) on the east and the Arkansas River on the west. These many parallel dikes bear slightly north of west.

These granite pegmatites are thought to be of salic action. They consist mainly of orthoclase and quartz with musconite, beryl, tantalum and other rare minerals as secondary.

No government geological reports or maps are available. However, it is believed that a U. S. Government survey has been made of this district.

ROCK KING MINE OR QUARRY

The Rock King Mine or Quarry is owned by Harvey Moyer. The owner recorded the property in 1937 and has kept up his annual assessment work. From 1942 through 1945, the quarry was operated on a small scale and about seven tons of 13 percent beryl was sold to Metal Reserve at Salida, Colorado. In 1950, a small amount of mica was sold to Western Non-Metallics, Pueblo, Colorado, and also a few tons of feldspar was sold at

Parkdale, Colorado. During 1951 to date, the owner is solely working the quarry. There is stockpiled at the quarry about 80 tons of spar, 100 pounds of beryl, 1½ tons of mica and about 4 pounds of tantalum.

DEVELOPMENT

Accompanying maps show the extent of work that has been accomplished as of that date.

Financial assistance is asked in order to expedite the work and to get in production. If this loan is granted, most of the money will be used to extend an open cut into the face of the quarry. This cut would be started at the location that shows the higher concentration of beryl crystals.

ADDITIONAL EXPENDITURES

It would be necessary to hire two men in addition to the owners' services. One small ore bin would be erected in addition to two small buildings serving as compressor and supply houses. One small-size compressor (preferably portable type) would have to be acquired either on full purchase or monthly rental basis. Additional equipment needed is listed as follows:

One jack hammer, one air hose, two sets of drill steel, Jack bits, 200 feet of 1½-inch pipe, one mine tram car, 400 feet of 12-pound rail, two pipe wrenches, 1000 pounds of explosives and some gasoline and oil.

If loan is granted, work could start immediately. This project could be completed in three or four months.

TURRET MINING DISTRICT

The old Turret Mining District is situated about nine miles north of Salida, Colorado. It is generally accessible throughout the year and is reached by dirt and gravel County roads numbered 180 and 190. Although this district was extensively worked in the early days, no large important mines were discovered. However, in recent years resulting mostly from emergency conditions brought on by wars, this district is coming to life by its production of non-metallics and strategic minerals.

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DEVELOPMENT

Accompanying maps show the extent of work that has been accomplished as of that date.

Financial assistance is asked in order to expedite the work and to get in production. If this loan is granted, most of the money will be used to extend an open cut into the face of the quarry. This cut would be started at the location that shows the higher concentration of beryl crystals.

ADDITIONAL EXPENDITURES

It would be necessary to hire two men in addition to the owners' services. One small ore bin would be erected in addition to two small buildings serving as compressor and supply houses. One small-size compressor (preferably portable type) would have to be acquired either on full purchase or monthly rental basis. Additional equipment needed is listed as follows:

One jackhammer, one air hose, two sets of drill steel, Jack bits, 200 feet of 1½-inch pipe, one mine tram car, 400 feet of 12-pound rail, two pipe wrenches, 1000 pounds of explosives and some gasoline and oil.

If loan is granted, work could start immediately. This project could be completed in three or four months.

TURRET MINING DISTRICT

The old Turret Mining District is situated about nine miles north of Salida, Colorado. It is generally accessible throughout the year and is reached by dirt and gravel County roads numbered 180 and 190. Although this district was extensively worked in the early days, no large important mines were discovered. However, in recent years resulting mostly from emergency conditions brought on by wars, this district is coming to life by its production of non-metallics and strategic minerals.

Within this district is a six-mile square made up mostly of granitic pegmatites. It is bound by Railroad Gulch on the north; Hanson Gulch on the south; Ute Trail Road (number 180) on the east and the Arkansas River on the west. These many parallel dikes bear slightly north of west.

These granite pegmatites are thought to be of salic action. They consist mainly of orthoclase and quartz with musconite, beryl, tantalum and other rare minerals as secondary.

No government geological reports or maps are available. However, it is believed that a U. S. Government survey has been made of this district.

ROCK KING MINE OR QUARRY

The Rock King Mine or Quarry is owned by Harvey Moyer. The owner recorded the property in 1937 and has kept up his annual assessment work. From 1942 through 1945, the quarry was operated on a small scale and about seven tons of 13 percent beryl was sold to Metal Reserve at Salida, Colorado. In 1950, a small amount of mica was sold to Western Non-Metallics, Pueblo, Colorado, and also a few tons of feldspar was sold at

Parkdale, Colorado. During 1951 to date, the owner is solely working the quarry. There is stockpiled at the quarry about 80 tons of spar, 100 pounds of beryl, 1½ tons of mica and about 4 pounds of tantalum.

DEVELOPMENT

Accompanying maps show the extent of work that has been accomplished as of that date.

Financial assistance is asked in order to expedite the work and to get in production. If this loan is granted, most of the money will be used to extend an open cut into the face of the quarry. This cut would be started at the location that shows the higher concentration of beryl crystals.

ADDITIONAL EXPENDITURES

It would be necessary to hire two men in addition to the owners' services. One small ore bin would be erected in addition to two small buildings serving as compressor and supply houses. One small-size compressor (preferably portable type) would have to be acquired either on full purchase or monthly rental basis. Additional equipment needed is listed as follows:

> One jackhammer, one air hose, two sets of drill steel, Jack bits, 200 feet of 1½-inch pipe, one mine tram car, 400 feet of 12-pound rail, two pipe wrenches, 1000 pounds of explosives and some gasoline and oil.

If loan is granted, work could start immediately. This project could be completed in three or four months.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

TRANSMITTAL SLIP

DATE 1/28/52

224 New Customhouse
Denver 2, Colorado

January 29, 1952

DMa 2085

Mr. Allen W. Broadstreet, Attorney
117 West Second Street
Salida, Colorado

Dear Mr. Broadstreet:

This will acknowledge your letter of January 26, 1952, requesting the return of a geologic map.

The map and pertinent information submitted with your application for exploration assistance have been forwarded to Mr. W. M. Traver, Jr., Chief, Colorado Branch, Mining Division, Building 20, Denver Federal Center, Denver, Colorado.

Mr. Traver has charge of the Bureau's field activities in Colorado and he will probably contact Mr. Meyer during the first week of February in connection with an examination of the property.

It is suggested that the map in question be retained in the engineer's file until the examination is completed and then returned to the owner. In case the map is to be returned to you instead of Mr. Meyer, it is suggested that you so inform Mr. Traver.

Yours very truly,
W. H. KING

W. H. King, for
J. H. East, Jr.
Executive Officer
Field Team, Region IV

WHK:M

cc: Dechert, chron.
Kaufmann
Traver

Form 6-95

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

REFERENCE SLIP

DATE 1/28/52

REFERRED TO:

1. King
2.
3.
4.

FOR:

..... Action	..... Recommendation
..... Approval	..... Record of .....
..... Comment	
..... Conference	..... Referring to .....
..... Consideration	
..... Filing	..... Reply for signature of .....
..... Instructions	
..... Investigation	..... Rewriting
..... Initials	..... Signature
..... Mailing	..... Suggestions
..... Previous correspondence	..... Your information

REMARKS: DO WE HAVE THE MAPS??? PLEASE REPLY.---Letter from Allen W. Broadstreet, 117 W. Second St., Salida, Colo., DMA 2085, Harvey S. Moyer.

Check (X) before the items needing attention.

Initials of sender.

GPO 16—51162-1

CITY ATTORNEY

OFFICE PHONE 538

King
Do we have
the maps
please reply
JHE

ALLEN W. BROADSTREET
ATTORNEY -- AT -- LAW
117 WEST SECOND STREET
SALIDA, COLORADO

January 26, 1952

DMA 2085

J. H. East, Jr.
Executive Officer
D.M.A. Field Team, Region 1V
224 New Customhouse
Denver, Colo.

Dear Mr. East:

Under date January 2, 1952, I wrote to you enclosing geological maps and other pertinent papers in regard to the above entitled exploration loan. At that time, I enclosed a geological map which should have been kept for the mining operation files.

Will you please return one of the maps that were submitted and let me know how soon Mr. Moyer may expect some action in this matter.

Very truly yours,

Allen W. Broadstreet

Allen W. Broadstreet

ALW/jc

224 New Customhouse
Denver 2, Colorado

January 11, 1952

Memorandum

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

(Through Acting Chief, Mining Division, Region IV)

A. H. Koschmann

From: Field Team, Region IV

Subject: Docket DMA-2085, Harvey S. Moyer, c/o Allen W. Broadstreet, 117 West Second Street, Salida, Colorado (Rare Metals)

Enclosed herewith is the subject application for Government assistance in exploration work estimated to cost $5,000.00.

The application is lacking in some essential details which must be clarified if the field examination indicates approval.

W. H. K.
W. H. King for
J. H. East, Jr.

A. H. Koschmann
A. H. Koschmann

Enclosures

JET:oc
cc: DMA Subject, Contract, Chron.
Koschmann

224 New Customhouse
Denver 2, Colorado

October 2, 1951

Mr. Harvey S. Moyer
c/o Allan W. Broadstreet
Attorney at Law
117 West Second Street
Salida, Colorado

Dear Mr. Moyer:

Your application for an exploration loan on the Rock King Tantalum-Columbite-Beryl Lode, Turret Mining District, Chaffee County, Colorado, has been assigned DMA Docket No. 2085.

Before we can proceed with the application for a loan of $5,000.00, the following additional information is required in the following items of Form MF-103.

21. Describe briefly, but concisely, the proposed work, and the estimated time to complete it.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

23 (h). Cost of materials and supplies, including items of equipment costing less than $50.00 each.

Very truly yours,

WDM:oj
cc: DMA Subject & Chron.
AHKoschmann

J. H. East, Jr.
J. H. East, Jr.
Executive Officer
DMA Field Team, Region IV

CITY ATTORNEY

ALLEN W. BROADSTREET
ATTORNEY -- AT -- LAW
117 WEST SECOND STREET
SALIDA, COLORADO

OFFICE PHONE 538

Mining Division
Date Rec'd.
SEP 12 1951
BUREAU OF MINES
Denver, Colorado

September 11, 1951

Paul T. Allsman,
Chief, Mining Division, Region IV
Bureau of Mines
224 New Customhouse
Denver 2, Colorado

Dear Mr. Allsman:

Your letter of August 21, 1951, in which you returned Harvey S. Moyers' application for an exploration loan has been received. You will note that I have continued the completion of Question 23 on the Second Page of the attachment to form MF-103.

You will note that Moyer has not submitted a complete plan of operation indicating trenching, sinking, drifting or cross-cutting, in that his operation is largely of an open-quarry type.

A map showing the proposed work is not available at this time.

I enclose the completed applications for your further consideration.

Very reuly yours,

Allen W. Broadstreet

Allen W. Broadstreet

AWB:jw

ENCLOSURE

Form MF-203
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. .....

Date received .....

Participation .....

Harvey S. Moyer
c/o Allen W. Broadstreet
Attorney at Law
117 West Second Street
Salida, Colorado

Name and address of applicant

Date August 1, 1951

FILL IN THIS BLOCK

Date of application August 1, 1951

Estimated cost Five thousand dollars

Mineral or metal See attached sheet "A"

Percentage of Government participation 90%

Location of mine Turret Mining District, Salida, Chaffee County, Colorado.

Date of filing MF-100 .....

DMA Docket Number, if available .....

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? --Individual

*2. If a partnership, state names and addresses of partners.--No partners

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.--Inapplicable

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.--See annexed sheet

*5. Are you the owner or the lessee of the property?--Owner

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. --None

7. If lessee, attach a copy of the lease and state if it is in good standing. --No lease

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement. --None available

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?--See annexed sheet

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property. --See annexed sheet

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.--See annexed sheet

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads. --See annexed sheet

*13. State source and quantity of water available for operations and its sufficiency at all seasons.--See annexed sheet State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work. --See annexed Sheet

15. State in detail how the ore could be shipped and how and where milled. --See annexed sheet

*16. History: --See annexed sheet

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.

(*b*) State briefly the known history and production of adjoining and neighboring properties.

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production: --Information not available

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)--See annexed sheet

(*a*) Describe the ore or mineral deposits briefly.

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions. ----

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted? See annexed

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it. --See annexed sheet

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data. --None Available at this time.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above. --See annexed sheet

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent. --See annexed sheet

CERTIFICATION

The undersigned company, and the official executing this certification on its behalf, hereby certify that the information contained in this form and accompanying papers is correct and complete to the best of their knowledge and belief.

(Name of company)	By Harvey S. Moyer (Signature of authorized official)
August 1, 1951 (Date)	Owner (Title)

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

Attach to form MF-103, Harvey S. Moyer, August 1, 1951

"A" The minerals and metals are: Tantalum, Columbite, Beryl, Mica, Feldspar (Three kinds), Berilium (six kinds), and Tungsten.

4. Applicant has been engaged in active mining periodically since 1918. Since 1932, the applicant has been wholly engaged in the mining industry. The applicant has been employed with the Chaffee County Mines of Salida, Colorado and he has been employed with the Kramer Mine of Salida, Colorado. He has also worked with the American Mine and, since 1942, the applicant has been engaged in private mining operations and has also worked for the Colorado Fluorspar Corporation.

9. The operator will be able to procure funds sufficient to pay his part of the cost of the project.

10. (a and b) Legal description which appears in Location Certificate which is recorded in Book 236, Page 175 of the records of Chaffee County, Colorado:

> Beginning at corner No. 1, N. E. Corner, pitch pine post 4"x6"x32" in mound of rock, whence, S¼ Cor. Section 34, T. 51 N. R. 9 E. N.M. P.M., bears, S24° 16' W., 940 feet. Thence, S2° 15' W., 250 feet to a point east of well on Turret road in Railroad Gulch, 300 feet to a point N 87° 45' W., of Government sign, 3 M. Turret. 600 feet to S. E. Cor. No. 2, and aspen post 3"x3"x32" set in ground mound of stone. Thence, N87° 45' W. 750 feet to south side center, 1500 feet to S. W. Cor. No. 3, pine post, 4"x4"x34" in mound of stone, south side of road in Railroad Gulch. Thence N2° 15' E. 300 feet to center west end line, whence, Corner no. 3, Sur. 16682 Manitou Lode bears, N44° 10' E., 160 feet to N. W. Cor. No. 4, pine post 4"x6"x34" in mound of stone. Thence, S87° 45' E., 750 feet to north side center, 1300 feet to Cor. No. 1, and place of beginning.

11. Rock King Lode in Turret Mining District.

12. The Property described in Section 10 lies North of Salida, Colorado in Railroad Gulch. County roads in good condition lead from this property into Salida, Chaffee, County, Colorado, which is the central shipping point.

13. There is approximately two (2) cubic feet of water per second of time available for use in the operation of the mining property. The source of this water is from a well and from a mountain lake.

14. There are existing, usable items of equipment such as picks, shovels, bars, and drills. There is a cabin and a shed located on the property, all of which will be devoted to the exploration work.

15. The beryl can be shipped at the buyer's cost, to Arvada, Colorado and the spar can be shipped to Parkdale, Colorado.

16. (a, b, and c) The analysis of the beryl ore shows approximately 13% BEO, the Tantalum is shown to be 71%. The fluorspar has been analyzed by the mill at Parkdale, Colorado and it shows over 90%. The analyses of the other ores are not yet available.

Attach as page 2 to form MF-103, Harvey S. Moyer, August 8, 1951

18. (a, b, and c) The body of ore is 1200 feet long and 200 feet wide and it outcrops at a point approximately 50 feet higher than the surrounding area. It is estimated by the operator to contain at least 200,000 tons of good ore. It is felt by the applicant that the ore will assay at a figure sufficient for the government's stockpile of critical minerals.

20-21. Exploration will be conducted for Tantalum, Columbite, Beryl, Mica, Feldspar, Berillium, and Tungston and it is estimated that the applicant will be able to ship approximately a carload, or 60 tons of ore within three to six months.

22. None available at this time.

23. Statement of the estimated cost of the Project:

Items a, b, c, and d cannot now be properly estimated in that the operator does not anticipate repair to existing facilities or structures. The expense of labor will depend solely upon the government's wishes as to the amount of ore that they desire the applicant to produce.

Items e, f, g, h, and i. The applicant wishes to purchase a bin, a jack hammer, a compressor, pipe, hose, and dynamite. The cost of these items will depend upon the feasibility of a capital investment or, whether it will be more satisfactory to begin operation by renting these items of equipment.

24. It is the opinion of the applicant that the above and foregoing information, although it is not in detail, will be sufficient to give the government a general idea of the extent of his operation. Additional data will, of course, be available at the government's request.

THE REQUIREMENTS AND COSTS

Item 23

(A) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each. Two $12.00 per day.
(B) Supervisors, by numbers and positions, with salaries of each. Myself no fixed salary.
(C) Cost of necessary repairs to existing facilities, structures, and buildings. None
(D) Cost of necessary installation or construction of additional facilities, structures, and buildings. Compressor Bldg. $500. Ore Bin $500.00 Jack Hammer and Hose etc., $400.00.
(E) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50. or more each. Compressor $2000.00.
(F) Cost of rental for equipment which the operator proposes to rent. None.
(G) Rental value of items of equipment which the operator now owns and which will be devoted to the work. None.
(H) Cost of materials and supplies, including items of equipment costing less than $50.00 each.
(I) Cost of power, water, utilities, and any other items not provided for above. None.

Form MF-103
(April 1950)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. .....

Date received .....

Participation .....

Harvey S. Moyer
c/o Allen W. Broadstreet
Attorney at Law
117 West Second Street
Salida, Colorado

Name and address of applicant

Date August 1, 1951

FILL IN THIS BLOCK

Date of application August 1, 1951

Estimated cost Five thousand dollars

Mineral or metal See attached sheet "A"

Percentage of Government participation 90%

Location of mine Turret Mining District, Salida, Chaffee County, Colorado.

Date of filing MF-100 .....

DMA Docket Number, if available .....

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation? --Individual

*2. If a partnership, state names and addresses of partners--No partners

*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders--Inapplicable

*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project--See annexed sheet

*5. Are you the owner or the lessee of the property?--Owner

6. If owner, state what claims, liens, or encumbrances, if any, are against the property. --None

7. If lessee, attach a copy of the lease and state if it is in good standing.--No lease

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.--None available

9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?--See annexed sheet

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

Attach to Form MP-108, Harvey S. Meyer, August 1, 1941

9.) The minerals and metals are: Tantalum, Columbite, Beryl, Mica, Feldspar (three kinds), Kerilian (six kinds), and Tourmaline.

4. Applicant has been engaged in active mining periodically since 1918. Since 1932, the applicant has been wholly engaged in the mining industry. The applicant has been employed with the Chaffee County Mines of Salida, Colorado and he has been employed with the Pioneer Mine of Salida, Colorado. He has also worked with the American Mine and, since 1940, the applicant has been engaged in private mining operations and has also worked for the Colorado Fluorspar Corporation.

8. The operator will be able to procure funds sufficient to pay his part of the cost of the project.

10. (a and b) Legal description which appears in location Certificate which is recorded in Book 255, Page 170 of the records of Chaffee County, Colorado:

Beginning at corner No. 1, S. E. Corner, pitch pine post 4"x4"x52" in mound of rock, thence, S. Cor. Section 34, T. 51 N. R. 5 E. N.M.P.M., bears, S89° 13' E., 969 feet. Thence, S2° 15' W., 600 feet to a point east of roll on Turret road in Railroad Gulch, 300 feet to a point N 87° 45' W., of Government sign, S.E. Turret. 600 feet to S. W. Cor. No. 2, and aspen post 3"x3"x36" set in ground around of stone. Thence, N87° 45' W. 700 feet to south side center, 1000 feet to S. W. Cor. No. 3, pine post, 4"x4"x54" in mound of stone, south side of road in Railroad Gulch. Thence N2° 15' E. 300 feet to center west end line, thence, Corner no. 3, Cor. 10024 Hamilton Lode bears, N44° 19' E., 100 feet to N. W. Cor. No. 4, pine post 4"x4"x54" in mound of stone. Thence, S87° 45' E., 700 feet to north side center, 1000 feet to Cor. No. 1, and place of beginning.

11. Rock Ring Lode in Turret Mining District.

12. The Property described in Section 10 lies North of Salida, Colorado in Railroad Gulch. County roads in good condition lead from this property into Salida, Chaffee, County, Colorado, which is the central shipping point.

13. There is approximately two (2) cubic feet of water per second of time available for use in the operation of the mining property. The source of this water is from a well and from a mountain lake.

14. There are existing, usable items of equipment such as picks, shovels, bars, and drills. There is a cabin and a shed located on the property, all of which will be devoted to the exploration work.

15. The beryl can be shipped at the buyer's cost, to Arvada, Colorado and the spar can be shipped to Parkdale, Colorado.

16. (a, b, and c) The analysis of the beryl ore shows approximately 13% BeO, the tantalum is shown to be 71%. The fluorspar has been analyzed by the mill at Parkdale, Colorado and it shows over 90%. The analyses of the other ores are not yet available.

Attach as page 2 to form MP-103, Harvey S. Meyer, August 1, 1951

18. (a, b, and c) The body of ore is 1200 feet long and 800 feet wide and it outcrops at a point approximately 50 feet higher than the surrounding area. It is estimated by the operator to contain at least 800,000 tons of good ore. It is felt by the applicant that the ore will assay at a figure sufficient for the government's stockpile of critical minerals.

20-21. Exploration will be conducted for Tantalum, Columbite, Beryl, Mica, Feldspar, Beryllium, and Tungsten and it is estimated that the applicant will be able to ship approximately a carload, or 60 tons of ore within three to six months.

22. None available at this time.

23. <u>Statement of the estimated cost of the Project:</u>

Items a, b, c, and d cannot now be properly estimated in that the operator does not anticipate repair to existing facilities or structures. The expense of labor will depend solely upon the government's wishes as to the amount of ore that they desire the applicant to produce.

Items e, f, g, h, and i. The applicant wishes to purchase a bin, a jack hammer, a compressor, pipe, hose, and dynamite. The cost of these items will depend upon the feasibility of a capital investment or, whether it will be more satisfactory to begin operation by renting these items of equipment.

24. It is the opinion of the applicant that the above and foregoing information, although it is not in detail, will be sufficient to give the government a general idea of the extent of his operation. Additional data will, of course, be available at the government's request.

<u>THE REQUIREMENTS AND COSTS</u>

Item 23

(A) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each. Two $12.00 per day.
(B) Supervisors, by numbers and positions, with salaries of each. Myself no fixed salary.
(C) Cost of necessary repairs to existing facilities, structures, and buildings. None
(D) Cost of necessary installation or construction of additional facilities, structures, and buildings. Compressor Bldg. $500. Ore Bin $500.00 Jack Hammer and Hose etc., $400.00.
(E) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50. or more each. Compressor $2000.00.
(F) Cost of rental for equipment which the operator proposes to rent. None.
(G) Rental value of items of equipment which the operator now owns and which will be devoted to the work. None.
(H) Cost of materials and supplies, including items of equipment costing less than $50.00 each.
(I) Cost of power, water, utilities, and any other items not provided for above. None.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

March 13, 1952

Memorandum

To: Field Team, DMEA, Region IV

From: Acting Chief, Mining Division, Region IV

Subject: DMA Docket 2085, Rock King Lode, Turret Mining District, Chaffee County, Colorado

Enclosed are eight copies of the report by C. M. Harrer, Mining Engineer, covering the Rock King Lode.

Due to the small size of the deposit and the low, erratic mineral content of the pegmatite, we agree with the recommendation of the examining engineer that the application for exploration aid in the amount of $5,000.00 be denied.

W. H. King
W. H. King

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Region IV

Building 20
Denver Federal Center
Denver 14, Colorado
March 7, 1952

Mining Division
Date Rec'd.
MAR 7 - 1952
BUREAU OF MINES
Denver, Colorado

Memorandum

To: Acting Chief, Mining Division, Region IV

From: Chief, Colorado Branch, Mining Division

Subject: DMA 2085, Rock King Lode, Turret Mining District, Chaffee County, Colorado

Please find enclosed eight copies of the "Summary, Conclusions, and Recommendations" by C. M. Harrer and W. B. Meek, and eight copies of Harrer's engineering report on the above docket.

The examiners conclude the minable ore reserves, confined to two of three pegmatites exposed on the property, totaling 42,200 tons of material, contain 12,660 tons of feldspars, 4,220 tons of scrap mica, 6.1 tons of beryl, and 0.1 ton of columbite-tantalite, with an over-all value of $4.13 a ton which is insufficient to pay mining and transportation costs. There is no tungsten shown as claimed by the applicant.

Harrer recommends denial of the request for an exploration loan of $5,000.00, and I concur.

The brochure submitted by the Region IV Field Team with their instructions to make a field examination is also returned herewith.

W. M. Traver, Jr.

W. M. Traver, Jr.

enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
200 ~~New~~ Customhouse
Denver 2, Colorado

February 29, 1952

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMA Docket 2085, Rock King Lode (Rare Metals), Chaffee County, Colorado

Attached are 8 copies of the geologic report by Ward B. Meek and John W. Adams covering subject docket.

The applicant has requested a loan of $5,000 with which to finance exploration of pegmatite dikes that contain beryl, columbite ?, feldspar, and muscovite. Two of the three pegmatite dikes on the property contain minerals of recognized economic value, but the tonnage and grade are so low that the gross value of the mine product would be only $4.10, too low to cover the mining and transportation costs. Furthermore, there is no available market for the feldspar and mica which carry most of the calculated value, and Meek and Adams therefore recommend that the loan be denied.

I concur with this recommendation.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (8)

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

224 New Customhouse
Denver 2, Colorado

March 13, 1952

Memorandum

To: Acting Administrator, Defense Minerals Exploration Administration.
Attention: Code 210

From: Field Team, Region IV

Subject: DMA Docket 2085, Rock King Lode, Turret Mining District, Chaffee County, Colorado - Final Report

Enclosed are the original and three copies of the final report on DMA Docket 2085, the original and one copy of DMA Form 3b, and a copy of the letter of denial to the applicant.

J. H. EAST, JR

J. H. East, Jr.

A. H. Koschmann
A. H. Koschmann

Enclosures

JFS:oc

cc: WMTraver w/copy of final report
AHKoschmann " " " "
Min. Div. " " " "
DMA Final Report

UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMA 2085, Rock King Lode

Chaffee County, Colorado

Beryl, Mica, Feldspar

C. M. Harrer, Mining Engineer
Bureau of Mines

W. B. Meek, Geologist
U. S. Geological Survey

March 7, 1952

IMA 2085

ROCK KING LODE
CHAFFEE COUNTY, COLORADO

Summary, Conclusions, and Recommendations

By C. M. Harris
Mining Engineer
Bureau of Mines

and

W. R. Hack
Geologist
U. S. Geological Survey

ROCK KING LODE
CHAFFEE COUNTY, COLORADO

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

By C. M. Harrer and W. B. Meek

Harvey S. Moyer, owner of the Rock King lode, has requested aid in the amount of $5,000.00 (docket DMA 2085) to finance exploration of three parallel pegmatite dikes by means of an open-cut through the most promising location.

The applicant's property consists of a single, standard mining location known as the Rock King lode in sec. 34, T. 51 N., R. 9 E., Turret Mining District, Chaffee County, Colo.

The three closely-paralleling pegmatite dikes strike east and dip steeply to the north, parallel to the foliation of the enclosing pre-Cambrian schists.

The southernmost dike has been developed by 180 feet of bench cut and is the source of a small production of albite and perthite, beryl, and muscovite, totaling about $1,000.00 to date.

Examination of outcrops along the central dike eliminate it as a source of feldspar, mica, and beryl.

The northern dike shows some promise as a small source of feldspar, mica, and beryl.

There is no visible evidence of tungsten mineralization on the property.

Estimated reserves of 42,200 tons of pegmatite are confined to the southernmost and northernmost dikes. From the above total, 12,660 tons of albite and perthite, 4,220 tons of scrap muscovite, 6.1 tons of beryl, and 0.1 ton of columbite-tantalite are

are estimated as recoverable with a gross value of $174,400.00. The average value per ton of pegmatite is estimated at $4.13. This will not pay mining and transportation costs. Consideration of this factor with the small size of the deposit and low, erratic content of valuable minerals in the pegmatite discounts any chance of this becoming a profitable venture. In addition, there is no present local market for these types of feldspar or mica.

It is recommended that the application for an exploration loan of $5,000.00 under the terms of the Defense Production Act of 1950 be denied.

ROCK KING LODE (RARE METALS)

CHAFFEE COUNTY, COLORADO

DMA DOCKET 2085

Geology

By Ward B. Meek and John W. Adams
U. S. Geological Survey

ROCK KING LODE (RARE METALS)
CHAFFEE COUNTY, COLORADO

INTRODUCTION

Harvey S. Moyer, owner of the Rock King Lode since 1937, has applied for a DMA grant of $5000 ($4500 Federal participation) with which to finance exploration of pegmatite dikes that contain beryl, columbite (?), feldspar, and muscovite.

The Rock King Lode is in sec. 34, T. 51 N., R. 9 E., in Chaffee County, Colorado, at an altitude of about 8500 feet. It is within 600 feet of the junction of roads going from Turret and Calumet to Salida, and it can be reached by driving 12½ miles northward from Salida over graveled county roads Nos. 180 and 190.

This deposit was described by Hanley et al (1950, p. 27). Since that time, the bench-cut at the southern edge of the deposit has been extended to a length of 180 feet and a width of 10 feet or more. From this cut the following minerals have been mined.

Production of Minerals from the Rock King Lode

Year	Mineral	Production (in pounds)	Disposition of Minerals
1942-45	Beryl	14,000	Not verified. Reported in the application as sold at Salida to Metals Reserve Co.
1943-44	Beryl	3,287	Sold at Salida to Metals Reserve.
1951	Beryl	140	Sold at Arvada, Colo., to Beryl Ores Co. for $0.27 per pound.
1951	Beryl	100	Estimated stockpile.

1951	Columbite	4	Stockpile
1950	Feldspar	12,100	Sold at Parkdale, Colo., to Western Non-Metallics at $4.50 per ton. Not profitable.
1951	Feldspar	160,000	Estimated stockpile.
1950	Muscovite	?	Sold to Non-Metallics at Pueblo, Colo., for $27.00 per ton.
1950-51	Muscovite	3,000	Stockpile estimate.

GEOLOGY

The Rock King Lode comprises three pegmatite dikes which strike N. 86° E. and dip 83° N., paralleling the foliation of pre-Cambrian quartz-biotite-hornblende schist which encloses them. Mining has been confined to a bench-cut in the southernmost dike which has a known strike length of 350 feet and a width of 6-20 feet. The pegmatite consists of a wall zone of fine to medium grained mica-rich pegmatite and a core which is dominantly perthite and quartz. The core contains poorly-shaped crystals of perthite, quartz, muscovite, and biotite which average about 3 inches in diameter. Some of the quartz and perthite masses may be as much as 6 feet across. About 15 percent of the perthite is in graphic intergrowth with quartz. Accessory minerals of the core are albite, garnet, beryl, and columbite (?). Few of the beryl crystals exceed 5 inches in length or 3/4 inch in diameter. Crystals of garnet and columbite (?) measure about 1/2 inch to 1 1/2 inches in diameter.

The center dike forms the main north wall of Railroad Gulch and stands from 50 to 80 feet above the bottom of the Gulch. It is about 50 feet thick and is separated from the southernmost dike by a septum

of rock which Hanley (1950) called quartzite. The septum is 1-4 feet thick, and it is locally folded into rolls which plunge about 20° eastward. This dike is more granitic than pegmatitic in texture, and it is composed of potash feldspar, quartz, muscovite, biotite, and accessory garnet. No beryl or columbite (?) was found in it.

Another septum of quartzite separates the center dike from the northernmost dike, which is about 10 or more feet thick, and it was traced along the strike for 500 feet. This dike is similar to the southernmost one, but no columbite (?) and only one small crystal of beryl was found in it. Hanley (1950) estimated that it contains 0.02 percent beryl by volume.

ORE RESERVES

The southernmost pegmatite dike has a known length of 350 feet and an average width of 10 feet. Most of the dike above the quarry bench has been mined or eroded, but it is estimated that it may be workable for an average of 30 feet above the bottom of Railroad Gulch which is just south of the dike. Assuming these dimensions and an average specific gravity of 2.67, this dike contains about 8770 short tons of rock.

The northernmost pegmatite dike has been traced for 500 feet along the strike, and it is 10 or more feet wide. It should be workable for a vertical extent of 80 feet. Calculations from these dimensions show that this dike contains about 33,400 tons of rock.

The center dike contains no economically recoverable concentrations of valuable minerals.

Ore reserves estimated to be recoverable are tabulated below.

Mineral Reserves of the Rock King Lode

Mineral	Estimated % of minerals	Estimated Recovery of minerals	Estimated tons of mineral recoverable
S* beryl	0.15	1/3	4.38
N* beryl	0.02	1/4	1.67
			6.05
S columbite ?	0.004	1/4	0.0877
N columbite ?	tr	tr	0.0123?
			0.1000?
S feldspar	60.	1/2	2,631.
N feldspar	60.	1/2	10,020.
			12,651.
S muscovite	20.	1/2	877.
N muscovite	20.	1/2	3,340.
			4,217.

S* refers to the southernmost pegmatite dike
N* refers to the northernmost pegmatite dike

These figures show a total of 42,170 tons of indicated and inferred ore from which 6.05 tons of beryl, 0.1 tons of columbite (?), 12,651 tons of feldspar, and 4,217 tons of scrap muscovite can be recovered with the following approximate values based on previous sales of minerals from this property, except for columbite (?), none of which was marketed.

Value of Estimated Ore Reserves

Mineral	Tons	Price paid per ton	Gross value
beryl	6.05	$ 540.00	$ 3,267.00
columbite ?	0.10	2,000.00?	200.00?
feldspar	12,651.	4.50	56,929.00
muscovite	4,217.	27.00	113,859.00
			$174,255.00

The recovery of these minerals would require the mining and processing of 42,170 tons of ore. Gross value per ton of this ore is only $4.10, a

sum which will not cover the anticipated mining and transportation costs. Furthermore, there is at present no known available market for the feldspar and muscovite on whose sale the success or failure of this project depends. The estimated recovery of beryl may be increased by the finding of occasional crystals several feet long, such as were reported by Hanley (1950), but the amount to be expected is not significant in terms of the entire project.

EXPLORATION PROJECT

Since this project appears to have no merit, it is unnecessary to discuss the exploration proposal here other than to note that much of the work which the applicant desires to do is development.

SUMMARY AND CONCLUSIONS

The Rock King Lode comprises three pegmatite dikes which strike generally east and dip steeply north. They have invaded pre-Cambrian schist parallel to planes of foliation.

The southernmost and northernmost pegmatite dikes constitute a reserve of 42,170 tons of inferred and indicated ore from which may be recovered 6.05 tons of beryl, 0.10 tons of columbite (?), 12,651 tons of feldspar, and 4,217 tons of scrap muscovite. At prices paid for small and infrequent shipments of minerals made from this property in the past, the ore has a gross value of $4.10 per ton which is believed to be less than the anticipated mining and transportation costs. There is, furthermore, no market available at present for the feldspar and muscovite which contain most of the value.

RECOMMENDATION

Because of the small content and low estimated recovery of the beryl and columbite, and because the gross value of the ore, which is estimated at only $4.10 per ton, is insufficient to pay mining and transportation costs, it is recommended that this request be denied.

REFERENCE

Hanley, John B., Heinrich, E. William, and Page, Lincoln R., Pegmatite investigations in Colorado, Wyoming, and Utah: U. S. Geol. Survey Prof. Paper 227 p. 27, 1950.

DMA 2085

ROCK KING LODE
CHAFFEE COUNTY, COLORADO

Engineering Report

By G. M. Harper
Mining Engineer
Bureau of Mines

ROCK KING LODE
CHAFFEE COUNTY, COLORADO

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ILLUSTRATIONS

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ROCK KING LODE
CHAFFEE COUNTY, COLORADO

ENGINEERING REPORT

By

C. M. Harter

INTRODUCTION

Harvey S. Moyer, residing on his property, 7 air miles north of Salida, Colo., has applied for a Defense Minerals Exploration Administration loan of $5,000.00 to explore and mine his unpatented pegmatite property for albite and perthite, scrap muscovite, beryl, and columbite-tantalite, which are in evidence, and tungsten, which is not. He proposes to crosscut three parallel pegmatite dikes with an open-cut approximately 160 feet long by 10 feet wide by 60 feet high through his best location. He expects to separate the resulting spoil into the above-mentioned products, for sale.

ACKNOWLEDGMENTS

Harvey S. Moyer, loan applicant, was contacted at the property and proved very cooperative. W. B. Meek, Minerals Deposits Branch, and J. W. Adams, Reconnaissance Group, of the U. S. Geological Survey, participated in a joint investigation of the property.

The Rock King property is well described in U. S. Geological Survey Professional Paper 227, "Pegmatite Investigations in Colorado, Wyoming, and Utah, 1942-1944", page 27.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Rock King property is 7 air miles north of Salida, Colo., in sec. 34, T. 51 N., R. 9 E., N. M. P. M., Turret Mining District, Chaffee County, Colo. (fig. 1).

It is accessible over 12-1/2 miles of dirt roads, in good condition, which make up the Ute Trail-Turret road (County Highways 180 and 190).

Terrain generally is one of moderate relief and is lightly wooded. The altitude at the deposit is about 8,500 feet. The Rock King claim includes part of the north wall of Railroad Gulch which forms a cliff of pegmatite on the property. An intermittent stream flows along the narrow valley floor. Ample water is available for small mining operations and other supplies can be developed. Winters are mild and year-around operations can be maintained. The nearest source of electric power is 8 miles distant. The property is readily accessible to supply and market centers through Salida, Colo., by truck and the Denver and Rio Grande Western Railroad.

HISTORY AND PRODUCTION

The Rock King lode claim was located by Harvey S. Moyer in 1937 and has been worked sporadically to date. The largest production was during 1943 and 1944 when 3,287 pounds of beryl were produced and sold to the Metals Reserve Company at Salida. Since then, 140 pounds of beryl were produced during 1951 and sold to Beryl Ores Company, of Arvada, Colo., at 27 cents a pound. Total beryl production to date is estimated at 5 tons.

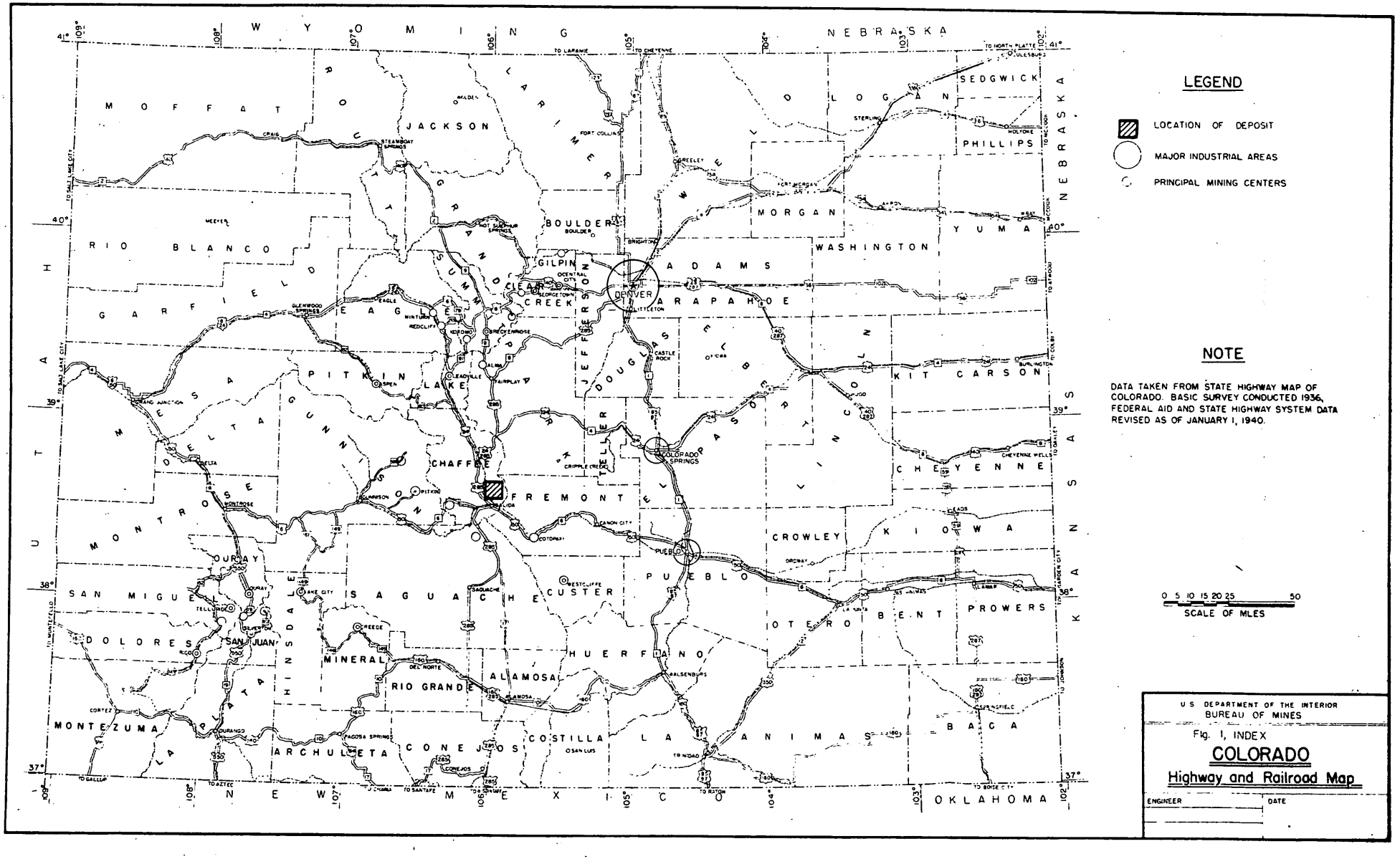


FIG.1-LOCATION MAP, H.S. MOYER ROCK KING LODE, CHAFFEE CO. COLO., DMA 2085

During 1950, 1-1/2 tons of muscovite scrap mica were sold to Western Non-Metallics Company, of Pueblo, Colo., for $27.00 a ton.

Also in 1950, 12,100 pounds of hand-sorted albite and perthite feldspar were sold to the Consolidated Feldspar Corporation plant at Parkdale, Colo., for $4.50 per ton. This was insufficient to pay for mining and the 50-mile truck haul.

There is no record of columbite-tantalite shipments. Moyer has probably sorted out a total of about 10 pounds to date, 4 pounds of which are now in his possession. At present, about 80 tons of hand-sorted feldspar, 1-1/2 tons of mica, and 100 pounds of beryl are stockpiled on the property.

OWNERSHIP AND EXTENT

Harvey S. Moyer owns the Rock King claim, a single, unpatented standard lode location, 600 feet by 1,500 feet, located in the SW.1/4 sec. 34, T. 51 N., R. 9 E., N. M. P. M., Turret Mining District, Chaffee County, Colo.

DESCRIPTION OF THE DEPOSITS

The Rock King pegmatite deposit consists of three parallel and steeply dipping pegmatite dikes striking easterly. The southernmost dike is the source of past and present production and mining has been limited to this dike. It is approximately 10 feet wide and can be traced for over 350 feet. A bench cut has been developed for 180 feet along the strike. The rock mass consists of fine-grained albite pegmatite and perthite,

with muscovite and biotite developed up to 3-inch diameters. Graphic granite and irregular concentrations of quartz are abundant. Beryl occurs in well formed crystals from 1/16 inch to 3-1/2 inches in diameter; lengths up to 8-1/2 inches were observed. The ratio of beryl to rock is estimated by the U. S. Geological Survey at less than 1:1,000 (0.1 percent by volume), with its greatest concentration over an exposure of 200 square feet about 1:500 (0.2 percent by volume). Small grains of columbite-tantalite were noted. Meyer stated that it also occurred in thin sheets and plates. Columbite-tantalite is estimated at about 0.004 percent by volume. The beryl and columbite-tantalite are distributed erratically within the main mass. No evidence of tungsten was found.

The central dike, to the north, is the largest. It is about 50 feet wide and was traced for 500 feet along the strike by the examining team. It is part of the steep cliff which rises about 80 feet above the valley floor. This dike is a fine-grained, granitic quartz-potash feldspar-biotite-muscovite pegmatite with small, red garnet crystals developed. No beryl, columbite-tantalite, commercial grade feldspar, or mica were observed and there was no evidence of tungsten mineralization.

The above dike is separated from the one farthest to the north by 30 feet of quartzite. The north dike is 10 feet wide and can be traced for 500 feet along the strike and is similar to the south dike. It is beryl bearing and may contain some columbite-tantalite although none was observed at the time of examination. Its beryl content is roughly estimated at 1:5,000

or 0.02 percent beryl by volume. Commercial grades of feldspar and mica will probably be the same as estimated for the south dike.

MINABLE ORE RESERVES

Only the south and north pegmatites are considered to be sources of commercial mineral products. The south dike is estimated to contain 8,800 tons of minable pegmatite and the dike to the north, 33,400 tons of minable pegmatite. From the above, totaling 42,200 tons of indicated and inferred pegmatite, the following mineral reserves are estimated for the Rock King lode:

Dike Location	Mineral	Estimated percent of mineral in the dike	Estimated Recovery	Estimated tons of recoverable mineral
South	Beryl	0.15	1/3	4.40
North	Beryl	0.02	1/4	1.67
				6.07 Total
South	Columbite-tantalite	0.004	1/4	0.088
North	Columbite-tantalite	trace		0.012
				0.100 Total
South	Albite-perthite	60.0	1/2	2,640.0
North	Albite-perthite	60.0	1/2	10,020.0
				12,660.0 Total
South	Muscovite	20.0	1/2	880.0
North	Muscovite	20.0	1/2	3,340.0
				4,220.0 Total

Gross Value of Estimated Ore Reserves

Mineral	Tons	Price per ton	Gross Value
Beryl	6.07	$ 540.00	$ 3,278.00
Columbite-tantalite	0.10	2,000.00	200.00
Feldspar	12,660.0	4.50	56,970.00
Muscovite	4,220.0	27.00	113,940.00
Total			$174,388.00

Gross value of recoverable minerals divided by pegmatite reserves gives a gross value of $4.13 per ton.

PRESENT STATUS

Exploration and Development

The southernmost dike has been developed by a bench 180 feet long with a vertical face 10 to 40 feet high which has exposed the structure of the south side of the paralleling dikes. Two shallow pits west and north of the above development expose the dike mass near their north limit.

Mining and Milling Equipment

The only mining equipment consists of one dilapidated mine car and various hand tools. There are no milling facilities as salable products are hand-sorted and shipped where possible.

New Equipment

The quarry would have to be completely equipped.

Transportation

All market contacts would be by truck transportation to Salida, 12-1/2 miles distant, over the Ute Trail road, and thence by the Denver and Rio Grande Western Railroad.

Manpower

Labor is readily obtainable at Salida, at $1.50 per hour. Moyer would supervise operations.

Power

Electric power is 8 miles distant and would require a line extension.

Water

Water for mining purposes is available from a shallow well and a nearby intermittent stream.

PROJECT PROPOSALS AND COSTS

H. S. Moyer proposes to explore his pegmatite deposit by means of an open-cut through the most promising location. This cut would be about 160 feet long with a height up to 80 feet. He expects to sort pegmatite spoil into salable units of albite and perthite, muscovite, beryl, and columbite-tantalite. His estimate of $5,000.00 is probably too low. About $12,000.00 would more likely be required to complete the project as outlined over a period of six months.

PROPOSED FINANCING

The applicant expects to contribute his services to the project and raise any additional funds needed for his participation locally.

CONCLUSIONS

Only the southern and northern dikes contain minerals of strategic importance.

The estimated gross value of pegmatite is $4.13 per ton, which will not pay mining and transportation expenses at present or probable future prices.

The beryl and columbite-tantalite are distributed in comparatively small crystal units and very erratically.

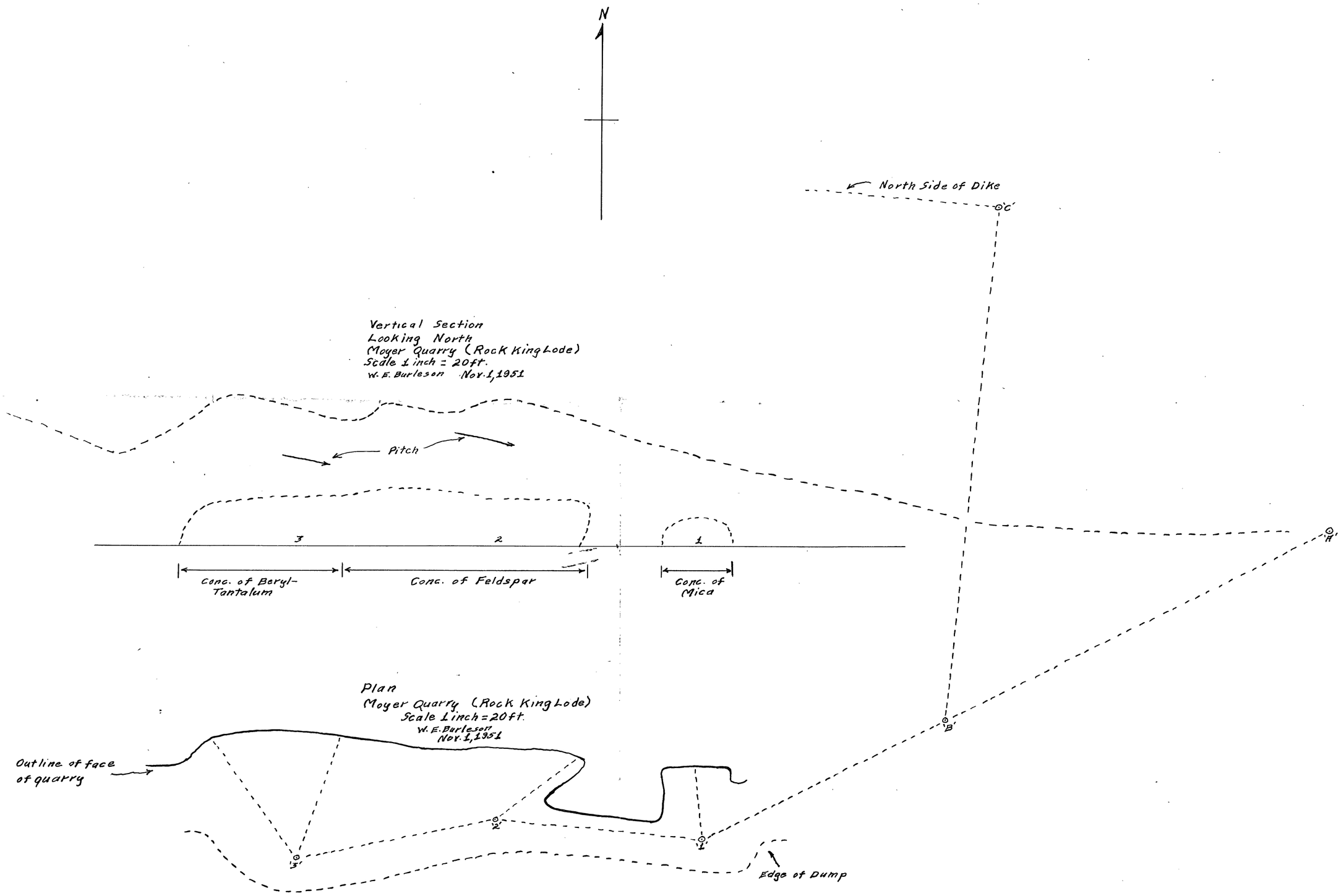
The possibility that concentrations of strategic minerals within the dikes may improve over estimated content is very doubtful.

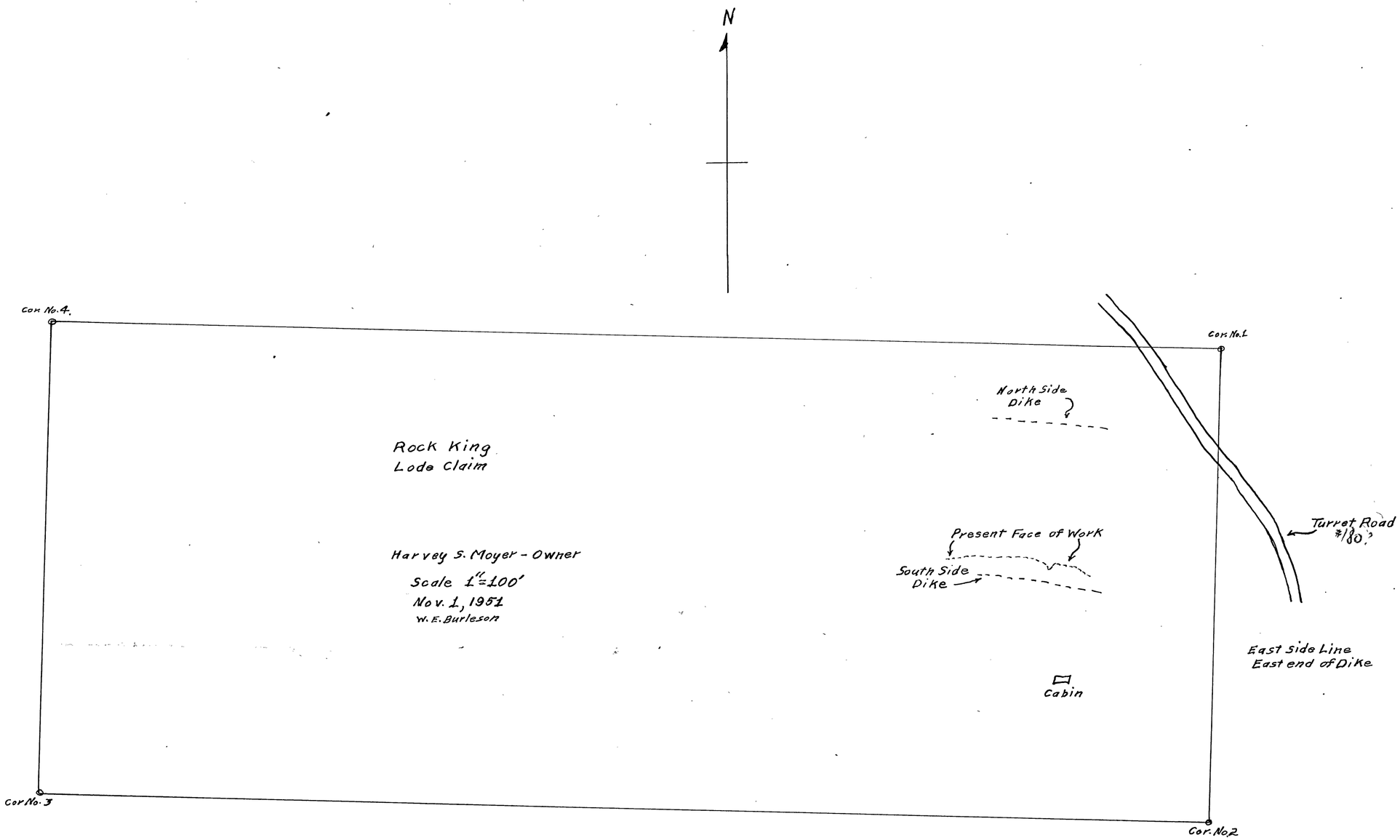
There is no local market for the applicant's hand-sorted albite and perthite and scrap muscovite. Quarrying operations for beryl and columbite-tantalite, alone, are not justified due to their low concentrations.

The project is estimated to cost about $12,000.00.

RECOMMENDATIONS

It is recommended that the application for an exploration loan of $5,000.00 under the terms of the Defense Production Act of 1950 be denied.


N
North Side of Dike
C'
Vertical Section
Looking North
Moyer Quarry (Rock King Lode)
Scale 1 inch = 20 ft.
W. E. Burleson Nov. 1, 1951
Pitch
3
2
1
Conc. of Beryl-Tantalum
Conc. of Feldspar
Conc. of Mica
A'
B'
Plan
Moyer Quarry (Rock King Lode)
Scale 1 inch = 20 ft.
W. E. Burleson
Nov. 1, 1951
Outline of face of quarry
2'
1'
3'
Edge of Dump


N
Cor No. 4.
Cor. No. 1
North Side Dike
Rock King
Lode Claim
Turret Road
#180.'
Present Face of Work
Harvey S. Moyer - Owner
South Side Dike
Scale 1"=100'
Nov. 1, 1951
W. E. Burleson
East Side Line
East end of Dike
Cabin
Cor No. 3
Cor. No. 2