IN REPLY REFER TO:

DMEA
Date Rec'd.

APR 18 1956

BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

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APR 23 1956

April 18, 1956

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APR 19 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: J. F. Shaw
E. N. Harshman

Subject: DMEA Docket 4068 (beryl, tungsten, mica), B. & M. Mines Co. (Glenn O. Barrett et al.), Beryl No. 2 mine, Larimer County, Colorado

Enclosed are the original and eight copies of a joint engineering and geological report by E. W. Buel, Bureau of Mines, and L. J. McGreevy, Geological Survey, covering their examination of the subject property.

The applicant requested DMEA assistance to explore a pegmatite body on the Beryl No. 2 claim for beryl, tungsten, and mica by either open cut excavation or shaft sinking and drifting. The applicant's unrealistic cost estimate was $251,040.

The examiners confirmed the presence of beryl crystals in small "nests" or "pods" but failed to find any tungsten minerals or strategic grade mica. They conclude that beryl is limited to small isolated pods dispersed through the pegmatite and that exploration will not lead to the discovery of significant amounts of this mineral.

We concur with examining team's recommendation that the application for exploration assistance, DMEA Docket 4068, be denied.

J. F. Shaw
Superintendent of the Denver
Experiment Station

Reviewed by
DMEA OPERATING COMMITTEE
4/25/56
(date)

E. N. Harshman
Member, Field Team

Enclosures (9)
ENHarshman:mp

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

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APR 23 1956

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED

APR 19 1956

DMEA 4068

Beryl No. 2

B. & M. Mines Co. (Glenn O. Barrett et al.)

Larimer County, Colorado

Beryl, Mica, and Tungsten

Joint Engineering and Geological Report

by

Lawrence J. McGreevy, Geologist
Geological Survey

Edward W. Buel, Mining Engineer
Bureau of Mines

April 17, 1956

Reviewed by
DMEA OPERATING COMMITTEE
4-25-56
(date)

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ILLUSTRATIONS

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1. Location map, Beryl No. 2 claim, Larimer County, Colorado. DMEA 4068	2
2. Geologic and topographic sketch map of the Beryl No. 2 claim, SE 1/4 sec. 21, T. 8 N., R. 71 W., Larimer County, Colorado. DMEA 4068	4

DMEA 4068

BERYL NO. 2
B. & M. MINES CO. (GLENN O. BARRETT et al.)
LARIMER COUNTY, COLORADO

INTRODUCTION

B. & M. Mines Co. (Glenn O. Barrett et al.) applied for DMEA assistance to explore the Beryl No. 2 prospect for beryl, mica, and tungsten. The property was examined on April 10, 1956, by an examining team consisting of Wallace Griffitts and Lawrence J. McGreevy, Geological Survey, and Edward W. Buel, Bureau of Mines. The team members were accompanied by Messrs. Glenn O. Barrett and Hugo Mattox, respectively, of Route 2, Box 258, Loveland, Colorado, and Route 3, Box 141, Golden, Colorado.

Conditions permitted an adequate investigation of the salient geological and physical features of the prospect.

Following the Beryl No. 2 examination, it was learned that an examination had been made in November 1951 by C. S. Robinson, Geological Survey, on the Alice M. and Helen M. beryl claims (DMA Docket 1869). A description of the location, physical features, and ownership of the Helen M. claim strongly suggests that the Helen M. and Beryl No. 2 are one and the same property. Robinson in his report 1/ recommended that exploration assistance be denied.

1/ Robinson, C. S., Alice M. and Helen M. Beryl claims, Larimer County, Colorado. DMA Docket 1869, p. 4, 1951.

The Beryl No. 2 application states that in addition to beryl the prospect also contains mica and tungsten minerals in significant quantities to warrant exploratory assistance. An examination of the deposit did not substantiate this. Only the beryl was considered of exploratory interest; therefore, any discussions pertaining to the merits of mica and tungsten have been omitted.

LOCATION AND ACCESSIBILITY

The Beryl No. 2 prospect is in the SE 1/4 of sec. 21, T. 8 N., R. 71 W., sixth principal meridian, Larimer County, Colorado. The property lies on the north slope of Mt. Ethel, northwest of Ft. Collins, at an estimated average altitude of 7,750 feet (fig. 1). The claim is located within the Roosevelt National Forest. Mt. Ethel is approximately 8 airline miles northeast from the beryl-bearing pegmatites on Crystal Mountain.

The principal workings of the Beryl No. 2 are reached from Ft. Collins by traveling northward over U. S. Highway 287 to the Rist Canyon road, a distance of about 8 miles. From the highway, the canyon road is followed for 11.2 miles to the Watkins Ranch gate. The ranch and mine road, accessible to conventional-type vehicles, leads for a distance of 2 to 3 miles to the northern slope of Mt. Ethel and the prospect.

PROPERTY

The beryl-bearing property comprises several unpatented lode claims owned by Henry C. Weber, Bellvue, Colorado. These claims referred to

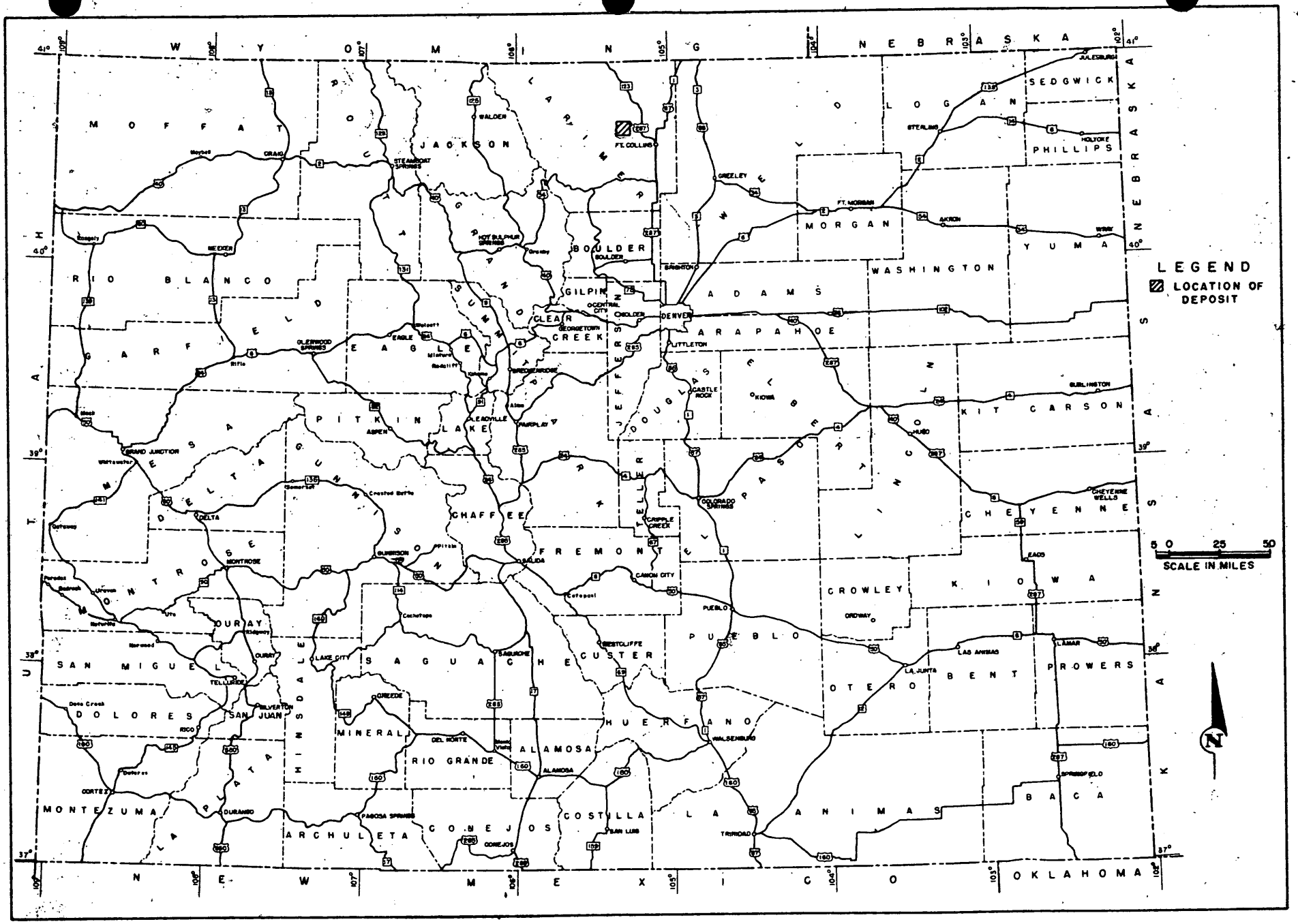


FIGURE 1 - LOCATION MAP, BERYL NO. 2 CLAIM, LARIMER COUNTY, COLO. DMEA 4068

as Beryl Nos. 1, 2, and 3 have been leased to the B. & M. Mines Co. (a partnership), Route 2, Box 258, Loveland, Colorado. Of these claims, however, only the Beryl No. 2 has been referred to by the applicant in his application (DMEA Docket 4068).

HISTORY AND PRODUCTION

The history of the prospect is not completely known; however, the presence of beryl has been known for some time as the prospect is frequented by mineral specimen collectors, especially students at Colorado A. & M. College.

Mr. Glenn O. Barrett stated that the B. & M. Mines Co. and the owner, Mr. Weber, removed a total of about three tons of beryl. This beryl was shipped to Beryl Ores, Arvada, Colorado. An examination of the property's workings did not indicate that any other significant shipments had been made.

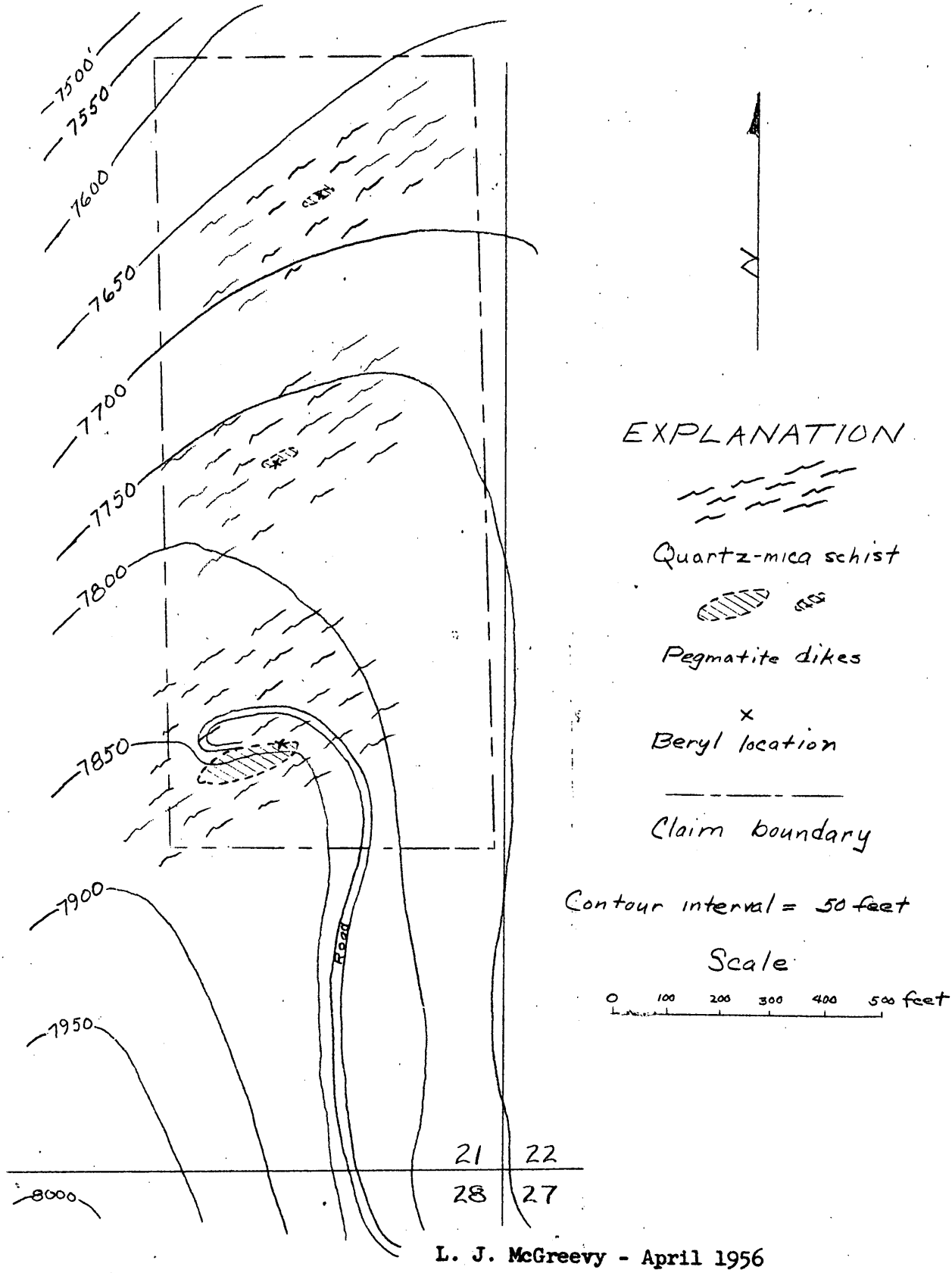
GEOLOGY

Beryllium-bearing pegmatites occur in a wide belt of Precambrian rocks on the east slope of the Colorado Front Range. In the vicinity of the Beryl No. 2 claim the country rock primarily consists of Idaho Springs (?) quartz-mica schist which is intruded by pegmatite dikes that are conformable to and also crosscut the foliation of the schist.

The pegmatite bodies on the Beryl No. 2 claim trend in a northeasterly direction and are vertical, which is also the general attitude of the foliation of the enclosing schist. The main pegmatite mass forms a large

prominent knob at about 7,800 feet elevation on the north slope of Mt. Ethel. The north side of the knob is a vertical face measuring approximately 100 feet across and 30 feet high. At the east end an opening about 5 feet square by 5 feet deep has been cut into the face exposing a quartz pod containing a minor concentration of beryl crystals which average about 1 inch in diameter. The best showing of beryl is located approximately 1,000 feet downslope from the main workings near the north end of the claim. Here, a relatively small pegmatite body contains a quartz pod, measuring approximately 2 to 3 feet in diameter, with abundant beryl crystals which average 3 to 4 inches in diameter and may be a foot or more in length. One smaller pegmatite body is located about midway between the best showing of beryl to the north and the main pegmatite mass upslope, but it contains only a few, very small beryl crystals(Fig. 2).

Zones are poorly developed in all the bodies of pegmatites on the claim. A fringe of quartz, wedged "A" muscovite, and albite along the walls constitute a border zone, and scattered pods of massive white quartz constitutes segments of a discontinuous quartz core. The core segments are surrounded by intermediate zones consisting of perthitic microcline, muscovite, and quartz, in various proportions. The intermediate zones do not generally extend between the core segments. Most of the mass is made up of a wall zone that contains perthite, albite, quartz, muscovite, and tourmaline. The texture is irregular and the grains of minerals are so interlocked as to be inseparable except by



L. J. McGreevy - April 1956

FIG. 2--GEOLOGIC AND TOPOGRAPHIC SKETCH MAP OF THE BERYL NO. 2 CLAIM
SE¼ Sec. 21, T. 8 N., R. 71 W., LARIMER COUNTY, COLORADO

milling. Beryl was found in pale bluish-green crystals in the massive quartz and in quartz-muscovite pegmatite and quartz feldspar pegmatite within a few inches of the massive quartz. The beryl was associated with only one quartz pod in the main pegmatite body and in two others, each probably in a separate body of pegmatite. No tungsten minerals or strategic grade mica were observed in any of the pegmatite bodies.

The geologist's report, by Louise Sundholm Hedricks, that was submitted by the applicant seems to be reasonably accurate as far as it goes. Her discussion (on pp. 4-5) of the relation of commercial concentrations of beryl to zoning and size of pegmatite bodies is based upon the premise that the pegmatite bodies contain well developed, persistent zones. This unfortunately is not the case at the Beryl No. 2 prospect. Neither the core segments nor the intermediate zones are persistent. Each pod of quartz and its surrounding intermediate zones would need to be explored separately. Inasmuch as only one quartz pod in the main pegmatite mass contains beryl and only two others on the claim contain beryl, the exploration of each pod would seem a hazardous undertaking.

SAMPLING AND ORE ESTIMATES

An investigation of the pegmatites did not reveal any favorably mineralized areas suitable for ore sampling. Except for one very small area containing a cluster of beryl crystals, the remainder of the pegmatites displayed only a few small and erratically distributed

beryl crystals which could hardly be said to constitute even a potential ore body. Therefore, no samples were taken for the determination of ore estimates.

Several select beryl specimens were taken to determine their beryllia content. Petrographic work performed by the Geological Survey showed the average beryllia content to be 13 percent.

An estimation of ore potentiality is difficult to make for pegmatitic deposits, principally because of their capricious mineralized nature. The pegmatites of the Beryl No. 2 prospect are not without exception. On the basis of the size, quantity, and sporadic distribution of the beryl crystals as observed over comparatively large exposures, it would seem reasonable to conclude that the Beryl No. 2 does not contain any significant ore bodies of beryl.

APPLICANT'S PROPOSAL AND DISCUSSION

The applicant requested an exploration contract for $251,040 over a period of two years. The Government's share was to be 75 percent or $188,280. The applicant's program called for either of two methods of exploration (1) open pit, or (2) a shaft.

The proposed program as given by the applicant is vague and lacks details such as the amount, extent, location, and other details for open pitting and/or shaft sinking. All of his cost estimates are computed on a basis of 160 hours operation per month, or approximately 175 cubic yards per month.

The applicant figures a total operating cost of $10,460 per month. Using this figure and 175 cubic yards, estimated by the applicant, the cost of exploratory excavation would amount to $59.77 per cu. yd. Such an estimate is abnormally high.

It is obvious from the applicant's proposed exploration program that he has but a cursory knowledge of carrying on an effective exploration program--assuming that such a program was warranted.

CONCLUSIONS AND RECOMMENDATIONS

The Beryl No. 2 prospect does not contain any known significant quantities of beryl or other minerals within the pegmatites, as indicated from the present exposures. Possibly some small pods of beryl remain in the pegmatites, but the exploratory costs commensurate with the value of such pods would be prohibitive.

Exploration for any beryl-bearing pods would be impractical, as none can be expected to continue for more than a few feet. Any exploration would, in effect, be mining; thus leaving no reserves at the end of the project.

It is improbable that exploration of these claims will disclose a significant amount of beryl, tungsten, or mica; therefore, it is recommended that exploration assistance be denied.

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MF-203
Revised March 24, 1955

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EXPLORATION PROJECT CONTRACT
Operator
Docket No. DMEA-
Contract No. Idm-E
Contract Date

CONSENT TO LIEN

To the United States of America:

Referring to that certain land in the County of Larimer, State of Colorado, described as follows:1/
Beginning at Corner No. 1, which is 600 feet North 01°27' West of the Southeast corner of Section Twenty-one (21), Township Eight (8) North, Range Seventy-one (71) West of the Sixth Principal Meridian; thence North 89°07' West 1500 feet to corner No. 2; thence North 01°27' West 600 feet to corner No. 3; thence South 89°07' East 1500 feet to corner No. 4; thence South 01°27' East 600 feet to corner No. 1, the place of beginning, known as Beryl Lode No. 2.

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

1. Undertakes and agrees that property in which the Government may acquire an interest or equity under the contract may be dismantled, severed from the land, and removed, as may be provided in the contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned;

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of a percentage royalty on production as may be provided for by the contract;2/ and represents and undertakes that there are no claims, liens, or encumbrances upon the undersigned's right, title, or interest in the land prior to that hereby granted to the Government other than the following:3/

None

3. Undertakes and agrees neither to commit any act nor assert any claim in conflict with the provisions of this Consent to Lien; and to give advance notice of the Government's rights under this Consent to Lien to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, or interest in the land; and minerals therein or being removed therefrom.

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

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

3/ Write "none" if that is the case. Do not leave lines blank.

4. Consents to all amendments and assignments of the contract without notice thereof, and agrees that this Consent to Lien shall extend and apply thereto.

5. Added provision: None

Dated this 12th day of December, 1955.

Henry C Weber [Seal]

Alice M. Weber [Seal]

[Seal]

I, _____ certify that I am the _____ (Secretary, etc.) of the corporation named herein; that _____ who signed this agreement was then _____ (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

_____

[Corporate Seal]

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5. Added provision: None

Dated this 12th day of December, 1955.

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Alice M. Weber [Seal]

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_____ [Seal]

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Minerals therein or being removed therefrom.

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5. Added provision: NONE

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Referring to that certain land in the County of Larimer, State of Colorado, described as follows:1/
Beginning at Corner No. 1, which is 600 feet North 01°27' West of the Southeast corner of Section Twenty-one (21), Township Eight (8) North, Range Seventy-one (71) West of the Sixth Principal Meridian; thence North 89°07' West 1500 feet to corner No. 2; thence North 01°27' West 600 feet to corner No. 3; thence South 89°07' East 1500 feet to corner No. 4; thence South 01°27' East 600 feet to corner No. 1, the place of beginning, known as Beryl Lode No. 2.

which is the subject of a proposed exploration project contract, hereinafter called the "contract," with the United States of America, hereinafter called the "Government;" in consideration of the contract and as an inducement to the Government to enter into it, the undersigned hereby--

1. Undertakes and agrees that property in which the Government may acquire an interest or equity under the contract may be dismantled, severed from the land, and removed, as may be provided in the contract; and the Government's interest and equity in such property shall be prior and superior to any adverse right or claim of the undersigned;

2. Grants to the Government a lien upon all of the undersigned's right, title, and interest in the land and upon any production of minerals therefrom to secure the payment to the Government of a percentage royalty on production as may be provided for by the contract;2/ and represents and undertakes that there are no claims, liens, or encumbrances upon the undersigned's right, title, or interest in the land prior to that hereby granted to the Government other than the following:3/

None

3. Undertakes and agrees neither to commit any act nor assert any claim in conflict with the provisions of this Consent to Lien; and to give advance notice of the Government's rights under this Consent to Lien to any subsequent transferee, mortgagee, encumbrancer, or lessee of any of the undersigned's right, title, or interest in the land; and minerals therein or being removed therefrom.

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

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

3/ Write "none" if that is the case. Do not leave lines blank.

4. Consents to all amendments and assignments of the contract without notice thereof, and agrees that this Consent to Lien shall extend and apply thereto.

5. Added provision: None

Dated this 12th day of December, 1955.

Henry C Weber [Seal]

Alice M. Weber [Seal]

[Seal]

I, _____ certify that I am the _____ (Secretary, etc.) of the corporation named herein; that _____ who signed this agreement was then _____ (President or Vice-President, etc.) of said corporation; that said agreement was duly signed for and in behalf of said corporation by authority of its governing body, and was within the scope of its corporate powers.

[Corporate Seal]

DOCKET COPY
Surname:

Hopkins
Nelson
Geehan
Selfridge
Johnson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

MAY 1 0 1956

Mr. Glenn O. Barrett, Supervisor
B & M Mines Company
Box 258, Route #2
Loveland, Colorado

Re: Docket No. DMEA-4068-beryl,
tungsten, mica
Glenn O. Barrett, et al.
Beryl No. 2
Larimer County, Colorado

Dear Mr. Barrett:

Your application for aid for an exploration project and other reports available to us in Washington relating to the subject property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information indicates to us that the probability of disclosing significant reserves of beryl, tungsten, and mica is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

Sincerely yours,

C. O. Mittendorf

Administrator

JHopkins:ms 5/8/56
Copy to: Docket
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk
Mr. Hopkins
Admr. R. File
Field Team, Region III

RCH

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

May 8, 1956

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: A Denial of Exploration Assistance and Summary Report

By: James Hopkins

1. Docket No. DMEA-4068-beryl, tungsten, mica
Property: Beryl No. 2 Mine located in SE $\frac{1}{4}$ sec. 21, T. 8 N., R. 71 W., Larimer County, Colorado
Applicant:
Glenn O. Barrett et al.
B & M Mines Company
Route #2 Box 258
Loveland, Colorado
Application:
dated November 7, 1955
Work proposed:
Diamond drilling 2000' per month
Excavating and treating 175 cu yds./month
Total cost per month $ 10,450.00
For 24 month period $251,040.00
No contract - application denied

2. Comments:

The Field Team learned after they had made the field examination that his mining claim was the subject of an application docketed under DMA-1869 and subsequently denied.

The examiners confirm the presence of beryl crystals in small amount but failed to find any tungsten minerals or strategic grade mica. They conclude that beryl is limited to small isolated pods dispersed through the pegmatite and that exploration will not lead to the discovery of significant amounts of beryl.

The Beryl No. 2 pegmatite belongs to a group of pegmatite occuring in a wide belt of Precambrian rocks (Idaho Springs formation) on the east slope of the Colorado Front Range. They generally conform to the foliation of the enclosing schist.

2. Comments:(continued)

Zones are poorly developed in all bodies of pegmatites on the claim.

Neither the core segments nor the intermediate zones are persistent.

Each pod of quartz and its surrounding intermediate zones would need to be explored separately. Inasmuch as only one quartz pod in the main pegmatite mass contains beryl and only two others on the claim contain beryl, the exploration of each pod would seem a hazardous undertaking.

An investigation did not reveal any favorably mineralized areas suitable for ore sampling.

On the basis of the size, quantity and sporadic distribution of the beryl crystals, the Examiners conclude that Beryl No. 2 claim does not contain any significant ore bodies of beryl. They recommend that exploration assistance be denied.

The Nonmetallic Minerals Division, DMEA, concur in this recommendation.

The Commodity Divisions of the Bureau of Mines and Geological Survey also concur in the recommendation.

James Hopkins
Nonmetallic Minerals Division

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

May 3, 1956

Memorandum

To: L. G. Houk, Director, Non-Metallic Minerals Division, DMEA

From: Chief, Branch of Rare and Precious Metals

Subject: Report of Examination, DMEA Docket 4068 (Beryl-Tungsten-Mica), B. & M. Mines Company (Glenn O. Barrett et al.) Beryl Mine No. 2, Larimer County, Colorado, Received in the Branch of Rare and Precious Metals April 30, 1956.

Apparently beryl crystals occur in small quantities in isolated pods dispersed throughout the pegmatite, and other strategic minerals are not present. I concur with the Field Team's recommendation that the application be denied.

H. D. Keiser

H. D. Keiser

RECEIVED
MAY 4 - 1956

IN REPLY REFER TO:

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

RECEIVED
APR 30 1956

April 27, 1956

Re: DMEA 4068 H
B & M Mines Co.
Beryl No. 2 Mine
Larimer Co., Colorado
Beryl

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of Field Team report.

The applicant requested assistance on an indefinite but large exploratory work program consisting of open cuts, shaft sinking and drifting in an effort to demonstrate the presence of worthwhile quantities of beryl, tungsten and mica. The application said three tons of beryl had been produced and shipped. No data are given as to the tonnage involved.

The examiners confirmed the presence of beryl crystals in small "nests" or "pods" but failed to find any tungsten minerals or strategic grade mica. Three pegmatites show pods of quartz containing concentrations of beryl crystals. One pod measuring 2 to 3 feet in diameter shows abundant beryl crystals which average 3 to 4 inches in diameter and up to a foot or more in length. Only one quartz-beryl pod is known in the large mass of pegmatite which as exposed shows a width of 50 feet and a length of 200 feet. One pod shows in each of the two much smaller pegmatites.

The examiners conclude, "On the basis of the size, quantity, and sporadic distribution of the beryl crystals as observed over comparatively large exposures, it would seem reasonable to conclude that the Beryl No. 2 does not contain any significant ore bodies of beryl." Also: "Exploration for any beryl-bearing pods would be impractical as none can be expected to continue for more than a few feet. Any exploration would, in effect, be mining; thus leaving no reserves at the end of the project."

I accept the conclusions and concur with the recommendations of the examiners and Field Team that the application be denied.

N. E. Nelson

N. E. Nelson

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

RECEIVED
APR 23 1956

April 19, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 4068 (Beryl-Tungsten-Mica) B. & M. Mines Company (Glenn O. Barrett et al.) Beryl No. 2 mine, Larimer County, Colorado

Enclosed are the original and three copies of the joint engineering and geologic report on the subject property.

The examiners confirm the presence of beryl crystals in small amounts but failed to find any tungsten minerals or strategic grade mica. They conclude that beryl is limited to small isolated pods dispersed through the pegmatite and that exploration will not lead to the discovery of significant amounts of beryl. They recommend that the application be denied.

We concur in this recommendation.

DMEA Field Team, Region III

By W. M. Traver
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
4-25-56
(date)

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

RECEIVED
FEB 15 1956

February 13, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (With brochure)
E. N. Harshman

From: Executive Officer, DMEA Field Team, Region III

Subject: Docket DMEA 4068 (Mica-Beryl-Tungsten), Glenn O. Barrett, et al., Beryl No. 2, Larimer County, Colorado

Enclosed is the subject application in the amount of $251,040.00. A field examination and suitable report are requested.

Enclosed for your information are a copy of a letter from the Chairman of the Operating Committee and memoranda of review of the application by M. E. Nelson, W. F. Dietrich, and Horace T. Reno.

W. M. TRAVER,

W. M. Traver

Enclosures

HMC:ab

cc: Chair. Op. Comm. (2)
Docket 4068
Chron.

DOCKET FILE
Surname:

Hopkins
Houk
Selfridge
Jefferson

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

FEB 10 1956

Mr. W. M. Traver
Executive Officer, DMEA
Field Team, Region III
Bureau of Mines
224 New Customhouse Bldg.
Denver 2, Colorado

Subject: Docket No. DMEA-4068
Mica, Beryl and Tungsten
Glenn O. Barrett, et al.
Beryl No. 2
Larimer County, Colorado

Dear Mr. Traver:

Please review the subject application and arrange for a field examination if you deem it necessary.

Copies of memoranda dated November 23, November 30 and December 1, 1955, by N. E. Nelson, USGS, W. F. Dietrich, USBM, and Horace T. Reno, USBM, respectively, relating to the project are enclosed. Two copies of the applicants' proposal and costs are also enclosed for your information.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

Approved:

/s/ Robert W. Geehan
Member, Bureau of Mines

Thor H. Kjilsgaard
Member, Geological Survey

Enclosures 8

JHopkins:ad 12/14/55
Copy to: Admr. R. File
Docket
Operating Committee
Mr. Killsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk
Mr. Hopkins

R.C.H.

DOCKET FILE
Surname:

Hopkins
Houk
Gulson
Kiilsgaard
Selfridge
Hyman

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

FEB 1 0 1956

Mr. Glenn O. Barrett, Supervisor
B. & M. Mines Company
Box 258, Route 2
Loveland, Colorado

Re: Docket No. DMEA-4068 - Mica, Beryl and Tungsten
Glenn O. Barrett, et al.
Beryl No. 2
Larimer County, Colorado

Dear Mr. Barrett:

Your application for assistance in exploring the subject property has been reviewed by the Nonmetallic Minerals Division of the Defense Minerals Exploration Administration and has been referred to Mr. W. M. Traver, Executive Officer, DMEA Field Team, Region III, Bureau of Mines, 224 New Customhouse Building, Denver 2, Colorado, for further consideration and possibly a field examination.

The Regional Office will contact you at an early date if an examination is to be made. Any assistance you may give the members of the Field Team during the examination will be appreciated.

Sincerely yours,

C. O. Mittenauer (for)

Administrator

JHopkins:ad 12/14/55
Copy to: Admr. R. File
Docket
Operating Committee
Field Team, Region III
Mr. Dietrich, 3061
Mr. Kiilsgaard, 5222
Mr. Houk
Mr. Hopkins

R.G.H.

Estimated Cost for;

Exploration of Beryl Lode No. 2
Based on 160 hrs.Operation per Month;
Or approximately 175 cu.yd.per mo.

RECEIVED
FEB -3 1956

Equipment;all fuels,oil,greases and repairs included in following costs.

1 Bulldozer @ $6.00 per hr.	$ 960.00
1 Air compressor,drill and steel @ $3.00	480.00
1Shovle &loader Comb. @ $3.00	480.00
1 Portable Core drill @ $4.50	720.00
1 Service truck	250.00
Total for Eqpt.per mo.	$ 2890.00
Powder,caps and wire per mo.	$ 450.00
Labor;	
Engineer	$ 750.00
Supervisor	600.00
Accuontant	300.00
Consultants (Geoligist & Attorney)	400.00
Dozer opr. $3.00 per hr.	480.00
Compressor opr.$2.50 per hr.	400.00
Drill runner @ $3.00 (Air drill)	480.00
Shovle opr. @ $3.00	480.00
Powder man @ $3.00	480.00
Drill opr. @ $3.00 (Core drill)	480.00
(6) Muckers @ $2.00	1920.00
Total for labor per mo.	$ 6770.00
Insurance;	
Woorkmans compensation,Personal and Property Liability per mo.	$ 350.00
Total cost per mo.	$10,460.00

Estimated cost as per Application for 24 months $251,040,00

(Note) As this is for Exploration purposes only this cost is based on a Cu.Yd. Except; the core drill cost which is on a unit foot base Appx.2000 ft.per mo. At this time we plan to Open face and bench cut along the face of the out crop but we may at a later date want to make several small openings rather than continue a large open face,this I will be glad to discuss with your Engrs. at any time they may decide to inspect the property.

The core drilling will be cross sectioned and drilled to from 50 to 100 ft. depth.

B.&M.Mines Co.

Supv. Glenn O. Barrett
Glenn O.Barrett

CHILSON and McCREARY
ATTORNEYS AT LAW
First National Bank Bldg. Phone Loveland 160
Loveland, Colorado

HATFIELD CHILSON
ROBERT M. McCREARY

FRANK E. STARKEY
Associate

January 31, 1956

RECEIVED
FEB - 3 1956

Mr. Lawrence G. Houk
Chief of Non-Metalic Metals Division
Department of Interior
Washington 25, D. C.

Re: Docket No. DMEA-4068-Mica,
Beryl and Tungsten
Glenn O. Barrett et al
Beryle No. 2
Larimer County, Colorado

Dear Mr. Houk:

Enclosed you will find the requested additional information for the purposes of processing our application. The additional information has been held up for the purposes of obtaining the geological report, a copy of which is enclosed herewith.

We are now in the process of forming a mining corporation which will ratify all acts to date of the B. & M. Mines Company when organized in the near future. I will forward a copy of this resolution to you when the corporation is formed.

If there is any additional information we may supply to you, please let us know.

Very truly yours,

F. E. Starkey

F. E. Starkey
Attorney for B. & M. Mines Company

FES:L
Enc.

MEMBER
American Institute of Accountants

Bryce A. Holloway, Sr.
Certified Public Accountant
Phone 1597
Rooms 212-214
First National Bank Building
Loveland, Colorado

RECEIVED
FEB - 3 1956

The attached four pages are reproduced from a report prepared by Louise Sundholm Hedricks, Geologist, under date of January 29, 1956. The following is quoted directly from the introduction to her report:

"The prospects are in a fairly wooded area of moderate relief with an average elevation of about 7500 feet. Both can be reached by way of the Rist Canyon road from Bellvue, the nearest railroad shipping point.

"The prospects were visited and examined on January 22, 1956 by J. M. and L. S. Hedricks at the request of Messrs. Glenn Barrett and Hugo Mattox.

"A light covering of snow prevented detailed mapping of the prospects in a short period of time, and no detailed maps or measurments were made.

"The following notes represent information gathered in the one day allotted for the examination."

Docket Copy
Surname:

Hopkins
Houk
Mitkendorf

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

JAN 23 1956

Mr. Glenn O. Barrett
Supervisor, B. & M. Mines Company
Box 258, Route 2
Loveland, Colorado

Re: Docket No. DMEA-4068 - Mica,
Beryl and Tungsten
Glenn O. Barrett, et al.
Beryle No. 2
Larimer County, Colorado

Dear Mr. Barrett:

Reference is made to our letter, dated December 2, 1955, requesting additional information to process your application. To date, no reply to that letter has been received.

Upon receipt of the requested information we will continue to process your application.

Sincerely yours,

Lawrence G. Houk, Chief
Nonmetallic Minerals Division

JHopkins:gad 1/23/56
Copy to: Admr. R. File
Docket
Field Team, Region III
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk
Mr. Hopkins

RGB

DOCKET FILE
Surname:

Hopkins
Houk
McIntosh

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

DEC - 2 1955

Mr. Glenn O. Barrett, Supervisor
B. & M. Mines Company
Box 258, Route 2
Loveland, Colorado

Re: Docket No. DMEA-4068 - Mica,
Beryl and Tungsten
Glenn O. Barrett, et al.
Beryle No. 2
Larimer County, Colorado

Dear Mr. Barrett:

Reference is made to your application for exploration assistance dated November 7, 1955, on the subject property.

Before your application can be processed by this office, it will be necessary for you to furnish more definite information under items 5(b) and 6 of the application form. Please send us the details and a sketch or map of your proposed plan to explore the property and include a detailed estimate of the costs of the proposed work.

We are enclosing six copies of a Consent to Lien. Please have the property owners execute these forms and then return them to this office. Upon receipt of these forms properly executed and the additional information we will continue to process your application.

Sincerely yours,

Lawrence G. Houk, Chief
Nonmetallic Minerals Division

Enclosures 6

JHopkins:ad 12/1/55
Copy to: Admr. R. File
Docket
Field Team, Region III
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk
Mr. Hopkins

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

RECEIVED
DEC - 1 1955

December 1, 1955

Memorandum

To: L. G. Houk, Director, Non-Metallic Minerals Division, DMEA

From: Commodity-Industry Analyst, Branch of Rare and Precious Metals

Subject: Application for Exploration Aid, DMEA Docket No. 4068, B & M Mines Co., Rt. 2, Box 258, Loveland, Colo., (Glenn O. Barrett), Beryl No. 2 mine, Larimer County, Colo., (Mica-Beryl), Received in Branch of Rare and Precious Metals November 30, 1955

Apparently the applicant has talked with a member of the Field Team regarding the best method of exploring the property and could not furnish a description of the deposit from which it would be possible to form an opinion. Probably nothing would be gained by returning the application to the applicant for a description of the proposed exploration and a cost estimate.

The Beryl No. 2 mine is in a beryl district. The Bureau of Mines has record of 12 beryl properties in Larimer County, Colorado. It is recommended that the application be referred to the Field Team for an examination of the property and if warranted working out with the applicant a plan of exploration and an estimate of costs.

Horace T. Reno

Horace T. Reno

Copy to: DMEA (3copies)
Division of Minerals
Branch of Rare and Precious Metals
R. W. Geehan, Room 3608
H. T. Reno
FILES

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

RECEIVED
DEC - 1 1955

December 1, 1955

Memorandum

To: L. G. Houk, Director, Non-Metallic Minerals Division, DMEA

From: Commodity-Industry Analyst, Branch of Rare and Precious Metals

Subject: Application for Exploration Aid, DMEA Docket No. 4068, B & M Mines Co., Rt. 2, Box 258, Loveland, Colo., (Glenn O. Barrett), Beryl No. 2 mine, Larimer County, Colo., (Mica-Beryl), Received in Branch of Rare and Precious Metals November 30, 1955

Apparently the applicant has talked with a member of the Field Team regarding the best method of exploring the property and could not furnish a description of the deposit from which it would be possible to form an opinion. Probably nothing would be gained by returning the application to the applicant for a description of the proposed exploration and a cost estimate.

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Horace T. Reno

Copy to: DMEA (3copies)
Division of Minerals
Branch of Rare and Precious Metals
R. W. Geehan, Room 3608
H. T. Reno
FILES

Hopkins

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

RECEIVED
DEC - 1 1955

November 30, 1955

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-4068 (mica)

Applicant: B & M Mines Co. (Glenn O. Barrett)

Name and Location of Property: Beryle No. 2, Larimer County, Colo.

Date Application Rec'd. by Br. of Ceramic & Fertilizer Materials: 11/22/55

Comments:

1. No data avilable in this office on subject mine.

2. No cost estimates were given in the application.

3. Although it would be desirable for the applicant to furnish more complete information, it appears that a visit by an examiner would furnish more useful data to ascertain which minerals the exploration program, if approved, would be conducted under.

Recommendation:

It is recommended that the field team visit this mine when in that vicinity to ascertain if an exploration project is justified. If so, the field team and applicant should agree on a definite plan of exploration on a unit-cost basis.

W. F. Dietrich

W. F. Dietrich

IN REPLY REFER TO:

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

RECEIVED
NOV 23 1955

November 23, 1955

Re: DMEA 4068
B. & M. Mines Co.
Beryl No. 2 Mine
Larimer Co., Colorado
Beryl-Mica

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application.

No definite work program is set forth. Instead the applicant will await the advice of the examiners.

The application says beryl, mica and tungsten are present, but gives no details other than that approximately 3 tons of beryl has been taken out and it occurs in pegmatites.

If the prospect is in the same area as the Collaci (DMEA 3812) the Field Team may have information concerning it.

Referral is recommended.

N. E. Nelson

N. E. Nelson

November 21, 1955
Subject: DMEA-4068
Re: Exploration Assistance
Beryle No. 2

Mr. Glenn O. Barrett
Rt. #2 - Box 258
Loveland, Colorado

Gentlemen:

The receipt of your application dated November 7, 1955, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4068 and referred to the Nonmetallic Minerals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED NOV 17 1955

Approved. Bureau No. 42-R1035.2.

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

Not to be filled in by applicant

Docket No. DMEA-4068
Metal or Mineral ~~Mica~~ Beryl Mica
Date Received 11-17-55
Estimated Cost $ No amount
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: B.& M.Mines Co. Rt.#2 Box 258 Loveland,Colo. (Partnership)
Glenn O.Barrett,Supervisor,Rt.#2 Box 258 Loveland.Colo.
Allen Mattox Gen.Del. Belvue,Colo.Frank Mattox,Belvue,Colo.(Partners)
Hugo Mattox & Herbert Mattox,Rt.#3 Box 141 Golden,Colo.(Partners)

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract County of; Larimer State of;Colo
Begining at corner # 1 Which is 600 feet North,ol° 27' West of the SE corner of section 21,Township 8 North range 71 West of the 6Th P.M. Thence North 89°07'West 1500 feet to corner # 2 Thence North 01° 27' West 600 feet to corner #3

(*b*) State any mine name by which the property is known. Beryle No.2

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

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

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

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Book 993 Page 307

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

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

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

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

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

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

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

(*c*) The work will start within 30 days and be completed within 24 months from the date of an exploration project contract.

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

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

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

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

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

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

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

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

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

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

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

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

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

[X] Money [X] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated Nov; 7, 1955 5

B.& M. Mines Co
(Applicant)

By Glenn O. Barrett

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

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

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Subject: #3;Applicants property rights-

Thence South 89°07'East 1500 feet to corner # 4,Thence South 01°27'East 600 feetto corner # 1 the place of béginning.

4 Phyisical description (A)A road ha been built from the highway to the mine andis in condition to haul a 6 or 8 ton truck load of ore over or any passenger car can travle over it A small amount of work has been done on the mine there is Beryle showing in the mine also in the Float scattered over the claim WE have our compressor and A doser on the property now Our interest is that of Lessee

(b)Appx.three ton of beryle has been taken out about ½ ton on hand at present,Grade 14%

(c) Pegmatite formation,both bedded and vein deposits,eleven different minerals found in a surface assay,Beryle,tungsten and mica in commercial amounts that is our reason for wanting to explore further.

(d) Mine is accessible,appx.2 miles off main highway,12 miles from railroad, 16 miles from Fort Collins a County seat town a good supply and residence point.

(e) There is a unemployment situtation in the area at present which the mine could help to releive,all types of materials,equipment,supplies and power are available.

5 The exploration project:

(b) There are two methods to decide on.No 1 open cut into side of mountain which in my opinion will be the best and cheapest and will give a better chance to examine a larger amount of ore

No.2 a shaft which will reqqire more equipment and additional skilled labor and will not permit us to examine as much ore per unit foot cost.

(d) I will supervise the work, I have had the following experience; About 20 years supervisor,rock qurries,road construction and concret work I was with the U.S.Engrs.Kansas City Area as supt.Labor and Materials Govt. quarries with a personnelof a 1000 to 1500 working 24 hours per day all costs figured on per man hour basis,I can furnish more reference upon request.

We plan to hire any skilled help needed to operate at a mininum cost.

6: A estimate of costs will be furnished after examination and type of opening has been decided on as per instructions of District Field Office

Glenn D. Barrett

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Subject. directions to mine;

Go to Fort Collins,Colo. Take Highway # 14 West approx. 5 miles to sign on left side(,Riss Canyon) XXXXXXXX go up Riss Canyon 12 miles to Henry Weber home their name is on the mail box on left side of road The gate leading to their house is on the right side,a gate made of poles and three sets of deer antlers are mounted above the gate MR.or Mrs.Weber will direct from there

If the party wishing to make the inspection will advise as to time and place I will meet them here in Loveland and show them the way there.

Glenn O.Barrett
Rt.2 Box 258
Phone #0485- R 1 Loveland,Colo.

Copy: For Beryl Lode # 2 only.

No. 90. MINING LEASE—Short Form. —Bradford-Robinson Ptg. Co., Mfrs. Robinson's Legal Blanks, 1824-46 Stout St., Denver, Colorado

THIS INDENTURE, Made this 3 rd. day of September in the year of our Lord one thousand nine hundred and 55 between Henry C. Weber and Alice M. Weber

of the first part, and B.& M. Mines Co.

of the second part, WITNESSETH, that the said parties of the first part, for and in consideration of the rents, covenants and agreements hereinafter expressed to be paid, kept and performed by the said parties of the second part, has leased, let and demised, and by these presents do lease, let and demise unto the said parties of the second part, the following described premises, situate, lying and being in Mining District, in the County of Larimer and State of Colorado, to-wit: Beryl Lode No.2

Beginning at corner No.1 which is 600 feet North 01°27' West of the SE corner of Section 21, Township 8 North Range 71 West of the 6th.P.M. thence North 89°07' West 1500 feet to corner no.2 thence North 01°27' WEST 600 feet to corner No.3 thence South 89°07 East 1500 feet to corner No.4 thence South 01°27 East 600 feet to corner No.1 the place of beginning.

TO HAVE AND TO HOLD THE SAME, for the purpose of mining, for the term of 2 years with option to renew under terms stased herein from the date hereof, unless sooner terminated under any of the provisions herein contained, with no power to assign this lease or any interest thereunder, or to sublet the whole or any part of said premises except upon the written consent of the parties of the first part

And the said parties of the second part, for and in consideration of the leasing of said premises, covenant and agree with said parties of the first part to commence work on said premises 60 days and thereafter to work the same continuously, in a thorough and workmanlike manner, employing at least one men underground,

and working at least 8 Mo. of 12 20 shifts each calendar month; to keep the same securely timbered, drained and clear of loose rock and rubbish; to keep accurate accounts, and to render monthly statements to the said parties of the first part, their agent or attorney, showing the amount and character of work done, and to pay to said parties of the first part, their agent, or attorney, as rental for said premises royalty upon all ore taken and sold therefrom as follows, to-wit: Royalty payable to first parties shall be five (5%) per cent of all ore sold that sell for twenty five ($ 25.00) Dollars a ton or less and Fifteen (15%) per centof all ore that sells for over Twenty five ($ 25.00) Dollars a Ton

And it is expressly understood and agreed by and between the parties hereto, that the said part..... of the first part reserves the property and right of property in and to all ores extracted from said premises during the term hereof, and that all settlements for royalty shall be made upon the assay value of the mineral in the ore that may be taken from said premises less the actual cost of railroad transportation and treatment; and the sampling works, mill, smelter, or ore buyer purchasing any such ore shall retain the amount of the royalty herein stated and shall pay the same to the part..... of the first part at each settlement for ore purchased.

Or actual cost of transportation as long as it does not exceed railroad costs*(see clause above beginning with(less the)

Machinery furnished by parties of second part shall remain the property of parties of second part,parties of second part shall have the right to cancel this lease at any time ,if they determine in their discretion that said operation is not profitable.

And the said part ies of the second part furthermore covenant..... and agree..... that the said part ies of the first part, their .....agent or attorney, shall have the right at any and all times to enter upon and descend into any and all parts of said premises to inspect the same, make surveys thereof, or take samples therefrom, and that the said part ies of the second part will render to.....them..... all the assistance in...their.....power in so doing. And the said part ies of the second part furthermore covenant..... and agree..... to occupy and hold all side veins, spurs, feeders, cross-lodes, parallel lodes, or mineral deposits of any kind which may be discovered by the said part ies of the second part or by any person working under.....them.....in any manner, by working within or from the aforesaid premises, as the property of the said part ies of the first part and as part of the premises demised, and to not allow any person not in privity with the parties hereto to take or hold possession of said premises or any part thereof under any pretense whatever, and to pay in due season all taxes and assessments levied against said demised premises on account of the production of ore under this lease.

And the said part ies of the second part furthermore covenant..... and agree..... that in case they..... fails..... in any respect to keep and fulfill any one or more of the covenants or agreements herein expressed or implied, then, and in that case it shall be lawful for the said part ies of the first part, their..... agent or attorney, to declare said term ended, and with or without process of law to enter upon and take possession of said premises, and in such case, and also at the expiration of this lease by limitation, said part ies of the second part agree..... to surrender, yield and deliver to said part ies of the first part quiet and peaceable possession of said premises in good condition, and that time shall be of the essence hereof, and that all of the covenants and agreements herein contained shall extend to and be binding upon the heirs, executors, administrators, successors and lawful assigns of the respective parties hereto.

IN WITNESS WHEREOF, The parties hereto have executed these presents the day and year first above written.

First Party Henry C Weber .....[SEAL]

First Party Alice M. Weber .....[SEAL]

Second Party B.& M.Mines Co. .....[SEAL]

Second Party Glenn O. Barrett Supv. .....[SEAL]

.....[SEAL]

.....[SEAL]

MINING LEASE

FROM

.....

TO

.....

STATE OF COLORADO,
County of..... } SS.

I hereby certify that this instrument was filed for record in my office, at..... o'clock.....M., on the.....day of ....., A. D. 19....., and is duly recorded in book....., page.....

.....
Recorder.

By.....
Deputy.

Fees, $.....

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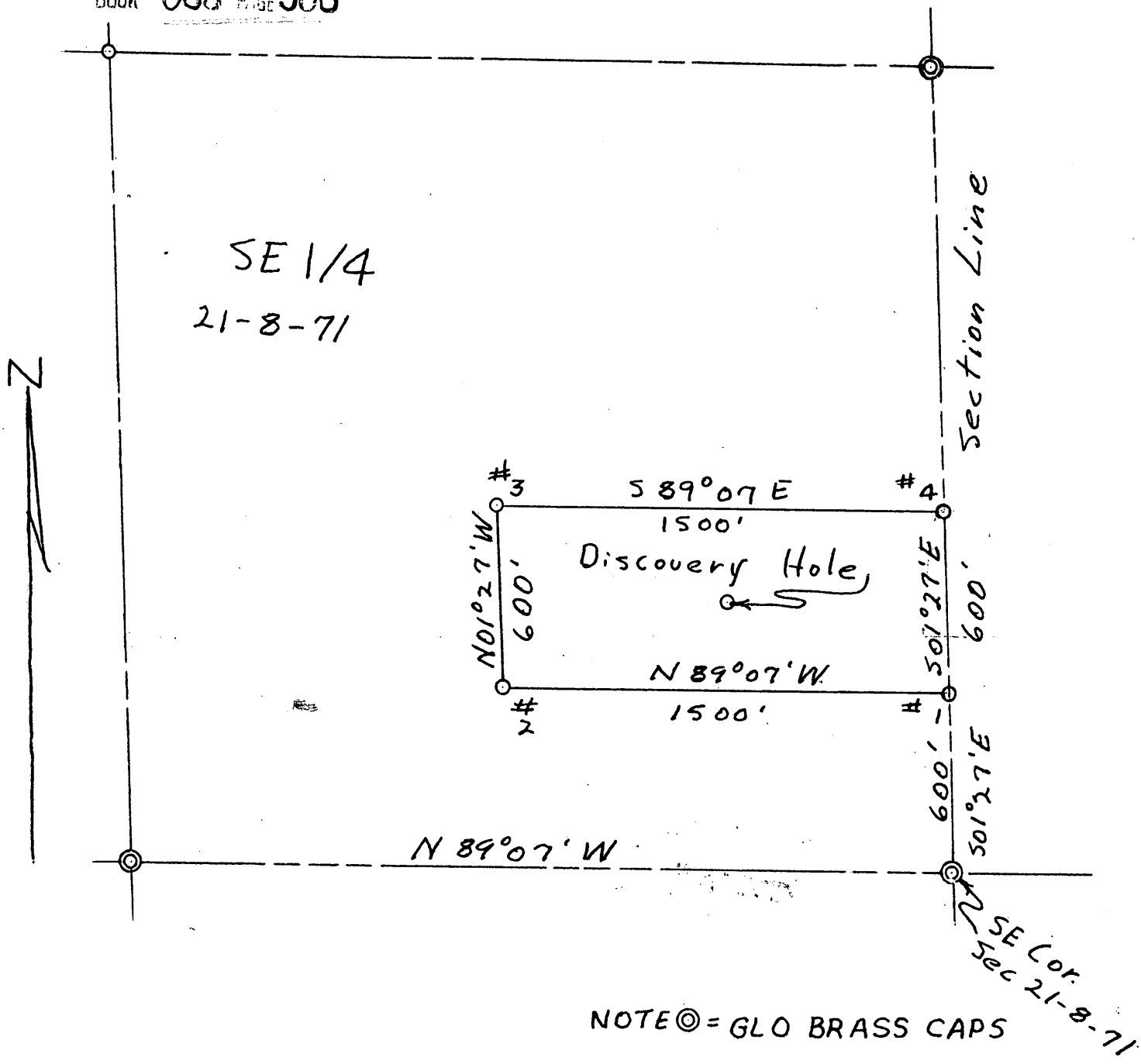
NOV 17 1955

10-54 BRADFORD-ROBINSON PTG. CO., DENVER



NOTE ◎ = GLO BRASS CAPS

LOCATION
OF THE
BERYL LODE NO. 2 MINING CLAIM
LOCATED IN THE
SE 1/4 OF SEC. 21, T 8 N, R 71 W OF THE 6TH P.M.
SCALE 1 IN = 500'

slope below the main pegmatite. Other smaller masses of float were found between the large boulder and the main mass upslope, and some of these contained small crystals of beryl. The larger mass of float showed a considerable concentration of beryl, that mineral constituting perhaps 50% of portions of the rock. The beryl crystals averaged four to five inches in diameter, and may be a foot or more in length.

Geology and Mineralogy:

The Beryl Lode pegmatite trends in a northeasterly direction, and intrudes dark-colored schists, which are probably part of the pre-Cambrian Idaho Springs formation. The pegmatite mass forms a large, prominent knob at about 7800 feet elevation on the northeast slope of Mt. Ethel. Dips of 45°E were recorded on this north-facing slope. The extent of the pegmatite mass is not known, but the knob is about 100 feet wide and 50 to 75 feet high and pegmatite material could be seen in place upslope for several hundred feet.

The face of the knob has been blasted, forming a cliff with a talus slope of pegmatite material extending to the access road. On the left side of the face an opening about five feet square by five feet deep has been driven into the face exposing a zone of beryl in quartz. A fair concentration of beryl crystals two and three inches in diameter can be seen in this opening.

The main part of the knob is composed of microcline-quartz-muscovite pegmatite. The microcline feldspar is pink, the quartz is gray, and the minor muscovite mica occurs in small flakes and clusters. Between this microcline-quartz-muscovite zone and the gray quartz containing beryl is an indistinct zone of lighter pink feldspar, which may be albite in part. In this layer are small garnet crystals which may have provided the manganese oxide stain which can be seen on many of the minerals. These same garnets were noted in some of the float downslope.

The beryl occurs is euhedral crystals which are pale bluish-green in color. The index of refraction was checked on several samples and found to be between 1.57 and 1.58, indication of a rather low alkali content. Beryl of this type should assay about 12% BeO content.

Commercial Possibilities:

Larger pegmatites usually present better commercial possibilities than smaller ones. Most commercial amounts of beryl are produced from intermediate zones containing albite feldspar or from cores containing quartz and microcline. Pegmatites whose cores contain beryl almost always have an intermediate beryl-bearing zone.

The Beryl Lode No. 2 pegmatite is large enough, and the beryl of good enough quality to warrant further exploration around and below the beryl already exposed.

Beryl Lode No. 2

Location and General Features:

The Beryl Lode No. 2 prospect (1, Plate 1), on the northeast slope of Mt. Ethel in the SE¼ sec. 21, T. 8 N, R. 71 W., sixth principal meridian, is about 16 miles by air line and 22 miles by road WNW of Fort Collins. The prospect is about three miles by ranch and mine road NW of the Rist Canyon road. Bellvue, the nearest shipping point on a railroad, can be reached by about 13 miles of dirt road down Rist Canyon.

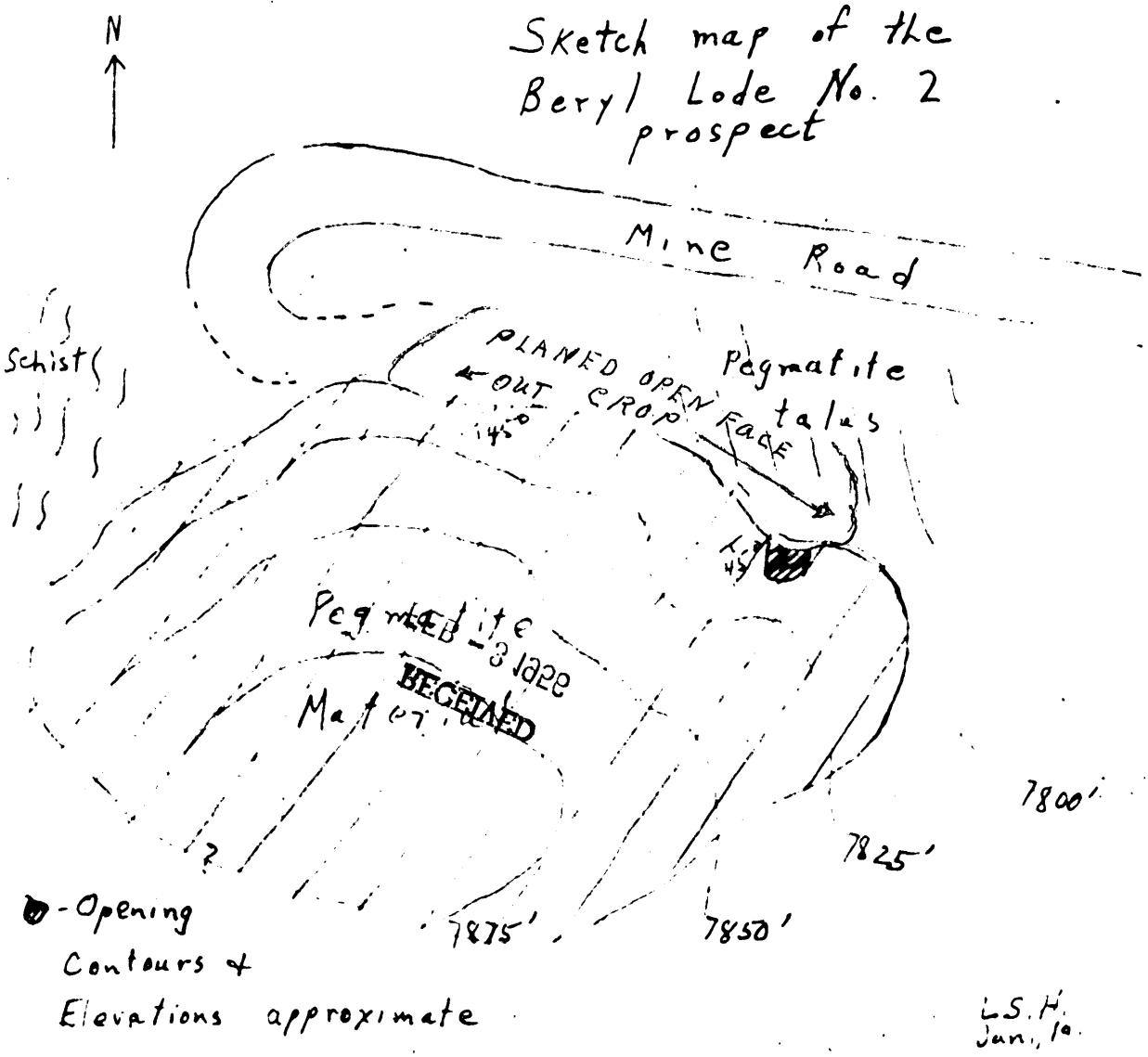
The prospect is on government land, but has been staked and claimed by H. Webber whose ranch is part of the access way to the claim.

Beryl Production:

The Beryl Lode No. 2 has been of interest as a mineral collecting locality to the students of Colorado A & M College in Fort Collins, and no record is available of the amount of beryl gathered by these students. However, about 3/4 of a ton of beryl has been recovered from the prospect area by Messrs. Webber, Barrett, and Mattox over a short period of time. 1100 pounds of this total was taken from one large mass of pegmatite material downhill from the main workings. This boulder shows the same mineralogical constituents as the area of the main pegmatite mass in which beryl occurs, and is, therefore, thought to be a piece of float which has rolled down the steep

This would determine whether or not there is a beryl-bearing albite zone. If there is, this zone could be of considerable size judging from the width of the outer pegmatite.

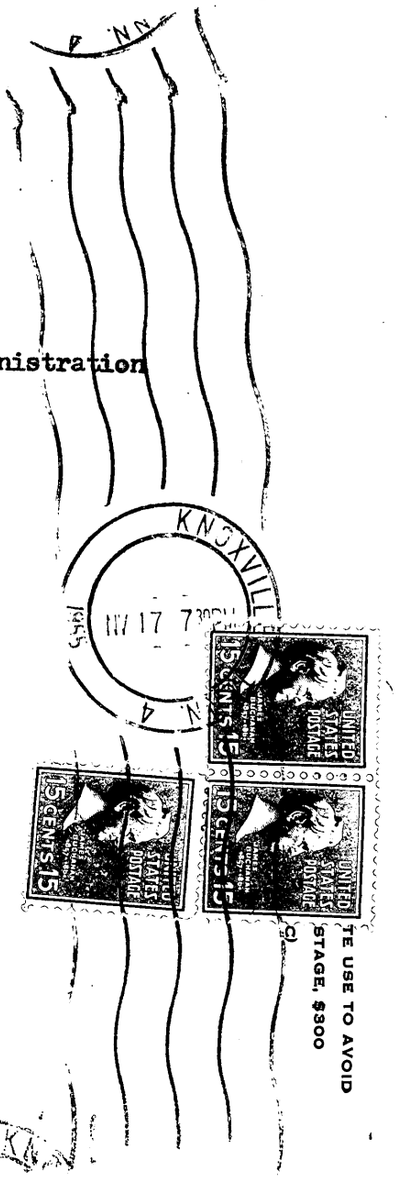
Since pegmatites are such irregular masses, there is no way of predicting outwardly what may be found within them. The only sure way is to open them up further to expose new zones. However, the Beryl Lode No. 2 is in an area of known beryl-producing pegmatites, and is large enough to have good chances of producing commercial amounts of beryl.



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
ELECTROTECHNICAL LABORATORY
NORRIS, TENNESSEE

OFFICIAL BUSINESS

Mr. Jay L. Chambers
Defense Minerals Exploration Administration
Interior Building
Washington 25, D. C.



TE USE TO AVOID
STAGE, $300