Docket Copy
Surname:

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

JUL 16 1956

Silver Rocker M & D Company
Glen R. Lamberg and Sons
Box 108
Salida, Colorado

Re: Docket No. DMEA-4241 - Beryl
Silver Rocker M & D Company
Glen R. Lamberg and Sons
Savilla Queen No. 2 and
Blue Brute Claims
Chaffee County, Colorado

Gentlemen:

Reference is made to your letter of July 7, 1956, expressing disappointment that your application for exploration assistance was denied and disagreement with our conclusions.

A review of the field team examination and other available data indicated that exploration assistance requested in your application was not warranted, therefore, your application was denied by our letter of June 28, 1956. Your application was not denied because of your failure to present adequate information in the application nor because the pegmatite exposures were insufficient for field appraisal. The basis for denial was the lack of geologic evidence to infer the probability of finding sufficient beryl to justify spending Government money on your property.

We do not feel, at this time, that a re-examination of your property would alter our opinion. However, if you do additional work on your property of sufficient scope to obtain additional information, we shall be glad to reopen your application. You may do this by submitting the new data, and referring to the original application by docket number.

As to an examination of the Turret Area in general for its beryl producing possibilities, this type of evaluation is not within the responsibility of the DMEA and consequently could not be included in an examination of your property.

LGHouk:gad 7/13/56

Sincerely yours,

C. O. Mittendorf
Administrator

Copy to: Admr. R. File
Docket
Field Team, Region III
Mr. Kiilsgaard, 5222
Mr. Keiser, 3647
Mr. Houk

Silver Rocker M&D Company
GLEN R. LAMBERG & SONS --- BOX 108
Salida, Colorado

RECEIVED
JUL 10 1956

July 7, 1956

Mr. C. O. Mittendorf
Administrator
Defense Minerals
Washington 25, D.C.

Re: Docket No DMEA-424I-Beryl
Silver Rocker M & D Co.
Glen R. Lamberg & Sons
Savilla Queen No-2 & Blue
Brute claims, Chaffee
County, Colorado

Dear Sir,

With reference to the above subject and in reply to yours of June 28th denying our application for exploration assistance, we naturally were very disappointed.

We donot agree with you that the probability of disclosing significant beryl is not sufficiently promising to justify Government participation, and we feel that in some way, we either overlooked in our presentation, certain facts that we didnot consider important, or that we failed in having new work showing so that field men could have better opportunity to see the "Dikes" as we know them, we were very careful to hold the value of our claims to the minimum and not to build them up.

We are also faced with the factor of a new area, Turrett area is not mentioned in the present locations of beryl, we know that this is wrong and intend to prove it, it has a high potential as high as South Dakota, but it needs exploration to the extent of our application and sound geology.

Beryl is of importance to the Defense Minerals Program, and especially from a new area, and that is the reason we are not giving up, it will take us longer by ourselves but it is worth the effort in our opinion.

No doubt your letter of June 28th closes our file on our application, if not, I ask that our application, be reconsidered by sending the same or another field team to inspect our claims again, and to re-valuate this Turrett Area in general for its beryl producing possibilities, we would also like to name new references for our character and mining ability.

Thanking you for your kind re-consideration, I am,

Yours very truly,

Glen R. Lamberg

For, Glen R. Lamberg & Sons

BERYL
MICA
FELDSPAR
MONAZITE
TANTALUM
COLUMBITE
MANGANESE
COPPER
GOLD
SILVER
LEAD
ZINC
CINNABAR
BENTONITE
GYPSUM

DOCKET COPY
Surname:

Hook
Kiilsgaard
Selbridge
Johnson

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

Silver Rocker M & D Company
Glen R. Lamberg and Sons
Box 108
Salida, Colorado

JUN 28 1956

Re: Docket No. DMEA-4241-beryl
Silver Rocker M & D Company
Glen R. Lamberg and Sons
Savilla Queen No. 2 and
Blue Brute Claims
Chaffee County, Colorado

Gentlemen:

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 is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing your property to our attention.

Sincerely yours,

G. O. Mittendorf (for)

Administrator

JHopkins:ms 6/25/56
Copy to: Docket
Operating Committee
Field Team, Region III
Mr. Kiilsgaard, 5222
Mr. Keiser, 3647
Mr. Houk
Admr. R. File

RECEIVED
JUN 27 1956

June 26, 1956

Memorandum

To: L. C. Hauk, Defense Minerals Exploration Administration

From: Physical Scientist, Branch of Rare and Precious Metals

Subject: Review of Field Examination Report, DMEA 4241 (beryl), Silver Rocker M & B Company, Glen H. Lamberg & Sons, Sarilla Queen No. 2 and Blue Bonte claims, Chaffee County, Colorado

The examiners conclude that beryl is present in insignificant amounts, that the mine is suitable only for survey, that there is no reason to believe that the concealed parts of the pegmatite contain more beryl than the exposed parts and that the proposed work is in effect a mining operation. Consequently I concur with the examining team's recommendation for denial of the application.

Kenneth B. Higbie

KBHigbie:jtmc

Copy to: DMEA (3 copies)
Division of Minerals
Branch of Rare and Precious Metals
R. W. Geehan
E. L. Newcomb, Geological Survey, Room 5227
K. B. Higbie
FILES

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

June 25, 1956

Memorandum

To: Mr. C. O. Mittendorf, Administrator

From: Mr. Lawrence G. Houk, Chief
Nonmetallic Minerals Division

Subject: A denial of exploration assistance and Summary Report

By: James Hopkins

1. Docket No. DMEA -4241-beryl
Property: Silver Rocker M & D Company
Blue Brute and Savilla Queen No. 2 Mining Claims
Section 34; T.51 N.; R 9 E; N. M. P. M.
Chaffee County, Colorado
Applicants:
Glenn R. Lamberg and Sons
Box 108, Salida, Colorado
Application:
dated March 30, 1956
Proposes: Excavating - Surface Mining operations
Savilla Queen No. 2
Drilling for blasting - 12,000 feet) $20,425.00
Mining - 9,500 tons
Blue Brute
Drilling for blasting - 12,700 feet) $21,897.75
Mining - 10,185 tons
Total $42,322.75

No contract - application denied

2. Comments:
The applicant proposed to explore a pegmatite for beryl by excavating two large open cuts at different places.
The mine consists of two open cuts in a prominent pegmatite containing crystals of beryl. From these open cuts 1700 tons of material that yielded about 5 tons of beryl - assaying 10 to 14% Be O were produced.
Irregular-shaped pegmatite bodies are present on the Savilla Queen No. 2 and Blue Brute claims.
They are poorly zoned, grade laterally into a biotite-feldspar-quartz gneiss, and are elongated in a northwest direction. The largest pegmatite on the Blue Brute claim is 500 feet long and a maximum width of 250 feet. The principal pegmatite on the Savilla

Queen No. 2 is 1,000 feet long with widths varying from 10 to 75 feet. They are composed of microcline-perthite, quartz, albite and muscovite. No beryl was observed by the field team although production was reported. However, small quantities of beryl were observed in adjacent claims.

Minable Reserves:

It is impractical to estimate the ore reserves because pertinent information is lacking. The pegmatite bodies are very prominent and can be traced across the full length of the two claims, they range in width from 6 feet to 250 feet.

Reported production was 10,500# of beryl from 1,700 tons of pegmatite. The price per pound of 12% BeO is 20 cents, giving $2,100.00 for 1,700 tons or $1.24 per ton. This pegmatite, as mined, could not be considered an economic source of beryl.

The pegmatite contains commercial feldspar and scrap mica together with beryl but the combined gross value of the three commodities could not constitute an economic operation at this time.

The minable ore reserves may be considered zero.

The Field Team recommends denial of this application based on the following factors:

1. Beryl is not present in sufficient quantities to support a mining operation.
2. Feldspar and scrap mica are accessory minerals but are insufficient in quantities as to notably increase the value of the pegmatite. Mica could only be recovered by a milling operation.
3. Concentrations of minerals occur very sporadically in the pegmatite.
4. Average beryl content has pretty well been established by past operations.

The Nonmetallic Minerals Division concurs in the denial.

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

James Hopkins
Nonmetallic Minerals Division

IN REPLY REFER TO:

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

RECEIVED
JUN 22 1956

June 21, 1956

Memorandum

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

From: W. P. Williams, U. S. Geological Survey

Subject: Review of Field Examination Report, DMEA 4241 (beryl), Silver Rocker M & D Company, Glen R. Lamberg & Sons, Savilla Queen No. 2 and Blue Brute claims, Chaffee County, Colorado.

The examining team concludes that DMEA participation in an exploration project for beryl on the subject property is not warranted. Recommendation for denial is made because past operations on the property have not disclosed ore of economic grade, and the pegmatite mineralization is scattered and erratic. Rock in sight in two open cuts is not economically minable.

According to the examining team's report all available evidence indicates that exploration work on the property probably would not result in a worthwhile discovery. Consequently I concur with the examining team's recommendation for denial of the application.

T. H. Kilsgaard
For: W. P. Williams

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

RECEIVED
JUN 14 1956

June 12, 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 4241 (Beryl), Silver Rocker M & D Company, Glen R. Lamberg & Sons, (Savilla Queen No. 2 and Blue Brute claims), Chaffee County, Colorado

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

The examiners conclude that beryl is present in insignificant amounts, that the mica is suitable only for scrap, that there is no reason to believe that the concealed parts of the pegmatite contain more beryl than the parts already exposed, and that the proposed work is in effect a mining operation. 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
6-18-56
(date)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RETURNED JUN 14 1956

DMEA
Date Rec'd.
JUN 11 1956
BUREAU OF MINES
Denver, Colorado

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

June 8, 1956

Memorandum

TRANSMITTED
JUN 22 1956

To: Executive Officer, DMEA Field Team, Region III

From: John F. Shaw
E. N. Harshman

Subject: DMEA Docket 4241 (Beryl), Silver Rocker M & D Company, Glen R. Lamberg & Sons (Savilla Queen No. 2 and Blue Brute claims), Chaffee County, Colorado

Enclosed are the original and eight copies of a joint geologic and engineering report by R. Vickers, U. S. Geological Survey, and C. R. Garrett, Jr., U. S. Bureau of Mines, covering their examination of the subject property.

The applicant proposes to explore two pegmatites for beryl by excavating two large opencuts. The estimated cost of the project is $42,322.75.

The examiners conclude that beryl is present in insignificant amounts, that the mica is suitable only for scrap, that there is no reason to believe that the concealed parts of the pegmatite contain more beryl than the exposed parts and that the proposed work is in effect a mining operation.

We concur with the recommendation that the application for exploration assistance, DMEA Docket 4241 be denied.

John F. Shaw
Superintendent of the Denver
Experiment Station

E. N. Harshman
Member, Field Team

Reviewed by
DMEA OPERATING COMMITTEE
6-18-56
(date)

Enclosures (9)
ENHarshman:mp

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

RECEIVED
JUN 14 1956

TRANSMITTED
JUN 22 1956

DMEA 4241

Silver Rocker M & D Company

Glen R. Lamberg & Sons

Chaffee County, Colorado

Beryl

Joint Engineering and Geological Report

by

R. Vickers, Geologist
Geological Survey

Chas. R. Garrett, Jr., Mining Engineer
Bureau of Mines

June 8, 1956

Reviewed by
DMEA OPERATING COMMITTEE
6-18-56
(date)

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DMEA 4241

SILVER ROCKER M & D COMPANY
GLEN R. LAMBERG AND SONS
CHAFFEE COUNTY, COLORADO

RECEIVED
JUN 14 1956

INTRODUCTION AND SUMMARY

The Silver Rocker M & D Company, owned by Glen R. Lamberg and sons, a partnership, P. O. Box 108, Salida, Colorado, applied for DMEA assistance, Docket 4241, to explore the property for beryllium. The application was made pursuant to DMEA Order I under the Defense Production Act of 1950, as amended, and submitted for consideration on March 30, 1956.

The application was reviewed by the Rare and Miscellaneous Metals Division of the DMEA in Washington, D. C. On April 24, 1956, it was referred to the DMEA Field Team, Region III for an examination and a report. The property became accessible late in April and was examined on May 23, 1956, by J. W. Adams and R. Vickers, geologists, U. S. Geological Survey and C. R. Garrett, Jr., mining engineer, U. S. Bureau of Mines.

The applicant proposed to explore a pegmatite for beryl by excavating two large opencut pits at different places. The total cost of the project was estimated at $42,322.75.

The mine consists of two opencuts in a prominent pegmatite containing crystals of beryl. From these opencuts approximately 1,700

tons of material have been mined that yielded about 5 tons of beryl. The beryl reportedly assayed between 10 and 14 percent Be O. There were no sales records available to the examiners as to the disposal of the beryl mineral.

It is concluded that there is little probability of finding significant concentrations of beryl on the property.

The examining team recommends that the application for assistance be denied.

ACKNOWLEDGMENTS

The examining team was accompanied by Glen R. Lamberg, who supplied pertinent information regarding the property.

LOCATION, TOPOGRAPHY, AND PHYSICAL FEATURES

The Silver Rocker M & D Company's property is in the old Turret mining district, Chaffee County, Colorado (fig. 1), about 12 miles by road northeast of Salida. The property is reached by traveling 1 mile north of Salida on Stage road 291, turn right onto County road 180 and travel for 10-1/2 miles, turn left at a junction and travel 1 mile up a steep grade to the top of a prominent ridge where the first opencut on the Savilla Queen no. 2 claim is located. The pit on the Blue Brute claim is about 3/4 of a mile further along this road (fig. 2).

The Savilla Queen no. 2 and the Blue Brute claims are in the west central portion of sec. 34, T. 51 N., R. 9 E., N.M.P.M.

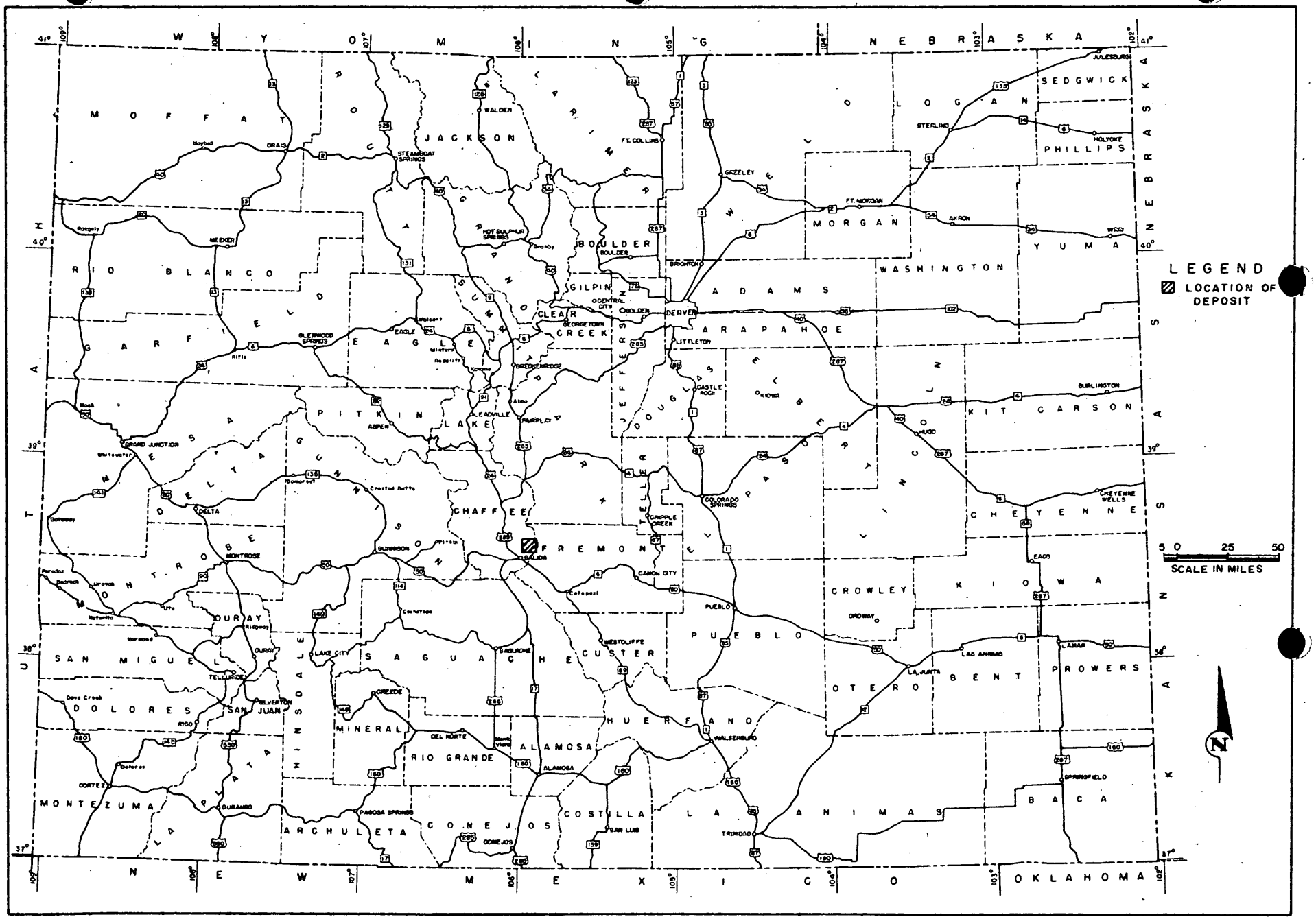


FIGURE 1 - LOCATION MAP OF SILVER ROCKER M AND D COMPANY PROPERTY, CHAFFEE COUNTY, COLO. DMEA 4241

The pits are near the crest of a dissected ridge on the western slope of the Front Range at an altitude of about 9,000 feet.

The topography of the area is rugged mountainous terrain, cut by valleys that form the drainage system on the west slope of Cameron Mountain.

Streams of this area run during the early spring thaw and after heavy rains in the summer months. There is no water on the property and nearby gulches are dry.

The mountains are covered with a good growth of evergreen trees, chiefly fir, spruce, and pine; at lower altitudes pinon and juniper cover the slopes.

The nearest source of supplies and electric power is Salida.

The climate is typical of the Rocky Mountain regions with wide variations in temperature and precipitation. Snowfall during the winter and spring months is generally heavy enough to cause operators to suspend work from December until late April or early May. Summer rains are not excessive and generally do not hamper outdoor work.

HISTORY AND PRODUCTION

The occurrence of beryl in the pegmatites of this area has been known for many years. However, little or no effort was devoted to mining beryl until 1940 when World War II created a demand. Only the beryl occurring near the surface was mined. The applicant acquired the Blue Brute and Savilla Queen no. 2 claims in 1950 and has worked each sporadically.

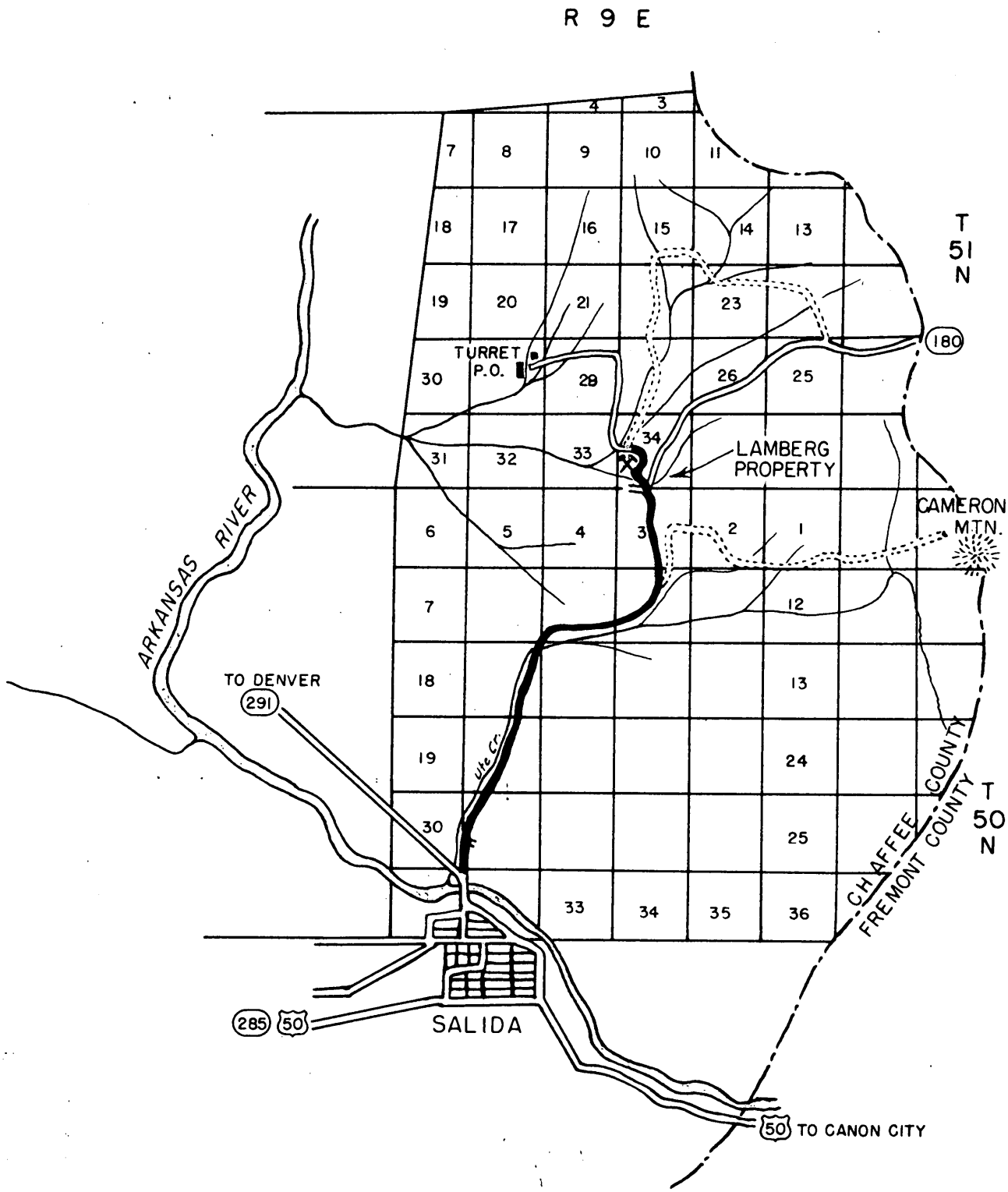


FIGURE 2 - ACCESS ROAD TO SILVER ROCKER M AND D COMPANY PROPERTY.

DMEA 4241

There is no record of production prior to 1950. The applicant reports that the production from the Blue Brute claim from 1951 through 1955 was about 3-3/4 tons of beryl from approximately 1,200 tons of material mined, and that the production from Savilla Queen no. 2 claim was about 1-1/2 tons of beryl from approximately 500 tons of material mined. The beryl produced from these claims reportedly contained 10 to 14 percent Be O.

Part of the five tons produced from these two claims was donated to mineral collecting organizations and the remainder was sold to several buyers. None was of gem quality.

OWNERSHIP AND EXTENT

Glen R. Lamberg and sons acquired numerous mining claims following the close of World War II including the Blue Brute and Savilla Queen no. 2. The Blue Brute claim was located November 1, 1950, and is recorded on p. 371, book 236, Chaffee County Courthouse. Savilla Queen no. 2 was purchased from J. E. McIntosh on January 21, 1949, and the transaction is recorded on p. 337, book 236, Chaffee County Courthouse in Salida.

The claims are in sec. 34, T. 51 N., R. 9 E., N.M.P.M.

GEOLOGY

Irregular-shaped pegmatite bodies are present on the Savilla Queen no. 2 and Blue Brute claims. The pegmatite bodies are poorly zoned, grade laterally into a biotite-feldspar-quartz gneiss, and are

elongated in a northwest direction. The size and shape of the pegmatite bodies are shown on the maps by Mohammed Azhar, a consultant for the applicant. The largest pegmatite body is on the Blue Brute claim. It is about 500 feet long and has a maximum width of about 250 feet. The principal pegmatite body on the Savilla Queen no. 2 claim is at least 1,000 feet long, about 10 to 20 feet wide, and about 75 feet thick in the vicinity of the opencut. The pegmatite bodies are composed mainly of microcline-perthite, quartz, albite, and muscovite. Although beryl production was reported by the owner, no beryl was observed in place at either of the claims. However, small quantities of beryl were observed in adjacent claims.

PRESENT STATUS

The exploratory work performed on the Blue Brute and Savilla Queen no. 2 claims has consisted of four opencuts as shown on figure 3.

The largest pit is in the eastern portion of the Blue Brute claim. This opencut is roughly triangular in shape, being 50 by 70 by 80 feet and 15 feet high at the face. It is reported that 7,500 pounds of crystallized beryl were mined from this opencut, the largest crystal weighing about 192 pounds. The crystals from this opencut are generally larger than those found elsewhere on the property.

The second largest opencut is in the eastern portion of Savilla Queen no. 2. This opencut is 80 feet long, 10 feet wide and about 15 feet high at the face. The beryl crystals from this opencut are

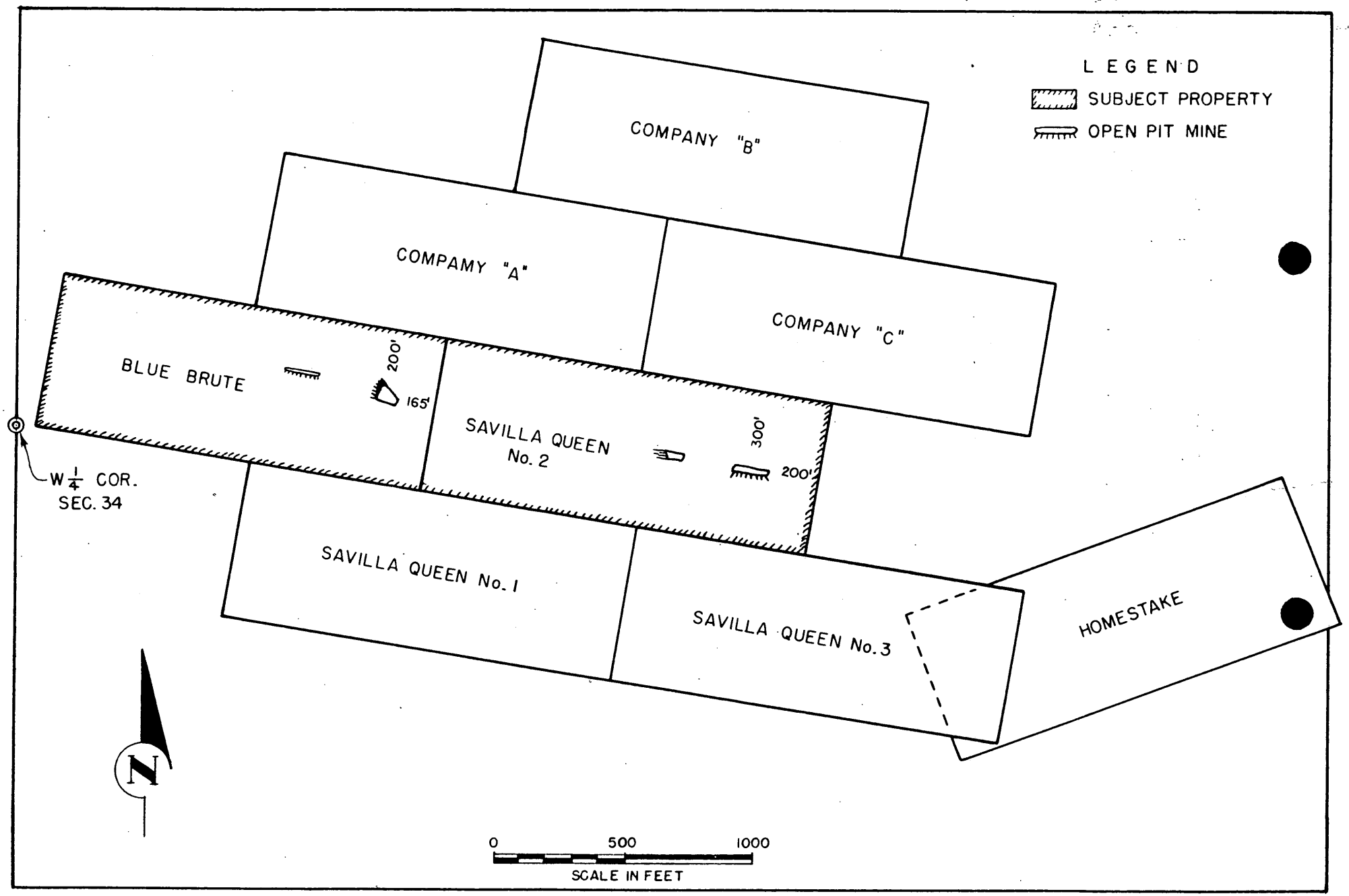


FIGURE 3 - BLUE BRUTE AND SAVILLA QUEEN No. 2 CLAIMS AND MINE WORKINGS IN SECTION 34, T 51 N., R 9 E., N.M.P.M.
DMEA 4241

generally smaller than those from the Blue Brute claim the largest being 3-inch prisms. It is reported 3,000 pounds of beryl were produced from this opencut.

The third largest opencut is about 500 feet west of the pit on Savilla Queen no. 2 claim. It is about 30 feet long, 6 feet wide and 6 feet deep. No production was reported from this pit and the crystals are small, 1-inch prism being the largest found.

The other opencut is about 800 feet west of the main opencut on the Blue Brute claim. It was excavated along an out crop and is about 30 feet long, 5 feet wide, and about 5 feet high at the face. No production is reported from this opencut and only a few small 1/2-inch prisms of beryl were found.

There was no mining machinery or equipment of the property. A small shed, 8 by 16 feet, was built near the large pit on the Blue Brute claim to house equipment.

The applicant owns the following machinery and equipment, though at the time of the examination it was being used on other claims not included in this application.

1 Worthington Blue Brute Air Compressor
size 65, 65 c.f.m.

1 John Deere Tractor-Crawler
size MC-50, 1951 model

1 Cleveland Jack Hammer, 45 pound size
Assorted steel lengths and bits - Air Hose, etc.

Work was not being performed on the subject property at the time of the examination.

MINEABLE RESERVES

It is impractical to estimate the ore reserves on this property because pertinent information is lacking. The pegmatite bodies are very prominent and can be traced across the full length of the two claims, they range in width from 6 to nearly 250 feet. On the basis of the material produced from the Blue Brute and Savilla Queen no. 2 claims, 10,500 pounds of beryl, with an average content of 12 percent Be O, can be obtained from approximately 1,700 tons of pegmatite. The price is 20 cents per pound of 12 percent Be O, giving a gross of $2,100 for 1,700 tons or $1.24 per ton. This pegmatite dike, as mined, could not be considered an economic source of beryl.

The pegmatite contains commercial feldspar and scrap mica together with beryl but the combined gross value of the three commodities could not constitute an economic operation at this time.

The mineable ore reserves may be considered as zero.

PROJECT PROPOSAL

The applicant proposed to extend and enlarge the pits on the Blue Brute and Savilla Queen no. 2 claims in order to explore the pegmatite bodies for beryl. This exploratory work would be conducted on each claim as follows:

(a) On the Blue Brute claim, the applicant proposed to widen the present opencut to 100 feet then drive it 100 feet back into the hillside (fig. 4). He estimated that 8,064 cubic yards or 10,185 tons of material can be excavated for a total cost of $21,897.75.

(b) On the Savilla Queen no. 2 claim, he proposed to excavate 10 feet deeper in the present opencut and extend the present face 20 feet into the hillside (fig. 4). He estimated that 7,037 cubic yards or 9,500 tons of material can be excavated at a total cost of $20,425.

PROJECT ESTIMATED COSTS

The applicant estimated the cost of his project as follows:

Savilla Queen no. 2

Proposed work - drill 12,000 feet, blast and move 7,037 cubic yards or 9,500 tons, of pegmatite comprising quartz, feldspar, etc. in exploration for beryl. Estimated cost per ton moved over the dump $2.15 per ton, total $20,425. Breakdown in estimated costs based on 16 months work in two years or eight months of work each year.

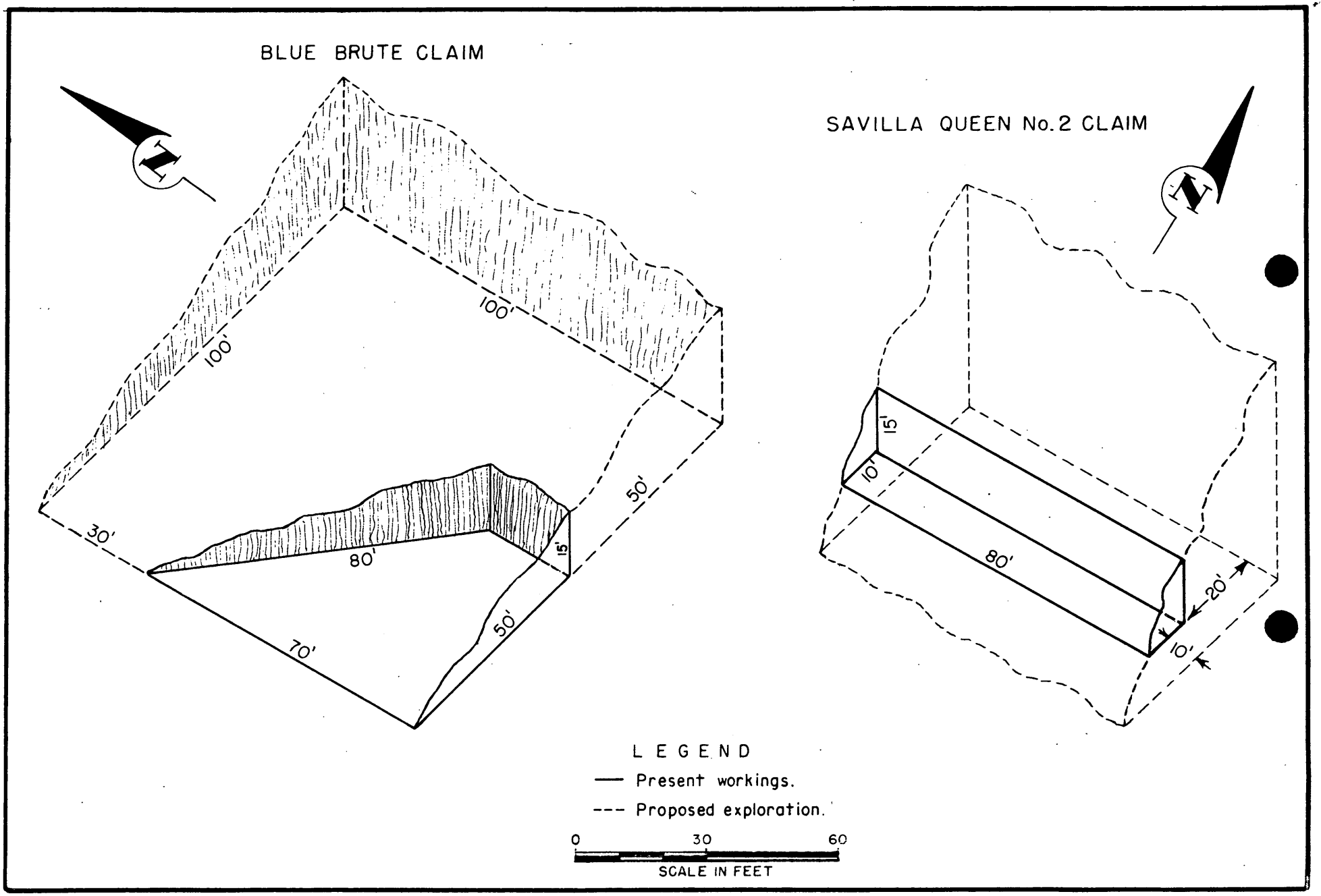


FIGURE 4 – MINE WORKINGS AND PROPOSED EXPLORATION ON BLUE BRUTE AND SAVILLA QUEEN No. 2 CLAIMS.
DMEA 4241

(a) Insurance	$ 144.20 X 2	$ 288.40
(b) D-6 Dozer, 80 hours	960.00 X 2	1,920.00
(c) Gas and oil	660.00 X 2	1,320.00
(d) Dynamite and fuse	600.00 X 2	1,200.00
(e) Repair equipment	350.00 X 2	700.00
(f) Labor, 35 weeks	7,000.00 X 2	14,200.00
(g) Blacksmith	210.00 X 2	420.00
(h) Labor taxes and supervision	288.30 X 2	576.60
	$10,212.50	$20,425.00

Use allowance on equipment

(a) Tractor-dozer, 20 hrs/week at $5/hr for 35 weeks	$ 3,500.00	$ 7,000.00
(b) Compressor and drilling complete, 20 hrs/week at $3.50/hr for 35 weeks	2,450.00	4,900.00
	$ 5,950.00	$11,900.00

Blue Brute

Proposed work - drill 12,700 feet, blast and move 8,064 cubic yards of rock or 10,185 tons of pegmatite comprising quartz, feldspar, etc. in exploration for beryl. Estimated cost per ton moved over the dump $2.15 per ton, total $21,897.75.

An analysis of the applicant's cost will show that in arriving at a unit cost for moving a ton of material over the dump, he did not include the "use allowance on equipment". The direct costs on Savilla Queen no. 2 claims were $20,425 for moving 9,500 tons, or a unit cost of $2.15 per ton.

This unit cost was applied to the excavation on the Blue Brute claim, which was 10,185 tons at $2.15 per ton or $21,897.75.

The applicant applied for aid amounting to $42,322.75, this does not include the "use allowance on equipment', which amounts to $11,900.

PROPOSED FINANCING

The applicant proposed to finance his share by supplying money and use of equipment which he owns.

CONCLUSIONS AND RECOMMENDATIONS

Several factors suggest that this application should be denied:

1. Beryl is not present in sufficient quantities to support a mining operation. The owners report that a total of about 10,500 pounds of beryl has been produced from the two properties. The size of the present workings indicates that at least 1,700 tons of rock have been removed. Based on a price of $500 per ton for beryl, the mined rock would be valued at about $1.24 per ton.

2. Minerals, other than beryl, that could be produced are feldspar and scrap mica. The feldspar, which consists of both individual crystals of perthite and albite, is intergrown with mica and quartz. In addition, the mica, which is suitable only for scrap, is usually present in small books that measure a few

inches across. A milling operation would be necessary to recover the mica.

3. The owners report that the beryl crystals did not occur in any particular part of the pegmatite body and, therefore, mining of the entire deposit would be necessary. Although additional concentrations of beryl may exist, there is no way of predicting their location within the pegmatite, and there is no geologic evidence to indicate that the beryl content of the concealed parts of the pegmatite will differ materially from that which has already been mined.

4. The average beryl content of the pegmatites proposed for exploration has been reasonably well established by past mining operations and the "exploration" proposed by the applicant is in effect an extension of those mining operations.

For the reasons stated above it is recommended that the application for exploration assistance, DMEA Docket 4241, be denied.

DMEA
Date Rec'd.

APR 26 1956

BUREAU OF MINES
Denver, Colorado

April 25, 1956

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4241 (Beryl) Silver Rocker M & D Company, Glen R. Lamberg and Sons, (Savilla Queen No. 2 and Blue Brute claims), Chaffee County, Colorado

The subject application in the amount of $42,322.50 was received in this office on April 25, 1956.

A field examination will be made and suitable report prepared by an engineer from the Denver office.

JOHN F. SHAW
John F. Shaw

cc: W. M. Traver (2)
E. N. Harahman
J. F. Shaw
See Op. Chm. (2)

FILED
APR 27 1956

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

RECEIVED
APR 27 1956

April 24, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (2) (With brochure)
E. N. Harshman

From: Field Team, Region III

Subject: Docket DMEA 4241 (Beryl) Silver Rocker M & D Company, Glen N. Lemberg and Sons, (Savilla Queen No. 2 and Blue Brute claims), Chaffee County, Colorado

Enclosed is the subject application in the amount of $42,322.50. A field examination and suitable report are requested.

Also enclosed for your information are a copy of a letter from the Chairman, Operating Committee dated April 19, 1956 and attached memoranda of review of the application by H. D. Keiser and N. E. Nelson.

DMEA Field Team, Region III

W. M. TRAVER,

By W. M. Traver
Executive Officer

Enclosures

WMT:ab

cc: Chair. Op. Comm. (2)
Docket 4241
Chron.

DOCKET COPY
Surname:

Hon. Selfridge
Hopkins

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

APR 19 1956

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

Re: Docket No. DMEA-4241-Beryl
Silver Rocker M & D Company
Glen R. Lamberg and Sons
Savilla Queen No. 2 and
Blue Brute Claims
Chaffee 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 April 10 and 12, 1956, by Mr. H. D. Keiser, USBM, and Mr. N. E. Nelson, USGS, respectively, relating to the project are enclosed.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (G/S)

Approved:

/s/ Robert W. Geehan (G/S)
Member, Bureau of Mines

Thor H. Kiilsgaard (G/S)
Member, Geological Survey

Enclosures: 4

JHopkins:ms 4/13/56
Copy to: Docket
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Keiser, 3647
Mr. Houk
Mr. Hopkins
Admr. R. File

R.G.H.

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

DOCKET COPY
Surname:
Houk
Kilsgaard
Guhary
Selfridge
Johnson

APR 19 1956

Silver Rocker M & D Company
Glen R. Lamberg and Sons
Box 108
Salida, Colorado

Re: Docket No. DMEA-4241-Beryl
Silver Rocker M & D Company
Glen R. Lamberg and Sons
Savilla Queen No. 2 and
Blue Brute Claims
Chaffee County, Colorado

Gentlemen:

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, U. S. 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. Mitteadorf

Administrator

JHopkins:ms 4/13/56
Copy to: Docket
Operating Committee
Field Team, Region III
Mr. Kiilsgaard, 5222
Mr. Keiser, 3647
Mr. Houk
Mr. Hopkins
Admr. R. File

RGH.

IN REPLY REFER TO:

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

RECEIVED
APR 13 1956

April 12, 1956

Re: DMEA 4241
Silver Rocker M & D Co.
Savilla Queen No. 2 and
Blue Brute claims
Chaffee Co., Colorado
$42,322.75 - Beryl

Memorandum

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

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

Subject: Review of application.

The applicant requests assistance in exploring by glory hole mining two wide pegmatite dikes, without doubt beryl-bearing but to what extent is not intimated, no systematic crystal count probably having been made. It is said 5 to 7 tons(?) of beryl have been produced from three claims, but from what volume or tonnage of pegmatite is not said. One claim, Sherry Deen, is not part of the project area.

The claims probably are several miles east of the Mt. Antero Region in Chaffee County, reported on by John W. Adams, 1953, Beryllium Deposits of the Mount Antero Region, Chaffee County, Colorado, Geol. Sur. Bulletin 982-D.

A geologist from Golden expresses these opinions:--

"Large sized beryl crystals of light green color occur more commonly in pink orthoclase, white albite, and in highly albitized parts of the pegmatite. These crystals show a slightly deformed crystal form.

"Generally, the beryl-crystals are segregated in pockets in the pegmatite dikes and with increasing depth show a marked increase in quality, quantity, and the crystal size."

The work proposed by the applicant consists of:--

Savilla Queen No. 2 Claim

Moving 9,500 tons of pegmatite dike or quartz, spar, etc., at a cost of $20,425.00.

Blue Brute claim

Moving 10,185 tons, etc., as above, at an estimated cost of $21,897.75.

The Savilla work would create a cut 70 feet wide, 40-50 deep at the face and 100 feet long in the dike. The Blue Brute work would make a cut 100 feet wide, 50 feet deep at the face and 100 feet wide. The work at the two places is designed to get additional depth and, perhaps, to break rock that probably contains beryl.

At a quarry (Magneson) near the Savilla showings, albite is being quarried, for what use is not said, nor is mention made of beryl.

Assuming that the beryl does "show a marked increase in quality, quantity and crystal size, with increasing depth", the additional depth to be obtained by the quarrying operation is relatively small. Diamond drilling, though not too satisfactory in exploring for beryl, would afford a better test of the questionable assumption.

Referral to the Field Team for appropriate action is recommended.

N. E. Nelson

N. E. Nelson

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

RECEIVED
APR 10 1956

April 10, 1956

Memorandum

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

From: Chief, Branch of Rare and Precious Metals

Subject: Application for Exploration Aid, DMEA Docket No. 4241 (Beryl) Silver Rocket M & D Company, Glen R. Lamberg & Sons, Sevilla Queen No. 2 and Blue Brute Claims, Chaffee County, Colorado

The applicants seemed more concerned with development than with exploration. However, the pegmatites are apparently well-zoned and the geologic setting is favorable for the occurrence of commercial beryl. Therefore, it is recommended that the application be referred to the field team for an examination of the property.

H D Keiser
H. D. Keiser

Minerals not above ground

I would say

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

RECEIVED
APR 5 - 1956

April 2, 1956

224 New Customhouse
Denver 2, Colorado

Mr. W. D. Lamberg
Silver Rocker M & D Company
Box 108
Salida, Colorado

Re: Application for DMEA Aid (Beryl) (Savilla Queen No. 2 and Blue Brute claims), Chaffee County, Colorado

Dear Mr. Lamberg:

This will acknowledge receipt of your letter dated March 30, 1956 and four copies of your application for DMEA Aid on the Savilla Queen No. 2 and Blue Brute claims.

Your application has been forwarded the Washington office, DMEA, for further processing, and they will request any additional information which may be needed.

Very truly yours,

W. M. TRAVER

W. M. Traver
Executive Officer, DMEA
Field Team, Region III

HMC:ab

cc: Sec. Op. Comm. (2)
Harshman
Shaw
Subject
Chron.

April 6, 1956
Subject: DMEA-4241
Re: Exploration Assistance
Savilla Queen No. 2 &
Blue Brute

Silver Rocker M & D Company,
Glen R. Lamberg & Sons
Box 108 - Salida, Colorado

Gentlemen:

The receipt of your application dated March 30, 1956, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4241 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

April 6, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region III.

DMEA - 4241 Silver Rocker M & D Company, Glen R. Lamberg & Sons

Robert E. Adams
Chief, Operation's Control
and Statistics Division

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

RECEIVED
APR 5 - 1956

April 2, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Application for DMEA Aid (Beryl) Silver Rocker M & D Company, Glen R. Lamberg & Sons, (Savilla Queen No. 2 and Blue Brute claims), Chaffee County, Colorado

Enclosed are three copies of the subject application in the amount of $42,322.75. One copy of the application is being retained in our file.

DMEA Field Team, Region III

By W. M. Traver
Executive Officer

Enclosures

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

RECEIVED
APR 5 - 1956

April 2, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Application for DMEA Aid (Beryl) Silver Rocker M & D Company, Glen R. Lamberg & Sons, (Savilla Queen No. 2 and Blue Brute claims), Chaffee County, Colorado

Enclosed are three copies of the subject application in the amount of $42,322.75. One copy of the application is being retained in our file.

DMEA Field Team, Region III

W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosures

MF-703
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
APR 5 - 1956

APR 2 1956

BUREAU OF MINES
Denver, Colorado

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-4241
Metal or Mineral Beryl
Date Received 4-5-56
Estimated Cost $42,322.75
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: Silver Rocker M & D Company, Glen R. Lamberg & Sons
Glen R. Lamberg Box 108 Salida, Colo. Chaffee County, Colo.
W. D. Lamberg Box 108 Salida, Colo. " " "
Glen R. Lamberg II Box 108 Salida, Colo. " " "

(*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. Partnership, not incorporated

(*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. As above

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 Locators and Owners Possessory mining Claims- Savilla Queen No-2 and Blue Brute

(*b*) State any mine name by which the property is known. Savilla Queen No 2 & Blue Brute

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

(*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 None

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Savilla Queen No-2 Book 236, Page 337, Deed Book 247, Page 121
Blue Brute-Book 236, page 371, Chaffee County, Colo.

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

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

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

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. 12 miles from Railroad at Salida, Colo. Good roads to each claim.

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

Good, all we need at local origin

16—66551-1

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

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

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

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

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: attached

(*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.). See attached sheet

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

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

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

(*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. none

(*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. None

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

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

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

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

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

Some [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 March 30, 1956, 195__

Silver Rocker M & D Co
Glen R. Lamberg & Sons
(Applicant)

By Glen R Lamberg
Glen R. Lamberg

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

Glen R. Lamberg & Sons, Supplement sheet to Form MF-103 attached

RECEIVED
APR 5 - 1956

We are submitting under one application, two claims for exploration the Savilla Queen No-2 and the Blue Brute- If only one can be considered we would preper Savilla Queen No-2.

Our mining season in this area is limited to about 8 months per year, no mining in December, January, February or March, therefore we could accomplish both applications in 24 months or three years time, but we can accomplish one in 2 years time or 16 months operation.

4- We have been engaged in developing these claims the past 7 years, doing our assessment work, building roads easy accessibility to mines- We have cross-cut the dikes in several places and established full working areas on both claims.

4-B We have produced some Beryl of good quality from each of these claims, also some mica but not in commercial quanity to any extent. Felspar is being pushed over the dump as no local market for it. Good quality dikes as per report attached.

5-C We plan to start our seasonal work, weather permitting in about 15 to 30 days-

5-D Personally, I started mining, not full time, in 1926 with my Father-in-law at Gateway, Colorado on the Colorado Piteau. The Boys and I have been mining the past 10 years in this area, with the past 7 years devoted to the dikes at Turret to attempt commercial Beryl production, all our mining and development costs so far, have been at our sole expense and thru our combined working efforts. We will work these claims ourselves, hiring only one or two outside men.

6- See attached sheets for our estimates, based on previous costs.

6A- We would do our own drilling and most of our own mucking, contracting for D-6 to clean up about once every two months- D-6 costs about $12 per hour using him about 20 hours each two months.

6B- We would pay not less than $1.00 per hour for 40 hour week to extra labor, our own labor is estimated also at $1.00 per hour with 10% allowance to one for supervision. Geological consultant if needed itemized on attached cost sheet.

6C- Items of equipment costing less than $50 included in equipment schedule below, item 6D.

6D- We own and would use the following equipment- Worthington Blue Brute Compressor- air hose- jack hamner- Clay digger- steel 2 to 10 ft, bits complete- John Deere Crawler Tractor, 7 foot dozer used as mucking machine- oilers, greasers, hand tools, picks, shovels, bars etc- 2 pickup trucks to drive to and from work 12 miles each way daily. Two powder magazines, bulding on Blue Brute to house equipment. Full and complete mining equipment for exploration purposes.

6G- See cost accounting sheets attached- any extra labor would be covered by Insurance & Taxes.

Glen R. Lamberg & Sons

March 30, 1956

By Glen R Lamberg

Glen R. Lamberg & Sons- Application for Unit Cost basis

Savilla Queen No- 2, Beryl

Proposed work--Drill 12000 ft, shoot and move 7037 cubic yards or 9500 tons, on pegmatite dike of quartz, spar etc in exploration for Beryl. Estimated cost per ton moved over the dump $2.15 per ton, total $20425.00

Break-down in estimated costs, based on 16 months work in 2 years-

Insurance---------144.20 x 2---------		$ 288.40
D-6 Dozer 80 hours960.00 x 2---------		$ 1920.00
Gas & oil---------660.00 x 2---------		$ 1320.00
Dynamite-fuse-----600.00 x 2---------		$ 1200.00
Repair equipment--350.00 x 2---------		$ 700.00
Blacksmith--------210.00 x 2---------		$ 420.00
Labor 35 wks-----7000.00 x 2---------		$14000.00
Labor Taxes & supervision 288.30-----		$ 576.60
	$10212.50	$20425.00

Use allowance our equipment-
Tractor-dozer 20 hours per week @ 5.00 per hour
35 wks $3500.00 x 2 equals $7000.00
Compresser and drilling complete 20 hours per wk
@ $3.50 per hour, 35wks 2450.00 x 2 equals $4900.00

Blue Brute, Beryl

Proposed work--Drill 12700 ft, shoot and move 8064 cubic yards rock or 10185 tons, on pegmatite dike of quartz, spar etc in exploration for Beryl. Estimated cost per ton moved over the dump $2.15 per ton, total $21897.75

Same break-down as above can be applied in proportion, as claims are joined and of the same type rock.

Silver Rocker M & D Co.
Glen R. Lamberg & Sons

March 30, 1956

By Glen R Lamberg

RECEIVED
APR 5 - 1956

"GEOLOGY OF THE BERYL-PRODUCING PEGMATITE DIKES IN TURRET DISTRICT, CHAFFEE COUNTY, COLORADO."

Claims investigated

1. Blue Brute.
2. Savilla Queen II.
3. Sherry Doen.

Location . . . . . Sec. 34, T.51N., R.9E.
Owners . . . . . Mr. Glen R. Lambers & Sons.
Resident of . . . . . Salida, Colorado.

August 29, 1953.

Muhammad Azhar . . . . of. . . . Colorado School of Mines
(from Pakistan). Golden, Colorado.

RECEIVED
APR 5 - 1956

INTRODUCTION

The writer made a brief survey of the beryl-bearing pegmatite dikes in the Turret district and vicinity during his field mapping in the area northeast of Salida. It was hardly possible to investigate thoroughly all the pegmatite dikes in the area because of the lack of time and expence. The writer was sincerely encouraged by Mr. Glen R. Lambers and Sons to investigate the pegmatites in their claims located in sec. 34, T.5In.; R.9E. Accordingly, detailed field mapping was carried out in their claims designated as Blue Brute, Savilla Queen II, and Sherry Deen.

"With the exception of minor variations, the host rock is a coarse crystalline, highly albitized pegmatite with local concentrations of orthoclase, muscovite, and light smoky to milky white quartz. Invariably, the beryl occurs in crystal form, the crystals ranging in size from a few mm. to as much as 8-9 inches in diameter. Large sized crystals with unequally well-formed crystal faces are more frequently associated with albite, orthoclase, and albitized host rock. There seems to be a sound probability of uncovering crystal beryl in sufficiently large quantities from greater depths. The beryl is light green to bluish green in color and is of high quality.

Only two rock types occur in the claims i.e., "augen gneiss" of pre-Camb. age intruded by pegmatites. The gneiss with its typically well developed 'eye' structure shows poorly formed gneissic bandings which trend northeast and dip steeply to the northwest. The relationship between the gneiss and the pegmatite at their contact observed at several places in the area does indicate that the pegmatite has intruded the gneiss in "dike" form. The dikes traversing the claims have been mapped with Brunton and Tape. Parts of the dikes considered to be of minor importance have been paced. Geology and the structure of the dikes have been represented in Pl. I.-V. Major dikes have been shown in block diagrams in order to facilitate visualization of both the structure and geology."

The report has been divided into two parts. Part one is devoted to general discussion of the mineral beryl, its mode of occurrence, and its utilization. Part two includes a concise account of the geology of crystal beryl occuring in the pegmatite dikes mapped.

Last but not least, I owe a personal debt of gratitude to Mr. Glen R. Lamberg, Mr. Bud Lamberg, and Mr. Paul Lamberg for the most friendly co-operation and the most sincere assistance accorded to the writer during his field work in the Turret district, Chaffee county, Colorado.

GEOLOGY OF THE PRODUCTIVE PEGMATITE DIKES IN TURRET DISTRICT, CHAFFEE COUNTY, COLORADO.

RECEIVED
APR 5 - 1956

Besides the pegmatite dikes traversing the three claims of Mr. Glen R. Lamberg, the writer has studied and mapped a number of pegmatite dikes occuring in sections 30-33, T. 5I N.; R. 9. E.. The information gathered in the field leads to the following description pertaining to the geology of the "Berylliferous" pegmatites in the district.

Geology

"Augen" gneiss of pre-Cambrian age has been intruded by pegmatite dikes. The gneiss is composed of biotite, orthoclase, some plagioclase, and quartz. The mineral biotite in the gneiss is in appericiably excessive amounts. Quartz and orthoclase augens "eyes" encased in biotite feldspar layers impart the characteristic "eye-structure" to the pre-Cambrians. Gneissic bandings are poorly developed. Lineation produced by a well defined linear orientation of the quartz-orthoclase "knots" in the gneiss trends N. 50-70°E. and plunge 25°-50°NW. or SE.(Pl. IV & V). The gneiss weathers to a grayish-black color with a light brown shade. Wherever well exposed in the area, the gneiss occupies the topographic highs.

Structural developments in the gneiss are of little consequence. Jointing in the gneiss represents the only structure developed. Two sets of joints developed in the pre-Cambrian rockmass strike N. 30E. to N.50W. with the angle of dip varying between 70°NW. to vertical. The northeasterly joint system is comparatively more highly developed than the northwesterly joint system. The joints may or may not continue across the pegmatite dikes. Faulting is almost totally absent from the pre-Cambrian area covered in this report. As it appears from the field investigations, this area was subjected to compressive forces of high magnitude coming from the northwest. The compression may have produced the northwesterly joint system. The northeasterly joints seem to have formed upon release of the compression.

Pegmatite dikes occuring in the three claims are typically light in color and coarsly crystalline in texture. They are composed principally of light pink to grayish-white orthoclase, light smoky quartz, muscovite, albite, and several accessory minorals. Albite has replaced most of the orthoclase - the replacement has apparently been accomplished during a stage of albitization of the pegmatites. Partially albitized crystals of orthoclase, and high degree of 'albitization' of all the pegmatite dikes in sec. 34 and 33 T.5I N.; R.9E. and the albite concentration in the Magneson's quarry do authenticate the assertion made above. Lack of time did not permit to investigate the pegmatites is due details.

Pegmatite Dikes in

I. Blue Brute: There are two pegmatite dikes running through Mr, Lamberg's claim named Blue Brute. One of the dikes is elongated in a N.50W. direction over a distance of approximately 500 feet. Its maximum width is about 250 feet at the open cut developed in it. The dike tapers out to a mere point both to the southeast and to the northwest. The dike forms an angle to the regional gneissic structure. Upon removal of the overburden, the dike would show a further increase in width.

The dike is composed of white to light smoky gray quartz, flesh red orthoclase, milky white albite, and muscovite. Very frequently quartz, orthoclase, and muscovite show individual concentrations in various part of the pegmatite. Albite seems to have attacked all the components of the pegmatite excepting muscovite?. The pegmatite yields a white float upon weathering which facilitates tracing the outcrop of the pegmatite dikes. Jointing is comparatively poorly developed in the pegmatite. In pursuit of beryl crystals a small shear zone was encountered. So far it has proved to be of a limited northeasterly extent. It may reappear farther east beneath the pre-Cambrian gneiss. Geology and structure of the pegmatite dikes exposed in "Blue Brute" have been represented in plate I and II.

Surficial weathering has rendered the near surface layer of the pegmatite quite loose and easier to drill and blast. Feldspars and the other constituents have been stained yellowish-brown. The brownish coloration is due to the oxidation of the included hematite and magnetite. Micas, wherever present have been altered to a light green chlorite. Orthoclase shows a slight degree of alteration along the cleavage planes. Beryl crystals occuring in the top layer of the pegmatite have been partially to totally decomposed to a faint green micaceous material. The crystals of appericiable sizes readily crumple down to angular pieces under the impact of hammer. The decomposed part of the pegmatite is, however, of restricted vertical extent and grades into fresh and hard rock a short distance below the surface.

II. <u>Savilla Queen II</u>: A network of pegmatite dikes traverses Savilla-Queen II. The major dike which has been exploited for beryl trends N.60 to 70 W and continues over a distance of about 900 feet. At the Savilla open cut (1/4 SW. sec. 34) it shows a maximum width of about 100 feet. Variations in its width are shown in Pl. IV. Smaller dikes which trend essentially in uniformity with the major dike are also outlined on the map. In geology and composition these dikes are identical with those of the Blue Brute described above. The only difference may be noticed in an increased albite content of these dikes.(It may be pointed out that the Savilla claim is located in close proximity to the Magneson's albite quarry while the other claims are considerably distant from it). It seems superfluous to emphasize and re-emphasize the structure and the composition of the dikes when they have already been represented graphically in plates III. & IV.

The gneissic structure in this claim runs N.50-65°E. and plunges 40-45° to the NW. The contact between the main pegmatite dike and the "augen" gneiss typically well exposed at the extreme northwestern extremity of the dike strike N. 35W. and dips to the SW. at an angle of 85 degrees. The contacts in the Blue Brute are very poorly exposed but still the above mentioned relationships does hold. Long sections and cross sections through the main dikes in both the claims bring out these structural relationships more clearly(refer to plate II & IV.). And according to Willis and Ries (Dictionary of Geological Terms page 106 and other sources) the pegmatites are definitely in "[illegible]" form.and [illegible]

The augen" gneiss at the pegmatite contact shows a marked degree of alteration - the zone of contact metamorphism of the igneous rocks. The zone of alteration does not extend more than 7-11 inches into the surrounding gneiss. It may be as small as 2 to 3 inches. This zone could hardly be represented on the maps because of the scale (1" = 100') adopted. A detailed physio-chemical study of the zone may reveal some interesting chemical equilibrium phenomena. The zone is inconsistently exposed along the contact. This zonal alteration has been affected by a medium hot, molten igneous mass ascending through the country rock. It may be inferred safely that the zone of alteration will widen out away from the magmatic intrusion.

III. Sherry Dean: This claim has only one pegmatite dike. It trends N.35°E. to N.80°W. and extends over a distance of about 200 to 300 feet. The contacts with the gneiss are poorly exposed and are, therefore, inferred from the minor but definite exposures in the creek bed cutting across the dike. Two patches, one of "augen gneiss" overlain by graphic granite were noticed along the north wall of the open cut developed in the dike. Furthermore, the patches are capped by pegmatite which in turn is surrounded by Augen gneiss(Plate V, Long section A-A'). The writer infers that the patch of the gneiss has been shoved up by the pegmatitic intrusion from the depth? Variations in the linear trend of the gneiss also adds to the above viewpoint. Contrarily, it may be a part of the surface gneiss which has not been assimilated. The presence of the graphic granite which is much more conspicous in this claim than in the other two claims may support the point of view put forward by Schaller (page 3, para four of this report). The pegmatite dike as well as most of the area surrounding it is covered by Granitic" float. Geology, structure, and the extent of the dike and of the country rock is shown in Pl. V.

Beryl

Beryl produced from the aforementioned pegmatite dikes is in crystalline form; light green to bluish-green in color; occurs mostly in irregularly developed to well defined hexagonal crystals; normally it is of high purity and its BeO content varies between 10-14%; average size of the crystals is 5" (diameter) x 1 1/2 '(length) though crystals as large as 32" in diameter and 5-6' long have also been uncovered from the dikes; and it does not follow any 'hard and fast' rules in its occurrence.

[illegible] of Occurrence

The beryl occurs in sparsely distributed clusters (pockets), and as individual crystals of varying sized in the pegmatite. From the field and the site observations the writer has arrived at the following modes of occurrenc of the beryl crystals: (1) along and not across the cleavage or joint planes; (2) typically large sized crystals are confined mainly to the orthoclase or albite rich parts of the pegmatite and in irregularly distributed pockets; and (3) typically bluish-green, considerably smaller sized (1"- 2" diameter), and excellently well-defined crystals occur in small quantities in the light smoky quartz. The writer feels justified to state that the degree of development of the beryl crystals and their purity are inversly proportional to the degree of hardness and freshness of the pegmatites and their albitization (Dana, 1949, P. 545-546). There [illegible] to be [illegible] close association between [illegible] and [illegible] of beryl - a problem which needs further attention.

Moreover, three or more crystals may occur in a bunch' and may intersect at a common point with the growth of a single large sized crystal at a slight depth. Such an occurrence is, however, quite rare. The writer observed in the Blue Brute that fairly good sized crystals followed a local shear zone along the fault plane. The writer inferred the probability of uncovering more beryl crystals following the shear zone along the dip slope which did prove to be of vlaue. The pocket did not last long due to the change in the [illegible]ck type or because of the normally 'abnormal' mode of occurrence of the beryl. The writer agrees with the view-point of Ladoo expressed on page [illegible], [illegible], of this report.

[illegible]

Production of the beryl from the three claims is quite satisfactory.

Good quality, rather the best quality (14% BeO) beryl produced from the three claims averages about 5 to 7 tons in weight . The method of exploitation is exactly similar to the one described on page 5. Beryl crystals, if undecomposed, can be taken out in crystalline form; otherwise they break-down easily by a slight stroke of hammer.

CONCLUSIONS

1. Large sized beryl crystals of light green color occur more commonly in pink orthoclase, white albite, and in highly albitized parts of the pegmatite These crystals show a slightly deformed crystal form.

2. Unoriented, excellently well developed, bluish-green crystals of much smaller dimensions occur in light smoky quartz.

3. Crystals of still smaller dimensions are found in a mixture of quartz, orthoclase, and albite.

4. More often, the crystals follow a joint plane or a fracture zone developed in the pegmatite dikes. Normally the crystals are large sized along such planes.

5. Generally, the beryl-crystals are segregated in pockets in the pegmatite dikes and with increasing depth show a marked increase in quality, quantity, and the crystal size.

INFERENCES

Conclusions based upon field study, observations in the open-cut operations, and Liberary research lead to the following inferences:

A. There is a good probability of uncovering the beryl crystals of larger sizes and of higher quality from greater depths.

B. A productive shear zone or a joint system should be followed to depth along the dip-slope.

C. Sporadic distribution of smaller beryl crystals in feldspars or quartz may lead to a commercial concentration of beryl.

D. Aquamarine - a sea-green, and bluish variety of gem beryl has been discovered from the area to the west, of these claims. Why would it be vain at all to search for gem-quality beryl from these pegmatite dikes (ref. p. [illegible], para 3.).

E. According to the view-point of Dr. Lindgren ([illegible] 4, para 1 & 2), I would sincerely support the idea of stock-piling the following constituents obtained from these pegmatites: 1. Orthoclase, 2. quartz, 3. micas, and 4. garnet and similar other accessory minerals if found in sufficient quantities

And lastly, I close this brief investigation pertaining to the occurrence of beryl in extreme humility since . . . . .
"[illegible] . . . . . Pascal.

Respectfully submitted

August 28, 1953.

M. Azhar.

GLEN R. LAMBERG & SONS.
SALIDA COLO

SECTION 34 T51N-R9E NMPM

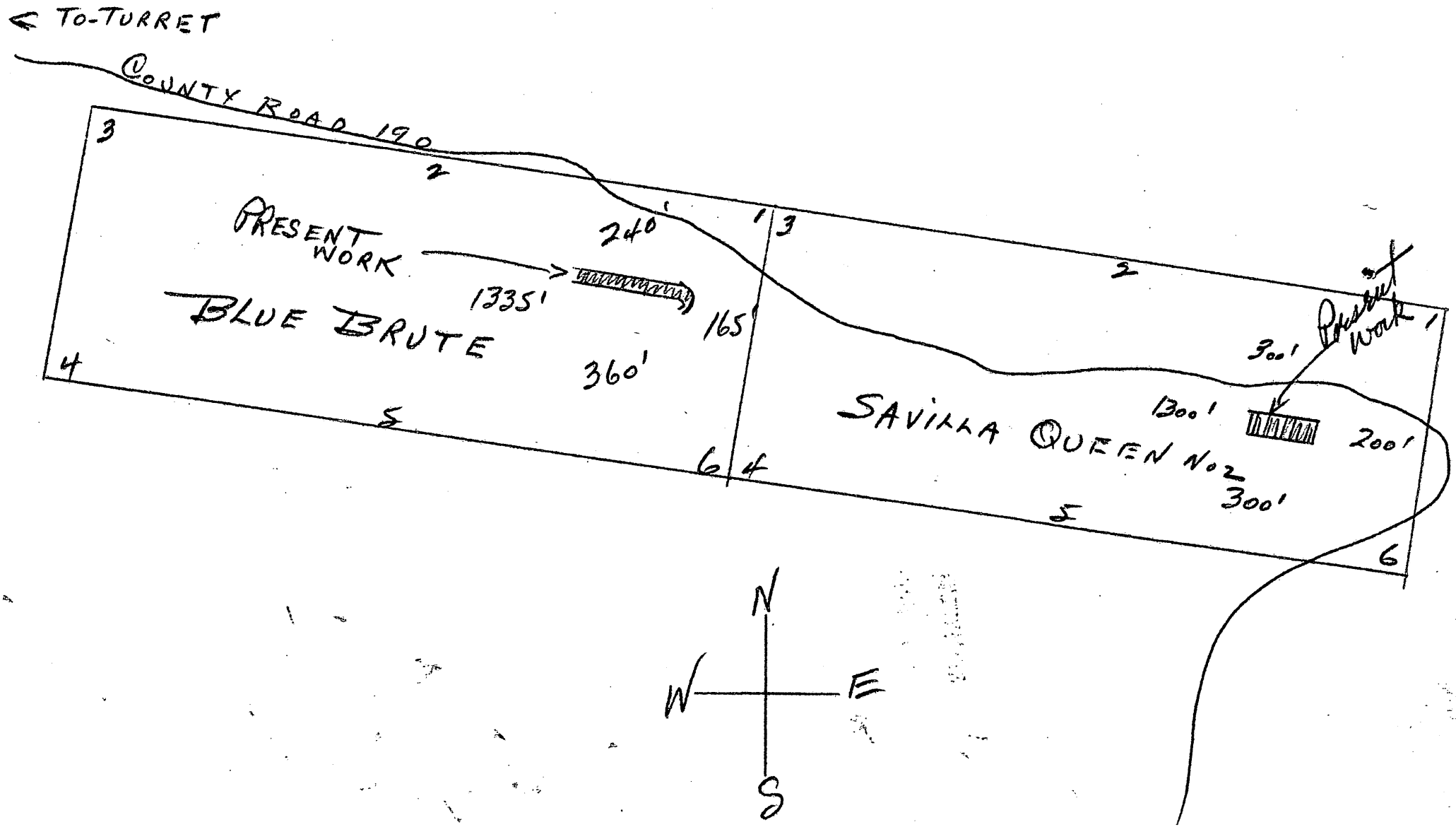
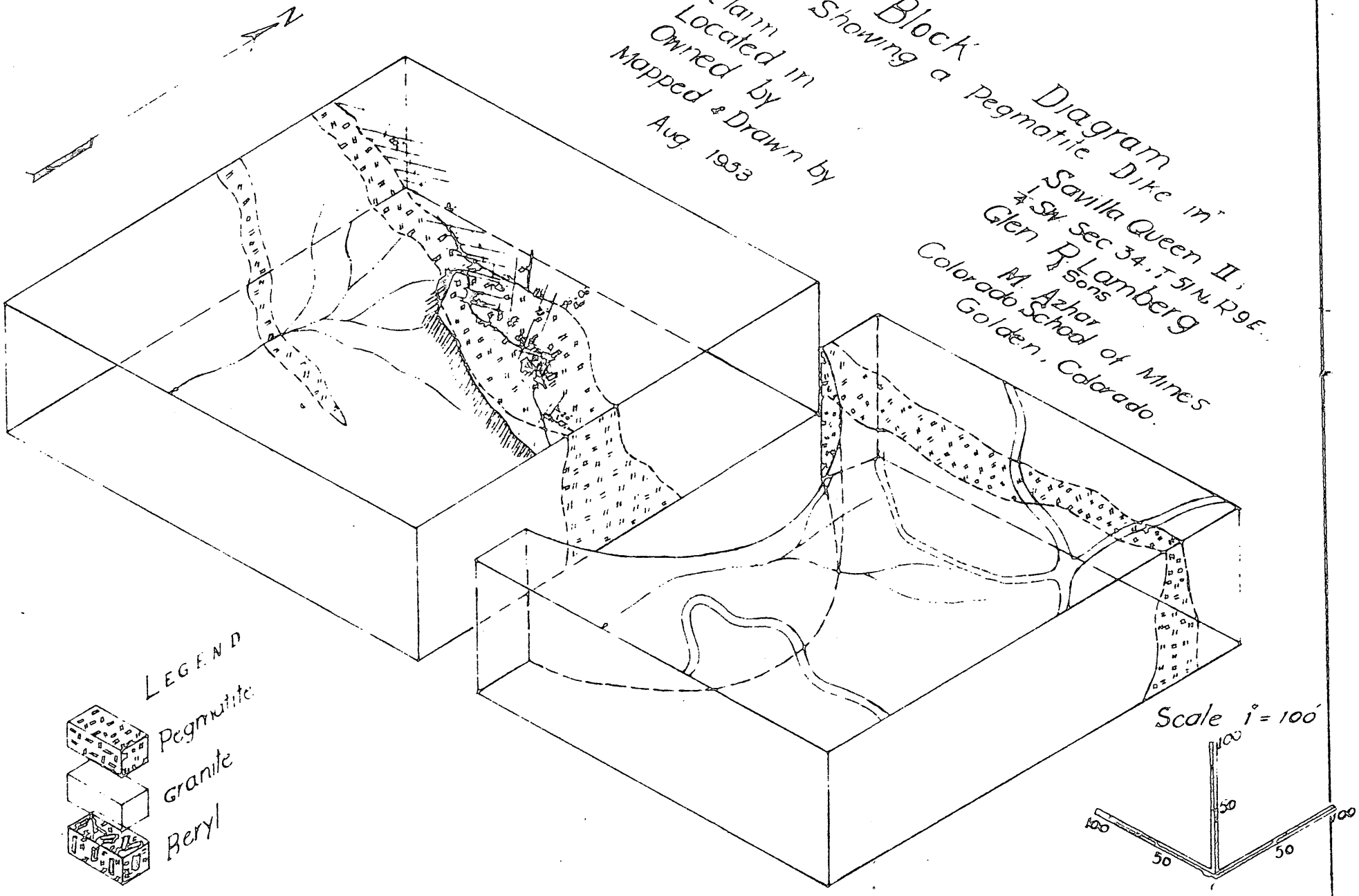
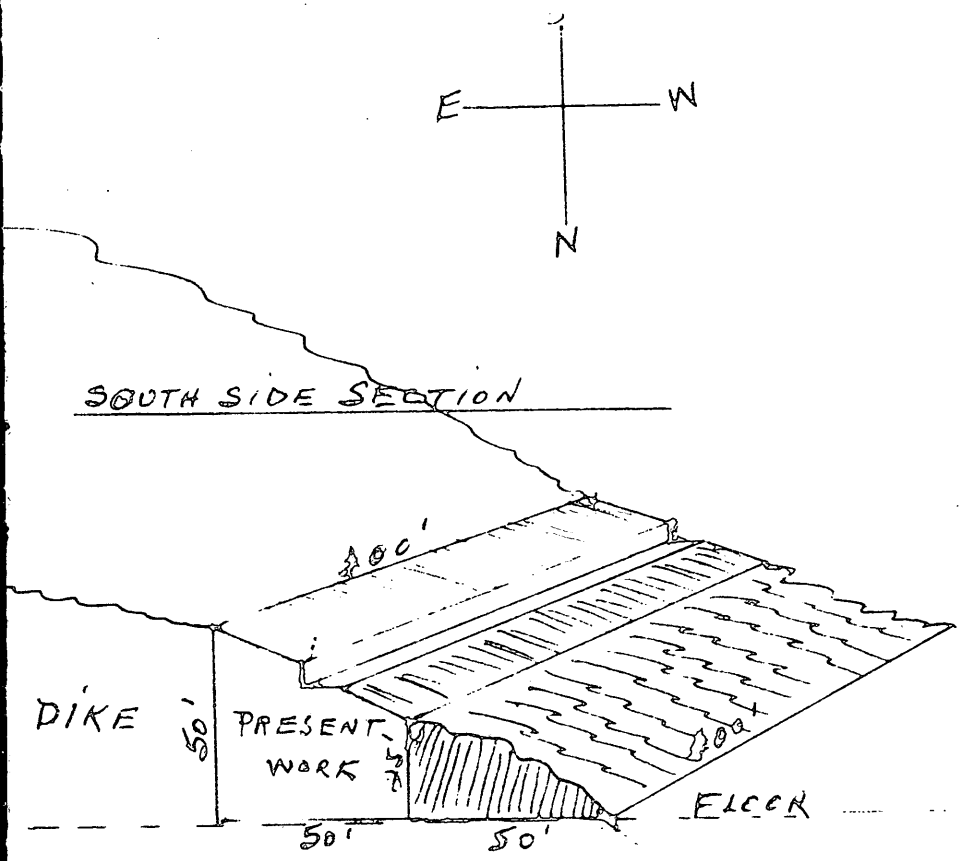
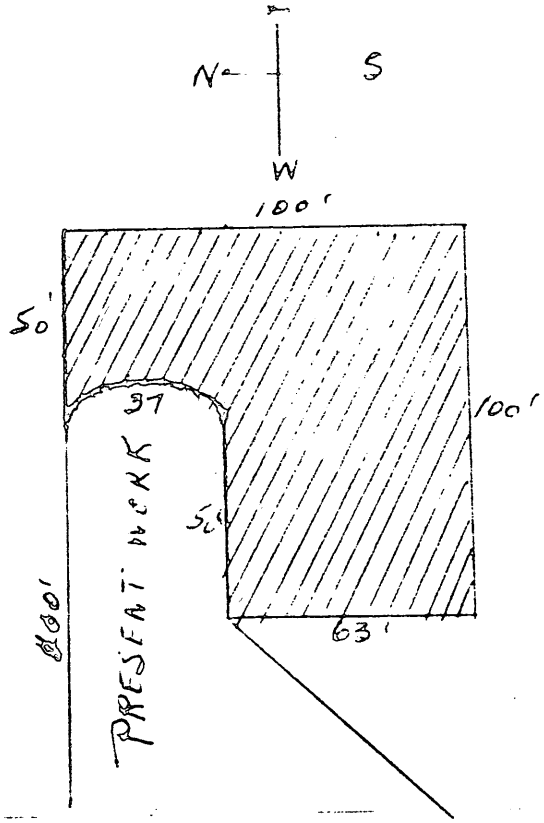


Fig. 13


Block Diagram
Showing a Pegmatite Dike in
Claim Savilla Queen II,
Located in ¼ SW sec 34, T 51 N, R 9 E.
Owned by Glen R. Lamberg
Mapped & Drawn by M. Azhar
Aug. 1953 Colorado School of Mines
Golden, Colorado.
N
LEGEND
Pegmatite
Granite
Beryl
Scale 1" = 100'
100
50
100
50
50
100

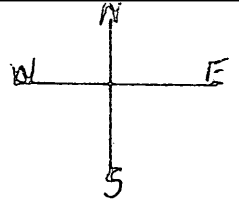


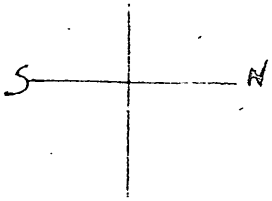


LEGEND SCALE ABOUT 1" 50'
NEW WORK IN RED
½ of 50X100X100 LESS 92500 CU FT.
20375 CU FT OR 8064 Cu YDS
1018 STONS —
DRILL HOLES 4 FT. CENTERS 12.500'
12.700 FT

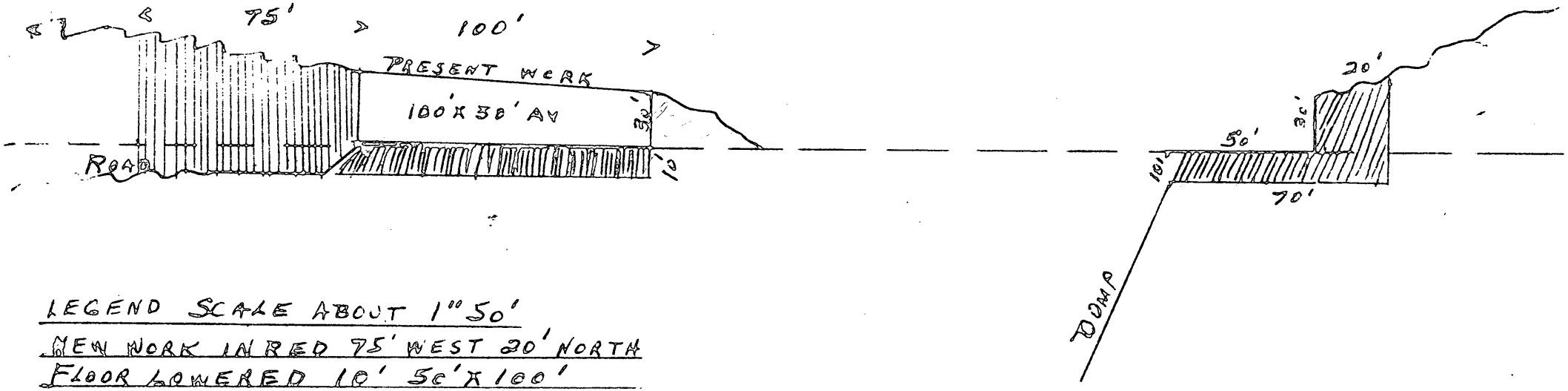
BLUE BRITT TURRET. CHAFFEE
COUNTY, COLORADO BOOK 236 PAGE 371
SEC 34 - TS 51-N R9E NMPM
GLEN R HAMBERG & SONS.

GLEN R LAMBERG + SONS



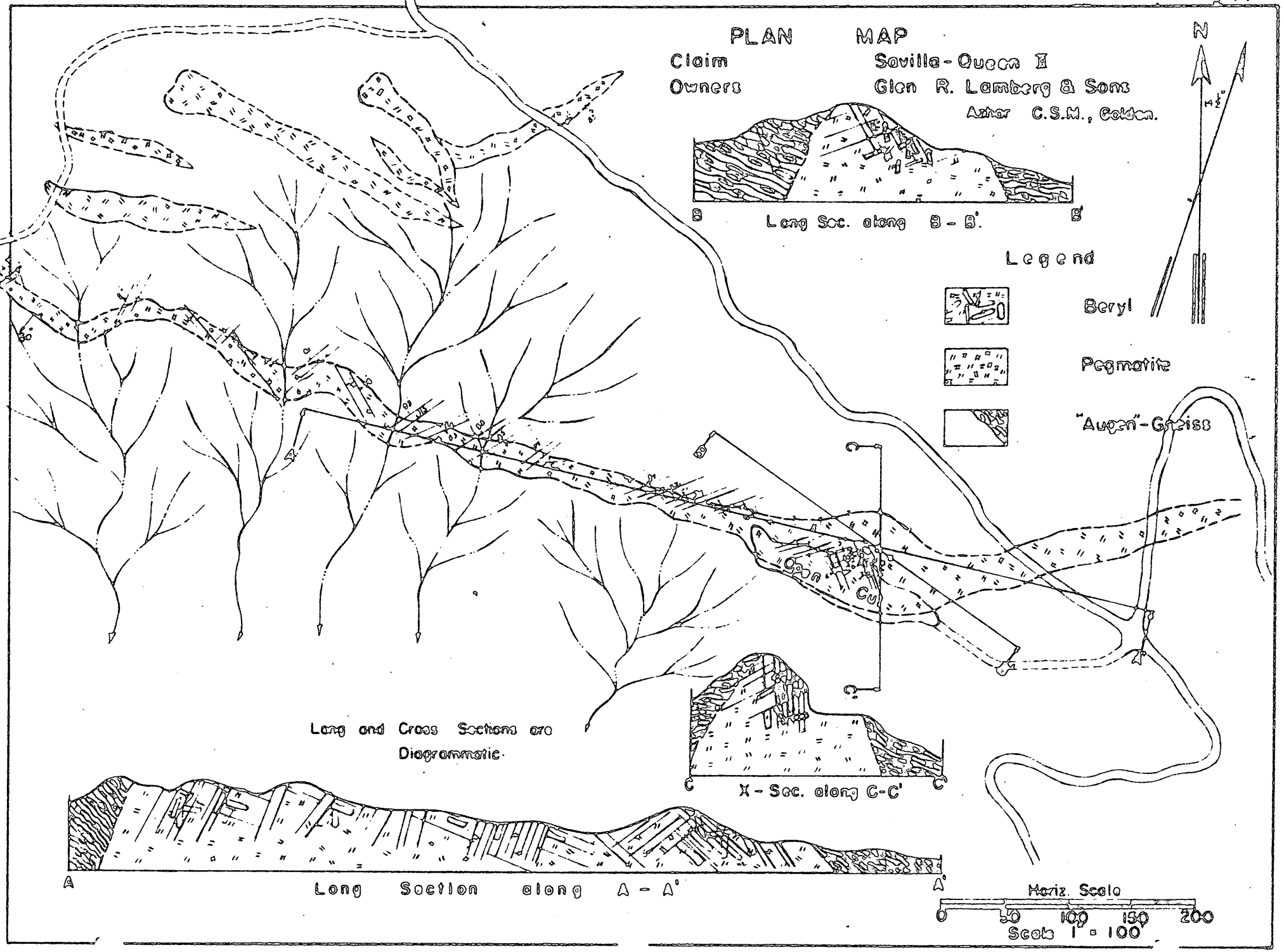


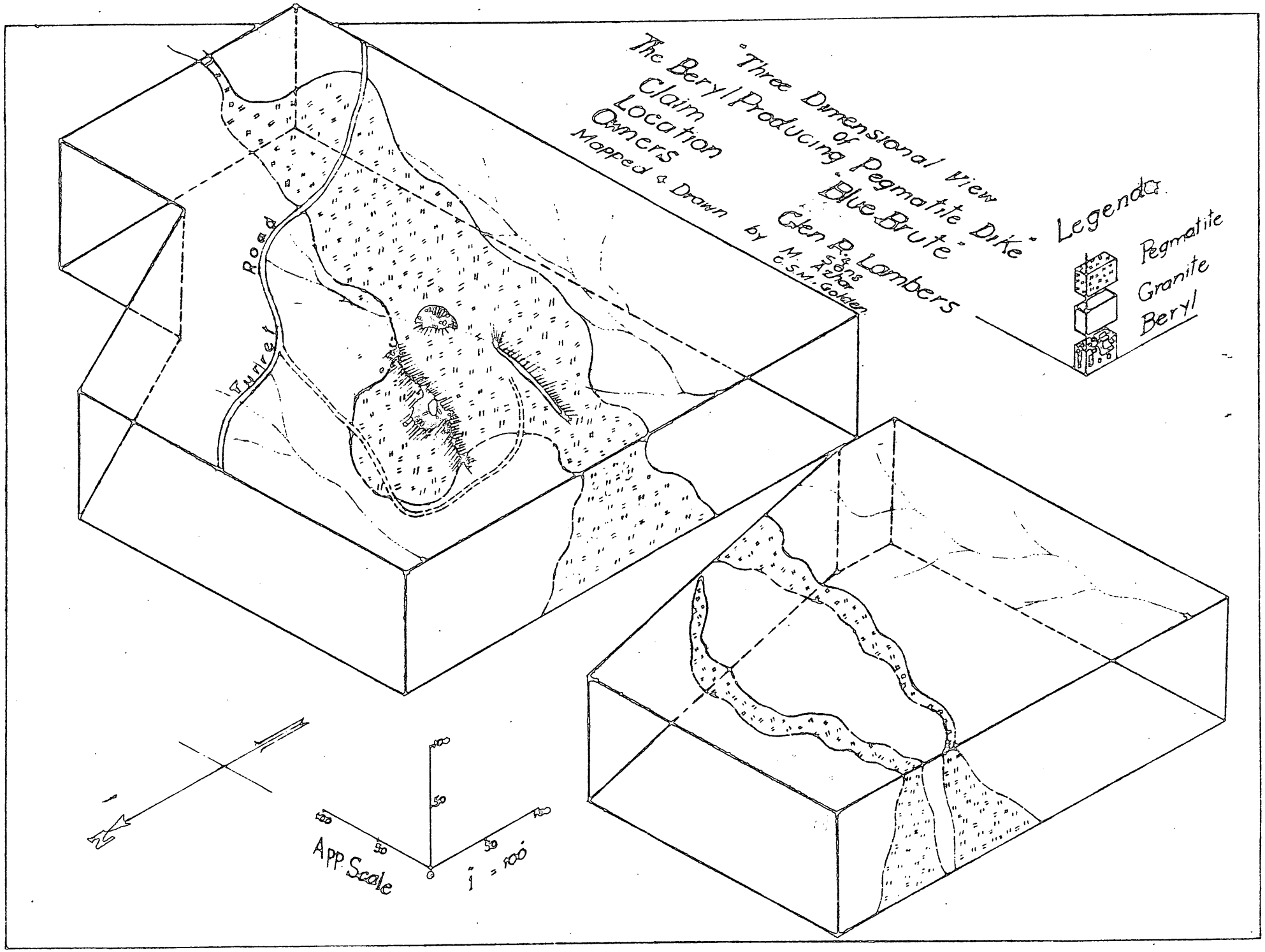
SAVILLA QUEEN NO 2 TURRET CHAFFEE COUNTY, COLORADO - BOOK 236 PAGE 337 DEED BOOK 247 PAGE 121 - SEC 34 TS 51N R.9E NMPM



LEGEND SCALE ABOUT 1" 50'
NEW WORK IN RED 75' WEST 20' NORTH
FLOOR LOWERED 10' 50' X 100'
OLD FACE PUSHED BACK 20' X 100'
10 X 50 X 100' = 50,000 CU. FT.
40 X 20 X 175' = 140,000 CU. FT.
TOTAL 190,000 CU FT. 7037 CU. YDS OR 9500 TONS PLUS
DRILL HOLES 4' CENTERS - 12000 FT

Fig. 14


PLAN MAP
Claim Owners
Saville - Queen I
Glen R. Lamberg & Sons
Author C.S.M., Golden.
N
B
Long Sec. along B - B'.
B'
Legend
Beryl
Pegmatite
"Augen"-Gneiss
Long and Cross Sections are Diagrammatic.
C
X - Sec. along C-C'
C'
A
Long Section along A - A'
A'
Horiz. Scale
0
50
100
150
200
Scale 1" = 100'


"Three Dimensional view of Pegmatite Dike"
The Beryl Producing "Blue Brute"
Claim
Location
Owners
Glen R. Lambers
Mapped & Drawn by M. Sons
C.S.M. Golden
Legend:
Pegmatite
Granite
Beryl
Road
Turret
N
App. Scale
1" = 100'
100
50
50
100
50
100