DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 2210

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EXPLORATION PROJECT

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Routing Slip

To:	Production Expansion Div. Code 400	Date	11/14/51
To:	Nat'l	Date	2/5/52
To:	Operating Com.	Date	3-12-52
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CONTROLLED DOCUMENT

MAR 13 1952

Mr. Fletcher C. Phillips, Manager
Brooks Beryllium
Spruce Pine, North Carolina

Re: DMEA Docket No. 2210 (Beryl-Mica)
Brooks Mine - 5 miles north of
Bryson City, North Carolina

Dear Mr. Phillips:

Your application for aid for an exploration project on the Brooks Mine in Charleston Township, Swain County, North Carolina, has been reviewed by the Staff of the Defense Minerals Exploration Administration.

The information submitted by you does not show that any substantial production of beryl has been made from the property in the past nor that any strategic mica has been produced. Based upon the data available to us it does not appear that a significant discovery of strategic mineral on the property will result from the proposed work. Hence, your request for exploration aid is denied.

We thank you for your interest in the defense minerals program and regret that we are unable to approve the expenditure of Government funds in this instance.

Sincerely yours,

C. O. Mittenderf

Acting Administrator
Defense Minerals Exploration
Administration

TLChapman/FFJohnson/mp/bih
3/10/52
cc to: Docket
Admr's. Reading File
Field Team - Region VII (2)
Messrs. Dietrich R-3526
Norton G-232 GSA Bldg.
Houk
Chapman
F Johnson
Oper. Comm.

FILE COPY 600
SURNAME:

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

MAR 13 1952

SD

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Spruce Pine, North Carolina

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C. O. Mittenderf (for) J.N. 3-13-52

Acting Administrator
Defense Minerals Exploration
Administration

TLChapman/FEJohnson/mp/bih
3/10/52
cc to: Docket
Admr's. Reading File
Field Team - Region VII (2)
Messrs. Dietrich R-3526
Norton G-232 GSA Bldg.
Houk
Chapman
FEJohnson
Operating Committee

FILE COPY
SURNAME:

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

600

Chapman
Houk
Norton
Dietrich (CRL)

Mr. Fletcher O. Phillips, Manager
Brooks Beryllium
Spruce Pine, North Carolina

Subject: Docket LMEA-2210
Beryl-Mica
Brooks Mine
5 miles north of
Bryson City, N. C.

Dear Mr. Phillips:

Your application for exploration assistance on the Brooks Mine in Charleston Township, Swain County, North Carolina, has been reviewed by the Staff of the Defense Minerals Exploration Administration.

The proposal submitted does not show that there has been any substantial production of beryl from the property in the past nor that any strategic mica has been produced, and it does not appear probable that the property will produce any substantial amounts of beryl or strategic mica for national defense. Hence, your request for exploration aid is denied.

We thank you for your interest in the defense minerals program and regret that we are unable to approve the expenditure of Government funds.

Sincerely yours,

C. O. Mittenderf

Acting Administrator
Defense Minerals Exploration
Administration

TLChapman:mp
3/4/52
cc: Act. Administrator
Field Team, Region VII (2)
Mr. Dietrich, Room 3526
Mr. Norton, G-232, GSA Bldg.
Mr. Houk
Mr. Chapman
Docket File

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

February 28, 1952

Memorandum

To: L. G. Houk, Non-Metallics Division, DMEA

From: S. Needleman, Rare and Precious Metals Branch

Subject: DMA-2210 - Brooks Beryllium, Swain County, North Carolina.

Re: Beryl-feldspar

It is recommended that final action on subject docket be delayed until Mr. F. O. Phillips of Brooks Beryllium submits a certified offer of purchase of the feldspar at a substantial price. This application does merit further consideration for field team examination for a beryl exploration loan if the feldspar can be sold at a reasonable figure.

Stanley Needleman
STANLEY NEEDLEMAN

Enclosure

FILE COPY
Surname:

Needleman
MMK

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

February 28, 1952

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STANLEY NEEDLEMAN

Enclosure

SNeedleman:kg

Copy to: Minerals Division
Stanley Needleman
Rare and Precious Metals Branch
F I L E S

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

February 28, 1952

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STANLEY NEEDLEMAN

Enclosure

SNeedleman:kg

Copy to: Minerals Division
Stanley Needleman
Rare and Precious Metals Branch
F I L E S

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
FEB 21 1952

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

February 21, 1952

Memorandum

To: L. G. Houk, Non-metallic Mineral Deposits, DMEA.

From: Donald H. Kupfer, U. S. Geological Survey.

Subject: F. O. Phillips application (DMEA-2210) for aid in exploring the Brooks Berylium prospect for pegmatite minerals.

Location of prospect: Near Bryson City, Swain County, North Carolina.

Recommendation: Deny application.

Reasons for recommendation:

1. The application was reviewed by this office on December 11, 1951. The data submitted by the applicant at that time indicated that the deposit did not warrant a field examination.

2. The new report submitted by the applicant does not add to our knowledge of the deposit or justify considering the application any further.

Comments:

1. R. H. Jahns' complete report on the property is attached.

2. R. H. Jahns' comments in a letter dated November 29, 1951 are included in my memorandum of December 11, 1951.

3. The mine produced feldspar during 1932-35 at a rate of 10-16 tons per day and the occasional beryl crystals that were found were stockpiled at the mine. Thus the presence of beryl on the "dumps."

4. Mr. Phillips reported a production of 30 tons of beryl from this mine during the war. He was asked to substantiate this figure, but has not. The total wartime beryl production of all the southeastern states is less than 15 tons.

5. Mr.Cloyd Smith found no beryl in place.

Donald H Kupfer

IN REPLY REFER TO:

COPY

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

BROOKS FELDSPAR-BERYL DEPOSIT
SWAIN COUNTY, NORTH CAROLINA

August 1944

Richard H. Jahns
U. S. Geological Survey

(Note: This is an unpublished report of the U. S. Geological Survey. It is for Government use only. It can not be quoted or its contents made known to unauthorized personnel.)

Location and access

The Brooks feldspar-beryl deposit is near the head of Pigeon Creek, 3.5 airline miles south of Bryson City, Swain County, North Carolina. It is at an altitude of 3350 feet, and can be reached over the following route:

Directions	Mileage
Bryson City; take US Hwy. 19 to the SW.	0.0
Valley of Alarka Cree; turn left on good gravel road.	3.4
Road fork; take right-hand road and cross Little Alarka Creek.	5.0
Bridge over Alarka Creek.	7.8
Alarka; continue up main valley and recross creek.	8.3
Turn left on poor road up Pigeon Creek.	8.9
Take poorly-dfined truck track to left and continue to washed-out stream crossing. Remainder of distance must be covered on foot over steep road on west side of valley.	9.35
Lower Brooks pit; upper pit is 200 feet beyond	10.8

The last 1.45 miles of road to the deposit is badly washed and gullied. The road is very steep, and would need regular maintenance if it were rehabilitated for vehicular travel.

The deposit was examined on August 18, 1944 by the writer, who was accompanied by J. J. Hastings of the Southern Railway Co. A sketch map and section were prepared, but are not included with this report.

Ownership and development

The deposit is said to have been opened by the Brooks Lumber Company of Bryson City in 1932. It was worked for feldspar until 1935. Presumably the mineral and timber rights on the property are still controlled by the Brooks organization.

The feldspar, a low-grade ceramic material, was mined from two open cuts and trucked to Spruce Pine, North Carolina, for grinding. Daily production is reported by C. E. Hunter, geologist for the Tennessee Valley Authority, to have been 10 to 16 tons. No beryl is known to have been sold, although it was carefully stockpiled at the mine.

The upper pit was cut into the steep valley wall immediately west of the stream. It is approximately 100 feet long (N.-S.) and 50 feet wide, with present maximum depth of 40 feet at the north-west corner. A 5- to 8-foot layer of slope debris appears to have been removed in part by hydraulicking, and the pegmatite was then mined chiefly by soft-rock methods. The lower pit, in the valley bottom 200 feet S. 40° W. of the upper pit, is about 125 feet long (trending N. 25° E.), 50 feet wide, and 35 feet in maximum depth. The full thickness of the gently dipping pegmatite was mined away in the south half of the pit, but operations ceased soon after the pegmatite was exposed by stripping in the north half.

General geology

The country rock in the vicinity of the mine is a thinly foliated, fine-grained quartz--sericite schist with interlayered light gray quartzite, quartz--garnet--biotite schist, and quartzose schist with large spangles of muscovite. The foliation trends north-northeast and dips steeply east in the upper pit, but to the south its dip is much more gentle. The country rock is cut by numerous faults of small displacement and locally has been severely contorted. Many small, tight drag folds are present in the upper pit; they plunge gently south.

Pegmatite

The pegmatite in the north, or upper pit is a dike-like mass that trends north. Its westerly contact, as exposed in the northwest corner of the pit, dips very steeply east. Although the other contact is not exposed, the pegmatite must be at least 25 feet thick at the pit floor. It appears to pinch out upward in the north end of the pit, but slumped material obscures the relations.

In the lower pit the pegmatite is a lens on the east flank of a broad arch in the country rock; it thins out and disappears along the crest of this arch, but thickens markedly to the east. This pegmatite may well be a large lens that is at least 15 feet thick, trends north-northeast, and dips gently east. It appears to connect with the mass exposed in the upper pit; hence the latter may well be merely a thicker portion of the lens.

The pegmatite is a medium- to coarse-grained aggregate of fledspar and quartz, and is partially kaolinized where it is exposed. It consists of microcline, quartz, plagioclase, muscovite, beryl, biotite, spessartite garnet, apatite, and schorl in that order of abundance. The potash feldspar, which is strongly perthitic, occurs as irregular white to pinkish masses 1 to 24 inches in maximum dimension, and in most places contains crudely graphic intergrowths of quartz. The quartz occurs typically as plates that are about 3 inches long, 2 inches wide, and ¼ inch thick. The plagioclase, which is lustrous and white, is also intergrown with quartz.

The pegmatite is not readily divisible into units of differing texture or mineral composition, and the micas, apatite, garnet, and schorl are not noticeably restricted to certain parts of the mass. A poorly defined zone of unusually large beryl crystals is reported to have been present near the footwal of the pegmatite, but is not visible in the present exposures. The accessory minerals occur in scattered zones that are rich in small anhedral masses or large lenses of quartz.

Biotite is present as isolated blades 6 inches by 1 inch in average length and width. Garnet occurs as irregular masses about the size of a walnut, although one "slug" 8 inches in diameter was seen on the dump. Most of the garnets are strongly stained with manganese oxides. The apatite, pale green and much fractured, occurs in the feldspar masses, and most of the schorl is graphically intergrown with quartz.

Muscovite is present in "burr rock," where it is disseminated through quartz, and in quartz-rich zones as thick books that average 2 inches in diameter. The maximum observed diameter was 15 inches, with a thickness of 8 inches. The mica is light rum to ruby rum, much wrinkled and broken, and generally brown spotted. Most is soft, and the amount of recoverable strategic-grade material is negligible.

Beryl is associated with quartz and muscovite, and occurs chiefly in the upper pit as crudely formed, tapering crystals in feldspar. It is pale yellowish green to pale liver brown, and a few fragments of deep golden material were seen on the dump. The average length and diameter of the crystals are about 6 and 2 inches, respectively; the largest crystal segment seen was 18 by 16 inches, although Hunter reports one 48 by 30 inches. Much of the material appears to be relatively free from intergrowths and inclusions of quartz and feldspar, and should be of acceptable commercial grade. Most should be recoverable by hand sorting, although many small crystals could not be cobbed from the feldspar.

Conclusions and recommendations

Despite the probable lenticular shape of the Brooks pegmatite and the reported filling of the upper pit with 20 feet of debris from the west wall, the reserves of feldspar are probably fairly large. The material is low-grade "cordueroy spar," however, and hence cannot command more than glass-spar prices. The long haul to the nearest market makes commercial operation for this quartzose spar a very doubtful venture.

The beryl occurs chiefly in the upper pit, where the spar is least pure. About 2 tons is in sight on small bery-mica stockpiles, and an additional 2 tons may well be present in these piles and in the dumps. Not more than three tons can be inferred for the unmined pegmatite on the basis of present exposures, although a much greater amount might conceivably be present. About 2 tons of scrap mica has been stockpiled, but reserves of this material are very low.

The writer considers the Brooks deposit a poor risk for operations involving any large outlay of capital. It cannot be worked at a profit for beryl alone under present conditions, or for beryl and scrap mica, and it is doubtful whether by-product beryl would make sound a larger-scale operation for low-grade feldspar.

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

2/21/52

Memorandum

To: L. G. Houk, Non-metallic Mineral Deposits, DMEA.

From: Donald H. Kupfer, U. S. Geological Survey.

Subject: F. O. Phillips application (DMEA-2210) for aid in exploring the Brooks Berylium prospect for pegmatite minerals.

Location of prospect: Near Bryson City, Swain County, North Carolina.

Recommendation: Deny application.

Reasons for recommendation:

1. The application was reviewed by this office on December 11, 1951. The data submitted by the applicant at that time indicated that the deposit did not warrant a field examination.

2. The new report submitted by the applicant does not add to our knowledge of the deposit or justify considering the application any further.

Comments:

1. R. H. Jahns' complete report on the property is attached.

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4. Mr. Phillips reported a production of 30 tons of beryl from this mine during the war. He was asked to substantiate this figure, but has not. The total wartime beryl production of all the southeastern states is less than 15 tons.

5. Mr.Cloyd Smith found no beryl in place.

CLOYD M. SMITH
MINING ENGINEER

MUNSEY BUILDING
WASHINGTON 4, D.C.

January 12, 1952

Brooks Feldspar Mine
Swain County, North Carolina

Location. This property lies on Pigeon Creek, south of Bryson City, Swain County, North Carolina. It was examined by Fletcher Phillips, Spruce Pine, North Carolina; C. B. Collins, Washington, D. C., and the writer, December 29, 1951. This was a preliminary examination to determine the advisability of exploring the property for beryl. The mine, which was formerly a feldspar mine, lies about 3 miles south of Bryson City, airline distance. As this is mountainous country, the distance by road is nearly 10 miles, the last 1½ miles being a steep, abandoned road (Figure 1). No map of the property is available from which the position of the mine can be gaged with reference to the property lines, but the acreage is large and it is understood that the mine is not near any boundary. There are no published reports or other available reports on the property.

Old works. The mine has been idle for about 20 years. The layout of the old works is shown in Figure 2. Two major pits were opened about 500 feet apart in deeply weathered soil and rock along the northwest bank of Pigeon Creek at elevations of about 3350 and 3550 feet above sea level. Rough estimate indicates that as much as 30,000 cubic yards of material may have been taken from the upper pit and 10,000 cubic yards from the lower pit. Any fresh rock that may have been exposed by mining has been covered by debris so that no fresh exposures are available for examination.

Pegmatite. Each pit cuts a pegmatite vein. The exposure of pegmatite in the upper pit is a steep face about 70 feet long running NW-SE and ranging in height from 5 to 15 feet. A 20-ft width of rotten pegmatite is exposed in the

lower pit, which is older than the upper. Both exposures are made of weathered quartz, feldspar and mica. No beryl was found in either. Vein material is so altered and distorted as to make it impossible to determine the structure of the vein, but the relative locations of the pits suggest a strike about N15°E as indicated in Figure 2.

Occurrence of beryl. The creek bed and adjoining ground in the pit area is littered with dumps of waste from the feldspar operations, several thousand tons of such material lying within the limits of Figure 2. Altho no beryl was found in the exposures of pegmatite in the pits, some pieces ranging in weight from a few ounces to a few pounds were found in the creek bed and in the dumps. Weathered beryl is frequently hard to identify in the field so several specimens which it was thought might be beryl were brought from the property and chips from six of them were sent to the Beryllium Corporation, Reading, Pennsylvania for chemical identification. Only two proved to be beryl indicating the difficulty of making field identifications. In a letter dated January 10, 1952, G. N. Broome, executive assistant, The Beryllium Corporation, reported the BeO content of each of the two beryl specimens as 11%. This is higher than most commercial beryl, which averages 9-10% BeO.

The mine has a local reputation as a beryl deposit, reports of crystals weighing hundreds of pounds being persistent. Owners of the property say they have been paid royalties on commercial shipments of beryl from the mine, but that records of payments have been lost. It is reported that one such shipment had a gross value of $1900 and it is said that beryl was so abundant at times as to contaminate the feldspar so that some beryl-bearing material was dumped on the property.

The widespread reports of occurrences of beryl on the property coupled with existence of float beryl near the old workings should warrant exploration for beryl. It is recommended that this be done in two ways: (1) by examining the dumps and (2) by exposing fresh faces of pegmatite at intervals along the strike of the vein.

Sampling dumps. The dumps should be sampled by cutting into them at intervals in such a way as to inspect the material from top to bottom at each chosen location. This would be hand work using pick, shovel, wheelbarrow, etc. The material from each test cut would be scrutinized by someone familiar with beryl who would segregate the beryl for weighing, sampling and analysis.

Crosscutting vein. The pegmatite vein could best be prospected by cross cutting it with a bulldozer at intervals of about 100 yards. Each cut should extend down to fresh rock in the hope of exposing beryl crystals in the ledge and furthering knowledge of their habits of occurrence and of the probabilities of their being found at greater depth. Weathered pegmatitic material removed in making a cut should be scrutinized for beryl and the final bottom or "face" of each cut should be mapped for position and vein structure with full notation as to beryl findings. This method of prospecting will show whether the upper, weathered part of the vein contains enough beryl to warrant mining this material for the full length of the outcrop.

Suggested locations for initial cuts are shown in Figure 2. Existing pits are avoided to eliminate danger of working around their high walls which might slide or cave and trap equipment or workmen.

Pigeon Creek flows thru a rather narrow valley with fairly steep walls as can be judged from Figure 1. It may prove impossible to cut some sections thru the weathered part of the pegmatite down to fresh rock with a bulldozer alone, particularly where the pegmatite rides a flank of the valley. If such situations arise often enough to interfere with systematic exposure of fresh vein material, it may become advisable to rent a small dragline shovel or dipper shovel to supplement the bulldozer. A compressor and drill may also prove necessary as accessories to the bulldozer.

Determining limits. The extent of the pegmatite vein is not known, but an unmapped exposure is reported to have been found several hundred yards northeast of the pits. One objective in prospecting would be to locate the northern and

southern limits of the vein. Ten cuts 100 yards apart are suggested for exploring more than ½ mile of outcrop. This may exceed the length of the vein, but if the vein proves to be longer, within the limits of the property, indications as to beryl content from the 10 cuts will be a basis for deciding whether to extend the exploration.

Cost estimate. Time and cost of the exploration are estimated as follows:

reconditioning abandoned access road, 1 week of 40 hours, bulldozer rent @ $10/hr	$400
restoring shack on property, labor & materials	250
sampling dumps, 6 weeks, 2 men @ $40 each per week	480
crosscutting outcrops of vein, 10 cuts; 2 cuts per week or 5 weeks bulldozer rent @ $400	2,000
sampling bulldozed material, 1 man, 5 weeks @ $40	200
supervisor, 6 weeks @ $80/week	480
jeep rent, 6 weeks @ $50/week	300
pit pump, gasoline powered	500
miscellaneous tools, materials, supplies	250
surveying; engineering	400
contingencies, including rent on shovel, compressor, drill	1,140
total	$6,400

Exploration at depth. To fully explore the property it will be necessary to sink test pits in the unweathered part of the vein, using conventional shaft sinking equipment and methods. However, in view of the evidence that beryl has come from the weathered zone in the past, prospecting by bulldozer should be an adequate test of that zone. If it fails to indicate worthwhile beryl, advisability of prospecting in depth would be doubtful, but if bulldozing proved worthwhile reserves in the weathered zone, prospecting in depth would be indicated. It could be made a subsequent project to the bulldozer prospecting herein suggested.

Mica, feldspar The foregoing relates to beryl only. Mica is a prominent constituent of the existing pegmatite exposures and it is possible that mica would

prove to be a profitable adjunct of the beryl, so both minerals should be prospected simultaneously. It is further possible that, if mining is undertaken for beryl and/or mica, marketing the accompanying feldspar would again become profitable. This means that prospecting should be done in a way to evaluate the full mineral potential of the property and that eventually determination should be made of the feasibility of milling the mine rock on the property by suitable coarse separation, fine grinding and flotation for full recovery of beryl, mica and feldspar in all sizes.

Recommendation. It is recommended that $6400 be appropriated for sampling dumps by hand and crosscutting the outcrop of the pegmatite vein by bulldozer with view to indicating desirability of working the dumps and mining the weathered outcrop for beryl and/or mica and with further view to determining the advisability of prospecting in depth and of producing feldspar commercially.

Cloyd M. Smith

Cloyd M. Smith
432 Munsey Building
Washington 4, D. C.

THE BERYLLIUM CORPORATION

Reading, Pennsylvania
January 10, 1952

Mr. Cloyd Smith
432 Munsey Building
Washington 4, D. C.

Dear Mr. Smith:

We have analyzed the six samples given by you to Mr. Jack W. Clark to forward to our plant. The analysis, by sample, was as follows:

SAMPLE NUMBER	BeO CONTENT
1	Approx. 11%
2	0%
3	0%
4	0%
5	Approx. 11%
6	0%

We would appreciate your notifying us or Mr. Clark of the size and location of the deposit from which the samples were obtained. We would also appreciate any information pertaining to this deposit which might be of interest to this Corporation.

Yours very truly,

THE BERYLLIUM CORPORATION

(Signed)

G. N. Broome
Executive Assistant

GNB:mbs

cc:JWClark

COPY

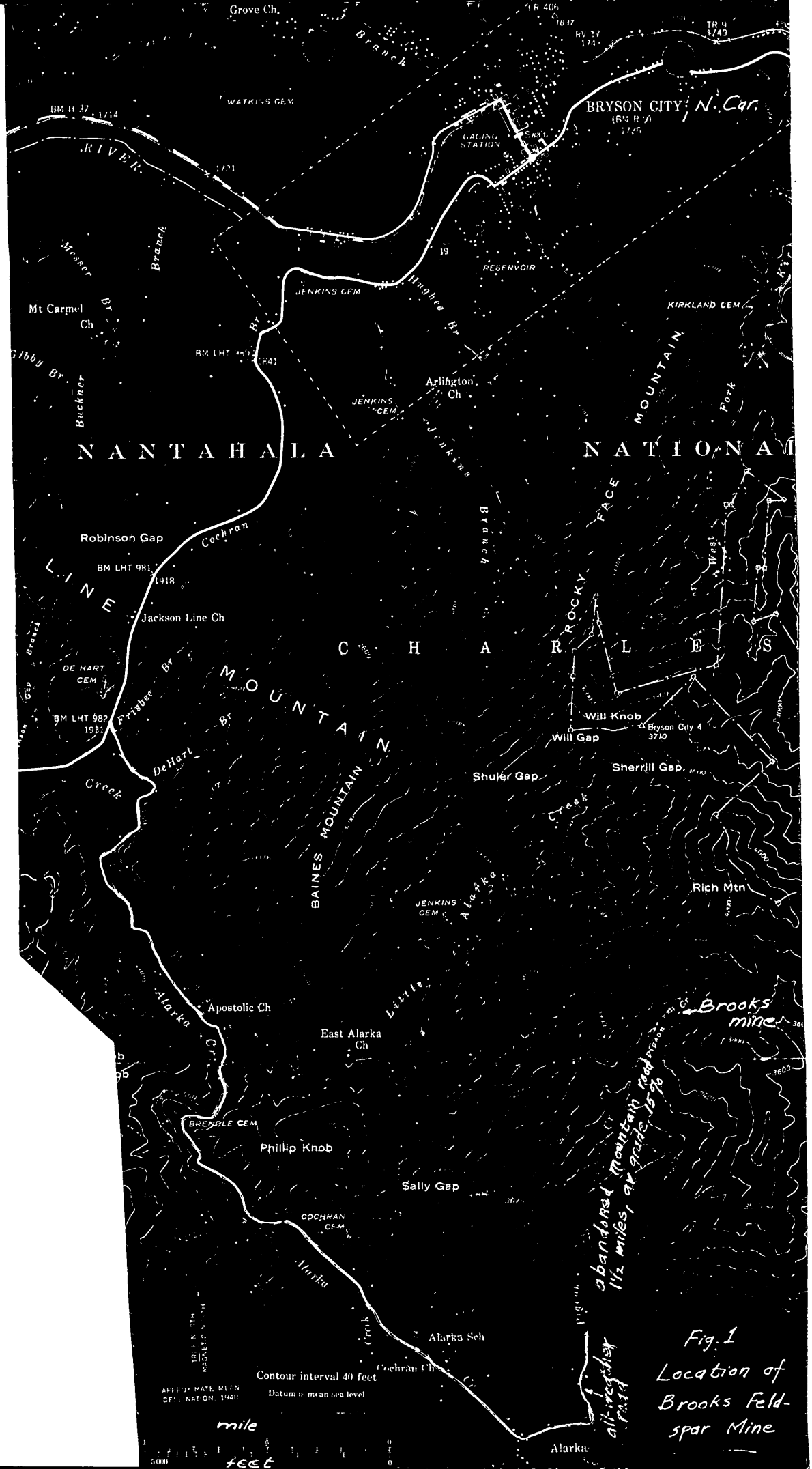

Fig. 1
Location of Brooks Feldspar Mine

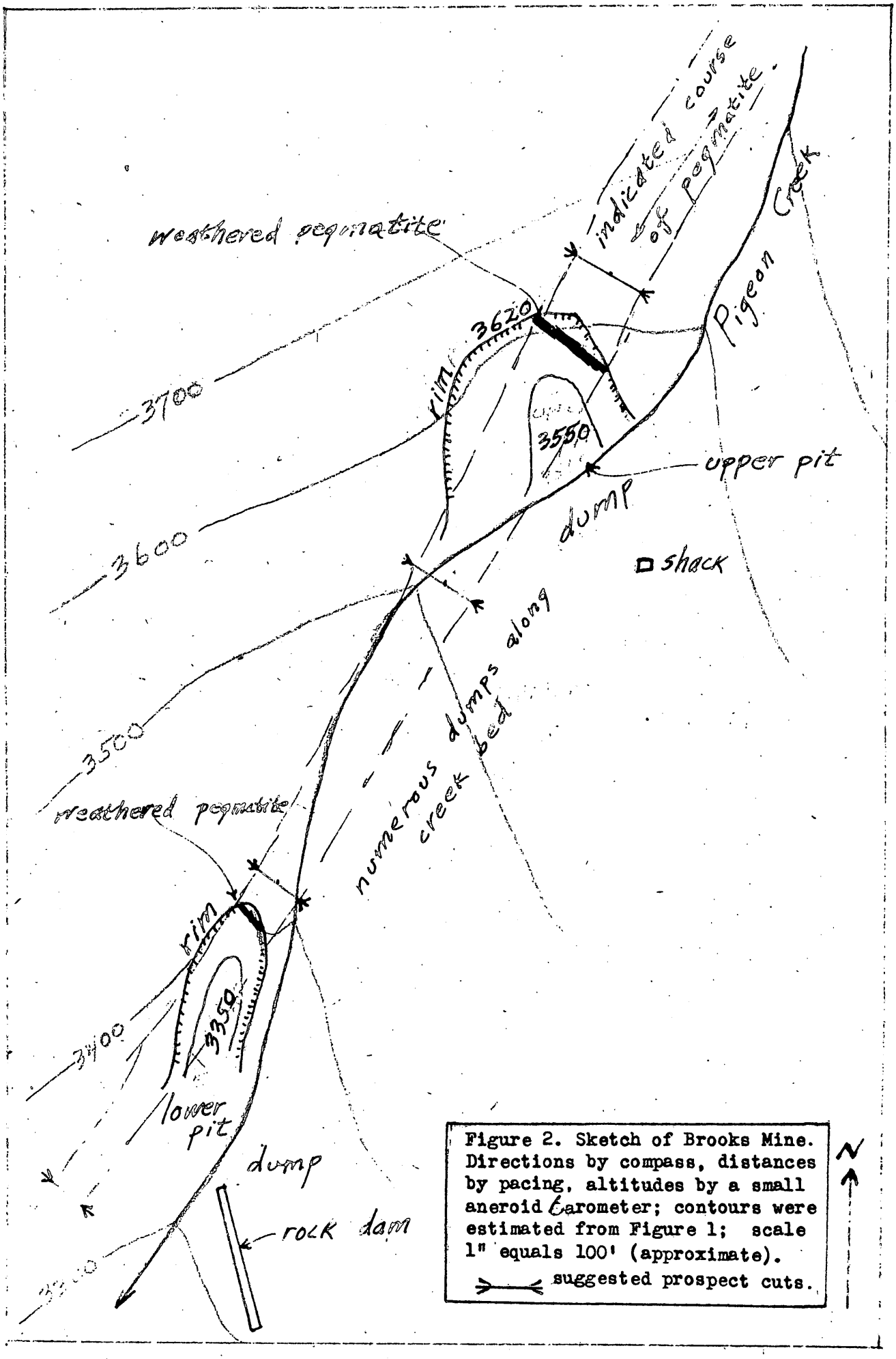

Figure 2. Sketch of Brooks Mine. Directions by compass, distances by pacing, altitudes by a small aneroid barometer; contours were estimated from Figure 1; scale 1" equals 100' (approximate).

suggested prospect cuts.

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

February 13, 1952

Memorandum

To: Lawrence Houk, Non-Metallics Division, DMEA

From: Stanley Needleman, Rare and Precious Metals Branch

Subject: DMA#2210, Brooks Beryllium, c/o Fletcher O. Phillips, Spruce Pine, North Carolina.

Re: beryl and miscovite mica.

Based upon the introduction of new evidence contained in the survey report recently submitted by Cloyd Smith, Mining Engineer, it is recommended that subject docket, be reconsidered for referral to the field team for examination. Samples of beryl taken from the property by Mr. Smith show an analyses of 11 percent beryllium oxide content which is of commercial grade ore.

Stanley Needleman
STANLEY NEEDLEMAN

Attachment

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

unassigned

February 1, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
FEB 4 1952

Memorandum

To: Lawrence A. Houk, Room 3636,
Non-Metallics Divisions, DMEA

From: Stanley Needleman,
Rare and Precious Metals Branch

Subject: Brooks Beryllium, DMEA No. 2210,
Re: Beryl Mica.

Transmitted herewith is a recent survey report of this property-DMEA-2210, as mentioned in the letter addressed to you by The Brooks Beryllium Co., dated January 29, 1952. In view of the new and substantial information contained in the report submitted by Cloyd Smith, Mining Engineer, it is recommended that DMEA-2210 be reviewed by the Commodity Committee.

Stanley Needleman
STANLEY NEEDLEMAN

Enclosures 3

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

December 18, 1951

Memorandum

To: L. J. Houk, Minor and Rare Metals Division, Defense Minerals Exploration Administration

From: Stanley Needleman, Rare and Precious Metals Branch

Subject: Re: DMA-2210 Beryl-Mica Brooks Beryllium Mine Bryson City, North Carolina.

Transmitted herewith is subject application, on the basis of which further interest be discontinued. However, since about 1 ton of beryl from this property has been reported as having been sold to The Beryllium Corporation, Reading, Pa. in recent years, this office recommends to the applicant that a technical man submit a recent survey report of the property in order to confirm the presence of adequate beryl reserves and also that the mica is either of strategic grade or of economic value.

Stanley Needleman

STANLEY NEEDLEMAN

IN REPLY REFER TO:

G-MD-DHK

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

December 11, 1951

Memorandum

To: Lawrence Houk, Defense Minerals Exploration Administration

From: Donald H. Kupfer, U. S. Geological Survey

Subject: Fletcher O. Phillips' application (DMEA-2210) for aid in exploring the Brooks prospect for beryl and mica.

F. O. Phillips' application, DMEA-2210, proposes to spend $28,140 to explore the Brooks pegmatite prospect, 5 miles west of Bryson City, Swain County, North Carolina for beryl and strategic mica. You will probably wish to deny this application.

R. H. Jahns visited this property in August, 1944 and the application was referred to him. He states:

> "I don't see how the deposit could be considered as a potential source of commercial beryl. Although the mineral is present, and occurs as local masses of fair, hand-cobbable size, the total amount is small. The statement to the effect that "a much greater amount might conceivably be present" is based on the rather remote possibility of similar concentrations appearing at the centers of other bulges in the pegmatite body at depth. This would be a mighty poor thing on which to base an operation.
>
> "To summarize, I do not think that another field examination of this pegmatite is warranted by anything I saw in August 1944. Under the most favorable possible conditions, I can't conceive of beryl reserves in excess of about 20 tons, and the chances are excellent that the reserves don't exceed the 3-ton figure I quoted in my report.
>
> "As to strategic-grade mica, the deposit is absolutely out. The total amount of this material that might be recovered in a mining operation would be so small that it wouldn't even cut much ice as a by-product."

Donald H. Kupfer

Donald H. Kupfer

January 29, 1952

Mr. Lawrence A. Houk
Room 3636
Defense Minerals Administration
Department of Interior
19th and E Streets, N. W.
Washington 25, D. C.

re: Brooks Beryllium
DMEA Docket No. 2210

Dear Mr. Houk:

Since submitting the Brooks Beryllium application to the Defense Minerals Exploration Administration, a Mr. Clyde Smith, mining-engineering consultant, has made a field survey of the subject mine and has prepared a report in quadruplicate, which is now in the hands of Mr. Stanley Needleman in the U. S. Bureau of Mines.

A review of this report will indicate that the [redacted] dyke extends for a much further distance, approximately 700 feet, than was set forth in the original application. It is felt that the three dozer cuts traversing this dyke at the three points indicated by Mr. Smith, would give a good assay of the mineralization of the dyke in that the dozer cuts are 150 feet apart. If the exploration should discover beryl at each of these three segments of the dyke, it could be very conclusively inferred that a mineralization of the complete dyke would be similar to the mineralization at these three points.

Not brought out in detail in Mr. Smith's report, is the possibility that massive beryl exists in the pegmatite. While making the field survey, the denizens of this locality reported that the mine was abandoned approximately 20 years ago due to the fact that beryl contaminated the feldspar. Since the mine was operated for its feldspar content at that time, operations had to be abandoned because it was impossible to remove the beryl. The beryl contamination might have been massive beryl, which was mistaken for feldspar. Therefore, when this exploration is undertaken, if the application is approved, large quantities of the ore will be tested to determine if massive beryl does exist.

Please amend each of the four applications now on file by including in them copies of Mr. Smith's report. Anything in the applications which conflict with Mr. Smith's report, should be disregarded. It is hoped that the engineer's report clarifies the application, and that the application will now move rapidly forward.

Thank you for your sincere cooperation.

Sincerely yours,

C. Braswell Collins

C. Braswell Collins
Attorney for Brooks Beryllium

CBC/amb

C. BRASWELL COLLINS
ATTORNEY AT LAW
THE ARLINGTON BUILDING
1025 VERMONT AVENUE, N. W.
WASHINGTON 5, D. C.

NATIONAL 7808

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Not brought out in detail in Mr. Smith's report, is the possibility that massive beryl exists in the pegmatite. While making the field survey, the denizens of this locality reported that the mine was abandoned approximately 20 years ago due to the fact that beryl contaminated the feldspar. Since the mine was operated for its feldspar content at that time, operations had to be abandoned because it was impossible to remove the beryl. The beryl contamination might have been massive beryl, which was mistaken for feldspar. Therefore, when this exploration is undertaken, if the application is approved, large quantities of the ore will be tested to determine if massive beryl does exist.

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CBC/amb

CLOYD M. SMITH
MINING ENGINEER

MUNSEY BUILDING
WASHINGTON 4, D.C.
January 12, 1952

Brooks Feldspar Mine
Swain County, North Carolina

Location. This property lies on Pigeon Creek, south of Bryson City, Swain County, North Carolina. It was examined by Fletcher Phillips, Spruce Pine, North Carolina; C. B. Collins, Washington, D. C., and the writer, December 29, 1951. This was a preliminary examination to determine the advisability of exploring the property for beryl. The mine, which was formerly a feldspar mine, lies about 3 miles south of Bryson City, airline distance. As this is mountainous country, the distance by road is nearly 10 miles, the last 1½ miles being a steep, abandoned road (Figure 1). No map of the property is available from which the position of the mine can be gaged with reference to the property lines, but the acreage is large and it is understood that the mine is not near any boundary. There are no published reports or other available reports on the property.

Old works. The mine has been idle for about 20 years. The layout of the old works is shown in Figure 2. Two major pits were opened about 500 feet apart in deeply weathered soil and rock along the northwest bank of Pigeon Creek at elevations of about 3350 and 3550 feet above sea level. Rough estimate indicates that as much as 30,000 cubic yards of material may have been taken from the upper pit and 10,000 cubic yards from the lower pit. Any fresh rock that may have been exposed by mining has been covered by debris so that no fresh exposures are available for examination.

Pegmatite. Each pit cuts a pegmatite vein. The exposure of pegmatite in the upper pit is a steep face about 70 feet long running NW-SE and ranging in height from 5 to 15 feet. A 20-ft width of rotten pegmatite is exposed in the

lower pit, which is older than the upper. Both exposures are made of weathered quartz, feldspar and mica. No beryl was found in either. Vein material is so altered and distorted as to make it impossible to determine the structure of the vein, but the relative locations of the pits suggest a strike about N15°E as indicated in Figure 2.

Occurrence of beryl. The creek bed and adjoining ground in the pit area is littered with dumps of waste from the feldspar operations, several thousand tons of such material lying within the limits of Figure 2. Altho no beryl was found in the exposures of pegmatite in the pits, some pieces ranging in weight from a few ounces to a few pounds were found in the creek bed and in the dumps. Weathered beryl is frequently hard to identify in the field so several specimens which it was thought might be beryl were brought from the property and chips from six of them were sent to the Beryllium Corporation, Reading, Pennsylvania for chemical identification. Only two proved to be beryl indicating the difficulty of making field identifications. In a letter dated January 10, 1952, G. N. Broome, executive assistant, The Beryllium Corporation, reported the BeO content of each of the two beryl specimens as 11%. This is higher than most commercial beryl, which averages 9-10% BeO.

The mine has a local reputation as a beryl deposit, reports of crystals weighing hundreds of pounds being persistent. Owners of the property say they have been paid royalties on commercial shipments of beryl from the mine, but that records of payments have been lost. It is reported that one such shipment had a gross value of $1900 and it is said that beryl was so abundant at times as to contaminate the feldspar so that some beryl-bearing material was dumped on the property.

The widespread reports of occurrences of beryl on the property coupled with existence of float beryl near the old workings should warrant exploration for beryl. It is recommended that this be done in two ways: (1) by examining the dumps and (2) by exposing fresh faces of pegmatite at intervals along the strike of the vein.

Sampling dumps. The dumps should be sampled by cutting into them at intervals in such a way as to inspect the material from top to bottom at each chosen location. This would be hand work using pick, shovel, wheelbarrow, etc. The material from each test cut would be scrutinized by someone familiar with beryl who would segregate the beryl for weighing, sampling and analysis.

Crosscutting vein. The pegmatite vein could best be prospected by cross cutting it with a bulldozer at intervals of about 100 yards. Each cut should extend down to fresh rock in the hope of exposing beryl crystals in the ledge and furthering knowledge of their habits of occurrence and of the probabilities of their being found at greater depth. Weathered pegmatitic material removed in making a cut should be scrutinized for beryl and the final bottom or "face" of each cut should be mapped for position and vein structure with full notation as to beryl findings. This method of prospecting will show whether the upper, weathered part of the vein contains enough beryl to warrant mining this material for the full length of the outcrop.

Suggested locations for initial cuts are shown in Figure 2. Existing pits are avoided to eliminate danger of working around their high walls which might slide or cave and trap equipment or workmen.

Pigeon Creek flows thru a rather narrow valley with fairly steep walls as can be judged from Figure 1. It may prove impossible to cut some sections thru the weathered part of the pegmatite down to fresh rock with a bulldozer alone, particularly where the pegmatite rides a flank of the valley. If such situations arise often enough to interfere with systematic exposure of fresh vein material, it may become advisable to rent a small dragline shovel or dipper shovel to supplement the bulldozer. A compressor and drill may also prove necessary as accessories to the bulldozer.

Determining limits. The extent of the pegmatite vein is not known, but an unmapped exposure is reported to have been found several hundred yards northeast of the pits. One objective in prospecting would be to locate the northern and

southern limits of the vein. Ten cuts 100 yards apart are suggested for exploring more than ½ mile of outcrop. This may exceed the length of the vein, but if the vein proves to be longer, within the limits of the property, indications as to beryl content from the 10 cuts will be a basis for deciding whether to extend the exploration.

Cost estimate. Time and cost of the exploration are estimated as follows:

reconditioning abandoned access road, 1 week of 40 hours, bulldozer rent @ $10/hr	$400
restoring shack on property, labor & materials	250
sampling dumps, 6 weeks, 2 men @ $40 each per week	480
crosscutting outcrops of vein, 10 cuts; 2 cuts per week or 5 weeks bulldozer rent @ $400	2,000
sampling bulldozed material, 1 man, 5 weeks @ $40	200
supervisor, 6 weeks @ $80/week	480
jeep rent, 6 weeks @ $50/week	300
pit pump, gasoline powered	500
miscellaneous tools, materials, supplies	250
surveying; engineering	400
contingencies, including rent on shovel, compressor, drill	1,140
total	$6,400

Exploration at depth. To fully explore the property it will be necessary to sink test pits in the unweathered part of the vein, using conventional shaft sinking equipment and methods. However, in view of the evidence that beryl has come from the weathered zone in the past, prospecting by bulldozer should be an adequate test of that zone. If it fails to indicate worthwhile beryl, advisability of prospecting in depth would be doubtful, but if bulldozing proved worthwhile reserves in the weathered zone, prospecting in depth would be indicated. It could be made a subsequent project to the bulldozer prospecting herein suggested.

Mica, feldspar The foregoing relates to beryl only. Mica is a prominent constituent of the existing pegmatite exposures and it is possible that mica would

prove to be a profitable adjunct of the beryl, so both minerals should be prospected simultaneously. It is further possible that, if mining is undertaken for beryl and/or mica, marketing the accompanying feldspar would again become profitable. This means that prospecting should be done in a way to evaluate the full mineral potential of the property and that eventually determination should be made of the feasibility of milling the mine rock on the property by suitable coarse separation, fine grinding and flotation for full recovery of beryl, mica and feldspar in all sizes.

Recommendation. It is recommended that $6400 be appropriated for sampling dumps by hand and crosscutting the outcrop of the pegmatite vein by bulldozer with view to indicating desirability of working the dumps and mining the weathered outcrop for beryl and/or mica and with further view to determining the advisability of prospecting in depth and of producing feldspar commercially.

Cloyd Smith

Cloyd M. Smith
432 Munsey Building
Washington 4, D. C.

THE BERYLLIUM CORPORATION

Reading, Pennsylvania
January 10, 1952

Mr. Cloyd Smith
432 Munsey Building
Washington 4, D. C.

Dear Mr. Smith:

We have analyzed the six samples given by you to Mr. Jack W. Clark to forward to our plant. The analysis, by sample, was as follows:

SAMPLE NUMBER	BeO CONTENT
1	Approx. 11%
2	0%
3	0%
4	0%
5	Approx. 11%
6	0%

We would appreciate your notifying us or Mr. Clark of the size and location of the deposit from which the samples were obtained. We would also appreciate any information pertaining to this deposit which might be of interest to this Corporation.

Yours very truly,

THE BERYLLIUM CORPORATION

(Signed)

G. N. Broome
Executive Assistant

GNB:mbs

cc:JWClark

COPY

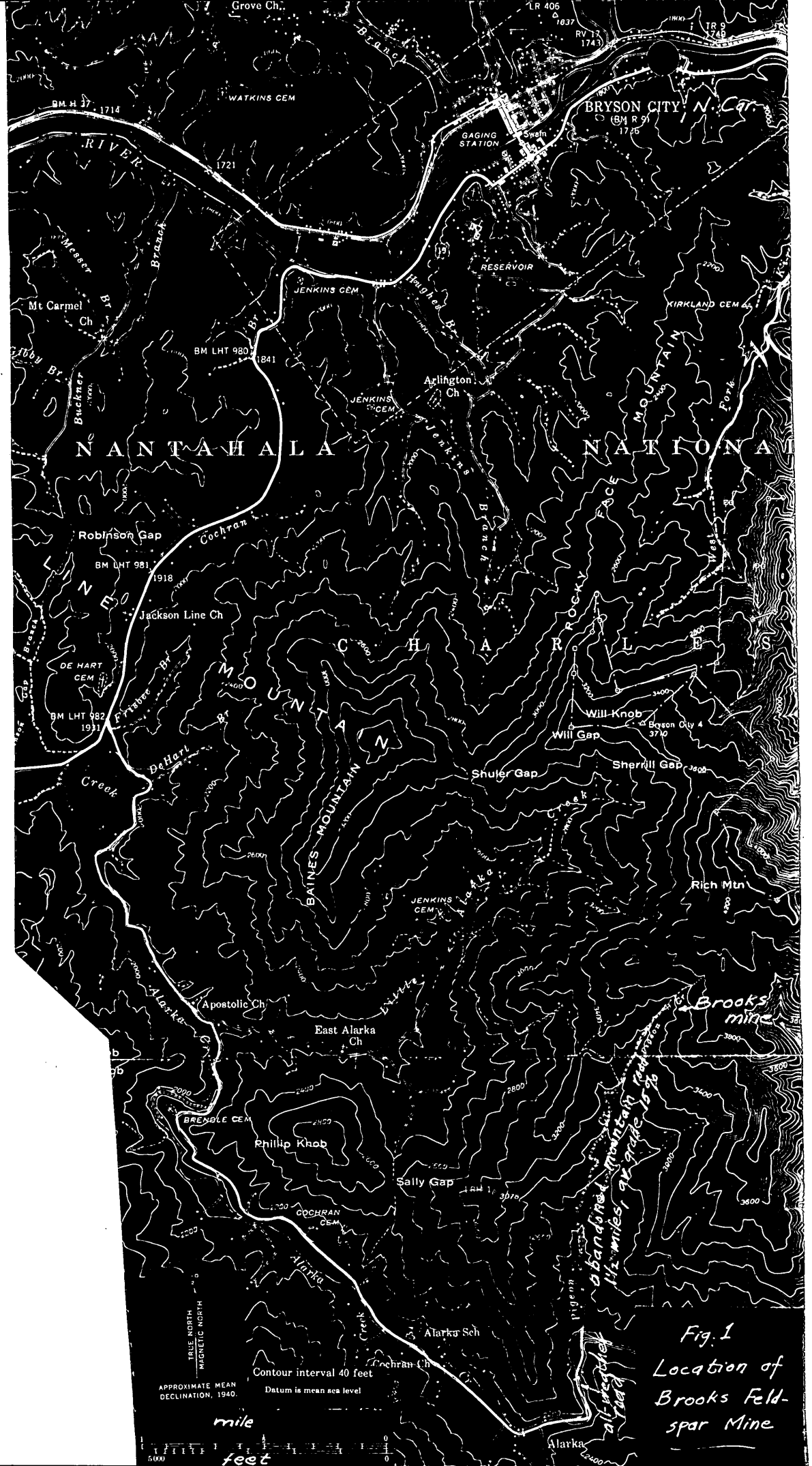

Fig. 1
Location of Brooks Feldspar Mine

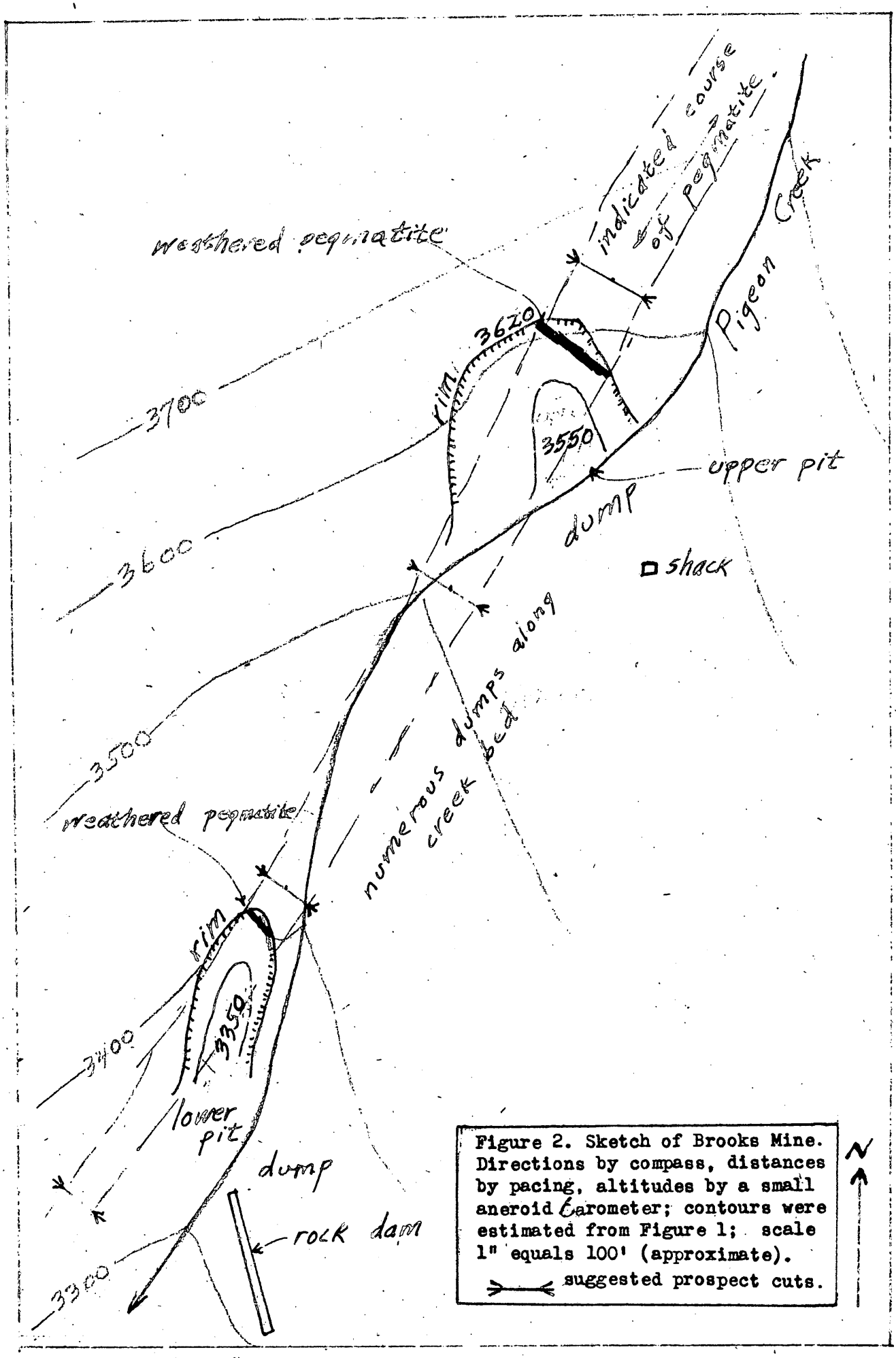

Figure 2. Sketch of Brooks Mine. Directions by compass, distances by pacing, altitudes by a small aneroid barometer; contours were estimated from Figure 1; scale 1" equals 100' (approximate).

suggested prospect cuts.

January 29, 1952

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Not brought out in detail in Mr. Smith's report, is the possibility that massive beryl exists in the pegmatite. While making the field survey, the denizens of this locality reported that the mine was abandoned approximately 20 years ago due to the fact that beryl contaminated the feldspar. Since the mine was operated for its feldspar content at that time, operations had to be abandoned because it was impossible to remove the beryl. The beryl contamination might have been massive beryl, which was mistaken for feldspar. Therefore, when this exploration is undertaken, if the application is approved, large quantities of the ore will be tested to determine if massive beryl does exist.

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Yours very truly,

THE BERYLLIUM CORPORATION

(Signed)

G. N. Broome
Executive Assistant

GNB:mbs

cc:JWClark

COPY

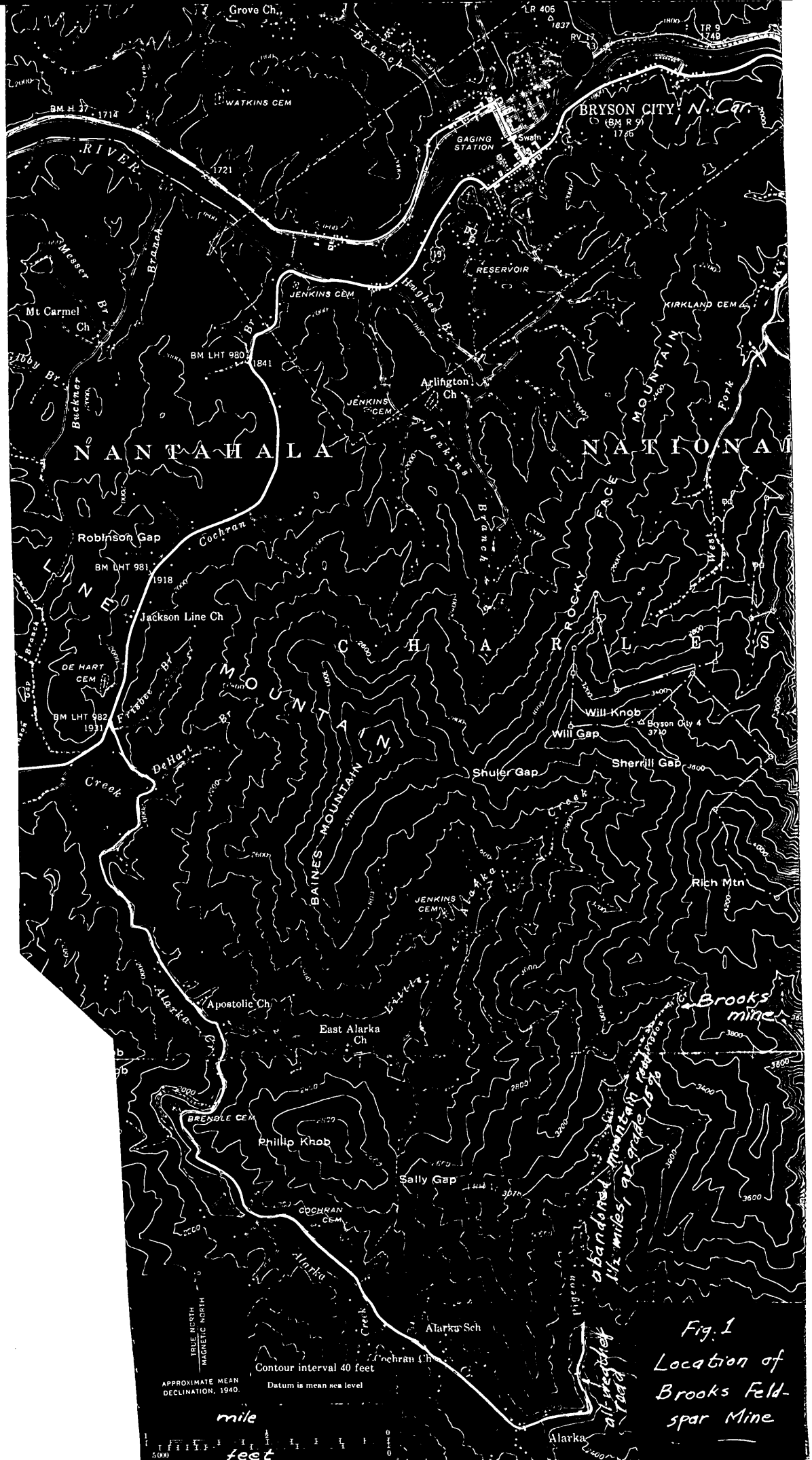
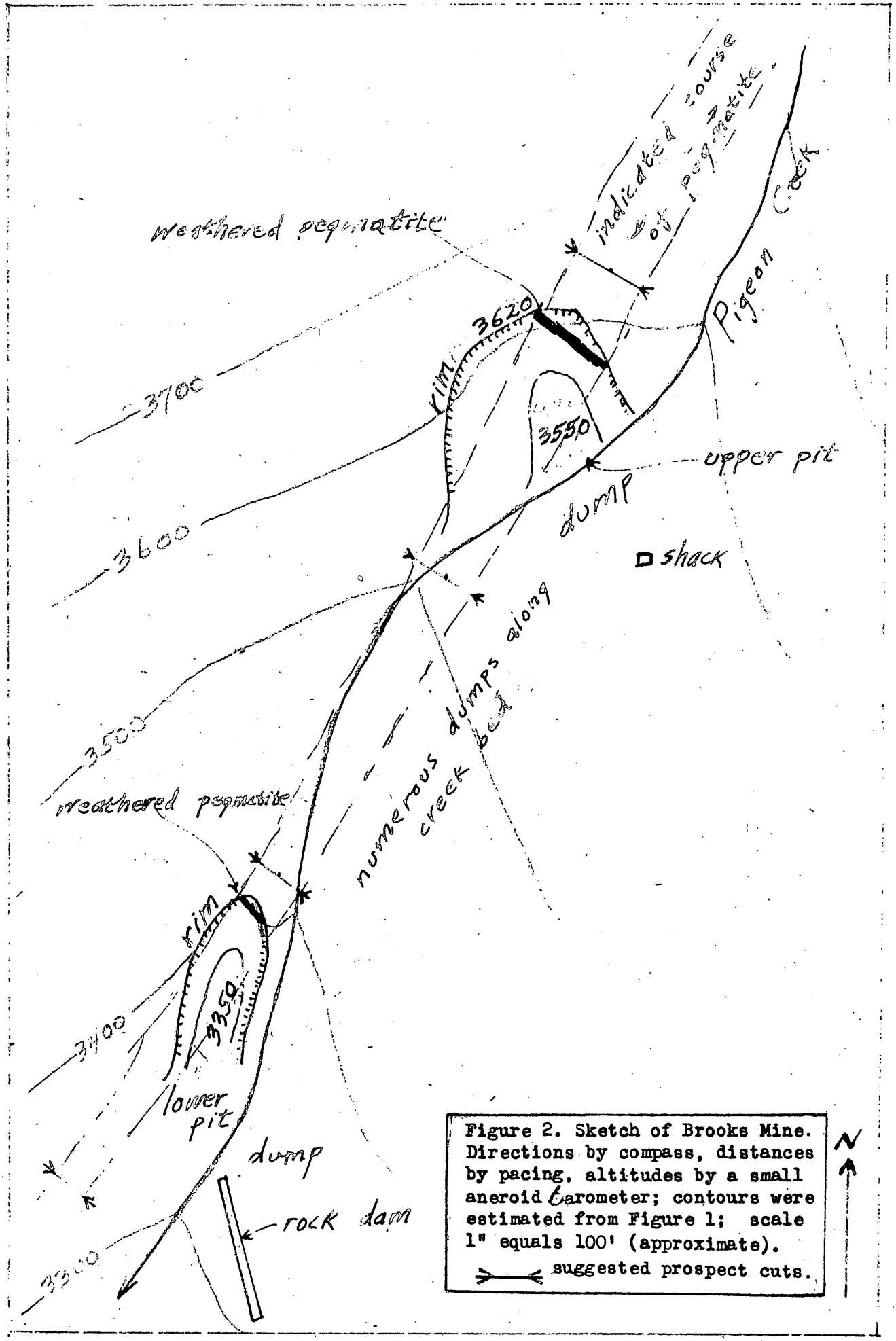


Fig. 1
Location of Brooks Feldspar Mine



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

December 11, 1951

Memorandum

To: Lawrence Houk, Defense Minerals Exploration Administration

From: Donald H. Kupfer, U. S. Geological Survey

Subject: Fletcher O. Phillips' application (DMEA-2210) for aid in exploring the Brooks prospect for beryl and mica.

F. O. Phillips' application, DMEA-2210, proposes to spend $28,140 to explore the Brooks pegmatite prospect, 5 miles west of Bryson City, Swain County, North Carolina for beryl and strategic mica. You will probably wish to deny this application.

R. H. Jahns visited this property in August, 1944 and the application was referred to him. He states:

> "I don't see how the deposit could be considered as a potential source of commercial beryl. Although the mineral is present, and occurs as local masses of fair, hand-cobbable size, the total amount is small. The statement to the effect that "a much greater amount might conceivably be present" is based on the rather remote possibility of similar concentrations appearing at the centers of other bulges in the pegmatite body at depth. This would be a mighty poor thing on which to base an operation.
>
> "To summarize, I do not think that another field examination of this pegmatite is warranted by anything I saw in August 1944. Under the most favorable possible conditions, I can't conceive of beryl reserves in excess of about 20 tons, and the chances are excellent that the reserves don't exceed the 3-ton figure I quoted in my report.
>
> "As to strategic-grade mica, the deposit is absolutely out. The total amount of this material that might be recovered in a mining operation would be so small that it wouldn't even cut much ice as a by-product."

DHKupfer:jeh
G-12/11/51
copy to: Director's Reading 4212, GS Bldg.
Branch " " "
DMEA files ✓
Kupfer G-228, GS Bldg.

Donald H. Kupfer

AIRMAIL

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

November 28, 1951

Mr. Donald H. Kupfer
Mineral Deposits Branch
U. S. Geological Survey
Washington 25, D. C.

Dear Don:

I have your letter of November 21, in which you inquire concerning reserves of beryl in the Brooks pegmatite, Swain County, North Carolina.

The Brooks deposit is one of those that was worked many years ago for feldspar and minor by-product mica, and the workings are typically caved and the geology in them pretty well obscured. This accounts for some of the "weasel words" that I used in my report. I made only a couple of small-scale sketch maps of the deposit, so that these probably wouldn't do you much good even if you had them for consultation; I am a little surprised, incidentally, that copies of these maps are no longer in the files.

I don't see how the deposit could be considered as a potential source of commercial beryl. Although the mineral is present, and occurs as local masses of fair, hand-cobbable size, the total amount is small. The statement to the effect that "a much greater amount might conceivably be present" is based on the rather remote possibility of similar concentrations appearing at the centers of other bulges in the pegmatite body at depth. This would be a mighty poor thing on which to base an operation.

To summarize, I do not think that another field examination of this pegmatite is warranted by anything I saw in August 1944. Under the most favorable possible conditions, I can't conceive of beryl reserves in excess of about 20 tons, and the chances are excellent that the reserves don't exceed the 3-ton figure I quoted in my report.

As to strategic-grade mica, the deposit is absolutely out. The total amount of this material that might be recovered in a mining operation would be so small that it wouldn't even cut much ice as a by-product.

I hope that these comments fill the bill for you, but if there is further information I can supply, please let me know.

Sincerely yours,

Dick

RHJ:fw

Richard H. Jahns.

Sam Phillips came to office 11/26/51 and said about OMEA-2210X

① Operated under Wm J Alexander but was closed down 15 years ago because Be interfered with the flotation

② Phillips says it produced 30 Tons of Beryl. He says he will get the data on this and submit in a couple of days. It was supposed to have been sold to Beryllium Corp.

③ Whitehall was milling the ore and was supposed to be getting $1.50/ton more for the feldspar than the going market price.

④ 12 Tons of feldspar picked out.

As of Dec 10, 1951 Phillips has not submitted additional data.

I

Mr. Fletcher O. Phillips, Manager
Brooks Beryllium
C/O Fletcher O. Phillips
Spruce Pine, North Carolina

Subject: DMA-2210
Re: Exploration Loan
Brooks Mine

My dear Mr. Phillips:

This will acknowledge receipt of your application dated November 1, 1951 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMA-2210 and referred to the Production Expansion Division.

Kindly refer to DMA-2210 in any future correspondence relating to your application.

Sincerely yours,

Robert E. Adams

Robert E. Adams, Chief
Reports and Records Unit

2463

BEING the Second Tract described in a deed dated May 15,1937 from R.C.Wiggins and Wife,Lula Wiggins,to Arthur Brooks,recorded in Book 61, Page 439,Records of Swain County,N.C.,more fully described as follows:

BEGINNING at a double Chestnut,the S.E.corner of J.E.Coburn land,and runs N 30 E 50 poles to a Locust,the corner of Grant 2877;thence East with t e line of said Grant 90 plles to a Black Oak on top of the mountain,a corner of said Grant;thence S 79 W 32 poles to a White Oak near a gap;thence S 65 W 88 poles to a Chestnut Oak;thence S 35 W 30 poles to a large Chestnut Oak,a corner of Grant 13218;thnence North 11½ poles to a Chestnut Oak,an old corner;thence West 26 poles to the Beginning;containing 38 acres more or less,and being the land covered by State Grant 16284,granted to John D.Jenkins,July 14,1904.

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BEING the Second Tract described in a deed dated May 15, 1937 from B. C. Wiggins and Wife, Lula Wiggins, to Arthur Brooks, recorded in Book 61, Page 439, Records of Swain County, N. C., more fully described as follows:

BEGINNING at a double Chestnut, the S.E. corner of J. E. Coburn land, and runs N 30 E 50 poles to a Locust, the corner of Grant 2877; thence East with the line of said Grant 90 poles to a Black Oak on top of the mountain, a corner of said Grant; thence S 79 W 32 poles to a White Oak near a gap; thence S 65 W 88 poles to a Chestnut Oak; thence S 35 W 30 poles to a large Chestnut Oak, a corner of Grant 13218; thence North 11½ poles to a Chestnut Oak, an old corner; thence West 26 poles to the Beginning; containing 38 acres more or less, and being the land covered by State Grant 16284, granted to John D. Jenkins, July 14, 1904.

BEING the Second Tract described in a deed dated May 15, 1937 from H. C. Wiggins and Wife, Lula Wiggins, to Arthur Brooks, recorded in Book 61, Page 439, Records of Swain County, N. C., more fully described as follows:

BEGINNING at a double Chestnut, the S.E. corner of J. E. Coburn land, and runs N 30 E 50 poles to a Locust, the corner of Grant 2877; thence East with the line of said Grant 90 poles to a Black Oak on top of the mountain, a corner of said Grant; thence S 79 W 32 poles to a White Oak near a gap; thence S 65 W 88 poles to a Chestnut Oak; thence S 35 W 30 poles to a large Chestnut Oak, a corner of Grant 13218; thence North 11½ poles to a Chestnut Oak, an old corner; thence West 26 poles to the Beginning; containing 38 acres more or less, and being the land covered by State Grant 16284, granted to John D. Jenkins, July 14, 1904.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

DEFENSE MINERALS ADMINISTRATION
WASHINGTON, D. C.
NOV 2 7 52 AM '51

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma 2210

Date received 11-2-51

Participation

Brooks Beryllium
c/O Fletcher O. Phillips
Spruce Pine, North Carolina

Name and address of applicant

Date November 1, 1951

FILL IN THIS BLOCK

Date of application November 1, 1951

Estimated cost $28,140

Mineral or metal Beryl and Muscovite

Percentage of Government participation 90%

Location of mine 5 miles to W of Bryson City, North Carolina

Date of filing MF-100 Not filed

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

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

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

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

16—64067-1

THE PROPERTY

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

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

*11. State the present and former names of the property, if any.

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

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

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

15. State in detail how the ore could be shipped and how and where milled.

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

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

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

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

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

THE EXPLORATION

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

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

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

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

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

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

CERTIFICATION

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

Brooks Beryllium (a partnership) — By Fletcher O. Phillips
(Name of company) — (Signature of authorized official)

October 29, 1951 — Manager
(Date) — (Title)

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

*Same as footnote on page 1.

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

Brooks Beryllium
c/o Fletcher O. Phillips, Mgr.
Spruce Pine, North Carolina

1. Applicant is a partnership, a joint venture of persons named in answer to question 2.

2. John Phillips, Ernest Crowder, Fletcher O. Phillips and Lewie Aldridge, all of Spruce Pine, North Carolina. For experience and personal history, see Exhibit A.

3. Not a corporation.

4. For mining and general business experience of persons in this joint venture, see Exhibit A.

5. Lessee--See Exhibit B.

6. Not owner of property.

7. Lease is in good standing, copy is attached as Exhibit B.

   Note: Six copies of landlord's subordination agreement is attached to original copy of this application as Exhibit B.

8. No financial statement. New joint venture.

9. Applicant will donate the rental value of its 2½ ton dump truck. If rental value does not equal 10% along with other items marked as donated in the answer to question 23, the applicant will make up the difference in cash at time exploration is approved and contract executed by the BMA.

10. (a) Legal description is attached as Exhibit B.
    (b) Exploration to be conducted within 200 foot radius of center of abandoned mine face on the property leased. The abandoned mine face will be the center of the circle.

11. Brooks Mine.

12. Roads are generally good for this area. Access to mine needs improving, and will be improved when and if commercial production is attained. Mine is five miles west of Bryson City, where railroad shipments can be made. Ore can be trucked to Spruce Pine, 120 miles Northeast of Bryson City, or to Franklin, 25 miles South of Bryson City.

13. Beryl which assays 12.8 BeO content and ruby strategic sheet mica. No flow plant operations will be utilized in present contemplations.

14. None

15. Beryl and mica will be sold at either Franklin or Spruce Pine, North Carolina, if found. No milling necessary.

16. Beryl history is on record with USBM (Call Mr. Needham). Mica history is on record with USBM and RFC.

17. Mine is not in production.

18. Ore reserves not known.

19. None.

20. Beryl and ruby muscovite.

21. It is proposed to begin at the branch (See Exhibit C) and lower the abandoned cut an additional fifteen feet. Then to clew the old cut to remove accumulated muck, etc. The overburden, which is from 10 to 30 feet deep, will be removed by the dozing with the dump material being pushed into the branch or hollow below. The overburden removal will extend a distance of approximately thirty feet out in all directions from the old cut.

Mineralization is proposed to be determined by removing segments of the new existing mine faces. Since the beryl and mica concentrations are likely to be in different portions of the dyke, it is anticipated to lower the cut on all three faces through the dyke to assure thorough exploration.

It is anticipated that it will take 26 weeks to complete the project.

22. Possibilities are a matter of record with either USBM or USGS as this mine was geologized during World War II.

23

	per week	26 week total
(a)		
3 muckers at $65	195	5,070
1 Jackhammer operator	70	1,820
1 Truck driver	65	1,690
(b)		
1 Supervisor	75	1,950
(c)		
None.		
(d)		
1 tool and storage shed		500
(e)		
Misc. Hand Tools		500
(f)		
None.		
(g)		
Air Compressor 105 c.f. and Jackhammer	100	2,600
PPick-up truck	50	1,300
Dump truck 2½ ton	100	2,600
(h)		
Drill steel		350
Drill bits	50	1,300
Fuel--gas & oil	45	1,170
Dynamite	40	1,040
(i)		
Bulldozing 500 hrs. at 12.50 p.h.		6,250
		28,140

24. It is expected to take a total of six months to complete this project. Also see answer to question 21.

A

FLETCHER O. PHILLIPS

Fletcher O. Phillips is 46 years old, a native of the Spruce Pine area, and has lived in that mining district most of his life.

He has 26 years of mining experience, and at present is mining mica and feldspar on a commercially profitable basis in the Dogwood Flat near Yellow Mountain in the Spruce Pine area. This mine is presently producing one thousand pounds of mica of punch or better quality per week and approximately seventy-five tons of feldspar.

During World War II, Mr. Phillips was one of three partners in the mica fabricating plant of "Carpenter and Phillips Mica Company" which employed from 90 to 180 persons. One of his duties was to purchase mica for fabricating. That experience has thoroughly schooled Mr. Phillips in appraising and grading blocks and sheets of mica.

His two years mining education at North Carolina State College is one of his greatest assets in that it helps him to evaluate out croppings and to follow "leads" once mining operations have commenced.

His past employment record is as follows:

Bennidict Coal Co.	St. Charles, Va.	1927 - 1928
Mining School	State College, N. C.	1928 - 1930
Bennidict Coal Co.	St. Charles, Va.	1930 - 1932
Hoot Owl Mine	Spruce Pine, N. C.	1934 - 1936
Mining for self	Spruce Pine, N. C.	1936 - 1941
Carpenter & Phillips Mica Co. (partner)	Spruce Pine, N. C.	1941 - 1945

* * * * * *

References:

Mr. Ernest Poteat, Cashier,
Northwestern Bank, Bakersville, N. C.
Mr. Roy Welds, Manager,
Harris Clay Co., Spruce Pine, N. C.
Mr. J. P. McKinney, Mine Manager,
United Feldspar & Minerals, Spruce Pine, N. C.

ERNEST CROWDER

Ernest Crowder is forty-four years old and has lived all his life in Mitchell County, North Carolina. His first employment was in local mines as a mucker at the age of sixteen.

For the past twenty years he has been a mining supervisor having from five to fifteen men under his supervision including drillers, muckers, drag line operators, and truckers. As a result of his many years of experience, he is thoroughly familiar with the location of and mining of mica and feldspar.

Due to his knowledge of blasting and his penchant for safety preparations in pillowing, timbering and supporting shafts and caves, miners are not afraid to work under him. In fact, his reputation for safety is well known, and the insurance underwriters usually insure "his" mines at low rates.

His past employment record is as follows:

Ewrin Feldspar	"C" Mine	1927 - 1929
Carolina Minerals	"Pink Mine"	1929 - 1936
Tennessee Minerals	"Deerpark"	1936 - 1937

For self and in partnership with others since 1937.

* * * * * *

References:

Mr. Ed. Fortner
Insurance Agent, Spruce Pine, North Carolina
Mr. "Bill" McKinney, General Manager
Spruce Pine Store Co., Spruce Pine, North Carolina
Mr. Carroll Rogers,
Blue Ridge Mining Co., Spruce Pine, North Carolina

JOHN PHILLIPS

John Phillips is thirty-four years old and a native of the Spruce Pine area where he has lived most of his life.

He operated the Bouy Mine in Spruce Pine during the years 1941 to 1943 from which he produced a large quantity of book mica of punch and better grade.

In 1941 at the same time he was operating the Bouy Mine, he became a member of the partnership "Carpenter and Phillips Mica Company." This firm fabricates punch grade mica for the electric and electronic industry.

Mr. Phillips' business acumen is evidenced by his rapid expansion in conservative business interests. He is one of two partners in the partnership of "Phillips and Coulter." This partnership is engaged in the following businesses:

1. The Texas Company Distributorship for Avery, Mitchell and Yancey Counties.
2. Studebaker automobile and truck dealer for Avery, Mitchell and Yancey Counties, North Carolina.
3. Firestone Retail Store
4. Texaco Service Station, Spruce Pine,

* * * * * *

References:

Mr. Robert Guy, Cashier
Avery County Bank, Newland, N. C.
Mr. Baxter Johnson, Owner,
Johnson Electric Co., Spruce Pine, N. C.
Mr. L. L. McMurry, Supervising Engineer,
Feldspar Flotation Co., Spruce Pine, N. C.

LEWIE M. ALDRIDGE

Lewie M. Aldridge was born at Hughes, Avery County, North Carolina, December 30, 1914. He attended grammar school in Avery County, and was graduated from Crossnore High School in 1934. In 1935 he completed one year of post graduate work in the commercial business school of the Crossnore High School.

During the years 1936 to 1941 he was an automobile salesman for J. L. Baker in Spruce Pine, North Carolina. In 1941 he commenced his mining operations which last through the Colonial Mica purchase period. They were as follows:

1942 - 1946	He was one of two partners in the partnership of W. S. Flint and Lewie Aldridge which mined "Lincoln Rock" on the Avery estate in Avery County, North Carolina.
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In addition to his mining operations, Mr. Aldridge during the years 1947 to 1948 operated a used car lot in Spruce Pine, North Carolina. In 1949 he became a partner with C. W. Greene, and the partnership of Aldridge and Greene now engaged in the selling of Ford cars and trucks through their dealership and operate a Texaco service station.

* * * * * *

References:

Bill Lee, Cashier,
Northwestern Bank, Spruce Pine, N. C.
E. C. Guy, President,
Avery County Bank, Newland, N. C.
Ray Dent, Manager,
Diamond Mica Company, Spruce Pine, N. C.

B

Form 75 N. C. Letters Testamentary

STATE OF NORTH CAROLINA

SWAIN County

THE STATE OF NORTH CAROLINA,

To all to whom these presents shall come--GREETING:

It Being Satisfactorily Proven To The Undersigned, Clerk of the Superior Court SWAIN County, that Arthur Brooks, late of said county, is dead, having made his last Will And Testament, which has been admitted to probate (a true copy whereof is hereunto annexed), and Allan A. Brooks and Flora Brooks, the Executors named therein, having qualified as such according to law:

Now, These Are Therefore To Empower the said Executors to enter in and upon all and singular the goods and chattels, the rights and credits of the said deceased, and the same to take into possession wheresoever to be found, and all the just debts of the said deceased to pay and satisfy, and the residue of said estate to distribute according to the directions of said Will.

Witness my hand and the seal of said Court, this 27 day of October, 1942

Clerk of the Superior Court

NORTH CAROLINA, SWAIN County.

I, H. J. Truett, Clerk of the Superior Court of said County, do hereby certify that the foregoing is a true and perfect copy of LETTERS TESTAMENTARY issued to Allan A. Brooks and Flora Brooks, Executors of Arthur Brooks, on the 27 day of October, 1942, as appears of record in my office.

Witness my hand and official seal, this 9th day of August, 1945

Clerk of the Superior Court

THIS AGREEMENT, made and entered into this the 15th day of September, 1951 by and between THE ARTHUR BROOKS ESTATE, of Swain County, North Carolina, PARTY OF THE FIRST PART, and F. O. PHILLIPS and ERNEST CROWDER, of Mitchel County, North Carolina, PARTIES OF THE SECOND PART.

WITNESSETH: That the Party of the First Part hereby leases to the Parties of the Second Part, their heirs or assigns, all minerals now owned by First Party on and under the lands owned by R. C. Wiggins on Pigeon Creek, a tributary of Alarka Creek, in Charleston Township, Swain County, North Carolina for the purpose of Mining, removing and selling said minerals, under the terms and conditions as hereinafter set forth:

1- Second Party shall pay, or cause to be paid, to First Party, or its legal representative, a royalty of Fifty Cents per ton on all Feldspar and Ten Percent of all moneys received by second party from the sale of all other minerals removed under this lease.

2- All royalties to be paid in full by Second Party to First Party not later than the 15th of each month for all minerals removed during the preceding month.

3- Second Party shall furnish to First Party, if requested to do so, certified statements from the purchasers of said minerals on weights and prices covering the same.

4- First Party grants to second party the right to construct roads, power lines, buildings, use water, etc., wherever such rights are vested in First Party by his ownership of the above minerals.

5- The failure of Second Party to pay to First Party, at any time after January 1, 1952, a minimum monthly royalty of Thirty Dollars shall automatically void this lease.

6- It is agreed between the two parties that if a feldspar grinding or processing plant is erected at a less distance from the above property than those now in operation there shall be a revision of the Feldspar royalty in proportion to the decreased transportation cost of the crude feldspar.

7- The failure of either party to comply with the terms and conditions herein set forth shall automatically terminate this lease.

8- This lease is for ten years. Lessee has option to renew for 10 yrs. additional.

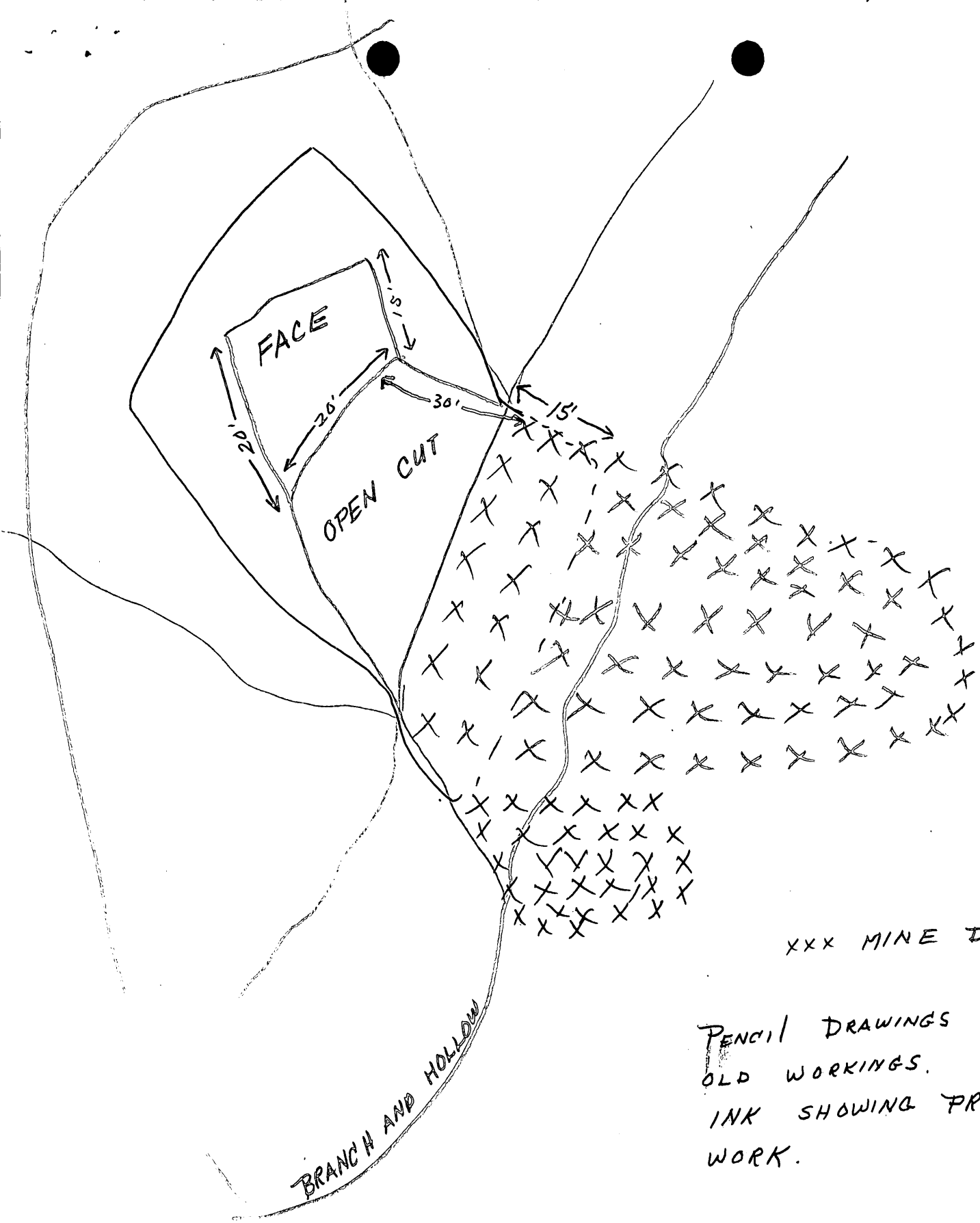
THE ARTHUR BROOKS ESTATE
BY

Executor.
First Party.

_____

_____

Second Parties.



XXX MINE DUMP

PENCIL DRAWINGS SHOW OLD WORKINGS.
INK SHOWING PROPOSED WORK.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

DEFENSE MINERALS ADMINISTRATION
WASHINGTON, D. C.
NOV 27 7 52 AM '51

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

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

DO NOT FILL IN THIS BLOCK

Docket No. dma 2210

Date received 11-27-51

Participation

Brooks Beryllium
c/o Fletcher O. Phillips
Spruce Pine, North Carolina

Name and address of applicant

Date November 1, 1951

FILL IN THIS BLOCK

Date of application November 1, 1951

Estimated cost $28,140

Mineral or metal Beryl and Muscovite

Percentage of Government participation 90%

Location of mine 5 miles W of Bryson City, North Carolina

Date of filing MF-100 Not filed

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

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

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

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

16—64067-1

THE PROPERTY

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

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

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

*11. State the present and former names of the property, if any.

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

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

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

15. State in detail how the ore could be shipped and how and where milled.

*16. History:

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

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

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

*17. Production:

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

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

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

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

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

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

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

THE EXPLORATION

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

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

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

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

THE REQUIREMENTS AND COSTS

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

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

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

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

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

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

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

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

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

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

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

CERTIFICATION

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

Brooks Beryllium (a partnership) (Name of company) By Fletcher O. Phillips (Signature of authorized official)

October 29, 1951 (Date) Manager (Title)

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

*Same as footnote on page 1.

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

Brooks Beryllium
c/o Fletcher O. Phillips, Mgr.
Spruce Pine, North Carolina

1. Applicant is a partnership, a joint venture of persons named in answer to question 2.

2. John Phillips, Ernest Crowder, Fletcher O. Phillips and Lewie Aldridge, all of Spruce Pine, North Carolina. For experience and personal history, see Exhibit A.

3. Not a corporation.

4. For mining and general business experience of persons in this joint venture, see Exhibit A.

5. Lessee--See Exhibit B.

6. Not owner of property.

7. Lease is in good standing, copy is attached as Exhibit B.

   Note: Six copies of landlord's subordination agreement is attached to original copy of this application as Exhibit B.

8. No financial statement. New joint venture.

9. Applicant will donate the rental value of its 2½ ton dump truck. If rental value does not equal 10% along with other items marked as donated in the answer to question 23, the applicant will make up the difference in cash at time exploration is approved and contract executed by the DMA.

10. (a) Legal description is attached as Exhibit B.
    (b) Exploration to be conducted within 200 foot radius of center of abandoned mine face on the property leased. The abandoned mine face will be the center of the circle.

11. Brooks Mine.

12. Roads are generally good for this area. Access to mine needs improving, and will be improved when and if commercial production is attained. Mine is five miles west of Bryson City, where railroad shipments can be made. Ore can be trucked to Spruce Pine, 120 miles Northeast of Bryson City, or to Franklin, 25 miles South of Bryson City.

13. Beryl which assays 12.8 BeO content and ruby strategic sheet mica. No flow plant operations will be utilized in present contemplations.

14. None

15. Beryl and mica will be sold at either Franklin or Spruce Pine, North Carolina, if found. No milling necessary.

16. Beryl history is on record with USBM (Call Mr. Needham). Mica history is on record with USBM and RFC.

17. Mine is not in production.

18. Ore reserves not known.

19. None.

20. Beryl and ruby muscovite.

21. It is proposed to begin at the branch (See Exhibit C) and lower the abandoned cut an additional fifteen feet. Then to claw the old cut to remove accumulated muck, etc. The overburden, which is from 10 to 30 feet deep, will be removed by the dozing with the dump material being pushed into the branch or hollow below. The overburden removal will extend a distance of approximately thirty feet out in all directions from the old cut.

Mineralization is proposed to be determined by removing segments of the new existing mine faces. Since the beryl and mica concentrations are likely to be in different portions of the dyke, it is anticipated to lower the cut on all three faces through the dyke to assure thorough exploration.

It is anticipated that it will take 26 weeks to complete the project.

22. Possibilities are a matter of record with either USBM or USGS as this mine was geologized during World War II.

23

	per week	26 week total
(a)		
3 muckers at $65	195	5,070
1 Jackhammer operator	70	1,820
1 Truck driver	65	1,690
(b)		
1 Supervisor	75	1,950
(c)		
None.		
(d)		
1 tool and storage shed		500
(e)		
Misc. Hand Tools		500
(f)		
None.		
(g)		
Air Compressor 105 c.f. and Jackhammer	100	2,600
PPick-up truck	50	1,300
Dump truck 2½ ton	100	2,600
(h)		
Drill steel		350
Drill bits	50	1,300
Fuel--gas & oil	45	1,170
Dynamite	40	1,040
(i)		
Bulldozing 500 hrs. at 12.50 p.h.		6,250
		28,140

24. It is expected to take a total of six months to complete this project. Also see answer to question 21.

FLETCHER O. PHILLIPS

Fletcher O. Phillips is 46 years old, a native of the Spruce Pine area, and has lived in that mining district most of his life.

He has 26 years of mining experience, and at present is mining mica and feldspar on a commercially profitable basis in the Dogwood Flat near Yellow Mountain in the Spruce Pine area. This mine is presently producing one thousand pounds of mica of punch or better quality per week and approximately seventy-five tons of feldspar.

During World War II, Mr. Phillips was one of three partners in the mica fabricating plant of "Carpenter and Phillips Mica Company" which employed from 90 to 180 persons. One of his duties was to purchase mica for fabricating. That experience has thoroughly schooled Mr. Phillips in appraising and grading blocks and sheets of mica.

His two years mining education at North Carolina State College is one of his greatest assets in that it helps him to evaluate out croppings and to follow "leads" once mining operations have commenced.

His past employment record is as follows:

Bennidict Coal Co.	St. Charles, Va.	1927 - 1928
Mining School	State College, N. C.	1928 - 1930
Bennidict Coal Co.	St. Charles, Va.	1930 - 1932
Hoot Owl Mine	Spruce Pine, N. C.	1934 - 1936
Mining for self	Spruce Pine, N. C.	1936 - 1941
Carpenter & Phillips Mica Co. (partner)	Spruce Pine, N. C.	1941 - 1945

* * * * * *

References:

Mr. Ernest Poteat, Cashier,
Northwestern Bank, Bakersville, N. C.
Mr. Roy Welds, Manager,
Harris Clay Co., Spruce Pine, N. C.
Mr. J. P. McKinney, Mine Manager,
United Feldspar & Minerals, Spruce Pine, N. C.

ERNEST CROWDER

Ernest Crowder is forty-four years old and has lived all his life in Mitchell County, North Carolina. His first employment was in local mines as a mucker at the age of sixteen.

For the past twenty years he has been a mining supervisor having from five to fifteen men under his supervision including drillers, muckers, drag line operators, and truckers. As a result of his many years of experience, he is thoroughly familiar with the location of and mining of mica and feldspar.

Due to his knowledge of blasting and his penchant for safety preparations in pillowing, timbering and supporting shafts and caves, miners are not afraid to work under him. In fact, his reputation for safety is well known, and the insurance underwriters usually insure "his" mines at low rates.

His past employment record is as follows:

Ewrin Feldspar	"C" Mine	1927 - 1929
Carolina Minerals	"Pink Mine"	1929 - 1936
Tennessee Minerals	"Deerpark"	1936 - 1937

For self and in partnership with others since 1937.

* * * * * *

References:

Mr. Ed. Fortner
Insurance Agent, Spruce Pine, North Carolina
Mr. "Bill" McKinney, General Manager
Spruce Pine Store Co., Spruce Pine, North Carolina
Mr. Carroll Rogers,
Blue Ridge Mining Co., Spruce Pine, North Carolina

JOHN PHILLIPS

John Phillips is thirty-four years old and a native of the Spruce Pine area where he has lived most of his life.

He operated the Bouy Mine in Spruce Pine during the years 1941 to 1943 from which he produced a large quantity of book mica of punch and better grade.

In 1941 at the same time he was operating the Bouy Mine, he became a member of the partnership "Carpenter and Phillips Mica Company." This firm fabricates punch grade mica for the electric and electronic industry.

Mr. Phillips' business acumen is evidenced by his rapid expansion in conservative business interests. He is one of two partners in the partnership of "Phillips and Coulter." This partnership is engaged in the following businesses:

1. The Texas Company Distributorship for Avery, Mitchell and Yancey Counties.
2. Studebaker automobile and truck dealer for Avery, Mitchell and Yancey Counties, North Carolina.
3. Firestone Retail Store
4. Texaco Service Station, Spruce Pine,

* * * * * *

References:

Mr. Robert Guy, Cashier
Avery County Bank, Newland, N. C.
Mr. Baxter Johnson, Owner,
Johnson Electric Co., Spruce Pine, N. C.
Mr. L. L. McMurry, Supervising Engineer,
Feldspar Flotation Co., Spruce Pine, N. C.

LEWIE M. ALDRIDGE

Lewie M. Aldridge was born at Hughes, Avery County, North Carolina, December 30, 1914. He attended grammar school in Avery County, and was graduated from Crossnore High School in 1934. In 1935 he completed one year of post graduate work in the commercial business school of the Crossnore High School.

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SWAIN County

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Witness my hand and the seal of said Court, this 27 day of October, 1942

Clerk of the Superior Court

NORTH CAROLINA, SWAIN County.

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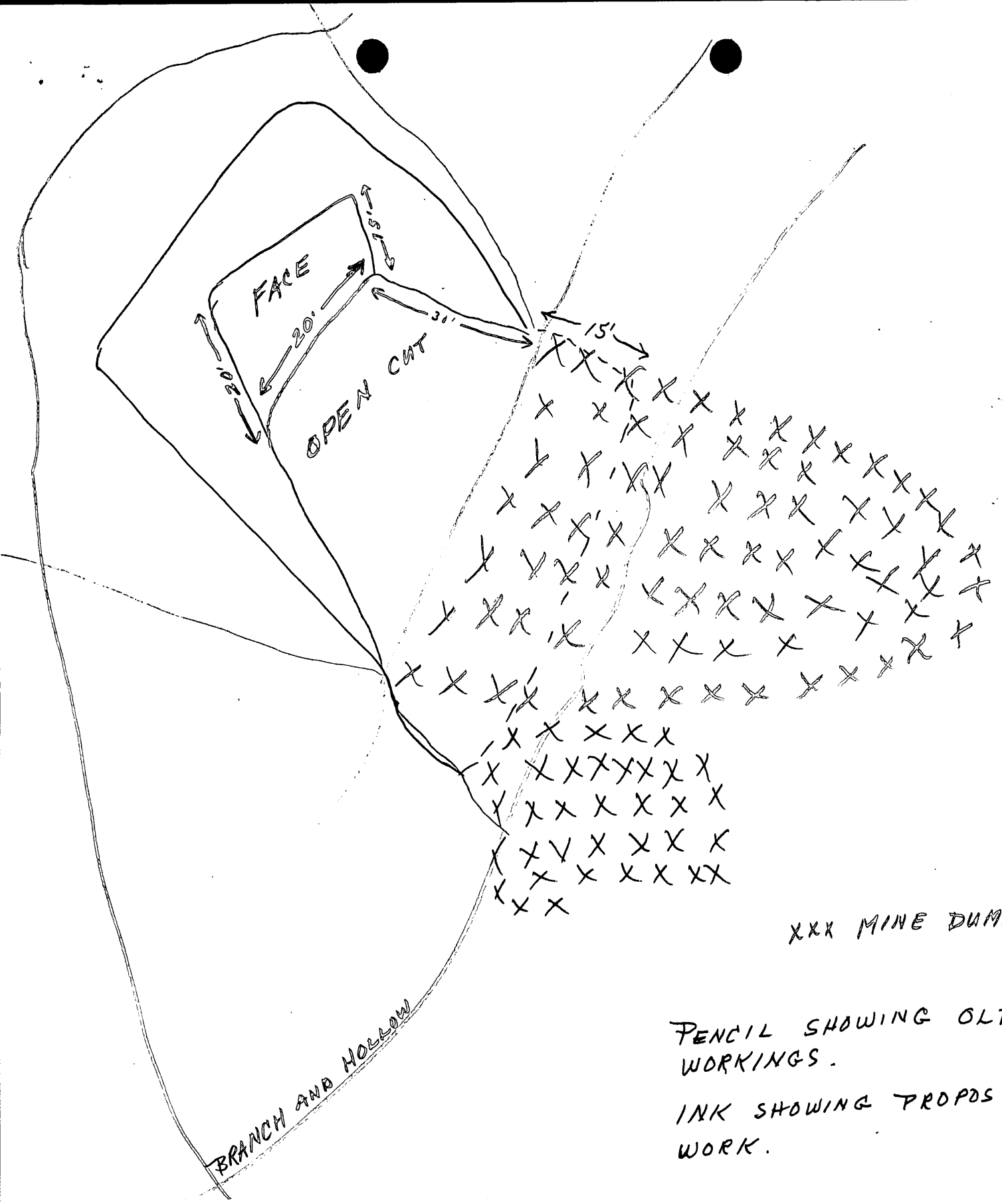
THE ARTHUR BROOKS ESTATE
BY

Executor.
First Party.

_____

_____

Second Parties.



PENCIL SHOWING OLD WORKINGS.

INK SHOWING PROPOSED WORK.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

DEFENSE MINERALS ADMINISTRATION
WASHINGTON, D. C.
NOV 2 7 52 AM '51

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

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

DO NOT FILL IN THIS BLOCK

Docket No. DMA 2210

Date received 11-2-51

Participation

Brooks Beryllium
c/o Fletcher O. Phillips
Spruce Pine, North Carolina

Name and address of applicant

Date November 1, 1951

FILL IN THIS BLOCK

Date of application November 1, 1951

Estimated cost $28,140

Mineral or metal Beryl and Muscovite

Percentage of Government participation 90%

Location of mine 5 miles W of Bryson City,
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Date of filing MF-100 Not filed

DMA Docket Number, if available

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16—64067-1

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15. State in detail how the ore could be shipped and how and where milled.

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

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

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

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

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

THE EXPLORATION

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

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

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

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

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

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

CERTIFICATION

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

Brooks Beryllium (a partnership) — (Name of company)

By Fletcher O. Phillips — (Signature of authorized official)

October 29, 1951 — (Date)

Manager — (Title)

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

*Same as footnote on page 1.

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

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

DEFENSE MINERALS ADMINISTRATION
WASHINGTON, D. C.

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

II

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

NOV 2 7 52 AM '51

DO NOT FILL IN THIS BLOCK

Docket No. dma 2210

Date received 11-2-51

Participation

Brooks Beryllium
c/o Fletcher O. Phillips
Spruce Pine, North Carolina

Name and address of applicant

Date November 1, 1951

FILL IN THIS BLOCK

Date of application November 1, 1951

Estimated cost $28,140

Mineral or metal Beryl and Muscovite

Percentage of Government participation 90%

Location of mine 5 miles W of Bryson City, North Carolina

Date of filing MF-100 Not filed

DMA Docket Number, if available

INSTRUCTIONS

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

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

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

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

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

16—64067-1

THE PROPERTY

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

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

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

*11. State the present and former names of the property, if any.

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

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

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

15. State in detail how the ore could be shipped and how and where milled.

*16. History:

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

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

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

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	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
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    (*a*) Describe the ore or mineral deposits briefly.

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

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

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

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

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

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

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THE REQUIREMENTS AND COSTS

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

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

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

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

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

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

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

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

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

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

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

CERTIFICATION

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

Brooks Beryllium (a partnership) — (Name of company)

By Fletcher O. Phillips — (Signature of authorized official)

October 29, 1951 — (Date)

Manager — (Title)

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*Same as footnote on page 1.

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

Brooks Beryllium
c/o Fletcher O. Phillips, Mgr.
Spruce Pine, North Carolina

1. Applicant is a partnership, a joint venture of persons named in answer to question 2.

2. John Phillips, Ernest Crowder, Fletcher O. Phillips and Lewie Aldridge, all of Spruce Pine, North Carolina. For experience and personal history, see Exhibit A.

3. Not a corporation.

4. For mining and general business experience of persons in this joint venture, see Exhibit A.

5. Lessee--See Exhibit B.

6. Not owner of property.

7. Lease is in good standing, copy is attached as Exhibit B.

   Note: Six copies of landlord's subordination agreement is attached to original copy of this application as Exhibit B.

8. No financial statement. New joint venture.

9. Applicant will donate the rental value of its 2½ ton dump truck. If rental value does not equal 10% along with other items marked as donated in the answer to question 23, the applicant will make up the difference in cash at time exploration is approved and contract executed by the DMA.

10. (a) Legal description is attached as Exhibit B.
    (b) Exploration to be conducted within 200 foot radius of center of abandoned mine face on the property leased. The abandoned mine face will be the center of the circle.

11. Brooks Mine.

12. Roads are generally good for this area. Access to mine needs improving, and will be improved when and if commercial production is attained. Mine is five miles west of Bryson City, where railroad shipments can be made. Ore can be trucked to Spruce Pine, 120 miles Northeast of Bryson City, or to Franklin, 25 miles South of Bryson City.

13. Beryl which assays 12.8 BeO content and ruby strategic sheet mica. No flow plant operations will be utilized in present contemplations.

14. None

15. Beryl and mica will be sold at either Franklin or Spruce Pine, North Carolina, if found. No milling necessary.

16. Beryl history is on record with USBM (Call Mr. Needham). Mica history is on record with USBM and RFC.

17. Mine is not in production.

18. Ore reserves not known.

19. None.

20. Beryl and ruby muscovite.

21. It is proposed to begin at the branch (See Exhibit C) and lower the abandoned cut an additional fifteen feet. Then to claw the old cut to remove accumulated muck, etc. The overburden, which is from 10 to 30 feet deep, will be removed by the dozing with the dump material being pushed into the branch or hollow below. The overburden removal will extend a distance of approximately thirty feet out in all directions from the old cut.

Mineralization is proposed to be determined by removing segments of the new existing mine faces. Since the beryl and mica concentrations are likely to be in different portions of the dyke, it is anticipated to lower the cut on all three faces through the dyke to assure thorough exploration.

It is anticipated that it will take 26 weeks to complete the project.

22. Possibilities are a matter of record with either USBM or USGS as this mine was geologized during World War II.

23

	per week	26 week total
(a)		
3 muckers at $65	195	5,070
1 Jackhammer operator	70	1,820
1 Truck driver	65	1,690
(b)		
1 Supervisor	75	1,950
(c)		
None.		
(d)		
1 tool and storage shed		500
(e)		
Misc. Hand Tools		500
(f)		
None.		
(g)		
Air Compressor 105 c.f. and Jackhammer	100	2,600
PPick-up truck	50	1,300
Dump truck 2½ ton	100	2,600
(h)		
Drill steel		350
Drill bits	50	1,300
Fuel--gas & oil	45	1,170
Dynamite	40	1,040
(i)		
Bulldozing 500 hrs. at 12.50 p.h.		6,250
		28,140

24. It is expected to take a total of six months to complete this project. Also see answer to question 21.

FLETCHER O. PHILLIPS

Fletcher O. Phillips is 46 years old, a native of the Spruce Pine area, and has lived in that mining district most of his life.

He has 26 years of mining experience, and at present is mining mica and feldspar on a commercially profitable basis in the Dogwood Flat near Yellow Mountain in the Spruce Pine area. This mine is presently producing one thousand pounds of mica of punch or better quality per week and approximately seventy-five tons of feldspar.

During World War II, Mr. Phillips was one of three partners in the mica fabricating plant of "Carpenter and Phillips Mica Company" which employed from 90 to 180 persons. One of his duties was to purchase mica for fabricating. That experience has thoroughly schooled Mr. Phillips in appraising and grading blocks and sheets of mica.

His two years mining education at North Carolina State College is one of his greatest assets in that it helps him to evaluate out croppings and to follow "leads" once mining operations have commenced.

His past employment record is as follows:

Bennidict Coal Co.	St. Charles, Va.	1927 - 1928
Mining School	State College, N. C.	1928 - 1930
Bennidict Coal Co.	St. Charles, Va.	1930 - 1932
Hoot Owl Mine	Spruce Pine, N. C.	1934 - 1936
Mining for self	Spruce Pine, N. C.	1936 - 1941
Carpenter & Phillips Mica Co. (partner)	Spruce Pine, N. C.	1941 - 1945

* * * * * *

References:

Mr. Ernest Poteat, Cashier,
Northwestern Bank, Bakersville, N. C.
Mr. Roy Welds, Manager,
Harris Clay Co., Spruce Pine, N. C.
Mr. J. P. McKinney, Mine Manager,
United Feldspar & Minerals, Spruce Pine, N. C.

ERNEST CROWDER

Ernest Crowder is forty-four years old and has lived all his life in Mitchell County, North Carolina. His first employment was in local mines as a mucker at the age of sixteen.

For the past twenty years he has been a mining supervisor having from five to fifteen men under his supervision including drillers, muckers, drag line operators, and truckers. As a result of his many years of experience, he is thoroughly familiar with the location of and mining of mica and feldspar.

Due to his knowledge of blasting and his penchant for safety preparations in pillowing, timbering and supporting shafts and caves, miners are not afraid to work under him. In fact, his reputation for safety is well known, and the insurance underwriters usually insure "his" mines at low rates.

His past employment record is as follows:

Ewrin Feldspar	"C" Mine	1927 - 1929
Carolina Minerals	"Pink Mine"	1929 - 1936
Tennessee Minerals	"Deerpark"	1936 - 1937

For self and in partnership with others since 1937.

* * * * * *

References:

Mr. Ed. Fortner
Insurance Agent, Spruce Pine, North Carolina
Mr. "Bill" McKinney, General Manager
Spruce Pine Store Co., Spruce Pine, North Carolina
Mr. Carroll Rogers,
Blue Ridge Mining Co., Spruce Pine, North Carolina

JOHN PHILLIPS

John Phillips is thirty-four years old and a native of the Spruce Pine area where he has lived most of his life.

He operated the Bouy Mine in Spruce Pine during the years 1941 to 1943 from which he produced a large quantity of book mica of punch and better grade.

In 1941 at the same time he was operating the Bouy Mine, he became a member of the partnership "Carpenter and Phillips Mica Company." This firm fabricates punch grade mica for the electric and electronic industry.

Mr. Phillips' business acumen is evidenced by his rapid expansion in conservative business interests. He is one of two partners in the partnership of "Phillips and Coulter." This partnership is engaged in the following businesses:

1. The Texas Company Distributorship for Avery, Mitchell and Yancey Counties.
2. Studebaker automobile and truck dealer for Avery, Mitchell and Yancey Counties, North Carolina.
3. Firestone Retail Store
4. Texaco Service Station, Spruce Pine,

* * * * * *

References:

Mr. Robert Guy, Cashier
Avery County Bank, Newland, N. C.
Mr. Baxter Johnson, Owner,
Johnson Electric Co., Spruce Pine, N. C.
Mr. L. L. McMurry, Supervising Engineer,
Feldspar Flotation Co., Spruce Pine, N. C.

LEWIE M. ALDRIDGE

Lewie M. Aldridge was born at Hughes, Avery County, North Carolina, December 30, 1914. He attended grammar school in Avery County, and was graduated from Crossnore High School in 1934. In 1935 he completed one year of post graduate work in the commercial business school of the Crossnore High School.

During the years 1936 to 1941 he was an automobile salesman for J. L. Baker in Spruce Pine, North Carolina. In 1941 he commenced his mining operations which last through the Colonial Mica purchase period. They were as follows:

1942 - 1946	He was one of two partners in the partnership of W. S. Flint and Lewie Aldridge which mined "Lincoln Rock" on the Avery estate in Avery County, North Carolina.
1942 - 1946	The same partnership of Flint and Aldridge operated Hawkins Mine at Sandy Ridge, in Stokes County, N. C.
1943 -	As an individual, he operated the "Long Cut" Mine on the Bailey Property in Mitchell County.
1944 - 1946	He was one of three partners in the partnership of Lewie Aldridge, Thomas P. Dillinger and W. S. Flint. which operated the "Long Cut" Mine.
1946 - until present	He has mined the Harry Knight Mine at Stoneville, Virginia.

In addition to his mining operations, Mr. Aldridge during the years 1947 to 1948 operated a used car lot in Spruce Pine, North Carolina. In 1949 he became a partner with C. W. Greene, and the partnership of Aldridge and Greene now engaged in the selling of Ford cars and trucks through their dealership and operate a Texaco service station.

* * * * * *

References:

Bill Lee, Cashier,
Northwestern Bank, Spruce Pine, N. C.
E. C. Guy, President,
Avery County Bank, Newland, N. C.
Ray Dent, Manager,
Diamond Mica Company, Spruce Pine, N. C.

Form 75 N. C. Letters Testamentary

STATE OF NORTH CAROLINA

SWAIN County

THE STATE OF NORTH CAROLINA,

To all to whom these presents shall come--GREETING:

It Being Satisfactorily Proven To The Undersigned, Clerk of the Superior Court SWAIN County, that Arthur Brooks, late of said county, is dead, having made his last Will And Testament, which has been admitted to probate (a true copy whereof is hereunto annexed), and Allan A. Brooks and Flora Brooks, the Executors named therein, having qualified as such according to law:

Now, These Are Therefore To Empower the said Executors to enter in and upon all and singular the goods and chattels, the rights and credits of the said deceased, and the same to take into possession wheresoever to be found, and all the just debts of the said deceased to pay and satisfy, and the residue of said estate to distribute according to the directions of said Will.

Witness my hand and the seal of said Court, this 27 day of October, 1942

Clerk of the Superior Court

NORTH CAROLINA, SWAIN County.

I, H. J. Truett, Clerk of the Superior Court of said County, do hereby certify that the foregoing is a true and perfect copy of LETTERS TESTAMENTARY issued to Allan A. Brooks and Flora Brooks, Executors of Arthur Brooks, on the 27 day of October, 1942, as appears of record in my office.

Witness my hand and official seal, this 9th day of August, 1945

Clerk of the Superior Court

THIS AGREEMENT, made and entered into this the 15th day of September, 1951 by and between THE ARTHUR BROOKS ESTATE, of Swain County, North Carolina, PARTY OF THE FIRST PART, and F. O. PHILLIPS and ERNEST CROWDER, of Mitchel County, North Carolina, PARTIES OF THE SECOND PART.

WITNESSETH: That the Party of the First Part hereby leases to the Parties of the Second Part, their heirs or assigns, all minerals now owned by First Party on and under the lands owned by R. C. Wiggins on Pigeon Creek, a tributary of Alarka Creek, in Charleston Township, Swain County, North Carolina for the purpose of Mining, removing and selling said minerals, under the terms and conditions as hereinafter set forth:

1- Second Party shall pay, or cause to be paid, to First Party, or its legal representative, a royalty of Fifty Cents per ton on all Feldspar and Ten Percent of all moneys received by second party from the sale of all other minerals removed under this lease.

2- All royalties to be paid in full by Second Party to First Party not later than the 15th of each month for all minerals removed during the preceding month.

3- Second Party shall furnish to First Party, if requested to do so, certified statements from the purchasers of said minerals on weights and prices covering the same.

4- First Party grants to second party the right to construct roads, power lines, buildings, use water, etc., wherever such rights are vested in First Party by his ownership of the above minerals.

5- The failure of Second Party to pay to First Party, at any time after January 1, 1952, a minimum monthly royalty of Thirty Dollars shall automatically void this lease.

6- It is agreed between the two parties that if a feldspar grinding or processing plant is erected at a less distance from the above property than those now in operation there shall be a revision of the Feldspar royalty in proportion to the decreased transportation cost of the crude feldspar.

7- The failure of either party to comply with the terms and conditions herein set forth shall automatically terminate this lease.

8- This lease is for ten years. Lessee has option to renew for 10 yrs. additional.

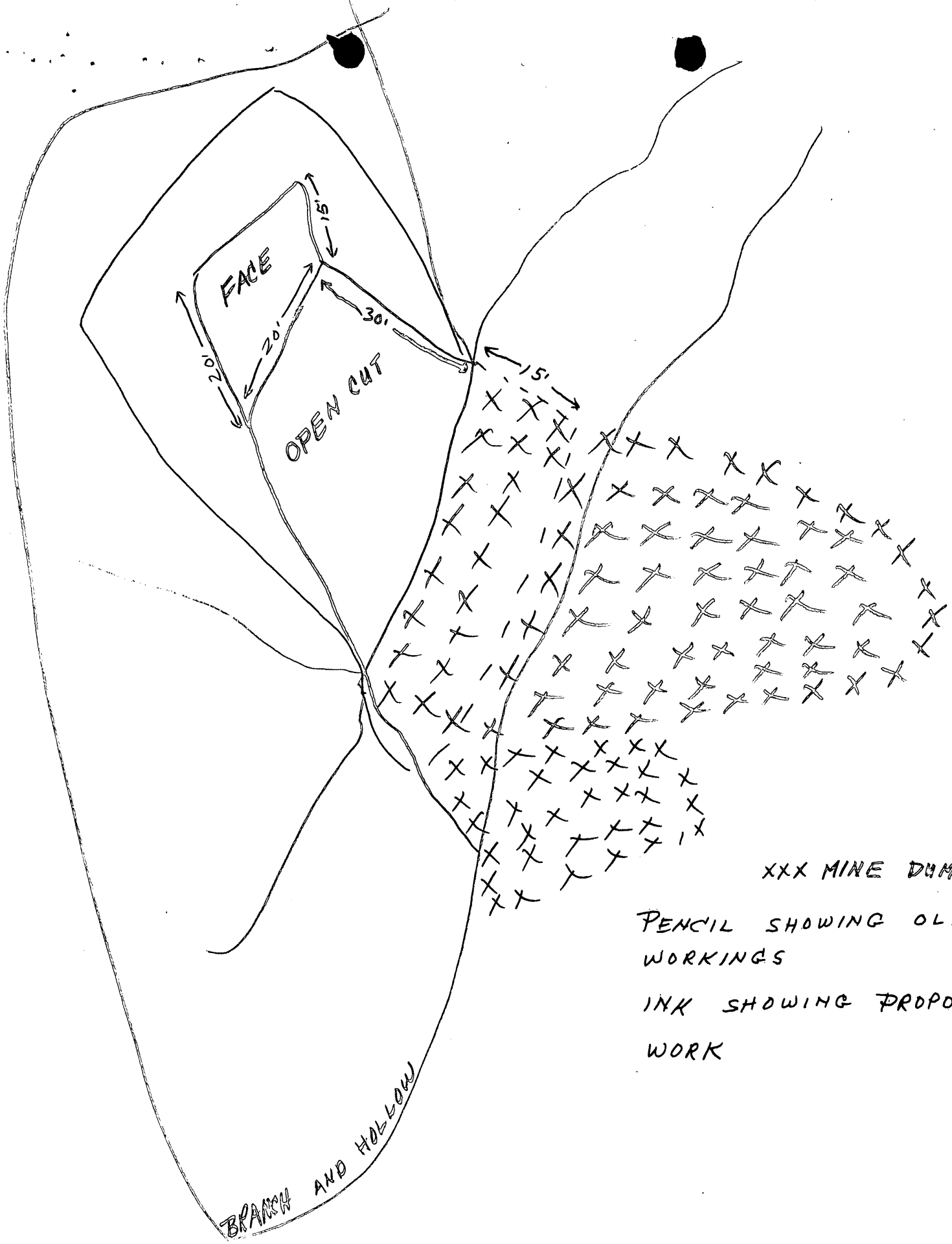
THE ARTHUR BROOKS ESTATE
BY

Executor.
First Party.

_____

_____

Second Parties.



XXX MINE DUMP

PENCIL SHOWING OLD WORKINGS

INK SHOWING PROPOSED WORK

GREENE'S MINERAL & GIFT SHOP
LINTEN B. GREENE, OWNER
GEM STONE & MINERAL SPECIMENS
TELEPHONE 396 P. O. BOX 398
SPRUCE PINE, N. C.

Oct 4/1951

I baught about three thousand pounds of beryl ore from Pritchard & Pitman,
This ore came from a mine on Pigon Creek Near Bryson, City N.C

L.B Greene

L.B Greene

P.S. SAMPLES OF BERYLLIUM AND MICA SUBMITTED WITH APPLICATION.

Brooks Beryllium
c/o Fletcher O. Phillips, Mgr.
Spruce Pine, North Carolina

1. Applicant is a partnership, a joint venture of persons named in answer to question 2.

2. John Phillips, Ernest Crowder, Fletcher O. Phillips and Lewie Aldridge, all of Spruce Pine, North Carolina. For experience and personal history, see Exhibit A.

3. Not a corporation.

4. For mining and general business experience of persons in this joint venture, see Exhibit A.

5. Lessee--See Exhibit B.

6. Not owner of property.

7. Lease is in good standing, copy is attached as Exhibit B.

   Note: Six copies of landlord's subordination agreement is attached to original copy of this application as Exhibit B.

8. No financial statement. New joint venture.

9. Applicant will donate the rental value of its $2\frac{1}{2}$ ton dump truck. If rental value does not equal 10% along with other items marked as donated in the answer to question 23, the applicant will make up the difference in cash at time exploration is approved and contract executed by the DMA.

10. (a) Legal description is attached as Exhibit B.
    (b) Exploration to be conducted within 200 foot radius of center of abandoned mine face on the property leased. The abandoned mine face will be the center of the circle.

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12. Roads are generally good for this area. Access to mine needs improving, and will be improved when and if commercial production is attained. Mine is five miles west of Bryson City, where railroad shipments can be made. Ore can be trucked to Spruce Pine, 120 miles Northeast of Bryson City, or to Franklin, 25 miles South of Bryson City.

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14. None

15. Beryl and mica will be sold at either Franklin or Spruce Pine, North Carolina, if found. No milling necessary.

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17. Mine is not in production.

18. Ore reserves not known.

19. None.

20. Beryl and ruby muscovite.

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It is anticipated that it will take 26 weeks to complete the project.

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	per week	26 week total
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1 Truck driver	65	1,690
(b)		
1 Supervisor	75	1,950
(c)		
None.		
(d)		
1 tool and storage shed		500
(e)		
Misc. Hand Tools		500
(f)		
None.		
(g)		
Air Compressor 105 c.f. and Jackhammer	100	2,600
PPick-up truck	50	1,300
Dump truck 2½ ton	100	2,600
(h)		
Drill steel		350
Drill bits	50	1,300
Fuel--gas & oil	45	1,170
Dynamite	40	1,040
(i)		
Bulldozing 500 hrs. at 12.50 p.h.		6,250
		28,140

24. It is expected to take a total of six months to complete this project. Also see answer to question 21.

A

FLETCHER O. PHILLIPS

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He has 26 years of mining experience, and at present is mining mica and feldspar on a commercially profitable basis in the Dogwood Flat near Yellow Mountain in the Spruce Pine area. This mine is presently producing one thousand pounds of mica of punch or better quality per week and approximately seventy-five tons of feldspar.

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Hoot Owl Mine	Spruce Pine, N. C.	1934 - 1936
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Carpenter & Phillips Mica Co. (partner)	Spruce Pine, N. C.	1941 - 1945

* * * * * *

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Mr. J. P. McKinney, Mine Manager,
United Feldspar & Minerals, Spruce Pine, N. C.

ERNEST CROWDER

Ernest Crowder is forty-four years old and has lived all his life in Mitchell County, North Carolina. His first employment was in local mines as a mucker at the age of sixteen.

For the past twenty years he has been a mining supervisor having from five to fifteen men under his supervision including drillers, muckers, drag line operators, and truckers. As a result of his many years of experience, he is thoroughly familiar with the location of and mining of mica and feldspar.

Due to his knowledge of blasting and his penchant for safety preparations in pillowing, timbering and supporting shafts and caves, miners are not afraid to work under him. In fact, his reputation for safety is well known, and the insurance underwriters usually insure "his" mines at low rates.

His past employment record is as follows:

Ewrin Feldspar	"C" Mine	1927 - 1929
Carolina Minerals	"Pink Mine"	1929 - 1936
Tennessee Minerals	"Deerpark"	1936 - 1937

For self and in partnership with others since 1937.

* * * * * *

References:

Mr. Ed. Fortner
Insurance Agent, Spruce Pine, North Carolina
Mr. "Bill" McKinney, General Manager
Spruce Pine Store Co., Spruce Pine, North Carolina
Mr. Carroll Rogers,
Blue Ridge Mining Co., Spruce Pine, North Carolina

JOHN PHILLIPS

John Phillips is thirty-four years old and a native of the Spruce Pine area where he has lived most of his life.

He operated the Bouy Mine in Spruce Pine during the years 1941 to 1943 from which he produced a large quantity of book mica of punch and better grade.

In 1941 at the same time he was operating the Bouy Mine, he became a member of the partnership "Carpenter and Phillips Mica Company." This firm fabricates punch grade mica for the electric and electronic industry.

Mr. Phillips' business acumen is evidenced by his rapid expansion in conservative business interests. He is one of two partners in the partnership of "Phillips and Coulter." This partnership is engaged in the following businesses:

1. The Texas Company Distributorship for Avery, Mitchell and Yancey Counties.
2. Studebaker automobile and truck dealer for Avery, Mitchell and Yancey Counties, North Carolina.
3. Firestone Retail Store
4. Texaco Service Station, Spruce Pine,

* * * * * *

References:

Mr. Robert Guy, Cashier
Avery County Bank, Newland, N. C.
Mr. Baxter Johnson, Owner,
Johnson Electric Co., Spruce Pine, N. C.
Mr. L. L. McMurry, Supervising Engineer,
Feldspar Flotation Co., Spruce Pine, N. C.

LEWIE M. ALDRIDGE

Lewie M. Aldridge was born at Hughes, Avery County, North Carolina, December 30, 1914. He attended grammar school in Avery County, and was graduated from Crossnore High School in 1934. In 1935 he completed one year of post graduate work in the commercial business school of the Crossnore High School.

During the years 1936 to 1941 he was an automobile salesman for J. L. Baker in Spruce Pine, North Carolina. In 1941 he commenced his mining operations which last through the Colonial Mica purchase period. They were as follows:

1942 - 1946	He was one of two partners in the partnership of W. S. Flint and Lewie Aldridge which mined "Lincoln Rock" on the Avery estate in Avery County, North Carolina.
1942 - 1946	The same partnership of Flint and Aldridge operated Hawkins Mine at Sandy Ridge, in Stokes County, N. C.
1943 -	As an individual, he operated the "Long Cut" Mine on the Bailey Property in Mitchell County.
1944 - 1946	He was one of three partners in the partnership of Lewie Aldridge, Thomas P. Dillinger and W. S. Flint. which operated the "Long Cut" Mine.
1946 - until present	He has mined the Harry Knight Mine at Stoneville, Virginia.

In addition to his mining operations, Mr. Aldridge during the years 1947 to 1948 operated a used car lot in Spruce Pine, North Carolina. In 1949 he became a partner with C. W. Greene, and the partnership of Aldridge and Greene now engaged in the selling of Ford cars and trucks through their dealership and operate a Texaco service station.

* * * * * *

References:

Bill Lee, Cashier,
Northwestern Bank, Spruce Pine, N. C.
E. C. Guy, President,
Avery County Bank, Newland, N. C.
Ray Dent, Manager,
Diamond Mica Company, Spruce Pine, N. C.

B

FORM 75 N. C. LETTERS TESTAMENTARY. THE SOUTHERN STATES PRINTING CO. GRIFFIN, GA. 18707

STATE OF NORTH CAROLINA

SWAIN COUNTY

THE STATE OF NORTH CAROLINA,

To all to whom these presents shall come—GREETING:

IT BEING SATISFACTORILY PROVEN TO THE UNDERSIGNED, Clerk of the Superior Court SWAIN County, that Arthur Brooks, late of said county, is dead, having made his last WILL AND TESTAMENT, which has been admitted to probate (a true copy whereof is hereunto annexed), and Allan A. Brooks and Flora Brooks, the Executors named therein, having qualified as such according to law:

NOW, THESE ARE THEREFORE TO EMPOWER the said Executors to enter in and upon all and singular the goods and chattels, the rights and credits of the said deceased, and the same to take into possession wheresoever to be found, and all the just debts of the said deceased to pay and satisfy, and the residue of said estate to distribute according to the directions of said Will.

WITNESS my hand and the seal of said Court, this 27 day of October, 19 42

Frank Hyatt
Clerk of the Superior Court.

NORTH CAROLINA, Swain COUNTY.

I, H.J. Truett, Clerk of the Superior Court of said County, do hereby certify that the foregoing is a true and perfect copy of LETTERS TESTAMENTARY issued to Allan A. Brooks and Flora Brooks, Executors of Arthur Brooks, on the 27 day of October, 19 42, as appears of record in my office.

Witness my hand and official seal, this 9th day of August, 19 45

H.J. Truett
Clerk of the Superior Court.

Every executor, administrator and collector, within three months after his qualification, shall return to the clerk, on oath, a just, true and perfect inventory of all the real estate, goods and chattels of the deceased, which have come to his hands, or to the hands of any person for him, which inventory shall be signed by him and be recorded by the clerk. He shall also return to the clerk, on oath, within three months after each sale made by him, a full and itemized account thereof, which shall be signed by him and recorded by the clerk—Revisal of 1905, section 42.

Every executor, administrator and collector shall, within twelve months from the date of his qualification or appointment, and annually so long as any of the estate remains in his control, file in the office of the Clerk of the Superior Court, an inventory and account, under oath, of the amount of property received by him, or invested by him, and the manner and nature of such investment, and his receipts and disbursements for the past year in the form of debit and credit. He must produce vouchers for all payments. The clerk may examine, on oath, such accounting party, or any other person, concerning the receipts, disbursements, or any other matters relating to the estate; and having carefully revised and audited such account, if he approve the same, he must endorse his approval thereon, which shall be deemed prima facie evidence of correctness. Revisal of 1905, section 99.

THIS AGREEMENT, made and eneterd into this the 15th. day of September, 1951, by and between THE ARTHUR BROOKS ESTATE, of Swain County, North Carolina, PARTY OF THE FIRST PART, and F.O. PHILLIPS and ERNEST CROWDER, of Mitchel County, North Carolina, PARTIES OF THE SECOND PART.

WITNESSETH: That the Part of the First part hereby leases to the Prties of the Second Part, their heirs or assigns, all minerals now owned by First Party on and under the lands owned by R.C. Wiggins on Pigeon Creek, a tributary of Alarka Creek, in Charleston Township, Swain County, North Carolina, for the purpose of Minmng, removing and selling said minerals, under the terms and conditions as hereinafter set forth:

1- Secomd Party shall pay, or cause to be paid, to First Party, or its legal representative, a royalty of Fifty Cents per ton on all Feldspar and Ten Percent of all moneys received by second partyfrom the sale of all other minerals removed under this lease.

2- All royalties to be paid in full by Second Party to First Party not later than the 15th. of each month for all minerals removed during the preceeding month.

3- Second Party shall furnish to First Party, if requested to do so, certified statements from the purchasers of said minerals on weights and prices covering the same.

4- First party grants to second party the right to construct roads, power lines, buildings, use water, etc., wherever such rights are vested in First Party by his ownership of the above minerals.

5- The failure of Second Party to pay to First Party, at any time after January 1, 1952, a minimum monthly royalty of Thirty Dollars shall automatically void this lease.

6- It is agreed between the two parties that if a feldspar grinding or processing plants is erected at a less distance from the above property than those now in operation there shall be a revision of the Feldspar royalty in proportion to the decreased transportation cost of the crude feldspar.

7- The failure of either party to comply with the terms and conditions herein set forth shall automatically terminate this lease.

8- This lease is for ten years. Lessee has option to renew for 10 yrs additional.

THE ARTHUR BROOKS ESTATE
By Allan A. Brooks
Executor.
First Party.

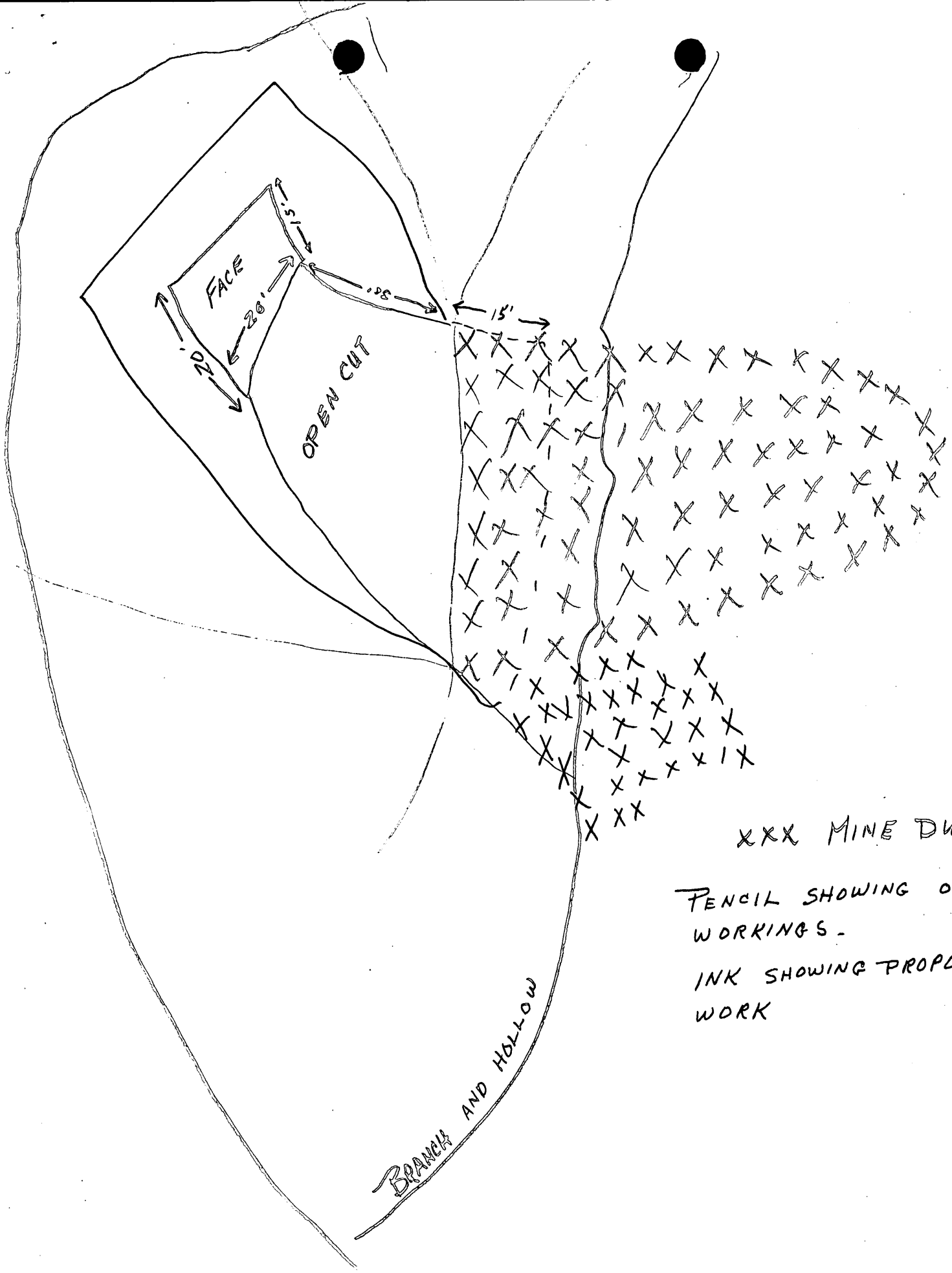
F O Phillips
Ernest Crowder
Second Parties.

DULY ACKNOWLEDGED AND SWORN TO BEFORE ME THIS THE 24th DAY OF Sept. 1951

Burma Cowell
NOTARY PUBLIC

My Commission Expires 1-25-52

C



XXX MINE DUMP

PENCIL SHOWING OLD WORKINGS.

INK SHOWING PROPOSED WORK

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned is the owner ~~in fee simple~~ of all minerals on or under of that certain parcel of ground in the county of SWAIN, State of NORTH CAROLINA, described in a certain Exploration Project Contract dated _____, 195__, between _____, the Lessee of said property, and the United States of America;

NOW, THEREFORE, the undersigned, as Lessor of said property under lease dated ~~Sept. 15,~~ 1951, does by these presents subordinate all of his right, title, and interest under the provisions of said lease to the right, title, and interest of the United States of America under the provisions of said Exploration Project Contract, and agrees that the lien and claim of the United States of America under the provisions of said contract shall be prior to the undersigned's rights to rentals or royalties under the terms of said lease; and

The undersigned further agrees that if said leasehold interest should be surrendered or if said lease should terminate at any time prior to the expiration of the rights of the United States of America under said Exploration Project Contract, the undersigned shall assume and does hereby assume all of the obligations of the Lessee under said Exploration Project Contract to make repayment to the United States of America according to the terms of said contract; and

The undersigned agrees to commit no act, nor assert any claim under judicial process or otherwise that may contravene or conflict with the prior lien and claim of the United States of America under the provisions of said Exploration Project Contract.

This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 21st day of September, 1951

THE ARTHUR BROOKS ESTATE

BY Allan A. Brooks

EXECUTOR.

U. S. GOVERNMENT PRINTING OFFICE 940768

MF-202

LANDLORD'S SUBORDINATION AGREEMENT

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THE ARTHUR BROOKS ESTATE

BY Allen C. Brooks

EXECUTOR.

U. S. GOVERNMENT PRINTING OFFICE 940768

MF-202

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THE ARTHUR BROOKS ESTATE

BY _____

EXECUTOR.

U. S. GOVERNMENT PRINTING OFFICE 940768

MF-202

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THE ARTHUR BROOKS ESTATE

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EXECUTOR

U. S. GOVERNMENT PRINTING OFFICE 940768

MF-202

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BY _____

EXECUTOR

U. S. GOVERNMENT PRINTING OFFICE 940768

MF-202

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This undertaking and covenant shall be binding upon the heirs, successors, and assigns of the undersigned.

Dated this 21st day of September, 195 1

THE ARTHUR BROOKS ESTATE

BY _____

EXECUTOR.

U. S. GOVERNMENT PRINTING OFFICE 940768

MF-200
(June 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] _____

_____

_____

_____

_____

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of _____, County of _____ described as follows: [3] _____

_____

_____

_____

_____

_____

with respect to which the Operator represents and undertakes: [4]

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: _____

_____

_____

_____

(*b*) That he is a lessee, in possession and entitled to possession, and the subordination agreement of the lessor is attached.

3. *Exploration project.* The Operator, within _____ days from the date of this contract shall commence work on a project of exploration for [5] _____; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] _____ from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Any additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute currently its agreed pro rata share, are listed in Exhibit "A" attached hereto. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro rata share.

6. *Operating equipment.* Any operating equipment to be rented, purchased, or furnished by the Operator, with the allowable rental, purchase price, or depreciation, as the case may be, is listed under appropriate headings in Exhibit "A" attached hereto. As to equipment purchased for the project, the Government will contribute its agreed pro rata share of the cost thereof, and the difference between the cost and the salvage value at the conclusion of the work shall be charged as a cost of the project to which the Government has contributed its pro rata share.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* An itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project is set forth in Exhibit "A" attached hereto.

9. *Rehabilitation and repairs.* A statement of the cost of any necessary rehabilitation or repairs to put existing facilities, buildings, installations, and fixtures into useful and operable condition and which are to be allowed as costs of the project is included in Exhibit "A."

10. *Allowable costs of the project.* The costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, analytical work, accounting, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in this contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, taxes, or any other indirect costs not expressly allowed by these provisions, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

12. *Progress reports.* The Operator shall provide the Government with monthly reports of work performed under the contract upon forms to be provided by the Government. Each monthly progress report shall bear the certification of the Operator and shall constitute the Operator's invoice of costs incurred on the project during the period covered by the report.

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of _____ percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $_____, which is _____ percent of the agreed estimated total cost of this project, $_____.

14. *Final reports by Operator.* Upon completion of the project or termination of this contract, the Operator shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

15. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter, shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent for each additional full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the mineral deposit which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

16. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

17. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Brooks Beryllium, Manager
(Operator)

By Fletcher C. Phillips

By _____

U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

MF-200
(June 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195___, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] _____

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_____

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hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of _____, County of _____ described as follows: [3] _____

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with respect to which the Operator represents and undertakes: [4]

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: _____

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5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Any additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute currently its agreed pro rata share, are listed in Exhibit "A" attached hereto. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro rata share.

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[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* An itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project is set forth in Exhibit "A" attached hereto.

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11. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

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13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of _____ percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $_____, which is _____ percent of the agreed estimated total cost of this project, $_____.

14. *Final reports by Operator.* Upon completion of the project or termination of this contract, the Operator shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

15. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter, shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent for each additional full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the mineral deposit which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

16. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

17. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Brooks Beryllium, Manager
(Operator)

By Fletcher O. Phillips

By _____

U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

MF-200
(June 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195___, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] _____

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hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of _____, County of _____ described as follows: [3] _____

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with respect to which the Operator represents and undertakes: [4]

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: _____

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Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Brooks Beryllium, Manager
(Operator)

By _____

By Fletcher O. Phillips

U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

MF-200
(June 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

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Brooks Beryllium, Manager
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U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

MF-200
(June 1951)

Docket No. DMA _____
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[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property.
[4] Strike out the provision not applicable.
[5] Name of mineral.
[6] Not in excess of 2 years.

7. *Title to and disposition of property.* All facilities, buildings, fixtures, equipment, or other items costing more than $50 each, paid for or purchased with funds contributed jointly by the Operator and the Government, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the termination of the contract, if they have any salvage value, shall be disposed of for their joint account unless the Government, in writing, waives its interest in any such items. The Government may require the dismantling, severance from land, and removal of any such items in order to realize its interest in the salvage value thereof, and the cost of any such removal and of the disposal of the items shall be for the joint account of the parties in proportion to their respective interests.

8. *Labor and supervision.* An itemized schedule of labor, by numbers and classes (miners, muckers, millmen, etc.), and of supervisors, by numbers and positions, with the maximum wages or salaries that may be paid to each as an allowable cost of the project is set forth in Exhibit "A" attached hereto.

9. *Rehabilitation and repairs.* A statement of the cost of any necessary rehabilitation or repairs to put existing facilities, buildings, installations, and fixtures into useful and operable condition and which are to be allowed as costs of the project is included in Exhibit "A."

10. *Allowable costs of the project.* The costs of the project in which the Government will participate are limited to the necessary, reasonable, direct costs of performing the exploration work, including the costs of materials, supplies, engineering, power, water, analytical work, accounting, and utilities, including items of equipment costing less than $50 each; and the costs referred to in Articles 5, 6, 8, and 9, and the exhibits annexed to and referred to in this contract. Although the Government may pay part of the cost of new or additional facilities, structures, buildings, and equipment, only the depreciation on such items, computed as indicated in Articles 5 and 6, will be charged as a cost of the project. No items of general overhead, corporate management, interest, taxes, or any other indirect costs not expressly allowed by these provisions, or work performed or costs incurred before the date of this contract, shall be allowed as costs of the project in which the Government will participate.

11. *Accounts and audits.* The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract.

12. *Progress reports.* The Operator shall provide the Government with monthly reports of work performed under the contract upon forms to be provided by the Government. Each monthly progress report shall bear the certification of the Operator and shall constitute the Operator's invoice of costs incurred on the project during the period covered by the report.

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of _____ percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $_____, which is _____ percent of the agreed estimated total cost of this project, $_____.

14. *Final reports by Operator.* Upon completion of the project or termination of this contract, the Operator shall provide the Government with a comprehensive geologic and engineering report, including an estimate of ore reserves, to the best of his ability. Four copies of all reports shall be furnished to the Government.

15. *Repayment by Operator.* If, upon the completion of the exploration project or termination of the contract, the Government considers that a discovery or development has resulted from the work from which commercial production of ore may be made, the Government, within 6 months thereafter, shall so certify to the Operator, particularly describing and delimiting its estimate of the discovery or the development. Thereafter, if and as ore is produced as a result of such discovery or development, the Operator and his successor in interest shall be and become obligated to pay to the Government a percentage royalty on the net smelter returns or other net proceeds realized from such ore, concentrates, or metal produced within ten (10) years from the date of this contract, until the total amount contributed by the Government, without interest, is fully repaid or said 10 years have elapsed, whichever occurs first, as follows:

Of net smelter returns or other net proceeds not in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half (1½) percent, plus one-half (½) percent for each additional full fifty cents ($0.50) in excess of eight dollars ($8.00) per ton of ore, but not in excess of a maximum of five (5) percent.

This obligation to repay from net returns or proceeds shall be and remain a claim and lien upon the mineral deposit which is the subject of the exploration project and upon any production resulting from such discovery or development, in favor of the Government, until fully paid, or until said 10-year period has elapsed; and this claim and lien and the Government's right to repayment shall survive any termination of the contract, whether by completion of the exploration project or otherwise. This article is not to be construed as imposing any obligation on the Operator or his successor in interest to produce ore from any such discovery or development.

16. *No assignment of contract.* Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder.

17. *Termination and completion.* The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worthwhile discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; shall dispose of any unused materials, supplies, and equipment for the joint account of the Operator and the Government in the proportion of their respective interests; and shall pay to the Government its pro-rata share of any money remaining.

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Brooks Beryllium, Manager
(Operator)

By Fletcher O. Phillips

By _____

U. S. GOVERNMENT PRINTING OFFICE 16—64066-2

MF-200
(June 1951)

Docket No. DMA _____
Commodity _____

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] _____

_____

_____

_____

_____

hereinafter called the "Operator," as follows:

1. *Authority for contract.* This agreement is entered into under the authority of the Defense Production Act of 1950, pursuant to Mineral Order 5, entitled "Regulations Governing Government Aid in Defense Exploration Projects."

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of _____, County of _____ described as follows: [3] _____

_____

_____

_____

_____

_____

with respect to which the Operator represents and undertakes: [4]

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: _____

_____

_____

_____

(*b*) That he is a lessee, in possession and entitled to possession, and the subordination agreement of the lessor is attached.

3. *Exploration project.* The Operator, within _____ days from the date of this contract shall commence work on a project of exploration for [5] _____; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] _____ from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

4. *Performance of the work.* The work shall be performed by the Operator, under his sole direction and control: *Provided,* That with the consent of the Government and its written approval of the contract or contracts, all or any part of the work may be performed by the Operator through contract or contracts with independent contractors. The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

5. *Fixtures and improvements.* The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof. Any additional facilities, buildings, and fixtures, to be purchased, installed, or erected by the Operator, with the estimated cost of each, to which the Government will contribute currently its agreed pro rata share, are listed in Exhibit "A" attached hereto. The difference between the cost of such additional facilities, buildings, or fixtures, and the salvage value thereof at the conclusion of the work, shall be charged as a cost of the project to which the Government has contributed its pro rata share.

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Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Brooks Beryllium, Manager
(Operator)

By _____

By Fletcher O. Phillips

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