DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMEA ~~DMA~~ Docket No. 2414

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EXPLORATION PROJECT

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Routing Slip

Copies to USBM, USGS, Region VII.

To:	Code 600, Rm. 4637	Date	3-7-52
To:	Operating Committee	Date	4-25-52
To:	Op. Com	Date	5-28-52
To:	Op Com	Date	6-30-52
To:	Oper Com	Date	12- -53
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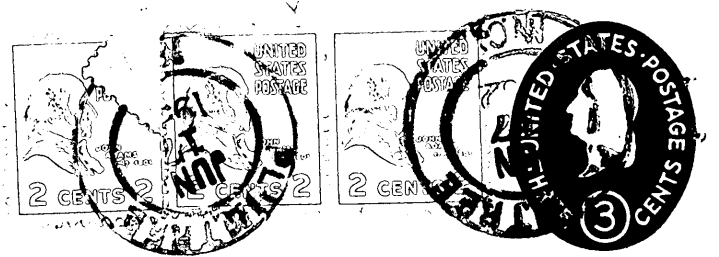
CONTROLLED DOCUMENT

INT.-DUP. SEC., WASH., D.C.

Joe C. Vance
Vance Mining Co.
Plumtree, N. C.

6/26/52
Non ruby
Purcell to
Hook - oral
at mica
meeting



2414

United States
Dept of the Interior
Defense Minerals Adm;
Washington, 25. D. C.

600 MAY 2 9 1952

Mr. Joe C. Vance
Vance Mining Company
Plumtree, North Carolina

Subject: Docket No. DMEA-2414 - Mica
Doublehead Mine
Avery County, North Carolina

Dear Mr. Vance:

Reference is made to samples of mica from the Doublehead Mine which were forwarded to the General Services Administration for evaluation. The following comments were received from that organization:

"Doublehead Mine: DMEA-2414 — Sample 7 pieces of fair preparation. Color: Non-ruby. Quality contains some black spots. Not acceptable for stockpile."

Inasmuch as the samples of mica are not acceptable for the National stockpile, your application for exploration assistance is denied.

The Defense Minerals Exploration Administration wishes to thank you for your interest in the defense effort and regrets that we are unable to provide exploration assistance for your mine.

Sincerely yours,

C. O. Mittendorf

Acting Administrator
Defense Minerals Exploration
Administration

LGHouk:mp 5/27/52
cc: Adm. Reading File
Operating Committee (2)
Field Team, Region Vii (2)
Mr. Dietrich, 3526
Mr. Norton, G-232, GSA Bldg.
Mr. Houk
Docket File

Mr. Robert L. Lawrence
Executive Officer, DMEA
Field Team, Region VII
Room 13, Post Office Building
Knoxville 01, Tennessee

Subject: Docket No. DMEA-1388 - Mica
" " DMEA-1955 - "
" " DMEA-2249 - "
" " DMEA-2327 - "
" " DMEA-2414 - "
" " DMEA-2429 - "
" " DMEA-2430 - "
" " DMEA-2431 - "

Dear Mr. Lawrence:

Reference is made to Mr. Mittendorf's letter of May 21st transmitting samples of mica to Mr. George A. Purcell, Mica Consultant, General Services Administration, Federal Supply Service, Unit 2, 7th Floor, 34 Exchange Place, Jersey City, New Jersey, for evaluation. The following are Mr. Purcell's findings:

Hoskins Mine: DMEA-1388	"Sample 3 pieces well prepared. Color: Ruby. Quality acceptable for stockpile.
Winters Prospect: DMEA-1955	"Sample 7 pieces of poor preparation. Color: Ruby. Quality wavy and some black spots. Not acceptable for stockpile.
Luther Mine: DMEA-2249	"Sample 5 small pieces poorly prepared. Color: Non-ruby. Quality poor except for 2 specimens. Not acceptable for stockpile.
May Mine: DMEA-2327	"Sample 4 pieces of fair preparation. Color: Ruby. Quality somewhat wavy. Samples would indicate acceptable stockpile quality obtainable from this source.
Doublehead Mine: DMEA-2414	"Sample 7 pieces of fair preparation. Color: Non-ruby. Quality contains some black spots. Not acceptable for stockpile.
Carpenter Mine: DMEA-2429	"Sample 6 pieces very small, untrimmed. Color: Ruby. Usable area of samples too small to indicate quality or size obtainable. Acceptable for stockpile as to color.

Bumgardner Mine: "Sample 6 thin sheets of fair preparation.
DMEA-2430 Color: Ruby. Sample would indicate acceptable Quality obtainable from this source.

[redacted] Mine: "Sample 3 very small specimens poorly prepared. Color: Ruby. Samples too small to evaluate quality. It is possible acceptable quality could be obtained from this source but cannot so determine from present samples."

Please note that the mica from the Winters Prospect, DMEA-1955, Idm-E224, is not acceptable for stockpile. If the seven samples are representative of the quality of mica to be expected from this prospect, then you would be justified in terminating this contract.

The Luther Mine, DMEA-2249, and the Doublehead Mine, DMEA-2414 are not eligible for exploration assistance, and this office will write letters of denial on them.

Sincerely yours,

-S- 5/29/52

Chairman, Operating Committee
Defense Minerals Exploration
Administration

Approved:

/s/ J. H. Hedges
Member, Bureau of Mines

/s/ D. M. Lemmon
Members, Geological Survey

LGHouk:gad 5/26/52

Copy to: Admin. Reading File
Operating Committee (2)
Mr. Dietrich, 3526
Mr. Norton, G-232 GSA Bldg.
Mr. Houk

600

JUL 1 1952

Mr. Joe C. Vance
Vance Mining Company
Plumtree, North Carolina

Subject: Docket No. DMEA-2414 - Mica
Doublehead Mine
Avery County, North Carolina

Dear Mr. Vance:

This is in reply to your letter of June 17, 1952, transmitting additional samples from the subject mine, and requesting reconsideration of the previous denial.

The above samples have been qualified as non-ruby, just as were the samples collected by Mr. Teague.

The purpose of the Defense Minerals Exploration Administration is to encourage and aid exploration for strategic mica. The Government will not participate in exploration projects for non-ruby mica. The denial of May 29, 1952, must be affirmed.

Your willingness to cooperate in the defense effort is appreciated.

Sincerely yours,

C. O. Mittendorf

Acting Administrator
Defense Minerals Exploration
Administration

SAFeitler:gad 6/27 /52

Copy to: Admin. Reading File
Operating Committee (2)
Field Team, Region VII
Mr. Dietrich, 3526
Mr. Norton, G-232 GSA Bldg.
Docket File
Mr. Houk

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D. C.~~
Room 13, Post Office Building
Knoxville, Tennessee

May 15, 1952

Mr. Lawrence G. Houk
Chief, Nonmetallic Minerals Division
Defense Minerals Exploration
Administration
Washington 25, D. C.

Re: DMEA-1955, Winters Prospect
" 2327, May Mine
" 2414, Doublehead Mine

Dear Mr. Houk:

Transmitted under separate cover are samples of mica from the three above named deposits. As soon as they are appraised we would like to know the results. This is especially true in the case of the Doublehead and Winters. On any future examination if there is any doubt in the Field Team's mind, samples of mica will be sent to your office for appraisal.

Yours very truly,

/s/ Robert A. Laurence, Executive Officer
DMEA Field Team, Region VII

COPY

600

APR 28 1952

Mr. Joe C. Vance
Vance Mining Company
Plumtree, North Carolina

Subject: Docket DMEA-2414 - Mica
Doublehead Mine
Avery County, North Carolina

Dear Mr. Vance:

Your application is being referred to Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region VII, Room 13, Post Office Building, Knoxville, 1, Tennessee, for further information.

Sincerely yours,

C. O. Mitchell

Acting Administrator
Defense Minerals Exploration
Administration

SAFeitler:mp 4/23/52
cc: Docket File
Adm. Reading File
Field Team, Region VII (2)
Mr. Dietrich, 3526
Mr. Norton, G-232, GSA Bldg.
Mr. Houk

600 APR 28 1952

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region VII
Room 13, Post Office Building
Knoxville 1, Tennessee

Subject: Docket DMEA-2414 - Mica
Doublehead Mine
Avery County, North Carolina

Dear Mr. Laurence:

A copy of the above application was sent to you on March 7, 1952. Additional information which was requested of the applicant has been received. A copy of this additional information together with copies of memoranda from the Geological Survey and the Bureau of Mines are enclosed for your use in making a field examination of the Doublehead Mine.

The memo from the Survey has attached to it a copy of a report on this mine by R. H. Jahns. The map and sections to which this report refers were not submitted to this office but may be in your files. We will obtain a copy for you if you do not already have one.

The application is generally vague and incomplete but the mine has evidently produced good quantities of mica in the past. There seems to be some question about the color of the mica. Send in samples if there is any question as to whether or not the mica is strategic.

The results of the diamond drilling mentioned by Mr. Vance should be investigated.

The relation between the land under lease and the proposed work should be indicated on a map.

Verify the legal right of Buena Vance to sign for the W. W. Avery Heirs. The lease should ordinarily be signed by a Trustee.

If the results of the examination are favorable, the report should be more complete than usual because the application does not supply much detailed information.

Sincerely yours,

(signed) FRANK E. JOHNSON

Chairman, Operating Committee
Defense Minerals Exploration
Administration

Enclosures - 3

Approved:

J. H. Hedges

Member, Bureau of Mines

D. M. Lemmon

Member, Geological Survey

SAFeitler:mp 4/23/52
cc: Docket File
Operating Committee (2)
Adm. Reading File
Mr. Dietrich, 3526
Mr. Norton, G-232, GSA Bldg.
Mr. Houk

FILE COPY
SURNAME:

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

600

JUL 1 1952

Mr. Joe C. Vance
Vance Mining Company
Plumtree, North Carolina

Subject: Docket No. DMEA-2414 - Mica
Doublehead Mine
Avery County, North Carolina

Dear Mr. Vance:

This is in reply to your letter of June 27, 1952, transmitting additional samples from the subject mine, and requesting reconsideration of the previous denial.

The above samples have been qualified as non-ruby, just as were the samples collected by Mr. Teague.

The purpose of the Defense Minerals Exploration Administration is to encourage and aid exploration for strategic mica. The Government will not participate in exploration projects for non-ruby mica. The denial of May 29, 1952, must be affirmed.

Your willingness to cooperate in the defense effort is appreciated.

Sincerely yours,

C. O. Mittendorf (for) S.N. 7-1-52

Acting Administrator
Defense Minerals Exploration
Administration

SAFeitler:gad 6/27 /52

Copy to: Admin. Reading File
Operating Committee (2)
Field Team, Region VII
Mr. Dietrich, 3526
Mr. Norton, G-232 GSA Bldg.
Docket File
Mr. Houk

Former Application

DMEL 2414

Et nos

C (typed specially from Division copy
O on October 20, 1952
P
Y

600 May 29, 1952

Mr. Joe C. Vance
Vance Mining Company
Plumtree, North Carolina

Subject: Docket No. DMEA-2414- Mica
Doublehead Mine
Avery County, North Carolina

Dear Mr. Vance:

Reference is made to samples of mica from the Doublehead Mine which were forwarded to the General Services Administration for evaluation. The following comments were received from that organization:

"Doublehead Mine: Sample 7 pieces of fair preparation. Color: Non-ruby. Quality contains some black spots. Not acceptable for stockpile."

Inasmuch as the samples of mica are not acceptable for the National stockpile, your application for exploration assistance is denied.

The Defense Minerals Exploration Administration wishes to thank you for your interest in the defense effort and regrets that we are unable to provide exploration assistance for your mine.

Sincerely yours,

C. O. Mittendorf

Acting Administrator
Defense Minerals Exploration
Administration

LGHouk:mp 5/27/52
Cc: Adm. Reading File
Operating Committee (2)
Field Team, Region Vii (2)
Mr. Dietrich, 3526
Mr. Norton, G-232, GSA Bldg.
Mr. Houk
Docket File

S.a.7.

Plumtree, N. C.
June 17th, 1952.

United States
Department of the Interior
Defense Minerals Adm:
Washington, 25. D. C.

Subject; Docket No.DMEA-2414-Mica
Doublehead Mine.
Avery County, N. C.

Dear Sirs:

In reference to your letter of May. 29 stating that assistance for exploration of the above mine had been denied.

Inasmuch as the samples That Your Mr. Teague sent to be tested I am enclosing a sample of mica, that I want you to test as the samples that he sent did not give the mine justice;

I am asking that my loan be reconsidered, as I have gone to quite a bit of expense and I have not reached the main lead of the old workings yet. I believe that with a little,assistance I could reach the main vein.

Yours Very Truly

Joe C. Vance
Vance Mining Co.

Joe C. Vance

Let - Purcell - 5/22/52
Doublehead 7 pcs.
Color: mai ruby
Some black spots
not acceptable for stockpile

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JUN 19 1952

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

Room 13, Post Office Building
Knoxville 2, Tennessee

June 4, 1952

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 6 1952

Memorandum

To: Operating Committee, DMEA

From: Field Team, DMEA - Region VII

Subject: DMEA-2414, Doublehead Mine (mica)

Transmitted herewith are 4 copies of field examination report on the subject application. This was examined on May 7, and report held pending results of testing on samples. Although denial letter has already been written this report is submitted to complete the record.

Robert A. Laurence

Robert A. Laurence,
Executive Officer, DMEA Field Team
Region VII

Wm. A. Beck

Wm. A. Beck, for V.J. Lynch
U. S. Bureau of Mines

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM, REGION VII

DMEA-2414, DOUBLEHEAD MINE
Mica
Plumtree, Avery County, N. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 6 1952

By

A. L. Peyton, Mining Engineer
U. S. Bureau of Mines

Kefton H. Teague, Geologist
U. S. Geological Survey

May 7, 1952

DEFENSE MINERAL EXPLORATION ADMINISTRATION, REGION VII

REPORT OF FIELD EXAMINATION ON

DMEA-244, DOUBLEHEAD MINE
Mica
Plumtree, Avery County, N.C.

The Doublehead Mine is located along the west side of a ridge near Doublehead Creek, 4000 feet N. 50° W of Plumtree, Avery County, N.C.

Little information can be added by the Field Team to that already available in the R. H. Jahns report on the Doublehead Mine. It would appear from the recent examination that three different mica shoots have been worked on the property. Whether they occur in the same, or separate pegmatites is not known. The "Cantrell Mine," a middle shoot, and the "Brown Tunnel" as shown on the sketch attached to the application have been extensively mined. Within recent months the Applicants have driven a 110 foot adit in a N. 40° E direction from a point midway between the "Cantrell Mine" and "Middle Shoot." No mica was obtained from this operation.

In the application mention is made of a diamond drill hole. This statement is in error. Apparently the Applicants intended to refer to a jackhammer drill hole drilled in the floor of the large Brown stope at the southeast end of the workings. It is reported that pegmatite was encountered and a winze sunk, but water was encountered and the winze was abandoned.

Samples of mica from this mine were collected and submitted to G. S. A. for appraisal. Results of this appraisal indicated that the mica from this mine is unacceptable for the National stockpile. A denial letter dated May 29, 1952 was sent to the Applicants by DMEA.

A. L. Peyton, USBM

K. H. Teague, USGS

May 7, 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM, REGION VII

DMEA-2444, DOUBLEHEAD MINE
Mica
Plumtree, Avery County, N. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JUN 6 1952

By

A. L. Peyton, Mining Engineer
U. S. Bureau of Mines
*
*
Kefton H. Teague, Geologist
U. S. Geological Survey

May 7, 1952

DEFENSE MINERAL EXPLORATION ADMINISTRATION, REGION VII

REPORT OF FIELD EXAMINATION ON

DMEA-2414, DOUBLEHEAD MINE
Mica
Plumtree, Avery County, N.C.

The Doublehead Mine is located along the west side of a ridge near Doublehead Creek, 4000 feet N. 50° W of Plumtree, Avery County, N.C.

Little information can be added by the Field Team to that already available in the R. H. Jahns report on the Doublehead Mine. It would appear from the recent examination that three different mica shoots have been worked on the property. Whether they occur in the same, or separate pegmatites is not known. The "Cantrell Mine," a middle shoot, and the "Brown Tunnel" as shown on the sketch attached to the application have been extensively mined. Within recent months the Applicants have driven a 110 foot adit in a N. 40° E direction from a point midway between the "Cantrell Mine" and "Middle Shoot." No mica was obtained from this operation.

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Samples of mica from this mine were collected and submitted to G. S. A. for appraisal. Results of this appraisal indicated that the mica from this mine is unacceptable for the National stockpile. A denial letter dated May 29, 1952 was sent to the Applicants by DMEA.

A. L. Peyton, USBM

K. H. Teague, USGS

May 7, 1952

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM, REGION VII

DMEA-2444, DOUBLEHEAD MINE
Mica
Plumtree, Avery County, N. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 6 1952

By

A. L. Peyton, Mining Engineer
U. S. Bureau of Mines
*
*
Kefton H. Teague, Geologist
U. S. Geological Survey

May 7, 1952

DEFENSE MINERAL EXPLORATION ADMINISTRATION, REGION VII

REPORT OF FIELD EXAMINATION ON

DMEA-2444, DOUBLEHEAD MINE
Mica
Plumtree, Avery County, N.C.

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Samples of mica from this mine were collected and submitted to O. S. A. for appraisal. Results of this appraisal indicated that the mica from this mine is unacceptable for the National stockpile. A denial letter dated May 29, 1952 was sent to the Applicants by DMEA.

A. L. Peyton, USBM

K. L. Teague, USGS

May 7, 1952

IN REPLY REFER TO:

G-MD-JJN

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

March 26, 1952

Memorandum

REVIEW OF APPLICATION DMEA-2414 (Mica).

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

From: J. J. Norton, U. S. Geological Survey

Subject: Vance Mining Company's application (DMEA-2414) for aid in exploring the Doublehead mine for mica.

Location of prospect: Near the Meadow mine, Avery County, North Carolina.

RECOMMENDATION: Field examination.

Previous history of this application: This application was reviewed by D. H. Kupfer, and on March 10, 1952, he recommended that the applicant be asked to submit additional data. Such data has now been received.

Sources of information:

1. Applicant's supplementary data contain description of mine workings.
2. Copy of report by R. H. Jahns is attached.

Additional comments:

1. Production data from Colonial Mica Corporation follows:

	Production (pounds)	Quality		
		No. 1	No. 2	No. 2 inf.
Small sheet, full trim	702.99	10	60	30
Large sheet, three-quarter trim	421.90	8	46	46
Punch mica	988.00			

Value of production $5813.16

2. Our data obtained from Colonial Mica Corporation indicates that the mica was classified as green, but Jahns' report does not confirm this. The field team should obtain samples of the mica for DMEA to submit to GSA for the purpose of determining whether or not it is ruby mica of good enough quality for Government purchase. Exploration is certainly not warranted until we have received assurance that the mica is acceptable to GSA.

3. The extensive workings on this property make me wonder if all reasonable possibilities for exploration have not been exhausted.

4. The applicant mentions diamond drilling that "showed the pegmatite to be rich in Mica (sic)." The field team should obtain what information it can about this drilling. Possibly the drill core has been preserved, and it may be possible to determine the location, bearing, and inclination of the holes. It is difficult to understand why no one has mined the deposit cut by the drill holes if it is so rich is mina.

J. J. Norton

Attachment

Norton:jeh
G-3/27/52
cc; Director's Reading 4212 GSA Bldg.
Branch " " " "
DMEA
Norton G-230 " "

Doublehead mine

The Doublehead mine is three-fourths of a mile northwest of Plumtree on the east side of Doublehead creek. The very considerable workings extend at intervals for about 1800 feet along the west side of the ridge. They consist of small open cuts from which numerous adits extend east and northeast to north-northwest trending drifts and stopes. In general the northern half of the workings are the older and are not accessible. The most recently mined portions at the south end (see pl.___) include the largest individual opening, a stope about 300 feet long and 20 to at least 40 feet wide, which plunges gently south-southeast from an open cut and is entered by two adits from the west. A parallel and slightly higher drift joins the northwest end of the main stope.

The deposit was found about 1870 by George Shade and opened by C. W. Burleson. Other early operations were conducted by Ben Aldrich, by W. W. Avery in 1891, by Vance Brown in 1894 in the main stope, by Messrs. Vance and Burleson, and by T. T. Cantrel in 1922 and 1926. These operations are reputed to have yielded $100,000 worth of good quality mica. An open cut in thick decomposed pegmatite at the north end of the series was worked hydraulically years ago, presumably for scrap mica. In 1940 Dave Johnson and Hughes drove a short tunnel northeast from it (see pl.___, map of north tunnel). During the period from September 1943 to December 1944 Buena and Ira Vance drove a 25 degre incline 75 feet southeast from the main stope, sank a 15 foot winze near the middle of the stope, and mined the parallel, connected drift (called Doublehead no. 3) which lies a little southwest of and higher than the main stope. Concurrently between October 1943 and March 1944 Mack Buchanan and Lewis Aldridge sank a 35 foot shaft in the open cut northwest of the main stope and reopened an old adit (called Doublehead no. 2) about 200 feet farther north, beyond the mapped area. These recent operations produced little mica and most of this was of very small sizes and no. 2 quality.

The country rock is mainly hornblende gneiss with interbedded mica gneiss. In general it dips regularly at low angles (5-25°) to the south-southwest. Near the pegmatites garnetiferous mica gneiss predominates and the rock is somewhat contorted. Joints dipping steeply northeastward are fairly common.

The number and extent of the pegmatites mined is uncertain because most of the workings are caved. Apparently several closely spaced pegmatites near the same horizon in the gneiss are more or less continuous in a north-northwesterly direction for at least 2000 feet.

The pegmatite worked in the main stope is almost unique in the district in being an abruptly irregular and highly discordant dike (see pl. ___, sections A-A' to D-D'). Most of the pegmatite has been mined out, and numerous stringers extending outward between the layers of gneiss further obscure its shape, but it appears to have been in places roughly tabular (see section B-B') and elsewhere triangular in cross section (see sections C-C' and D-D'). The pegmatite crest pitches quite regularly about 8 degrees to S. 36° E. Its contacts are in general distinct and sharply cross cutting but in places (see section C-C') the walls have been so impregnated with pegmatitic material as to form injection gneiss. The thickness evidently ranged from about 2 to 20 feet. The thin conformable pegmatite mined in the upper parallel drift probably is an offshoot of the main pegmatite. Several small discordant dikes are exposed in the adits. All contain scattered irregular inclusions.

The main pegmatite is medium-grained in general, though variable from place to place. The bulk of the pegmatite consists of white to light gray plagioclase and white quartz with smaller amounts of book muscovite and minor light pink microcline. Green sericite and red opaque, cracked garnets are common; blue-green apatite, black tourmaline and pyrite are present in small amounts. Some ofthe coarse quartz is slightly pink. Veinlets of epidote cut the pegmatite. Zoning is very indistinct. In places at the southeast end of the stope fine-grained plagioclase forms a discontinuous selvage a quarter of an inch thick. Near the walls in several places fine-grained quartz-muscovite rock with minor plagioclase forms irregular units as much as 4 feet thick. The microcline content appears to increase and the muscovite to decrease toward the southeast end. The book muscovite apparently was scattered throughout the plagioclase-quartz rock but is reported to have been concentrated near the foot wall. It is dark reddish brown, of medium size and fair quality. Much is "tied" and cracked and some contains inclusions of quartz, garnet and intergrown biotite. Other defects include some "A" structure, ruling, reeves, and waviness. A little is color mottled.

The partially decomposed pegmatite mined in the irregular open cuts and inclines above the road (see pl.____, maps and section B-B') is at least 10 feet thick, but neither hanging wall or foot wall is exposed. It contains many large and small gneiss inclusions which dip gently southwest. Next to the inclusions is a discontinuous border zone about 1-1/2 feet thick of medium-grained plagioclase-microcline-quartz rock with scrap muscovite. The main part of the pegmatite, at least 6 feet thick in places, consists of coarser rock of the same composition and contains feldspar crystals a foot thick and a little book muscovite. Pods of massive quartz and graphic granite several feet thick form a discontinuous core. Biotite and vermiculite are present in small amounts. The sparse muscovite is dark brown, clear and hard but some is ruled.

The pegmatites mined at the north end of the series of workings appear to be abruptly irregular sills. The largest is about 15 feet thick and contains several gneiss inclusions. It is medium to coarse grained and consists of plagioclase and microcline in about equal amounts with quartz and some muscovite. Some has coarse graphic texture. Clusters of garnet, and biotite or vermiculite are present. The muscovite is brown, clear and hard but not abundant. Some is hair-cracked and intergrown with biotite.

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

April 1, 1952

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: W. F. Dietrich, Chief
Ceramic and Fertilizer Materials Branch

Subject: DMEA-2414: Doublehead Mine, Vance Mining Company, Pinetree, North Carolina (Mica).

A field team investigation is recommended on the basis of applicant's description of past operations and present exposures. Two lots of mica from this property totaling 84 pieces were classed as 100 percent of M-1 capacitor quality by the Geological Survey (Prof. Paper 225, p. 62) and the color was classed as brownish olive, which is usually acceptable as ruby mica. Past production data are not available, but the nearby Alfred Mine was a good producer for some years.

W. F. DIETRICH

DMR A 2419

1- Lease covers these questions

2- Mica (a)

(b) Bubblehead ridge is composed of layers of slate, granite and pegmatite which carries mica. There are three mica veins, each on a different level. The upper vein and adits the second vein has been worked to a great extent and has produced a large quanity of Ruby Mica. The third vein which is exposed at a few points along the lower level of the ridge has never been worked but has been tested by diamond drill and the tests showed the pegmatite to be rich in Mica.

The actual width is not known but some of the exposed pegmatite is from ten to thirty feet in width. The length is ½ mile long.

The old workings on the upper levels have been mined one hundred and twenty five feet. The mica has been sold at intervals for several years. The last was sold by Duena Vance & Ira Vance to Colonial Mica Corporation. The Mines has produced Mica as large as 8" x 10". The grade is #1, and the color is Ruby.

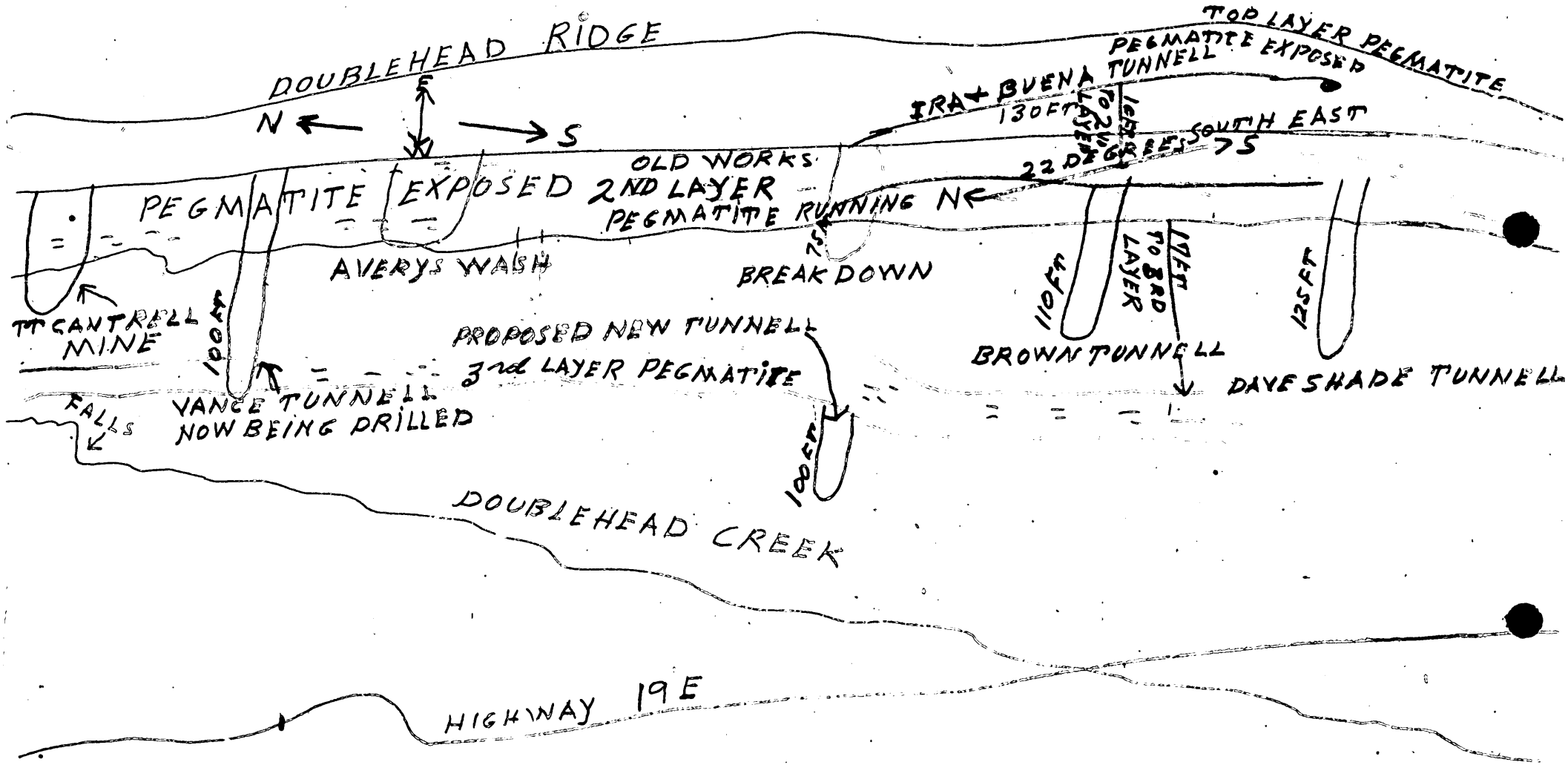
The proposed new exploration project is to drill a tunnel 100' into the mountain into the center of the pegmatite.

Enclosure

A rough map or sketch is herewith attached giving the general "lay" of the land and the old mining works and the exposed portions of pegmatite.

(additional info by applicant)

SKETCH OF DOUBLEHEAD MINES AND OLD MINING WORKS



DMEA 2414
Rec. 3/20/52

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR

COPY

DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C. 600

Houk
Mittendorf

5-29-52

Mr. Robert A. Lawrence
Executive Officer, DMEA
Field Team, Region VII
Room 13, Post Office Building
Knoxville 01, Tennessee

Subject: Docket No. DMEA-1388 - Mica
" " DMEA-1955 - "
" " DMEA-2249 - "
" " DMEA-2327 - "
" " DMEA-2414 - "
" " DMEA-2429 - "
" " DMEA-2430 - "
" " DMEA-2431 - "

Dear Mr. Lawrence:

Reference is made to Mr. Mittendorf's letter of May 21st transmitting samples of mica to Mr. George A. Purcell, Mica Consultant, General Services Administration, Federal Supply Service, Unit 2, 7th Floor, 34 Exchange Place, Jersey City, New Jersey, for evaluation. The following are Mr. Purcell's findings:

Hawkins Mine: DMEA-1388 — "Sample 3 pieces well prepared. Color: Ruby. Quality acceptable for stockpile.

Winters Prospect: DMEA-1955 — "Sample 7 pieces of poor preparation. Color: Ruby. Quality wavy and some black spots. Not acceptable for stockpile.

Luther Mine: DMEA-2249 — "Sample 5 small pieces poorly prepared. Color: Non-ruby. Quality poor except for 2 specimens. Not acceptable for stockpile.

May Mine: DMEA-2327 — "Sample 4 pieces of fair preparation. Color: Ruby. Quality somewhat wavy. Samples would indicate acceptable stockpile quality obtainable from this source.

Doublehead Mine: DMEA-2414 — "Sample 7 pieces of fair preparation. Color: Non-ruby. Quality contains some black spots. Not acceptable for stockpile.

Carpenter Mine: DMEA-2429 — "Sample 6 pieces very small, untrimmed. Color: Ruby. Usable area of samples too small to indicate quality or size obtainable. Acceptable for stockpile as to color.

Bumgardner Mine: DMEA-2430 "Sample 6 thin sheets of fair preparation. Color: Ruby. Sample would indicate acceptable Quality obtainable from this source.

Glen Meade Mine: DMEA-2431 "Sample 3 very small specimens poorly prepared. Color: Ruby. Samples too small to evaluate quality. It is possible acceptable quality could be obtained from this source but cannot so determine from present samples."

Please note that the mica from the Winters Prospect, DMEA-1955, Idm-E224, is not acceptable for stockpile. If the seven samples are representative of the quality of mica to be expected from this prospect, then you would be justified in terminating this contract.

The Luther Mine, DMEA-2249, and the Doublehead Mine, DMEA-2414, are not eligible for exploration assistance, and this office will write letters of denial on them.

Sincerely yours,

-S- 5/29/52
Chairman, Operating Committee
Defense Minerals Exploration
Administration

Approved:

/s/ J. H. Hedges
Member, Bureau of Mines

/s/ D. M. Lemmon

Members, Geological Survey

LGHouk:gad 5/26/52

Copy to: Admin. Reading File
Operating Committee (2)
Mr. Dietrich, 3526
Mr. Norton, G-232 GSA Bldg.
Mr. Houk

FILE COPY
SURNAME:

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

600
MAY 29 1952

Norton
Houk
Lemmon
Hodges
Johnson

Mr. Joe C. Vance
Vance Mining Company
Plumtree, North Carolina

Subject: Docket No. DMEA-2414 - Mica
Doublehead Mine
Avery County, North Carolina

Dear Mr. Vance:

Reference is made to samples of mica from the Doublehead Mine which were forwarded to the General Services Administration for evaluation. The following comments were received from that organization:

"Doublehead Mine: DMEA-2414 — Sample 7 pieces of fair preparation. Color: Non-ruby. Quality contains some black spots. Not acceptable for stockpile."

Inasmuch as the samples of mica are not acceptable for the National stockpile, your application for exploration assistance is denied.

The Defense Minerals Exploration Administration wishes to thank you for your interest in the defense effort and regrets that we are unable to provide exploration assistance for your mine.

Sincerely yours,

C. O. Mittendorf (fw) cc 5/29

Acting Administrator
Defense Minerals Exploration
Administration

LGHouk:mp 5/27/52
cc: Adm. Reading File
Operating Committee (2)
Field Team, Region Vii (2)
Mr. Dietrich, 3526
Mr. Norton, G-232, GSA Bldg.
Mr. Houk
Docket File

FILE COPY
SURNAME:

Houk
Mittendorf

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

Mr. George A. Purcell
Federal Supply Service
General Services Administration
Harborside Warehouse
Jersey City, New Jersey

Dear Mr. Purcell:

Transmitted herewith are samples received in this office for evaluation as to color and acceptability for stockpiling.

While I realize that some of these samples are in very poor preparation they are the best obtainable samples. The following list of samples are being transmitted:

DMBA No.	Name of Mine
1388	Ruskins Mine
1955	Winters Prospect
2017	Nancy II
2249	Luther Mine
2327	May Mine
2414	Doublehead Mine
2429	Carpenter Mine
2430	Bumgarâner Mine
2431	Glen Mead Mine

We would appreciate having the samples returned, if it is convenient for you to do so.

LGHouk:gad 5/20/52

Sincerely yours,

Signed 5-20-52

Lawrence G. Houk, Chief
Non-Metallic Minerals Division
Defense Minerals Exploration Administration

Copy to: Admin. Reading File
Docket File
Mr. Dietrich, 3526
Mr. Norton, G-232, GSA Bldg.
Mr. Houk

Enclosures 9

P.S. Shall we send our mica samples to the nearest mica buying stations for evaluation when they begin operations?

5/23/52

2414
Doublehead Mine
7 pcs. fair preparation
Color: Non ruby
Quality contains some
black spots -
not acceptable for S. Pile
Purcell

FILE COPY
SURNAME:

Houk
Kittendorf

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

C O P Y

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region VII
Room 13, Post Office Building
Knoxville 1, Tennessee

Subject: DMEA-1955, Winters Prospect
DMEA-2327, May Mine
DMEA-2414, Doublehead Mine
Mica

Dear Mr. Laurence:

Receipt is acknowledged of samples of mica from DMEA-1955 the Winters Prospect, DMEA-2327 the May Mine, and DMEA-2414 the Doublehead Mine.

The following samples were shipped to Mr. George A. Purcell as of today, and you will be supplied with the results when they become available:

DMEA No.	Name of Mine
1388	Hunkins Mine
1955	Winters Prospect
2017	Nancy II
2249	Luther Mine
2327	May Mine
2414	Doublehead Mine
2429	Carpenter Mine
2430	Bungardner Mine
2431	Glen Mead Mine

Sincerely yours,

AS- 5-21-52

Acting Administrator
Defense Minerals Exploration
Administration

LCHouk:gadimp 5/20/52
Copy to: Admin. Reading File
Docket File
Mr. Dietrich, 3526
Mr. Norton, G-232, GSA Bldg.
Mr. Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~WASHINGTON 25, D.C.~~
Room 13, Post Office Building
Knoxville, Tennessee

May 15, 1952

Mr. Lawrence G. Houk
Chief, Nonmetallic Minerals Division
Defense Minerals Exploration
Administration
Washington 25, D. C.

Re: DMEA-1955, Winters Prospect
" 2327, May Mine
" 2414, Doublehead Mine

Dear Mr. Houk:

Transmitted under separate cover are samples of mica from the three above named deposits. As soon as they are appraised we would like to know the results. This is especially true in the case of the Doublehead and Winters. On any future examination if there is any doubt in the Field Team's mind, samples of mica will be sent to your office for appraisal.

Yours very truly,

Robert A. Laurence, Executive Officer (sgd)
DMEA Field Team, Region VII

S. GEOL. SURVEY
CONFIDENTIAL
FOR USE OF
U. S. GOVERNMENT
ONLY

DMEA 2414

D. H. STEPHENS NO. 1 AND NO. 2 MICA MINES
JACKSON COUNTY, NORTH CAROLINA

January 1945

E. Wm. Heinrich

General statement

The D. H. Stephens No. 1 and No. 2 mica mines are 2.7 airline miles N. 40° E. of East Laport, Jackson County, North Carolina. They lie on the northwest side of Moses Creek, the No. 2 at the altitude of the creek and the No. 1 two hundred feet higher. The mines were mapped on January 5, 1945 by R. W. Lemke and the writer.

The mines are owned by Mr. D. H. Stephens of East Laport, North Carolina, who first opened the mines during 1939. Mr. F. T. Seay of Sylva operated the mines from February 7, 1944 to August 1, 1944. From August 1, 1944 until October 1, 1944 Mr. H. A. Lawhead of Sylva, North Carolina was the operator.

D. H. Stephens No. 1

Workings: The workings of the D. H. Stephens No. 1 mine are in two groups: the east or main workings and the northwest workings. The latter lie 300 feet N. 40° W. of the main workings and consist of an open cut 35 feet long and 10 feet deep at the face. The main workings consist of an open cut 40 feet long and down-dip stopes therefrom. These stopes are also connected with a lower adit. The workings have explored the pegmatite body over a strike length of 75 feet and a vertical distance of 55 feet.

Geology: The northwestern pegmatite body strikes N. 60° W. and dips 67° NE. It cuts across the foliation of a biotite gneiss that strikes N. 18° E. and dips 73° NW. It ranges in thickness from one foot in the northwest corner of the cut to 3 feet in the southeast corner. The lower half of the southeast part is composed of massive, highly fractured quartz with minor quantities of feldspar. The upper half is composed of medium-grained quartz-feldspar pegmatite containing ½-inch flakes of muscovite. The mica is light brown in color, small, and not very abundant.

The main pegmatite body strikes N. 35° W. and dips 80° NE. It cuts across the foliation of a biotite gneiss that strikes northeast and dips 60°-70°NW. Thirty feet from the east end of the cut the body appears to fork, with one well-defined southern offshoot that strikes N. 50° W. The crest of the main pegmatite body is exposed 2 feet below the lip of the open cut and also in the back of the drift near the portal. The crest of the southern offshoot is exposed three feet below the rim of the pit northwest of the main cut. The crest of the body plunges 55° S. 65° E. The body is tabular in shape, but the contacts with the gneiss are very irregular in detail. The thickness ranges from 2 to 5 feet.

The pegmatite is poorly differentiated and consists of a uniformly medium-grained intergrowth of quartz, plagioclase, and muscovite. Garnet and biotite are common accessory minerals. Pods of quartz as much as 2 feet long occur. Thin seams of a sulfide (pyrite?) cut across these pods. The plagioclase is highly sericitized.

Mica: The mica is medium brown and green in color. The latter type contains scattered black specks. The brown variety is generally hard, somewhat warped and buckled, and contains green mottling. Books as much as 4 x 6 inches in size were found on the dumps, but books as much as 14 inches in diameter have been mined. No throughgoing zone of mica-rich pegmatite was mined; the mica occurs in scattered concentrations of books.

Conclusions: The northwest pegmatite body contains too little mica to be of economic importance. The main body contains concentrations of mica of large size, but the concentrations are widely scattered.

D. H. Stephens No. 2

Workings: The workings of the D. H. Stephens No. 2 mine consist of an open cut 55 feet long, 15 feet wide, and 25 feet deep at the face. This cut adjoins the west side of Moses Creek road. A tunnel was driven from the creek level beneath the road to connect with the east end of the cut. The dumps are on the east side of Moses Creek.

Geology: The pegmatite body strikes N. 30° W., dips 75° SW., and its crest appears to plunge at a moderate angle due south. The foliation of the gneiss country rock strikes northeast and

dips 35° to 47° NW., and the pegmatite is crosscutting. It is a tabular body averaging 5 feet in thickness. The main mass consists of a medium-grained quartz-feldspar aggregate with small books of muscovite. Along the hanging-wall contact a zone rich in coarsely crystalline muscovite is reported to have been mined.

Mica: The mica is greenish brown in color and contains numerous iron specks. Books as much as 6 inches in diameter are reported, but all the mica that is exposed is one inch or less in diameter.

Conclusions: The mica is chiefly of electric grade, and the fact that the several operations have been conducted at a loss indicates that the mine deserves no further attention.

Plumtree, N. C.
April 17th, 1952.

Mr. Lawrence G. Houk, Chief
Non-metallic Minerals Division
Defense Minerals Exploration
Administration
Washington, D. C.

Subject: Docket No. DMEA-2414-Mica
Doublehead Mine
Avery County, ,N.C.

Dear Sir:

So far I have not heard from my application, for a loan for exploration.

Would you please give this a little consideration as I would like to get started.

Yours Very Truly
Vance-Mining Co.
Joel C. Vance

APR 18 1952

IN REPLY REFER TO:

G-MD-JJN

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

May 1, 1952

Mr. R. H. Jahns
Division of Geological Sciences
California Institute of Technology
Pasadena 4, California

2414

Dear Dick:

I am sure I will not be catching you unawares if I point out that the report that you sent us some weeks ago on the Doublehead mine, Avery County, refers several times to maps and sections that you did not send to us. Bob Laurence has no copies either. DMEA has asked me for two copies of each illustration. Is this possible? Even a photostat of the plane table sheet might be better than nothing.

Sincerely yours,

J. J. Norton

cc: Mr. S. A. Feitler

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

Room 13, Post Office Building
Knoxville, Tennessee

April 24, 1952

Mr. Stanley A. Feitler
Defense Minerals Exploration Admin.
Dept. of the Interior
Washington 25, D. C.

Re: DMEA-2414, Vance Mining Co.
Doublehead Mine

Dear Stan,

Since our telephone conversation I have checked our files on the subject application. We have no maps or reports on this mine, so, if it is sent for a field examination please send any sort on material of that type along with the examination request.

We have the U.S.G.S. maps and report on the Elk Mine, DMEA-2466.

Sincerely yours,

Kefton

Kefton Teague

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
Washington
APR 28 1952

FILE COPY
SURNAME:

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

APR 28 1952

Mr. Robert A. Laurence
Executive Officer
DMEA Field Team, Region VII
Room 13, Post Office Building
Knoxville 1, Tennessee

Subject: Docket DMMA-2414 - Mica
Doublehead Mine
Avery County, North Carolina

Dear Mr. Laurence:

A copy of the above application was sent to you on March 7, 1952. Additional information which was requested of the applicant has been received. A copy of this additional information together with copies of memoranda from the Geological Survey and the Bureau of Mines are enclosed for your use in making a field examination of the Doublehead Mine.

The memo from the Survey has attached to it a copy of a report on this mine by R. H. Jahns. The map and sections to which this report refers were not submitted to this office but may be in your files. We will obtain a copy for you if you do not already have one.

The application is generally vague and incomplete but the mine has evidently produced good quantities of mica in the past. There seems to be some question about the color of the mica. Send in samples if there is any question as to whether or not the mica is strategic.

The results of the diamond drilling mentioned by Mr. Vance should be investigated.

The relation between the land under lease and the proposed work should be indicated on a map.

Verify the legal right of Buena Vance to sign for the W. N. Avery Heirs. The lease should ordinarily be signed by a Trustee.

If the results of the examination are favorable, the report should be more complete than usual because the application does not supply much detailed information.

Sincerely yours,

(signed) FRANK E. JOHNSON

(NB)

Chairman, Operating Committee
Defense Minerals Exploration
Administration

Enclosures - 3

Approved:

J. E. Hedges (NB)

Member, Bureau of Mines

DM Lemmon (NB)

Member, Geological Survey

SAFeitler:mp 4/23/52
cc: Docket File
Operating Committee (2)
Adm. Reading File
Mr. Dietrich, 3526
Mr. Norton, G-232, GSA Bldg.
Mr. Houk

S.N.
4-24-52

FILE COPY
SURNAME:

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

600

APR 28 1952

SAFeitler
Houk
Kedars
F. Johnson

Mr. Joe C. Vance
Vance Mining Company
Plumtree, North Carolina

Subject: Docket DMMA-2414 - Mica
Doublehead Mine
Avery County, North Carolina

Dear Mr. Vance:

Your application is being referred to Mr. Robert A. Laurence, Executive Officer, DMMA Field Team, Region VII, Room 13, Post Office Building, Knoxville, 1, Tennessee, for further information.

DN. 4-28-52

Sincerely yours,

C. O. Mittendorf (fw)

Acting Administrator
Defense Minerals Exploration
Administration

SAFeitler:mp 4/23/52
cc: Docket File
Adm. Reading File
Field Team, Region VII (2)
Mr. Dietrich, 3526
Mr. Norton, G-232, GSA Bldg.
Mr. Houk

IN REPLY REFER TO:

G-MD-JJN

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

March 26, 1952

Memorandum

REVIEW OF APPLICATION DMEA-2414 (Mica).

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

From: J. J. Norton, U. S. Geological Survey

Subject: Vance Mining Company's application (DMEA-2414) for aid in exploring the Doublehead mine for mica.

Location of prospect: Near the Meadow mine, Avery County, North Carolina.

RECOMMENDATION: Field examination.

Previous history of this application: This application was reviewed by D. H. Kupfer, and on March 10, 1952, he recommended that the applicant be asked to submit additional data. Such data has now been received.

Sources of information:

1. Applicant's supplementary data contain description of mine workings.
2. Copy of report by R. H. Jahns is attached.

Additional comments:

1. Production data from Colonial Mica Corporation follows:

	Production (pounds)	Quality		
		No. 1	No. 2	No. 2 inf.
Small sheet, full trim	702.99	10	60	30
Large sheet, three-quarter trim	421.90	8	46	46
Punch mica	988.00			

Value of production $5813.16

2. Our data obtained from Colonial Mica Corporation indicates that the mica was classified as green, but Jahns' report does not confirm this. The field team should obtain samples of the mica for DMEA to submit to GSA for the purpose of determining whether or not it is ruby mica of good enough quality for Government purchase. Exploration is certainly not warranted until we have received assurance that the mica is acceptable to GSA.

3. The extensive workings on this property make me wonder if all reasonable possibilities for exploration have not been exhausted.

4. The applicant mentions diamond drilling that "showed the pegmatite to be rich in Mica (sic)." The field team should obtain what information it can about this drilling. Possibly the drill core has been preserved, and it may be possible to determine the location, bearing, and inclination of the holes. It is difficult to understand why no one has mined the deposit cut by the drill holes if it is so rich is mica.

J. J. Norton

J. J. Norton

Attachment

Mk. 3000 Thin product DMEA 2414

Doublehead mine

The Doublehead mine is three-fourths of a mile northwest of Plumtree on the east side of Doublehead creek. The very considerable workings extend at intervals for about 1800 feet along the west side of the ridge. They consist of small open cuts from which numerous adits extend east and northeast to north-northwest trending drifts and stopes. In general the northern half of the workings are the older and are not accessible. The most recently mined portions at the south end (see pl.___) include the largest individual opening, a stope about 300 feet long and 20 to at least 40 feet wide, which plunges gently south-southeast from an open cut and is entered by two adits from the west. A parallel and slightly higher drift joins the northwest end of the main stope.

The deposit was found about 1870 by George Shade and opened by C. W. Burleson. Other early operations were conducted by Ben Aldrich, by W. W. Avery in 1891, by Vance Brown in 1894 in the main stope, by Messrs. Vance and Burleson, and by T. T. Cantrel in 1922 and 1926. These operations are reputed to have yielded $100,000 worth of good quality mica. An open cut in thick decomposed pegmatite at the north end of the series was worked hydraulically years ago, presumably for scrap mica. In 1940 Dave Johnson and Hughes drove a short tunnel northeast from it (see pl.___, map of north tunnel). During the period from September 1943 to December 1944 Buena and Ira Vance drove a 25 degre incline 75 feet southeast from the main stope, sank a 15 foot winze near the middle of the stope, and mined the parallel, connected drift (called Doublehead no. 3) which lies a little southwest of and higher than the main stope. Concurrently between October 1943 and March 1944 Mack Buchanan and Lewis Aldridge sank a 35 foot shaft in the open cut northwest of the main stope and reopened an old adit (called Doublehead no. 2) about 200 feet farther north, beyond the mapped area. These recent operations produced little mica and most of this was of very small sizes and no. 2 quality.

The country rock is mainly hornblende gneiss with interbedded mica gneiss. In general it dips regularly at low angles (5-25°) to the south-southwest. Near the pegmatites garnetiferous mica gneiss predominates and the rock is somewhat contorted. Joints dipping steeply northeastward are fairly common.

The number and extent of the pegmatites mined is uncertain because most of the workings are caved. Apparently several closely spaced pegmatites near the same horizon in the gneiss are more or less continuous in a north-northwesterly direction for at least 2000 feet.

The pegmatite worked in the main stope is almost unique in the district in being an abruptly irregular and highly discordant dike (see pl.___, sections A-A' to D-D'). Most of the pegmatite

has been mined out, and numerous stringers extending outward between the layers of gneiss further obscure its shape, but it appears to have been in places roughly tabular (see section B-B') and elsewhere triangular in cross section (see sections C-C' and D-D'). The pegmatite crest pitches quite regularly about 8 degrees to S. 36° E. Its contacts are in general distinct and sharply cross cutting but in places (see section C-C') the walls have been so impregnated with pegmatitic material as to form injection gneiss. The thickness evidently ranged from about 2 to 20 feet. The thin conformable pegmatite mined in the upper parallel drift probably is an offshoot of the main pegmatite. Several small discordant dikes are exposed in the adits. All contain scattered irregular inclusions.

The main pegmatite is medium-grained in general, though variable from place to place. The bulk of the pegmatite consists of white to light gray plagioclase and white quartz with smaller amounts of book muscovite and minor light pink microcline. Green sericite and red opaque, cracked garnets are common; blue-green apatite, black tourmaline and pyrite are present in small amounts. Some of the coarse quartz is slightly pink. Veinlets of epidote cut the pegmatite. Zoning is very indistinct. In places at the southeast end of the stope fine-grained plagioclase forms a discontinuous selvage a quarter of an inch thick. Near the walls in several places fine-grained quartz-muscovite rock with minor plagioclase forms irregular units as much as 4 feet thick. The microcline content appears to increase and the muscovite to decrease toward the southeast end. The book muscovite apparently was scattered throughout the plagioclase-quartz rock but is reported to have been concentrated near the foot wall. It is dark reddish brown, of medium size and fair quality. Much is "tied" and cracked and some contains inclusions of quartz, garnet and intergrown biotite. Other defects include some "A" structure, ruling, reeves, and waviness. A little is color mottled.

The partially decomposed pegmatite mined in the irregular open cuts and inclines above the road (see pl.___, maps and section B-B') is at least 10 feet thick, but neither hanging wall or foot wall is exposed. It contains many large and small gneiss inclusions which dip gently southwest. Next to the inclusions is a discontinuous border zone about 1-1/2 feet thick of medium-grained plagioclase-microcline-quartz rock with scrap muscovite. The main part of the pegmatite, at least 6 feet thick in places, consists of coarser rock of the same composition and contains feldspar crystals a foot thick and a little book muscovite. Pods of massive quartz and graphic granite several feet thick form a discontinuous core. Biotite and vermiculite are present in small amounts. The sparse muscovite is dark brown, clear and hard but some is ruled.

The pegmatites mined at the north end of the series of workings appear to be abruptly irregular sills. The largest is about 15 feet thick and contains several gneiss inclusions. It is medium to coarse grained and consists of plagioclase and microcline in about equal amounts with quartz and some muscovite. Some has coarse graphic texture. Clusters of garnet, and biotite or vermiculite are present. The muscovite is brown, clear and hard but not abundant. Some is hair-cracked and intergrown with biotite.

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

April 1, 1952

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: W. F. Dietrich, Chief
Ceramic and Fertilizer Materials Branch

Subject: DMEA-2414: Doublehead Mine, Vance Mining Company, Plumtree, North Carolina (Mica).

A field team investigation is recommended on the basis of applicant's description of past operations and present exposures. Two lots of mica from this property totaling 84 pieces were classed as 100 percent of E-1 capacitor quality by the Geological Survey (Prof. Paper 225, p. 62) and the color was classed as brownish olive, which is usually acceptable as ruby mica. Past production data are not available, but the nearby Alfred Mine was a good producer for some years.

W. F. Dietrich

W. F. DIETRICH

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

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

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

Not To Be Filled in by Applicant

Docket No. DMEA 2414
Metal or Mineral
Date Received 3-19-52
Amount $
Participation (Government %)

Name and address of applicant

VANCE MINI NG COMPANY
PL UMTREE, N. C.

JOE C. VANCE ET.AL.

Date MARCH 3, 1952

If you have already filed MF-100, give date filed 3-3-52, type of assistance requested ,

DMA Docket Number (if available) DMEA-2414-MICA
DOUBDEHEAD MIN E, AVERY COUNTY, N RTH CAR LI NA

INSTRUCTIONS

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

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

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

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

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

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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MAR 19 1952

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

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

16—64067-2

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

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

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

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

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

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

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

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

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

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

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

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

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

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

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

CERTIFICATION

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

VANCE MINING COMPANY
(Name of company)

By Jac C Vance
(Signature of authorized official)

March 3 1952
(Date)

PARTNE R & SUPER
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

1- Lease covers these questions

2- Mica (a)

1- Lease covers these questions

2- Mica (a)

(b) Doublehead ridge is composed of layers of slate, granite and pegmatite which carries mica. There are three mica viens, each on a different level. The upper vein and also the second vien has been worked to a great extent and has produced a large quanity of Ruby Mica. The third vien which is exposed at a few points along the lower level of the ridge has never been worked but has been tested by a diamond drill and the tests showed the pegmatite to be rich in Mica.

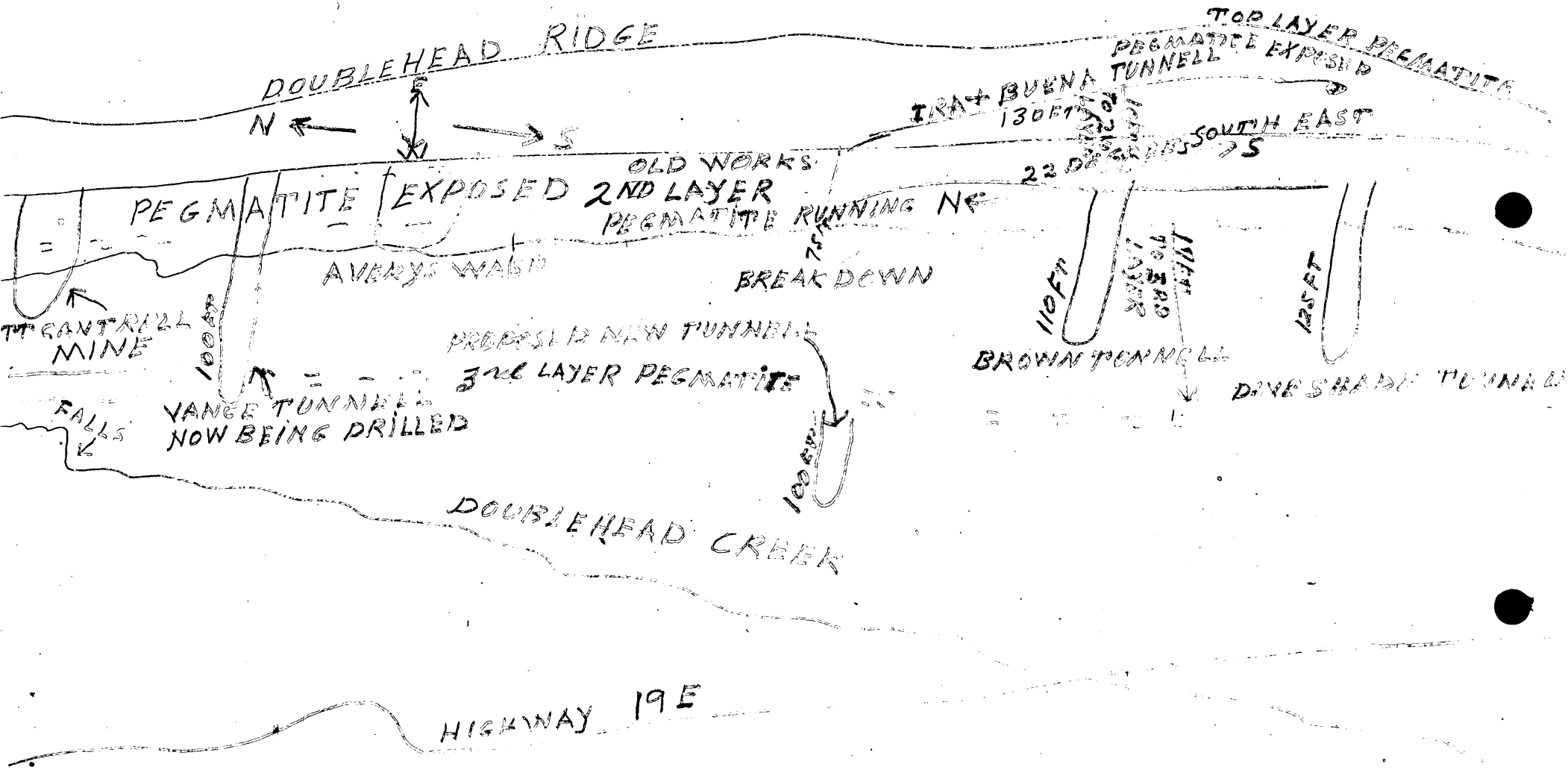
The actual width is not known but some of the exposed pegmatite is from ten to thirty feet in width. The length is ½ Mile long.

The old workings on the upper levels have been mined one hundred and twenty five feet. The mica has been sold at intervals for several years. The last was sold by Buena Vance & Ira Vance to Colonial Mica Corporation. The Mines has produce Mica as large as 8" x 10". The grade is # 1, and the color is Ruby.

The proposed new exploration project is to drill a tunnel 100' into the mountain into the center of the pegmatite.

~~Ar-ugh~~
A rought map or sketch is herewith attached giving the general "lay" of the land and the old mining works and the exposed portions of pegmatite.

SKETCH OF DOUBLEHEAD MINES AND OLD MINING WORKS



DMEA 2414
Rec. 3/20/5

600

MAR 1 2 1952

Mr. Joe C. Vance
Vance Mining Company
Plumtree, North Carolina

Subject: Docket No. DMEA-2414 - Mica
Doublehead Mine
Avery County, North Carolina

Dear Mr. Vance:

Your application has been received by this Division for processing but we are not able to go ahead as you did not answer the questions on Form MF-103.

These questions should all be answered in detail on separate sheets of paper. Question No. 2(b) is especially important. Furnish a sketch to show the old workings and the exploration you want to do. Some of the information you should supply is as follows:

Is the pegmatite exposed?
How wide is it?
How long?
How deep has it been mined?
Has mica from this mine been sold?
What is the size, grade, and color of the mica?

Thank you for your interest in the defense effort.

Sincerely yours,

SIGNED

Lawrence G. Houk, Chief
Non-Metallic Minerals Division
Defense Minerals Exploration
Administration

SAFeitler:gad
3/11/52

Copy to: Admin. Reading File
Docket File
Mr. Norton, G-232, GSA Bldg.
Mr. Dietrich, 3526
Mr. Houk

FILE COPY
SURNAME:

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

SAFeitler
MAR

MAR 1 2 1952

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Plumtree, North Carolina

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Doublehead Mine
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SIGNED

E.L. 3/12/52

Lawrence G. Houk, Chief
Non-Metallic Minerals Division
Defense Minerals Exploration
Administration

SAFeitler:gad
3/11/52

Copy to: Admin. Reading File
Docket File
Mr. Norton, G-232, GSA Bldg.
Mr. Dietrich, 3526
Mr. Houk

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Date: March 10, 1952

Memorandum

To: Non-Metallic Minerals Division, Defense Minerals Exploration Administration

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

Subject: Vance Mining Company's application (DMEA- 2414) for aid in exploring the Doublehead prospect/mine for Mica

Location of prospect: Near the Meadow mine, Avery County, North Carolina

Recommendation (check one):

1. Deny the application. Invite the applicant to submit new data within 30 days. If he does, the application should be reconsidered.
2. ✓ Request applicant for more data.

Reasons for recommendation (check all applicable statements):

1. This property has previously been examined, and the report in our files indicates that exploration is not worth-while unless the applicant can provide new evidence that a discovery may be made.
2. We can find no information in our files on this property.
3. The application does not contain specific reasons to show why the applicant considers exploration worth-while. Insufficient evidence is presented to show that the prospect merits a field examination.
4. ✓ A rough sketch map of the property is needed showing size and shape of deposits. Suggested scale: 1 inch = 50 feet.
5. A _____ sample of the _____ should be requested.
6. The applicant gives no information on the quality and size of the mica.
7. This is apparently an old mine or prospect.
8. The applicant's description of the workings is incomplete.
9. Production figures are either not given in the application or are quite inadequate. Probably better data can be obtained.
10. The location of the property is inadequately described; the applicant should submit a sketch map showing the location.
11. This property has probably operated under some name other than that given by the applicant.
12. The name of the prospect is inadequate identification. Several mines and prospects having a similar name are in this district, and the applicant does not show clearly which one this application covers.
13. Is this the same as the _____ mine or prospect.
14. The suggested program of exploration is ~~vague and incomplete~~ nonexistant.
15. The applicant's proposed expenditures for supervision and overhead seem disproportionately large in relation to expenditures for actual exploration.
16. Other: We have written to R. Jahns for further data

Copy to: DMEA—2
Branch Reading File, 4212, GS Bldg.
Norton, 6-210, GS Bldg.

Donald H. Kupfer

Donald H. Kupfer

UNITED STATES DEPARTMENT OF THE INTERIOR
Geological Survey

Date March 10, 1952

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To: Non-Metallic Minerals Division, Defense Minerals Exploration Administration

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Copy to: DMEA—2 ✓
Branch Reading File, 4212, GS Bldg.
Norton, G-230, GS Bldg.

Donald H. Kupfer

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

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

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

Not To Be Filled in by Applicant

Docket No. DMEA-2414
Metal or Mineral
Date Received 3-7-52
Amount $
Participation (Government %)

VANCE MINING COMPANY
PLUMTREE, N. C.

Name and address of applicant

Date MARCH 3, 1952

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

DMA Docket Number (if available) .....

INSTRUCTIONS

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

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

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

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

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

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

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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MAR 7 1952

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

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

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

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

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

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

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

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

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

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

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

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

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

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

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

CERTIFICATION

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

Vance Mining Co
(Name of company)

By Joe C. Vance
(Signature of authorized official)

March 5 1952
(Date)

Supt
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

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

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMEA-2414

Date received 3-7-52

THE VANCE MINING CO.
PLUMTREE? N. C.

JOE C. VANCE, T. B. VANCE,
DAYTON INGRAM, PARTNERSHIP.

Name and address of applicant

Date MARCH 3, 1952

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) Necessity Certificate pursuant to the provisions of Sec. 124-A (Amortization Deduction) of Internal Revenue Code, 1950, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

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

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

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.

   DEPARTMENT OF THE INTERIOR
   Defense Minerals Administration
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   MAR 7 1952
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☒ Lessee.
   - ☐ Contractor.
5. Number of years in production 0

   If not in production or operation, estimated date when production will begin March 5, 1952
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

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

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

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

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

*Indicate period covered.

10. Production:

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

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

12. Ore or Mineral Reserves:

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

ANSWERS TO FORM MF-100

1 MATERIALS PRODUCED

(a) Mica
(b) Feltspar

2 MICA MINE KNOWN AS "DOUBLEHEAD MINE"

(a) (b) (c) (d) Proposed exploration project to be new tunnel thirty feet below level of any old works.

3

(a) Thirteen miles north of Spruce Pine, N. C
(b) Plumtree, N. C.
(c) Toe River Township, Doublehead Range
(d) Avery County, North Carolina

4

Lessees are now preparing to start operations

5

6

(a) JOE C. VANCE: MANAGER OF T. B. VANCE'S SR'S STORE FOR 6 YEARS. POSTMASTER PLUMTREE POST OFFICE 5 YEARS. MINED FOR MICA AND FELDSPAR IN SEVERAL DIFFERENT MINES FOR THE LAST 15 YEARS.

T. B. VANCE; OWNER & OPERATOR OF T. B. VANCE STORE GEN. MDS. 10 YEARS, PARTNER IN TWO MINING OPERATIONS, JOE DAVIS ROCK MINE & CHARLIE BURLESON MINE.

DAYTON INGRAM: WORKED IN MINES AND IN MICA ALL OF ADULT LIFE. PARTNER IN CHARLIES RIDGE MINE AT ONE TIME, PARTNER IN RUBEN GREEN MINE AND NOW PARTNER IN THE SLIPPERY ELM MINE.

(b) JOE C. VANCE, MANAGER. & DAYTON INGRAM, FORMAN OF VANCE MINING COMPANY, PLUMTREE, N. C.

7

(a) THIS IS A NEW PROSPECT BELOW ALL OTHER OPERATIONS AND IS YET TO BE EXPLORED.

(b) ADJOINING MINES ARE: THE ALFRED MINE, ½ MILE S.W. PRODUCED MICA FOR 10 YEARS. OPERATIONS CEASED BECAUSE OF FLOODED CONDITIONS. JOE DAVIS ROCK MINE: ½ MILE N.W. produced mica several years but ~~production~~ operations ceased because of the low price of mica and the high cost of labor. ½ MILE N.E. ON OTHER SIDE OF RIDGE IS THE MEADOW MINE: HAS PRODUCED MICA AND BEEN IN OPERATION CONTINOUSLY FOR THE LAST FORTY YEARS. DOUBLEHEAD MINE: 1/8 MILE S.E. ON SAME RIDGE HAS PRODUCED MICA AT INTERVALS OVER A PERIOD OF 50 YEARS.

(c) NONE AVAILABLE AT PRESENT TIME.

8 - 18 THIS IS NOT A CORPORATION ONLY A PARTNERSHIP.

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

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

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

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

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

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

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

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

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

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

13. Access Roads:

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

14. Water Supply:

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

15. Power:

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

16. Labor:

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

17. Equipment and Facilities:

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

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

CERTIFICATION

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

Vance Mining Co
(Name of company)

By Jac C. Vance
(Signature of authorized official)

March 5th 1952
(Date)

Supt
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

EXPLORATION

Subject: DMEA-2414
Re: Exploration Loan
Doublehead Mine
March 7, 1952

Mr. Joe C. Vance
Vance Mining Company
Plumtree, North Carolina

My dear Mr. Vance:

This will acknowledge receipt of your application dated March 3, 1952 for a loan under the Defense Production Act of 1950.

Your application was assigned Docket Number DMEA-2414 and referred to the Non-Metallics Division.

Kindly refer to DMEA-2414 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

Robert E. Adams
Acting Administrative Officer

7862

Form MF-103
(Revised June 1951)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.1.

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

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

Not To Be Filled in by Applicant

Docket No. DMEA-2414
Metal or Mineral
Date Received 3-7-52
Amount $
Participation (Government %)

VANCE MINING COMPANY
PLUMTREE, N. C.

Name and address of applicant

Date MARCH 3, 1952

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

DMA Docket Number (if available) .....

INSTRUCTIONS

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

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

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

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

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

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 7 1952

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

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

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

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

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

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

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

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

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

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

   (*a*) Rented

   (*b*) Purchased

   (*c*) Furnished by you

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

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

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

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

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

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

CERTIFICATION

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

Vana Mining Co
(Name of company)

By Joel C Vance
(Signature of authorized official)

3-5-82
(Date)

Supt
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—64067-2

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

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

NOT TO BE FILLED IN BY APPLICANT

Docket No. DMEA-2414

Date received 3-7-52

THE VANCE MINING CO.
PLUMTREE? N. C.

JOE C. VANCE, T. B. VANCE,
DAYTON INGRAM, PARTNERSHIP.

Name and address of applicant

Date MARCH 3, 1952

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) Necessity Certificate pursuant to the provisions of Sec. 124-A (Amortization Deduction) of Internal Revenue Code, 1950, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

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

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).
   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 7 1952

4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   ☐ Owner.
   ☒ Lessee.
   ☐ Contractor.
5. Number of years in production 0
   If not in production or operation, estimated date when production will begin March 5, 1952
6. Experience of operators:
   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

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

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

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

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

*Indicate period covered.

10. Production:

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

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

12. Ore or Mineral Reserves:

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

ANSWERS TO FORM MF-100

1 MATERIALS PRODUCED

(a) Mica
(b) Feltspar

2 MICA MINE KNOW AS "DOUBLEHEAD MINE"

(a) (b) (c) (d) Proposed exploration project to be new tunnel thirty feet below level of any old works.

3

(a) Thirteen miles north of Spruce Pine, N. C.
(b) Plumtree, N. C.
(c) Toe River Township, Doublehead Range
(d) Avery County, North Carolina

4

Lessees are now preparing to start operations

5

6

(a) JOE C. VANCE: MANAGER OF T. B. VANCE? SR'S STORE FOR 6 YEARS. POSTMASTER PLUMTREE POST OFFICE 5 YEARS. MINED FOR MICA AND FELDSPAR IN SEVERAL DIFFERENT MINES FOR THE LAST 15 YEARS.

T. B. VANCE; OWNER & OPERATOR OF T. B. VANCE STORE GEN. MDS. 10 YEARS, PARTNER IN TWO MINING OPERATIONS, JOE DAVIS ROCK MINE & CHARLIE BURLESON MINE.

DAYTON INGRAM: WORKED IN MINES AND IN MICA ALL OF ADULT LIFE. PARTNER IN CHARLIES RIDGE MINE AT ONE TIME, PARTNER IN RUBEN GREEN MINE AND NOW PARTNER IN THE SLIPPERY ELM MINE.

(b) JOE C. VANCE, MANAGER. & DAYTON INGRAM, FORMAN OF VANCE MINING COMPANY, PLUMTREE? N. C.

7

(a) THIS IS A NEW PROSPECT BELOW ALL OTHER OPERATIONS AND IS YET TO BE EXPLORED.

(b) ADJOINING MINES ARE: THE ALFRED MINE, ¼ MILE S.W. PRODUCED MICA FOR 10 YEARS. OPERATIONS CEASED BECAUSE OF FLOODED CONDITIONS. JOE DAVIS ROCK MINE: ½ MILE N.W. produced mica several years but ~~production~~ operations ceased because of the low price of mica and the high cost of labor. ¼ MILE N.E. ON OTHER SIDE OF RIDGE IS THE MEADOW MINE: HAS PRODUCED MICA AND BEEN IN OPERATION CONTINOUSLY FOR THE LAST FORTY YEARS. DOUBLEHEAD MINE: 1/8 MILE S.E. ON SAME RIDGE HAS PRODUCED MICA AT INTERVALS OVER A PERIOD OF 50 YEARS.

(c) NONE AVAILABLE AT PRESENT TIME.

8 - 18 THIS IS NOT A CORPORATION ONLY A PARTNERSHIP.

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

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

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

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

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

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

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

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

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

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

13. Access Roads:

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

14. Water Supply:

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

15. Power:

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

16. Labor:

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

17. Equipment and Facilities:

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

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

CERTIFICATION

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

Vance Mining Co
(Name of company)

By Joe C Vance
(Signature of authorized official)

March 5th 1952
(Date)

Supt
(Title)

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

U. S. GOVERNMENT PRINTING OFFICE 16—63792-1

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 3 day of March, 1952, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] THE VANCE MINING COMPANY (JOE C. VANCE, T. B. VANCE, & DAYTON INGRAM, PARTNERS) PLUMTREE, N. C.

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 NORTH CAROLINA County of AVERY described as follows: [3] ON DOUBLE HEAD RIDGE BEGINNING ON A LARGE LOCUST STANDING ON THE RIM OF THE OLD MINE WASHINGS. THENCE SOUTH 60 WEST 500 feet, THENCE UP THE HILL NORTH 88 EAST ABOUT THREE HUNDRED FEET TO THE TOP OF THE RIDGE. THENCE DOWN THE RIDGE SOUTH 35 EAST 500 FEET. THENCE SOUTH WEST TO THE BEGINNING.

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 5 days from the date of this contract shall commence work on a project of exploration for [5] MICA; 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] ONE YEAR 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 90 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $3000.00, which is 90 percent of the agreed estimated total cost of this project, $3300.00.

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.

VANCE MINING COMPANY
(Operator)

By Jac C Vance

THE UNITED STATES OF AMERICA

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 5 day of ~~February~~ MARCH, 1952, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] The Vance Mining Co. (Joe C. Vance, T. B. Vance & Dayton Ingram, Partners) Plumtree, N. C. Partnership

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 North Carolina, County of Avery, described as follows: [3] ON COUBLE HEAD RIDGE BEFINNING ON A LARGE LOCUST STANDING ON THE RIM OF THE OLD MINE WASHINGS. THENXE SOUTH 33 WEST 500 feet. THENSE UP THE HILL NORTH 33 EAST ABOUT THREE HUNDRED FEET TO THE TOP OF THE RIDGE. THENSE DOWN THE RIDGE SOUTH 35 EAST 500 FEET. THENSE SOUTH WEST TO THE BEGINING

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 ~~TEN~~ 5 days from the date of this contract shall commence work on a project of exploration for [5] Mica; 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] One Year 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 90 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $3000.00, which is 90 percent of the agreed estimated total cost of this project, $3300.00.

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

By _____

Vance Mining Company
(Operator)

By Jac C Vance

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 3 day of March, 1952, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] THE [illegible] MINING COMPANY (JOHN C. VANCE, J. [illegible] VANCE, & DAVID [illegible], PARTNERS) [illegible], D. C.

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 NORTH CAROLINA, County of AVERY described as follows: [3] [illegible] 500 feet, [illegible] OF THE HILL FROM [illegible] OF THE [illegible]. [illegible] 500 FEET. [illegible]

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 5 days from the date of this contract shall commence work on a project of exploration for [5] MICA; 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] [illegible] 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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[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.

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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.

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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

By _____

VANCE MINING COMPANY
(Operator)

By Joel C. Vance

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 3 day of March, 1952, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] THE VANCE MINING COMPANY (JOE C. VANCE, T. B. VANCE, & DAYTON INGRAM, PARTNERS) PLUMTREE, N. C.

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 NORTH CAROLINA County of AVERY described as follows: [3] ON DOUBLE HEAD RIDGE BEGINNING ON A LARGE LOCUST STANDING ON THE RIM OF THE OLD MINE WASHINGS. THENSE SOUTH 68WEST 500 feet, THENSE UP THE HILL NORTH 68 EAST ABOUT THREE HUNDRED FEET TO THE TOP OF THE RIDGE. THENSE DOWN THE RIDGE SOUTH 25 EAST 500 FEET. THENSE SOUTH WEST TO THE BEGINNING.
with respect to which the Operator represents and undertakes:

(*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

By _____

DAVIS MINING COMPANY
(Operator)

By Joel C Davis

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]

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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 90 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $3000.00, which is 90 percent of the agreed estimated total cost of this project, $3300.00.

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.

VANCE MINING COMPANY
(Operator)

By Joe C Vance

THE UNITED STATES OF AMERICA

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 3 day of March, 1952, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] THE VANCE MINING COMPANY (JOE C. VANCE, T. R. VANCE, & DAVID INGRAM, PARTNERS) PLUMTREE, N. C.

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 NORTH CAROLINA County of AVERY described as follows: [3] ON DANIEL BLD RIDGE BEGINNING ON A LARGE LOCUST STANDING ON THE HILL OF THE OLD MINE BUILDINGS. THENCE SOUTH 63 EAST 500 feet, THENCE UP THE HILL NORTH 63 EAST ABOUT THREE HUNDRED FEET TO THE TOP OF THE RIDGE. THENCE TO A THE RIDGE SOUTH 35 EAST 500 FEET. THENCE STRAIGHT BACK TO THE BEGINNING.

with respect to which the Operator represents and undertakes:

(*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 5 days from the date of this contract shall commence work on a project of exploration for [5] MICA; 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] ONE YEAR 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 50 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $3000.00, which is 50 percent of the agreed estimated total cost of this project, $3200.00.

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.

JABOR MINING COMPANY
(Operator)

By Joel C. Vance

THE UNITED STATES OF AMERICA

By

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

OWNER'S CONSENT TO LIEN

WHEREAS, the undersigned, as owner, co-owner, lessor, or seller has an interest in certain property in the State of NORTH CAROLINA, County of AVERY, which is the subject of a proposed Exploration Project Contract, hereinafter called the "Contract", between the United States of America, hereinafter called the "Government", and 1/

VANCE MINING CO. A PARTNERSHIP : JOE C. VANCE T. B. VANCE & DAYTON INGRAM. AVERY COUNTY? NORTH CAROLINA

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said Contract which are set forth on the reverse side hereof, the Government will acquire certain rights and equities which do or may conflict with or be adverse to the interest of the undersigned in said property;

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

1. The Government's equity in and right to remove facilities, buildings, fixtures, and equipment, as provided in the Contract, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned.

2. The Government's percentage royalty on net smelter returns or other net proceeds realized from ore, concentrates, or metal produced within ten (10) years from the date of the Contract, and the Government's lien for the payment of said percentage royalty shall attach to the mineral deposit and the production therefrom in the amount of the Government's contribution, not in excess of 2/ $ 3000.00, all upon the terms and conditions set forth in said Contract.

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

Dated this FOURTH day of MARCH, 1952

W. W. AVERY HEIRS

BY Buena A. Vance AGENT

1/ Insert the name of the Operator as it will appear in the Exploration Project Contract.

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

RELEVANT CONTRACT PROVISIONS

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.

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 ($1\frac{1}{2}$) percent.

Of net smelter returns or other net proceeds in excess of eight dollars ($8.00) per ton of ore: One and one-half ($1\frac{1}{2}$) percent, plus one-half ($\frac{1}{2}$) 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 obligations on the Operator or his successor in interest to produce ore from any such discovery or development.

MINING LEASE

Printed and For Sale by The Tri-County News, Spruce Pine

STATE OF NORTH CAROLINA, AVERY **COUNTY.**

This indenture made this 4th. day of MARCH 1952, between W. W. AVERY HEIRS of PLUMTREE, AVERY County and State of NORTH CAROLINA, as parties of the first part, and known as lessors, and JOE C. VANCE? T. B. VANCE & DAYTON INGRAM, of AVERY County and State of NORTH CAROLINA, of the second part and known as lessees:

WITNESSETH, That the part IES of the first part, in consideration of the agreements hereinafter contained, on the part of the part of the second part to be performed, hereby bargains, leases and grants to the part IES of the second part, and THEIR heirs and assigns, for the period of THREE from the date of this agreement, the following described real property, for mining purposes, in the County of AVERY State of NORTH CAROLINA, to wit:

A MINE ON DOUBLEHEAD RIDGE , TOERIVER TOWNSHIP? AVERY COUNTY N.C. AS FOLLOWS: BEGINING ON A LARGE LOCUST STANDING ON THE RIM OF THE ~~OLD MINE WASHING. THENSE SOUTH 68 WEST TO DOUBLE HEAD BRANCH~~ THENSE UP THE BRANCH ABOUT NORTH 10 WEST 500 FEET. THENSE UP THE HILL NORTH 68 EAST ABOUT 300 FEET TO THE TOP OF THE RIDGE. THENSE DOWN THE RIDGE SOUTH 25 EAST 500 FEET. THENSE SOUTH WEST TO THE BEGINING.

To Have and to Hold the said lands to them, for mining purposes, the said JOE C. VANCE, T. B. VANCE & DAYTON INGRAM, and their heirs and assigns for the aforesaid period of THREE YEARS upon a full compliance with the conditions of this instrument, for the purpose and with the right to dig, quarry, search for and obtain any kind of minerals, metals or fossils, and particularly MICA and to conduct the same to any extent the said part IES of the second part may desire. And it is hereby agreed between the parties to this agreement that the part IES of the second part are to have the use of the unoccupied buildings on said lands for mining purposes, or have a right to erect such, if necessary, during the continuance of this lease, and keep the same in as good condition as when received, unavoidable accidents excepted. And it is also agreed by part IES of the second part that no unnecessary damage is to be done to the lands herein leased during the continuance of said lease, but the said part IES of the second part shall have right to take from said lands of party of the first part any wood or timber to carry on said mining operations or to erect buildings on said lands. (Timber of high or special market value excepted.) And the part of the second part are to have right-of-way of ingress and egress to said mines. The said part IES of the second part hereby agree to pay to the said part IES the first part, or THEIR heirs or assigns, a rental or royalty of ONE EIGHTH, on ALL MICA taken and sold from said mines for the use of the said lands for the aforesaid period of THRE YEARS only; payable as follows: ONE EIGHTH ROYALTY PAYABLE BY SALES INVOICE

Payable on computation of selling bills on the tenth of each month covering sales during the previous month.

Royalties on all other minerals mined and sold shall be determined on a percentage basis and be governed by the market value.

Royalty on any Feldspar sold shall be @ $.50 (cents) per ton.

The Term of this lease shall not be extended except with the option of the lessors; and in case of renewal, this instrument may stand if proper amendments are duly witnessed and attached in writing hereto. The lessors reserve the right to use the land, or convey the same not conflicting with this lease, but under any conveyance the terms of this lease must be recognized by the assigns thereof. The lessee is not to assign this lease without license of the lessors.

But it is expressly agreed that unless mineral or fossil material of practical value for mining purposes shall be found within Ninty days from the date of this instrument, this lease may be terminated by the lessee at any time thereafter, on 20 days notice to the lessor S The lessee S agree that during continuance of this lease work in said mines shall not cease longer than Thirty days at any one time, unavoidable accidents excepted.

Witness our hands and seals the day and year first above written.

W. W. AVERY HEIRS (Seal)

Witness: By Bruce A. Vance, AGENT (Seal)

(Seal)

(Seal)

*** (SEAL)

NORTH CAROLINA, _____COUNTY. _____TOWNSHIP.

I, _____, do certify that_____

and _____

his wife personally appeared before me this day, and acknowledged the execution of the annexed MINING LEASE and the said_____

_____

being by me privately examined separate and apart from her said husband, touching her voluntary execution of the same; doth state that she signed the same free and voluntarily, without fear or compulsion of her said husband, or of any other person, and that she doth still voluntarily assent thereto.

_____This_____day of_____, 19_____

_____
Justice of the Peace.

NORTH CAROLINA, _____COUNTY.

The execution of the foregoing instrument was this day acknowledged before me, by_____

_____the grantor____ for the purposes therein expressed. Let the same, with this certificate, be registered. This_____day of_____, 19_____

_____

_____

NORTH CAROLINA, _____COUNTY.

The foregoing certificate of_____ of _____County is adjudged to be correct and sufficient. Let the instrument, with the certificate be registered.

Witness my hand and official seal, this_____day of_____, 19_____

_____
Clerk Superior Court.

Filed for Registration at_____o'clock_____M., _____, 19_____, and registered in the office of Register of Deeds for_____County, in_____Deed Book No._____ page No._____.

_____, 19_____

_____
Register of Deeds.

MINING LEASE

FROM

TO

Lease Book_____ Page_____

FEES:

Probate . . . . . $_____

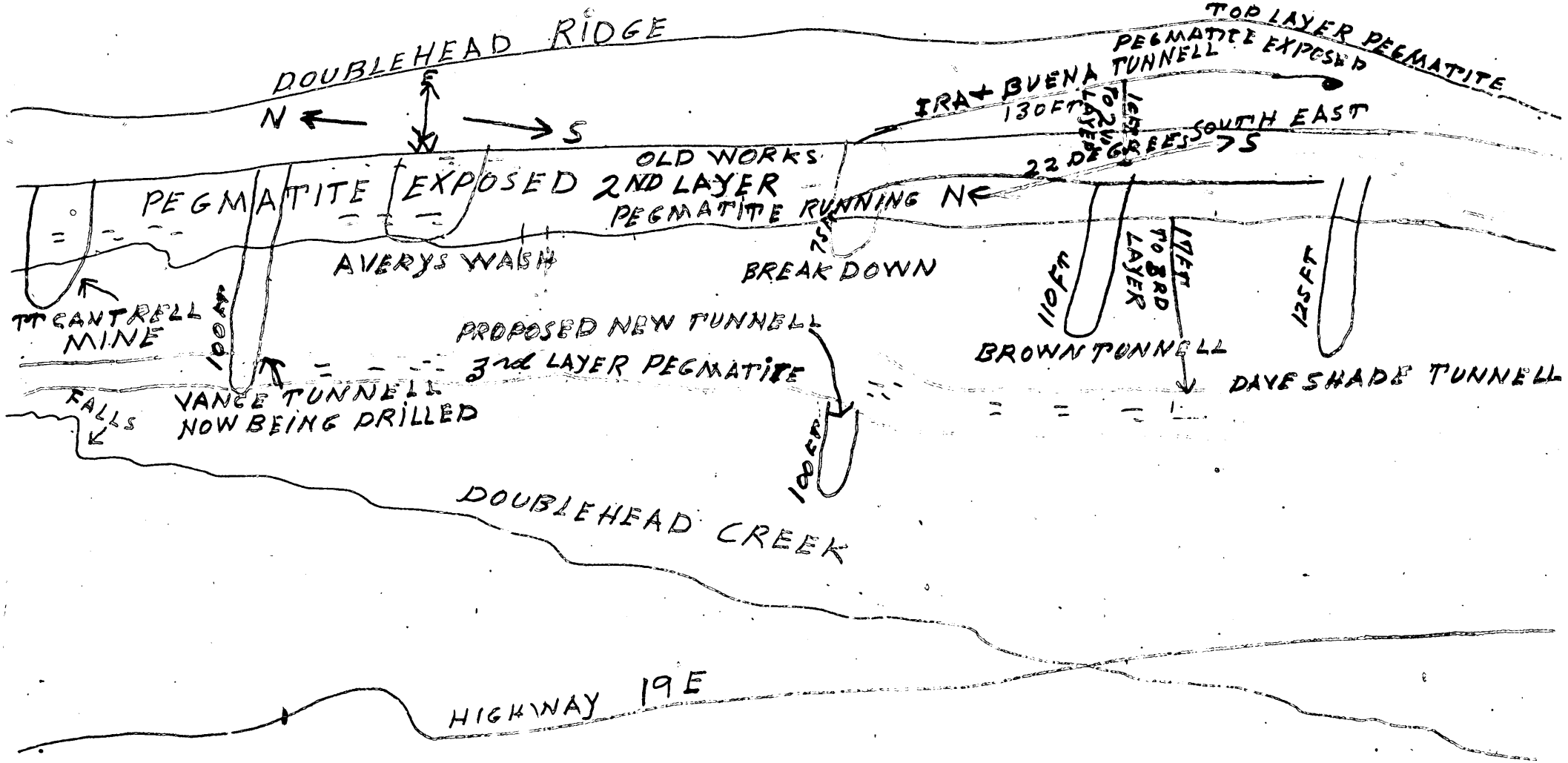
Certificate and Seal, J. P. or N. P. . . . . $_____

Certificate and Seal, Clerk . . . . . $_____

State Tax . . . . . $_____

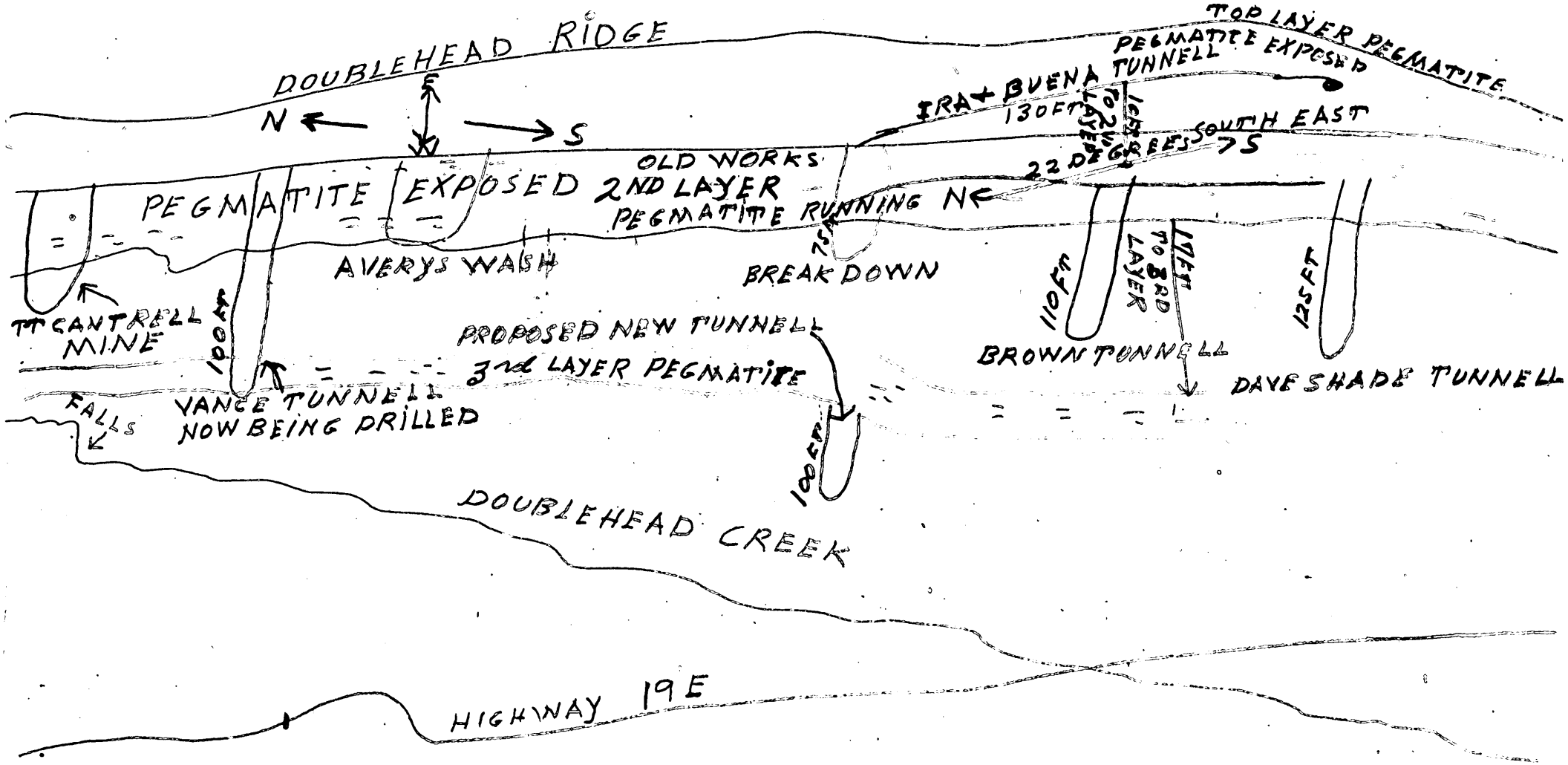
$_____

SKETCH OF DOUBLEHEAD MINES AND OLD MINING WORKS



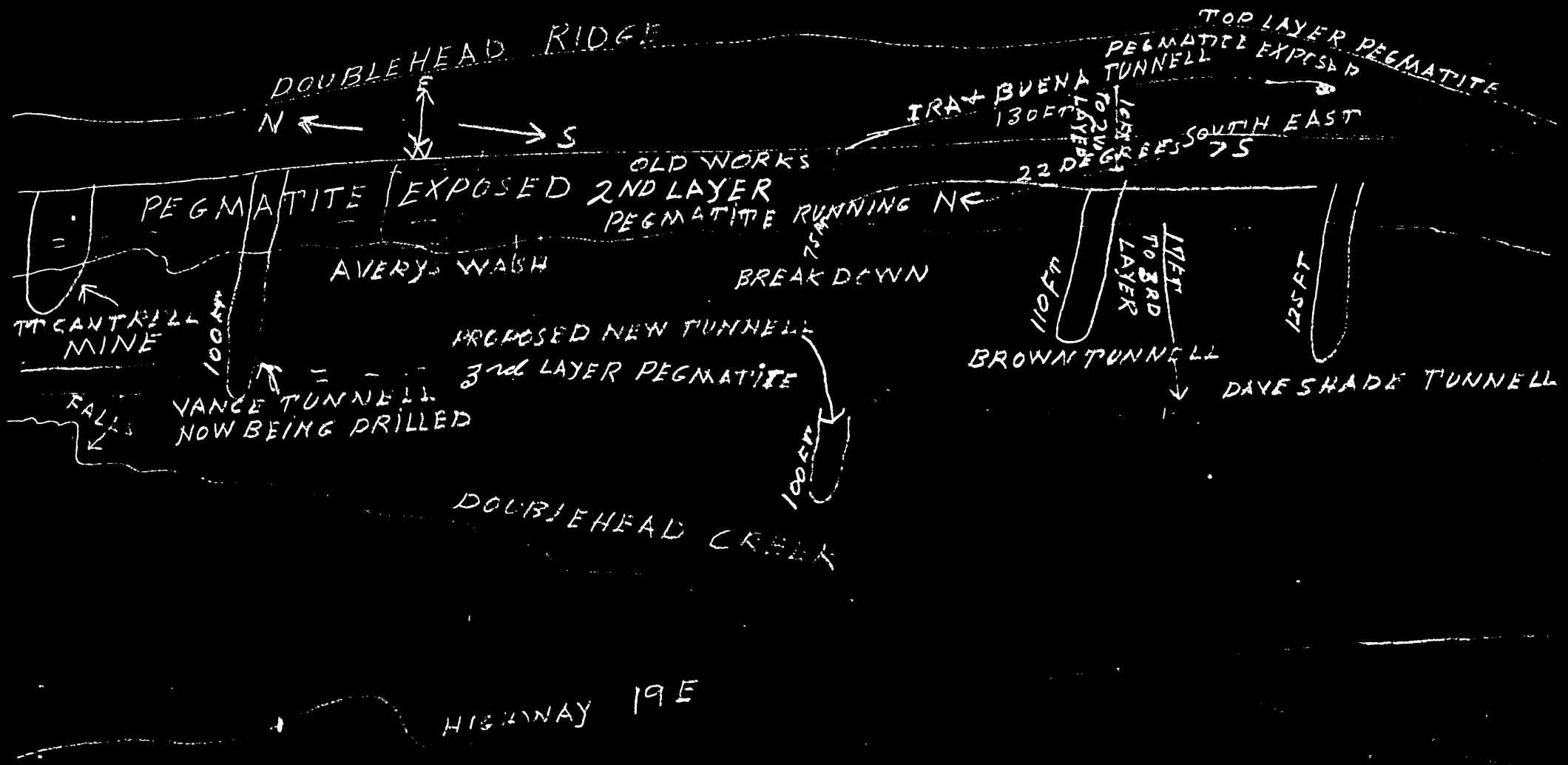
DMEA 2414
Rec. 3/20/52

SKETCH OF DOUBLEHEAD MINES AND OLD MINING WORKS

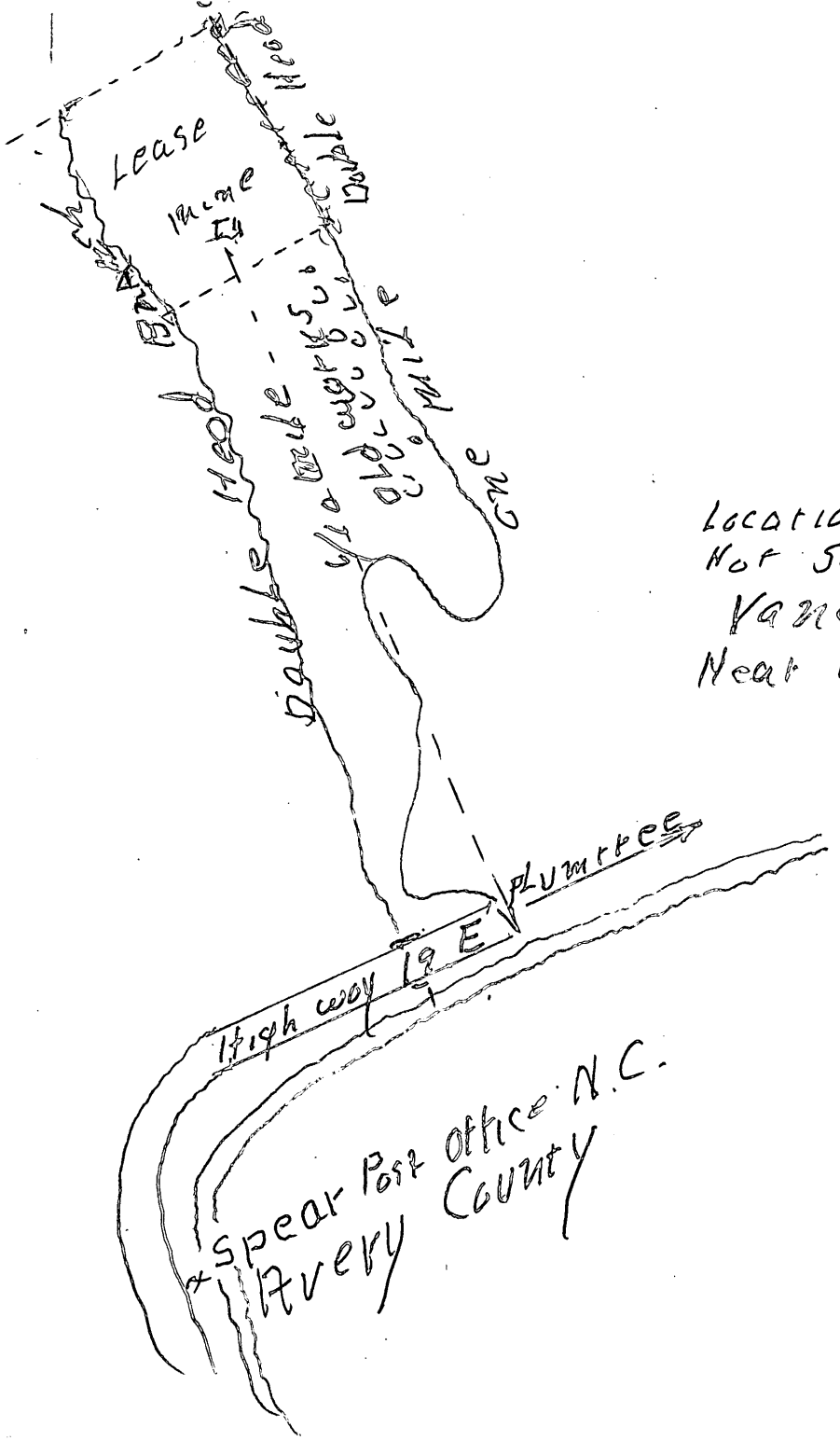


DMEA 2414
Rec. 3/20/62

SKETCH OF DOUBLEHEAD MINES AND OLD MINING WORKS



DMEA 2414



Locational Map.
Not Scaled -
Vance Mine
Near Plumtree N.C.
2-21-52
T. W. Clapp.