DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 3083

DO NOT DETACH THIS SLIP

Action on this document is recorded and controlled in Reports and Records Branch. Any movement of this document between divisions or offices of DMA or movement outside DMA must be reported to the Reports and Records Branch. Actions taken that affect status of the case must also be reported.

This document has been recorded as

Exploration Assistance

Any action taken to change the type of request for assistance must be promptly reported to the Reports and Records Branch. Use DMA Form 2 for submitting these reports.

Copies to USGS, USBM, and Region VII.

Routing Slip

To:	Code 600, Rm. 4637	Date	6/17/53
To:	Roberston	Date	6/19/53
To:	Open Com	Date	~~7-1-53~~
To:	~~M E F~~	Date	~~7/3/53~~
To:	Open Com	Date	8-17-53
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	
To:		Date	

DO NOT DETACH

CONTROLLED DOCUMENT

400

OCT 29 1953

Mr. Marcellus Buchanan, Secretary
Buchanan Minerals, Inc.
Sylva, North Carolina

Re: Docket No. DMA-3023 - Mine
Buchanan Mine (Old East Fork Mine)
Jackson County, North Carolina

Dear Mr. Buchanan:

Reference is made to your letter of September 29, 1953, requesting re-examination of our denial of the subject application for an exploration project at the Buchanan Mine (Old East Fork Mine) in Jackson County, North Carolina.

We have re-examined your application and reviewed the other information available to this office and find the proposed project offers insufficient promise to justify Government participation.

Under the circumstances, we regret to advise that we reaffirm our denial of application as contained in our letter to you of August 18, 1953.

Sincerely yours,

C. C. Mittendorf

Administrator

JTRobertson:gad 10/27/53
Copy to: Admr. R. File
Docket File
Operating Committee
Field Team, Region VII
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Hook

DMEA-3083
Mica
Region VII

BUCHANAN MINERALS, INC., SYLVA, NORTH CAROLINA. Buchanan Mine (Old East Fork Mine), Jackson County, North Carolina. 7-1-53
Letter to the Field requesting a review of the application, a field examination if necessary, and report and enclosing copies of memoranda from the Bureau of Mines and the Geological Survey. Letter to the Applicant. No. 236

DMEA-3083
Mica
Region VII

BUCHANAN MINERALS, INC., SYLVA, NORTH CAROLINA. Buchanan Mine (Old East Fork Mine), Jackson County, North Carolina. 7-29-53
Field Report recommending approval. The report was referred to the Commodity Group. #248

DMEA-3083
Mica
Region VII

BUCHANAN MINERALS, INC., SYLVA, NORTH CAROLINA. Buchanan Mine (Old East Fork Mine), Jackson County, North Carolina. 8-17-53
Letter to the Field denying the application. #256

AUG 1 8 1953

Mr. Marcellus Buchanan, Secretary
Buchanan Minerals, Inc.
Sylva, North Carolina

Re: Docket No. DMEA-3083 - Mica
Buchanan Mine (Old East Fork Mine)
Jackson County, North Carolina

Dear Mr. Buchanan:

Your application for aid for an exploration project and other data available to us in Washington concerning the subject mine have been reviewed.

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

Careful study of all our information indicates to us that your proposed program is not sufficiently promising to justify the Government's participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

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

Sincerely yours,

C. O. Mittendorf

Administrator

JTRobertson:gad 8/13/53
Copy to: Admr. R. File
Docket File
Operating Committee
Field Team, Region VII
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

August 14, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Denial and closing review - Docket No. DMEA-3083 - Mica
Property: Buchanan Mine (Old East Fork Mine)
Jackson County, North Carolina
Applicant: Buchanan Minerals, Inc.
H. E. Buchanan, Pres.
Marcellus Buchanan, Secretary
Sylva, North Carolina
Amount requested - $12,375.00
Amount approved - none. A denial.

Summary of Docket:

6/16/53	Received application MF-103, copy of Lease Agreement, Articles of Incorporation, and Owner's Consent to Lien.
6/17/53	Application acknowledged.
6/22/53	Geological Survey suggested field referral.
6/29/53	Bureau of Mines suggested field referral.
7/1/53	Received Examination Report from Region VII. Report written by K. H. Teague and L. E. Shirley. A project in amount of $10,025.00 is recommended.
8/4/53	W. F. Dietrich, USBM, concurs with recommendation made by Field Team.
8/7/53	D. M. Larrabee, USGS, recommended a denial of exploration proposal.

Resume:

This mine is an old mica producer worked intermittently since 1905. A pegmatite, the outcrop of which is about 200 feet long, has been worked in the past through 4 different shafts, the deepest 165 feet.

The shafts and connecting stopes, drifts, and other workings are now filled with water, caved and inaccessible. Furthermore, the maps and vertical projections fail to show the conditions underground. The state of the mine below the shaft collars is, therefore, unrecorded and unknown except for incomplete information provided by local residents.

The field examination report recommended the sinking of the most westerly shaft, the Dick Fortner Shaft. The recommendation called for rehabilitating 70 feet of this shaft, sinking 100 feet additional and drifting from the bottom to the northwest a distance of 80 feet. The work is estimated to cost $10,025.00. This project is recommended in the report without any definite knowledge that the area above the drift from the 165 foot depth may not have been previously mined out.

The hazard of proceeding into old unmapped workings is too great in this case to warrant or justify the project proposal recommended. (Attention is called to Projection A-A' of maps.)

Recommendation and Comments:

The Nonmetallic Minerals Division recommends that this application for an exploration project be denied.

The project involves too much rehabilitation through old unmapped workings. The entire situation is unpredictable as there is no way of knowing how much work has already been done from the old 165-foot shaft in the area of the proposed drift at 170-foot level.

A letter of denial is submitted herewith for the Administrator's signature.

SIGNED

Jasper T. Robertson
Nonmetallic Minerals Division

JTRobertson:gad 8/14/53

Copy to: Admr. R. File
Docket File
Mr. Houk ✓

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

IN REPLY REFER TO:
G-MD-CNM

Defense Minerals Administration
RECEIVED
AUG 7 1953

August 7, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-3083 (mica)

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. M. Larrabee, U. S. Geological Survey
Applicant: Buchanan Minerals, Inc., Sylva, North Carolina.
Name of property: Buchanan Mine (Big East Fork).
Location of property: 6.5 airline miles S 9° W. of Sylva in Jackson County, North Carolina.
Date of field team report: July 21, 1953.
Authorship of field team report: K. H. Teague and L. E. Shirley.
Field team's recommendation:

"Applicant's proposal is unsound." Proceed as follows:

1) Rehabilitate and deepen Dick Fortner shaft to 170'.
2) Drive 80' drift NW on the pegmatite.
3) Timbering, ladderway, and hoistway in shaft.

Total cost $10,025.00

Comments:

Depth of shaft is uncertain; therefore, total cost may be more than figure given above. Also, rehabilitating a shaft of that depth usually raises new problems, day by day.

The target does not seem to justify the expected expense.

ACTION SUGGESTED: Denial.

D. M. Larrabee

Larrabee:jeh
8/7/53
cc: Director's reading 4212
Branch reading 4212
DMEA 3
Larrabee files

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 4 1953

August 4, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3083, Mica, Buchanan Mine, Jackson County
North Carolina

I concur in the field team's recommendation for an exploration program in the amount of $10,025.

W. F. Dietrich

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

COPY

ROOM 13, POST OFFICE BLDG.
KNOXVILLE, 2, TENN.
July 22, 1953

Memorandum

To: Chairman Operating Committee, D M E A - Washington

From: Field Team, D M E A - Region VII

Subject: Field Examination Reports.

Transmitted herewith are four copies each and six extra map copies each of the following reports:

DMEA-3046, Fletcher Smith Prospects (mica) Alabama

DMEA-3083, Buchanana Mine (mica) North Carolina

The Field Team concurs in the recommendations set forth in the above reports.

/s/ ROBERT A. LAURENCE
Executive Officer, DMEA
Field Team, Region VII

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

Reviewed by
DMEA OPERATING COMMITTEE
7-29-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM, REGION VII

ON

DMEA-3088, Buchanan Mine (mica)
(Big East Fork Mine)
Jackson County, North Carolina

By

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

Lawrence E. Shirley, Mining Engineer
U. S. Bureau of Mines

July 21, 1953

Reviewed by
DMEA OPERATING COMMITTEE

7-29-53
(date)

Field Examination Report
on
BUCHANAN(Big East Fork) Mine-Mica

IMMA-Docket No. 3083
Applicant: Buchanan Minerals, Inc. Sylva, North Carolina

This is an old mine containing extensive flooded openings. In the past it has been a large producer of mica in that portion of the deposit west of the small stream, and available evidence indicates that there is a possibility of producing mica west of and below the existing openings. The examiners, therefore, recommend that exploration assistance be granted.

Mica from this deposit has been classified as suitable for stock piling by the Spruce Pine Mica Depot.

The mine was examined on July 14, 1953. Messrs Carl Buchanan and John Phillips accompanied the examiners on the inspection which required three hours.

The Big East Fork mica mine is in Jackson County, N. C., 6.5 airline miles S. 9° W. of the town of Sylva. The workings lie on both sides of a north-flowing tributary to the East Fork of Savannah Creek. Access to the mine is good.

The applicant is at present operating mica mines and is competent and financially responsible to conduct the proposed exploration.

Area covered by applicant's lease is adequate for the proposed exploration. None of the boundaries of the lease are within 300 feet of the mine.

There are no surface facilities at the mine. The attached map shows the extent of the underground openings, as well as the known geology. The map indicates that the Dick Fortner shaft is 150 feet deep. Carl Buchanan, whose father owned and operated the mine, states that this shaft is only about 70 feet deep and the Gudger Fortner shaft is 165 feet deep. Also, Buchanan states work has been extended only 50 feet west of the Gudger Fortner shaft or between 5 and 10 feet west of the Dick Fortner shaft. Everyone is in agreement that most of the mica-bearing pegmatite has been removed southeast of the Dick Fortner shaft.

The quoted report on the Big East Fork mine was prepared in 1944 by the U. S. Geological Survey. Only that portion of the report deemed appropriate is quoted:

"The mine is owned by the Marcellus Buchanan estate. The deposit is reported to have been discovered about 1900 by Bud Cowan of Macon County. Sam Higdon, also of Macon County, was the second operator, but most of the mining was done during the period of the last war by Marcellus Buchanan, who employed as many as 20 men at one time. About 1939, Mr. Ralph Cameron (Sylva Syndicate) worked the mine for a year and a half. The present operation was begun April 1, 1944; it has involved a crew averaging three men.

"The workings on the west side of the creek include three shafts and large stopes, all of which are now inaccessible. The Dick Fortner shaft, filled with water, is reported to be 150 feet deep. The Badger Fortner shaft, also filled with water is of unknown depth, as is a caved shaft near the east end of a small caved open cut. A fourth shaft, caved and covered by dump material, is reported to have been sunk by Cameron a few feet east of the creek. The entire block of ground between the later shaft and the Dick Fortner shaft probably has been stoped.

"The country rock is a fine-grained, garnetiferous, quartz-biotite gneiss with a uniform texture. The foliation strikes a few degrees east of north and dips steeply northwest. Near the contacts with the pegmatite the rock is somewhat coarser and contains larger and more abundant garnets, as well as masses of a fine-grained, dark green, micaceous mineral, probably one of the chlorite group. Locally the rock has been injected by pegmatitic material. The pegmatite also has engulfed and partly reworked blocks of the gneiss to produce a hybrid consisting of gray feldspar and small orbicules of fine-grained biotite and garnet. Crystals of a dark green bladed mineral, probably a pyroxene, occur sparingly in the injected gneiss.

The pegmatite body strikes N. 50° W. and in general dips steeply southwest. However, the contacts observed in Levels X and Y are vertical. The body is tabular and cuts across the foliation of the gneiss. Its thickness ranges from three to eight feet, and it has been mined over a horizontal distance of about 500 feet and a vertical distance of more than 300 feet. Pegmatite is exposed just below the collar of the Dick Fortner shaft, but no exposures are known west of the shaft. It seems probable, therefore, that the dike plunges steeply to the west.

"The main dike contains a 2 1/2-foot quartz core flanked by zones of pegmatite that are rich in grayish green to white feldspar and contain scattered books of muscovite. Both microcline and plagioclase are present, but the former appears to be the more abundant. Much of the feldspar has been sericitized. Small reddish-brown garnets occur near the contacts with the gneiss. Curved fractures in the massive quartz contain thin films of biotite, and rosettes of pyrrhotite lie along cleavage cracks in the feldspar.

"It is reported that the "main Vein" was encountered at a depth of 78 feet in the Dick Fortner shaft. Since pegmatite is exposed just below the collar of this shaft, this report may best be interpreted to mean that the main mica shoot was intersected at 78 feet. Very little mica is reported to have been obtained from near the bottom of the Dick Fortner shaft. From these and other reports, it seems likely that the mica shoot plunges to the west at an angle of about 45°.

"Books of mica are scattered through the zones of feldspar rich pegmatite. Concentrations occur both near the quartz core and along the pegmatite-gneiss contacts, but no well-defined mica zone occurs along either. The mica is greenish rum in color. The largest block obtained during the present operation measured 11 by 9 inches, but most of the books are less than six inches in diameter. Warping is the principal defect; "A" structure is moderate; reeves, crumpling, quartz inclusions, and black mineral spots are minor.

"Operations at the mine ceased early in October 1944, owing to the diminishing quantities of mica that were being obtained from the pegmatite body. Between June 6 (the day the mine was mapped) and October 1, the heading of Level Y was advanced 10 feet and the heading of Level X was advanced 30 feet. The ground between Level Y and the heading of Level X was stoped away."

Mining supplies, equipment, and labor are available locally.

The proposed exploration, as set forth in the application, is unsound. The fastest and least expensive method to employ is to rehabilitate the Dick Fortner shaft and deepen it to approximately 170 feet. Then a drift (80 feet in length) should be driven to the northwest on the pegmatite, cutting the rake of the mica shoot (map indicates that it rakes about 45° in a N. 50° W. direction). The shaft is 5' x 9' at the collar, thus should be of adequate size to permit timbering where necessary, installations of ladderway, and provide adequate hoistway.

As the reported depth of the shaft is in conflict, it will be necessary to prepare the contract in such a manner as to allow for this possible variation. Certainly the shaft is at least 70 feet deep and may be as much as 150 feet.

Estimated Cost of recommended work:

Construction and installation of flume in branch, 3' x 5' x 40'	$ 200.00
10' x 12' tool house.....	200.00
Dewater, clean out, timber or trim where necessary, and install enclosed ladderway in 70-ft. shaft @ $25.00/ft.	$1,750.00*

continued --

* If shaft deeper than 70 feet, the $25.00/ft. unit cost applies for total depth.

100 feet, 5' x7', 2-compartment shaft @ $50.00/ft.	$5,000.00
80 feet of drift @ $35.00/ft.	2,800.00
Exploder magazine	25.00
Powder magazine	50.00
Estimated total cost	$10,025.00
Estimated time required 140 shifts.	

July 21, 1953

Kefton H. Teague, USGS.

L. A. Shirley, USBM.

zm

JUL 1 1953

Mr. Marcellus Buchanan, Secretary
Buchanan Minerals, Inc.
Sylva, North Carolina

Re: Docket No. [illegible]3063 - Mica
Buchanan Mine (Old East Fork Mine)
Jackson County, North Carolina

Dear Mr. Buchanan:

Your application for assistance in exploring the subject property has been reviewed by the Nonmetallic Minerals Division of the Defense Minerals Exploration Administration and has been referred to Mr. Robert A. Lawrence, Executive Officer, DMEA Field Team, Region VII, Room 13, Post Office Bldg., Knoxville 2, Tennessee, for a field examination, should he deem it necessary.

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

Sincerely yours,

C. O. Mittendorf

Administrator

FTRobertson:dec 6/26/53
Copy to: Admr. R. File
Docket File
Operating Committee
Field Team, Reg VII
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Hook

66C

JUL 1 1953 60C

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region VII
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Subject: Docket No. DMEA-3083 - Mica
Buchanan Minerals, Inc.
Buchanan Mine (Old East Fork Mine)
Jackson County, North Carolina

Dear Mr. Laurence:

A field team review is requested of this exploration assistance application, and if necessary a field examination should be made of the mine.

The sketches submitted by the applicant show a combination of a tunnel and an incline as a means of reaching the pegmatite zone. This plan appears somewhat unsound and a better and cheaper means should be investigated.

Enclosed please find memoranda on this docket by the Bureau of Mines and the Geological Survey.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

J. H. Hedges

Member, Bureau of Mines

A. R. Kinkel, Jr.

Member, Geological Survey

Enclosures 4

JTRobertson:gad 6/26/53
Copy to: Admr. R. File
Docket File
Operating Committee
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

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

DEPARTMENT OF THE INTERIOR
Bureau of Mines
JUN 29 1953

June 29, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3083, Mica, Buchanan Minerals Company
(Buchanan or Old East Fork Mine) North Carolina

Based upon the past production records, a field team examination of subject property is recommended.

W. F. Dietrich

IN REPLY REFER TO:

C-MD-CNM

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

June 18, 1953

Memorandum

REVIEW OF APPLICATION DMEA - 3083 (mica)

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

From: D. M. Larrabee, U. S. Geological Survey

Applicant's name and address: Buchanan Minerals, Inc., Sylva, North Carolina.

Name of property: Old East Fork or Buchanan mine.

Location of property: 7 miles S. of Sylva.

Summary of applican'ts proposal: Bulldoze an open cut
150' adit
107' winze at 45°
50' drift

Sources of information on applicant's property:
Index map in North Carolina Department of Conservation and Development, Bull. 49, 1946, by Olson and others.

Comments: 1. This might be the Ramsey Buchanan, or the Big East Fork, or some other dog hole. We need a better description.

2. After getting all available information, the applicant's proposal should be carefully evaluated by the Field Team, for it is considerably more costly than average, for the area.

Recommendation: Refer to Field Team.

D. M. Larrabee

MF-103
Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA-3083
Metal or Mineral
Date Received 6/16/53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Buchanan Minerals, Inc., Sylva, N. C.

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract The lease is attached as exhibit A

(*b*) State any mine name by which the property is known. Old East Fork or Buchanan Mine

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

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

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

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

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

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

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

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

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

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

.....

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated ....., 195...

BUCHANAN MINERALS INCORPORATED

(Applicant)

By G H Buchanan President

Attest: Marjorie Bu C Secretary

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

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

MF 103

1. (a) Buchanan Minerals, Inc., Sylva, N. C.

(b) Corporation incorporated in State of N. C.

(c) H. E. Buchanan, President of Hendersonville, N. C., Francis A. Buchanan, Vice-Presidnet of Sylva, N. C., and Marcellus Buchanan, Sec. & Treas. of Sylva, N. C.

2. No Answer

3. (a) This is lease property (Lease is attached)

(b) Old East Fork or Buchanan Mine. First work done around 1905 and the last work done in 1939.

(c) Lessee

(d) Lease is attached as Exhibit A.

(e) Not owner

(f) Land is held by Landlord. No land patents involved.

4. (a) Physical works set forth on map attached as Exhibit B.

(b) This mine was opened around the year of 1905 and was worked periodical, until the year of 1939, at which time operation ceased. The amount of mica produced during the years 1910 to 1918 was 20 to 25 thousand pounds of block mica per month, according to the information furnished the applicant by the old miners of Franklin-Sylva District. During the last years of operation this mine was supposed to have produced 15 to 20 thousand pounds of block mica per month. The quality of the mica from this mine is of an excellent grade of ruby mica, which is suitable for the government stockpile. The mica from this mine will trim out 2 x 2 and larger.

The mica has been examined by the buyer at the Spruce Pine Depot, who has appraised it as being of stockpile grade (copy of letter attached.)

(c) The past work has consisted of three shafts: One being approximately 30 ft. deep an other one being around 60 ft. deep and the other one being 162 ft. deep. Mica was first contacted at 20 ft. level of shaft and these 3 shafts are spread out over a distance of 250 ft. The applicant has reason to believe that the vein of mica is at least 1000 ft. long. We have no geographical reports on this mine, however, samples from this mine can be found and inspected at the State Museum in Raleigh.

(d) The proposed ~~in~~ property is readily accessible that a good road leads within a few yards of mine. This mine is located about seven (7) airline miles south of Sylva, N. C.

(e) There is ample experience manpower available. Electricity is within 200 yards of the mine. No difficulty is contemplated in obtaining equipment and supplies.

5. (a) It is anticipated that the pegmatite contains additional quantities of ruby mica of stockpile grade.

(b) It is proposed to bulldoze off a cut to the mouth of the proposed tunnel Then it is proposed to drive a tunnel 150 ft. long on a 1% grade, in order that the tunnel will drain itself. Then it is proposed to sink an incline shaft on 45 degree angle for a distance of 107 ft. at this point we should contact the vein at approximately 15 ft. below the last working at a depth of 175 ft. Then it is proposed to drive a drift 50 ft. in the pegmatite dike to determine the mineralization of the mica bearing vein.

(c) The work will be started as soon as the contract is approved by the government and the work should be concluded within 9 months.

(d) Copies of the life history of the offiers of this corporation are attacjed

6. Estimate of Costs:

(a) Independent Contracts-None.

(b through h) We would perfer to explore this desposit on a unit cost basis. After we get the tunnel an incline shaft completed we plan to drift in both directions along the vein to determine the mica contents of the vein. It is estimated that the cost involved is as follows:

(1)	Bulldoze cut 60 ft. long 30 ft. wide, 25 ft. deep 40 hrs. @14.00 per hr.	$ 560.00
	Drive a 5 x 7 tunnel 150 ft. @ $35.00 per hr.	5250.00
	Sink an incline shaft 107 ft. @ $45.00	4815.00
	Drift 50 ft. @$35/00 ft.	1750.00
	Total	$12,375.00

7. (a) Applicant will pay in money the 10% required by regulation.

NORTH CAROLINA)

JACKSON COUNTY)

Mining Lease

This contract, made and entered into this 5th day of June, 1953 by and between LAURA BELLE BUCHANAN of Jackson County, North Carolina, party of the first part, and BUCHANAN MINERALS INCORPORATED, a corporation organized and existing under the laws of the State of North Carolina, and with its principle office in Sylva, Jackson County, North Carolina, party of the second part,

Witnesseth:

That subject to the terms and conditions hereinafter set forth, the party of the first part has let and leased unto said party of the second part the exclusive right and privilege to mine, dig, mill, process, and remove all minerals, ores, clays, earths, and stones now in, under, or upon a certain tract of land lying and being in Jackson County, North Carolina, and more particularly described as follows:

> A certain tract or parcel of land in Jackson County, State of North Carolina, adjoining the lands of James Cowan, M. Buchanan's Turpin tract and others and bounded as follows, viz: Beginning on a forked chestnut tree on the S. E. side of creed and runs East 66 poles to a stake on top of middle ridge; thense up said ridge as it meanders in a South course 108 poles to a Chestnut Oak on top of said ridge, said line keeping the highest ground on top of ridge; thence West 60 poles to a stake; thence South 50 poles to a stake in a hollow; thence West 10½ poles to a stake on a ridge; thence N. 36 W. 17 poles to a stake on East side of brance; thence N. 43 W. 26 poles and le links to a white Oak in the M. Buchanan line and Turpin corner; thence N. 43 poles to a stake old Chestnut corner; thence N. 27 E. 91 poles and 15 links to the Beginning, being and comprehending all of the mineral rights and privileges reserved to the Grantors in a certain deed of conveyance from Marcellus Buchanan and wife, Belle Buchanan, to W. T. Deitz which said deed of conveyance is duly recorded in the office of the Register of Deeds of Jackson County, State of North Carolina in book 100 at page 69 etc., to which said record reference is hereby made for a more complete description of the rights and privileges here in lease.

The terms and conditions of this lease are as follows:

This least shall run and continue for a period of ten years from the date hereof, that is until the 5th day of June, 1963.

As rental, the party of the second part shall pay to the party of the first part a royalty of twelve and one half percent (12½%) of gross receipts from the sale of any and all minerals, ores, clays, earths, and stones removed from said mine, the said

royalty payments to be made to the party of the first part within ten days after each sale.

Party of the second part shall keep a correct and itemized record of all operations and transactions under this lease and such records may be at any time inspected by party of the first part or his agents.

Party of the second part shall have the right to use the surface of said land to the full extent necessary or convenient in mining, digging, milling, processing, or removing said minerals, ores, clays, earths, and stones.

Party of second part shall have the right to construct upon said lands buildings and machinery and to remove the same.

Party of the second part shall have the right to cut and use upon said land, for mining purposes, any timber standing thereon, and the right to dam, divert, and use the water in any stream in said land.

Party of the second part shall have the right to construct and maintain roads in such locations as the party of the second part may deem necessary and convenient.

It is expressly understood and agreed between the parties that the lessee, BUCHANAN MINERALS INCORPORATED, shall have the right and privilege to take, for tax purposes, the depletion on said mine and mineral interests as fully and completely as the Grantors could do if the said Grantors operate said mine and utilize said minerals interests.

In testimony whereof said party of the first part has set her hand and seal and said party of the second part has caused this instrument to be signed in its corporate name by its President and attested by its Secretary, and sealed with its corporate seal, all on the day and year above written.

(signed) Laura Belle Buchanan (SEAL)

BUCHANAN MINERALS INCORPORATED

ATTEST:

By H. E. Buchanan (signed)
President

(signed) Marcellus Buchanan Secretary

NORTH CAROLINA)

JACKSON COUNTY)

I, Belle Kirk Jones, Notary Public of said County and State do hereby certify that Laura Belle Buchanan personally appeared before me this day and acknowledged the due execution by her of the foregoing mining lease for the purposes therein stated.

Witness my hand and notarial seal this 5th day of June, 1953.

My Comm. Expires:

Aug. 29, 1953

Belle Kirk Jones (signed)
Notary Public

NORTH CAROLINA)

JACKSON COUNTY)

This 5th day of June, 1953, personally called before me Belle Kirk Jones, Notary Public of said county and state, Marcellus Buchanan, who being by me duly sworn, says that he knows the common seal of BUCHANAN MINERALS INCORPORATED and is aquainted with H. E. Buchanan who is president of said corporation, and that he, Marcellus Buchanan, is the Secretary of said corporation and saw the said president sign the foregoing instrument and that he, Marcellus Buchanan, secretary, as afore said, afixed said seal to said instrument, and that he, the said Marcellus Buchanan, signed his name in attestation of the execution of said instrument in the presence of said corporation.

Witness my hand and notarial seal this the _____ day of June, 1953.

My Comm. Expires:

Aug. 29, 1953

(signed) Belle Kirk Jones
Notary Public

NORTH CAROLINA)

JACKSON COUNTY)

I, Margaret W. Henson, Clerk of the Superior Court of Jackson County, do hereby certify that the foregoing certificates of Belle Kirk Jones, Notary Public of said county and state, dully authenticated by her notarial seal thereto afixed are by me this day adjudged to be correct, in due form, and according to law. Therefore let said instrument with said certificates and this certificate be registered.

Witness my hand this 8th day of June, 1953.

(signed) Margaret W. Henson
Clerk of Superior Court

STATE OF NORTH CAROLINA
JACKSON COUNTY

Office of Register of Deeds filed

for registration on the 8 day of

June 19 53, at 10 O'clock A. M.

and duly registered in said office, this

_____ day of _____ 19___

in Book 198 Page _____

(signed) Glenn Hughes
Register of Deeds

Recorded and Verified

CERTIFICATE OF INCORPORATION

OF

BUCHANAN MINERALS INCORPORATED

THIS IS TO CERTIFY, that we, the undersigned, do hereby associate ourselves into a Corporation under and by virtue of the Laws of the State of North Carolina, as contained in Chapter 55 of the General Statutes of North Carolina, entitled "Corporations", and do severally agree to take the number of shares of capital stock in the said corporation set opposite our respective names, and to that end to hereby set forth:

I.

The name of this Corporation is BUCHANAN MINERALS INCORPORATED.

II.

The location of the principal office of the Corporation in this State is at Sylva, Jackson County, State of North Carolina, but it may have one or more branch offices and places of business out of the State of North Carolina as well as in said State.

III.

The objects for which this corporation is formed are as follows:

1. To engage in any and all kinds of mining operations for the removal of any and all kinds of minerals, ores, clays, earths, stones, and other substances from the ground:

2. To process, fabricate, refine, mill, or otherwise change or alter the character, shape, size or quality of any and all kinds of minerals, ores, clays, earths, and other substances mined by or in any way or manner acquired by the Corporation;

3. To deal in, purchase, in any manner acquire, process, fabricate, refine, mill, or otherwise change or alter the character, shape, size or quality of any and all kinds of minerals, ores, clays, earths, stones or substances removed from the ground, and to sell, trade, barter, or in any manner dispose of any kind and all kinds of minerals, ores, clays, earths, stones or substances removed from the ground and acquired by the Corporation;

4. To purchase, lease, or otherwise acquire, hold mortgage, convey, and otherwise dispose of all kinds of property, both real and personal, both in this state and in all other States, Territories and dependencies of the United States;

5. To purchase or otherwise acquire the business, good will, and all other property of any individual, firm, or corporation as a going concern, and to assume all of its debts, contracts, and obligations, provided said business is authorized by the powers contained herein;

6. To construct, equip, maintain and repair buildings, works, factories, and plants, and to install, maintain and operate all kinds of machinery and appliances and to operate the same by hand, steam, water, electric or other motive power, and to generally perform all acts which may be deemed necessary or expedient for the proper and successful prosecution of the objects and purposes for which the Corporation is created.

IV.

The total authorized capital stock of this Corporation is One Hundred Thousand Dollars ($100,000.00), divided into one thousand (1000) shares of the par value of One Hundred Dollars ($100.00) each.

V.

The names and post office addresses of the subscribers for stock, and the number of shares subscribed for by each, the aggregate of which being the amount of capital stock with which the corporation will commence business, are as follows:

NAME	POST OFFICE ADDRESS	NO. SHARES
H. E. BUCHANAN	Hendersonville, N. C.	1
MARCELLUS BUCHANAN	Sylva, N. C.	1
FRANCIS A. BUCHANAN	Sylva, N. C.	1

VI.

The period of existence of this Corporation is unlimited.

VII.

The Board of Directors of this Corporation shall have power by vote of a majority of all the Directors, and without the assent or vote of the Stockholders, to make, alter, amend and rescind the by-laws of this Corporation.

In Testimony Whereof, We have hereunto set our hands and affixed our seals this 25th day of May, A. D., 1953.

(signed) H. E. Buchanan (SEAL)

(signed) Marcellus Buchanan (SEAL)

(signed) Francis A. Buchanan (SEAL)

Witness to signature of H. E. Buchanan:

Witness to signature of Marcellus Buchanan:

(signed) Mrs. John R. Jones

Witness to signature of Francis A. Buchanan:

(signed) Barbara Cox

NORTH CAROLINA)
WAKE COUNTY)

Certificate

This is to certify that on the 28th day of May, A. D., 1953, before undersigned Claire Eastman Nichels a Notary Public of Wake County, State of North Carolina, personally appeared H. E. BUCHANAN, who, I am satisfied is a person named in and who executed the foregoing Certificate of Incorporation of BUCHANAN MINERALS INCORPORATED, and I having first made known to him the contents thereof, he did acknowledge that he signed, sealed and delivered the same as his own voluntary act and deed, for the uses and purposes therein expressed.

In testimony whereof, I have hereunto set my hand and afixed my notarial seal this 28th day of May, A. D., 1953.

My Commission Expires:

1-8-55

(signed) Claire Eastman Nichels
Notary Public

NORTH CAROLINA)

JACKSON COUNTY)

This is to certify that on the 25th day of May, A. D., 1953, before undersigned Belle Kirk Jones, A Notary Public of Jackson County, State of North Carolina, personally appeared MARCELLUS BUCHANAN, who, I am satisfied is a person named in and who executed the foregoing Certificate of Incorporation of BUCHANAN MINERALS INCORPORATED, and I having first made known to him the contents thereof, he did acknowledge that he signed, sealed, and delivered the same as his own voluntary act and deed, for the uses and purposes therein expressed.

In testimony whereof, I have hereunto set my hand and affixed my notarial seal this 25th day of May, A. D., 1953.

My Commission Expires:

Aug. 29, 1953

(Signed) Belle Kirk Jones
Notary Public

NORTH CAROLINA)

ORANGE COUNTY)

This is to certify that on the 27 day of May, A. D., 1953, before undersigned Paul H. Robertson, , a Notary Public of Orange, State of North Carolina, personally appeared FRANCIS A. BUCHANAN, who, I am satisfied is a person named in and who executed the foregoing certificate of Incorporation of BUCHANAN MINERALS INCORPORATED, and I having first made known to him the contents thereof, he did acknowledge that he signed, sealed, and delivered the same as his own voluntary act and deed, for the uses and purposes therein expressed.

In Testimony Whereof, I have hereunto set my hand and affixed my notarial seal this 27 day of May, A. D., 1953.

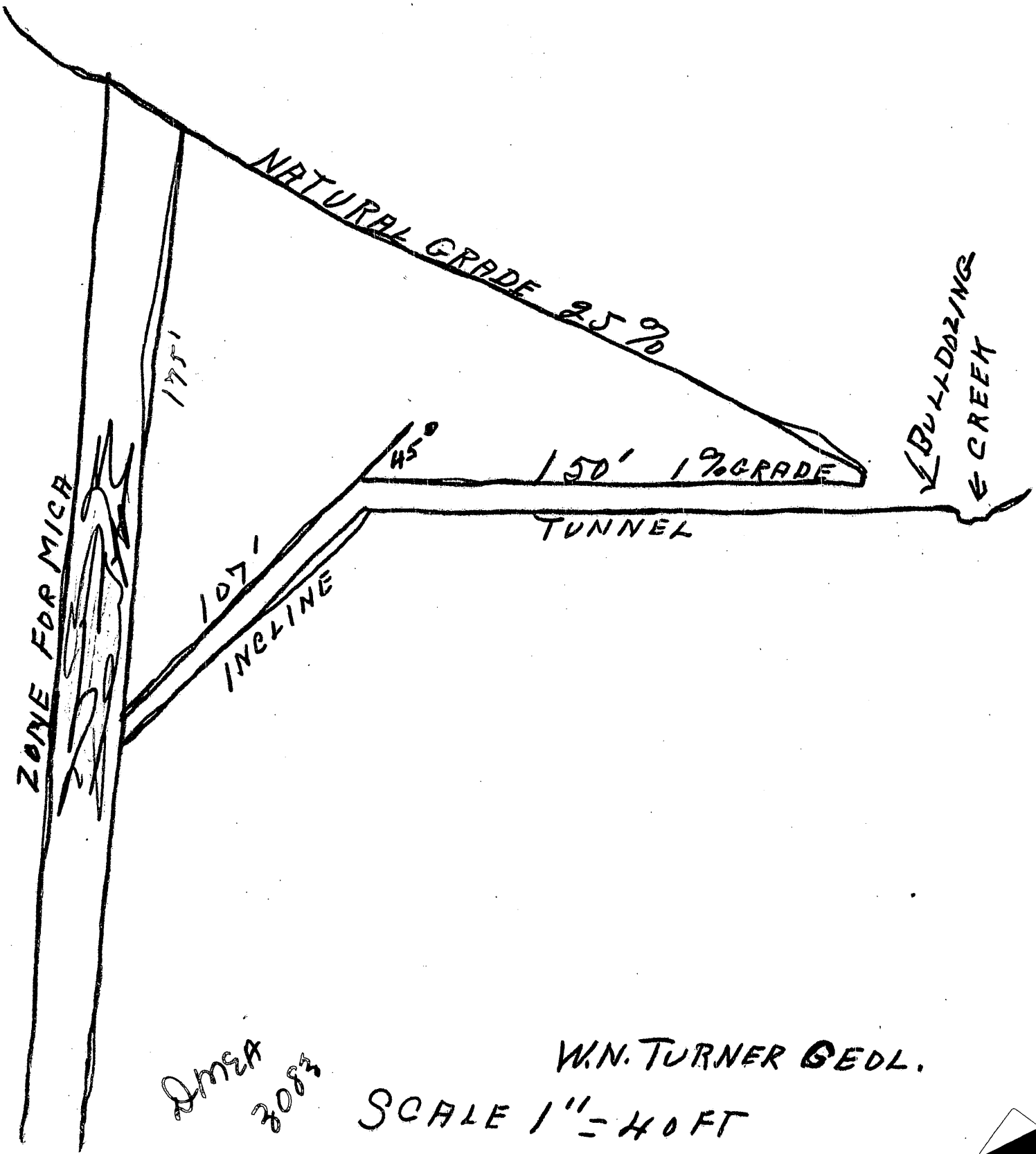
My Commission Expires:

9-13-54

(Sgd.) Paul T. P. Robertson
Notary Public

BUCHANAN MINERALS INC

MICA DEPOSITE & PROPOSED EXPLORATION TUNNEL



W.N. TURNER GEOL.

SCALE 1" = 40 FT

DMEA 3083

H. E. Buchanan

Mr. Buchanan was borned in Sylva, N. C., 54 years ago. He finished high school at Sylva and attended the University of North Carolina. He is the son of Marcellus Buchanan, Sr. of Sylva, N. C., who was the most prominwnt mica miners and fabricators in the Franklin-Sylva Mining District for a period of 50 years. Mr. Marcellus Buchanan, Sr. had approximately 15,000 acres of mineral interest in the Franklin-Sylva Mining District of N. C. this was passed on to the heirs of his estate and Mr. H. E. Buchanan is the executor of that estate and has followed in his Father's business of mining mica periodically until today. He is presently operating the Jasper Mica Mine located in Jackson County, which ajoins this property.

Mr. H. E. Buchanan has a reputation for honesty , inter ity and good will of as many people in Western N. C. as any other one individual in this section. As an example of his public service over the past 30 years, he is at present the president of the Cherokee Historical Association, which puts on the Indian Pagant at the Cherokee Indian Reservation , known as "Unto These Hills", he also has been appointed by the Governor of N. C. to the Highway Commissionxx of the 14th. district of N. C. The above two positions are served by Mr. Buchanan without compensation.

The following is a list of references: Mr. W. A. Umsted, Governor of N. C., Raleigh, N. C., Senator Clyde R. Hoey, Washington, D. C., and Senator Willis Smith, Washington, D. C.

Francis A. Buchanan

Mr. Buchanan was borned in Sylva, N. C., at which place he finished high school. Then he attended the University of North Carolina. Mr. Buchanan has a fine reputation in his community for honesty and trustworthyness. He has been brought up in the mica district where he has spent a greater part of his life.

The following are the references:

Judge Dan K. Moore
Sylva, N. C.

Mr. Jennings A. Bryson
Chairman of County Board of Commissioners
of Jackson County
Sylva, N. C.

Mr. W. A. Fisher
Vice-President of Jackson County Bank
Sylva, N. C.

Marcellus Buchanan

Mr. Marcellus Buchanan was borned in Sylva, N. C. 28 years ago. He finished high school at Sylva and then graduated from the University of North Carolina School of Law.

He was associated with the Buchanan Mining Company, which operated the Jasper, Greenhorn, Buchanan and Jesse Mines all located in Jackson County.

He has a good reputat on in his community.

The following are references:

Mr. Glen Hughes
Register of Deeds, Jackson County
Sylva, N. C.

Mr. J. H. Morris
Sylva, N. C.

Mr. Tom A. Clayton
County Accountant, Jackson County
Sylva, N. C.

FILE COPY
SURNAME:

MSB - Denied

Robertson
Doug
Irving
DABrooks
Hedges
Sylvester
FEDenton

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

OCT 29 1953

Mr. Marcellus Buchanan, Secretary
Buchanan Minerals, Inc.
Sylva, North Carolina

Re: Docket No. DMEA-3083 - Mine
Buchanan Mine (Old East Fork Mine)
Jackson County, North Carolina

Dear Mr. Buchanan:

Reference is made to your letter of September 29, 1953, requesting re-examination of our denial of the subject application for an exploration project at the Buchanan Mine (Old East Fork Mine) in Jackson County, North Carolina.

We have re-examined your application and reviewed the other information available to this office and find the proposed project offers insufficient promise to justify Government participation.

Under the circumstances, we regret to advise that we reaffirm our denial of application as contained in our letter to you of August 13, 1953.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

JTRobertson:gad 10/27/53
Copy to: Admr. R. File
Docket File
Operating Committee
Field Team, Region VII
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

R.C.G.
10-29-53

POST OFFICE BUILDING

TELEPHONE 271

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
OCT 12 1953

Marcellus Buchanan III
Attorney At Law
Sylva, North Carolina

29 September 1953

Defense Minerals Exploration Admin.,
U. S. Department of the Interior,
Washington, 25, D. C.

Re: Docket No. DMEA-3083 -
Mica - Buchanan Mine,
Jackson County, N. C.

Gentlemen:

Reference is made to your letter of August 18, 1953, and to my letter of recent date regarding loan application on "Buchanan Old East Fork Mica Mine" located in Jackson County, North Carolina.

We regret that it was necessary for your Department to reject our loan application. We have always felt that this location is one of the most promising in Western North Carolina, and we are of course anxious to reopen the workings. It is impossible for us to do so without some financial assistance.

It is, therefore, respectfully requested that this loan application be reviewed and re-examined in order that we may be able to supply you with additional factual information regarding the past operation of the mine, and the possibilities of present development.

Any information that we could submit that would assist you in appraising the mine's possibilities, we will be happy to supply upon request from you.

Very truly yours,

BUCHANAN MINERALS INCORPORATED

BY Marcellus Buchanan
Secretary

FILE COPY
SURNAME:

Robertson
Houk
Martin
Larrabee
Sanders
Selfridge

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

AUG 18 1953

Mr. Marcellus Buchanan, Secretary
Buchanan Minerals, Inc.
Sylva, North Carolina

Re: Docket No. DMEA-3083 - Mica
Buchanan Mine (Old East Fork Mine)
Jackson County, North Carolina

Dear Mr. Buchanan:

Your application for aid for an exploration project and other data available to us in Washington concerning the subject mine have been reviewed.

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

Careful study of all our information indicates to us that your proposed program is not sufficiently promising to justify the Government's participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

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

Sincerely yours,

C. O. Mittendorf (for)

Administrator

JTRobertson:gad 8/13/53
Copy to: Admr. R. File
Docket File
Operating Committee
Field Team, Region VII
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

8-18-53

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

August 14, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Denial and closing review - Docket No. DMEA-3083 - Mica
Property: Buchanan Mine (Old East Fork Mine)
Jackson County, North Carolina
Applicant: Buchanan Minerals, Inc.
H. E. Buchanan, Pres.
Marcellus Buchanan, Secretary
Sylva, North Carolina
Amount requested - $12,375.00
Amount approved - none. A denial.

Summary of Docket:

6/16/53	Received application MF-103, copy of Lease Agreement, Articles of Incorporation, and Owner's Consent to Lien.
6/17/53	Application acknowledged.
6/22/53	Geological Survey suggested field referral.
6/29/53	Bureau of Mines suggested field referral.
7/1/53	Received Examination Report from Region VII. Report written by K. H. Teague and L. E. Shirley. A project in amount of $10,025.00 is recommended.
8/4/53	W. F. Dietrich, USBM, concurs with recommendation made by Field Team.
8/7/53	D. M. Larrabee, USGS, recommended a denial of exploration proposal.

Resume:

This mine is an old mica producer worked intermittently since 1905. A pegmatite, the outcrop of which is about 200 feet long, has been worked in the past through 4 different shafts, the deepest 165 feet.

The shafts and connecting stopes, drifts, and other workings are now filled with water, caved and inaccessible. Furthermore, the maps and vertical projections fail to show the conditions underground. The state of the mine below the shaft collars is, therefore, unrecorded and unknown except for incomplete information provided by local residents.

The field examination report recommended the sinking of the most westerly shaft, the Dick Fortner Shaft. The recommendation called for rehabilitating 70 feet of this shaft, sinking 100 feet additional and drifting from the bottom to the northwest a distance of 80 feet. The work is estimated to cost $10,025.00. This project is recommended in the report without any definite knowledge that the area above the drift from the 165 foot depth may not have been previously mined out.

The hazard of proceeding into old unmapped workings is too great in this case to warrant or justify the project proposal recommended. (Attention is called to Projection A-A' of maps.)

Recommendation and Comments:

The Nonmetallic Minerals Division recommends that this application for an exploration project be denied.

The project involves too much rehabilitation through old unmapped workings. The entire situation is unpredictable as there is no way of knowing how much work has already been done from the old 165-foot shaft in the area of the proposed drift at 170-foot level.

A letter of denial is submitted herewith for the Administrator's signature.

Jasper T. Robertson

Jasper T. Robertson
Nonmetallic Minerals Division

FILE COPY
SURNAME:

Robertson
Hoch
Martin

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

August 14, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Denial and closing review - Docket No. DMEA-3083 - Mica
Property: Buchanan Mine (Old East Fork Mine)
Jackson County, North Carolina
Applicant: Buchanan Minerals, Inc.
H. E. Buchanan, Pres.
Marcellus Buchanan, Secretary
Sylva, North Carolina
Amount requested - $12,375.00
Amount approved - none. A denial.

Summary of Docket:

6/16/53	Received application MF-103, copy of Lease Agreement, Articles of Incorporation, and Owner's Consent to Lien.
6/17/53	Application acknowledged.
6/22/53	Geological Survey suggested field referral.
6/29/53	Bureau of Mines suggested field referral.
7/1/53	Received Examination Report from Region VII. Report written by K. H. Teague and L. E. Shirley. A project in amount of $10,025.00 is recommended.
8/4/53	W. F. Dietrich, USBM, concurs with recommendation made by Field Team.
8/7/53	D. M. Larrabee, USGS, recommended a denial of exploration proposal.

Resume:

This mine is an old mica producer worked intermittently since 1905. A pegmatite, the outcrop of which is about 200 feet long, has been worked in the past through 4 different shafts, the deepest 165 feet.

The shafts and connecting stopes, drifts, and other workings are now filled with water, caved and inaccessible. Furthermore, the maps and vertical projections fail to show the conditions underground. The state of the mine below the shaft collars is, therefore, unrecorded and unknown except for incomplete information provided by local residents.

The field examination report recommended the sinking of the most westerly shaft, the Dick Fortner Shaft. The recommendation called for rehabilitating 70 feet of this shaft, sinking 100 feet additional and drifting from the bottom to the northwest a distance of 60 feet. The work is estimated to cost $10,025.00. This project is recommended in the report without any definite knowledge that the area above the drift from the 165 foot depth may not have been previously mined out.

The hazard of proceeding into old unmapped workings is too great in this case to warrant or justify the project proposal recommended. (Attention is called to Projection A-A' of maps.)

Recommendation and Comments:

The Nonmetallic Minerals Division recommends that this application for an exploration project be denied.

The project involves too much rehabilitation through old unmapped workings. The entire situation is unpredictable as there is no way of knowing how much work has already been done from the old 165-foot shaft in the area of the proposed drift at 170-foot level.

A letter of denial is submitted herewith for the Administrator's signature.

SIGNED

Jasper T. Robertson
Nonmetallic Minerals Division

JTRobertson:gad 8/14/53

Copy to: Admr. R. File
Docket File
Mr. Houk

HHR 8-18-53

IN REPLY REFER TO:

G-MD-CNM

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG - 7 1953

August 7, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-3083 (mica)

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. M. Larrabee, U. S. Geological Survey
Applicant: Buchanan Minerals, Inc., Sylva, North Carolina.
Name of property: Buchanan Mine (Big East Fork).
Location of property: 6.5 airline miles S 9° W. of Sylva in Jackson County, North Carolina.
Date of field team report: July 21, 1953.
Authorship of field team report: K. H. Teague and L. E. Shirley.
Field team's recommendation:
"Applicant's proposal is unsound." Proceed as follows:
1) Rehabilitate and deepen Dick Fortner shaft to 170'.
2) Drive 80' drift NW on the pegmatite.
3) Timbering, ladderway, and hoistway in shaft.
Total cost $10,025.00

Comments:
Depth of shaft is uncertain; therefore, total cost may be more than figure given above. Also, rehabilitating a shaft of that depth usually raises new problems, day by day.

The target does not seem to justify the expected expense.

ACTION SUGGESTED: Denial.

D. M. Larrabee

D. M. Larrabee

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

Defense Minerals Administration
RECEIVED
AUG 4 1953

August 4, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3083, Mica, Buchanan Mine, Jackson County
North Carolina

I concur in the field team's recommendation for an exploration program in the amount of $10,025.

W. F. Dietrich

W. F. Dietrich

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
~~XXWASHINGTONXXXXXXXXXX~~
ROOM 13, POST OFFICE BLDG.
KNOXVILLE, TENN.

C
O
P
Y

July 22,1953

Memorandum

To: Chairman Operating Committee, DMEA - Washington

From: Field Team, D M E A - Region VII

Subject: Field Examination Reports.

Transmitted herewith are four copies each and six extra map copies each of the following reports:

DMEA-3046, Fletcher Smith Prospects (mica) Alabama

DMEA-3083, Buchanan Mine (Mica) North Carolina

The Field Team concurs in the recommendations set forth in the above reports.

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

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

RECEIVED
8/17/53

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM, REGION VII

ON

DMEA-3083, Buchanan Mine (mica)
(Big East Fork Mine)
Jackson County, North Carolina

By

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

Lawrence E. Shirley, Mining Engineer
U. S. Bureau of Mines

July 21, 1953

Field Examination Report
on
BUCHANAN(Big East Fork) Mine-Mica

DMEA-Docket No. 3083
Applicant: Buchanan Minerals, Inc. Sylva, North Carolina

This is an old mine containing extensive flooded openings. In the past it has been a large producer of mica in that portion of the deposit west of the small stream, and available evidence indicates that there is a possibility of producing mica west of and below the existing openings. The examiners, therefore, recommend that exploration assistance be granted.

Mica from this deposit has been classified as suitable for stock piling by the Spruce Pine Mica Depot.

The mine was examined on July 14, 1953. Messrs Carl Buchanan and John Phillips accompanied the examiners on the inspection which required three hours.

The Big East Fork mica mine is in Jackson County, N. C., 6.5 airline miles S. 9° W. of the town of Sylva. The workings lie on both sides of a north-flowing tributary to the East Fork of Savannah Creek. Access to the mine is good.

The applicant is at present operating mica mines and is competent and financially responsible to conduct the proposed exploration.

Area covered by applicant's lease is adequate for the proposed exploration. None of the boundaries of the lease are within 300 feet of the mine.

There are no surface facilities at the mine. The attached map shows the extent of the underground openings, as well as the known geology. The map indicates that the Dick Fortner shaft is 150 feet deep. Carl Buchanan, whose father owned and operated the mine, states that this shaft is only about 70 feet deep and the Gudger Fortner shaft is 165 feet deep. Also, Buchanan states work has been extended only 50 feet west of the Gudger Fortner shaft or between 5 and 10 feet west of the Dick Fortner shaft. Everyone is in agreement that most of the mica-bearing pegmatite has been removed southeast of the Dick Fortner shaft.

The quoted report on the Big East Fork mine was prepared in 1944 by the U. S. Geological Survey. Only that portion of the report deemed appropriate is quoted:

"The mine is owned by the Marcellus Buchanan Estate. The deposit is reported to have been discovered about 1900 by Bud Cowan of Macon County. Sam Higdon, also of Macon County, was the second operator, but most of the mining was done during the period of the last war by Marcellus Buchanan, who employed as many as 20 men at one time. About 1939, Mr. Ralph Cameron (Sylva Syndicate) worked the mine for a year and a half. The present operation was begun April 1, 1944; it has involved a crew averaging three men.

"The workings on the west side of the creek include three shafts and large stopes, all of which are now inaccessible. The Dick Fortner shaft, filled with water, is reported to be 150 feet deep. The Gudger Fortner shaft, also filled with water is of unknown depth, as is a caved shaft near the east end of a small caved open cut. A fourth shaft, caved and covered by dump material, is reported to have been sunk by Cameron a few feet east of the creek. The entire block of ground between the later shaft and the Dick Fortner shaft probably has been stoped.

"The country rock is a fine-grained, garnetiferous, quartz-biotite gneiss with a uniform texture. The foliation strikes a few degrees east of north and dips steeply northwest. Near the contacts with the pegmatite the rock is somewhat coarser and contains larger and more abundant garnets, as well as masses of a fine-grained, dark green, micaceous mineral, probably one of the chlorite group. Locally the rock has been injected by pegmatitic material. The pegmatite also has engulfed and partly reworked blocks of the gneiss to produce a hybrid consisting of gray feldspar and small orbicules of fine-grained biotite and garnet. Crystals of a dark green bladed mineral, probably a pyroxene, occur sparingly in the injected gneiss.

The pegmatite body strikes N. 50° W. and in general dips steeply southwest. However, the contacts observed in Levels X and Y are vertical. The body is tabular and cuts across the foliation of the gneiss. Its thickness ranges from three to eight feet, and it has been mined over a horizontal distance of about 500 feet and a vertical distance of more than 300 feet. Pegmatite is exposed just below the collar of the Dick Fortner shaft, but no exposures are known west of the shaft. It seems probable, therefore, that the dike plunges steeply to the west.

"The main dike contains a 2 1/2-foot quartz core flanked by zones of pegmatite that are rich in grayish green to white feldspar and contain scattered books of muscovite. Both microcline and plagioclase are present, but the former appears to be the more abundant. Much of the feldspar has been sericitized. Small reddish-brown garnets occur near the contacts with the gneiss. Curved fractures in the massive quartz contain thin films of biotite, and rosettes of pyrrhotite lie along cleavage cracks in the feldspar.

"It is reported that the "main Vein" was encountered at a depth of 78 feet in the Dick Fortner shaft. Since pegmatite is exposed just below the collar of this shaft, this report may best be interpreted to mean that the main mica shoot was intersected at 78 feet. Very little mica is reported to have been obtained from near the bottom of the Dick Fortner shaft. From these and other reports, it seems likely that the mica shoot plunges to the west at an angle of about 45°.

"Books of mica are scattered through the zones of feldspar rich pegmatite. Concentrations occur both near the quartz core and along the pegmatite-gneiss contacts, but no well-defined mica zone occurs along either. The mica is greenish rum in color. The largest block obtained during the present operation measured 11 by 9 inches, but most of the books are less than six inches in diameter. Warping is the principal defect; "A" structure is moderate; reeves, crumpling, quartz inclusions, and black mineral spots are minor.

"Operations at the mine ceased early in October 1944, owing to the diminishing quantities of mica that were being obtained from the pegmatite body. Between June 6 (the day the mine was mapped) and October 1, the heading of Level Y was advanced 10 feet and the heading of Level X was advanced 30 feet. The ground between Level Y and the heading of Level X was stoped away."

Mining supplies, equipment, and labor are available locally.

The proposed exploration, as set forth in the application, is unsound. The fastest and least expensive method to employ is to rehabilitate the Dick Fortner shaft and deepen it to approximately 170 feet. Then a drift (80 feet in length) should be driven to the northwest on the pegmatite, cutting the rake of the mica shoot (map indicates that it rakes about 45° in a N. 50° W. direction). The shaft is 5' x 9' at the collar, thus should be of adequate size to permit timbering where necessary, installations of ladderway, and provide adequate hoistway.

As the reported depth of the shaft is in conflict, it will be necessary to prepare the contract in such a manner as to allow for this possible variation. Certainly the shaft is at least 70 feet deep and may be as much as 150 feet.

Estimated Cost of recommended work:

Construction and installation of flume in branch, 3' x 5' x 40'	$ 200.00
10' x 12' tool house.....	200.00
Dewater, clean out, timber or trim where necessary, and install enclosed ladderway in 70-ft. shaft @ $25.00/ft.	$1,750.00*

continued --

* If shaft deeper than 70 feet, the $25.00/ft. unit cost applies for total depth.

100 feet, 5' x7', 2-compartment shaft @ $50.00/ft.	$5,000.00
80 feet of drift @ $35.00/ft.	2,800.00
Exploder magazine	25.00
Powder magazine	50.00
Estimated total cost	$10,025.00

Estimated time required 140 shifts.

July 21, 1953

Kefton H. Teague, USGS.

L. E. Shirley, USBM.

zm

FILE COPY
SURNAME:

Robertson
Houk
Gelfondza
Johnson

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

JUL 1 1953

Mr. Marcellus Buchanan, Secretary
Buchanan Minerals, Inc.
Sylva, North Carolina

Re: Docket No. DMEA-3083 - Mica
Buchanan Mine (Old East Fork Mine)
Jackson County, North Carolina

Dear Mr. Buchanan:

Your application for assistance in exploring the subject property has been reviewed by the Nonmetallic Minerals Division of the Defense Minerals Exploration Administration and has been referred to Mr. Robert A. Laurence, Executive Officer, DMEA Field Team, Region VII, Room 13, Post Office Bldg., Knoxville 2, Tennessee, for a field examination, should he deem it necessary.

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

Sincerely yours,

C. O. Mittendorf

Administrator

JTRobertson:dee 6/26/53
Copy to: Admr. R. File
Docket File
Operating Committee
Field Team, Reg VII
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

R.C.G. 7-1-53

FILE COPY
SURNAME:

Robertson
Houk
Selfridge
Hedges

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

JUL 1 1953

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region VII
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Subject: Docket No. DMEA-3083 - Mica
Buchanan Minerals, Inc.
Buchanan Mine (Old East Fork Mine)
Jackson County, North Carolina

Dear Mr. Laurence:

A field team review is requested of this exploration assistance application, and if necessary a field examination should be made of the mine.

The sketches submitted by the applicant show a combination of a tunnel and an incline as a means of reaching the pegmatite zone. This plan appears somewhat unsound and a better and cheaper means should be investigated.

Enclosed please find memoranda on this docket by the Bureau of Mines and the Geological Survey.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (JHB)

Approved:

J. H. Hedges
Member, Bureau of Mines (JHB)

A. R. Kinkel, Jr.
Member, Geological Survey (JHB)

Enclosures 4

JTRobertson:gad 6/26/53
Copy to: Admr. R. File
Docket File
Operating Committee
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

Mr. Robert A. Laurence
Executive Officer, DMEA
Field Team, Region VII
Room 13, Post Office Bldg.
Knoxville 2, Tennessee

Subject: Docket No. DMEA-3083 - Mica
Buchanan Minerals, Inc.
Buchanan Mine (Old East Fork Mine)
Jackson County, North Carolina

Dear Mr. Laurence:

A field team review is requested of this exploration assistance application, and if necessary, a field examination should be made of the mine.

The sketches submitted by the applicant show a combination of a tunnel and an incline as a means of reaching the pegmatite zone. This plan appears somewhat unsound and a better and cheaper means should be investigated.

Enclosed please find memoranda on this docket by the Bureau of Mines and the Geological Survey.

Sincerely yours,

Chairman, Operating Committee

Approved:

Member, Bureau of Mines

Member, Geological Survey

Enclosures 4

JTRobertson:gad 6/26/53
Copy to: Admr. R. File
Docket File
Operating Committee
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
JUN 29 1953

June 29, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3083, Mica, Buchanan Minerals Company
(Buchanan or Old East Fork Mine) North Carolina

Based upon the past production records, a field team examination of subject property is recommended.

W. F. Dietrich

W. F. Dietrich

IN REPLY REFER TO:

G-MD-CNM

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

June 18, 1953

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
Received
JUN 22 1953

Memorandum

REVIEW OF APPLICATION DMEA - 3083 (mica)

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

From: D. M. Larrabee, U. S. Geological Survey

Applicant's name and address: Buchanan Minerals, Inc., Sylva, North Carolina.

Name of property: Old East Fork or Buchanan mine.

Location of property: 7 miles S. of Sylva.

Summary of applican'ts proposal: Bulldoze an open cut
150' adit
107' winze at 45°
50' drift

Sources of information on applicant's property:
Index map in North Carolina Department of Conservation and Development, Bull. 49, 1946, by Olson and others.

Comments: 1. This might be the Ramsey Buchanan, or the Big East Fork, or some other dog hole. We need a better description.

2. After getting all available information, the applicant's proposal should be carefully evaluated by the Field Team, for it is considerably more costly than average, for the area.

Recommendation: Refer to Field Team.

D. M. Larrabee

D. M. Larrabee

June 17, 1953

Mr. Marcellus Buchanan, Secretary
Buchanan Minerals, Inc.,
Sylva, N.C.

Subject: DMEA-3083
Re: Exploration Assistance
Buchanan Mine

My dear Mr. Buchanan:

The receipt of your application dated June 16, 1953, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3083 and referred to the Nonmetallic Minerals Division.

Kindly refer to DMEA-3083 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS

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

GENERAL SERVICES ADMINISTRATION

Spruce Pine, North Carolina

June 12, 1953

Registered # 997

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

Dear Mr. Houk:

I am in receipt of sample of mica submitted by Buchanan Minerals, Inc., Sylva, North Carolina and represented as being from the Old East Fork Mica Mine in Jackson County, North Carolina near Sylva, North Carolina.

I am pleased to advise that this mica is of ruby variety and with proper preparation, will be acceptable on our present government mica purchasing program.

Yours very truly,

W. S. Flynt, Superintendent
Spruce Pine Mica Depot

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA-3083
Metal or Mineral
Date Received 6/16/53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Buchanan Minerals, Inc., Sylva, N. C.

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract The lease is attached as exhibit A

(*b*) State any mine name by which the property is known. Old East Fork or Buchanan Mine

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

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

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

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

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

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

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

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

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

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

.....

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated ....., 195...

BUCHANAN MINERALS INCORPORATED

(Applicant)

By H. G. Buchanan President

Attest: Marshall Smith Secretary

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

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

MF 103

1. (a) Buchanan Minerals, Inc., Sylva, N. C.

(b) Corporation incorporated in State of N. C.

(c) H. E. Buchanan, President of Hendersonville, N. C., Francis A. Buchanan, Vice-Presidnet of Sylva, N. C., and Marcellus Buchanan, Sec. & Treas. of Sylva, N. C.

2. No Answer

3. (a) This is lease property (Lease is attached)

(b) Old East Fork or Buchanan Mine. First work done around 1905 and the last work done in 1939.

(c) Lessee

(d) Lease is attached as Exhibit A.

(e) Not owner

(f) Land is held by Landlord. No land patents involved.

4. (a) Physical works set forth on map attached as Exhibit B.

(b) This mine was opened around the year of 1905 and was worked periodical, until the year of 1939, at which time operation ceased. The amount of mica produced during the years 1910 to 1918 was 20 to 25 thousand pounds of block mica per month, according to the information furnished the applicant by the old miners of Franklin-Sylva District. During the last years of operation this mine was supposed to have produced 15 to 20 thousand pounds of block mica per month. The quality of the mica from this mine is of an excellent grade of ruby mica, which is suitable for the government stockpile. The mica from this mine will trim out 2 x 2 and larger.

The mica has been examined by the buyer at the Spruce Pine Depot, who has appraised it as being of stockpile grade (copy of letter attached.)

(c) The past work has consisted of three shafts: One being approximately 30 ft. deep an other one being around 60 ft. deep and the other one being 162 ft. deep. Mica was first contacted at 20 ft. level of shaft and these 3 shafts are spread out over a distance of 250 ft. The applicant has reason to believe that the vein of mica is at least 1000 ft. long. We have no geographical reports on this mine, however, samples from this mine can be found and inspected at the State Museum in Raleigh.

(d) The proposed ~~is~~ property is readily accessible that a good road leads within a few yards of mine. This mine is located about seven (7) airline miles south of Sylva, N. C.

(e) There is ample experience manpower available. Electricity is within 200 yards of the mine. No difficulty is contemplated in obtaining equipment and supplies.

5. (a) It is anticipated that the pegmatite contains additional quantities of ruby mica of stockpile grade.

(b) It is proposed to bulldoze off a cut to the mouth of the proposed tunnel Then it is proposed to drive a tunnel 150 ft. long on a 1% grade, in order that the tunnel will drain itself. Then it is proposed to sink an incline shaft on 45 degree angle for a distance of 107 ft. at this point we should contact the vein at approximately 15 ft. below the last working at a depth of 175 ft. Then it is proposed to drive a drift 50 ft. in the pegmatite dike to determine the mineralization of the mica bearing vein.

(c) The work will be started as soon as the contract is approved by the government and the work should be concluded within 9 months.

(d) Copies of the life history of the offiers of this corporation are attacjed

6. Estimate of Costs:

(a) Independent Contracts-None.

(b through h) We would perfer to explore this desposit on a unit cost basis. After we get the tunnel an incline shaft completed we plan to drift in both directions along the vein to determine the mica contents of the vein. It is estimated that the cost involved is as follows:

(1)	Bulldoze cut 60 ft. long 30 ft. wide, 25 ft. deep 40 hrs. @14.00 per hr.	$ 560.00
	Drive a 5 x 7 tunnel 150 ft. @ $35.00 per hr.	5250.00
	Sink an incline shaft 107 ft. @ $45.00	4815.00
	Drift 50 ft. @$35.00 ft.	1750.00
	Total	$12,375.00

7. (a) Applicant will pay in money the 10% required by regulation.

NORTH CAROLINA)

JACKSON COUNTY)

Mining Lease

This contract, made and entered into this 5th day of June, 1953 by and between LAURA BELLE BUCHANAN of Jackson County, North Carolina, party of the first part, and BUCHANAN MINERALS INCORPORATED, a corporation organized and existing under the laws of the State of North Carolina, and with its principle office in Sylva, Jackson County, North Carolina, party of the second part,

Witnesseth:

That subject to the terms and conditions hereinafter set forth, the party of the first part has let and leased unto said party of the second part the exclusive right and privilege to mine, dig, mill, process, and remove all minerals, ores, clays, earths, and stones now in, under, or upon a certain tract of land lying and being in Jackson County, North Carolina, and more particularly described as follows:

> A certain tract or parcel of land in Jackson County, State of North Carolina, adjoining the lands of James Cowan, M. Buchanan's Turpin tract and others and bounded as follows, viz: Beginning on a forked chestnut tree on the S. F. side of creed and runs East 66 poles to a stake on top of middle ridge; thence up said ridge as it meanders in a South course 108 poles to a Chestnut Oak on top of said ridge, said line keeping the highest ground on top of ridge; thence West 60 poles to a stake; thence South 50 poles to a stake in a hollow; thence West 10½ poles to a stake on a ridge; thence N. 36 W. 17 poles to a stake on East side of brance; thence N. 43 W. 26 poles and 13 links to a white Oak in the M. Buchanan line and Turpin corner; thence N. 43 poles to a stake old Chestnut corner; thence N 27 E 91 poles and 15 links to the Beginning, being and comprehending all of the mineral rights and privileges reserved to the Grantors in a certain deed of conveyance from Marcellus Buchanan and wife, Belle Buchanan, to W. T. Deitz which said deed of conveyance is duly recorded in the office of the Register of Deeds of Jackson County, State of North Carolina in book 100 at page 69 etc., to which said record reference is hereby made for a more complete description of the rights and privileges here in lease.

The terms and conditions of this lease are as follows:

This lease shall run and continue for a period of ten years from the date hereof, that is until the 5th day of June, 1963.

As rental, the party of the second part shall pay to the party of the first part a royalty of twelve and one half percent (12½%) of gross receipts from the sale of any and all minerals, ores, clays, earths, and stones removed from said mine, the said royalty payments to be made to the party of the first part within ten days after each sale.

Party of the second part shall keep a correct and itemized record of all operations and transactions under this lease and such records may be at any time inspected by party of the first part or his agents.

Party of the second part shall have the right to use the surface of said land to the full extent necessary or convenient in mining, digging, milling, processing, or removing said minerals, ores, clays, earths, and stones.

Party of second part shall have the right to construct upon said lands buildings and machinery and to remove the same.

Party of the second part shall have the right to cut and use upon said land, for mining purposes, any timber standing thereon, and the right to dam, divert, and use the water in any stream in said land.

Party of the second part shall have the right to construct and maintain roads in such locations as the party of second part may deem necessary and convenient.

It is expressly understood and agreed between the parties that the lessee, BUCHANAN MINERALS INCORPORATED, shall have the right and privilege to take, for tax purposes, the depletion on said mine and mineral interests as fully and completely as the Grantors could do if the said Grantors operate said mine and utilize said mineral interests.

In testimony whereof said party of the first part has set her hand and seal and said party of the second part has caused this instrument to be signed in its corporate name by its President and attested by its Secretary, and sealed with its corporate seal, all on the day and year above written.

Laura Belle Buchanan (SEAL)

BUCHANAN MINERALS INCORPORATED
By H. E. Buchanan
President

Attest:

Mamie Lunsford Secretary

NORTH CAROLINA)
JACKSON COUNTY)

I, Belle Kirk Jones, Notary Public of said County and State do hereby certify that Laura Belle Buchanan personally appeared before me this day and acknowledged the due execution by her of the foregoing mining lease for the purposes therein stated.

Witness my hand and notarial seal this 5th day of June, 1953.

My Comm Expires:
Aug. 29, 1953

Belle Kirk Jones
Notary Public

NORTH CAROLINA)

JACKSON COUNTY)

This 5th day of June, 1953, personally called before me Belle Kirk Jones, Notary Public of said county and state, Marcellus Buchanan, who being by me duly sworn, says that he knows the common seal of BUCHANAN MINERALS INCORPORATED and is acquainted with H. E. Buchanan who is president of said corporation, and that he, Marcellus Buchanan, is the Secretary of said corporation and saw the said president sign the foregoing instrument and that he, Marcellus Buchanan, secretary, as afore said, afixed said seal to said instrument, and that he, the said Marcellus Buchanan, signed his name in attestation of the execution of said instrument in the presence of said corporation.

Witness my hand and notarial seal this the _____ day of June, 1953.

My Comm Expires:

Aug. 29, 1953

Belle Kirk Jones
Notary Public

NORTH CAROLINA)

JACKSON COUNTY)

I, Margaret W. Henson, Clerk of the Superior Court of Jackson County, do hereby certify that the foregoing certificates of Belle Kirk Jones, Notary Public of said county and state, dully authenticated by her notarial seal thereto afixed are by me this day adjudged to be correct, in due form, and according to law. Therefore let said instrument with said certificates and this certificate be registered.

Witness my hand this 8 day of June 1953.

Margaret W. Henson
Clerk of Superior Court

STATE OF NORTH CAROLINA
JACKSON COUNTY
Office of Register of Deeds Inc.
Registration on the 8 day of
June 1953, at 10 O'clock A M
and duly registered in said office, this
day of _____ 19____
in Book 198 Page _____
Gleen Hughes
Register of Deeds
Recorded and Verified

CERTIFICATE OF INCORPORATION

OF

BUCHANAN MINERALS INCORPORATED

THIS IS TO CERTIFY, that we, the undersigned, do hereby associate ourselves into a Corporation under and by virtue of the Laws of the State of North Carolina, as contained in Chapter 55 of the General Statutes of North Carolina, entitled "Corporations", and do severally agree to take the number of shares of capital stock in the said corporation set opposite our respective names, and to that end do hereby set forth:

I.

The name of this Corporation is BUCHANAN MINERALS INCORPORATED.

II.

The location of the principal office of the Corporation in this State is at Sylva, Jackson County, State of North Carolina, but it may have one or more branch offices and places of business out of the State of North Carolina as well as in said State.

III.

The objects for which this corporation is formed are as follows:

1. To engage in any and all kinds of mining operations for the removal of any and all kinds of minerals, ores, clays, earths, stones, and other substances from the ground;

2. To process, fabricate, refines, mill, or otherwise change or alter the character, shape, size or quality of any and all kinds of minerals, ores, clays, earths, stones and other substances mined by or in any way or manner acquired by the Corporation;

3. To deal in, purchase, in any manner acquire, process, fabricate, refine, mill, or otherwise change or alter the character, shape, size or quality of any and all kinds of minerals, ores, clays, earths, stones or substances removed from the ground, and to sell, trade, barter, or in any manner dispose of any and all kinds of minerals, ores, clays, earths, stones or substances removed from the ground and acquired by the Corporation;

4. To purchase, lease, or otherwise acquire, hold mortgage, convey, and otherwise dispose of all kinds of property, both real and personal, both in this State and in all other States, Territories and dependencies of the United States;

5. To purchase or otherwise acquire the business, good will, and all other property of any individual, firm, or corporation as a going concern, and to assume all of its debts, contracts, and obligations, provided said business is authorized by the powers contained herein;

6. To construct, equip, maintain and repair buildings, works, factories, and plants, and to install, maintain and operate all kinds of machinery and appliances and to operate the same by hand, steam, water, electric or other motive power, and to generally perform all acts which may be deemed necessary or expedient for the proper and successful prosecution of the objects and purposes for which the Corporation is created.

IV.

The total authorized capital stock of this Corporation is One Hundred Thousand Dollars ($100,000.00), divided into one thousand (1000) shares of the par value of One Hundred Dollars ($100.00) each.

V.

The names and post office addresses of the subscribers for stock, and the number of shares subscribed for by each, the aggregate of which being the amount of capital stock with which the Corporation will commence business, are as follows:

NAME	POST OFFICE ADDRESS	No. SHARES
H. E. BUCHANAN	Hendersonville, N. C.	1
MARCELLUS BUCHANAN	Sylva, N. C.	1
FRANCIS A. BUCHANAN	Sylva, N. C.	1

VI.

The period of existence of this Corporation is unlimited.

VII.

The Board of Directors of this Corporation shall have power by vote of a majority of all the Directors, and without the assent or vote of the Stockholders, to make, alter, amend and rescind the by-laws of this Corporation.

In Testimony Whereof, We have hereunto set our hands and affixed our seals this 25th day of May, A. D., 1953.

H E Buchanan (SEAL)

Marcellus Buchanan (SEAL)

Francis A. Buchanan (SEAL)

Witness to signature of H. E. Buchanan:

Witness to signature of Marcellus Buchanan:

Mrs. John R. Jones

Witness to signature of Francis A. Buchanan:

Barbara Cox

NORTH CAROLINA)
Wake COUNTY)

Certificate

This is to certify that on the 28th day of May, A. D., 1953, before undersigned Claire Eastman Nichols a Notary Public of Wake County, State of North Carolina, personally appeared H. E. BUCHANAN, who, I am satisfied is a person named in and who executed the foregoing Certificate of Incorporation of BUCHANAN MINERALS INCORPORATED, and I having first made known to him the contents thereof, he did acknowledge that he signed, sealed, and delivered the same as his own voluntary act and deed,

for the uses and purposes therein expressed.

In testimony whereof, I have hereunto set my hand and affixed my notarial seal this 25th day of May, A. D., 1953.

My Commission Expires:

1-8-55 Claire Eastman Nichols
Notary Public

NORTH CAROLINA)
JACKSON COUNTY)

This is to certify that on the 25th day of May, A. D., 1953, before undersigned Belle Kirk Jones, a Notary Public of Jackson County, State of North Carolina, personally appeared MARCELLUS BUCHANAN, who, I am satisfied is a person named in and who executed the foregoing Certificate of Incorporation of BUCHANAN MINERALS INCORPORATED, and I having first made known to him the contents thereof, he did acknowledge that he signed, sealed, and delivered the same as his own voluntary act and deed, for the uses and purposes therein expressed.

In testimony whereof, I have hereunto set my hand and affixed my notarial seal this 25th day of May, A. D., 1953.

My Commission Expires:

Aug. 29, 1953 Belle Kirk Jones
Notary Public

NORTH CAROLINA)
ORANGE COUNTY)

This is to certify that on the 27 day of May, A. D., 1953, before undersigned Paul S. Robertson, a Notary Public of Orange County, State of North Carolina, personally appeared FRANCIS A BUCHANAN, who, I am satisfied is a person named in and who executed the foregoing certificate of Incorporation of BUCHANAN MINERALS INCORPORATED, and I having first made known to him the contents thereof, he did acknowledge that he signed, sealed, and delivered the same as his own voluntary act and deed, for the uses and purposes therein expressed.

In Testimony Whereof, I have hereunto set my hand and affiexd my notarial seal this 27 day of May, A. D., 1953.

My Commission Expires:

9-13-54 Paul S. Robertson
Notary Public

H. E. Buchanan

Mr. Buchanan was borned in Sylva, N. C., 54 years ago. He finished high school at Sylva and attended the University of North Carolina. He is the son of Marcellus Buchanan, Sr. of Sylva, N. C., who was the most prominwnt mica miners and fabricators in the Franklin-Sylva Mining District for a period of 50 years. Mr. Marcellus Buchanan, Sr. had approximately 15,000 acres of mineral interest in the Franklin-Sylva Mining District of N. C. this was passed on to the heirs of his estate and Mr. H. E. Buchanan is the executor of that estate and has followed in his Father's business of mining mica periodically until today. He is presently operating the Jasper Mica Mine located in Jackson County, which ajoins this property.

Mr. H. E. Buchanan has a reputation for honesty , interity and good will of as many people in Western N. C. as any other one individual in this section. As an example of his public service over the past 30 years, he is at present the president of the Cherokee Historical Association, which puts on the Indian Pagant at the Cherokee Indian Reservation , known as "Unto These Hills", he also has been appointed by the Governor of N. C. to the Highway Commissionex of the 14th. district of N. C. The above two positions are served by Mr. Buchanan without compensation.

The following is a list of references: Mr. W. A. Umsted, Governor of N. C., Raleigh, N. C., Senator Clyde R. Hoey, Washington, D. C., and Senator Willis Smith, Washington, D. C.

Francis A. Buchanan

Mr. Buchanan was borned in Sylva, N. C., at which place he finished high school. Then he attended the University of North Carolina. Mr. Buchanan has a fine reputation in his community for honesty and trustworthyness. He has been brought up in the mica district where he has spent a greater part of his life.

The following are the references:

Judge Dan K. Moore
Sylva, N. C.

Mr. Jennings A. Bryson
Chairman of County Board of Commissioners
of Jackson County
Sylva, N. C.

Mr. W. A. Fisher
Vice-President of Jackson County Bank
Sylva, N. C.

Marcellus Buchanan

Mr. Marcellus Buchanan was borned in Sylva, N. C. 28 years ago. He finished high school at Sylva and then graduated from the University of North Carolina School of Law.

He was associated with the Buchanan Mining Company, which operated the Jasper, Greenhorn, Buchanan and Jesse Mines all located in Jackson County.

He has a good reputation in his community.

The following are references:

Mr. Glen Hughes
Register of Deeds, Jackson County
Sylva, N. C.

Mr. J. H. Morris
Sylva, N. C.

Mr. Tom A. Clayton
County Accountant, Jackson County
Sylva, N. C.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA-3083
Metal or Mineral
Date Received 6/16/53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Buchanen Minerals, Inc. Sylva, N. C.

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

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

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract The lease is attached as exhibit A

(*b*) State any mine name by which the property is known. Old East Fork or Buchanan Mine

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

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

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

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

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

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

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

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

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

5. *The exploration project* (*a*) State the mineral or minerals for which wish to explore .....

.....

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated ....., 195...

BUCHANAN MINERALS INCORPORATED
(Applicant)

By H E Buchanan President

Attest: Martha Smith Secretary

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

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

MF 103

1. (a) Buchanan Minerals, Inc., Sylva, N. C.

   (b) Corporation incorporated in State of N. C.

   (c) H. E. Buchanan, President of Hendersonville, N. C., Francis A. Buchanan, Vice-Presidnet of Sylva, N. C., and Marcellus Buchanan, Sec. & Treas. of Sylva, N. C.

2. No Answer

3. (a) This is lease property (Lease is attached)

   (b) Old East Fork or Buchanan Mine. First work done around 1905 and the last work done in 1939.

   (c) Lessee

   (d) Lease is attached as Exhibit A.

   (e) Not owner

   (f) Land is held by Landlord. No land patents involved.

4. (a) Physical works set forth on map attached as Exhibit B.

   (b) This mine was opened around the year of 1905 and was worked periodical, until the year of 1939, at which time operation ceased. The amount of mica produced during the years 1910 to 1918 was 20 to 25 thousand pounds of block mica per month, according to the information furnished the applicant by the old miners of Franklin-Sylva District. During the last years of operation this mine was supposed to have produced 15 to 20 thousand pounds of block mica per month. The quality of the mica from this mine is of an excellent grade of ruby mica, which is suitable for the government stockpile. The mica from this mine will trim out 2 x 2 and larger.

   The mica has been examined by the buyer at the Spruce Pine Depot, who has appraised it as being of stockpile grade (copy of letter attached.)

   (c) The past work has consisted of three shafts: One being approximately 30 ft. deep an other one being around 60 ft. deep and the other one being 162 ft. deep. Mica was first contacted at 20 ft. level of shaft and these 3 shafts are spread out over a distance of 250 ft. The applicant has reason to believe that the vein of mica is at least 1000 ft. long. We have no geographical reports on this mine, however, samples from this mine can be found and inspected at the State Museum in Raleigh.

   (d) The proposed ~~in~~ property is readily accessible that a good road leads within a few yards of mine. This mine is located about seven (7) airline miles south of Sylva, N. C.

   (e) There is ample experience manpower available. Electricity is within 200 yards of the mine. No difficulty is contemplated in obtaining equipment and supplies.

5. (a) It is anticipated that the pegmatite contains additional quantities of ruby mica of stockpile grade.

(b) It is proposed to bulldoze off a cut to the mouth of the proposed tunnel Then it is proposed to drive a tunnel 150 ft. long on a 1% grade, in order that the tunnel will drain itself. Then it is proposed to sink an incline shaft on 45 degree angle for a distance of 107 ft, at this point we should contact the vein at approximately 15 ft. below the last working at a depth of 175 ft. Then it is proposed to drive a drift 50 ft. in the pegmatite dike to determine the mineralization of the mica bearing vein.

(c) The work will be started as soon as the contract is approved by the government and the work should be concluded within 9 months.

(d) Copies of the life history of the officers of this corporation are attacjed

6. Estimate of Costs:

(a) Independent Contracts-None.

(b through h) We would perfer to explore this desposit on a unit cost basis. After we get the tunnel an incline shaft completed we plan to drift in both directions along the vein to determine the mica contents of the vein. It is estimated that the cost involved is as follows:

(1)	Bulldoze cut 60 ft. long 30 ft. wide, 25 ft. deep 40 hrs. @14.0 per hr.	$ 560.00
	Drive a 5 x 7 tunnel 150 ft. @ $35.00 per hr.	5250.00
	Sink an incline shaft 107 ft. @ $45.00	4815.00
	Drift 50 ft. $35/00 ft.	1750.00
	Total	$12,375.00

7. (a) Applicant will pay in money the 10% required by regulation.

NORTH CAROLINA)

JACKSON COUNTY)

Mining Lease

This contract, made and entered into this 5th day of June, 1953 by and between LAURA BELLE BUCHANAN of Jackson County, North Carolina, party of the first part, and BUCHANAN MINERALS INCORPORATED, a corporation organized and existing under the laws of the State of North Carolina, and with its principle office in Sylva, Jackson County, North Carolina, party of the second part,

Witnesseth:

That subject to the terms and conditions hereinafter set forth, the party of the first part has let and leased unto said party of the second part the exclusive right and privilege to mine, dig, mill, process, and remove all minerals, ores, clays, earths, and stones now in, under, or upon a certain tract of land lying and being in Jackson County, North Carolina, and more particularly described as follows:

> A certain tract or parcel of land in Jackson County, State of North Carolina, adjoining the lands of James Cowan, M. Buchanan's Turpin tract and others and bounded as follows, viz: Beginning on a forked chestnut tree on the S. E. side of creed and runs East 66 poles to a stake on top of middle ridge; thense up said ridge as it meanders in a South course 108 poles to a Chestnut Oak on top of said ridge, said line keeping the highest ground on top of ridge; thence West 60 poles to a stake; thence South 50 poles to a stake in a hollow; thence West 10½ poles to a stake on a ridge; thence N. 36 W. 17 poles to a stake on East side of brance; thence N. 43 W. 26 poles and le links to a white Oak in the M. Buchanan line and Turpin corner; thence N. 43 poles to a stake old Chestnut corner; thence N. 27 E. 91 poles and 15 links to the Beginning, being and comprehending all of the mineral rights and privileges reserved to the Grantors in a certain deed of conveyance from Marcellus Buchanan and wife, Belle Buchanan, to W. T. Deitz which said deed of conveyance is duly recorded in the office of the Register of Deeds of Jackson County, State of North Carolina in book 100 at page 69 etc., to which said record reference is hereby made for a more complete description of the rights and privileges here in lease.

The terms and conditions of this lease are as follows:

This least shall run and continue for a period of ten years from the date hereof, that is until the 5th day of June, 1963.

As rental, the party of the second part shall pay to the party of the first part a royalty of twelve and one half percent (12½%) of gross receipts from the sale of any and all minerals, ores, clays, earths, and stones removed from said mine, the said

royalty payments to be made to the party of the first part within ten days after each sale.

Party of the second part shall keep a correct and itemized record of all operations and transactions under this lease and such records may be at any time inspected by party of the first part or his agents.

Party of the second part shall have the right to use the surface of said land to the full extent necessary or convenient in mining, digging, milling, processing, or removing said minerals, ores, clays, earths, and stones.

Party of second part shall have the right to construct upon said lands buildings and machinery and to remove the same.

Party of the second part shall have the right to cut and use upon said land, for mining purposes, any timber standing thereon, and the right to dam, divert, and use the water in any stream in said land.

Party of the second part shall have the right to construct and maintain roads in such locations as the party of the second part may deem necessary and convenient.

It is expressly understood and agreed between the parties that the lessee, BUCHANAN MINERALS INCORPORATED, shall have the right and privilege to take, for tax purposes, the depletion on said mine and mineral interests as fully and completely as the Grantors could do if the said Grantors operate said mine and utilize said minerals interests.

In testimony whereof said party of the first part has set her hand and seal and said party of the second part has caused this instrument to be signed in its corporate name by its President and attested by its Secretary, and sealed with its corporate seal, all on the day and year above written.

(signed) Laura Belle Buchanan (SEAL)

BUCHANAN MINERALS INCORPORATED

ATTEST:

By H. E. Buchanan (signed)
President

(signed) Marcellus Buchanan Secretary

NORTH CAROLINA)

JACKSON COUNTY)

I, Belle Kirk Jones, Notary Public of said County and State do hereby certify that Laura Belle Buchanan personally appeared before me this day and acknowledged the due execution by her of the foregoing mining lease for the purposes therein stated.

Witness my hand and notarial seal this 5th day of June, 1953.

My Comm. Expires:

Aug. 29, 1953

Belle Kirk Jones (signed)
Notary Public

NORTH CAROLINA)

JACKSON COUNTY)

This 5th day of June, 1953, personally called before me Belle Kirk Jones, Notary Public of said county and state, Marcellus Buchanan, who being by me duly sworn, says that he knows the common seal of BUCHANAN MINERALS INCORPORATED and is aquainted with H. E. Buchanan who is president of said corporation, and that he, Marcellus Buchanan, is the Secretary of said corporation and saw the said president sign the foregoing instrument and that he, Marcellus Buchanan, secretary, as afore said, afixed said seal to said instrument, and that he, the said Marcellus Buchanan, signed his name in attestation of the execution of said instrument in the presence of said corporation.

Witness my hand and notarial seal this the _____ day of June, 1953.

My Comm. Expires:

Aug. 29, 1953

(signed) Belle Kirk Jones
Notary Public

NORTH CAROLINA)

JACKSON COUNTY)

I, Margaret W. Henson, Clerk of the Superior Court of Jackson County, do hereby certify that the foregoing certificates of Belle Kirk Jones, Notary Public of said county and state, dully authenticated by her notarial seal thereto afixed are by me this day adjudged to be correct, in due form, and according to law. Therefore let said instrument with said certificates and this certificate be registered.

Witness my hand this 8th day of June, 1953.

(signed) Margaret W. Henson
Clerk of Superior Court

STATE OF NORTH CAROLINA
JACKSON COUNTY

Office of Register of Deeds filed for registration on the 8 day of June 19 53, at 10 O'clock A. M. and duly registered in said office, this _____ day of _____ 19___ in Book 198 Page _____

(signed) Glenn Hughes
Register of Deeds

Recorded and Verified

CERTIFICATE OF INCORPORATION

OF

BUCHANAN MINERALS INCORPORATED

THIS IS TO CERTIFY, that we, the undersigned, do hereby associate ourselves into a Corporation under and by virtue of the Laws of the State of North Carolina, as contained in Chapter 55 of the General Statutes of North Carolina, entitled "Corporations", and do severally agree to take the number of shares of capital stock in the said corporation set opposite our respective names, and to that end to hereby set forth:

I.

The name of this Corporation is BUCHANAN MINERALS INCORPORATED.

II.

The location of the principal office of the Corporation in this State is at Sylva, Jackson County, State of North Carolina, but it may have one or more branch offices and places of business out of the State of North Carolina as well as in said State.

III.

The objects for which this corporation is formed are as follows:

1. To engage in any and all kinds of mining operations for the removal of any and all kinds of minerals, ores, clays, earths, stones, and other substances from the ground:

2. To process, fabricate, refine, mill, or otherwise change or alter the character, shape, size or quality of any and all kinds of minerals, ores, clays, earths, and other substances mined by or in any way or manner acquired by the Corporation;

3. To deal in, purchase, in any manner acquire, process, fabricate, refine, mill, or otherwise change or alter the character, shape, size or quality of any and all kinds of minerals, ores, clays, earths, stones or substances removed from the ground, and to sell, trade, barter, or in any manner dispose of any kind and all kinds of minerals, ores, clays, earths, stones or substances removed from the ground and acquired by the Corporation;

4. To purchase, lease, or otherwise acquire, hold mortgage, convey, and otherwise dispose of all kinds of property, both real and personal, both in this state and in all other States, Territories and dependencies of the United States;

5. To purchase or otherwise acquire the business, good will, and all other property of any individual, firm, or corporation as a going concern, and to assume all of its debts, contracts, and obligations, provided said business is authorized by the powers contained herein;

6. To construct, equip, maintain and repair buildings, works, factories, and plants, and to install, maintain and operate all kinds of machinery and appliances and to operate the same by hand, steam, water, electric or other motive power, and to generally perform all acts which may be deemed necessary or expedient for the proper and successful prosecution of the objects and purposes for which the Corporation is created.

IV.

The total authorized capital stock of this Corporation is One Hundred Thousand Dollars ($100,000.00), divided into one thousand (1000) shares of the par value of One Hundred Dollars ($100.00) each.

V.

The names and post office addresses of the subscribers for stock, and the number of shares subscribed for by each, the aggregate of which being the amount of capital stock with which the corporation will commence business, are as follows:

NAME	POST OFFICE ADDRESS	NO. SHARES
H. E. BUCHANAN	Hendersonville, N. C.	1
MARCELLUS BUCHANAN	Sylva, N. C.	1
FRANCIS A. BUCHANAN	Sylva, N. C.	1

VI.

The period of existence of this Corporation is unlimited.

VII.

The Board of Directors of this Corporation shall have power by vote of a majority of all the Directors, and without the assent or vote of the Stockholders, to make, alter, amend and rescind the by-laws of this Corporation.

In Testimony Whereof, We have hereunto set our hands and affixed our seals this 25th day of May, A. D., 1953.

(signed) H. E. Buchanan (SEAL)

(signed) Marcellus Buchanan (SEAL)

(signed) Francis A. Buchanan (SEAL)

Witness to signature of H. E. Buchanan:

Witness to signature of Marcellus Buchanan:

(signed) Mrs. John R. Jones

Witness to signature of Francis A. Buchanan:

(signed) Barbara Cox

NORTH CAROLINA)

WAKE COUNTY)

Certificate

This is to certify that on the 28th day of May, A. D., 1953, before undersigned Claire Eastman Nichols a Notary Public of Wake County, State of North Carolina, personally appeared H. E. BUCHANAN, who, I am satisfied is a person named in and who executed the foregoing Certificate of Incorporation of BUCHANAN MINERALS INCORPORATED, and I having first made known to him the contents thereof, he did acknowledge that he signed, sealed and delivered the same as his own voluntary act and deed, for the uses and purposes therein expressed.

In testimony whereof, I have hereunto set my hand and afixed my notarial seal this 28th day of May, A. D., 1953.

My Commission Expires:

1-8-55

(signed) Claire Eastman Nichols
Notary Public

NORTH CAROLINA)

JACKSON COUNTY)

This is to certify that on the 25th day of May, A. D., 1953, before undersigned Belle Kirk Jones, A Notary Public of Jackson County, State of North Carolina, personally appeared MARCELLUS BUCHANAN, who, I am satisfied is a person named in and who executed the foregoing Certificate of Incorporation of BUCHANAN MINERALS INCORPORATED, and I having first made known to him the contents thereof, he did acknowledge that he signed, sealed, and delivered the same as his own voluntary act and deed, for the uses and purposes therein expressed.

In testimony whereof, I have hereunto set my hand and affixed my notarial seal this 25th day of May, A. D., 1953.

My Commission Expires:

Aug. 29, 1953

(Signed) Belle Kirk Jones
Notary Public

NORTH CAROLINA)

ORANGE COUNTY)

This is to certify that on the 27 day of May, A. D., 1953, before undersigned Paul H. Robertson, , a Notary Public of Orange, State of North Carolina, personally appeared FRANCIS A. BUCHANAN, who, I am satisfied is a person named in and who executed the foregoing certificate of Incorporation of BUCHANAN MINERALS INCORPORATED, and I having first made known to him the contents thereof, he did acknowledge that he signed, sealed, and delivered the same as his own voluntary act and deed, for the uses and purposes therein expressed.

In Testimony Whereof, I have hereunto set my hand and affixed my notarial seal this 27 day of May, A. D., 1953.

My Commission Expires:

9-13-54

(Sgd.) Paul T. P. Robertson
Notary Public

H. E. Buchanan

Mr. Buchanan was borned in Sylva, N. C., 54 years ago. He finished high school at Sylva and attended the University of North Carolina. He is the son of Marcellus Buchanan, Sr. of Sylva, N. C., who was the most prominwnt mica miners and fabricators in the Franklin-Sylva Mining District for a period of 50 years. Mr. Marcellus Buchanan, Sr. had approximately 15,000 acres of mineral interest in the Franklin-Sylva Mining District of N. C. this was passed on to the heirs of his estate and Mr. H. E. Buchanan is the executor of that estate and has followed in his Father's business of mining mica periodically until today. He is presently operating the Jasper Mica Mine located in Jackson County, which ajoins this property.

Mr. H. E. Buchanan has a reputation for honesty , interity and good will of as many people in Western N. C. as any other one individual in this section. As an example of his public service over the past 30 years, he is at present the president of the Cherokee Historical Association, which puts on the Indian Pagant at the Cherokee Indian Reservation , known as "Unto These Hills", he also has been appointed by the Governor of N. C. to the Highway Commissionmx of the 14th. district of N. C. The above two positions are served by Mr. Buchanan without compensation.

The following is a list of references: Mr. W. A. Umsted, Governor of N. C., Raleigh, N. C., Senator Clyde R. Hoey, Washington, D. C., and Senator Willis Smith, Washington, D. C.

Francis A. Buchanan

Mr. Buchanan was borned in Sylva, N. C., at which place he finished high school. Then he attended the University of North Carolina. Mr. Buchanan has a fine reputation in his community for honesty and trustworthyness. He has been brought up in the mica district where he has spent a greater part of his life.

The following are the references:

Judge Don K. Moore
Sylva, N. C.

Mr. Jennings A. Bryson
Chairman of County Board of Commissioners
of Jackson County
Sylva, N. C.

Mr. W. A. Fisher
Vice-President of Jackson County Bank
Sylva, N. C.

Marcellus Buchanan

Mr. Marcellus Buchanan was borned in Sylva, N. C. 28 years ago. He finished high school at Sylva and then graduated from the University of North Carolina School of Law.

He was associated with the Buchanan Mining Company, which operated the Jasper, Greenhorn, Buchanan and Jesse Mines all located in Jackson County.

He has a good reputation in his community.

The following are references:

Mr. Glen Hughes
Register of Deeds, Jackson County
Sylva, N. C.

Mr. J. H. Morris
Sylva, N. C.

Mr. Tom A. Clayton
County Accountant, Jackson County
Sylva, N. C.

MF-203

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 N. C., County of Jackson, described as follows:1/

In Book No. 198 in the Register of Deeds in Jackson County, N. C.

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

2/ Buchanan Minerals Inc.

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other 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 to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ _____, or ten years have elapsed from the date of the 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 said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this _____ day of _____, 195 ___.

Laura Belle Buchanan [Seal]

_____ [Seal]

_____ [Seal]

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

2/ Insert the name of the Operator as it will appear in the exploration project contract.

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

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

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

MF-203

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 N. C., County of Jackson, described as follows:1/

In book No. 198 in the Register of Deeds in Jackson County, N. C

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

2/ Buchanan Minerals Inc.

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other 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 to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ _____, or ten years have elapsed from the date of the 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 said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this _____ day of _____, 195 ___.

Laura Belle Buchanan [Seal]

_____ [Seal]

_____ [Seal]

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

2/ Insert the name of the Operator as it will appear in the exploration project contract.

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

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

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

MF-203

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 N. C., County of Jackson, described as follows:1/

In book No. 198 in the Register of Deeds in Jackson County, N. C

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

2/ Buchanan Minerals Inc.

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other 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 to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ _____, or ten years have elapsed from the date of the 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 said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this _____ day of _____, 195 ___.

Laura Belle Buchanan [Seal]

_____ [Seal]

_____ [Seal]

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

2/ Insert the name of the Operator as it will appear in the exploration project contract.

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

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

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

MF-203

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 N. C., County of Jackson, described as follows:1/

In book No. 198 in the Register of Deeds in Jackson County, N. C.

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

2/ Buchanan Minerals Inc.

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other 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 to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ _____, or ten years have elapsed from the date of the 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 said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this _____ day of _____, 195 ___.

Laura Belle Buchanan [Seal]

_____ [Seal]

_____ [Seal]

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

2/ Insert the name of the Operator as it will appear in the exploration project contract.

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

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

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

MF-203

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 N. C., County of Jackson, described as follows:1/

In book No. 198 in the Register of Deeds in Jackson County, N. C.

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

2/ Buchanan Minerals Inc.

hereinafter called the "Operator"; and

WHEREAS, under certain provisions of said contract which are set forth on the reverse side hereof, the Government is entitled to a percentage royalty on production and to certain other 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 to enter into same, undertakes and agrees as follows:

1. The Government's equity in and right to dismantle, sever, take possession of, and remove and dispose of facilities, buildings, fixtures, equipment, or other items as provided in the contract, or any amendment thereof, shall prevail over and be prior and superior to any conflicting or adverse rights of the undersigned, and the Government is authorized to enter upon the land for such purposes.

2. To secure the payment to the Government of the percentage royalty on production3/ provided for under the terms of said exploration project contract, or any amendment thereof which does not increase the maximum amount of the Government's claim here stated or alter the provisions for repayment, there is hereby granted to the Government a lien upon the land herein described and upon any production of minerals therefrom, until the royalty claim is fully paid in the amount of the Government's contribution, not in excess of 4/$ _____, or ten years have elapsed from the date of the 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 said contract. This agreement shall be binding upon the heirs, executors, administrators, successors, and assigns of the undersigned.

Dated this _____ day of _____, 195 ___.

Laura Belle Buchanan [Seal]

_____ [Seal]

_____ [Seal]

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

2/ Insert the name of the Operator as it will appear in the exploration project contract.

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

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

RELEVANT CONTRACT PROVISIONS

Repayment by Operator. (a) If, at any time, the Government considers that a discovery or a development from which production may be made has resulted from the exploration work, the Government, at any time not later than six months after the Operator has rendered the required final report and final account, may so certify in writing to the Operator. The certification shall describe broadly or indicate the nature of the discovery or development. In the event of such certification, any minerals mined or produced from the land described in Article 2 within 10 years from the date of this contract, including any mined or produced before the certification, shall be subject to a percentage royalty which the Operator or his successor in interest shall pay to the Government, upon the net smelter returns, the net concentrator returns, or other net amounts realized from the sale or other disposition of any such production, in whatever form disposed of, including ore, concentrates, or metal, until the total amount contributed by the Government, without interest, is fully repaid, or said 10 years have elapsed, whichever occurs first, as follows:

(1) One and one-half (1½) per cent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) per cent of any such net amounts, plus one-half (½) per cent such net amounts for each additional full fifty cents ($0.50) by which such net amounts exceed eight dollars ($8.00) per ton, but not in excess of five (5) per cent of such net amounts.

(For instance: the percentage royalty on a net amount of five dollars ($5.00) per ton, would be one and one-half (1½) per cent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) per cent.)

(b) As here used, "net smelter returns", "net concentrator returns", and "other net amounts realized from the sale or other disposition", mean gross revenue from sales; or if not sold, the market value, the market value of the material after it is mined in the form in which and the place where it is held. In the case of integrated operations in which the material is not disposed of as such, these terms mean what is or would be gross income from mining operations for percentage depletion purposes in income tax determination.

(c) To secure the payment of its percentage royalty, the Government shall have and is hereby granted a lien upon the land described in Article 2 and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(d) This article is not to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any mining or production operations.

Title to and disposition of property. All facilities, buildings, fixtures, equipment, or other items costing more than $50.00 each, paid for or purchased with funds contributed jointly by the Operator and the Government, although title may be taken in the name of the Operator, shall belong to the Operator and the Government jointly, in proportion to their respective contributions, and upon the completion of the work or the termination of the contract shall be disposed of promptly by the Operator for the joint account of the Government and the Operator, either by return to the vendor, by sale to others, or purchase by the Operator at a price at least as high as could otherwise be obtained, as may appear to be for the best interest of the Government, unless the Government, in writing, waives its interest in any such item. If necessary to accomplish such disposition, the Operator shall dismantle, sever from the land, and remove any such item, the cost thereof to be for the joint account of the parties in proportion to their respective interests. If the Operator, within 90 days after the receipt of written notice from the Government, fails, neglects, or refuses to dispose of such property, the Government may itself enter upon the land, take possession of, and remove and dispose of any such property as above provided.

DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1012 Flood Building
870 Market Street
San Francisco 2, Calif.

OFFICIAL BUSINESS

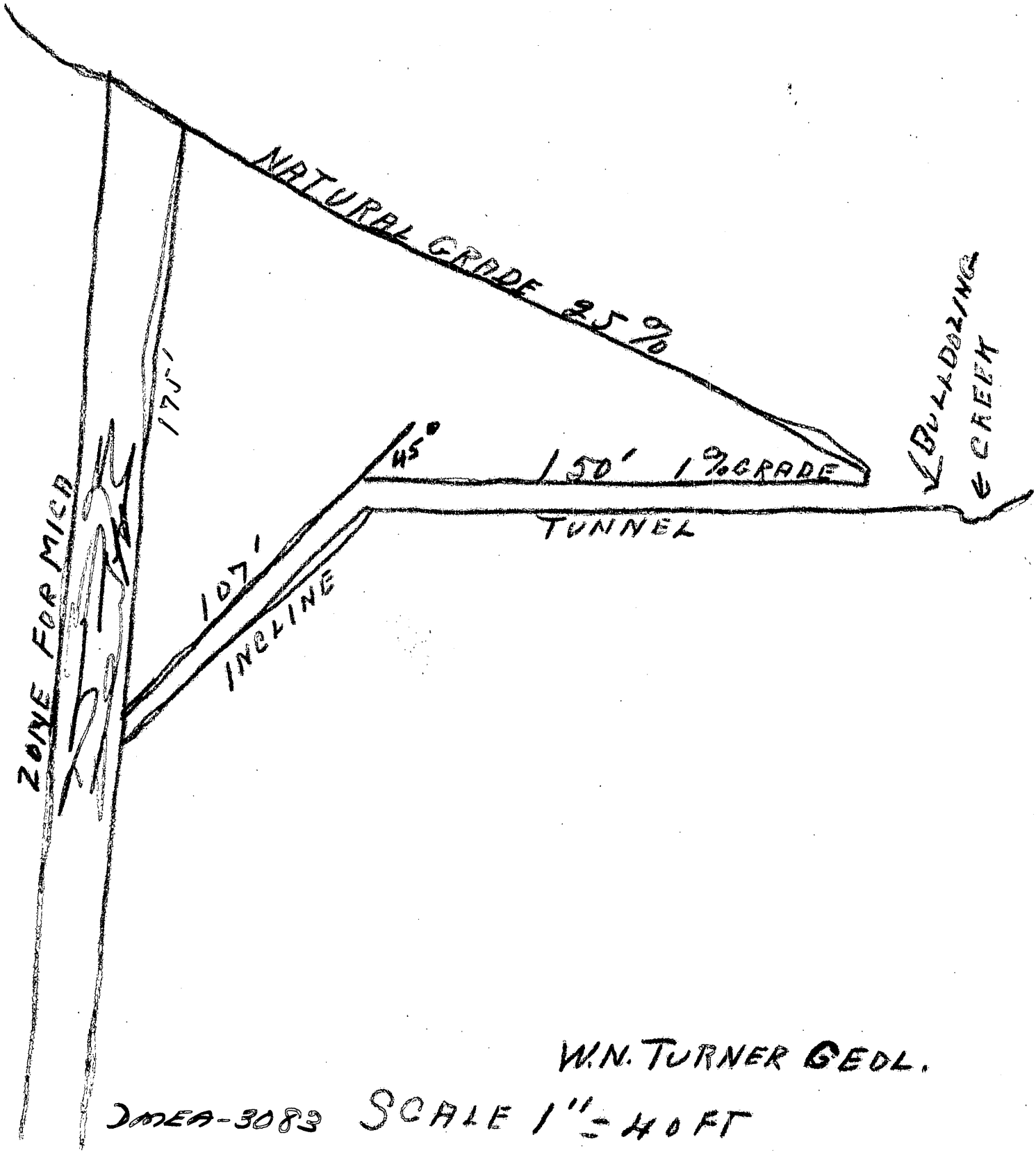
PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300

SAN FRANCISCO, CALIF.
JUN 12
630PM
1953
RINCON ANNEX

Defense Minerals Exploration Administration
Interior Building
Washington 25, D. C.

BUCHANAN MINERALS INC

MICA DEPOSITE & PROPOSED EXPLORATION TUNNEL

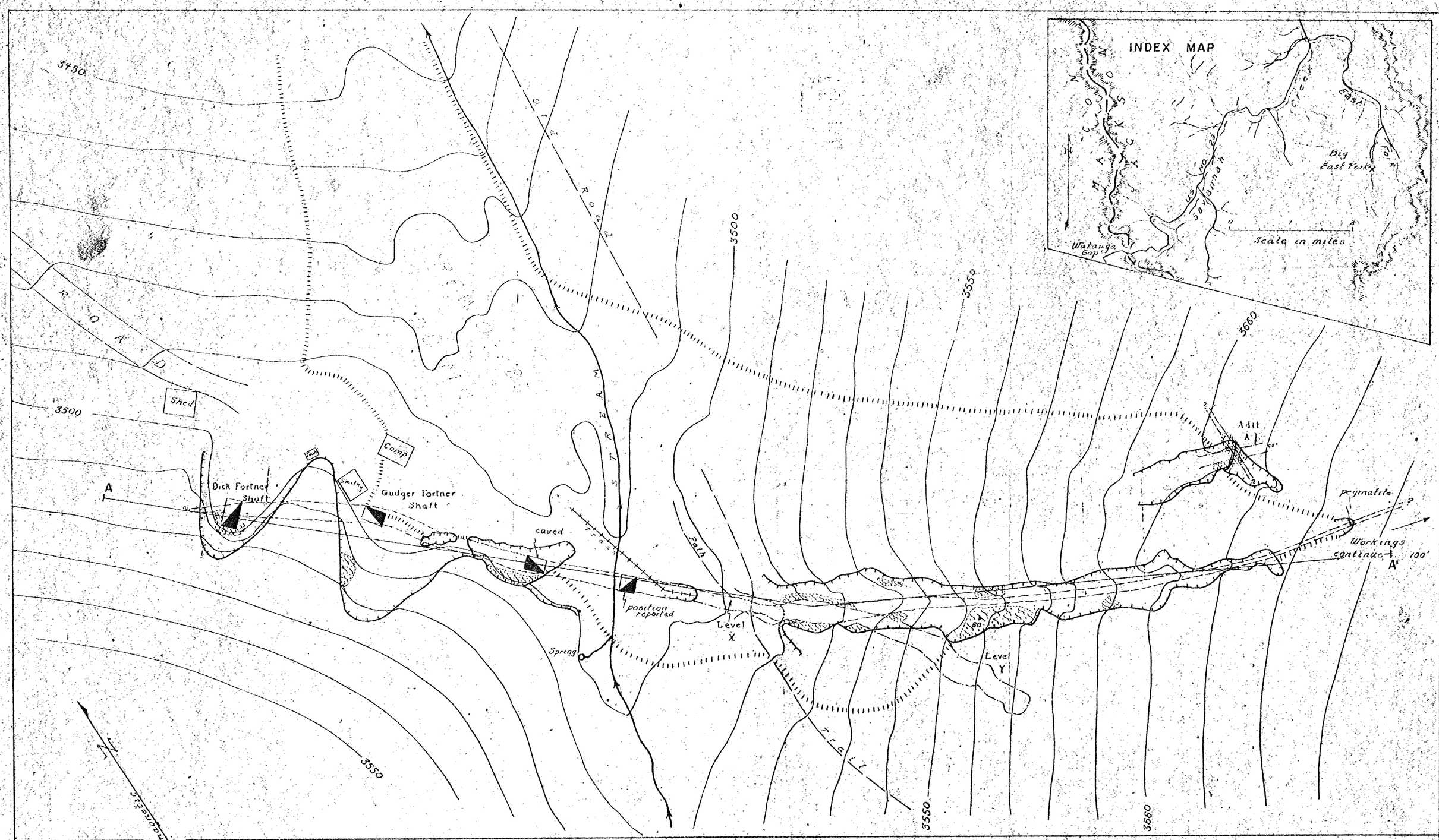


W.N. TURNER GEOL.

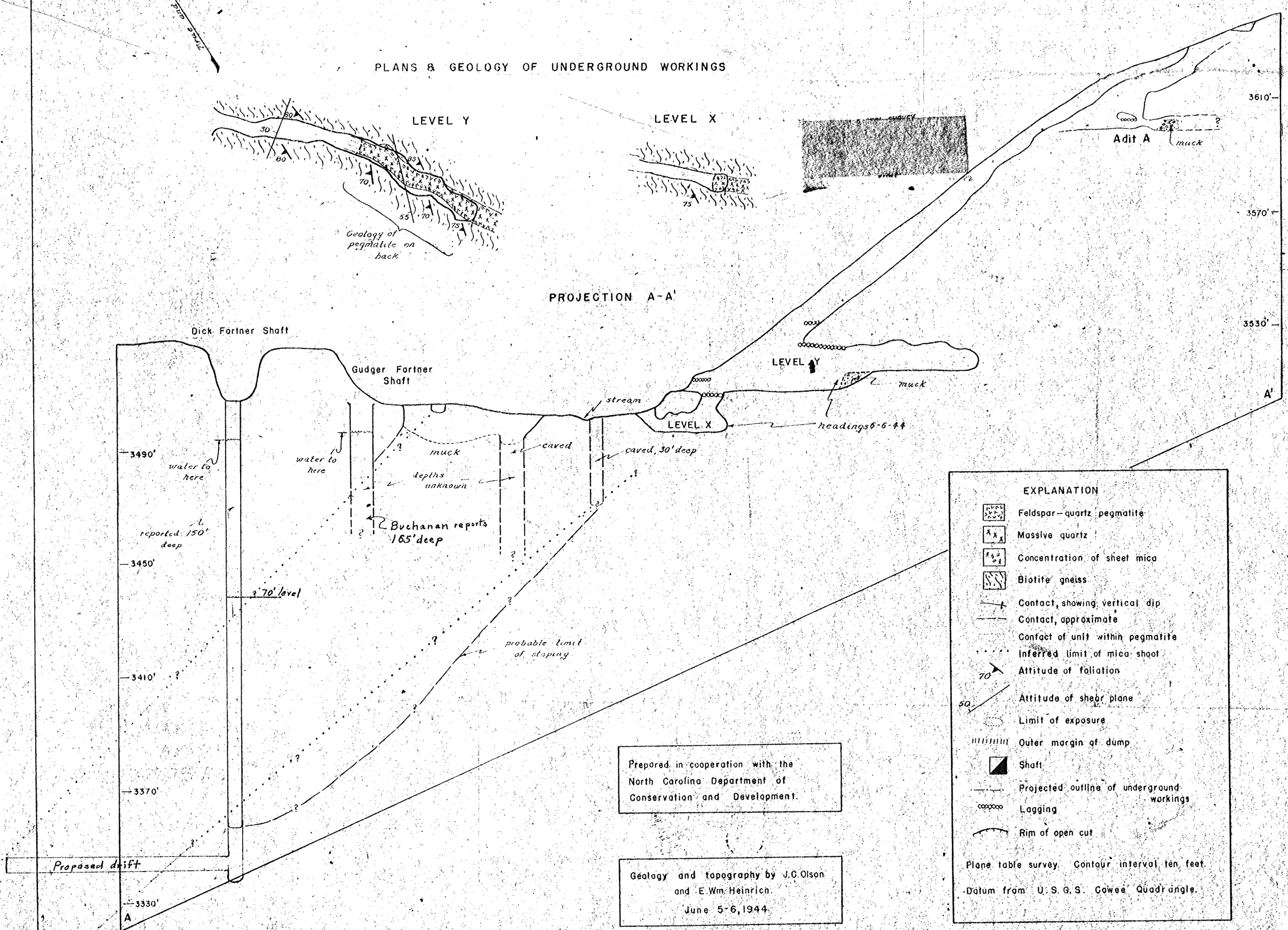
DMEA-3083 SCALE 1" = 40 FT

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STRATEGIC MINERALS INVESTIGATIONS
PRELIMINARY MAP



PLANS & GEOLOGY OF UNDERGROUND WORKINGS



Prepared in cooperation with the North Carolina Department of Conservation and Development.

Geology and topography by J.C. Olson and E. Wm. Heinrich.
June 5-6, 1944

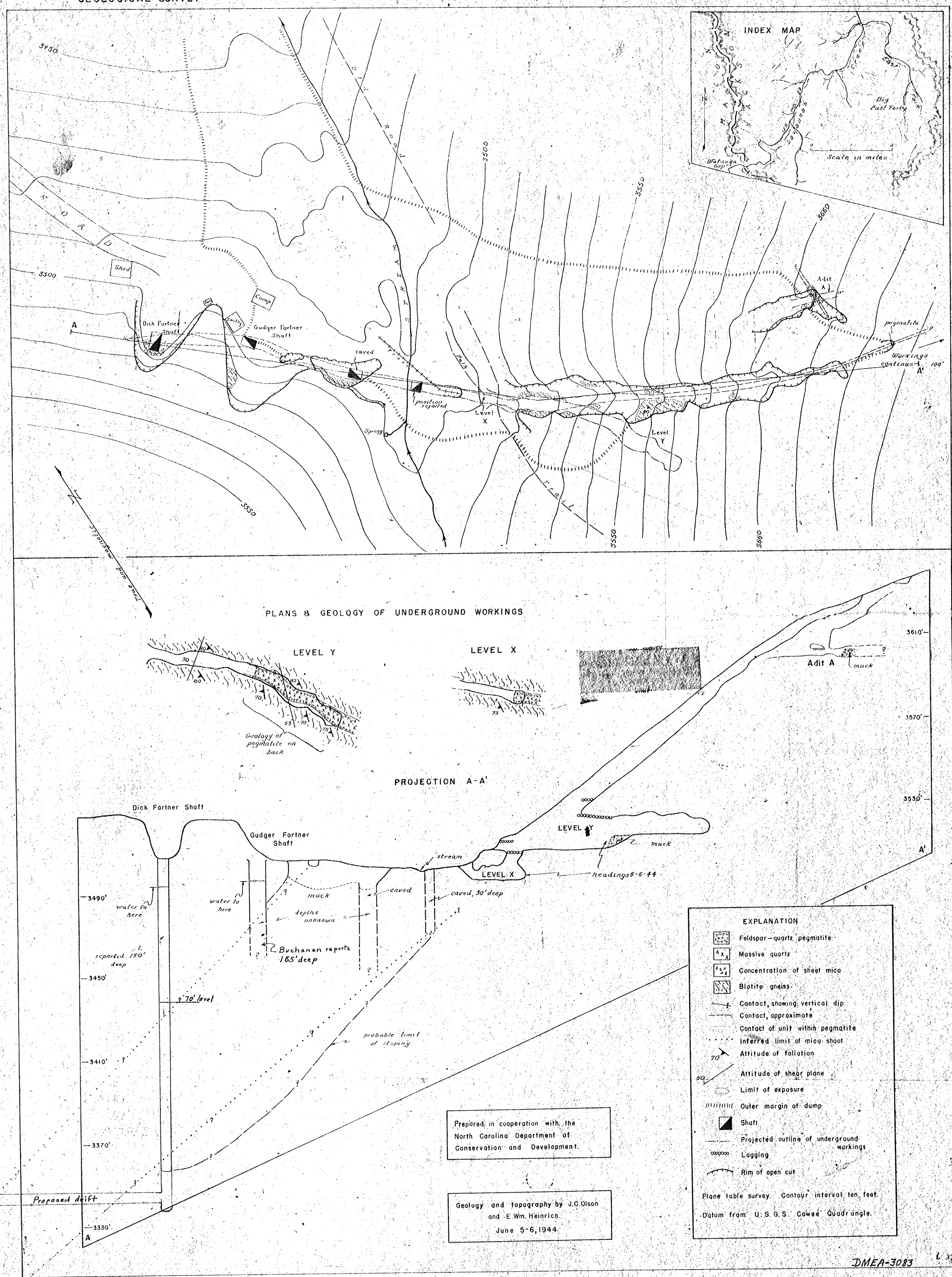
DMEA-3083

BIG EAST FORK MICA MINE, JACKSON COUNTY, N.C.

20 10 0 20 40 60
Scale in feet

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STRATEGIC MINERALS INVESTIGATIONS
PRELIMINARY MAP



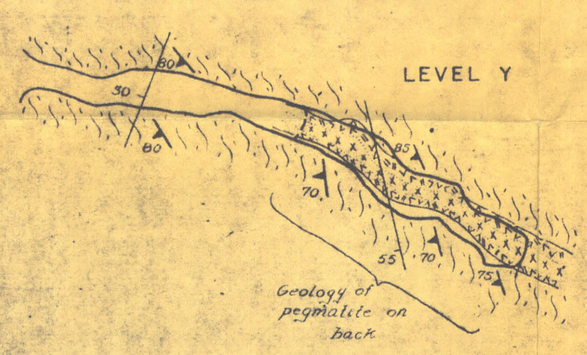
BIG EAST FORK MICA MINE, JACKSON COUNTY, N.C.

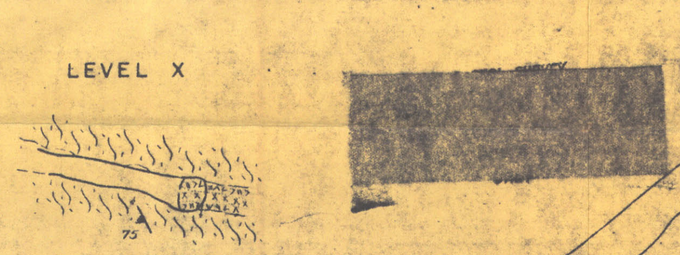
20 10 0 20 40 60
Scale in feet

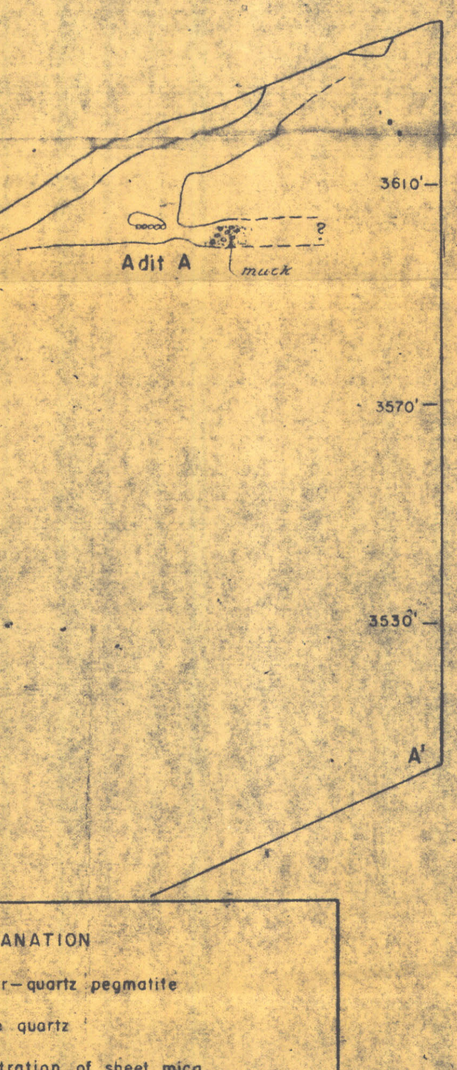
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

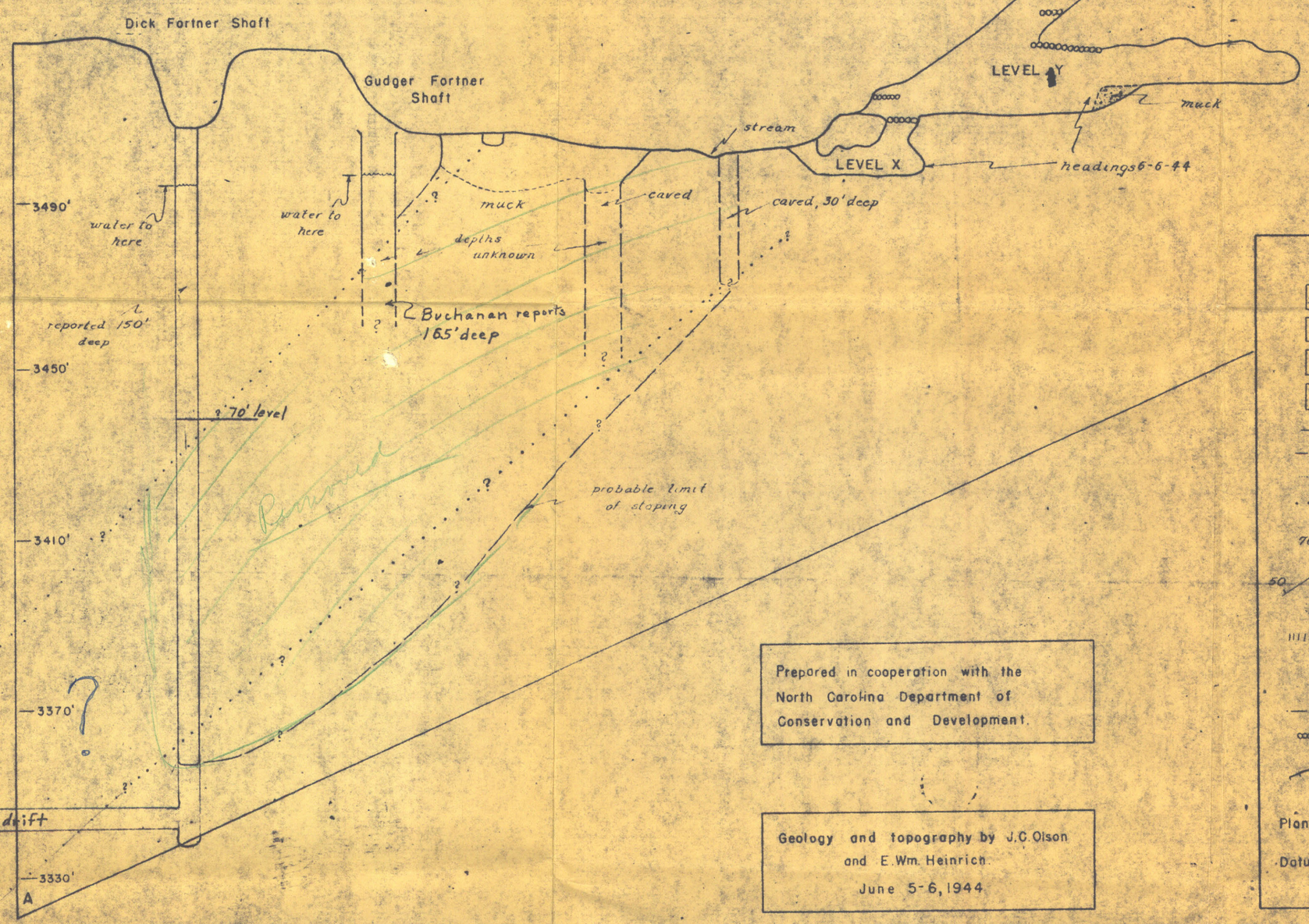
STRATEGIC MINERALS INVESTIGATIONS
PRELIMINARY MAP

PLANS & GEOLOGY OF UNDERGROUND WORKINGS









EXPLANATION

- Feldspar–quartz pegmatite
- Massive quartz
- Concentration of sheet mica
- Biotite gneiss
- Contact, showing vertical dip
- Contact, approximate
- Contact of unit within pegmatite
- Inferred limit of mica shoot
- 70 Attitude of foliation
- 50 Attitude of shear plane
- Limit of exposure
- Outer margin of dump
- Shaft
- Projected outline of underground workings
- Lagging
- Rim of open cut

Plane table survey. Contour interval ten feet.

Datum from U.S.G.S. Cowee Quadrangle.

Prepared in cooperation with the North Carolina Department of Conservation and Development.

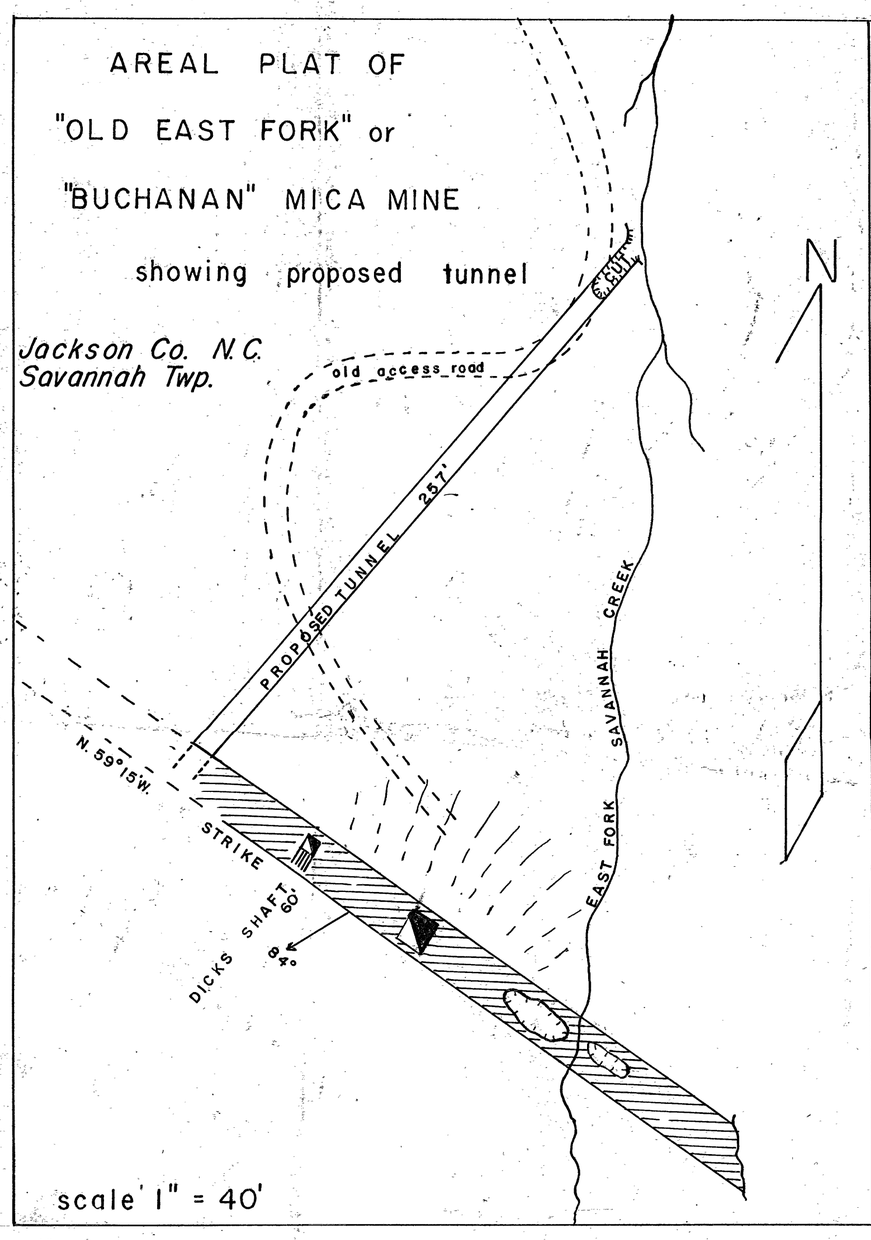
Geology and topography by J.C. Olson and E.Wm. Heinrich.
June 5-6, 1944

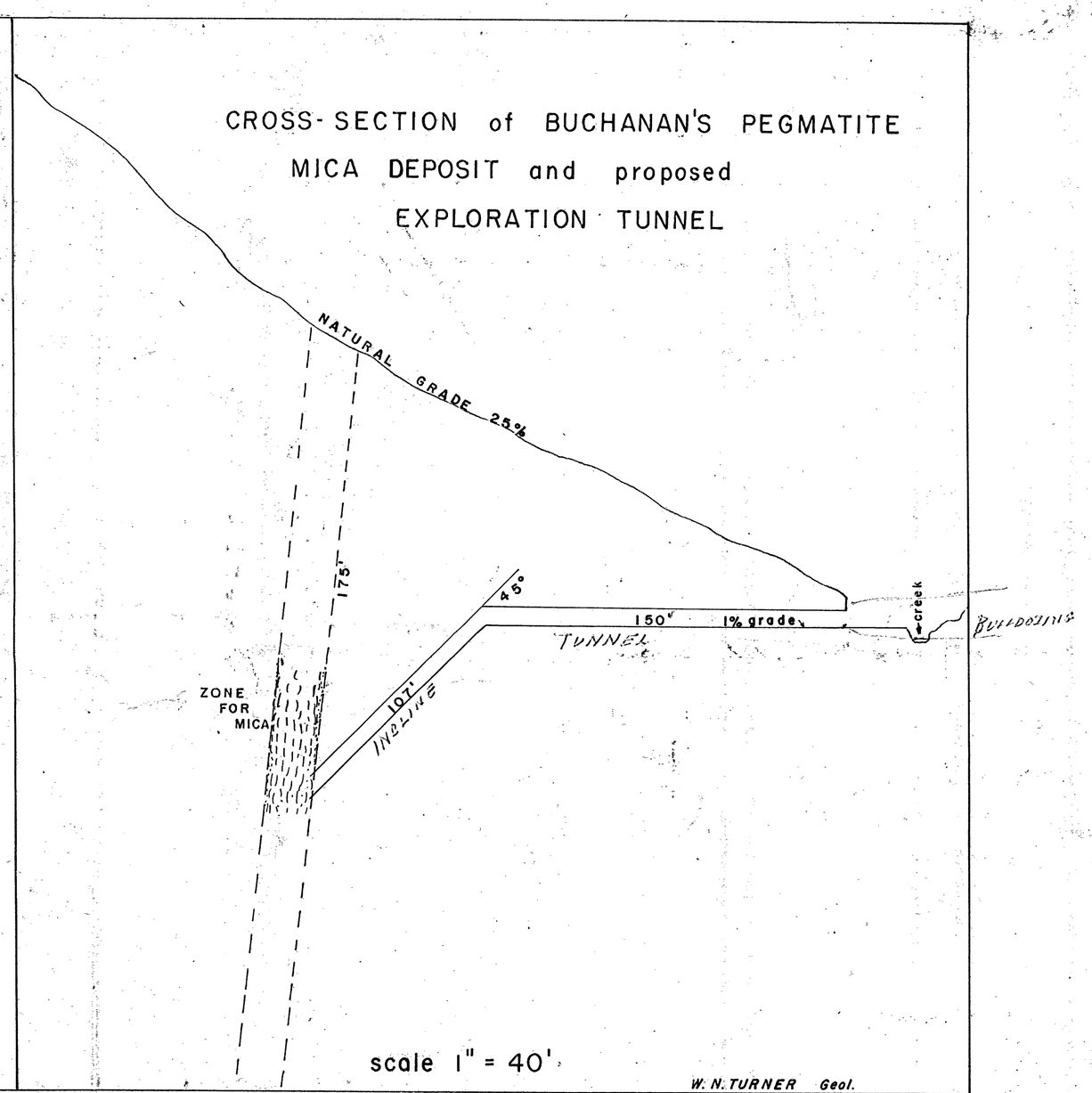
DMEA-3083

Buchanan Mine or BIG EAST FORK MICA MINE, JACKSON COUNTY, N.C.

20 10 0 20 40 60
Scale in feet

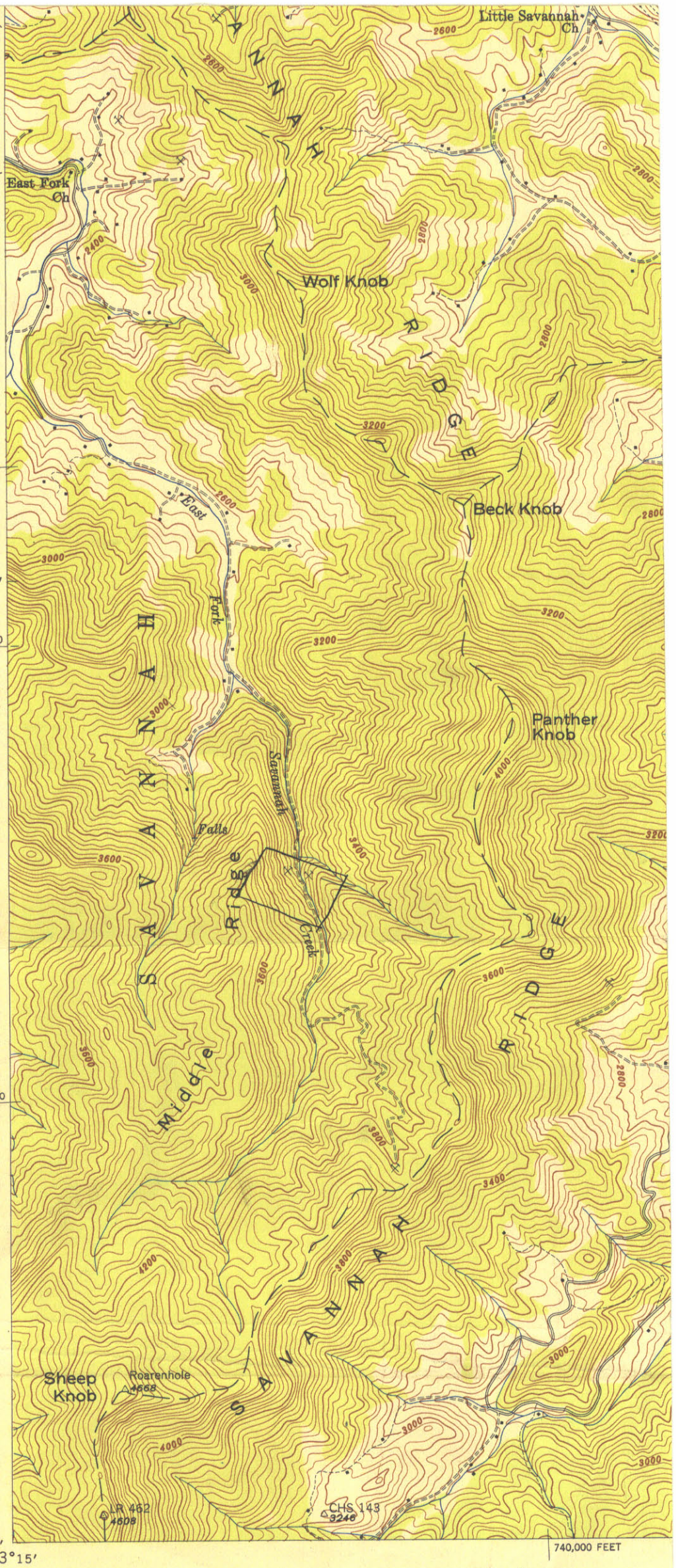
BUCHANAN MINERALS INC.
SYLVA, N.C.





DMEA - 3-083

(Greens Creek 166-SE)



17'30"

1,370,000 YARDS

7

580,000 FEET

35°15'
83°15'

740,000 FEET

(Corbin Knob 167-NE)

Control by USC&GS, USGS, and TVA
Topography by Geological Survey from aerial photographs by stereophotogrammetric methods
Field examination by Tennessee Valley Authority, 1946

Maps distributed by the Geological Survey

½°
TRUE NORTH
MAGNETIC NORTH

APPROXIMATE MEAN DECLINATION, 1946

DMEA - 3083