☐ Audited

☐ Certified

Name Ethoy Mining Co

State N.C.

WORK ANALYSIS SHEET - DMEA PROJECT

Analysis as of Nov
Incl. Voucher for Oct

Commodity Mica

☐ Actual Cost

☑ Agreed Unit Costs

Docket No. 3901

Idm-E No. 885

OPERATION	AUTHORIZED Units	AUTHORIZED Cost	COMPLETED Units	COMPLETED Cost	NET COST
Drifting & Crosscutting	75	2625			
Raising					
Shafts	75	3600			
Winzes					
Drilling (Specify)					
Surface Excavation		300.00		300	300
Underground Excavation					
Roads and Trails					
Operating Equipment Purchased					
Surface Rehabilitation & Repairs					
Underground Rehabilitation					
New Building, Improvements, etc.					
Other (Specify)					
Totals		6525.00		300	300

Prepared by [signature]

7162

DEFENSE MINERALS EXPLORATION ADMINISTRATION
CONTRACT ADMINISTRATION AND AUDIT DIVISION

REPORT OF REVIEW

I have reviewed the Monthly Report of:

H. R. McKinney, C. K. Buchanan,
J. Deb Buchanan, Sam L. Phillips & John Phillips
d/b/a Erby Mining Company
Spruce Pine, North Carolina

pertaining to Exploration Project Contract No. Idm-E885, Docket No. DMEA-3901, for the month of October 1955, covering a project for the exploration of mica on property, known as the J. K. Buchanan Mine located in Mitchell County, North Carolina.

My review included an examination of the Monthly Report (Form MF-104) and supporting documents attached thereto, comparison of the costs claimed with the contract and pertinent schedules, verification of work performed by reference to Field Team reports, and a determination of the reasonableness and propriety of the costs.

This review was made in lieu of a final audit of the Operator's accounts and records for the following reason:

all of the costs incurred were under a contract provision for payment by the Government on the basis of agreed estimated costs of units of work actually performed.

The review disclosed the following facts in regard to the amount paid or to be paid the contractor:

Total cost as billed by Contractor		$300.00
Exceptions:		
By DMEA Finance Officer	$ -0-	
Herewith	-0-	-0-
Total Accepted Cost		$300.00

The contract calls for a 75 percent participation of exploration expenses by the United States Government. Therefore, payment to the contractor by the Government in the amount of Two hundred twenty-five and no /100 Dollars

$225.00

is considered valid and proper, provided that the Regional Executive Officer, the Administrator, or other competent official has accepted or will accept the project as having otherwise met the terms of the contract.

E. D. Talbert, Auditor

November 22, 1955

Division Copy

RECEIVED
OCT 26 1955

MF-200A
(Revised June 1954)

Docket No. DMEA 3901

Commodity Mica

Contract No. Idm-E885

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
EXPLORATION PROJECT CONTRACT[1]
(Short Form)

It is agreed this OCT 3 1955 day of ....., 195..., between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] .....

M. M. McInnes, C. K. Buchanan, J. Zeb Buchanan, Carl L. Phillips, and John Phillips, A Partnership, d/b/a Jay Mining Company,

whose mailing address is Spruce Pine, North Carolina,

hereinafter called the "Operator," as follows:

ARTICLE 1. *This contract* is entered into under the authority of the Defense Production Act of 1950, as amended. It consists of this form (MF-200A), the attached Exhibit "A," Annex I, and map

The Operator shall not transfer or assign this contract or any right thereunder without the written consent of the Government.

ARTICLE 2. *Operator's property rights.*—(a) The land which is the subject of this contract (hereinafter called "the land") is in the State of North Carolina, County of Mitchell, and is described in Annex I.[3]

(b) The Operator represents and undertakes that:

(1) The Operator is the [4] Lessee of [5] the mineral rights in the land, in possession and entitled to possession for all of the purposes of this contract, under and by virtue of a [6] ....., [7] ..... recorded in Book 17, page 55, official records of said County; and

(2) The Operator's right, title, or interest (whether as owner, lessee, or otherwise) is subject only to the following claims, liens, or encumbrances: None

Consent to Lien of Owner

(c) The Subordination Agreement of the holder of any claim, lien, or encumbrance listed above, and (if the Operator does not hold the legal title) the Consent to Lien of any holder of the legal title of the land (lessor, seller, optionor, etc.), are attached, as follows: .....

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] Insert name, and if an organization, its nature (corporation and place of incorporation, partnership with p partners, etc.).
[3] State on a separate sheet marked "Annex I" the legal description or enough to identify the property, pa excluding any areas from which the production is not to be subject to the Government's percentage royalty.
[4] Insert "owner," "lessee," "contract purchaser," "locator," etc.
[5] Insert "the entire interest," "the mineral rights," "an undivided one-third," etc.
[6] Insert "deed," "lease," "contract," "location notice," "patent," etc.
[7] If not recorded, so indicate by inserting "un."

(d) The Operator shall preserve and maintain his right, title, and interest in the land and his right to the possession thereof for the purposes of this contract, and shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of this contract. Until the lapse of the time within which the Government may make a certification of discovery or development without any such certification having been made, and after any such certification has been made, the Operator shall neither transfer, convey, nor surrender the land nor any right, title, or interest therein, nor permit nor suffer any claim, lien, or encumbrance thereon, without expressly referring to and providing in the instrument of conveyance, lien, or encumbrance for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof. If the Government makes no certification of discovery or development within the time limited in Article 7, it shall thereafter have no claim against the land or any production therefrom except for any production referred to in Article 7(b)(1).

ARTICLE 3. *The exploration project.*—The project is a search for indicated or undeveloped deposits of ..... The work to be performed is described in Exhibit "A." The Operator on or before Nov. 15, 1955 shall commence the work, and on or before March 31, 1956 (unless the Operator's obligation to complete the work is terminated—see Article 8) shall complete the work. , except as otherwise provided in Exhibit "A" respect to place of work.

ARTICLE 4. *Performance of the work.*—(a) *Operator's responsibility.*—The work shall be performed with reasonable diligence, efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for liability insurance covering employment; and with suitable and adequate equipment, facilities, materials, supplies, and labor, to bring it to completion within the time fixed.

(b) *Government may inspect.*—The Operator shall consult with and inform the Government on all phases of the work as it progresses. The Government may enter at all reasonable times to inspect the work under the contract, and also after a certification of discovery or development to inspect production operations and underground workings. The operator shall provide the Government with all reasonable means of access for such inspections.

ARTICLE 5. *Contribution by the Government.*—A fixed cost for each unit of work to be performed (per foot of drifting, per foot of drilling, per hour of operations, etc.) is hereby agreed upon, and is set forth in Exhibit "A" in connection with the estimated total cost of the project in the sum of $5525.00 The Government will contribute 75 percent of the fixed unit costs as work is performed, in a total sum not in excess of $4143.75: *Provided,* That until the Operator has rendered to the Government his final report, and any final auditing required by the Government has been made, and a final settlement of the contract has been made, the Government may withhold from the last voucher or vouchers such sums as it sees fit not in excess of 10 percent of the estimated total cost of the work. The Government will make its contribution on the basis of the monthly vouchers referred to in Article 6(b), but all payments by the Government are provisional only, subject to audit, until the account between the Operator and the Government is finally audited and settled. To the extent that excesses over fixed unit costs or any excess over the estimated total cost may be necessary for the performance of the work, the Operator shall incur and pay such excesses for his own account without contribution by the Government. The Government may make payments directly to independent contractors and suppliers for the account of the Operator rather than to the Operator.

ARTICLE 6. *Reports, accounts, audits.*—(a) *Operator's records.*—The Operator shall keep suitable records and accounts of the units of work performed and of any production in which the Government may have an interest; and shall preserve those with respect to work performed for at least three years after final payment by the Government, and those with respect to production for at least three years after any obligation to pay royalties to the Government has terminated. The Government may inspect and audit said records and accounts at any time, either by itself or by a certified public accountant. The Comptroller General of the United States or his representative, until the expiration of said three-year periods, shall have access to and the right to examine any pertinent books, documents, papers, and records of the Operator. All of the Operator's vouchers and records and accounts relating thereto and the Government's payments thereof remain subject to adjustment until final audit by the Government.

(b) *Progress reports and vouchers.*—The Operator shall provide the Government with five copies of monthly progress reports in three sections as follows: (1) Operator's Monthly Report and Voucher showing a detailed statement of units of work performed during the reporting period; (2) Operator's Unit Cost and Progress Report showing the various types of work performed during the reporting period and the fixed unit costs incurred for each type of work; and (3) a Narrative Report of the work

performed during the reporting period including adequate engineering-geological maps or sketches, drill hole logs and locations, and assay reports on samples taken concurrently with advance in mineralized ground. (Forms for reporting under (1) and (2) above will be provided by the Government.)

(c) *Final report.*—Upon completion of the work or termination of the Government's obligation to contribute to costs, the Operator shall furnish the Government with five copies of a final report (in addition to the final progress report and voucher). This final report shall include a geological and engineering evaluation of the results of the work performed under the contract with an estimate of the ore reserves resulting from such work, complete assay data, adequate geological and engineering maps or sketches, and a summary of the work performed and the unit costs thereof.

(d) *Report of sales.*—The Operator shall provide the Government with suitable accounting and documentary evidence covering all production to which the Government's percentage royalty relates, such as copies of smelter or concentrator settlement sheets, and certified accounts of production and sale or other disposition of production.

(e) *Compliance with requirements.*—If in the opinion of the Government any of the Operator's reports, records, or accounts are insufficient or incomplete, or if the Operator fails to make them, the Government may procure the making or completion of such with suitable attachments as an expense of the work to which the Operator shall contribute. The Government may withhold approval and payment of any vouchers relating to insufficient or incomplete reports, records or accounts.

ARTICLE 7. *Repayment by Operator.*—(a) *Certification.*—If the Government considers that a discovery or development from which production may be made has resulted from the work, the Government, at any time not later than six months after a sufficient final report and final account (see Article 6) has been rendered, may so certify in writing to the Operator. Such certification shall describe broadly or indicate the nature of the discovery or development.

(b) *Royalty on production.*—The Operator, as principal if the Operator is the producer, or as surety if the Operator is not the producer, shall pay to the Government a royalty on all minerals mined or produced from the land, as follows: (1) regardless of any certification of discovery or development, from the date of the contract until the lapse of the time within which the Government may make such certification, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first; or (2) if the Government makes a certification of discovery or development, within a period of ten years from the date of the contract, or until the total net amount contributed by the Government without interest is fully repaid, whichever occurs first.

(c) *Basis for computation.*—The Government's royalty shall be a percentage of the gross proceeds (including any bonuses, premiums, allowances, or other benefits) from the production sold, in the form sold (ore, concentrates, metal, or equivalent), at the point of delivery (the f. o. b. point); *except,* that charges of *the buyer* arising in the regular course of business, and shown as deductions on the buyer's settlement sheets, on account of the cost of treatment processes performed by *the buyer,* sampling and assaying to determine the value of the production sold, and freight paid by *the buyer* to a carrier (not the Operator), shall be allowed as deductions in arriving at the "gross proceeds" as that term is used herein. Any costs of treatment processes, sampling or assaying, or transportation, performed or paid by the Operator or by anyone other than the buyer, are not deductible in arriving at the "gross proceeds" as that term is here used. The term "treatment processes," as here used, means those processes (such as milling, concentrating, smelting, refining, or equivalent) applied to the crude ore or other production after it is extracted from the ground, to put it into a commercially marketable form; excluding fabricating or manufacturing.

(d) *Unsold production.*—If any production (ore, concentrates, metal, or equivalent), after the lapse of six months from the date the ore was extracted from the ground, remains neither sold nor used by the Operator in integrated manufacturing or fabricating operations (for instance, if it is stockpiled), the Government, at its option, as long as it so remains, may require the computation and payment of its royalty on the value of such production in the form (ore, concentrates, metal, or equivalent) it is in when the Government elects to require computation and payment. If any production is used by the Operator in integrated manufacturing or fabricating operations before the Government makes its election, the Government's royalty on such production shall be computed on the value thereof in the form in which and at the time when it is so used. "Value" as here used means what is or would be gross income from mining operations for percentage depletion purposes in Federal income tax determination, or the market value, whichever is greater.

(e) *Percentages of royalty.*—The percentages of the Government's royalty shall be as follows:

One and one-half (1½) percent of amounts ("gross proceeds" or "value") not in excess of eight dollars ($8.00) per ton of production in the form in which sold, held, or used, plus one-half (½) percent for each additional full fifty cents ($0.50) by which such amounts exceed eight dollars ($8.0 per ton, but not in excess of five (5) percent of such amounts.

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

(f) *Time for computation and payment.*—The Government's royalty shall be computed and paid currently upon each lot sold, held, or used in integrated operations, as the case may be, as above provided in this article.

(g) *Lien for payment.*—To secure the payment of its percentage royalty, there is hereby granted to the Government a lien upon the land or the Operator's interest in the land and upon any production of minerals therefrom, until the royalty claim is extinguished by lapse of time or is fully paid.

(h) *Notice to purchasers.*—The Operator shall give notice of the Government's claim for royalty to any purchaser of the production, and shall authorize and direct such purchaser to pay the royalty directly to the Government and to furnish the Government with copies of the settlement sheets. If the records of any production and sales or other disposition of production, whether the production is by the Operator or by others, are not made available to the Government, the amount of the royalty may be estimated by the Administrator, Defense Minerals Exploration Administration, or his successor, and his estimate thereof shall be final and binding upon the Operator.

(i) *No obligation to produce.*—Nothing in this contract is to be construed as imposing any obligation on the Operator or the Operator's successor in interest to engage in any production operations.

(j) *Government not obligated to buy.*—Nothing in this contract shall be construed as imposing any obligation on the Government to purchase any minerals mined or produced from the land.

ARTICLE 8. *Termination of the Government's obligations.*—(a) If in the opinion of the Government operations at any time have failed to achieve anticipated results that indicate the probability of making a worthwhile discovery, and in the opinion of the Government further operations are not justified, the Government may give the Operator written notice thereof, and thereupon the Government shall be free of all obligation to pay on account of units of work not then performed, and the Operator shall be free of all further obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting.

(b) If in the opinion of the Government the Operator is in any manner in default under the terms of the contract, the Government may give the Operator written notice of such default with a specification of reasonable time within which the default must be cured; and if the Operator fails to cure such default as required, thereupon the Government shall be relieved of all obligation to pay on account of units of work not performed when the notice was given, and the Operator shall be free of all obligation to prosecute the work other than such as may be necessary and incidental to winding up, reporting, and accounting. The remedy provided for the Government in this paragraph "(b)" is in addition to any other remedy provided in this contract, and in addition to any other remedy the law may provide for breach of contract.

(c) The giving of any notice by the Government under the provisions of this Article 8 shall not affect the Government's rights as provided for in the contract with respect to a percentage royalty, and such rights shall be fully preserved.

ARTICLE 9. *Notices to be given by the Government* may be delivered to the Operator, or may be sent by registered mail addressed to the Operator at his mailing address stated in this contract. If mailed, notices are deemed to have been delivered five days after the date of mailing.

ARTICLE 10. *Officials not to benefit.*—No member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

ARTICLE 11. *Changes and added provisions.*—

Executed in sextuplicate the day and year first above written.

[redacted]

By H R McKinney (Partner)

[redacted]

By G. K. Buchanan (Partner)

By J. Zeb. Buchanan (Partner)

By Sam L. Gillispie (Partner)

By John H. Allen (Partner)

THE UNITED STATES OF AMERICA

By C. O. Mittendorf

[redacted]

Rubin

"Appd. Sol. Off."

Anderson

J. L. Cuson

Talbot

Selfridge

I, ..., certify that I am the ..... secretary of the corporation named as Operator herein; that ..... who signed this contract on behalf of the Operator, was then ..... of said corporation; that said contract was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

.....

[CORPORATE SEAL]

U. S. GOVERNMENT PRINTING OFFICE 16—70618-1

RECEIVED
OCT 26 1955

EXPLORATION PROJECT CONTRACT
MOKY MINING COMPANY
DOCKET NO DMEA-3901
ANNEX I

The land referred to in Article 2 of the contract is described as follows:

Beginning at a stake located at the center of what is known as the J. K. Buchanan Mine which is located approximately 175 feet N. W. of a Poplar tree marked with an "X" and running 500 feet North; thence 500 feet west; thence 1000 feet south; thence 1000 feet east; thence 1000 feet north; thence 500 feet west to a point of closing.

The J. K. Buchanan Mine is 3.1 airline miles S 70° E of Bakersville, Mitchell County, North Carolina.

EXPLORATION PROJECT CONTRACT
[illegible] MINING COMPANY
DOCKET NO DMSA-3901

RECEIVED
OCT 26 1956

EXHIBIT "A"

Description of the Work

The general location of the exploration work is shown in part on the map entitled, "J. K. Buchanan Mine, Mitchell County, North Carolina, DMSA-3901," attached hereto and made a part hereof.

The work is divided into two stages, as indicated below. The Operator shall perform Stage I, and shall perform as much of Stage II as the Government approves in writing.

STAGE I

Bulldoze a crosscutting trench about 100 feet by 25 feet by 6 feet deep with a D-4 model caterpillar tractor w/dozer or equivalent size unit.

STAGE II

1. At a point approved by the Government, sink a 75-foot, two-compartment, incline shaft on the pegmatite.

2. From a point in the shaft (item 1) approved by the Government, drive 75 feet of drifts on the pegmatite.

The shaft and the drifts shall be timbered as necessary and shall have minimum cross-sectional dimensions of 5 feet by 7 feet in the clear of timber.

The location, direction, inclination, and extent of all work are subject to the approval of the Government.

FIXED UNIT COSTS

STAGE I

Bulldozing 30 hours @ $10.00/hr. $ 300.00

STAGE II

Shaft sinking, 75 feet @ $48.00/ft.	$3,600.00	
Drifting, 75 feet @ $35.00/ft.	2,625.00	
Estimated total cost of project		$6,225.00
Government participation @ 75%		$4,893.75

MF-203
Revised March 24, 1955

For Government's Use Only
EXPLORATION PROJECT CONTRACT
Operator
Docket No. DMEA-
Contract No. Idm-E
Contract Date

RECEIVED
JUL 2 0 1955

CONSENT TO LIEN

To the United States of America:

Referring to that certain land in the County of Mitchell, State of North Carolina, described as follows:1/ Beginning at a stake located at the center of what is known as the J. K. Buchanan Mine which is located approximately 175' N.W. of a Poplar tree marked with an "X" and running 500' North; thence 500' West; thence 1000' South; thence 1000' East; thence 1000' North; thence 500' West to a point of closing. This property located about 4 miles East of Bakersville in Green Cove.,

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

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

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

None

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

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

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

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

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

5. Added provision: _____

Dated this 18 day of July, 195 5.

Bakersville, Rt. 3, N. C.

H R McKinney [Seal]

Bidalie McKinney [Seal]

_____ [Seal]

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

_____

[Corporate Seal]

MAY 21 1956

Erby Mining Company
c/o Mr. Sam L. Phillips
Spruce Pine, North Carolina

Re: Docket No. [illegible]-7901-[illegible]
Erby Mining Company
J. K. Buchanan Mine
Mitchell County, North Carolina
Contract No. [illegible]

Gentlemen:

Reference is made to your terminated exploration contract with the Government.

We sincerely regret that the work performed did not result in a certification of discovery or development under the provisions of the contract. In the absence of such certification, the Government retains no claim or lien against the property subject to the contract or any future production therefrom. We, therefore, are closing our books and records on this project. Your attention, however, is called to the provisions of the contract which require the operator to keep and preserve certain records for the period indicated.

Your interest in the [illegible] exploration program and participation therein are fully appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

JHopkins:ms 5/16/56
Copy to: Docket
Mr. Chambers
Field Team, Region V
Mr. Killagnard, 5222
Mr. Dietrich, 9061
Mr. Hook
Admr. R. File
H. R. McKinney } land owners
Biddie McKinney }

600

MAY 21 1956

Mr. and Mrs. H. R. McKinney
Route #3
Bakersville, North Carolina

Re: Docket No. DMEA-9901-mica
Erby Mining Company
J. K. Buchanan Mine
Mitchell County, North Carolina
Contract No. Mm-2885

Dear Mr. and Mrs. McKinney:

Reference is made to the Owner's Consent to Lien dated July 18, 1955, which you executed in connection with the subject contract for a Defense Minerals Exploration Administration project on your property in Mitchell County, North Carolina.

Transmitted herewith for your information are copies of our self-explanatory letter of this date to the operator under this contract.

Sincerely yours,

C. O. Mittendorf

Administrator

Enclosure:2

JHopkins:ms 5/16/56
Copy to: Docket
Mr. Chambers
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Hank
Admr. R. File

Hopkins

600

May 16, 1956

Project Summary Report

By: James Hopkins

1. Docket No. DMEA-3901-mica
Contract No. Idm-3885
J. K. Buchanan Mine
Mitchell County, North Carolina

Operator: Erby Mining Company(c/o S. L. Phillips)
Spruce Pine, North Carolina
Operator's Property Rights:
Lessee of mineral rights

2. Contract: dated October 3, 1955
a) Work Authorized:

Stage I	
Bulldozing 30 hours @ $10.00/hr.	$ 300.00
Stage II	
Shaft sinking 75 feet @ $48.00/ft.	3,600.00
Drifting 75 feet @ $35.00/ft.	2,625.00
Estimated Total Cost	$6,525.00

b) Amendments - none
c) Work Completed:

Strike trench excavation by bulldozing(175'x12'x20')	$ 300.00

Work began October 22, 1955 and completed October 25, 1955
Contract terminated automatically by not approving the work under Stage II.
Field Team Final Report dated January 29, 1956
Operators' Report accompanying October Vouchers accepted in lieu of Final Report.

3. Audit: Report of Review dated November 22, 1955.

Total Cost as billed by the Contractor	$300.00
Exceptions	-0-
Total Accepted Cost	$225.00

4. Certification of Discovery - none issued

5. Comments:

This project was established to explore an area adjacent to a pegmatite that had produced considerable mica from a series of southwest raking mica shoots. It was believed that additional rich mica pegmatites may occur elsewhere on the property.

The area chosen for this project was southwest of the old McKinney shaft.

The bulldozing work exposed a weathered 2.5-foot thick pegmatite in the center-bottom of the cut, enclosed in red-brown soil. It is composed primarily of kaolinized feldspar and scattered small quartz. It is barren of muscovite. No reserves are indicated.

The Operator conducted the work satisfactorily.

The contract was terminated upon completion of Stage I because sufficient pegmatite was not exposed to warrant further exploration.

The Field Team recommended that no certification be issued.

The Nonmetallic Minerals Division concurs in the recommendation.

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

James Hopkins
Nonmetallic Minerals Division

JHopkins:ms 5/16/56
Copy to: Mr. Houk
Admr. R. File

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

RECEIVED
FEB 23 1956

February 21, 1956

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-3901 (mica)

Applicant: Erby Mining Co. (S.L. Phillips)

Name and Location of Property: J. K. Buchanan Mine, Mitchell Co., N. C.

Contract Number: Idm-E 885

Date of Field Team Report: 1/29/56

Date Rec'd. by Br. of Ceramic & Fertilizer Materials: 2/14/56

Field Team Recommendation: Recommend no certification of discovery

Comments;

1. Insufficient mica was disclosed to warrent further exploration.
2. The contract was terminated at completion of Stage I.
3. Reserves of strategic mica are estimated to be negligible.
4. Expenditures -

Total approved	$6,525.00
Total cost	300.00
Gov't. share of the cost	225.00
Value of production during operation	None

Recommendation: I concur with the recommendation of the field team.

Signed

W. F. Dietrich

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 25, POST OFFICE BLDG.
KNOXVILLE 2, TENN.

RECEIVED
FEB 10 1956

February 8, 1956

Memorandum

To: Operating Committee, DMEA - Washington

From: DMEA Field Team, Region V - Knoxville, Tenn.

Subject: Final Report, DMEA-3901, Idm-E885 (mica) Erby Mining Co. Spruce Pine, N. C. J. K. Buchanan Mine, Mitchell County

Enclosed are four copies of the Field Team final report on the subject exploration project. Certification is not recommended.

This contract was terminated by non-approval of Stage II. As the only work under the contract was accomplished within three days, all reported on the Operator's October voucher, we have accepted the narrative accompanying that voucher in lieu of the usual final report.

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

V. J. Lynch, Member
Bureau of Mines

RAL/sm
cc:
Lynch
Peyton
Files

Reviewed by
DMEA OPERATING COMMITTEE
2-15-56
(date)

RECEIVED
FEB 10 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

FINAL REPORT
DMEA FIELD TEAM, REGION V

On

DMEA-3901, Idn-E885 (mica) J. K. BUCHANAN MINE
Mitchell County, N. C.

BY

Lawrence E. Shirley, Mining Engineer
Bureau of Mines

and

S. C. Bergman and A. R. Taylor, Geologists
Geological Survey

January 29, 1956

Reviewed by
DMEA OPERATING COMMITTEE
2-15-56
(date)

RECEIVED
FEB 10 1956

FINAL REPORT
On

DMEA-3901, Idm-2885 (mica) J. K. Buchanan Mine
Mitchell County, North Carolina

Operator: Erby Mining Company, c/o Sam L. Phillips, Spruce Pine, N. C.

Location: 3.1 airline miles S. 70° E. of Bakersville, Mitchell County, N.C.

Summary

The project was terminated upon completion of Stage I. No strategic mica was found. It is recommended that the mine not be certified.

General

Work began October 22, 1955, and was completed October 25, 1955. It consisted of 30 hours of bulldozing at a total cost of $300. A trench trending N. 30° W made about 175 feet long, 12 ft wide, and 20 ft in maximum depth. No equipment was purchased and no surface facilities were built. The contract was terminated upon completion of Stage I, because sufficient pegmatite was not exposed to warrant further exploration.

The work exposed a weathered 2.5 ft thick pegmatite in the center-bottom of the cut, enclosed in a red-brown soil. It strikes N. 45° E and dips 46° NW. The pegmatite is composed primarily of kaolinized feldspar, and scattered small quartz. It is barren of muscovite. No reserves are indicated.

The operator conducted the contract satisfactorily.

Conclusion

No deposit of strategic muscovite was discovered. Further exploratory work is not warranted. It is recommended, based on a lack of reserves, that the mine not be certified.

Expenditures

(a)	Total approved	$6,525.00
(b)	Total cost of project	300.00
(c)	Government's share expended	225.00
(d)	Government's share unexpended	4,668.75
(e)	Produced during operation	None
(f)	Value of production	None
(g)	Royalty paid	None

References

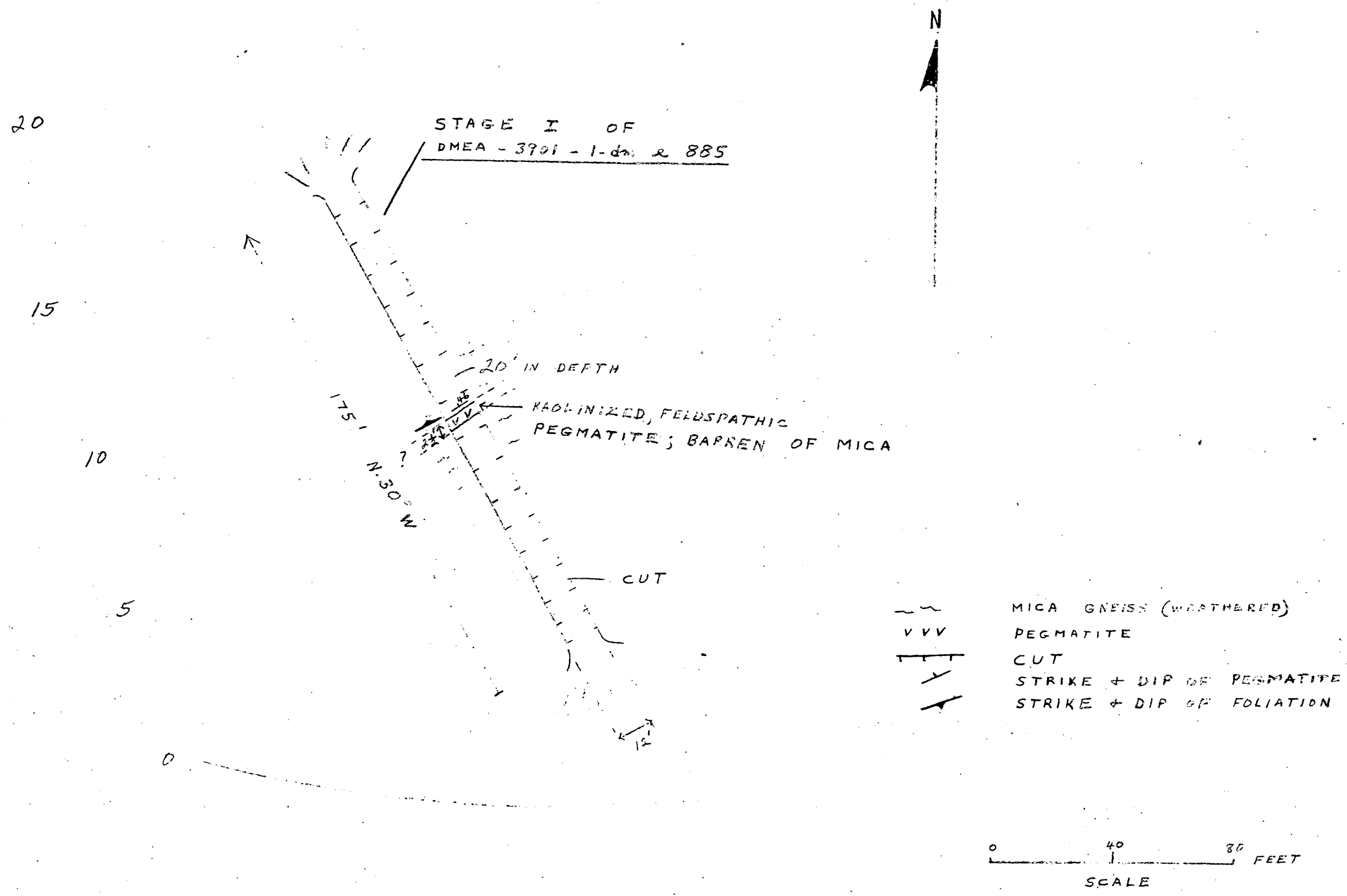
1. Examination report on the J. K. Buchanan Mine, DMEA-3901. Aug. 9, 1955. (Map accompanying report).

2. Interim Report, DMEA-3901, Idm-E885, (mica) Nov. 2, 1955.

L. E. Shirley, Mining Engineer
Bureau of Mines

S. C. Bergman and A. R. Taylor, Geologists
Geological Survey

January 29, 1956.



SKETCH OF THE

J.K. BUCHANAN MINE (MICA)

MITCHELL CO., N.C.

DMEA - 3901, Idm-& 885

FEB., 1956 ; TAYLOR

IN REPLY REFER TO:

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

February 14, 1956

Re: DMEA 3901, Idm-E885
Erby Mining Co.
J. K. Buchanan Mine
Mitchell Co., N. C.
$6,525.00 - Mica

Memorandum

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

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

Subject: Review of Final Field Team report.

The applicant requested assistance in doing $14,100.00 worth of work. The Field Team recommended a lesser 2-stage program, the estimated cost of which is $6,525.00. The Stage I work, bulldozing, failed to reveal a place justifying the Stage II work and the exploratory work was stopped, $300.00 having been expended.

The Field Team recommends that no certificate of discovery be issued.

I concur with the recommendation.

W. E. Nelson

W. E. Nelson

WENelson:iml
G-2/14/56

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
W. F. Dietrich, 3061

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
ROOM 1025 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

RECEIVED
NOV 1

November 15, 1955

Memorandum

RECEIVED
NOV 17 1955

To: Operating Committee, DMEA - Washington

From: Executive Officer, DMEA - Region V

Subject: DMEA-3901, Idm-E885 (mica) Erby Mining Co., Spruce Pine, N. C.
J. K. Buchanan Mine, Mitchell County, N. C.

Reference is made to your letter of November 9.

Actual starting date on this contract was October 22, 1955.

The "on or before" date on our copy of the contract is November 15, 1955.

Robert A. Laurence

RAL/am
cc:
Lynch
Files

Division Copy

November 9, 1955

Mr. Sam Phillips

Spruce Pine, North Carolina

Re: DMEA-3901, Idm-8885 (mica)
J. K. Buchanan Mine

Dear Mr. Phillips:

Stage I of the subject contract which was recently completed, indicates that further exploration is not justified. Therefore, Stage II will not be approved and the contract may be considered terminated.

The narrative description of the work performed which accompanied your October voucher will fulfill the requirement of a final report.

Very truly yours,

W. J. Lynch, Acting
Executive Officer, DMEA
Field Team, Region V

RAL/am
cc:
Lynch
Opr. Com
Shirley
Files

RECEIVED
NOV 14 1955

INTERIM REPORT

DMEA-3901, Idn-8885 (mica) J. K. BUCHANAN MINE

OPERATOR: Erby Mining Co., c/o Sam L. Phillips, Spruce Pine, N. C.

LOCATION: 3.1 airline miles 370°E of Bakersville, Mitchell County, N. C.

Stage I of this contract has been completed without exposing sufficient pegmatite that will justify any additional exploration. The field examiners recommend that the contract be terminated by mutual consent of both parties, if necessary.

Work completed under Stage I consisted of trenching by bulldozer. The trench trends N30°W and is 175 feet long, 12 feet wide, and about 20 feet in (maximum) depth. This work exposed a pegmatite body in the center of the cut about 2.5 feet thick, which strikes N45°E and dips 46°NW. It is composed of kaolinized feldspar primarily small quarts and is barren of mica. The field examiners recommend that no additional exploration be attempted at this location.

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

K. H. Teague, and S. C. Bergman, and A. R. Taylor
Geologists
U. S. Geological Survey

November 2, 1955

Form MF-104 (Rev.)
(April 1952)

Budget Bureau No. 42-R1036.5

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
OPERATOR'S MONTHLY REPORT AND VOUCHER

Month of October 1955 Docket No. DMEA 3901 Contract No. Idm-E885
Operator's Name H. R. McKinney, et al RECEIVED Minerals Mica
Address Erby Mining Company, Spruce Pine, N. C. NOV 10 1955
Contract Amount, $ 6525.00 Government Participation: 75% Amount, $ 4393.75

ITEMS OF COSTS	FOR OPERATOR'S USE: Monthly Total	Totals Previously Reported	Totals To Date	FOR GOVERNMENT USE ONLY: Approved Monthly Total	Approved Totals Previously Reported	Approved Totals To Date
(1) Independent Short Form Contracts:						
Drilling						
30 Hr. Bulldozing @ 10.00 hr.	300.00		300.00			
Crosscutting						
Drifting						
(2) Labor and Supervision:						
Labor						
Supervision						
Technical Services						
(3) Operating Mat'ls. and Supplies:						
Timber						
Explosives						
Pipe						
Track						
(4) Operating Equipment:						
Rental						
Purchase						
Depreciation						
(5) Initial Rehabilitation and Repairs						
(6) New Bldgs., Improvements, etc.						
(7) Miscellaneous:						
Repairs to Equipment						
Sampling and Analysis						
Payroll Taxes						
Liability Insurance						
(8) Contingencies (specify):						
TOTALS	300.00		300.00	300.00		300.00

I certify that the above bill is correct and just and that payment therefor has not been received.

Date 11-3-55 *Payee Erby Mining Company

Per [signature] Title Partner

*When a voucher is signed or receipted in the name of a company or corporation, the name of the person writing the company or corporate name, as well as the capacity in which he signs, must appear. For example: "John Doe Company, per John Smith, Secretary," or "Treasurer," as the case may be.

NOTE.—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.

(Instructions on reverse)

Pursuant to authority vested in me, I certify that this account is correct and proper for payment in the amount of:

$ 225.00

Signature Helen R. Mullin
(Authorized Certifying Officer)

Date NOV 8 1955 Vou. No. 103

(See other side)

1 10/22 10/26 75 00

(For Government use only)

CERTIFICATION BY GOVERNMENT REPRESENTATIVE:

I certify that to the best of my knowledge and belief the contractor submitting this voucher is operating a Defense Minerals Exploration Administration project under Contract No. 885 in accordance with the terms of the contract.

Signature Alfred R. Taylor Title Geologist USGS Date Nov. 7, 1955

APPROVAL BY DMEA EXECUTIVE OFFICER OR ALTERNATE:

Signature V. J. Lynch Title ..... Date .....

MONTHLY REPORT OF OPERATOR

The Operator (Contractor) of an exploration project is required to make a monthly report to the Government through the Regional Executive Officer. This report consists of three parts as follows:

(*a*) *Form MF-104—Operator's Monthly Report and Voucher.*—This form details expenditures and constitutes a voucher for reimbursing the Operator for the Government's share of costs;

(*b*) *Form MF-104A—Operator's Unit Cost and Progress Report.*—This is a statistical report of expenditures which shows costs for the various types of operation; and

(*c*) *Narrative.*—A concise narrative description of progress made, results accomplished, and any unusual difficulties encountered must be furnished as an attachment to this Report and Voucher. Wherever possible, the narrative is to be illustrated with maps or sketches showing formations penetrated and location and assays of samples taken as well as advances in workings. In the case of diamond drilling or churn drilling, the location and inclination of holes is to be shown on a map; logs and assays also are to be submitted.

The Monthly Report of Operator should be prepared in an original and four copies all of which must be sent to the Executive Officer of the Region not later than the 15th of the month following.

Preparation of Form MF-104—Operator's Monthly Report and Voucher.—All the applicable spaces in Form MF-104 should be filled in by the Operator, and the Operator or his agent should sign the certification in the lower left corner of the form.

The items of costs are arranged in the order they appear in Article 6 (a) of Form MF-200 (Revised February 1952), however, this form is readily adaptable for use in reporting activities under other contract forms.

Under Item (1) delete words "Short Form" if the contract is a sub-contract under Form MF-200; and delete word "Independent" if the contract reported is on Form MF-200 (A). Also, report work paid for on a unit basis under contract Form MF-200 as though it were performed under an independent contract.

Under Item (2) include labor, supervision and technical services incurred for the exploratory operations. Do not include labor, supervision and technical services used for work performed under items (5) and (6).

Under Item (3) include the costs of material and supplies used in the project other than that used under items (5) and (6).

Under Item (4) appear the three types of operating equipment expenditures, that is, rental, purchase and depreciation. The expenditures made for renting equipment belonging to a third party will be reported under "Rental". The amount paid or duly obligated for payment for the purchase of equipment will be reported under "Purchase". The amount of expenditures due the Operator to reimburse him for depreciation of equipment owned will be reported under "Depreciation".

Item (5) comprises costs of labor, supervision, technical services, materials, etc., which are used in the initial rehabilitation and repair of existing buildings, installations, fixtures, and equipment. These costs, therefore, should not be reported under items (2) and (3).

Item (6) includes the labor, supervision, technical services, materials, etc., used in the installation or construction of new buildings, fixed improvements, etc., necessary for the project. These costs, therefore, should not be reported under items (2) and (3).

Item (7) covers miscellaneous types of expenditure such as payroll taxes, liability insurance, workmen's compensation insurance, repairs to equipment and sampling and analysis. Only that part of payroll taxes, liability insurance and workmen's compensation which are paid by the operator should be reported under item (7). The share paid by the employee as a payroll deduction is to be included under item (2) as labor costs.

Item (8) includes any unforeseen costs not included in the other seven categories.

The original of Form MF-104 when submitted for reimbursable expenses incurred under contract Form MF-200 must be supported by original documentation or by certified copies of purchase orders, payrolls or transcripts of payrolls, unless such documentation has been waived by the Regional Executive Officer. This certification may be stated thus, "Certified True Copy (or Transcript)", followed by appropriate signature. If the Executive Officer of the Region determines that a contract under Form MF-200 should have an "on-site" audit, that is, a Government auditor should make an audit of the Operator's books and records of account, the Operator need not support his monthly voucher with original or certified documents except in cases of equipment purchases whose individual costs exceed $50.00. In these cases the original or a certified copy of the purchase order or invoice should be attached to the Monthly Voucher. N. B.—Only the *original* of Form MF-104 is required to be documented. The four copies of Form MF-104 are not to be thus supported.

Form MF-104 submitted for reimbursement under fixed price contracts on Form MF-200 (A), however, are not required to be supported by documentation of any kind. The Operator will submit his claim under item (1) of Form MF-104 by deleting as stated above the word "Independent" and by showing the number of feet or other units immediately after the appropriate descriptive word, such as, drilling, bulldozing, crosscutting, drifting, etc., and giving the "Monthly Total" amount due. "Totals Previously Reported", and "Totals to Date" columns should also be filled in.

Form MF-104A
(April 1952)

Budget Bureau No. 42-R1151.2

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED NOV 1 9 1955

OPERATOR'S UNIT COST AND PROGRESS REPORT

Month of October 1955 Docket No. DMEA 3901 Contract No. Idm-R 835
Operator's Name H. R. McKinney, et al. Minerals Mica
Address Erby Mining Company, Spruce Pine, N. C.

OPERATION	UNIT	COSTS THIS MONTH	UNITS THIS MONTH	COSTS TO DATE	UNITS TO DATE	UNIT COSTS TO DATE	AUTHORIZED BY CONTRACT	
							Units	Unit Costs
Drifting								
Crosscutting								
Raising								
Shafts								
Winzes								
Drilling: Core								
Churn								
Auger								
Stripping								
30Hr Trenching Bulldozing	Hr.	300.00	30	300.00	30	10.00	30	10.00
Test Pits								
Roads and Trails								
TOTAL DISTRIBUTED COSTS		300.00		300.00				TOTAL COSTS AUTHORIZED BY CONTRACT
Operating Equipment Purchased								
Initial Rehabilitation and Repairs								
New Buildings, Improvements, etc.								
TOTAL COSTS		300.00		300.00				

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

Date 11-3-55 Operator Erby Mining Co.

Per [signature] Title Partner

→ NOTE.—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.

REMARKS:

(Instructions on reverse)

(For Government use only)

Alfred R. Taylor
Geologist

INSTRUCTIONS

Preparation of Form MF-104A—Operator's Unit Cost and Progress Report.—Applicable places on Form 104A should be filled in by the Operator. The purpose of this form is twofold as follows: (1) to furnish the supervising engineers and other administrators with statistical information necessary to better determine the progress of the project; and (2) to furnish more permanent information on mining costs for future use. The more important phases of operation on which permanent information is desired have been outlined in the form. There are blank lines, however, for those unusual phases which may need to be reported for a particular project. It will be necessary for the Operator to distribute his costs among the applicable phases reported with the exception of three items the costs of which are not to be distributed by the Operator. These three items are: "Operating Equipment Purchased", "Initial Rehabilitation and Repairs", and "New Buildings, Improvements, etc." The reason for not distributing these items on a monthly basis is doubtless clear to the Operator, since such distribution might well overstate the cost for any one month or period short of the entire contract period.

Form MF-104A has been designed to tie in with Form MF-104 for both monthly and cumulative costs. The "Total Costs" on Form MF-104A for each month should equal the monthly "Total Costs" as reported on Form MF-104. This is also true of the "Total Costs To Date".

In preparing Form MF-104A, it will be necessary frequently to distribute certain costs over a number of items. For instance, supervisory and engineering costs may have to be distributed over several phases, such as, drifting, crosscutting, raising, etc., provided that these items were reported active for the month. Such distributions should be made on the basis of time spent on the various phases, on man days of labor charged to such phases, or on some other equitable basis. "Operating Equipment", "Initial Rehabilitation and Repairs", and "New Buildings Improvements, etc.", will be distributed to the several phases of the project by the Washington Office of DMEA at the close of the project if determined necessary. The last two columns headed "Authorized by Contract" will be filled in by the Operator if such information is found in the contract. This information is usually a part of Exhibit "A" of the contract. A space for remarks has been provided for the use of the Operator to call attention to any unusual circumstances causing excessive or disproportionate unit costs.

GPO 872894

OPERATOR'S

Monthly Report of Progress
and Final Report
October, 1955

DMEA- 3901

Idm-E 885

Work Began: Oct. 22
Work Ended: Oct. 26

Work Accomplished:

We completed Stage I of the contract, by bulldozing a crosscutting trench 100 feet by 25 feet by 6 feet deep. No vein was uncovered. Field team visited project and advised that Stage II would not be approved.

October 22: Moved in bulldozer, began work on trench.

October 24: Continued to bulldoze on crosscutting trench as contract called for. No vein material uncovered.

October 25: Work continued through entire day, no promising results.

October 26: Crosscutting trench as called for in Stage I of the contract was completed. No vein showing.

Field Team visited this project on Nov.2 and advised that Stage II was not warranted by results of bulldozing work.

600

NOV - 9 1955

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

Subject: Docket No. DMEA-3901 - Mica
H. R. McKinney, et al.
J. K. Buchanan Mine
Mitchell County, North Carolina
Contract No. Idm-E885

Dear Mr. Laurence:

Reference is made to the subject contract on the J. K. Buchanan Mine.

The starting date has not been inserted in the copies of the contract returned to this office. In order that we may complete our records, please advise us of the starting date and insert that date on your copies and on the Operators' copy.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

/s/ Robert W. Geehan

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

LGHouk:gad 11/2/55
Copy to: Admr. R. File
Docket
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk

OCT 3 - 1955 600

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

Subject: Docket No. DMFA-3901 - Mica
Erby Mining Company
J. K. Buchanan Mine
Mitchell County, North Carolina

Dear Mr. Laurence:

Please find herewith the original and five copies of a contract covering the subject exploration project which have been signed by the Administrator for the Government with effective date as shown.

Before presenting the contract to the Operator for execution, please show on the map attached to each copy of the contract the location of the stake referred to in the property description as the beginning point.

If the contract meets with your approval present it to the Operator for approval and signature. Please explain to the Operator that the contract, when executed, is a firm commitment under the terms of which it is obligated to complete the work outlined at the agreed unit cost. If any part of this contract does not have either your approval or that of the Operator and cannot be amended within your delegated authority, then the original and all copies of the contract are to be returned to this office, together with the proposed changes for consideration.

After execution of the contract, the copies are to be distributed in the usual manner. Copies of memoranda dated September 19 and 22, 1955, by N. E. Nelson, USGS, and W. F. Dietrich, USBM, respectively, relating to the project are enclosed.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

/s/ Robert W. Geehan

Member, Bureau of Mines

N. E. Nelson

Member, Geological Survey

Enclosures 10

WCAnderson:gad 9/29/55
Copy to: Admr. R. File
Docket
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk
Mr. Anderson

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

September 22, 1955

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA-3901 (mica)

Applicant: Phillips, Phillips, McKinney, Buchanan, Buchanan

Name and Location of Property: J. K. Buchanan Mine, Mitchell Co., N. C.

Date of Field Team Report: 8/9/55

Date Rec'd. by Br. of Ceramic & Fertilizer Materials: 9/19/55

Field Team Recommendation: Recommend a 2-stage exploration program at a cost of $6,525.00.

Comments:

1. From the past records of this mine, it appears likely that additional reserves of mica will be found.

2. Proposed exploration outlined by the field team is consistent with good engineering practices and estimated costs are in line with other DMEA projects.

Recommendation: I concur with the field team's recommendation for a staged exploration program.

Signed
W. F. Dietrich

IN REPLY REFER TO:

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

RECEIVED
SEP 20 1955

September 19, 1955

Re: DMEA 3901
Erby Mining Co.
J. K. Buchanan Mine
Mitchell Co., N. C.
$6,525.00 - Mica

Memorandum

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

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

Subject: Review of Field Team report.

The Stage I work proposed by the examiners should disclose the mica-bearing potential of this irregular pegmatite at one spot southwest of the McKinney shaft. A strike trench, if feasible, would afford a much better chance for appraisal.

I concur with the approval recommendation of the Field Team.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-9/19/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
W. F. Dietrich, 3061

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
ROOM 13 POST OFFICE BLDG.
KNOXVILLE 2, TENN.

September 12, 1955

Memorandum

To: Operating Committee, DMEA, Washington 25, D. C.

From: DMEA Field Team, Region V, Knoxville, Tennessee

Subject: Field Examination Report - DMEA-3901 (mica)
Erby Mining Company, Spruce Pine, North Carolina
J. K. Buchanan Mine, Mitchell County, North Carolina

Enclosed are four copies of the subject examination report, and nine extra copies of the map.

We agree with the examiners' conclusions and recommend approval of a contract as outlined in the report.

Robert [illegible]. Laurence
Executive Officer
DMEA Field Team, Region V

V. J. Lynch, Member
DMEA Field Team

mg
Enclosures 13
cc - DMEA
Lynch
Shirley
Files

RECEIVED
SEP 14 1955

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXAMINATION REPORT BY FIELD TEAM, REGION V

On

DMEA-3901, J. K. BUCHANAN MINE
(mica)
Mitchell County, North Carolina

By

K. H. Teague and D. H. Amos, Geologists
U. S. Geological Survey

and

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

August 9, 1955

FIELD EXAMINATION REPORT

DMEA-3901 (mica) J. K. BUCHANAN MINE

Applicant: Erby Mining Company, c/o Sam L. Phillips, Spruce Pine, N. C.

A series of discontinuous southwest raking mica shoots have been mined at this deposit. Substantial production has resulted from this work. It is doubtful that additional mica can be mined from existing openings, as the long inclined stope to the southwest is caved and reported to be muck filled. Additional mica rich pegmatite may occur elsewhere on the property. The examiners recommend a 2-stage project to be conducted from the ridge southwest of the McKinney shaft.

The deposit was examined on August 9, 1955. Messrs. H. R. McKinney, John Phillips, and Frank Phillips accompanied the examiners on the inspection which required two hours.

The J. K. Buchanan mine is 3.1 airline miles S. 70° E. of Bakersville, Mitchell County, North Carolina.

Access is available by jeep trail. Water and power can be obtained nearby. A toolhouse is present on the property. Mining equipment, supplies, and labor are available locally. The area under lease (about 20 acres) is adequate for the proposed work.

J. K. Buchanan is reported to have discovered the mine about 1937.

"In 1937 or 1938 J. K. Buchanan leased the mine to Will Green and Stokes Young who conducted the first large-scale operation. They mined the East cut to a depth of about 30 feet (20 feet below the present muck bottom) and obtained a considerable amount of mica. They also drove the small south incline, but obtained little mica. Early in 1939 Zebb Buchanan, Milt Wilson and Hub McKinney leased the mine and drove the main incline to the present heading. * * * In the spring of 1943 Zebb Buchanan, Lee Wilson and Milt Wilson leased the mine and sank the 15-to 20-foot north shaft. This shaft was enlarged into the present cut, and two steep inclines were mined N. 15° W. and N. 80° W. from the west end of the cut. Much mica is reported to have been obtained. The depth of the muck-filled inclines is not known, but the south side of the western one breaks into the back of the north branch of the main incline. In the spring of 1944 Milt Wilson sank the shaft that is 75 feet S. 80° W. of the main incline shaft to a depth of 40 feet. He sank 6 feet into pegmatite at the bottom and obtained about $50.00 worth of mica, but then work was stopped. Meanwhile, Hub McKinney sank the McKinney shaft to intercept the pegmatite exposed in the heading of the main incline."

During 1954, the main incline was advanced about 70 feet to the southwest (see attached map.). About $10,000 worth of mica was recovered. Work in the incline was abandoned after a serious cave-in occurred.

The following description is taken from an unpublished U. S. Geological Survey manuscript written by James R. Wolfe, Jr., September 1944.

"The counrty rock is mica gneiss, usually a medium-grained rock containing much biotite. The gneiss in the McKinney shaft is gray green in color, with chlorite and sericite. The general strike is about N. 70° E. and the dip 50° - 70° SE. The attitude varies locally, the dip being steeply to the northwest in places.

"Minor folds near the pegmatite contacts pitch about 45° to the southwest.

"A series of lenticular, parallel and overlapping, pegmatite bodies have been mined. Their general strike is S. 70° W., and their dip is 65 degrees southeast, conformable with the country rock. These lenses average about 12 feet in thickness down much of the main incline. In some places, however, they are as much as 15 to 20 feet thick, and in others they thin to as little as a foot.

"The pegmatites are separated by gneiss septa ranging from 1 inch to 10 feet in thickness. These septa strike parallel to the pegmatites and dip 45° - 85° south. The septa seem to narrow downards so that in part at least the pegmatite bodies on either side may join at greater depths. Elsewhere (see section D-D') the septum may widen downward and the pegmatite may lens out.

"In the northwest branch of the incline the pegmatite thins along its strike and pinches out completely downward, although the pegmatite body in the lower incline on the southeast side of the septum continues (see underground plan and section B-B'). Similar relations occur in other places along the incline, as near section D-D', and near section line A-A' where the pegmatite mass in the footwall gneiss is too thin to show in the section. About 15 feet down the incline from section line B-B' the two pegmatites on opposite sides of the gneiss septum appear to join around its end; an offshoot of the more southerly body continues to the southwest over the gneiss into the back (see section E-E').

"A very narrow body of pegmatite was revealed by a drill hole under the gneiss footwall near the main heading. This may indicate the start of another mica-bearing pegmatite.

"The intrusive is conformable with the country rock although it cuts across the foliation for short distances locally. The contacts are sharp and there is no apparent contact metamorphism.

"The pegmatite is faulted just above the portal of the main incline (see section D-D'). The fault strikes S. 15° W. and dips 25° NW. and has displaced the pegmatite about 1.5 feet.

"The following minerals of the pegmatite are listed in decreasing order of their abundance: plagioclase, microcline, quartz, muscovite, sericite, garnet, apatite, and kyanite. The microcline is white and is difficult to distinguish from the plagioclase. The quartz is gray and occurs throughout the pegmatite generally as small particles but with a maximum size of about 1 foot. Sericite occurs in light green and white varieties and is so abundant that locally it imparts to the pegmatite a streaked appearance. This is particularly noticeable on the northwest wall near section line B-B' and near the main heading. The sericite scales lie in thin layers which are oriented parallel to the pegmatite contacts. Garnet is found in small crystals with a maximum size of about 1/2 inch. Some are clear red color, especially in the very small sizes, but all are cracked. Apatite is subhedral, occurs in small masses and is intensely cracked. Blue kyanite was found only on the dump.

"Little zoning is apparent, except for the phase containing the sericite streaks; the pegmatite body seems to contain more quartz and sericite toward the southwest.

"The mica is clear red rum in color, contains almost no staining, and only average amounts of ruling and cracks. Some books contain quartz intergrowths or "A" structure with slight color zoning. Blocks as much as 10 inches across were seen, but not much mica was exposed in any of the workings.

"The mica is reported to be concentrated in shoots which plunge southwest about 30 degrees. It is also scattered sparingly throughout the entire pegmatite body."

The most promising area for the discovery of a concentration of mica is southwest of the former mining operations. A southwest plunging shoot parallel to the known ones may reach the surface here. It is recommended that a staged exploration program be conducted. Stage I should consist of dozing a trench about 100' x 25' x 6' deep normal to the projected strike of the pegmatite. If this reveals promising pegmatite, sink a 75-foot incline on the body and drive 75 feet of drifts.

Estimated costs are as follows:

<u>Stage I</u> -	Bulldoze a crosscutting trench about 100' x 25' x 6' deep W/D-4 or equivalent dozer. 30 hours @ $10/hr.	$300.00
<u>Stage II</u> -	Sink 75-foot, two-compartment incline 5' x 7' in crosssection and timbered where necessary. (50 shifts)	
<u>Labor</u>:	1 - Miner @ $1.50/hr.	$600.00
	1- Hoistman @ $1.25/hr.	500.00
	1- Laborer @ $1.00/hr.	400.00

Equipment (rental):			
	Compressor, drill and pump @ $240/Mo.	$400.00	
	Hoist @ $50/Mo.	125.00	
Supplies:	Explosives	275.00	
	Drill steel	150.00	
	Gasoline and oil	150.00	
	Timber, 4000 b.f. @ $65/M	260.00	
	Small tools and pipe	250.00	
Insurance		150.00	
Social Security		30.00	
Sales Tax		33.00	
Miscellaneous		277.00	$3,600.00

Drive 75 feet of drift 5' x 7' in cross section (30 shifts).

Labor:	1 - Miner @ $1.50/hr.	$360.00	
	1 - Hoistman @ $1.25/hr.	300.00	
	2 - Laborers @ $1.00/hr.	480.00	
Equipment (rental):			
	Compressor, drill, pump and jackleg @ $250/Mo.	375.00	
	Hoist @ $50/Mo.	75.00	
Supplies:	Explosives	250.00	
	Gasoline and oil	175.00	
	Drill steel	125.00	
	Small tools and pipe	150.00	
Insurance		114.00	
Social Security		23.00	
Sales Tax		21.00	
Miscellaneous		177.00	$2,625.00

Total estimated cost of Stage II $6,225.00

Total estimated cost of Stage I and Stage II $6525.00

K. H. Teague and D. H. Amos, Geologists
U. S. Geological Survey

and

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

August 9, 1955

14

600

AUG - 2 1955

Mr. Robert A. Lawrence
Executive Officer, DMEA
Field Team, Region V
Room 13, Post Office Bldg.
Knoxville, Tennessee

Subject: Docket No. DMEA-V-01 - Mica
Erby Mining Company
J. F. Buchanan Mine
Mitchell County, North Carolina

Dear Mr. Lawrence:

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

Copies of memoranda from W. R. Nelson of the Geological Survey, dated July 18, 1955, and from W. F. Dietrich of the Bureau of Mines, dated July 25, 1955, are enclosed for your information.

If a contract is recommended, please furnish nine copies of map showing the proposed work, pegmatite exposures, and a tie-in with the property boundary.

Sincerely yours,

W. S. Martin

ACTING Chairman, Operating Committee

Approved:

/s/ Robert W. Geehan

Member, Bureau of Mines

Thor H. Kiilsgaard

Member, Geological Survey

Enclosures 4

JHopkins:pk 7/28/55
Copy to: Admr. R. File
Docket
Operating Committee
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk
Mr. Hopkins

11

600

AUG - 2 1955

Erby Mining Company
C/o Sam L. Phillips
Spruce Pine, North Carolina

Re: Docket No. DMEA-3901 - Mica
Erby Mining Company
J. K. Buchanan Mine
Mitchell County, North Carolina

Gentlemen:

Your application for assistance in exploring the subject property has been reviewed by the Nonmetallic Minerals Division of the Defense Minerals Exploration Administration and has been referred to Mr. Robert A. Lawrence, Executive Officer, DMEA Field Team, Region V, Room 13, Post Office Building, Knoxville Tennessee, for further consideration and possibly a field examination.

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

Sincerely yours,

E. O. Mittendorf

Administrator

JHopkins:pk 7/28/55
Copy to: Admr. R. File
Docket
Operating Committee
Field Team, Region V
Mr. Kiilsgaard, 5222
Mr. Dietrich, 3061
Mr. Houk
Mr. Hopkins

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

RECEIVED
JUL 26 1955

July 25, 1955

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Branch of Ceramic and Fertilizer Materials

Subject: DMEA - 3901 (mica)

Applicant: McKinney, Buchanan, Buchanan, Phillips, Phillips

Name and Location of Property: J. K. Buchanan Mine
Mitchell County, North Carolina

Date Application Rec'd by Br. of Ceram. and Fert. Materials: July 18, 1955

Comments:

1. This deposit appears to have possibilities for the development of strategic mica.

2. It appears a field examination is necessary to determine the feasibility of a project.

Recommendation:

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

W. F. Dietrich

IN REPLY REFER TO:

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

July 19, 1955

Re: DMEA 3901
N. R. McKinney et al.
J. K. Buchanan Mine
Mitchell Co., N. C.
$14,100 - Mica

Memorandum

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

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

Subject: Review of Application.

The J. K. Buchanan mine is credited with a small production, and a hard luck story.

If staged, the proposed program may be justified, but information concerning the character and probabilities of the vein should be obtained with something less than a 130-foot shaft and 100 feet of drifting.

Referral to the field is recommended.

N. E. Nelson

N. E. Nelson

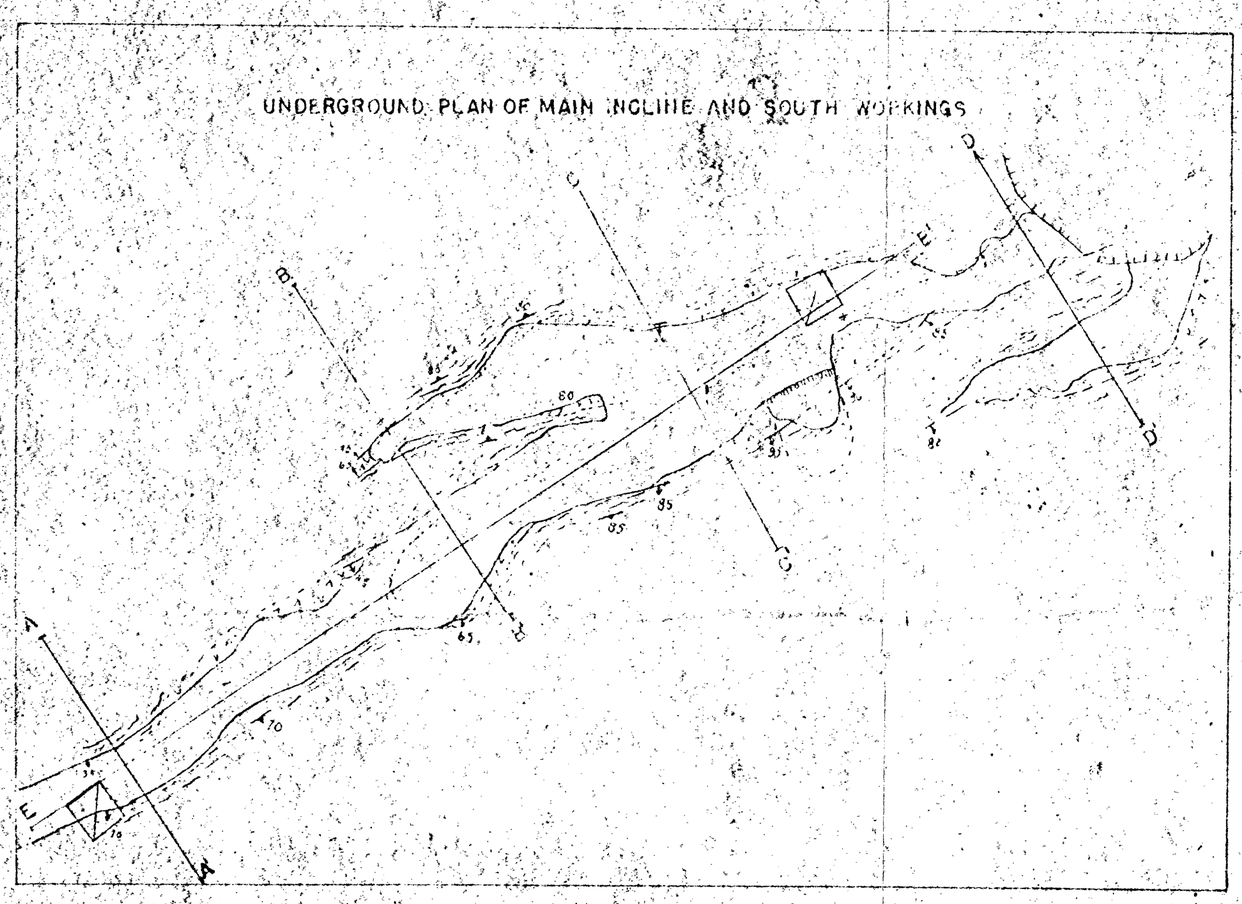
NENelson:iml
G-7/19/55

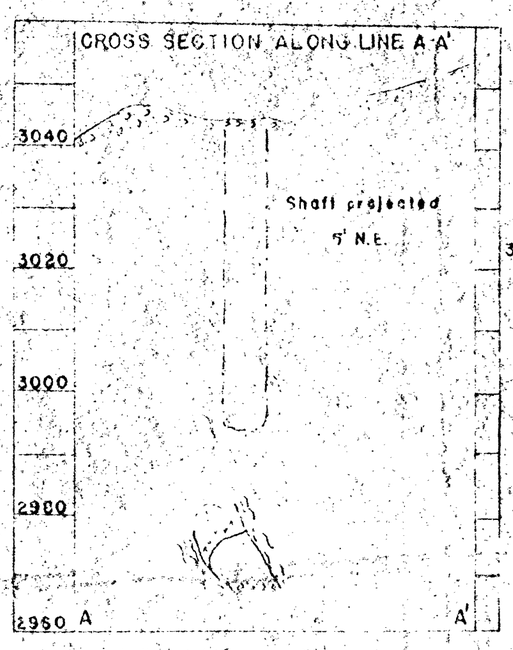
cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
W. F. Dietrich, 3061

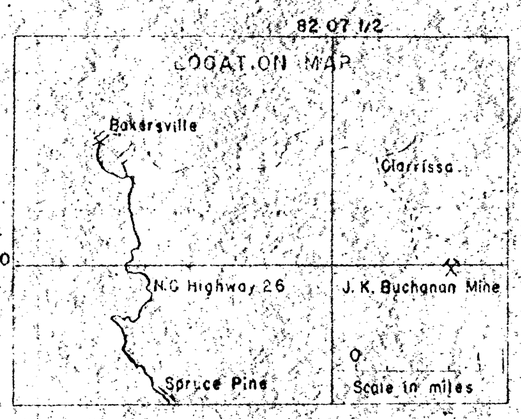
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STRATEGIC MINERAL INVESTIGATIONS
PRELIMINARY MAP

SURFACE MAP

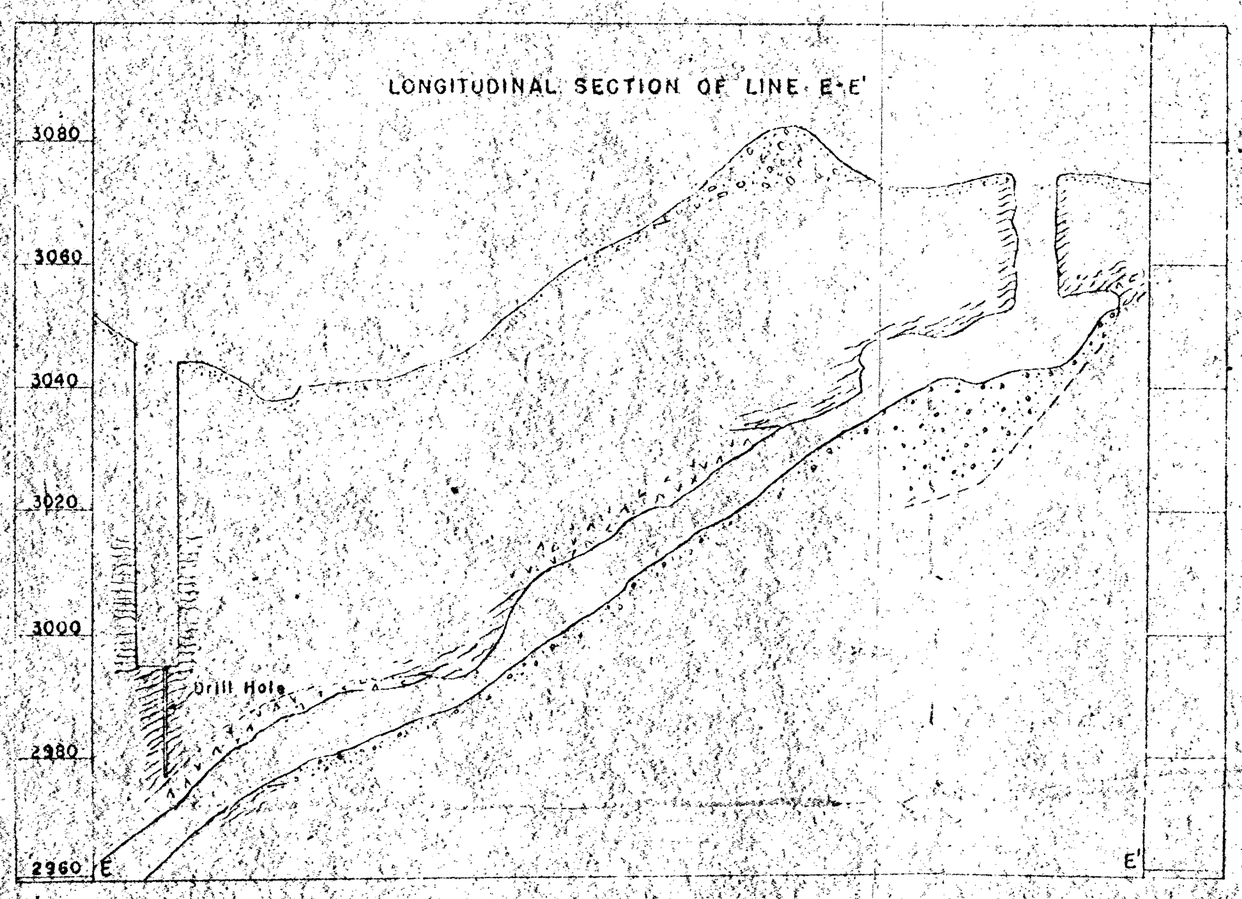


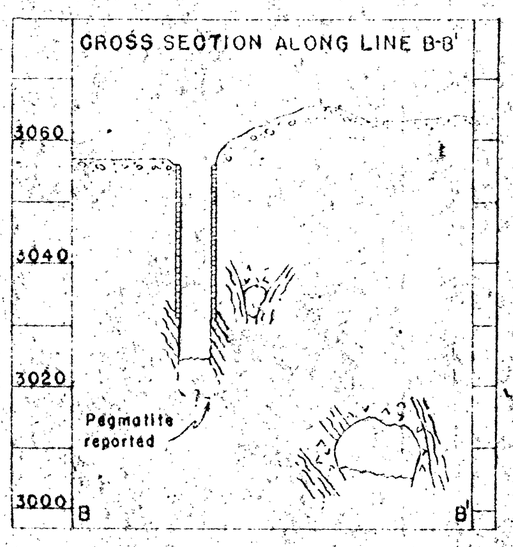


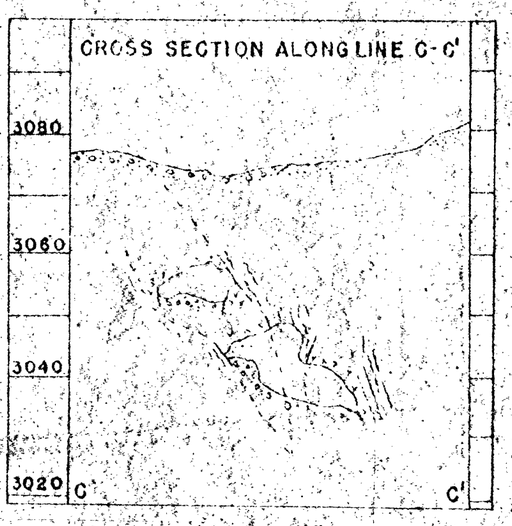


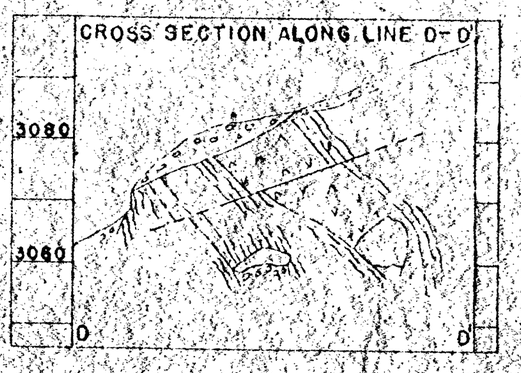
EXPLANATION

- Muck
- Soil
- Plagioclase-quartz-microcline pegmatite
- Scrap mica zone
- Sheet mica zone
- Mica gneiss
- Strike and dip of foliation
- Strike and dip of fault
- Fault (in section)
- Contact, location accurate, showing dip
- Contact, location approximate
- Edge of open cut, with depth
- Outline of underground workings:
  - As mapped
  - As reported
  - Projected; main incline and south workings
  - Projected; north workings
- Edge of bench in workings
- Dump
- Shaft









SCALE IN FEET
20 10 0 20 40 60 80 100
Contour interval 10 feet
Datum assumed

U.S. GEOL. SURVEY

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

Mapped by: J. E. Hosted, J. M. Parker, III, L. C. Pray, J. R. Wolfe, Jr.

Mapped: June 5, August 24, September 4-19, 1944

DMEA-3901

J. K. BUCHANAN MINE, MITCHELL COUNTY, NORTH CAROLINA