600

NOV 6 1952

Mr. Robert Waskey
Defense Materials Procurement
Agency
General Services Administration
Building
Washington 25, D. C.

Subject: Docket No. DMEA-2168 - Beryl-Mica
Old Mike Pegmatite Mine
(Mineral Mills, Inc.)
Custer, South Dakota

Dear Mr. Waskey:

Transmitted herewith is copy of letter to Mineral Mills, Inc., advising them that exploration project application, Docket No. DMEA-2168, had been withdrawn and closed.

A contract for the "Old Mike Pegmatite", Idm-E376, was approved but was unacceptable to the company and the unexecuted copies of contract returned; the project was one for about 1,000 feet of diamond drilling.

As requested by you on the telephone, I am sending you a copy of the Field Team's report to read. Please return it to this office after you have finished reading it.

Sincerely yours,

Signed

Lawrence G. Houk, Chief
Nonmetallic Minerals Division

Enclosures 2

JTRobertson:gad 11/6/52

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

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

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Nonmetallic Minerals Division

Enclosures 2

JTRobertson:gad 11/6/52

Copyy to: Adm. R. File
Docket File
Mr. Houk

REPORT

on

Contract Idm F-376, Docket No. 2169

Old Mike Pegmatite, Custer County, South Dakota

Mineral Mills, Inc.

J. A. Redden, Geologist
U. S. Geological Survey

E. O. Hinyon, Mining Engineer
U. S. Bureau of Mines

Report on Contract Idm E-376, Docket No. 2163, Mineral Mills, Inc.
Old Mike Pegmatite, Custer County, S. Dak.

SUMMARY

The original exploration proposal was based on the application by Mineral Mills, Inc. for an expansion loan for the construction of a beryl flotation mill on the Old Mike property.

In the loan application the estimate of grade of the beryl in the reserves, as determined from analyses of samples collected by the Metals Reserve and Bureau of Mines, was represented as being 2.0 percent. Later evidence indicated that these and other analyses made at the time were unreliable.

Visual estimates by the Geological Survey had placed the grade of beryl at approximately 0.5 percent. However, owing to the small grain size of the beryl, there was also some doubt as to the accuracy of this estimate.

In order to reconcile the differences in grade estimates, it was recommended that other large samples be taken and analyzed, in the belief that larger samples and improved methods of analyses would give accurate results. This was considered especially necessary since, in the application for the expansion loan or mill construction the minimum grade of the heads or mill feed was set at 1.5 percent beryl in order for the operation to be economically feasible, and a lower grade head would preclude success. The field team also recommended that if the large scale sampling proved the applicant's estimate of 2.0 percent, or even a grade of 1.0 percent, to be correct, additional exploration should be undertaken.

In a report, Review of Exploration Application, Mineral Mills, Inc., Old Mike Pegmatite, dated March 10, 1952, made after re-examination of the property, the field team concluded that an accurate estimate of the grade of beryl could be obtained with fewer samples. The team then recommended sampling the fine rejects or tailings from the old mill and also cutting 4 or 5 trenches across the beryl zone of the pegmatite.

Actually, in their opinion, the tailing sample would be sufficient for an accurate check of grade of the beryl zone, but it was believed best to verify the results considering the amount that had been requested in the expansion loan application. The second phase of the exploration, core drilling, was recommended only on the slight possibility that the sampling would indicate a grade of 1.0 percent or better.

CONCLUSIONS AND RECOMMENDATIONS

The outline of the exploration in the contract prepared by the MMA disregards the intent of the original application as well as the recommendations in the review report, and starts immediately with core drilling. The drilling would not adequately sample the pegmatite for beryl, and hence the primary purpose of the exploration, determination of the grade of beryl in the reserves, is lost.

It is possible that core drilling would disclose inner units of sheet mica, but actual information obtainable from drilling as to the quality, grade, and size of the sheet mica would be of little or no value.

Had the original application been based on exploration of the pegmatite primarily for sheet mica, the application would have been denied because the possibility of making a significant discovery is highly improbable and core drilling would not have been recommended as the means of exploration.

The field team still maintains that checking the grade of beryl should be the initial phase of the exploration, and the second phase or core drilling would be justified only if the sampling results proved to be favorable; that is, the beryl grade is two or three times the field team's estimate of 0.5 percent.

The field team recommends that the contract under consideration should not be completed and the application be denied on the basis that a significant discovery is highly improbable.

Mr. A. J. Johnson, Secretary-Treasurer
Mineral Hills, Inc.
Custer, South Dakota

Subject: Docket No. DMEA-2168
Beryl-Mica
Old Mike Pegmatite
Custer County, South Dakota
Contract Idm-X376

Dear Mr. Johnson:

An original and five copies of an exploration contract, prepared for signature for the subject mine, has been returned to this office by Mr. A. R. Needham, Executive Officer, Region V, and he informs us that the contract is not acceptable to the company.

In our opinion an enlargement of the scope of the project submitted in the rejected contract is not warranted or justified.

You are advised that the application, Docket No. DMEA-2168, is now considered withdrawn and closed. In event of any future request for exploration assistance for the subject mine please file a new application.

Your interest in exploration under the Defense Minerals Program is very much appreciated.

Sincerely yours,

Administrator

JTRobertson:gad 9/25/52

Copy to: Admin. Reading File
Docket File
Operating Committee
Field Team, Region V
Mr. Kauffman, 1347
Mr. Norton, G-232 GSA Bldg.
Mr. Houk

September 25, 1952

Memorandum

To: Chairman, Operating Committee

From: Nonmetallic Minerals Division

Subject: Docket No. DMA-2168 (Beryl-Mica)
Old Mike Pegmatite
Custer County, South Dakota
Contract No. Idm-E376

Re: Returned unsigned contract rejected by operator. Recommendation to advise applicant that application is closed.

Six copies of contract No. Idm-E376 are returned unsigned. The Regional Executive Officer advises that the contract is unacceptable and an explanatory report by the Field Team is also attached to the letter of transmittal.

An exploration project for this mine was considered and reconsidered numerous times by examining engineers and specialist, and finally the contract as written was decided upon. A proposal to test by means of bulk sampling was rejected and the project was finally limited to 1,000 feet of diamond drilling.

The Nonmetallic Minerals Division is of the opinion that no revision should be made in the contract to enlarge the scope of the work and that the contract should be withdrawn and the application in this case closed.

It is recommended that the attached letter be sent to the company advising it of the steps taken on matter.

Jasper T. Robertson
Nonmetallic Minerals Division

JTRobertson:gad 9/25/52
Copy to: Docket File
Admin. Reading File
Mr. Houk

11/5/52

Mr. Warkey

Please return report after you have read it.

Hank

600 SEP 26 1952

Mr. A. J. Johnson, Secretary-Treasurer
Mineral Mills, Inc.
Custer, South Dakota

Subject: Docket No. DMEA-2168
Beryl-Mica
Old Mike Pegmatite
Custer County, South Dakota
Contract Idm-E376

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In our opinion an enlargement of the scope of the project submitted in the rejected contract is not warranted or justified.

You are advised that the application, Docket No. DMEA-2168, is now considered withdrawn and closed. In event of any future request for exploration assistance for the subject mine please file a new application.

Your interest in exploration under the Defense Minerals Program is very much appreciated.

Sincerely yours,

(signed) FRANK E. JOHNSON

ACTING Administrator

JTRobertson:gad 9/25/52

Copy to: Admin. Reading File
Docket File
Operating Committee
Field Team, Region V
Mr. Kauffman, 1347
Mr. Norton, G-232 GSA Bldg.
Mr. Beck

Mr. A. H. Needham
Executive Officer, DMEA
Field Team, Region V
2908 Colfax Avenue, South
Minneapolis 8, Minnesota

Subject: Docket No. DMEA-2166
Beryl-Mica
Old Mike Mine
Mineral Hills, Inc.
Custer County, South Dakota

Dear Mr. Needham:

Please find herewith the original and five copies of a contract covering the subject exploration project which have been signed by this office for the Government with register number and effective date.

You will note that only the diamond drilling part of the program as recommended by the Field Team has been included in the contract. We feel that this part of the proposed program is all that warrants Government assistance under DMEA Order-1.

If the contract meets with your approval, present it to the Operator for his approval and signature. If any provisions are unsatisfactory to the Operator, return all copies to this office along with suggested changes for consideration.

After signing of the contract, one copy is to be given to the Operator, one copy retained for your files, and the remaining copies, including the original, are to be returned to this office as soon as possible.

A copy of the contract required by the Regional Finance Office will be forwarded directly by the Washington Finance Section.

Sincerely yours,

(signed) FRANK E. JOHNSON

Chairman, Operating Committee
Defense Minerals Exploration
Administration

Approved:

J. H. Hedges

Member, Bureau of Mines

T. P. Thayer

Member, Geological Survey

Enclosures 6

JTRobertson:gad 7/8/52
Copy to: Admin. Reading File
Docket File
Operating Committee (2)
Mr. Hook
Mr. Kauffman, 1347
Mr. Norton, G-232 GSA Bldg.

600

JUL 30 1952

Memorandum

To: Chairman, Operating Committee, DMEA

From: Non-Metallic Minerals Division, DMEA

Subject: Docket No. DMEA-2168
Commodity: Beryl-Mica
Old Mike Mine, Mineral Mills, Inc.
Custer County, South Dakota

Re: Recommendation of exploration assistance for subject mine.

This application has been considered and reconsidered several times by both Field Engineers and Washington Commodity Specialists, but for one reason or another no satisfactory solution was arrived at. In the beginning, the applicant tried to obtain assistance in the form of an expansion loan in the sum of $150,000 to expand milling facilities and production of the Old Mike Mine. Then it was passed on to us for an exploration loan. Twice a contract for exploration assistance was drawn up but both drafts of contract were rejected as being objectional or unworkable. The various comments and discussions on the case by J. J. Norton, D. H. Mullen, C. B. Needham, F. E. Johnson and others, all point up to the difficulty of reaching a satisfactory program for the project.

The fact is that the mine has been worked in the past for sheet and scrap mica. Its future potentiality as a producer of beryl in conjunction with scrap mica operation is largely conjecture and difficult to prove. However, the most adverse factor is the fact that the main mica-bearing pegmatite dike is largely worked out. Cross-section E-E' shows the pinching out of the dike to the northwest. There is a bare possibility that a northwesterly extension may be found if the dike pitches to the northwest. It is to check this, that the pegmatite zone northwest of cross-section E-E', along the strike for a distance of 200 feet, would be tested by core drill. The project would be strictly exploratory and consist of two stages. Stage I - 500 feet of core drilling. Stage II - an additional 500 feet of holes if the work of Stage I encounters favorable pegmatite formation.

This limited program is recommended.

JTRobertson:gad 7/7/52
Copy to: Admin. Reading File
Docket File
Mr. Houk
Attachments

Jasper T. Robertson 7/30/52
Non-Metallic Minerals Division

Independent contract

Diamond core drill AX size $10,500
1750 feet @ 6.00 per foot.
Contract subject to govt approval
~~Location and~~ direction holes shown
on the accompanying map.

Spectrographic analysis @ $5.00
Method of selection & handling of drill
core for assaying to be approved by the
Field Team.

Core boxes + Cementing & standby time

Sequence of holes.
Holes 3 - 2 Phase I
Holes 4 - 1 - 5 Phase II

2168

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

July 9, 1952

Memorandum

To: Acting Administrator

Through: L. G. Houk

From: Chief Counsel

Subject: Mineral Mills, Inc., Docket No. DMEA 2168

There is attached, in satisfactory legal form for execution, a contract covering the above-described project, subject to the attachment to the contract of the map identified as Fig. 1 prior to execution.

J. L. Hofflund

J. L. Hofflund
Chief Counsel

Attachment

DMEA - 2168

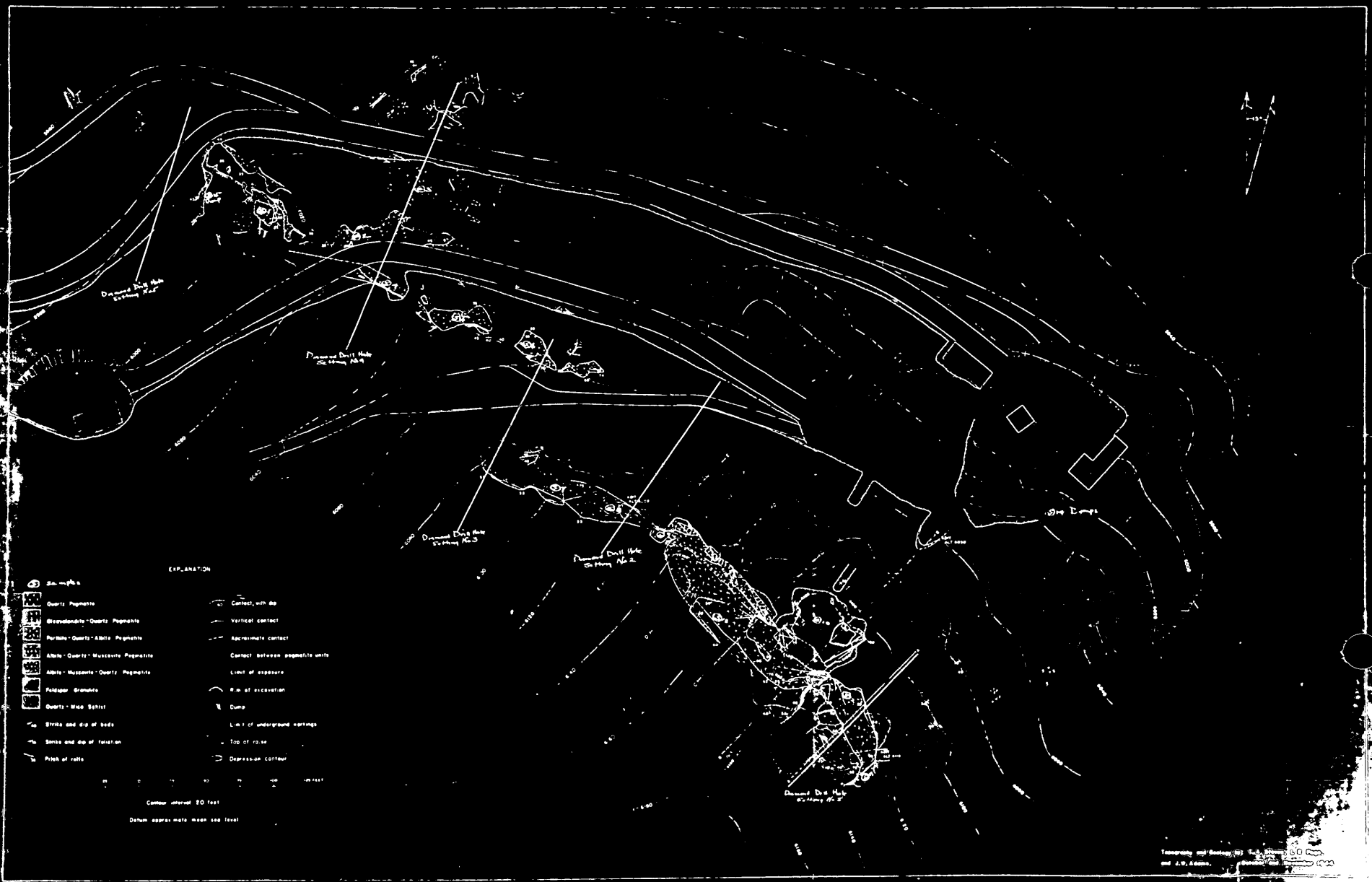

FIGURE 1. GEOLOGIC MAP, OLD MIKE MICA MINE, CUSTER COUNTY, SOUTH DAKOTA

FIGURE 1

600

June 19, 1952

Memorandum

To: Chief Counsel, DMEA

From: Nonmetallic Minerals Division, DMEA

Subject: Docket No. DMEA-2168 - Beryl-Mica
Mineral Mills, Inc., Old Mike Mine
Custer County, South Dakota

The file for this case is submitted to you together with our preliminary draft of contract and Exhibit "A". They are for your information in the preparation of the final draft of contract.

This application has been considered and reconsidered several times by both Field Engineers and Washington Commodity Specialists, but for one reason or another no satisfactory solution was arrived at. In the beginning, the applicant tried to obtain assistance in the form of an expansion loan in the sum of $150,000 to expand milling facilities and production of the Old Mike Mine. Then it was passed on to us for an exploration loan. Twice a contract for exploration assistance was drawn up but both drafts of contract were rejected as being objectional or unworkable. The various comments and discussions on the case by J. J. Norton, D. H. Mullen, A. B. Needham, F. B. Johnson and others, all point up to the difficulty of reaching a satisfactory program for the project.

The fact is, that the mine has been worked in the past as a ~~xxxxx~~ mica mine. Its future potentiality as a producer of beryl in conjunction with scrap mica operation is largely conjecture and difficult to prove. However, the most adverse factor is the fact that the main mica-bearing pegmatite dike is largely worked out. Cross-section E-E' shows the pinching out of the dike to the northwest. There is a bare possibility that a northwesterly extension may be found if the dike pitches to the northwest. It is to check this, that the pegmatite zone northwest of cross-section E-E', along the strike for a distance of 200 feet, would be tested by core drill. The project would be strictly exploratory and consist of two stages. Stage I - 500 feet of core drilling. Stage II - an additional 500 feet of holes if the work of Stage I encounters favorable pegmatite formation.

Jasper T. Robertson
Nonmetallic Minerals Division

Attachments

JTRobertson:mp 6/19/52
cc: Docket File
Adm. Reading File
Mr. Houk
Mr. Robertson

MF-200
(June 1951)
Revised Feb. 1952)

D R A F T

DOCKET NO. D[illegible]A 2168

COMMODITY Mica and Beryl

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

IT IS AGREED this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Exploration Administration, hereinafter called the "Government," and [2] Mineral Mills, Inc., (A South Dakota Corporation) Custer, South Dakota

hereinafter called the "Operator," as follows:

ARTICLE 1. *Authority for contract.*—This agreement is entered into under the authority of the Defense Production Act of 1950, as amended, pursuant to DMEA Order 1 entitled "Government Aid in Defense Exploration Projects."

ARTICLE 2. *Operator's property rights.*—With respect to that certain land situated in the State of South Dakota, County of Custer, described as follows: [3] The Great Northern Lode Mining Claim located in Sections 2 and 3, T. 3 S. R 4 E., B.H.M. and further described in Book 14 Page 223, Mineral Locations, Custer County, South Dakota. Known as the Old Mike Mine, it lies 3 1/2 miles northwest of Custer, South Dakota.

the Operator represents and undertakes: [4]

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

~~(No encumbrances)~~ None.

(*b*) ~~That the Operator is a lessee, in possession and entitled to possession, and the Owner's Consent to Lien is attached.~~

The Operator shall devote the land and all existing improvements, facilities, buildings, installations, and appurtenances to the purposes of the exploration project without any allowance for the use, rental value, depreciation, depletion, or other cost of acquiring, owning, or holding possession thereof.

ARTICLE 3. *Exploration project.*—The Operator, within _____ days from the date of this contract shall commence work on a project of exploration for [5] ~~Beryl and~~ mica and beryl

in or upon the described land; and shall bring the project to completion within a period of five (5) months from the date of this contract. The work to be performed is more fully described in Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, are made a part of this contract. The Government will contribute to the cost of this work as hereafter provided.

ARTICLE 4. *Performance of the work.*—(*a*) *Operator's responsibility.* The work shall be performed efficiently, expertly, in a workmanlike manner, in accordance with good mining standards and State regulations for health and safety and for workmens' compensation and employers' liability insurance, with suitable and adequate equipment, materials, and labor, to bring the project to completion within the time fixed. To the extent specified in Exhibit "A," attached hereto, the work may be performed by independent contractor or contractors; and work not specified in Exhibit "A" for performance by independent contractor may nevertheless be so performed upon amendment of Exhibit "A," as agreed to by the parties, to state the work to be so performed and the estimated unit costs thereof, as provided hereafter.

(*b*) *Independent contracts.*—Any independent contract for the performance of work shall be on a unit-price basis (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved), or on some basis that will indicate the amount due for work performed at any stage of the work to be performed under such independent contract. The Government shall not be nor be considered to be a party to any such independent contract, and the Government's right to terminate the exploration project contract under any of its provisions shall not in any manner be affected by reason of any such independent contract. If the reference in Exhibit "A" to any such independent contract states that the Government's approval thereof is required, the Government may refuse to participate in the cost thereof unless and until it has given its written approval of the independent contract.

(*c*) *Government may inspect.*—The Government shall have the right to enter and observe and inspect the work at all reasonable times, and the Operator shall provide the Government with all available means for doing so. The Government may consult with and advise the Operator on all phases of the work.

ARTICLE 5. *Estimated costs of the project.*—A statement of the estimated cost of the project is set forth in Exhibit "A," attached hereto. Except insofar as any item of requirement or the estimated cost thereof set forth in Exhibit "A" is there or elsewhere designated as an "allowable maximum," such items of requirement and of related cost are estimates only, and may be exceeded to the extent that the Government may from time to time approve for the most economic and beneficial performance of the work within the limitation of the total aggregate estimate of costs. The Government's approval of any such excess over the estimate for an item of requirement or related cost will be signified by its approval and payment of any invoice or voucher for payment which expressly calls attention to such excess. Items expressly designated in Exhibit "A" or elsewhere as "allowable maximum," and the total aggregate estimated cost are limitations, and any excess therein will be for the sole account of the Operator in which the Government will not participate.

ARTICLE 6. *Allowable costs of the project.*—(*a*) The costs of the project in which the Government will participate are limited to the following:

(1) *Independent contracts.*—Payments to independent contractors under independent contracts listed in Exhibit "A." The estimated cost of any work to be performed under an independent contract is or shall be included in the estimate of costs in Exhibit "A" in terms of the estimated numbers of units of work to be performed, the estimated amount to be paid per unit, and the estimated total amount to be paid to the independent contractor, and such estimates shall be allowable maximums above which the Government will not contribute. Regardless of the provisions of any such independent contract, the Government will participate in the payments to the independent contractor only on account of work actually performed and that conforms with the provisions of the exploration project contract, and only to the extent that the Government deems the unit prices for the work under the independent contract to be reasonable and necessary. No such independent contract shall have the effect of increasing the estimated total cost of the exploration project contract nor the maximum amount which the Government will pay as provided in the exploration project contract.

(2) *Labor, supervision, consultants.*—Labor, supervision and technical services (including engineering and geological consultants), a schedule of which is included in the estimate of costs set forth in Exhibit "A." The requirements and related estimated costs for supervision and technical services are allowable maximums.

(3) *Operating materials and supplies.*—Necessary materials and supplies including items of equipment costing less than $50.00 each, and power, water, and fuel, a schedule of which is included in the estimate of costs in Exhibit "A."

(4) *Operating equipment.*—Any operating equipment to be rented or purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or the allowable depreciation, as the case may be, a schedule of which is included in Exhibit "A." Any items listed as owned and to be furnished by the Operator, and related initial allowable depreciation, are allowable maximums.

(5) *Rehabilitation and repairs.*—Any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and to be devoted to the purposes of the exploration contract, a schedule of which is included in the estimate of costs set forth in Exhibit "A." These items are allowable maximums.

(6) *New buildings, improvements, installations.*—Any necessary buildings, fixed improvements, or installations to be purchased, installed, or constructed for the purposes of the exploration work, with the estimated cost of each, a schedule of which is included in the estimate of costs in Exhibit "A." All of these items are allowable maximums.

(7) *Miscellaneous.*—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.

(8) *Contingencies.*—Such other necessary, reasonable direct costs of performing the exploration work, within the limit of the total aggregate estimate of costs, whether or not included in any schedule of costs in Exhibit "A," as may be approved by the Government in the course of the work, as indicated by its approval and payment of invoices and vouchers.

[1] If sufficient space is not provided in any blank, use an extra sheet of paper and refer to it in the blank.
[2] State name, address, and nature of organization if any.
[3] Give legal description or enough to identify the property, particularly excluding any land or interest therein to which the Government's lien is not to attach or the production from which is not to be subject to the Government's percentage royalty.
[4] Strike out the provision not applicable.
[5] Name of mineral or minerals.

(*b*) The Government's payments in all cases will be based on actual, necessary costs (including contract unit prices) incurred not in excess of any "allowable maximum," and not in excess of the fixed percentage of the total aggregate estimated cost. Costs will be considered to be incurred only as they are or become due and payable.

(*c*) 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 this contract, shall be allowed as costs of the project in which the Government will participate.

ARTICLE 7. *Reports, accounts, audits.*—(*a*) *Progress reports.* The Operators shall provide the Government with monthly reports of work performed and costs (including contract unit prices) incurred under the contract, in quintuplicate (five copies), upon forms provided by the Government. These progress reports shall be certified by the Operator, and shall constitute both the Operator's invoice of costs incurred on the project during the period covered by the report and his voucher for repayment by the Government, unless the Government requires the use of a standard voucher form with invoice attached. Progress reports shall include surface and/or underground engineering-geological maps or sketches showing the progress of the exploration, with assay-reports on samples taken concurrently with the advance in mineralized ground.

(*b*) *Final report.*—Upon completion of the exploration work or termination of the contract the Operator shall provide the Government with an adequate geological and engineering report, in quintuplicate (five copies), including an estimate of ore reserves resulting from the exploration work.

(*c*) Compliance with requirements.—If, in the opinion of the Government, any of the Operator's reports are insufficient or incomplete, the Government may procure the making or completion of such reports and attachments as an expense of the exploration work; and the Government may withhold approval and payment of any vouchers depending upon insufficient or incomplete reports.

(*d*) *Accounts and audits.*—The Operator shall keep suitable records and accounts of operations, which the Government may inspect and audit at any time. The Government may at any time require an audit of the Operator's records and accounts by a certified public accountant, the cost thereof to be treated as a cost of the project. The Operator shall keep and preserve said records and accounts for at least 3 years after the completion of the project or the termination of this contract. Upon the completion of the project or termination of the contract the Operator shall render a final account as provided in Article 12.

ARTICLE 8. *Payments by the Government.*—(*a*) The Government will pay 90 percent of the allowable costs incurred, as they accrue, in an aggregate total amount not in excess of $ 7,380.00, which is 90 percent of $ 8,200.00, the agreed, estimated total cost of the project in which the Government will participate; *Provided,* that until the Operator's final report and final accounting have been rendered to the Government, 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 ten (10) percent of the maximum total which the Government might have been called upon to pay under the terms of the contract.

(*b*) The Government may make any payment or payments direct to independent contractors and to suppliers, for the account of the Operator, rather than to the Operator.

ARTICLE 9. *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 6 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) percent of any such net amounts not in excess of eight dollars ($8.00) per ton.

(2) One and one-half (1½) percent of any such net amounts, plus one-half (½) percent of 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) percent 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) percent; on a net amount of ten dollars ($10.00) per ton, three and one-half (3½) percent.)

(*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 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.

ARTICLE 10. *Assignment, transfer, or loss of Operator's interest.*—Without the written consent of the Government, the Operator shall not assign or otherwise transfer or hypothecate this contract or any rights thereunder. The Operator shall not make any voluntary nor permit any involuntary transfer or conveyance of the Operator's rights in the land described in Article 2, without making suitable provision for the preservation of the Government's right to a percentage royalty on production and lien for the payment thereof; *Provided,* that mere failure by the Operator to maintain the Operator's rights in the land, without any consideration running to the Operator other than relief from the cost of maintaining such rights (as by surrender of a leasehold, failure to perform assessment work, or failure to exercise an option), coupled with complete abandonment by the Operator of all interest in or operations on the land for a period of 10 years from the date of this contract, shall not constitute such a transfer or conveyance. Should the Operator make or permit any transfer or conveyance in violation of this provision, the Operator shall be and remain liable for payment to the Government of the same amounts, at the same times, as would have been paid under the terms of the percentage royalty on production. If for any reason the net smelter returns, net concentrator returns, or other net amounts realized from the sale or other disposition of such production are not available as a means of measuring the amount of the Operator's liability, the amount thereof shall be estimated as well as may be, and in the event of dispute as to such estimates, the determination thereof by the Administrator of Defense Minerals Exploration Administration or by his successor shall be final and binding upon the Operator.

ARTICLE 11. *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.

ARTICLE 12. *Termination and completion.*—The Government may, at any time, by written notice to the Operator, terminate this contract: (*a*) If the Operator fails to provide his share of the money necessary to prosecute operations pursuant to the terms of the contract; (*b*) if the Operator, in the opinion of the Government, fails to prosecute operations pursuant to the terms of the contract; or (*c*) if in the opinion of the Government, operations up to the time of the notice have not indicated the probability of making any worth while discovery and in the opinion of the Government further operations are not justified. Upon the completion of the project or any termination of the contract the Operator shall dispose of any remaining materials, supplies, facilities, buildings, fixtures, and equipment in which the Government has an interest, for the joint account of the Operator and the Government in the proportion of their respective interests; shall render to the Government a full and final accounting of his operations under the contract and his expenditures of money; and shall pay to the Government its pro rata share of any money remaining.

ARTICLE 13. *Changes and added provisions.* _____

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

By _____
Acting Administrator, Defense Minerals Exploration Administration

MINERAL MILLS, INC.
(Operator)

By _____

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—66328-1

EXPLORATION PROJECT CONTRACT
MINERAL MILLS, INC.
OLD MIKE MINE
DOCKET NO. DMEA-2168

EXHIBIT "A"

Description of the Work

The work shall consist of drilling, by contract, 4 or 5 (BX) diamond drill holes to depths of 200 feet to 250 feet each. The drilling contract ~~shall be~~ is subject to Government approval prior to commencement of work. The work ~~is to~~ shall be done in two stages.

~~Stage I - Two holes, total length not to exceed 500 feet.~~

~~Stage II - Two or three holes, total length not to exceed 500 feet.~~

The holes are to be so located and pointed as to explore and test the main pegmatite zone for a distance along the strike 200 feet northwesterly from Section E-E' as indicated on Topographic and Geologic map (Fig. 1) attached hereto.

STAGE I

In Stage I there shall be drilled Diamond Drill Hole No. 2 and Diamond Drill Hole No. 3, the location of which are both tentatively indicated on the attached map. However, the exact location, inclination and depth of each hole will be designated and approved by the Regional Office Field Team before the work is ~~commences~~ started. The total combined length of the holes ~~to be~~ drilled in Stage I shall not exceed 500 feet.

STAGE II

Two or three additional holes ~~may~~ shall be drilled after the completion of Stage I, ~~but only after approval is made~~ if the undertaking of this work is approved by the ~~Executive Officer of~~ the Regional Office Field Team.

The holes would further test the same pegmatite zone tested in Stage I. The start location and depth of each hole will be determined by the Field Team before the work is started, inclination and ~~direction of the holes shall~~ be determined by the Field Team.

~~The total combined footage of holes in Stage I and Stage II shall not exceed 1000 feet.~~

~~Stage II is contingent~~ upon the ~~finding~~ of a favorable pegmatite in the area drilled in Stage I, ~~and is subject to the approval of the Executive Officer.~~

The total combined length of the holes drilled in Stage II shall not exceed 500 feet.

STAGE I

Estimated Costs of the Project
(Items followed by asterisk are allowable maximums)

(1) Independent Contracts

500 ft.* BX diamond drill hole ~~to be contracted~~ at a unit price not to exceed $650/ft, ~~1/~~ including all costs of transportation and all other drilling costs $3,250.00*

(2) Labor, ~~and~~ Supervision, ~~Consultants~~

Supervision - 20 days* @ $15/day* per 300.00*
~~Labor, none, except as included in Item 7.~~

(3) Operating Material and Supplies

None, ~~except as included in Item 7.~~

(4) Operating Equipment

None

(5) Rehabilitation and Repairs

None

(6) New Buildings, ~~and~~ Improvements, ~~Installations~~

None

(7) Miscellaneous

Social Security tax, liability insurance, workmen's Compensation, ~~and miscellaneous~~ etc, 100.00
Core boxes and core gathering, including labor 150.00
Sampling and core analyses (2) 300.00
Total estimated cost of Stage I - - - - - - - ~~$4,100.00~~ $4,100.00*

(2) including labor

STAGE II

(1) Independent Contracts

500 ft BX diamond drill hole ~~to be contracted~~ at unit price not to exceed $6.50/ft, ~~1/~~ including all costs, transportation and all other drilling costs — $3,250.00

(2) Labor and Supervision

Supervision - 20 days @ $15/day — 300.00

(3) Operating Material and Supplies

None ~~- except as included in Item 7.~~

(4) Operating Equipment

None

(5) Rehabilitation and Repairs

None

(6) New Buildings, ~~and~~ Improvements, Installations

None

(7) Miscellaneous

Social security tax, liability insurance, Workmen's Compensation, etc	100.00	
Core boxes and core gathering, including labor	150.00	
Sampling and ore analyses ~~2/~~ including labor	300.00	
Total estimated cost of Stage II- - - - - - - -	~~$4,100.00~~	$4,100.00
Total estimated cost of Stage I and Stage II		$8,200.00
Government participation at 90%		$7,380.00

~~1/ Unit cost shall include all core drilling costs including transporting drill to and from the job and from hole to hole.~~

1 ~~2~~/ The Regional Office is to be consulted as to the disposition of cores for analyses and the proper method of making determination for beryl and other minerals.

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

May 15, 1952

Memorandum

To: Acting Administrator

From: Acting Deputy Administrator

Subject: DMA-2168 (Beryl-Mica)
Minerals Mills, Inc.,
Old Mike Mine
Custer County, South Dakota
Proposed Exploration Contract

The subject operator originally filed an application (DMA-1367) for a loan in the amount of $150,000.00 to expand the facilities and production of the Old Mike Mine. The Field Team examined the property and after consultation with A. I. Johnson, Manager of Mineral Mills, Inc., suggested that he apply for an exploration project. The Field Team reports that the reserve figures of the applicant and Field Team "were not based upon sufficient concrete evidence", and there was an apparent large discrepancy in these figures. The Field Team states that underground workings were inaccessible and the accuracy of former analytical work of the Bureau of Mines and Brush Beryllium Corporation for BeO content were questionable. Visual estimate of the grade of the pegmatite is given by the Field Team as 0.5% beryl and they state that the previous estimate by the USGS of 1.0% beryl appears to be reasonable. Sampling by USBM and Brush Beryllium Corporation indicated a grade of 2% beryl, based on analyses ranging from 0.20% to 0.25% BeO (BeO content of beryl 9-13%.)

The applicant claimed a reserve of 175,000 tons (5 years operations). The Field Team estimates 40,000 tons of proven reserves and 23,000 tons of probable reserves or a total of 63,000 tons. They further estimate that a total of 150,000 tons may possibly be present.

Under date of September 29, 1951, Operator filed an application for an Exploration Project as follows:

A - Sampling Dumps and Outcrops	
15 samples at $20.00 each	$300.00
4-way split of samples and analyses and study	300.00
Sub-total	600.00
B - 1,750' Diamound drilling @ $5,00 per ft.	8750.00
Sampling and analyses of D.D. cores	400.00
Sub-total	$9150.00
Project total	$9750.00

Field Team Recommendation

A— 2 samplers @ $1.25 per hr., plus 6% for taxes & Ins., $21.20 per day for 15 days	$ 318.00
Analyses of 60 pulps (4 cuts from 15 channel samples) at $15.00 each	900.00
Sub-total	1218.00
B - 1,750' AX Diamond core drilling @ $5,00 per ft.	$8750.00
Analyses of 40 samples @ $15.00 each	600.00
Sub-total	9350.00
Project total	$10,568.00

A contract was prepared but was unacceptable to Legal Division because of lack of clarity with respect to encumbrances on property.

Under date of November 7, 1951, Operator was requested to furnish information regarding any liens or encumbrances on property. Necessary data were received from Operator.

The USGS Commodity Specialist recommended modification of the plan and return to Field Team for reconsideration, suggesting bulk sampling of outcrops and mine workings as stage one, and 300 a foot tunnel as stage two, to be followed by drilling if previous work was successful. The suggested changes were discussed with Mr. Needham, Executive Officer, Region V. Two new proposals were submitted by the Field Team and Region V Headquarters. These

proposals are tabulated below:

Original

A - Bulk, sampling, 6 samples at $308.36 ea.		$1,850.00
B - Drifting and Crosscutting, 500' @ $32.10 per ft.		16,050.00
C - Diamond Drilling, 1,000' @ $6.00 per ft.		7,800.00
	Total	$25,700.00

Revised

A - Bulk, sampling, 20 samples @ $308.36 ea.		$ 6,167.20
B - Drifting and Crosscutting, 425' @ $32.10 per ft.		13,642.50
C - Diamond Drilling, 1,750' @ $6.00 per ft.		12,300.00
	Total	$32,109.70

Mr. D. H. Mullen in his memorandum of March 5, 1952 to Mr. A. B. Needham makes pertinent remarks with respect to the proposed project.

Under date of March 31, 1952 Mr. J. J. Norton, Commodity Specialist of USGS, comments on the latest proposal from the Field Team. He recommends following the Field Team's recommendations with suggested modifications.

The current proposed contract has been reduced to the following:

A - 6 bulk samples, including analyses @ $283.33 ea. Total $1,700.00

Thus the Contract would be solely a bulk sampling job to determine the BeO content of the exposed outcrops of the pegmatite. Evidently, it was thought that this expense was all that would be warranted.

In reviewing the docket, it appears that the sole purpose of the proposed project is to prove the grade of the pegmatite in order to support the application for a production loan. This does not seem to me to constitute an exploration project under DMSA 1.

If we undertook such a project and the results were too low in grade, the project would be ended and the cost to the Government would be small. However, if the results indicated a mineable grade of material, a loan could not be supported because of insufficient tonnage. No new reserves would be added to the estimate of the Field Team. The results would not be representative as they would be taken only from the most accessible surface exposures. Underground exposures could not be sampled as they are now inaccessible. The question of obtaining proper weights is also involved.

Past experience of Metals Reserve Company with the management indicates that it is unreliable and incompetent to carry out the project. The sampling would have to be closely supervised by the Government from start to final preparation of samples.

The project would then become a case of the Bureau of Mines and Geological Survey doing consulting work and being supervisors for the Operator, a practice to which both agencies are strongly opposed. It would be more appropriate to finance the USBM and have them do the job for DMPA.

The proposed procedure of sending 4-100 pound samples of material averaging approximately 1/2 inch in size to separate parties for analyses would be inconclusive as we would probably receive 4 different results on such samples. To obtain results in agreement, it would be necessary to reduce the samples to a pulp in the usual manner and then make a 4-way split of the pulp.

The record does not show any place where the previous samples or sampling methods were questioned, but only the methods of analyses. Possibly the USBM and Brush Burlington Corp. might still have the original pulps that could be analyzed by modern techniques and obtain a reliable answer to the average BeO content of the pegmatite.

If we had a project consisting only of sampling and analyses, and the results were favorable, could we appropriately certify a discovery or development?

It would appear that a large number of channel samples would give more representative results than a fewer number of bulk samples. The latter should be required only if metallurgical tests were to be made, in which case the results would have some significance as to the value of the material to be mined.

An Exploration Project is for the purpose of finding new ore, either by delineating and sampling new ore bodies or extensions of known ore bodies. If it is assumed there is a possibility of finding additional reserves of beryl, then the project should be set up for this purpose. To do this, the most practical means would be to put down a few drill holes to find the extension of the pegmatite mass or other separate masses of pegmatite that may be in the vicinity of those exposed.

However, a study of the USGS maps of the old workings, clearly indicates that the main pegmatite pinches out at depth and becomes very narrow in the lowest workings (now inaccessible). It also appears to pinch out towards the only open end which is to the

northeast. The possibility of adding to the reserves, therefore, appears to be very limited. Under the circumstances, I am of the opinion that the application should be denied.

Although the amount of money to be expended is small, I have gone into this case in detail because of the policy matters involved and the establishment of a precedent for similar cases if a contract is made only for sampling and analyses, which is work that should be done as a part of an examination for a production loan and not as an Exploration Project.

Acting Deputy Administrator

FEJohnson:pa
5-13-52

cc: Admin. Reading File
R & R
Mr. Houk
F. E. Johnson (2)

STANDARD FORM No. 14
APPROVED BY THE PRESIDENT
MARCH 10, 1926

TELEGRAM

OFFICIAL BUSINESS—GOVERNMENT RATES

FROM Dept. of Interior

BUREAU of Mines

CHG. APPROPRIATION

DMEA - 2168

Mineral Rights

U. S. GOVERNMENT PRINTING OFFICE 10—1723

Rapid City, S. Dak.
May 7, 1952 - 10:30 a.m.

STRAIGHT WIRE

LAWRENCE G. HOUK
NON-METALLIC MINERALS DIVISION
DEFENSE MINERALS EXPLORATION ADMINISTRATION
INTERIOR BUILDING
WASHINGTON, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 12 1952

RETELCON. OLD MIKE GROUP OF FIVE CLAIMS HELD BY LOCATION: QUAKING ASP PAGE 611, DICTATOR AND MEDIATOR, PAGE 441, MICA MILLING AND MANUFACTURING, PAGE 511, ALL BOOK 15; GREAT NORTHERN, BOOK 14, PAGE 223, MINERAL LOCATIONS CUSTER COUNTY.

D. H. MULLEN, SUPERVISING ENGINEER
RAPID CITY FIELD OFFICE

CONFIRMATION ✓

cc: Reg. Office
Needham
files

IN REPLY REFER TO:

G-MD-JJN

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

March 31, 1952

Memorandum

REVIEW OF NEW EXHIBIT A FROM FIELD TEAM FOR APPLICATION DMEA-2168 (Beryl and mica).

To: Non-Metallic Minerals Division, DMEA
From: J. J. Norton, U. S. Geological Survey
Commodities: Beryl and mica.
Applicant: Mineral Mills, Inc.
Name of property: Old Mike
Location of property: Custer County, South Dakota.
Field team's recommendation:

Three stage exploration.

A. Collect 6 samples, 7 tons each, costing a total of $1,850.
B. Drift and crosscut, maximum of 500 feet, costing $16,050.
C. Diamond drilling, 1,000 feet, costing $7,800.

Comments:

1. Two different versions of a new Exhibit A have been submitted. I presume the one marked "void 1st draft" should be disregarded, and I have proceeded on this assumption.

2. Mullen's memorandum of March 5 addressed to Needham contains some very pertinent remarks. Mullen mentions "the apparent incompetence of the operator." I think that RFC's past experience with Mineral Mills, Inc. should be taken into consideration in determining whether or not the Government should cooperate with this operator any further.

3. There might be further discussion of the question of whether or not to do the tunnel work that I suggested in place of the diamond drilling that the field team originally recommended for Stage B. You will remember that the field team wanted Stage B to consist of drilling that would cost $9,350. I was opposed to this recommendation on the ground that in the only place that is worthy of exploration the work could be more adequately done by about 300 feet of tunnel, which at $30 per foot would cost no more than the drilling proposed by the field team. The field team, however, estimates the cost of the necessary tunnel work at $13,643 in one version of Exhibit A and at $16,050 in the other version. Furthermore, the comments by Redden and Binyon show that the area to be explored by the tunnel could be checked first

by 300 to 500 feet of diamond drilling, which presumably would cost between $2,000 and $4,000. Under these circumstances you may wish to do this drilling.

4. The likelihood that Stage C will be necessary is so remote that I suggest not including it in the contract.

5. 500 feet of tunnel work in Stage B seems excessive, but the map that you have asked Region V to submit will show just what the footage should be.

6. The field team's cost estimate for BeO analyses for Stages A and B is excessive. BeO in this range should be done spectrographically. The cost for such an analysis by a well qualified laboratory, such as the National laboratory in Cleveland or the Saratoga laboratory at Saratoga, New York, is about $5.

7. Rental of a compressor at $10 per day, costing a total of $1,250 for Stages A and B, seems excessive. because this mine presumably still has its compressor and the costs should be at an amortization rate rather than a rental rate.

ACTION SUGGESTED:

Follow field team's recommendation, with any modification necessary in accordance with comments made above.

J. J. Norton

JJNorton:jeh
G-3/31/52
copy to: Director's reading file 4212
Branch " " "
DMEA files
Norton G-230

File

600

JAN 29 1952

Mr. A. B. Needham
Executive Officer
DMEA Field Team, Region V
2908 Colfax Avenue, South
Minneapolis 8, Minnesota

Subject: Docket No. DMEA-2168
Beryl - Mica
Old Mike Mine
Mineral Mills, Inc.

Dear Mr. Needham:

Confirming our telephone conversation of the 21st in regard to the subject application, we have found it impossible to amend the Mineral Mills application in which we were going to substitute underground sampling and exploration for the diamond drilling program suggested by the Field Team.

We, therefore, feel that it would be better for your office to prepare a revised Exhibit "A", inasmuch as this office does not have the necessary information. In the first stage will be the cutting of the 14 channel samples and analyses of these samples, and any other underground sampling that is feasible.

Stage 2 would be underground exploration by means of cross cuts and drifts from near the Field Team's drill holes 4 and 5 to the main pegmatite northeast of Section 5M. The following papers on subject application are enclosed:

Form MF-103
Memorandum from J. J. Norton, USGS, to DMEA
Copy of Contract to be revised

Chairman, Operating Committee

Enclosures 3

Approved:

J. H. Hedges

For Bureau of Mines

L.L.Houk:gad
1/25/52

Copy to: Admin. Reading File
Docket
Mr. W. F. Dietrich, 3526
Mr. J. J. Norton, G-228, GSA Bldg.
Mr. Houk

2 P. Thayer
For Geological Survey

Memorandum

To: Mr. A. B. Needham, Executive Officer, Region V

From: Chairman, Operating Committee

Subject: Mineral Mills, Inc., DMRA-2163, Old Mike Mine

Confirming our telephone conversation of the 21st in regard to the subject application, we have found it impossible to amend the Mineral Mills application in which we were going to substitute underground sampling and exploration for the diamond drilling program suggested by the Field Team.

We, therefore, feel that it would be better for your office to prepare a completely new contract in which the first stage will be the cutting of the 14 channel samples and analyses of these samples, and any other underground sampling that is feasible.

Stage 2 would be underground exploration by means of cross cuts and drifts from near the Field Teams drill holes 4 and 5 to the main pegmatite northeast of Section E. The following papers on subject applicant are enclosed:

Form MF-103
Memorandum from J. J. Norton, USGS, to DMRA
Copy of Contract to be revised

Chairman, Operating Committee

Enclosures: 3

Approved:

LQHouk:gad
1/23/52
Copy to: Admin. Reading File
Docket
Mr. Houk
Mr. W. F. Dietrich, 3526
Mr. J. J. Norton, G-225, GSA Bldg.

For Bureau of Mines

For Geological Survey

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

140
DMA-2168X

November 1, 1951

Memorandum

To: Director, Production Expansion Division

From: General Counsel

Subject: Mineral Mills, Inc. exploration contract -- Docket No. DMA-2168X

The proposed exploration contract in this case, submitted to us on October 29, 1951, is returned unapproved because the meaning of the words "None Required" as filled in in Article 2(a) is not clear. If there are no encumbrances the words "None" or "No encumbrances" should be used. If there are encumbrances they should be listed, and if no subordination agreement is required, the circumstances should be explained.

Your file is returned herewith.

J. L. Hofflund
General Counsel

Attachment

MF-200
(June 1951)

Docket No. DMA 2168 X
Commodity Beryl
Mica
Tantalite

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT[1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and[2] Mineral Mills Inc.- a corporation organized under the laws of South Dakota Custer, South Dakota

hereinafter called the "Operator," as follows:

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

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of South Dakota, County of Custer described as follows:[3] Great Northern Lode Mining Claim - located in Sections 2 T 3 S - R 4 E B.H.M. Known as Old Mike Mine, four miles northwest of Custer.

with respect to which the Operator represents and undertakes:

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: No encumbrances

(*b*) [redacted].

3. *Exploration project.* The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for[5] Beryl - Mica- Tantalite; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of[6] eight months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

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

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

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

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

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

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

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

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

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

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

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 90 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $9,511.20, which is 90 percent of the agreed estimated total cost of this project, $10,568.00.

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

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

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

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

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

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

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

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Mineral Mills Inc.
(Operator)

By _____

By _____
Acting Director,
Production Expansion Division
Defense Minerals Administration

U. S. GOVERNMENT PRINTING OFFICE 16—64060-2

Exhibit "A" - Exploration Project

Docket DMA-2168X
Old Mike Mine

The work under this contract to be carried out in two stages:

Stage A

(1) The cutting of 14 channel samples from various points on the pegmatite outcrops together with a sample taken from the old dump, all samples to be cut at locations as shown on USGS map attached hereto.

(2) All exploration work will be confined to the Great Northern Claim of the Old Mike Mine. The work to be performed by the operator.

(3) The resulting samples are to be analyzed for Beryl by the most modern techniques through Government and Commercial laboratories.

(4) Methods of taking, handling and assaying samples to be mutually agreed upon by the operator and the Regional Field Team.

(5) This work is to be completed in 60 days.

(6) Estimated costs of Stage A of the project:

I.	4 Samples @ $1.25 per hour plus taxes and insurance $21.20 for 15 days	$ 318.00
II	Analyses of 60 pulps - 4 cuts from 15 samples @ $15.00 each	900.00
	Total	$ 1,218.00

Stage B

(1) This work is to be undertaken only in the event that the Field Team considers the results of the Stage A work indicate an adequate tonnage of commercial grade material may be delineated by the following:

(2) To drill diamond core drill holes along the strike of the pegmatite outcrops from five set ups as designated on the attached map referred to above. At least one Ax hole and possibly two to be drilled from each set-up.

(3) The total footage of all holes to be drilled in this project shall not exceed a maximum of 1750 feet.

Stage B (continued)

(4) Drilling to be done by contract at an estimated cost of $5.00 per foot. The drilling contract subject to Government approval prior to commencing work.

(5) Method of selection and handling of drill cores for assay to be approved by the Field Team.

(6) Work to be completed within eight months.

(7) Estimated Cost of Stage B. of the project:

I	1750 feet Ax diamond core drilling @ $5. per foot	$ 8,750.00
II	Analysis of 40 pulp samples @ $15.00 each	600.00
	Total	$ 9,350.00
	Total Cost of Projects A and B	10,568.00

Operator will furnish all equipment, supplies, water, and power necessary for the project.

No additional buildings or fixtures are required.

The operator expresses willingness and financial ability to carry out its part of the cost of the project.

MF-200
(June 1951)

Docket No. DMA 2168 X
Commodity Beryl Mica Tantalite

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] Mineral Mills Inc. - a corporation organized under the laws of South Dakota Custer, South Dakota

hereinafter called the "Operator," as follows:

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

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of South Dakota, County of Custer described as follows: [3] Great Northern Lode Mining Claim - located in Sections 2 T 3 S - R4 E B.H.M. Known as Old Mike Mine, four miles northwest of Custer.

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

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: No encumbrance

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

3. *Exploration project.* The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for [5] Beryl - Mica - Tantalite; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] eight months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

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

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

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

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

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

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

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

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

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

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

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 90 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $ 9,511.20, which is 90 percent of the agreed estimated total cost of this project, $ 10,568.00.

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

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

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

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

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

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

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

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Mineral Mills, Inc.
(Operator)

By _____

By _____
Acting Director,
Production Expansion Division
Defense Minerals Administration

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

Exhibit "A" - Exploration Project

Docket [illegible]-2168X
Old Mike Mine

The work under this contract to be carried out in two stages:

Stage A

(1) The cutting of 14 channel samples from various points on the pegmatite outcrops together with a sample taken from the old dump, all samples to be cut at locations as shown on USGS map attached hereto.

(2) All exploration work will be confined to the Great Northern Claim of the Old Mike Mine. The work to be performed by the operator.

(3) The resulting samples are to be analyzed for Beryl by the most modern techniques through Government and Commercial laboratories.

(4) Methods of taking, handling and assaying samples to be mutually agreed upon by the operator and the Regional Field Team.

(5) This work is to be completed in 60 days.

(6) Estimated costs of Stage A of the project:

I	4 Samples @ $1.25 per hour plus taxes and insurance $21.20 for 15 days	$ 318.00
II	Analyses of 60 pulps - 4 cuts from 15 samples @ $15.00 each	900.00
	Total	$ 1,218.00

Stage B

(1) This work is to be undertaken only in the event that the Field Team considers the results of the Stage A work indicate an adequate tonnage of commercial grade material may be delineated by the following:

(2) To drill diamond core drill holes along the strike of the pegmatite outcrops from five set ups as designated on the attached map referred to above. At least one Ax hole and possibly two to be drilled from each set-up.

(3) The total footage of all holes to be drilled in this project shall not exceed a maximum of 1750 feet.

Stage B (continued)

(4) Drilling to be done by contract at an estimated cost of $5.00 per foot. The drilling contract subject to Government approval prior to commencing work.

(5) Method of selection and handling of drill cores for assay to be approved by the field team.

(6) Work to be completed within eight months.

(7) Estimated Cost of Stage B. of the project:

I	1750 feet fx diamond core drilling @ $5. per foot	$ 8,750.00
II	Analysis of 40 pulp samples @ $15.00 each	600.00
	Total	$ 9,350.00
	Total Cost of Projects A and B.	10,508.00

Operator will furnish all equipment, supplies, water, and power necessary for the project.

No additional buildings or fixtures are required.

The operator expresses willingness and financial ability to carry out its part of the cost of the project.

MF-200
(June 1951)

Docket No. DMA 2168 X
Commodity Beryl
Mica
Tantalite

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this _____ day of _____, 195__, between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] Mineral Hills Inc.- a corporation organized under the laws of South Dakota Custer, South Dakota

hereinafter called the "Operator," as follows:

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

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of South Dakota, County of Custer described as follows: [3] Great Northern Lode Mining Claim - located in Sections 2 & 3 S - R 4 E B.H.M. Known as Old Mike Mine, four miles northwest of Custer.

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

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: No encumbrance

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

3. *Exploration project.* The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for [5] Beryl - Mica- Tantalite; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] eight months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

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

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

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

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

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

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

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

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

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

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

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 90 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $9,511.20, which is 90 percent of the agreed estimated total cost of this project, $10,568.00.

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

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

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

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

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

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

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

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Mineral Hills Inc.
(Operator)

By _____

By Acting Director,
Production Expansion Division
Defense Minerals Administration

Exhibit "A" - Exploration Project

Docket DMA-2168X
Old Mike Mine

The work under this contract to be carried out in two stages:

Stage A

(1) The cutting of 14 channel samples from various points on the pegmatite outcrops together with a sample taken from the old dump, all samples to be cut at locations as shown on USGS map attached hereto.

(2) All exploration work will be confined to the Great Northern Claim of the Old Mike Mine. The work to be performed by the operator.

(3) The resulting samples are to be analyzed for Beryl by the most modern techniques through Government and Commercial laboratories.

(4) Methods of taking, handling and assaying samples to be mutually agreed upon by the operator and the Regional Field Team.

(5) This work is to be completed in 60 days.

(6) Estimated costs of Stage A of the project:

I.	4 Samples @ $1.25 per hour plus taxes and insurance $21.20 for 15 days	$ 318.00
II	Analyses of 60 pulps - 4 cuts from 15 samples @ $15.00 each	900.00
	Total	$ 1,218.00

Stage B

(1) This work is to be undertaken only in the event that the Field Team considers the results of the Stage A work indicate an adequate tonnage of commercial grade material may be delineated by the following:

(2) To drill diamond core drill holes along the strike of the pegmatite outcrops from five set ups as designated on the attached map referred to above. At least one Ax hole and possibly two to be drilled from each set-up.

(3) The total footage of all holes to be drilled in this project shall not exceed a maximum of 1750 feet.

Stage B (continued)

(4) Drilling to be done by contract at an estimated cost of $5.00 per foot. The drilling contract subject to Government approval prior to commencing work.

(5) Method of selection and handling of drill cores for assay to be approved by the Field Team.

(6) Work to be completed within eight months.

(7) Estimated Cost of Stage B. of the project:

I	1750 feet for diamond core drilling @ $5. per foot	$ 8,750.00
II	Analysis of 40 pulp samples @ $15.00 each	600.00
	Total	$ 9,350.00
	Total Cost of Projects A and B	10,568.00

Operator will furnish all equipment, supplies, water, and power necessary for the project.

No additional buildings or fixtures are required.

The operator expresses willingness and financial ability to carry out its part of the cost of the project.

Docket No. DMA 2168 X
Commodity Beryl
Mica
Tantalite

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

It is agreed this ..... day of ....., 195..., between the United States of America, acting through the Department of the Interior, Defense Minerals Administration, hereinafter called the "Government," and [2] Mineral Mills Inc. - a corporation organized under the laws of South Dakota Custer, South Dakota

hereinafter called the "Operator," as follows:

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

2. *Operator's property rights.* The exploration project shall be conducted on that certain property situated in the State of South Dakota, County of Custer described as follows: [3] Great Northern Lode Mining Claim - located in Sections 2 T 3 S - R4 E B.H.M. Known as Old Mike Mine, four miles northwest of Custer.

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

(*a*) That he is the sole owner, in possession and entitled to possession, and that the property is subject only to the following claims, liens, or encumbrances as to each of which the subordination agreement of the holder is attached: No encumbrance

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

3. *Exploration project.* The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for [5] Beryl - Mica - Tantalite; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] eight months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

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

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

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

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

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

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

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

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

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

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

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 90 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $ 9,511.20, which is 90 percent of the agreed estimated total cost of this project, $ 10,568.00.

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

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

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

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

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

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

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

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Mineral Mills, Inc.
(Operator)

By _____

By _____
Acting Director,
Production Expansion Division
Defense Minerals Administration

U. S. GOVERNMENT PRINTING OFFICE 16—84069-2

Exhibit "A" - Exploration Project

Docket DMA-2168X
Old Mike Mine

The work under this contract to be carried out in two stages:

Stage A

(1) The cutting of 14 channel samples from various points on the pegmatite outcrops together with a sample taken from the old dump, all samples to be cut at locations as shown on USGS map attached hereto.

(2) All exploration work will be confined to the Great Northern Claim of the Old Mike Mine. The work to be performed by the operator.

(3) The resulting samples are to be analyzed for Beryl by the most modern techniques through Government and Commercial laboratories.

(4) Methods of taking, handling and assaying samples to be mutually agreed upon by the operator and the Regional Field Team.

(5) This work is to be completed in 60 days.

(6) Estimated costs of Stage A of the project:

I	4 Samples @ $1.25 per hour plus taxes and insurance $21.20 for 15 days	$ 318.00
II	Analyses of 60 pulps - 4 cuts from 15 samples @ $15.00 each	900.00
	Total	$ 1,218.00

Stage B

(1) This work is to be undertaken only in the event that the Field Team considers the results of the Stage A work indicate an adequate tonnage of commercial grade material may be delineated by the following:

(2) To drill diamond core drill holes along the strike of the pegmatite outcrops from five set ups as designated on the attached map referred to above. At least one Ax hole and possibly two to be drilled from each set-up.

(3) The total footage of all holes to be drilled in this project shall not exceed a maximum of 1750 feet.

Stage B (continued)

(4) Drilling to be done by contract at an estimated cost of $5.00 per foot. The drilling contract subject to Government approval prior to commencing work.

(5) Method of selection and handling of drill cores for assay to be approved by the Field Team.

(6) Work to be completed within eight months.

(7) Estimated Cost of Stage B. of the project:

I	1750 feet Ax diamond core drilling @ $5. per foot	$ 8,750.00
II	Analysis of 40 pulp samples @ $15.00 each	600.00
	Total	$ 9,350.00
	Total Cost of Projects A and B	10,568.00

Operator will furnish all equipment, supplies, water, and power necessary for the project.

No additional buildings or fixtures are required.

The operator expresses willingness and financial ability to carry out its part of the cost of the project.

MF-200
(June 1951)

Docket No. DMA 2168 X
Commodity Beryl
Mica
Tantalite

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

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

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

3. *Exploration project.* The Operator, within 30 days from the date of this contract shall commence work on a project of exploration for [5] Beryl - Mica- Tantalite; shall prosecute the work efficiently, expertly, in a workmanlike manner, in accordance with good mining standards, with suitable and adequate equipment, materials, and labor, all properly designed to bring the project to completion within a period of [6] eight months from the date of this contract. The exploration project and the work to be performed are more fully described on Exhibit "A" attached hereto, which, with any maps or drawings thereto attached, is made a part of this contract.

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

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

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

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

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

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Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Mineral Mills Inc.
(Operator)

By _____
Acting Director,
Production Expansion Division
Defense Minerals Administration

By _____

Exhibit "A" - Exploration Project

Docket DMA-2168X
Old Mike Mine

The work under this contract to be carried out in two stages:

Stage A

(1) The cutting of 14 channel samples from various points on the pegmatite outcrops together with a sample taken from the old dump, all samples to be cut at locations as shown on USGS map attached hereto.

(2) All exploration work will be confined to the Great Northern Claim of the Old Mike Mine. The work to be performed by the operator.

(3) The resulting samples are to be analyzed for Beryl by the most modern techniques through Government and Commercial laboratories.

(4) Methods of taking, handling and assaying samples to be mutually agreed upon by the operator and the Regional Field Team.

(5) This work is to be completed in 60 days.

(6) Estimated costs of Stage A of the project:

I.	4 Samples @ $1.25 per hour plus taxes and insurance $21.20 for 15 days	$ 318.00
II	Analyses of 60 pulps - 4 cuts from 15 samples @ $15.00 each	900.00
	Total	$ 1,218.00

Stage B

(1) This work is to be undertaken only in the event that the Field Team considers the results of the Stage A work indicate an adequate tonnage of commercial grade material may be delineated by the following:

(2) To drill diamond core drill holes along the strike of the pegmatite outcrops from five set ups as designated on the attached map referred to above. At least one Ax hole and possibly two to be drilled from each set-up.

(3) The total footage of all holes to be drilled in this project shall not exceed a maximum of 1750 feet.

Stage B (continued)

(4) Drilling to be done by contract at an estimated cost of $5.00 per foot. The drilling contract subject to Government approval prior to commencing work.

(5) Method of selection and handling of drill cores for assay to be approved by the Field Team.

(6) Work to be completed within eight months.

(7) Estimated Cost of Stage B. of the project:

I	1750 feet Ax diamond core drilling @ $5. per foot	$ 8,750.00
II	Analysis of 40 pulp samples @ $15.00 each	600.00
	Total	$ 9,350.00
	Total Cost of Projects A and B	10,568.00

Operator will furnish all equipment, supplies, water, and power necessary for the project.

No additional buildings or fixtures are required.

The operator expresses willingness and financial ability to carry out its part of the cost of the project.

MF-200
(June 1951)

Docket No. DMA 2168 X
Commodity Beryl
Mica
Tantalite

UNITED STATES OF AMERICA
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

EXPLORATION PROJECT CONTRACT [1]

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

13. *Payment to the Operator.* The monthly progress report (invoice), to the extent approved by the Government, shall be processed for payment by the Government. Payment shall be made in the amount of 90 percent of the approved costs incurred; *Provided,* That the aggregate total of all sums paid by the Government under this agreement shall not exceed $9,511.20, which is 90 percent of the agreed estimated total cost of this project, $10,568.00.

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

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

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

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

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

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

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

Executed in sextuplicate the day and year first above written.

THE UNITED STATES OF AMERICA

Mineral Mills Inc.
(Operator)

By _____

Acting Director,
Production Expansion Division
Defense Minerals Administration

By _____

U. S. GOVERNMENT PRINTING OFFICE 10-64866-2

Exhibit "A" - Exploration Project

Docket DMA-2168X
Old Mike Mine

The work under this contract to be carried out in two stages:

Stage A

(1) The cutting of 14 channel samples from various points on the pegmatite outcrops together with a sample taken from the old dump, all samples to be cut at locations as shown on USGS map attached hereto.

(2) All exploration work will be confined to the Great Northern Claim of the Old Mike Mine. The work to be performed by the operator.

(3) The resulting samples are to be analyzed for Beryl by the most modern techniques through Government and Commercial laboratories.

(4) Methods of taking, handling and assaying samples to be mutually agreed upon by the operator and the Regional Field Team.

(5) This work is to be completed in 60 days.

(6) Estimated costs of Stage A of the project:

I.	4 Samples @ $1.25 per hour plus taxes and insurance $21.20 for 15 days	$ 318.00
II	Analyses of 60 pulps - 4 cuts from 15 samples @ $15.00 each	900.00
	Total	$ 1,218.00

Stage B

(1) This work is to be undertaken only in the event that the Field Team considers the results of the Stage A work indicate an adequate tonnage of commercial grade material may be delineated by the following:

(2) To drill diamond core drill holes along the strike of the pegmatite outcrops from five set ups as designated on the attached map referred to above. At least one Ax hole and possibly two to be drilled from each set-up.

(3) The total footage of all holes to be drilled in this project shall not exceed a maximum of 1750 feet.

1-9-52

MEMORANDUM:

TO: Director, Production Expansion Division
Defense Minerals Administration

FROM: Director, Supply Division
Defense Minerals Administration

SUBJECT: Recommendation for Contract Approval

Name of Applicant: Mineral Mills, Inc.
Custer, S. D.

DMA No. 2162

Commodity: Beryl, metallurgical

Amount Requested: $10,000

Amount Approved: $10,000

Government Participation: 90 % $9511.20

Approved:

Tom Lyon

Director, Supply Division

Minerals Mills, Inc.
Custer, South Dakota

2168X

Beryl, Mica, Tantalite

10,000

10,568

90 9,511.20

Tom Lyon

RWASKEY:mp
10-18-51
Approved:

Director, Supply Division

October 18, 1951

Memorandum

To: Chief, Industrial Minerals Branch, DMA

From: Chief, Programming and Planning, DMA

Subject: DMA-2168X, Mineral Mills, Inc.
Old Mika Mine, Custer County, S. D.
Commodity: Beryl, Mica, Tantalite
Amount: 90% of $10,568

The prospective available supply of strategic beryl, mica and tantalite is far short of meeting defense requirements. Consequently, it is highly desirable that exploration for new domestic deposits be stimulated by any reasonable Government assistance to private interests. Any exploration project that holds promise of finding significant new reserves, merits consideration by Defense Minerals Administration.

A. B. Parsons

RWASKEY:mp
cc: Field Team, Region V (2)
Mr. Mittendorf
Mr. Norton
Mr. Parsons
Mr. Barr
DMA Docket File

DMA-2168X
Mineral Mills, Inc.
Beryl, Mica, Tantalite

Recommendations

1. That an Exploration Aid Contract be granted in the amount of $10,568, Government participation 90%, in accordance with Exhibit "A", attached.

2. That work under the contract be granted in two stages, "A" and "B". Stage "B" to be authorized on successful completion of Stage "A" and approval of Field Team.

3. That applicant be allowed 30 days time from contract date in which to begin work under the contract.

EXHIBIT "A"

Stage "A"

A total of 14 channel samples will be taken from pegmatite outcrops at the approximate location shown on the accompanying map. One sample will be taken from the dump on the Great Northern Claim, also shown on attached map. The exact method of taking the samples, their size, splitting and handling will be mutually agreeable to Operator and Field Team. Assaying of the samples will be done in Government and Commercial laboratories, mutually acceptable to Operator and Field Team. Total allowable cost $1,218, time limit-30 days.

EXHIBIT "A" Cont'd

Stage "B"

Subject to satisfactory completion of Stage "A" and approval of Field Team, diamond drilling will be undertaken to outline the extension of the pegmatite bodies at depth. A total of 1750' of AX or larger drilling will be done at the approximate location shown on attached map. Exact number of holes, their directions and depth, will be mutually agreeable to Operator and Field Team. Drilling will be done by contract, handling of cores by Operator. Selection of cores for assay and of laboratories for assaying, will be mutually agreeable to Operator and Field Team. Total allowable cost $9.350.00, time limit - 8 months.

Fixtures and Improvements

Not applicable.

OPERATING EQUIPMENT AND SUPPLIES

Stage "A"

All necessary tools, sampling equipment, etc., will be furnished by the operator at no cost to the project.

Stage "B"

All necessary equipment for diamond drilling will be included in the contract cost as follows:

1750' diamond drilling @ $5.00 per ft $8,750.00

LABOR AND SUPERVISION

Stage "A"

2 Samplers $1.25 per hour base rate

total allowable labor cost including payroll taxes and insurance . . . . . $ 318.00

Stage "B"

All costs included in drilling contract.

MISCELLANEOUS COSTS

Stage "A"

Assaying, 60 pulps @ $15.00 . . . . . $ 900.00

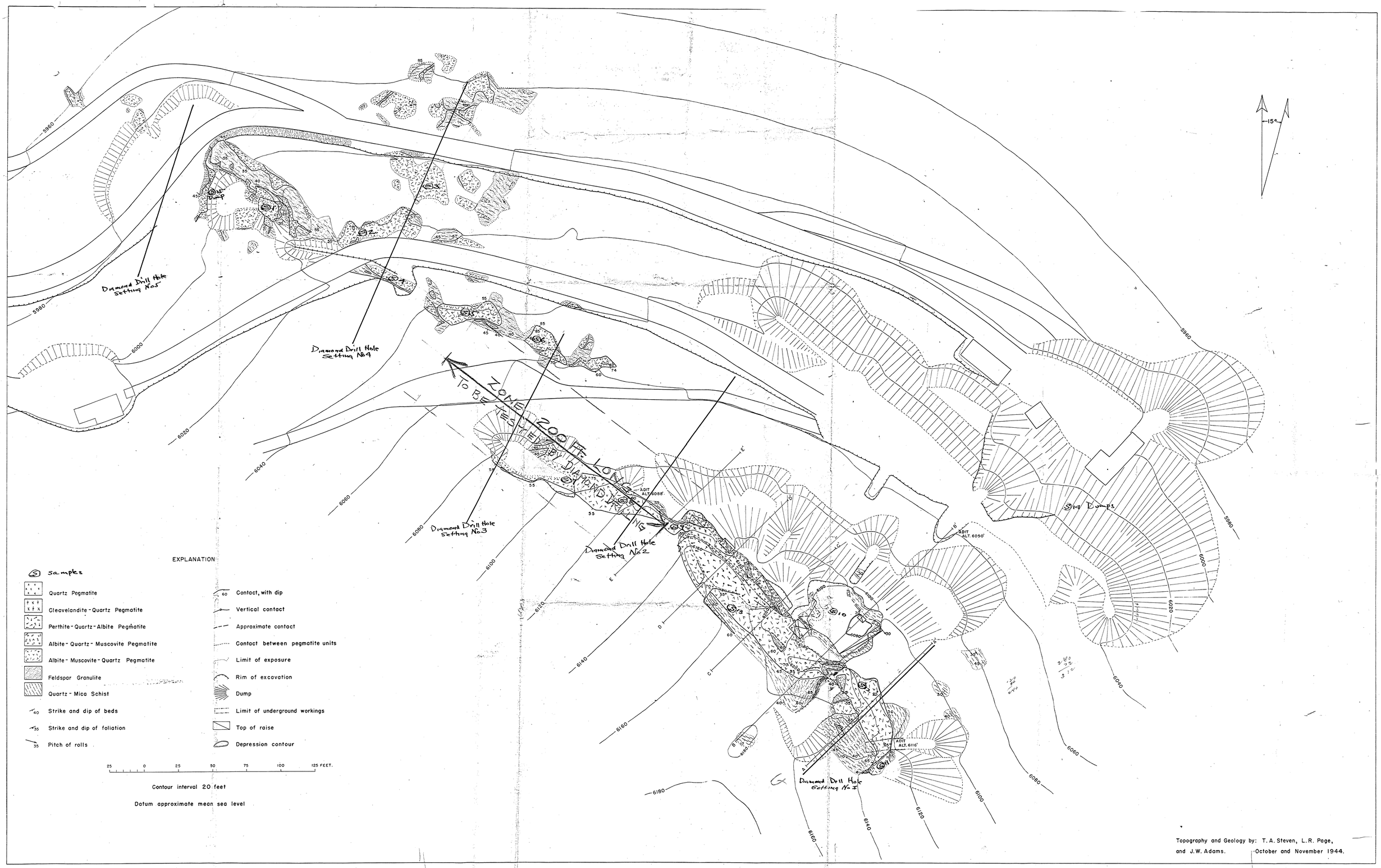
Stage "B"

Assaying, 40 pulps @ $15.00 . . . . . $ 600.00

REHABILITATION AND REPAIRS

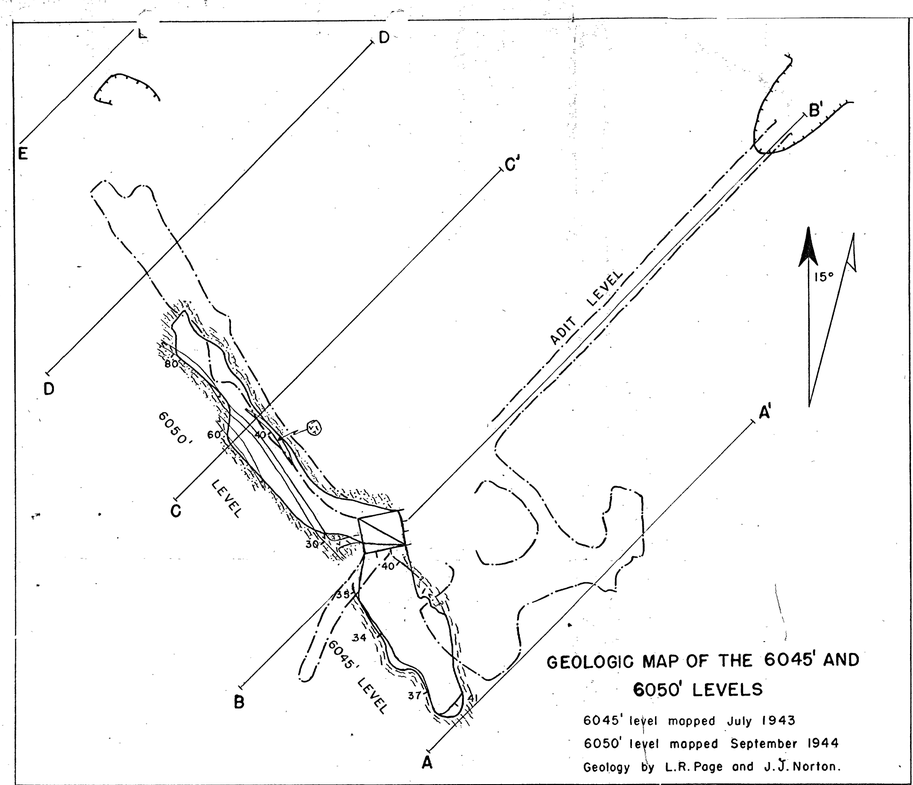
Not applicable.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



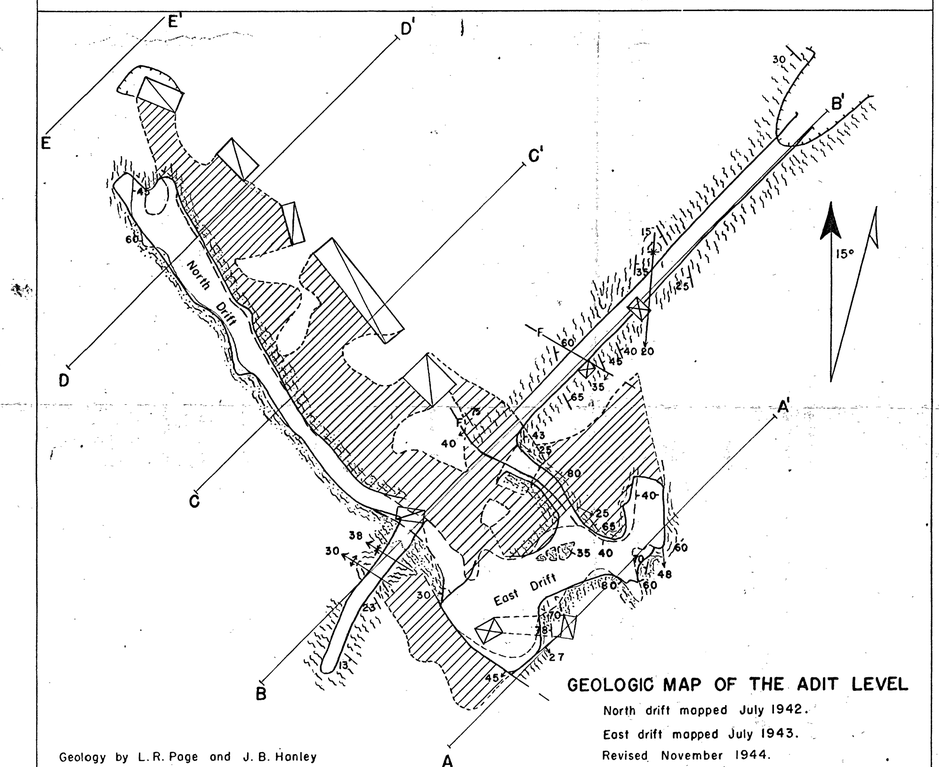
Topography and Geology by: T. A. Steven, L. R. Page, and J. W. Adams. October and November 1944.

FIGURE 1. GEOLOGIC MAP, OLD MIKE MICA MINE, CUSTER COUNTY, SOUTH DAKOTA



GEOLOGIC MAP OF THE 6045' AND 6050' LEVELS

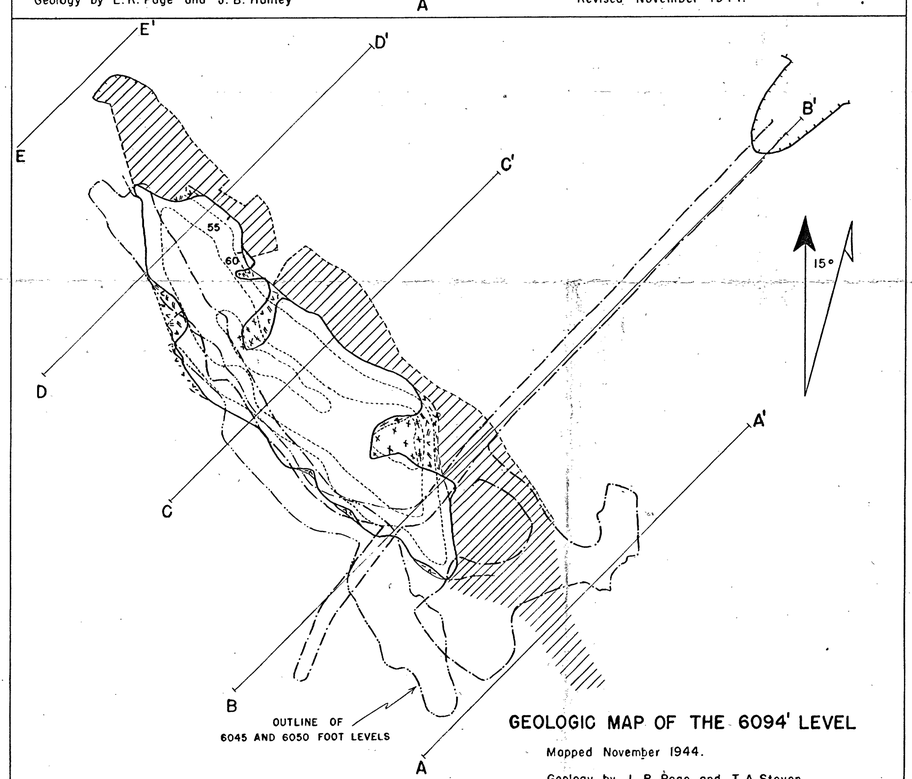
6045' level mapped July 1943
6050' level mapped September 1944
Geology by L.R. Page and J.J. Norton.



GEOLOGIC MAP OF THE ADIT LEVEL

North drift mapped July 1942.
East drift mapped July 1943.
Revised November 1944.

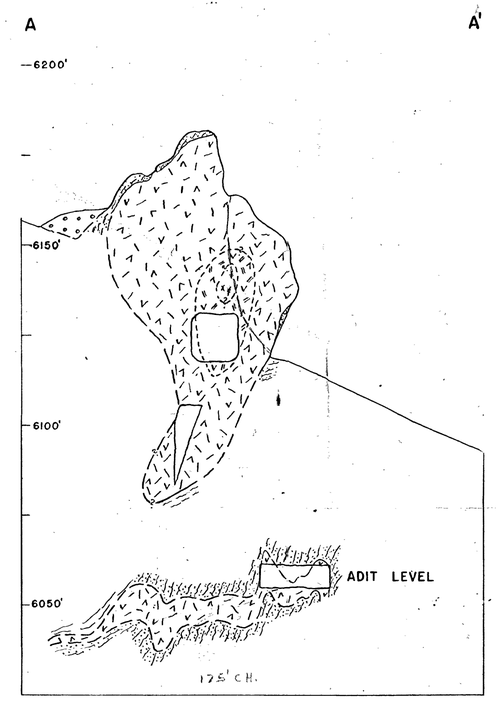
Geology by L.R. Page and J.B. Hanley

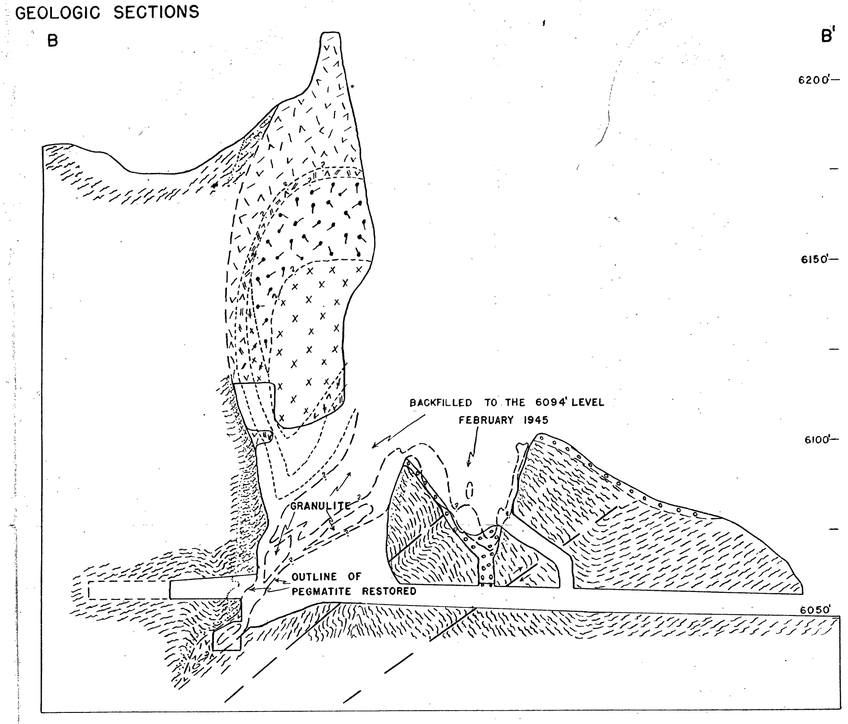


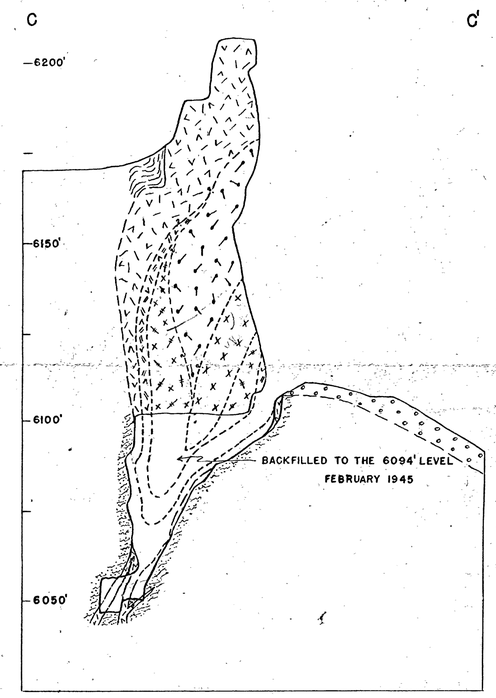
GEOLOGIC MAP OF THE 6094' LEVEL

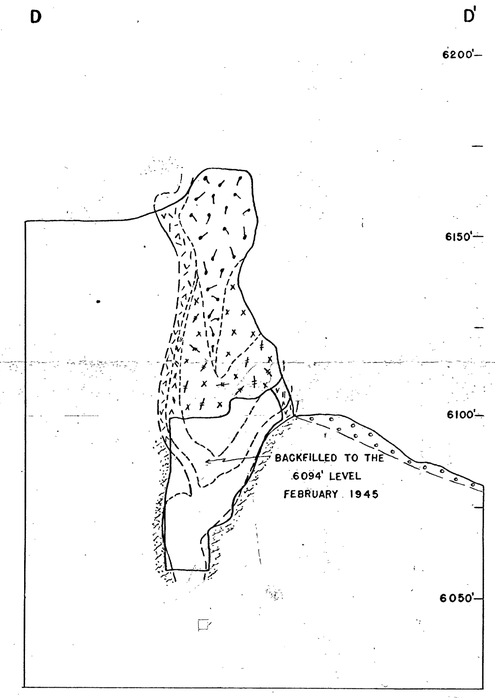
Mapped November 1944.
Geology by L.R. Page and T.A. Steven.

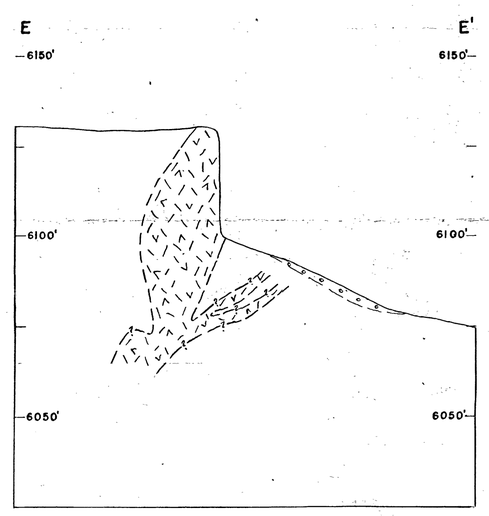
GEOLOGIC SECTIONS











EXPLANATION

- Dump and backfill
- Quartz Pegmatite
- Cleavelandite - Quartz Pegmatite
- Perthite - Quartz - Albite Pegmatite
- Albite - Quartz - Muscovite Pegmatite
- Albite - Muscovite - Quartz Pegmatite
- Feldspar Granulite
- Quartz - Mica Schist
- 40 Strike and dip of beds
- 25 Pitch of rolls
- 40 Fault
- 30 Axis of minor anticline
- 20 Axis of minor syncline
- 60 Contact, with dip
- Vertical contact
- Approximate contact
- Inferred contact
- Exposed / Inferred } contact of pegmatite units
- Rim of excavation
- Limit of underground workings
- Top of raise or winze
- Foot of raise or winze
- Inclined raise
- Stope

25 0 25 50 75 100 125 FEET

FIGURE 2. GEOLOGIC SECTIONS AND UNDERGROUND MAPS, OLD MIKE MICA MINE, CUSTER COUNTY, SOUTH DAKOTA.