CCO

SEP 9 - 1953

Mr. Arthur Mateska
1337 Gordon Street
Custer, South Dakota

Re: Docket No. [illegible] - Mica
The Lolo Mica
Custer County, South Dakota

Dear Mr. Mateska:

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

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

Careful study of all our information, although noting a small amount of mica on your property, indicates to us that the probability of disclosing sizable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

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

Sincerely yours,

C. O. Mittendorf

Administrator

JTRobertson:gcl 9/4/53

Copy to: Adm. R. File
Docket File
Reporting Committee
Field Team, Region V
Mr. Mottrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

R ✓ DMEA-3105 Mica Region VII	ARTHUR MATESKE, CUSTER, SOUTH DAKOTA. The Dale Mine, Custer County, South Dakota. Letter to the Applicant denying the application.	9/9/53 #265
R ✓ DMEA-3105 Mica Region VII	ARTHUR MATESKE, CUSTER, SOUTH DAKOTA. The Dale Mine, Custer County, South Dakota. Field Report recommending denial. The report was referred to the Commodity Group.	8-28-53 #261
DMEA-3105 Mica Region VII R	✓ ARTHUR MATESKE, CUSTER, SOUTH DAKOTA. The Dale Mine, Custer County, South Dakota. Letter to the Field requesting review of the application, a field examination of recovery, and report and enclosing copies of correspondence from the Bureau of Mines and the Geological Survey. Letter to the Applicant.	7-17-53 No. 243

September 4, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Docket No. DMEA-3105 - Mica
Arthur Mateske (owner)
The Dale Mine, Custer, South Dakota

Re: Denial of application and closing of docket.

Property: The Dale Mine comprises an unpatented mining location within SE 1/4 Sec. 15, T. 4S., R. 4 E., BHBM. Claim recorded in Custer County in Bk. No. 17, Page 432 of locations. The mine lies 7 miles by good road South and slightly West of Custer, South Dakota.
Applicant: Arthur Mateske
1037 Gordon Street
Custer, South Dakota.
Amount requested: $4,003.74
Project requested: 50 ft. of shaft and 25 ft. of drift.
Examination: Property examined by field engineers August 4 and August 7, 1953. Report by E. O. Binyon and J. A. Redden received August 21, 1953 recommended that the application be denied.

Denial and closing: See Administrator's letter of denial. (Copy attached hereto).

Summary of Docket:

7/1/53	Received application MF-103.
7/2/53	Receipt of application acknowledged.
7/8/53	Memo from USGS suggesting that application be referred to field team.
7/17/53	Application referred to Region V.
8/21/53	Report of Examination by Field Team. E. O. Binyon, USBM and J. A. Redden, USGS. They recommend a denial of application after examination of the property August 4 and August 7, 1953.
8/27/53	Memo from D. M. Larrabee, USGS concurring in field team's recommendation.
	Memo from W. F. Dietrich, concurs in a denial of application.

Resume: The applicant applied for a project to sink a 8x10' shaft to a depth of 50 feet and from the bottom of proposed shaft to drift a distance of 25 feet; the cost of the work was estimated at approximately $4,000.00.

According to the field engineer's report, the pegmatite outcrop strikes N. 28° W. and has an average dip of 48° S.W. Its length is 135 feet and maximum thickness is 14 feet. There is a 3-foot wall-zone consisting of quartz-perthite-plagioclase-muscovite pegmatite in which are found muscovite books averaging about 1 1/2 inches in diameter; some books as large as 8 inches in diameter are present. However, the muscovite is stained or has other defects. Only a small percentage could be considered as possible good stained in quality. A 2 inch crystal of beryl was noted in the inner zone of the pegmatite.

Because of the relatively small size of the muscovite books, low percentage of mica in the 3-ft. wall zone, and the poor quality of observed mica and the relatively small size of the sill-shaped pegmatite, it is recommended by the field team that the application be denied. The limited prospects for finding ore in significant amounts does not warrant Government participation in the proposed project. The commodity groups of Geological Survey and the Bureau of Mines concur in the views of the examining engineers.

Comments and Recommendation: The pegmatite exposed on this property appears to be a thin sill-shaped pegmatite offering insufficient prospects for developing good quality ore. The Nonmetallic Minerals Division concurs in the evaluation made by the field engineers and recommends that this application for exploration aid be denied.

SIGNED

Jasper T. Robertson
Nonmetallic Minerals Division

JTRobertson:gad 9/4/53
Copy to: Admr. R. File
Docket File
Mr. Houk

IN REPLY REFER TO:

G-MD-CNM

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 27 1953

August 27, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-3105 (mica)

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. M. Larrabee, U. S. Geological Survey
Applicant: Arthur Mateske, 1037 Garden Street, Custer, South Dakota.
Name of property: Dale property.
Location of property: 7 miles SSW of Custer.
Date of field team report: August, 1953.
Authorship of field team report: J. A. Redden and E. C. Binyon.
Field team's recommendation: Denial.
Comments: No exploration or development work would result in a significant discovery of mica of strategic grade.
ACTION SUGGESTED: Follow field team's recommendation.

D. M. Larrabee

Larrabee:jeh
8/27/53
cc: Director's reading 4212
Branch reading 4212
DMEA 3
Larrabee

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

August 27, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3105, Mica, Dale Mine, Arthur Mateske, Custer County, South Dakota

I concur in the field team's recommendation for denial of subject application on the basis that the mica would not be of sufficient quality or grade to warrant a loan.

Signed

W. F. Dietrich

IN REPLY REFER TO:

G-MD-CNR

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
AUG 27 1953

August 27, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-3105 (mica)

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. M. Larrabee, U. S. Geological Survey
Applicant: Arthur Kateske, 1037 Garden Street, Custer, South Dakota.
Name of property: Dale property.
Location of property: 7 miles SSW of Custer.
Date of field team report: August, 1953.
Authorship of field team report: J. A. Redden and E. C. Binyon.
Field team's recommendation: Denial.
Comments: No exploration or development work would result in a significant discovery of mica of strategic grade.
ACTION SUGGESTED: Follow field team's recommendation.

D. M. Larrabee

Larrabee:jeh
8/27/53
cc: Director's reading 4212
Branch reading 4212
DMEA 3
Larrabee

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D.C.
Region V
2550 Colfax Avenue South
Minneapolis 6, Minnesota

August 19, 1953

Memorandum

To: Operating Committee, Defense Minerals Exploration Administration, Interior Building, Washington 25, D. C.

From: Executive Officer, Field Team, Region V

Subject: Docket DMEA-3105, Dale Mine, South Dakota

Reference is made to your letter of July 17, 1953 regarding the subject docket.

Here are the original and three copies of the Field Team report recommending denial of the Matsuke application.

A. B. Needham
Executive Officer, Field Team
Region V

Attachments

cc: C. E. Dutton
E. O. Binyon (att)
J. A. Redden
Region V
Files
Day Files

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 21 1953

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM

REGION V

DMEA DOCKET NO. 3105

Dale Mine
Custer County, South Dakota

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

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

August, 1953

DEFENSE MINERALS EXPLORATION ADMINISTRATION
Report of Field Examination

by

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

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

Docket No.: 3105
Applicant: Arthur Mateske
1037 Garden St.
Custer, S. Dak.
Commodity: Mica

SUMMARY

The Dale property comprises one unpatented lode mining claim and is owned by Arthur Mateske, the applicant.

It is in Custer County, S. Dak., the SE 1/4 section 15, T. 4 S., R. 4 E., B.H.B.M. and is approximately 7 miles, by good road, south and slightly west of Custer, the nearest rail point and supply center.

Workings consist of two small open cuts, as shown on the accompanying map. There are no surface facilities or underground working on the property.

The pegmatite, a thin sill shaped body, is approximately 135 feet in length and has a maximum thickness of about 14 feet. It strikes N. 28° W. and has an average dip of 48° W.

Two zones are distinquishable, a mica bearing wall zone and an inner zone. The wall zone averages 3 feet in thickness and consists of quartz-perthite-plagioclase-muscovite pegmatite with a muscovite content of 5 to 10 percent of the zone as exposed. The muscovite occurs mainly as books averaging 1-1/2 inch in diameter and is stained and has other defects as well. Only a very small percentage might possibly be of good stained quality.

In the inner zone, which is mostly graphic-perthite with some massive quartz, one 2 inch crystal of beryl was seen. A lack of any mica-rich shoots on the few contact irregularities along the pegmatite is apparent.

CONCLUSIONS AND RECOMMENDATIONS

Owing to the small size of the pegmatite, the narrowness of the mica-bearing wall zone and to the low percentage of mica in the zone, as well as low content of other recoverable salable minerals, it is concluded that the pegmatite does not warrant exploration. The proposed shaft and drift, or any exploratory or development work on the pegmatite would not result in a significant discovery of mica of good stained or better quality. Also, the quantity of scrap mica and other salable minerals that might be recoverable preclude economic mining of the pegmatite by either surface or underground methods.

Based on the foregoing conclusions, it is recommended that the application be denied.

Examinations of the property were made individually by members of the field team on August 4th and 7th. The applicant did not accompany either member on the examination but had previously discussed the application, at different times, with both members.

Approximately 4 hours were spent in the discussions, examinations, and preparation of the accompanying map.

NAME AND LOCATION OF THE PROPERTY

The property, known as the Dale Mine, consists of one unpatented lode mining claim on which the applicant holds a Quit Claim deed from G. D. Doughty and Clyde Gordon, both of Custer, S. Dak.

The claim was relocated by Doughty and Gordon on September 29, 1952 and notice of relocation was filed on October 3, 1952 with the Register of Deeds at the Custer Courthouse in Location Book No. 17 on page 482.

The claim is in Custer County in the SE 1/4 section,15, T. 4 S., R. 4 E., B.H.B.M. and is approximately 7 miles south and slightly west of Custer, S. Dak.

To reach the property, go south on Highway 85-A to just past Sanator, turn right onto an unpaved gravel road, cross the railroad tracks and continue on this road for about 1 mile to a farm house and building on the left. Turn right onto an unimproved dirt road, go through a gate and continue about 1/4 mile to the property.

Roads are good and the property is accessible the year around.

Custer is the nearest shipping point and is the supply center for small mining supplies.

DESCRIPTION OF THE PROPERTY AND PAST OPERATIONS

The two open cuts shown on the accompanying map are the only workings on the property. The southernmost cut is shallow, only about 6 feet in depth and the one to the northwest is an incline extending to a depth of about 16 feet to the top of the loose muck. The depth below the muck could not be determined but apparently is not much over 20 to 25 feet below the rim.

There are no surface facilities or underground workings.

The applicant stated that some mica had been sold from the property during World War II, but no record of the amount or quality could be found.

GEOLOGY

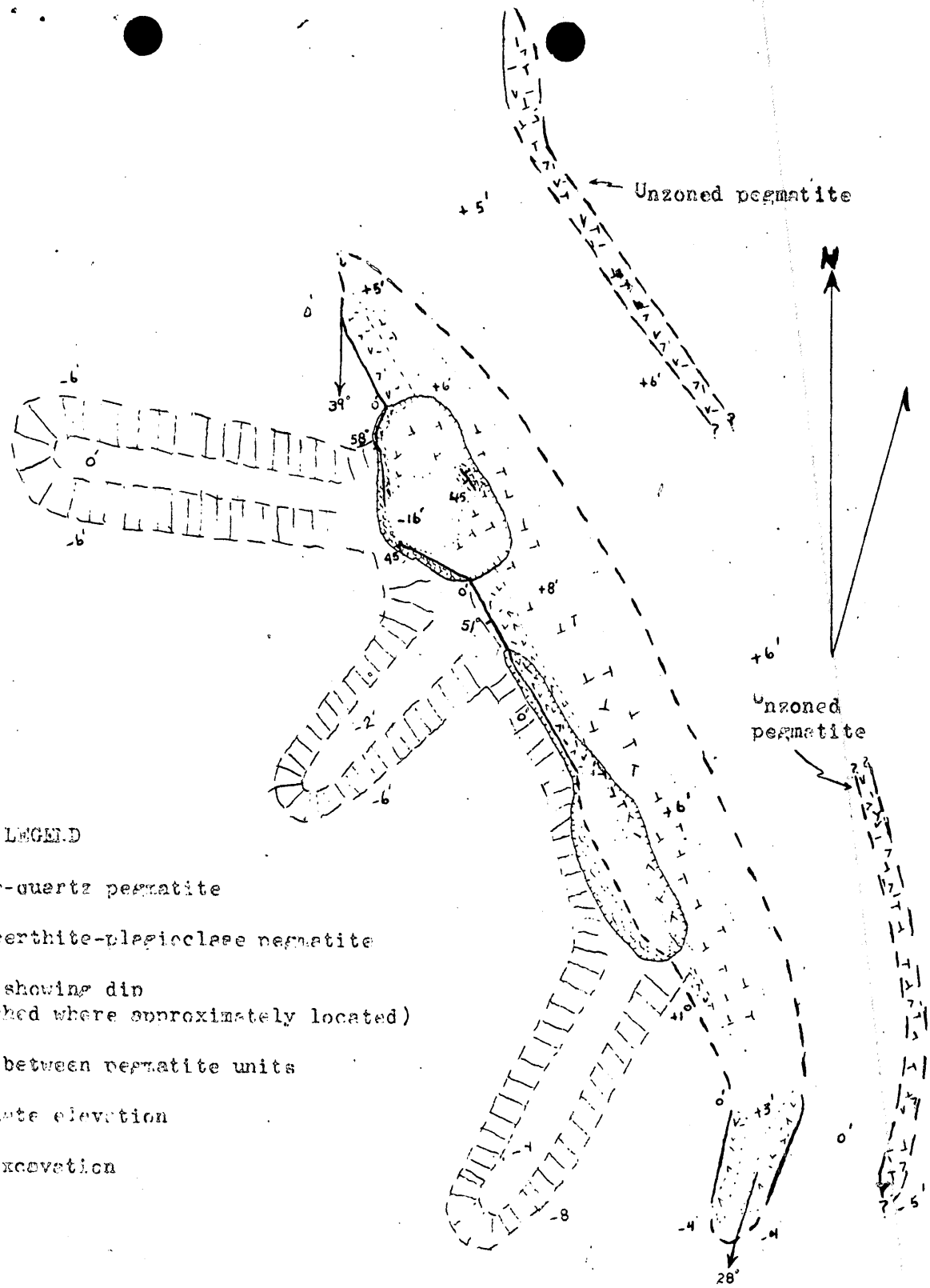
The pegmatite is a thin, sill-shaped body which strikes about N. 28° W. and has an average dip of 48° SW. Its length is approximately 135 feet and its maximum thickness is about 14 feet. The probable plunge is 28° to 38° S. to S. 10° W.

Two zones are distinquishable in the pegmatite; a wall zone consisting of quartz-perthite-plagioclase-muscovite pegmatite, and an inner zone of perthite-quartz pegmatite. The wall zone averages about 3 feet thick. Quartz is most abundant in the zone and perthite and plagioclase are nearly equal in abundance. Muscovite constitutes from 5 to 10 percent of the zone as exposed. The muscovite books average about 1½ inches in diameter, although books as much as 8 inches in diameter are present. Most of the muscovite was stained or had other defects. Only a small percentage could be considered as possible good stained quality.

The inner zone is mostly graphic perthite. Massive quartz is fairly abundant. The other minerals are accessory plagioclase, tourmaline, and muscovite. One 2 inch crystal of beryl was present.

The relatively small size of the muscovite books, low percentage of mica in the wall zone, and poor quality of the observed mica are not favorable for additional exploration. In addition, the relatively small size of the pegmatite and of the mica bearing zone are not favorable for additional minerals other than the small amount of mica present. The lack of rich mica shoots in the few contact irregularities is not favorable.

It is recommended that the application be denied on the basis of the above reasons. It is admitted that a little good stained or better mica could be recovered from the pegmatite, but the expected reserves do not warrant exploration. It is doubtful that the mine could operate on a paying basis if the cost of the shaft was gratis.



LEGEND

- Perthite-quartz pegmatite
- Quartz-perthite-plagioclase pegmatite
- Contact showing dip (dashed where approximately located)
- Contact between pegmatite units
- +8' Approximate elevation
- Rim of excavation
- Dump

Prepared for DMEA by J. A. Redden, U. S. G. S, Aug. 3, 1953

Face and Compass Map, Dale Pegmatite, SE¼ Sec. 15, T. 4 S., R. 5 E. Custer County

PROPOSED WORK

Only a brief discussion of the proposed work was held with the applicant and this was prior to the examination and the date the application was submitted.

The applicant proposes to sink an 8' by 10' shaft to a depth of 50 feet and to drift 25 feet along the pegmatite. The total estimated cost of the proposed work is $4,000.00.

Owing to the small size of the pegmatite and of the mica bearing wall zone, as well as the low percentage, size and quality of mica in the zone, it is the opinion of the field team that the probabilities of a significant discovery are too unfavorable to warrant exploration.

Also, from the quantity of other salable minerals, feldspar and beryl present in either the wall or inner zone, it is concluded that any exploration or development could not be undertaken and result in an economic mining operation.

It is most unlikely that exploration would result in a discovery of sufficient mica of suitable quality or grade, or of other salable minerals, to repay even a much smaller amount than the $3,600.00, which is the government's share of the loan applied for in the application.

It is therefore recommended that the application be denied.

RECEIVED
AUG 19 1953
DEPT. OF INTERIOR
BUREAU OF MINES
MINNEAPOLIS
REGION 0

JUL 17 1953

Mr. Arthur Mateske
1037 Gordon Street
Custer, South Dakota

Re: Docket No. DMEA-3105 - Mica
The Dale Mine
Custer County, South Dakota

Dear Mr. Mateske:

Your application for assistance in exploring the subject property has been reviewed by the Nonmetallic Minerals Division of the Defense Minerals Exploration Administration and has been referred to Mr. A. B. Needham, Executive Officer, DMEA Field Team, Region V, 2908 Colfax Avenue, South, Minneapolis 8, Minnesota, for further consideration and possibly a field examination.

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

Sincerely yours,

FRANK E. JOHNSON

ACTING Administrator

JTRobertson:gad 7/15/53

Copy to: Admr. R. File
Docket File
Field Team, Region V
Operating Committee
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

600

JUL 17 1953

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

Subject: Docket No. DMEA-3105 - Mica
The Dale Mine
Custer County, South Dakota

Dear Mr. Needham:

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

Copies of memoranda from the Geological Survey and the Bureau of Mines are enclosed for your information.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Approved:

J. H. Hedges

Member, Bureau of Mines

A. R. Kinkel, Jr.

Member, Geological Survey

Enclosures 4

JTRobertson:gad 7/15/53
Copy to: Admr. R. File
Docket File
Operating Committee
Mr. Dietrich, 3526
Mr. Larrabee, G-232 GSA Bldg.
Mr. Houk

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

July 9, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3105, Mica, The Dale Mine,
Custer County, South Dakota

No data are available in this office on subject property. It is suggested that the field team visit this property when a member of the field team is in that vicinity to ascertain if an exploration program is justified.

Signed

W. F. Dietrich

IN REPLY REFER TO:
G-M1-CNM

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

July 8, 1953

Memorandum

REVIEW OF APPLICATION DMEA-3105 (Mica)

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. M. Larrabee, U. S. Geological Survey
Applicant's name and address: Arthur Mateske, 1037 Gordon Street, Custer, South Dakota.
Name of property: Dale Mine.
Location of property: Custer County, South Dakota.
Summary of applicant's proposal:
8 by 10 ft. shaft to 50 feet, then drift 25 feet.
Sources of information on applicant's property: None.
Comments: None.
RECOMMENDATION: Refer to field team.

D. M. Larrabee

Lawthers:jeh
G-7/8/53
cc: Director's reading 4212
Branch reading 4212
DMEA 3
files G-232