DMEA Form 1

DEFENSE MINERALS EXPLORATION ADMINISTRATION
Control Slip

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DMEA Docket No. 4466

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DMEA Form 7
(12-56)

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Date	Surname	Code
1/29	Chapman	400
1/29	Martin	400
2/1	Selfridge	130
"	Johnson	110
	Whitesides	100
		220

FEB 1 1957

Dial Exploration
1512 Cardenas Drive, N. E.
Albuquerque, New Mexico

Re: Docket No. DMEA 4466 - Manganese
Barela Ranch
Socorro County, New Mexico

Nelson Lamb

Gentlemen:

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

Projects approved by the Defense Minerals Exploration Administration must, in its judgement, show definite promise 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 the occurrence of manganese mineralization on your property, indicates to us that the probability of disclosing minable ore reserves is not sufficiently promising to justify Government participation. Under these circumstances we regret to advise you that your application is denied.

We wish to thank you for your interest in the Defense Minerals Exploration Administration program and for bringing this property to our attention.

Sincerely yours,

C. D. [illegible] (for)

Administrator

TLChapman:am 1-29-57
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT REG III
Messrs. G. DeHuff, USBM
T. Kiilsgaard, USGS

R.C.S.

8623

DMEA Form 7
(12-56)

OFFICIAL FILE COPY

Date	Surname	Code
1/30	Chapman	400
1/30	Martin	400
		130
		110
		100
		220

January 30, 1957

MEMORANDUM

To: Administrator

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of the subject application for exploration assistance in the amount of $15,519.30
Docket No. DMEA 4466 - Manganese
Dial Exploration
Barela Ranch
Socorro County, Mexico

Denial of the subject application is recommended by this Division based on the following information:

The applicant, Dial Exploration (a partnership) requested exploration assistance in the amount of $15,519.30 on September 10, 1956, for access road building, drill site preparation and diamond drilling. A field examination of the property was made on December 5, 1956, by J. N. Faick and W. L. Emerick, Geological Survey.

Ownership and Property:

About 2,046.1 acres are held under mineral lease by Benjamin S. Dial, for a partnership known as Dial Exploration, with home offices located at 1512 Cardenas Drive, N. E., Albuquerque, New Mexico

The partnership is composed of:

Benjamin S. Dial, 816 Carlisle Boulevard, S. E., Albuquerque, New Mexico.

Asa E. Mann, 717 Carlisle Boulevard, Albuquerque, New Mexico.

Donald S. Dial, 1512 Cardenas Drive, N. E., Albuquerque, New Mexico.

The property lies in W½, NE¼, and E½, NW¼ of section 21, T. 1 N., R. 1 E., New Mexico Principal Meridian, unsurveyed Joyita Hills Mining District, Socorro County, New Mexico.

R.G.L.

8623

Geology: The Diel prospect lies on the west slope of the Joyita Hills in the limestone member of the Permian San Andreas formation. A concealed northeast trending fault brings Tertiary sediments against the limestone. Outcrops of the limestone show manganese stain, clay seams and solution cavities.

A 10 ft. X 20 ft. bulldozer cut exposes a small deposit of manganese mineral about 6 feet long, 2½ feet thick and of unknown width in a tension fracture zone.

History and Past Production Workings:

There is no past production from the property. The only working consists of a bulldozer cut 10 feet wide and 30 feet long.

Proposed Work: The applicant proposes to prepare an access road and drill sites, and drill 10 diamond drill holes with a total length of 1,000 feet.

Ore Values and tonnage:

The only sample taken from bulldozer cut in the middle of the ore shown in cut assayed 20.5 percent Mn., and it is estimated that there may be 3 to 5 tons of possible ore in the pocket.

Comments and Conclusions:

The Field Team believes there is little possibility of developing any quantity of ore of a minable grade and recommends denial of the application. The Commodity Divisions of the Geological Survey and the Bureau of Mines concur in the conclusions and recommendations of the Field Team.

W. S. Martin, Chief
Iron and Ferro-Alloys Division

TLChapman:am
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.

IN REPLY REFER TO:

Docket

FINAL FILE COPY
DMEA
RECEIVED JAN 17 1957

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

DATE	INITIALS	COD
1-17	CW	220
1/18	WSM	400

January 16, 1957
Re: DMEA 4466
Dial Exploration
Barela Ranch
Socorro County, New Mexico
$15,519.30 - Manganese

Memorandum

To: W. S. Martin, Defense Minerals Exploration Administration

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

Subject: Review of Field Team Report

The applicant (a partnership) requested assistance in exploring, by drilling, a small showing of manganese bearing limestone. The consulting geologist of the applicant believed the small occurrence is related to a concealed but apparent fault which places Tertiary sediments against Permian limestone.

The examiners found the manganese deposit to be about 6 feet long and 2½ feet in thickness. The width has not been revealed. The manganese mineralization fingers out, at the ends, into several stringers of mixed clay and manganese. The small pod is estimated to contain 3 to 5 tons of possible ore, a sample of which across 2 feet, assayed 20.5% Mn.

Because the deposit is small in dimensions and judging by the geologic environment that no significant tonnage could be developed, the examiners and the Field Team recommend that the application be denied.

I concur with the recommendation.

N. E. Nelson

N. E. Nelson

Copy retained 400

Docket

OFFICIAL FILE COPY DMEA RECEIVED JAN 16 1957		
DATE	INITIALS	CODE
1-16	C	220
1/16	WSM	400

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

Date January 15, 1957

DMEA Docket No. 4466
DMEA Contract No. -
Commodity Mn
Name of applicant Dial Exploration
Name of property Barela Ranch
Location of property Socorro Co. N. M.
Estimated cost of project $15,519.30

Memorandum

To: W. S. Martin, DMEA

From: G. L. DeHuff, Jr. Commodity Specialist, Br. of Ferrous Metals & Ferroalloys

Subject: Review of Field Team Report
(Application, Field Team Report, etc.)

1. Date of subject document: 12/27/56. 2. Date received by reviewer: 1/10/57.

3. Prior reports on this property known to reviewer: Yes ☐ No ☒

4. Prior reports on nearby properties known to reviewer: Yes ☐ No ☒

5. Information available on past production: Yes ☐ No ☒

6. Other pertinent factors known to reviewer: Yes ☐ No ☒

7. Explain items marked yes above:

8. Factors needing special consideration:
   a. Location ☐
   b. Ownership ☐
   c. Evidence of mineralization ☐
   d. Geology ☐
   e. Proposed exploration method ☐
   f. Alternate exploration method ☐
   g. Costs ☐
   h. _____ ☐

9. Action advised:
   a. Obtain information from applicant ☐
   b. Refer to Field Team ☐
   c. Denial ☒
   d. Agree with Field Team ☒
      i. Consult with Mr. _____ at _____ AEC office.
   e. Disagree with Field Team ☐
   f. Suggest alternate plan ☐
   g. Request another examination ☐
   h. Approval ☐

10. Remarks: (Use back of page if necessary)

G L DeHuff Jr

Docket

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

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 7 1957

DATE	INITIALS	CODE
~~January 4, 1957~~		
		130
1/11	CW	220
1/14	WSA	400

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee

From: DMEA Field Team, Region III

Subject: Report of Examination Docket DMEA 4466 (Manganese) Dial Exploration (Barela Ranch) Socorro County, New Mexico.

Enclosed are the original and three copies of the geologic Report of Examination on the subject property. The Bureau of Mines did not participate in the examination.

The examiners conclude that no significant amount of manganese is present, or could be developed through further exploration. They recommend that the application be denied. We concur in this recommendation.

DMEA Field Team, Region III

By W. M. Traver
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
1-11-57
(date)

DMEA
DEPARTMENT OF THE INTERIOR

JAN 2 1957
REGION III
DENVER, COLORADO

MINERAL DEPOSITS
DMEA
RECEIVED
DEC 31 1956
GEOLOGICAL SURVEY
DENVER, COLORADO

Box 4126 University Station
Tucson, Arizona

December 27, 1956

TRANSMITTED
JAN 4 1957

MEMORANDUM

To: Executive Officer, DMEA Field Team, Region III

From: W. L. Emerick
W. R. Storms

Through: E. N. Harshman DMA for ENH

Subject: Docket DMEA 4466 (Manganese) Dial Exploration (Barela Ranch), Socorro County, New Mexico

Enclosed are the original and 8 copies of the above report by W. L. Emerick and J. N. Faick of the Geological Survey, recommending denial of the application.

Because the Survey report indicates that no significant amount of minable ore is present or could be developed on the property, we assume that it will be unnecessary for the Bureau of Mines to make a duplicate examination.

The Survey and Bureau copies of the above docket are also enclosed.

W L Emerick
W. L. Emerick

Lincoln A Stewart for
W. R. Storms

WLE:ms
cc: Travef (8)
Harshman
King
Storms
Emerick

Reviewed by
DMEA OPERATING COMMITTEE
1-11-57
(date)

OFFICIAL FILE COPY
DMEA
RECEIVED JAN 7 1957

DATE	INITIALS	CODE
		130
1/14	WSM	400

TRANSMITTED

JAN 4 1957

Original signed by

FOR UNITED STATES GOVERNMENT USE ON

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED JAN 7 1957

DATE	INITIALS	CODE
1/14	WSM	130

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-4466 (Manganese), Dial Exploration

Socorro County, New Mexico

W. L. Emerick and J. N. Faick, Geologists
U. S. Geological Survey

December 27, 1956

Reviewed by
DMEA OPERATING COMMITTEE
1-11-57
(date)

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Dial Exploration, a partnership, applied for Defense Minerals Exploration Administration assistance to explore a manganese prospect in Section 21, T. 1 N., R. 1 E., unsurveyed, Socorro County, New Mexico.

The application proposed access road building, and drill site preparation and drilling of 10 core drill holes for a total footage of 1,000 feet, at a total estimated cost of $15,519.30.

Field examination of the property for the Defense Minerals Exploration Administration was made on December 5, 1956 under docket DMEA-4466.

The Dial prospect is on about 2,046.1 acres of land held under mineral lease by Benjamin S. Dial, one of three partners.

There is no past history or production, and a sample of the deposit taken by the examining team assayed 20.5 percent Mn.

The prospect lies on the west slope of the Joyita Hills in the limestone member of the Permian San Andres formation. A concealed fault about 100 feet northwest of the prospect brings Tertiary sediments against the limestone. Dips in the limestone range from 20° to 24° NW, but steepen slightly in the vicinity of the fault. Some small, discontinuous tension breaks parallel to the main fault and transverse to the bedding occur in the limestone member in the area of steepened dip.

The prospect consists of a small deposit of manganese oxides exposed in a bulldozed cut about 10 feet wide by 30 feet long in the area of steepened dips. The deposit fingers out on both ends into several stringers of mixed manganese and clay along small tension fractures transverse to the bedding. Downward moving water may have concentrated the manganese mineral in an open space along a fracture. Considering the very limited lateral extent of the outcrop, the deposit probably may also decrease in thickness within a few feet below the surface.

An estimated 3 to 5 tons of possible ore is exposed in the prospect.

It is concluded by the field examiners from the small dimensions and nature of the prospect and from a geologic examination of the adjacent areas that no significant amount of minable ore is present or could be developed by exploration. Denial of the application is therefore recommended.

RECEIVED JUN 7 1957

DATE	INITIALS	CODE

DMEA-4466 (MANGANESE), DIAL EXPLORATION

SOCORRO COUNTY, ARIZONA

CONTENTS

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INTRODUCTION	1
LOCATION AND ACCESSIBILITY	1
OWNERSHIP AND EXTENT OF PROPERTY	2
HISTORY, PRODUCTION, AND GRADE	2
PRESENT STATUS	2
GEOLOGY	2
PROPOSED EXPLORATION	4
CONCLUSIONS	4

ILLUSTRATIONS

Figure 1 - LOCATION MAP	Following page 1
Figure 2 - SKETCH OF GEOLOGY	" " 4

INTRODUCTION

Dial Exploration, a partnership, with offices in Albuquerque, New Mexico, applied for Defense Minerals Exploration Administration assistance under docket DMEA-4466 to explore a manganese prospect located about 4 miles south of LaJoya, Socorro County, New Mexico.

The application proposed the drilling, access road building, and drill site preparation for 10 core drill holes to explore a mineralized outcrop in the vicinity of a fault zone. Total cost of the project was an estimated $15,519.30.

Field examination of the prospect for the DMEA was made on December 5, 1956 by J. N. Faick and W. L. Emerick of the U. S. Geological Survey. Asa E. Mann and Donald D. Dial, of Dial Exploration, accompanied the examiners.

LOCATION AND ACCESSIBILITY

The prospect of Dial Exploration lies in the W½, NE¼, E½, NW¼, sec. 21, T. 1 N., R. 1 E., New Mexico Principal Meridian, unsurveyed, Joyita Hills mining district, Socorro County, New Mexico (Figure 1).

The prospect may be reached by traveling due south past the LaJoya School, LaJoya, New Mexico, on a poor dirt road, for about 4.3 miles.

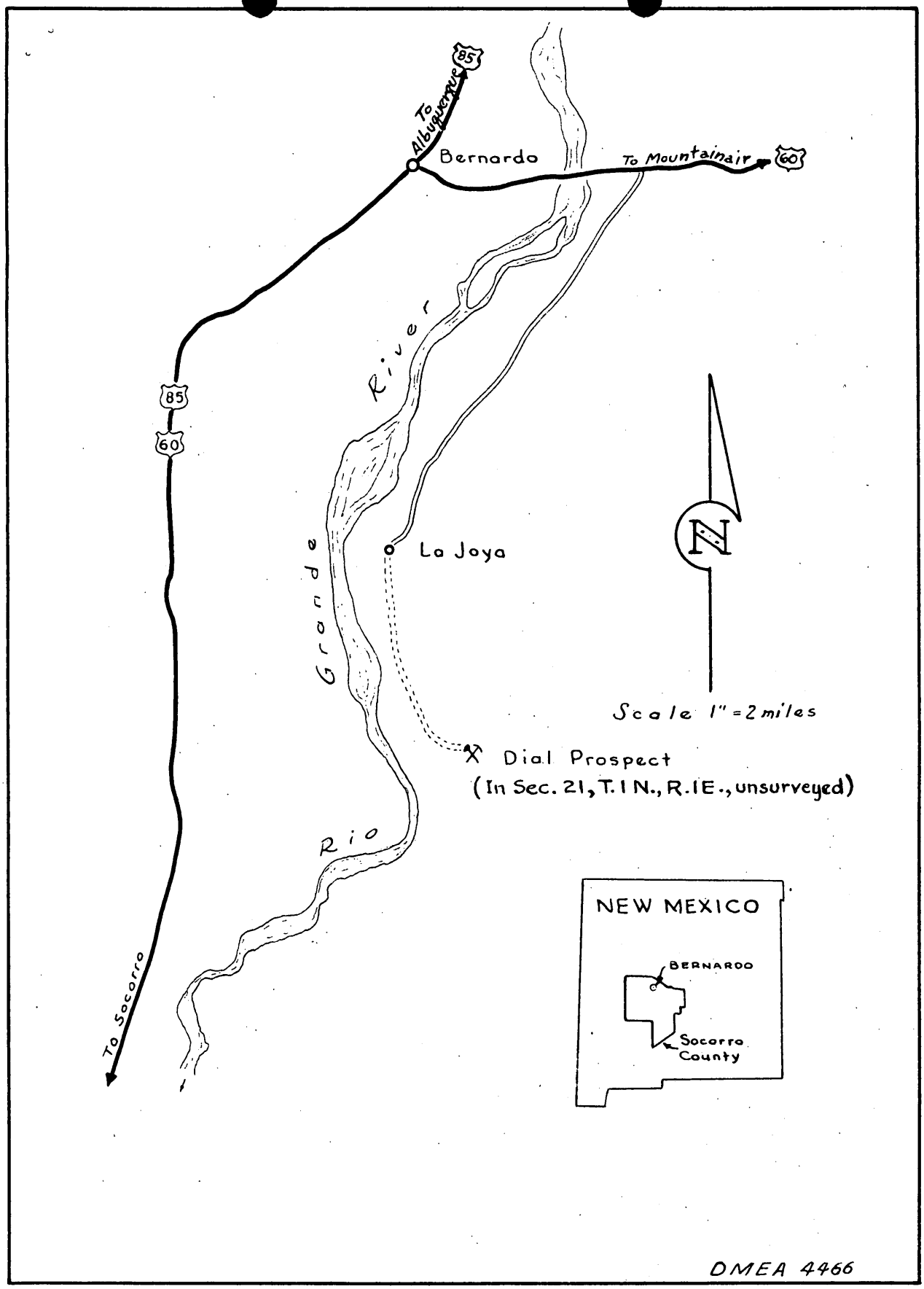

FIG. -1- LOCATION MAP, DIAL PROSPECT, DIAL EXPLORATION CO.
SOCORRO COUNTY, NEW MEXICO

OWNERSHIP AND EXTENT OF PROPERTY

The Dial prospect is on property known as the Barela Ranch, south of LaJoya, New Mexico, of which about 2,046.1 acres are held under mineral lease by Benjamin S. Dial, for a partnership known as Dial Exploration, with home offices located at 1512 Cardenas Drive, N.E., Albuquerque, New Mexico.

The partnership of Dial Exploration is composed of Benjamin S. Dial, 816 Carlisle Blvd., S.E., Albuquerque, New Mexico, Asa E. Mann, 717 Carlisle Blvd., S.E., Albuquerque, New Mexico, and Donald D. Dial, 1512 Cardenas Drive, N.E., Albuquerque, New Mexico.

HISTORY, PRODUCTION, AND GRADE

There is no known past history or past production from the property. The only grade known is from a sample taken from the surface outcrop by the applicant before the cut was made. This sample assayed 35.35 percent Mn.

PRESENT STATUS

There are no existing mine workings other than a 10-foot by 30-foot bulldozer cut. No equipment of any kind is on the property.

GEOLOGY

The Dial prospect lies on the west slope of the Joyita Hills in the limestone member of the Permian San Andres formation. A concealed northeast trending fault in the arroyo bottom brings Tertiary sediments on the northwest against the limestone of Permian age. In the prospect area the limestone member strikes N. 42° E.

and dips generally about 20°-24° NW. There is a slight drop or steepening in dip of the limestone member in the vicinity of the fault, and the prospect is in this area of steepened dip. Some small, discontinuous tension breaks parallel to the main fault and transverse to the bedding occur in the limestone member in the area of steepened dip. Outcrops of the limestone member in a small canyon north of the prospect contain manganese stain, clay seams and solution cavities.

The prospect consists of a small bulldozed cut about 10 ft. wide by 30 ft. long about 100 feet southeast of the arroyo bed (Figure 2), and about 25 to 30 feet higher in elevation. A small deposit of manganese mineral about 6 feet in length, 2½ feet in thickness, and of unknown width is exposed in the cut. The deposit fingers out on the northeast and southwest into several thin stringers of mixed manganese and clay in what appear to be small tension fractures transverse to the bedding. Long axis of the deposit is approximately parallel to the strike of the bedding but the concealed width appears to lie across the bedding rather than with it. This suggests that the mineralization was deposited in a more open part of a transverse break.

It is possible that the manganese mineral was concentrated by downward moving water in an open space along a fracture. The thickness of the deposit probably is about 2½ feet as revealed in the

bulldozer cut. Considering the very limited lateral extent of the outcrop, we believe the deposit probably will also decrease in thickness, or pinch out, within a few feet below the surface.

Sample No. 1-5 (Figure 2) represents a 2-foot vertical channel sample cut through the middle part of the deposit. The sample, assayed by the Bureau of Mines, Tucson, Arizona, showed 20.5 percent Mn.

It is estimated that there might be from 3 to 5 tons of possible ore in the pocket on the prospect.

PROPOSED EXPLORATION

The applicant proposed 10 core drill holes each of 100 feet depth, or a total of 1,000 feet of drilling plus drill site and access road building, at a total estimated cost of $15,519.30. No plan of drill hole locations, inclination of holes, or spacing of holes was given by the applicant. It is presumed that the applicant meant to adopt the plan submitted by his consulting geologist thus: "a series of test holes be drilled at intervals of 50 feet parallel to the outcrop and progressing (?) toward the fault zone.

CONCLUSIONS

The deposit is small in dimensions and tonnage and is in the nature of a prospect. From a geologic examination of the prospect and the areas adjacent, it is concluded that no significant amount

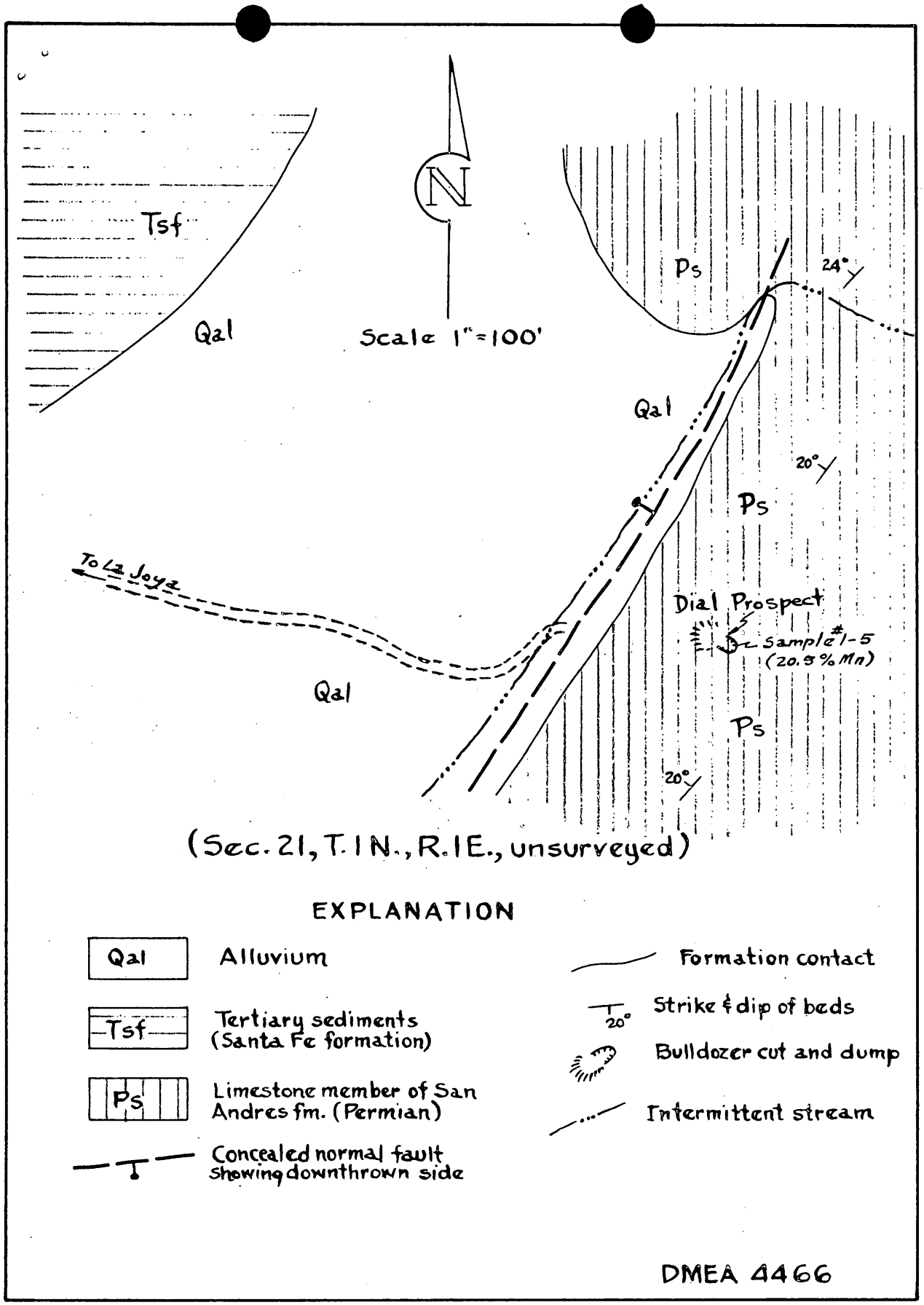

FIGURE 2.-SKETCH OF GEOLOGY, DIAL PROSPECT, DIAL EXPLORATION, SOCORRO CO., NEW MEXICO

RECEIVED
JAN 7 1957
D.M.E.A.

of minable ore is present, or could be developed by exploration. It is therefore recommended that government aid in exploration be denied.

W. L. Emerick

J. N. Faick

DOCKET
SURNAME
Chapman
Martin
Selfridge

400

OCT 17 1956

Mr. W. M. Trever, Executive Officer
DMEA Field Team, Region III
224 New Customhouse
Denver 2, Colorado

Re: Docket No. DMEA 4466 - Manganese
Dial Exploration
Barela Ranch
Socorro County, New Mexico

Dear Mr. Trever:

The above docketed application for exploration assistance is being referred to your office for a field examination of the property.

Copies of memoranda dated September 19, and October 8, 1956, by M. E. Nelson, Geological Survey, and G. L. DeNuff, Bureau of Mines, respectively, relating to the project are enclosed. Also enclosed is an extra copy of the application for use of the Field Team.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee (GCS)

Enclosures

APPROVED:

P. F. Yopes
Member, Bureau of Mines (GCS)

Thor H. Kiilsgaard
Member, Geological Survey (GCS)

TLChapman:foc
10/15/56
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT. REG. III
Messrs. DeNuff, USBM
Kiilsgaard, USGS

R.G.4

DOCKET
SURNAME
400 Chapman
Martin
Yoyes
Kiilsgaard
Selfridge

OCT 17 1956

Dial Exploration
816 Carlisle Boulevard, S. E.
Albuquerque, New Mexico

Re: Docket No. DMEA 4466 - Manganese
Barela Ranch
Socorro County, New Mexico

Gentlemen:

The above docketed application for exploration assistance for manganese ores has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. W. M. Traver, Executive Officer, DMEA Field Team, Region III, 12th New Customhouse, Denver 2, Colorado, for a field examination of the property.

Any assistance that you can give the members of the Field Team will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

TLChapman:foe
10/15/56
cc to: Docket
Code 400
Admr. Read. File
Oper. Comm.
FT. REG. III
Messrs. Gilbert DeHuff, USBM
T. H. Kiilsgaard, USGS

A.C.G.

Docket

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

RECEIVED
OCT - 9 1956

Date October 8, 1956

DMEA Docket No. 4466
DMEA Contract No.
Commodity Manganese
Name of applicant Dial Exploration
Name of property Barela Ranch
Location of property Socorro Co. New Mexico
Estimated cost of project $15,519.30

Memorandum

To: W. S. Martin, DMEA

From: G. L. DeHuff, Jr., Commodity Specialist, Branch of Ferrous Metals and Ferroalloys

Subject: Review of Application
(Application, Field Team Report, etc.)

1. Date of subject document 9/10/56 2. Date received by reviewer: 9/24/56

3. Prior reports on this property known to reviewer: Yes [ ], No [X].

4. Prior reports on nearby properties known to reviewer: Yes [ ], No [X].

5. Information available on past production: Yes [ ], No [X].

6. Other pertinent factors known to reviewer: Yes [ ], No [X].

7. Explain items marked yes above:

8. Factors needing special consideration:
   a. Location [ ]
   b. Ownership [ ]
   c. Evidence of mineralization [ ]
   d. Geology [ ]
   e. Proposed exploration method [ ]
   f. Alternate exploration method [ ]
   g. Costs [X]
   h. _____ [ ]

9. Action advised:
   a. Obtain information from applicant [ ]
   b. Refer to Field Team [ ]
   c. Denial [ ]
   d. Agree with Field Team [ ]
   e. Disagree with Field Team [ ]
   f. Suggest alternate plan [ ]
   g. Request another examination [ ]
   h. Approval [ ]
   i. Consult with Mr. _____ at _____ AEC office.

10. Remarks: (Use back of page if necessary)

G L DeHuff Jr

IN REPLY REFER TO:

Docket

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

September 19, 1956

Re: DMEA 4466
Dial Exploration
Dial Prospect
Socorro Co., New Mex.
$15,519.30 - Manganese

Memorandum

NBM

To: W. S. Martin, Defense Minerals Exploration Administration

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

Subject: Review of application.

The applicant, a partnership, requests assistance in exploring what appears to be a small exposure of manganese oxide minerals. The work proposed consists of road building and core drilling.

The occurrence which is in limestone has been opened by a north-south bulldozer cut, and seems to be 10 feet long, presumedly in the floor of the cut, 2 feet wide, and probably has a low dip. In the opinion of the consultant geologist, the occurrence is related to a fault, an unknown distance to the west, along which the limestone beds were bent and brecciated and in one place at least mineralized by pyrolusite and psilomelane.

The drilling would explore the drift covered area along and east of the fault within which brecciation and mineralization may have occurred.

No sampling appears to have been done and the manganese content of the material is not known. Whether or not a perhaps narrow strip of a 2-foot low dipping bed of anything other than high grade manganiferous material could be profitably mined is a question.

Referral of the application to the Field Team is recommended.

Copy retained 400

N. E. Nelson

N. E. Nelson

Copy retained 400

BUREAU OF MINES
WASHINGTON, D.C.

SEP 20 1 38 PM '56

UNITED STATES
DEPARTMENT OF THE INTERIOR
Defense Minerals Exploration Administration
Washington 25, D. C.

September 17, 1956

Dial Exploration
1512 Cardenas Drive, N. E.
Albuquerque, N. M.

Subject: DMEA-4466
Re: Exploration Assistance

Gentlemen

Your application for exploration assistance, dated September 10, 1956 submitted to our office at Denver, has been assigned Docket Number DMEA-4466 and referred to the Iron and Ferro-Alloys Division in the Washington office. Kindly identify all future correspondence relating to your application by this Docket Number.

Sincerely yours,

Allen S. Dakan, Chief
Operations Control and
Statistics Division

Copy to:

Region III.-Denver 2, Colorado
Code 400

3571

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

RECEIVED
SEP 17 1956

224 New Customhouse
Denver 2, Colorado

September 13, 1956

Memorandum

To: Secretary to the Operating Committee

From: DMEA Field Team, Region III

Subject: Application for DMEA aid (Manganese), Dial Exploration, (Barela Ranch), Socorro County, New Mexico

Enclosed are three copies of the subject application in the amount of $15,519.30. One copy is being retained in our file.

The applicant apparently intends to do his own drilling, but three drilling bids should be obtained by him.

DMEA Field Team, Region III

By W. M. Traver
Executive Officer

Enclosures

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

RECEIVED
SEP 17 1956

224 New Customhouse
Denver 2, Colorado

September 13, 1956

Memorandum

To: Secretary to the Operating Committee

From: DMEA Field Team, Region III

Subject: Application for DMEA aid (Manganese), Dial Exploration, (Barela Ranch), Socorro County, New Mexico

Enclosed are three copies of the subject application in the amount of $15,519.30. One copy is being retained in our file.

The applicant apparently intends to do his own drilling, but three drilling bids should be obtained by him.

DMEA Field Team, Region III

W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosures

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED
SEP 17 1956
DMEA
DEPARTMENT OF THE INTERIOR
SEP 13 1956
REGION III
DENVER, COLORADO

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

Not to be filled in by applicant

Docket No. 4466
Metal or Mineral Manganese
Date Received 9-17-56
Estimated Cost $15,519.30
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Dial Exploration, 1512 Cardenas Drive. N.E., Albuquerque, N.Mex.
Benjamin S. Dial, 816 Carlisle Blvd. S. E., Albuquerque, New Mexico
Asa E. Mann, 717 Carlisle Blvd. S. E., Albuquerque, New Mexico
Donald D. Dial, 1512 Cardenas Drive, N. E. Albuquerque, New Mexico

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

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. Not applicable

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

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

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

(*b*) State any mine name by which the property is known. None

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

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

(*e*) If you own the land, describe any liens or encumbrances on it Not applicable.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Not applicable.

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

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

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

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

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

16—66551-1

** - See Accompanying Sheets

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

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

(*c*) The work will start within 10 days ~~and be completed within~~ 4 months from the date of an exploration project contract.

DMEA

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

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

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

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

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

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

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project. Not applicable.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project. Not applic.

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

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

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

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

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

[x] Money [x] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper. ✻✻

CERTIFICATION

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

Dated September 10, 1956

DIAL EXPLORATION
(Applicant)

BY Benjamin S. Dial
Rose E. Dial
Donald D. Dial

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

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

✻✻ - See Accompanying Sheets.

Accompanying Sheet #1

Dial Exploratio
1512 Carlisle Blvd. N. E.
Albuquerque, New Mexico

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SEP 17 1956

ITEM 4 (a)

There are no existing mine workings. Preliminary exploration work has consisted of ground prospecting at various periods over the past year; this coverage includes inspection by consulting geologist Grant Wilson of Albuquerque, as well as field trips by all the partners involved and would approximately total a man-hour field time of 920 hours. One drill hole to 175 feet was originally run down on the property for uranium exploration but has no relationship to deposit here discussed, being one-half mile away from present workings in different formation entirely.

Upon discovery of the Manganese outcrop mineralization noted below, the three partners have undertaken a preliminary road building program and an open face cut on the surface outcrop. The roadbuilding was done with an Allis-Chalmers HD5G Bulldozer-Loader which was also used in mucking operations at the face. Jackhammer holes were drilled below the exposure and dynamite was used to break the surrounding limestone overburden. About 100 yards of muck have been removed in allowing visual inspection of the ore.

Mucking operations have resulted in a bulldozer work space of approximately ten feet in width and thirty feet in length to allow backing and turning for dumping over the end and side of the work space. The vein is exposed vertically for about six feet.

For examination purposes, a Jeep or Pickup trail was bulldozed to the discovery point and such would be accessible in any weather except heavy rain - see geological report.

ITEM 4 (b)

There is no past production known to applicants from this property and ore reserves are also not known.

ITEM 4 (c) See accompanying geological report; also separate assay sheets.

ITEM 4 (d)

Project is located 65 miles from Albuquerque. Hard surface state roads lead to La Joya, New Mexico, a distance of 60 miles from Albuquerque, thence five miles of dirt trail to the project. The climate is extremely arid, the trail would be passable except for run off of heavy rain perhaps twice a year for an hour or two.

Dial Exploration
1512 Cardenas Drive N. E.
Albuquerque, N. Mex.

ITEM 4 (d) (cont.)

Shipping distance to rail yards would be five miles of dirt trail and twenty miles of hard surface road to the town of Belen, New Mexico for initial shipments on the Santa Fe Railroad. If any magnitude of shipping results, there can be a closer loading point arranged on the Santa Fe by about ten miles - near the town of Bernardo.

Residence of all partners is Albuquerque; however, for the duration of the work period the partners have two house trailers in which they would live on the property. Proposed employees would be hired from the town of La Joya, five miles away.

Supply points as to rental equipment, repairs, and major supply items would be 65 miles to Albuquerque, although Belen or Socorro, New Mexico, would each be within 25 miles distance for minor repair items. A grocery and post office are located in La Joya.

ITEM 4 (e)

Outside labor is available in La Joya and several prospects have approached the applicants, for the road drill site work employment. Supplies will largely be brought from La Joya and Albuquerque.

Equipment will consist of the following:

One - Allis-Chalmers HD5G Bulldozer-Loader hauled on G.M. 3 ton truck.

One - Joy Core Drill, mounted on a Chevrolet truck with all drill rod, hand tools, core barrels, derrick, etc.

One - Schramm 125 cu. ft. portable air compressor.

One - Studebaker water truck with water pump.

One - Willys Station Wagon for hauling supplies.

Two - House trailers, 1955.

All of these listed items are wholly owned by applicants. The additional rental items needed are minor and are easily available in Albuquerque; the main thing being a Jack-hammer and associated tools.

Water is available by tank and well at a distance of three miles from the project and is located on land included in this lease.

Outside power is not required initially - the above operating units are diesel and gasoline which will be operated with fuel hauled weekly from Albuquerque or Belen.

Accompanying Sheet #3

Dial Exploration
1512 Cardenas Drive N. W.
Albuquerque, N. Mex.

ITEM 5 (b)

Proposed work shall consist of ten drill holes to 100 feet each of coring. This will require road building for drill sites since prospect is located on the side of a ridge. Please see accompanying geological report for sketch of drill site and formation contact zones and explanation of formation to be drilled and reasons.

ITEM 5 (d)

The three partners above listed have formed Dial Exploration and have operated in New Mexico and Utah for approximately one and one-half years with full time participation of each partner in mineral exploration, to the exclusion of any other business activity. Following is a partial list of persons or corporations for whom Dial Exploration has done mineral drilling and exploration:

Campbell Farming Corporation, 323 3rd St., N.W., Albuquerque, N. Mex., owned by General Thomas D. Campbell. Drilled on two different programs on three uranium prospects on their La Joya Grant - one property has shipped a trial shipment to the Grants mill of Anaconda.

McGaw & Hughes Petroleum Company of Box 1, Mt. Vernon, Illinois. Initially drilled a property near Tucumcari, New Mex., and later drilled and supervised two properties in Utah. One property drilled was adjoining on the West to the Thornberg mines near Moab. The other property was located in Montezuma Canyon near Monticello where a sample shipment was taken out and shipped to the Monticello mill.

Louis Bothmann of Albuquerque. Drilled a copper-uranium prospect six miles Southeast of Cuba, New Mexico, in Nacimiento Uplift.

Leaderbrand & Guynes of Shreveport, Louisana. Drilled for uranium in the Abo formation near Abo, Northwest of Mountainair, New Mexico.

Tex-Mex Corporation of Dallas, Texas. Drilled for uranium on 110 claims in Socorro County near Puertocito.

The above were contract drilling programs and in addition many individual prospectors have needed a few holes. Also, Dial Exploration has drilled for its own account and with its own funds on prospects over New Mexico in Socorro County, Catron County, Grant County, Valencia County, McKinley County, Sandoval County, and Sierra County. A complete list with township and range locations will be furnished on request if required.

Operations will be supervised by Donald W. Dial, who has had undergraduate engineering work at Purdue University, attended the U. S. Military Academy at West Point, and graduated with a BSC degree from Ohio University. Geological supervision will be under direction of Geologist Grant Wilson of Albuquerque - a graduate of the University of New Mexico. This consulting geologist is used extensively by the U. S. Government - at present he is working with the U. S. Corps of Engineers at Sandia Base as a consultant.

Accompanying Sheet #4

Dial Exploration
1512 Cardenas Drive N. E.
Albuquerque, N. Mex.

ITEM 6 (b) Labor, Supervision, Consultants.

Labor - Semi-Skilled. Two men for road building to drill sites which includes dynamiting, jackhammer work, and mucking. Cost - $2.50 per hour - 40 hour week @$100 each, Total projected cost - 8 weeks @ $200.....$1600.00

Supervision - Roadwork and Drill Site. One man. $3.50 per hour. 40 hour week. Total for 8 weeks..... 1120.00

Supervision - Geological. For locating exact drill sites and checking cores, assays, etc.

10 field trips at $115 each.....	1150.00
Final report.....	50.00
Misc. consultation, office time.....	100.00
Sub Total	$4020.00

ITEM 6 (c) Operating Materials & Supplies.

For road building and drill site leveling:

50 Cases Dynamite, stick, @ $10.60 per case.....	$ 530.00
100 fuse lighters.....	1.50
5000 feet Fuse @ $12.80 per thousand.....	64.00
1000 Dynamite Caps @ $2.39 per hundred.....	23.90
2 Safety Helmets at $4.95.....	9.90
4 Hand Crimpers @ $2.15.....	8.60
100 Jackhammer bits, two sizes 1½ & 1¾, @ $.84 ea.....	84.00
Sub Total	$ 721.90

ITEM 6 (d) Operating Equipment

Jackhammer, Rental per month $42.75....2 months.....	$ 85.50
Drill Steel - 3 pcs., 2, 4, 6 feet, $9.75 per month...2 months....	19.50
200 feet air hose @ $32.80 per month.....2 months.....	65.60
125 Cu. Ft. Schramm Air Compressor - Use allowance of $231 per month.....2 months.....	462.00

Allis-Chalmers HD5G Bulldozer-Loader for roadbuilding to drill sites and mucking. Unit & operator complete, no moval or standby time extra....200 hours @ $12. per hour..... 2400.00

Joy Core Drill, mounted on Chevrolet truck, with use of Schramm Air Compressor where needed, water truck and pump, drill rod, diamond bits, size "B" core barrel double tube, and all operators, truck drivers, etc. complete unit drilling cost.....1000 feet of vertical hole @$6.50 per foot..... 6500.00

Sub Total $9532.60

ITEM 6 (g) Miscellaneous

Assaying. 40 Manganese simple assays @ $2.50 ea.....	$ 100.00
10 Manganese Complete assays for Mn as well as Fe, Cu, Pb, Zn, SiO_2, Al_2O_3, P, and mesh test, @ $35.00.....	350.00
Workmen's Compensation Insurance.....	112.00
Accounting & Report Fees @ $25.00 per week for 16 weeks.....	400.00
Liability Insurance.....	25.00
Payroll Taxes.....	40.80
Sales Taxes.....	92.00
Sub Total	$1119.80

Accompanying Sheet #5

Dial Exploration
1512 Cardenas Drive N. E.
Albuquerque, N. Mex.

ITEM 6 (h) Contingencies

Pickup & Delivery of Supplies, Dynamite, etc.....	$ 100.00
Breakage of rented drill steel.....	25.00
Sub Total	$ 125.00

Summation of Item 6 Total Cost:

Item 6 (b).....	$ 4020.00
Item 6 (c).....	721.90
Item 6 (d).....	9532.60
Item 6 (g).....	1119.80
Item 6 (h).....	125.00
Total Estimated Cost of Project.....	$15,519.30

ITEM 7 (b)

Dial Exploration plans to furnish the complete drilling program and bulldozing equipment as well as supervision of the road building and drill site operational program. The equipment, as shown, is mostly wholly owned and operated at the present time, and will be operated by the partners on this project, if approved. Bulldozing and Drilling rates are quoted at the minimum ascertainable rates witnessed on comparable programs and footages by other drilling contractors. It is expected that the government participation, if approved, would be just 3/4ths of the stated amount with Dial Exploration paying the balance on their equipment use in the form of a use-allowance or use-depreciation.

In regard to the balance of the program as outlined, Dial Exploration will furnish their portion of the cost in money.

Item 3 d

CO[illegible] OF MINERAL LEASE

Benjamin S. Dial
816 C[illegible]lisle Blvd. S.E.
Albuquerque, N. Mex.
Dial Exploration

This MINERAL LEASE AGREEMENT, made and entered into this 20th day of April, 1956, by and between JOSE I. BARELA [illegible]ERNESTINA E. BARELA, his wife, of the town of La Joya, New Mexico, hereinafter referred to as the OWNER; and BENJAMIN S. DIAL, of Albuquerque, N. Mex., hereinafter referred to as LESSEE, WITNESSETH:

WHEREAS, the Owner is possessed of and owns certain lands in Socorro County, New Mexico, hereinafter described, and desires to lease said lands, and

WHEREAS, Lessee desires to lease said lands on the terms and conditions hereinafter set forth and warrants that he has necessary drilling and bulldozing equipment and desires to drill upon and-or explore said lands.

WHEREAS, Owner and Lessee have entered into a prior lease option dated and signed August 9, 1955 and filed in Socorro County records and mutually agree to set that instrument aside and delcare same null and void in the event that they sign this present MINERAL LEASE. This MINERAL LEASE shall now constitute the entire agreement between Owner and Lessee and both parties agree thereto by their signatures to this present instrument.

IT IS HEREBY AGREED AS FOLLOWS:

1. Owner, for and in consideration of the interests, covenants, and agreements hereinafter set forth, does hereby lease unto Lessee the following described property in Socorro County, N. Mex., towit:

Commencing at Cor. #1 which is the Sec. Cor. common to Secs. 10, 11, 14, 15, ~~xxx~~ Twp. 1N. R 1 E. ; thence 5300.0 ft. dist. to cor. 2, thence W. 7,000.0 ft. dist. to cor. 3; thence, N. 1480.0 ft. dist. to cor. 4; thence N. 35 deg. 12' E., 8000.0 ft. to cor. 5; thence E. 2410.0 ft. to Cor. 6, thence, S. 2755.0 ft. to cor. 1, the place of beginning, containing 1015.1 acres more or less, Bd. N. by the arroyo "Valle de La Joya", S. by land of Luis Tafoya, E. by the La Joya grant, and W., by Jose I. Barela, Fred M. Romero and E. side river line fence of the La Joya Development Co. and;

Commencing at Cor. 1 which is on the E. bank of the Rio Grande and is 1500 ft. west of the center of the Santa Fe. R.R. bridge #958-A, said bridge is 900 ft. S. of mile post #958; thence, S. 79 deg. 30' E., 2600. ft. to cor. #2; thence N. 5 deg. 00' W., 3500.0 ft. to place of beginning, containing 202 acres, more or less, corners 1, 2 and 3 are in the river fence of the La Joya Grant and on the W. by the Rio Grande and located in Sec. 21, T. 1 N. R. 1 E., as plotted by the Ross- Engineering Co. and;

Commencing at Cor. 1 which is the S.E. cor. of Sec 21, T. 1 N., R. 1 E., thence, W. 1700 ft. dist. to Cor. 2, thence N. 5260.0 ft. to cor. 3; thence E. 7000.0 ft. to cor. 4; thence, 5260.0 ft. to cor. 5; ~~xx~~ containing 829.0 acres more or less Bd. on the N. by Jose I. Barela, on the S. by the La Joya Grant.

This lease to be effective and binding on all parties hereto for the period of one (1) year from date hereof, with an option by Lessee to renew said lease for a period of one year by giving thirty (30) days written notice thereof to Owner and providing Lessee shall further and again comply with Section Four below; except that in the event there is a discovery of ORE, then this lease is to run with the land and be binding upon all parties, their heirs, executors and assigns until all ORE is removed or until Lessee shall cease operations for the period of two years. This lease shall cover all minerals except those retained by any government agency.

2. Owner does hereby give Lessee the right to enter into and upon and take exclusive possession of all the above described property for the purpose of prospecting, drilling, exploring, testing and developing same for minerals, at Lessee's own expense; provided all work done and improvements made upon said lands shall be done in a minerlike and proper manner so that any minerals therein contained may be extracted in a reasonable fashion. Lessee shall not interfere more than is reasonably necessary with normal use of the land, such as grazing.

3. Lessee agrees to furnish all the necessary equipment and to hold Owner free from any liability in connection with his activities and Owner agrees to hold Lessee free from any liability in connection with the land and the use thereof.

4. Lessee agrees to commence operations within seven (7) days from date hereof and to drill the number of holes and footage he deems necessary to prove said property and to do any necessary bulldozing.

5. It is understood and agreed between Owner and Lessee that Lessee is to p ay and deliver to Owner, his heirs, administrators, executors, or assigns, payments as described below:

Benjamin S. Dial
816 Carlisle Blvd. S.E.
Albuquerque, N. Mex.

5. (cont.)

(a) Owner shall retain an eight (8) percent royalty on all gross ore receipts and bonuses as paid by any mill, or buying station or other buying agency.

(b) In addition to 5 (a) above, Owner is to receive fifteen (15) percent of the net profit of the mining operation, if the property is mined under control of Lessee, his heirs, executors, or administrators, except

(c) In the event that this lease is assigned or sold to a third party and control herein is relinquished, then item 5 (b) above will be null and void and Owner is to receive fifteen (15) percent of the sale price of this lease - said sale price to mean gross sale price with no deductions for exploration expenses to date; and sale price is to mean and include any payment of Cash.

Payments to be made every thirty days to the bank designated by Owner or to any other depository as Owner wishes.

6. It is mutually understood and agreed by the parties hereto that no partnership relationship exists between themselves and that their relationship is one merely of tenants in common of this agreement.

7. This lease may be assigned or sub-let in whole or in part by either of the parties hereto, provided however that all the terms, conditions and covenants herein set forth shall extend and be binding on any assignee of either of the parties hereto.

8. The parties agree to comply with any and all regulations and laws of the State of New Mexico and of the United States, if any.

(Signed) Benjamin S. Dial
Lessee

(Signed) Jose I. Barela

(Signed) Ernestina E. Barela

State of New Mexico
County of Socorro ss

On the 20th day of April, 1956, before me personally appeared Jose I. Barela and Ernestina E. Barela, his wife and Benjamin S. Dial, to me known to be the persons described herein and who executed the foregoing instrument and acknowledged that they executed the same as their own free act and deed.

My Commission Expires: Mar. 3, 1959

(Signed) Lillian Stuart
Notary Public

(This instrument of writing was filed for record at 11:15 o'clock A. M. on April 25, 1956 and duly recorded in Vol 173 of Misc. R. page 639-640, Solomon Lopez County Clerk by D. W. Romero, Deputy)

Item 4 (c)

Dial Exploration
1512 Cardenas Drive N. E.
Albuquerque, New Mexico

CHAPMAN AND WOOD
MINING ENGINEERS AND GEOLOGISTS
536 JEFFERSON ST., NE
PHONE 6-1675 P. O. BOX 8302
ALBUQUERQUE, NEW MEXICO

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SEP 17 1956

LABORATORY DIVISION ASSAY CERTIFICATE

No. 1844

Date 8/17/56

Submitted by Dial Exploration

Address 1512 Cardenas, NE., Albuquerque, New Mexico

DESCRIPTION OF SAMPLE	Mn%						TON VALUE
4514 - As submitted	35.35						

(Note: This sample was taken from the surface outcrop of the exposure before the cut was made at the face.)
Dial Exploration.

Chemist D. H. Reynolds
D. H. Reynolds

Charges

ITEMS 4 (c) & 5 (b)

Dial Exploration
1512 Cardenas Drive N. E.
Albuquerque, New Mexico

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DIAL PROSPECT

BARELA RANCH

SOCORRO COUNTY, NEW MEXICO

September 5, 1956

Grant W. Wilson
Consulting Geologist

RECEIVED
SEP 17 1956

DIAL PROSPECT

BARELA RANCH
Socorro County, New Mexico

The area of this investigation lies in the W½, NE¼; E½, NW¼, Section 21, T. 1 N., R. 1 W, NMPBM, unsurveyed, Joyita Hills mining district, Socorro County, New Mexico.

Five miles south of the town of La Joya and approximately 1¼ miles east of the Rio Grande and one-half mile west of the west boundary of the La Joya Land Grant.

The mineral rights are held by Mr. Benjamin Dial under lease from Mr. Barela.

Climate and foliage is Upper Sonoran Zone type. Rainfall averages less than ten inches per annum. The period of greatest precipation is July and August. Snow is a rarity and only during violent storms are the trail roads impassable due to excessive run-offs which last only a few hours.

The terrain is hilly with deeply incised canyons lying to the east but readily accessible from the west. Conditions of climate and topography are ideal for year-round operation.

Access to the prospect is by paved road from Socorro, Albuquerque, or Mountainair to Bernardo, located at the junction of U. S. 85 and 60. From Bernardo, five miles east to the junction of U. S. 60 and State Road 47; south ten miles to the town of La Joya, all by paved road. From La Joya, a trail and unimproved road bears south and southeasterly roughly bordering the Rio Grande. The prospect is located five miles south of La Joya on this road.

The prospect lies along the west slope of the Joyita Hills in the sedimentary section, in an area of westerly dipping limestone (Limestone member of the San Andres formation of Permian age) and approximately 400 feet west of a north-south fault that brings the Tertiary Datil formation in contact with the San Andres Limestone member. In the immediate vicinity of the prospect, the fault is covered by quaternary gravels and alluvium.

The mineralized outcrop is approximately 30 feet above the floor of an arroyo that drains from the east and lies in an area of oversteepened beds and strikes parallel to the strike of the limestone. The oversteepening from 14° - 16° to 20° - 28° is a result of fault drag and has caused opening along the bedding plane and has produced cross fractures in which manganese in the form of pyrolucite and minor amounts of psilomelane are deposited. Eastward

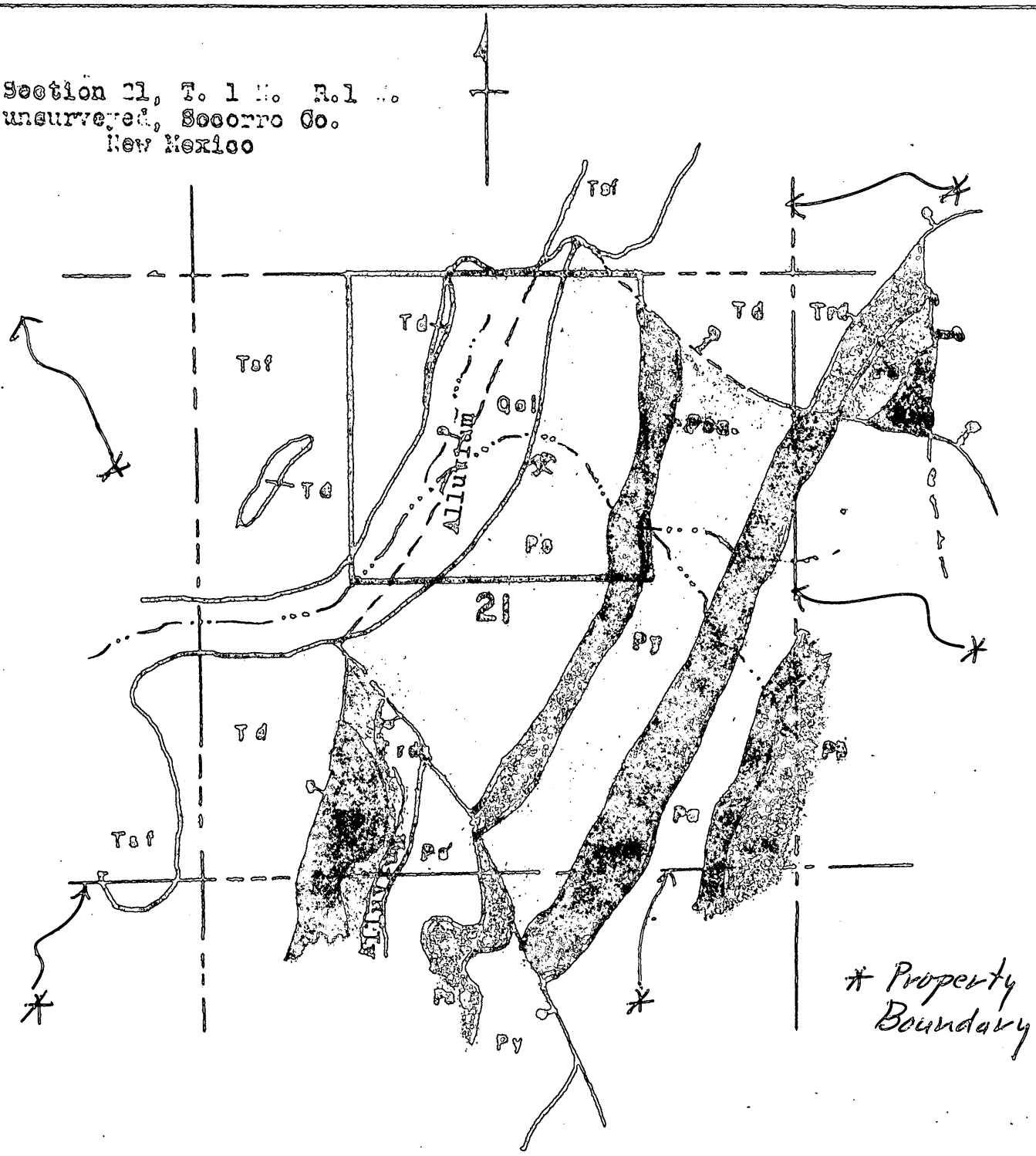
mineralization decreases rapidly and only manganiferous stain and small interstitial filling are present.

The principal exposure is ten feet in length and averages 24 inches in width and by excavation, a face of six feet in height is exposed. At the southerly end of the excavation, the ore is terminated by a recent slip and lies against recent clay and rock rubble. The north end shows extension into open space caused by flexure but is not exposed at the surface.

As mineralization is cavity and open space filling and secondary in origin and concentration, the amount of ore will depend to a great extent on the open space available. Open beds and brecciation in closer proximity to the fault may supply these structural controls. As overburden westward toward the fault cannot be accurately estimated and will be somewhat of a problem, the best exploration procedure would constitute a series of core drill holes. To explore conditions nearer the fault, it is recommended that a series of test holes be drilled at intervals of 50 feet parallel to the outcrop and progressing toward the fault zone. A series of ten (10) holes aggregating 1000 feet of drilling should ascertain the conditions present.

Grant W. Wilson
Geologist

Section 21, T. 1 N. R. 1 W.
unsurveyed, Socorro Co.
New Mexico



EXPLANATION

Tsf	Santa Fe formation	Tertiary	Pd	Limestone member	San Andres	Po	Abo formation	Pennsylvanian
	Datil formation			Glorietta Ss. member	Permian		Dunsum formation	
	Baca formation			Joyita Ss. member			Madera limestone	
	Dockum formation	Triassic		Moenkopi Blanca Ss. member			Fault down	

U. S. Government Messenger Envelope

Standard Form No. 65 (Rev. 1/46)

1. Use blocks consecutively, one at a t
2. Void previous block.
3. Write clearly.

NAME OR TITLE OF PERSON, DEPARTMENT, ADDRESS, AND ROOM		NAME OR TITLE OF PERSON, DEPARTMENT, ADDRESS, AND ROOM	
Miss Hol	RUN STOP		RUN STOP
Miss. Holtwick Room 5219 Interior Bldg.	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
Mr Paul G. Rusby Mineral Depos. Br. Rm. 4206	RUN STOP		RUN STOP
Ted Sumitra #242	RUN STOP		RUN STOP
[redacted]	RUN STOP		RUN STOP
Mr. Stromquist 5228 Interior Building	RUN STOP		RUN STOP
Mr. Mathis 3535 Int.	RUN STOP		RUN STOP
	RUN STOP		RUN STOP
	RUN STOP		RUN STOP

Send surplus envelopes to supply room for reissue.

Use other side

Use RUN and STOP only when messenger service between Government buildings in Washington is required. Your mail room has RUN and STOP information.

NAME OR ND ROOM

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

RUN
STOP

Use other side first