FILE COPY
SURNAME:

Schmidt

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

SEP 29 1952

Mr. H. L. Berkey
830 W. 6th Street
Los Angeles 17, California

Re: Docket No. DMA-1223X (Copper)
Bulldozer Mine
Pima County, Arizona

Dear Mr. Berkey:

This acknowledges receipt of your letter of September 19, 1952, inquiring about the possibilities of obtaining a $30,000 exploration contract.

It is noted that you received the letter dated October 16, 1951, denying your application of Aug. 10, 1951, for $30,000.00.

The file on this application containing the field reports have again been carefully reviewed. I regret to inform you that there is no available data either in the reports or in your letter of September 19, 1952, that would justify this office to change the decision of denial.

In the event that any recent work has materially added to the merits of the project, this office would be pleased to give it the fullest consideration.

Sincerely yours,

C. O. Mittendorf (for) 9.29.52

Administrator

FSSchmidt/jem
9/29/52
cc to: Adm. Reading File
Docket
Messrs. CHJohnson, Rm. 3621
Ned Nelson-Rm. 4216 GSA
Ellis Schmidt
Field Team, Region IV (2)

Hotel GATES

SIXTH, FIGUEROA & WILSHIRE
LOS ANGELES 17
CALIFORNIA

9/19/52

Tom Lyon -
United States Department
Of Interior Defence
Minerals Administration
Washington 25 · DC

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 24 1952

Re: Docket no
DMA-1223X

Dear Sir;

I am Writing you again after some delay of a year ago Oct 16-51, Was My last letter from you Conserning an application for exploration aid, on My Bulldozer Mine in Pima Co Ariz, Which you are are Defense Minerals Administration denied Me of the loan, Which I had ask Waller R. Storm, to discont the loan, as I was not satisfyed With Mr Rainey oporation

FIREPROOF

RECEIVED
SEP 24 11 07 AM '52
PROCUREMENT AGENCY

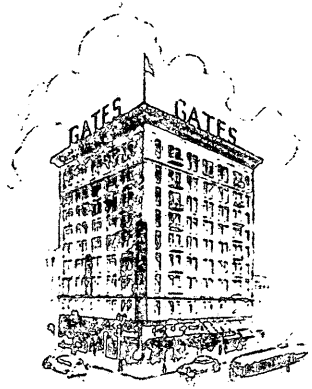
Hotel
GATES
SIXTH, FIGUEROA & WILSHIRE
LOS ANGELES 17
CALIFORNIA

on my Property, now
that the Rainey, are no longer
aporating the Mine, he Passed
away 1972 March, and left me out
on a limb, you should have
all the information on this Property
With what ore, has been shiped out
of the Mine, the A.S.R has an record
of all Car that War shiped from
the Bulldoger Mine, in Pima Co Ariz
in 1944-46
I think you have all of that information
on record in your office in Washington
D.C. the Raineys only asked for
a loan of $10,000, now I am
Wondering if you Consider a loan
a real loan, to open this Mine
up in the right way it should be
Worked, so I can start Working
my own Property again, I am
asking you for a loan of $30,000
I think this Will take Care of the
whole thing and get down to real
business, Waiting your reply
by return Mail over

FIREPROOF

H. L. Burkey Write me at
This Hotel

"SEE AMERICA FIRST"



GATES HOTEL

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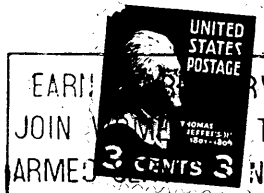
WILSHIRE BOULEVARD AT WILSHIRE

LOS ANGELES

LOS ANGELES
SEP 20
11 AM
1952
CALIF.



Tom Dyon
United States Department of Interior
Defense Minerals Administration
Washington 25 - DC

P. S. you'll always be comfortable at the Gates

NOTICE

LETTERS MAILED IN HOTEL ENVELOPES
IF NOT DELIVERED WILL BE SENT TO THE DEAD LETTER OFFICE
UNLESS THE WRITER GIVES A RETURN ADDRESS.

IF NOT DELIVERED IN 10 DAYS RETURN TO

H T Berkey
830 W. 67th St
Los Angeles 17 Calif

310

FILE COPY
SURNAME:

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

not stripped in RKR.

OCT 16 1951

A.E.C.

Gorsline
Nelson
Johnson Hm

Memorandum:

To: Administrative Management Division

From: Director, Supply Division

Subject: Application for exploration aid of Mr. H. L. Berkey, 1949 S. 6th. Avenue, Tucson, Arizona, DMA-122XX, Commodity-Copper

Denial of this application is recommended by Field Team Region IV for the following reasons:

1. The ore occurs in fractured zones of a thin section of altered limestone that overlies unmineralized granite.

2. Field evidence and information obtained from a reliable source regarding inaccessible workings indicate that only a very small part of favorable ore zone has not been explored.

3. There are no criteria for determining the location of mineralized zones that may occur in the unexplored limestone.

4. Any mineralized zones that may occur cannot be developed and mined at a cost commensurate with their potential value.

5. The mine contains no measured nor indicated ore reserves.

A letter has been prepared to the applicant notifying him of this denial.

Transmitted herewith for your disposal is the entire file consisting of the following.

2 MV-100 with answer sheets
2 MV-103 with answer sheet
1 DMA Review of Application for Exploration Assistance
1 Form letter Tom Lyon to Mr. J. H. East, June 28, 1951
3 Carbon letters to Mr. H. L. Berkey, from
  C.F. Strobel, June 8, 1951
  James Boyd, June 26, 1951
  J. B. Bowen, August 6, 1951 with letter attached from Berkey to DMA July 25, 1951

3 Original letters of Berkey to DMA
May 16, 1951
June 6, 1951
June 17, 1951
1 DMA Status Change Notice
1 Field Team Report on Bulldozer Copper Mine.

Tom Lyon

Tom Lyon
Tom Lyon, Director
Supply Division

Attachments

RVWaughies
10/11/51

Copy to: Administrator's Reading File
Executive Officer, Region IV
J.B.Gowen
C.H.Johnson
D.MacLaren
Files - DMA Docket

FILE COPY
SURNAME:

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

Williams
Gowen
Nelson
Johnson

OCT 16 1951

a.e.c.

Mr. N. L. Berkey
1749 S. 6th Avenue
Tucson, Arizona

Re: Docket No. DMA-1223X

Dear Mr. Berkey:

Your application for exploration aid has been reviewed by the Defense Minerals Administration and we are sorry to inform you that it must be denied.

On the basis of the material submitted with your application and the material available to the Government it is felt that the geological possibilities are not such as to justify Government participation in an exploration project at this time.

Very truly yours,

10/16

Tom Lyon

Tom Lyon, Director
Supply Division

RVVaugh:ez
10/11/51
Copy to: Administrator's Reading File
Executive Officer, Region IV
J.B.Gowen
C.H.Johnson
D.MacLaren
Files - DMA Docket

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

OCT 16 1951

Memorandum:

To: Administrative Management Division

a.E.C.

From: Director, Supply Division

Subject: Application for exploration aid of Mr. H. L. Berkey, 1749 S. 6th. Avenue, Tucson, Arizona, DMA-1223X, Commodity-Copper

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2. Field evidence and information obtained from a reliable source regarding inaccessible workings indicate that only a very small part of favorable ore zone has not been explored.

3. There are no criteria for determining the location of mineralized zones that may occur in the unexplored limestone.

4. Any mineralized zones that may occur cannot be developed and mined at a cost commensurate with their potential value.

5. The mine contains no measured nor indicated ore reserves.

A letter has been prepared to the applicant notifying him of this denial.

Transmitted herewith for your disposal is the entire file consisting of the following.

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May 16, 1951
June 6, 1951
June 17, 1951
1 DMA Status Change Notice
1 Field Team Report on Bulldozer Copper Mine.

Tom Lyon

Tom Lyon, Director
Supply Division

Attachments

Mining Division
Region IV

September 11, 1951

Memorandum

To: DMA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, Docket DMA-1223-X, M. L. Burkey, Applicant, Bullshower Copper Mine, Helvetia Mining District, Pima County, Arizona

The original application of the subject docket was for exploration of the mine by shaft sinking and cross-cutting at an estimated cost of $30,000. This work was started by a lessee before the examination, and a 70 feet vertical shaft and a 35 feet crosscut was completed. All the work was in altered granite without any copper mineralization.

The lessee submitted an alternative program consisting of a 60 to 100 foot shaft at the granite limestone contact with 100 feet of drifts and cross-cuts at an estimated cost of $8,000.

The ore occurs as pockets and discontinuous veins in fracture zones in a highly altered limes. The ore minerals are principally malachite and azurite, with small amounts of chrysocolla, black copper, sulphide and native copper. The limestone is a roof-pendant underlain by unmineralized granite at a shallow depth.

Past production consisted of 35,000 tons of 7 to 10 percent copper ore during World War I and 3,050 tons of 3.87 percent copper ore during 1944 and 1945.

Field evidence and information received from R. E. Chilson regarding the inaccessible workings indicate that all but a very small portion of the favorable ore zone has been explored.

There are not any measured or indicated reserves, and criteria for finding new deposits are lacking .

The examining engineer recommends denial of the application, with which we concur.

Paul T. Allsman

Paul T. Allsman

Mining Division
Date Rec'd.
SEP 10 1951
BUREAU OF MINES
Denver, Colorado

MINING DIVISION
REGION IV

September 6, 1951

Memorandum

Register

To : Paul T. Allsman, Denver, Colorado

From : Chief, Arizona-New Mexico Br., Mining Div., Region IV
Tucson, Ariz.

Subject : Final Report, DMA Docket 1223X, H. L. Berkey's Bulldozer Copper Mine, Helvetia Mining District, Pima County, Ariz.

Enclosed are original and 7 copies of the above report by T. M. Nemule of the Bureau of Mines. No separate geological report will be submitted.

This report has my approval.

Brochure is enclosed.

Walter H. Storms

CC P. T. Allsman (7)
S. A. Anderson
DMA-1223X
DF

WHStorms.frj

UNITED STATES
DEPARTMENT OF THE INTERIOR
OSCAR L. CHAPMAN, SECRETARY

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMA-1223X, H. L. Berkey's Bulldozer Copper Mine

Helvetia Mining District, Pima County, Ariz.

T. M. Romslo, Mining Engineer
U. S. Bureau of Mines

September 1951

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By T. M. Romslo[1]

The Bulldozer copper mine, Helvetia mining district, Pima County, Ariz., was examined in response to a request for Governmental aid by H. L. Berkey, 1749 South 6th Ave., Tucson, Ariz. The examination was made by a Defense Minerals Administration examiner, under docket DMA-1223X, as part of the program authorized by the Defense Production Act of 1950.

The applicant proposed an exploratory project at the Bulldozer mine that was designed to partially develop reserves of copper ore and that could be completed at an estimated cost of $30,000. During the investigation it was found that the proposed project already had been completed by P. J. Rainey, 834 W. Thomas Road, Phoenix, Ariz. Rainey, a lessee of the property, had sunk a 70-foot vertical shaft and completed 35 feet of crosscutting before abandoning the operations due to heavy ground and because the workings had not encountered any sign of copper mineralization. He submitted an alternate program, in the applicant's name, that called for the sinking of a 60 to 100-foot shaft at a site near the abandoned shaft and for the driving of 100 feet of drifts and crosscuts. He estimated the new program could be completed in 5 months at a cost of $8,000.

1/ Mining Engineer, Bureau of Mines.

The Bulldozer mine first produced a small amount of copper ore between 1879 and 1883 when the property was explored by a few surface excavations and by about 350 feet of underground workings. It next was worked during World War I. During that period the property further was explored by about 500 feet of underground workings and according to the applicant, 35,000 tons of 7 to 10 percent copper ore was produced. The property then lay idle until World War II. During 1944 and 1945 about 200 feet of underground workings were driven and 3,050 tons of ore, containing 3.87 percent copper and about 0.20 ounce of silver a ton, was produced.

The ore occurs as pockets and discontinuous veins in fracture zones in a highly altered limestone. The limestone, as a roof-pendent, is in contact at a shallow depth with unmineralized granite.

There are no measured nor indicated ore reserves. Field evidence and information obtained from a reliable source indicate that all but a very small portion of the favorable ore zone has been explored and that little or no developed ore remains in the inaccessible workings. The examination also shows that there are no criteria for determining where mineralized zones may occur within the unexplored portion of the limestone. It also indicates that any mineralized zone that may be present cannot be developed and mined at a profit. Any deposit that occurs probably is of limited extent and low copper content.

It is recommended that the request for a Governmental loan to assist the applicant in carrying out an exploratory project at an estimated cost of $8,000 be denied. This recommendation is based on the foregoing conclusions.

H. L. BERKEY'S BULLDOZER COPPER MINE
HELVETIA MINING DISTRICT, PIMA COUNTY, ARIZ.
DMA-1223X

Engineering Report

By T. M. Romslo
Mining Engineer
U. S. Bureau of Mines

September 1951

H. L. BERKEY'S BULLDOZER COPPER MINE
HELVETIA MINING DISTRICT, PIMA COUNTY, ARIZ.
DMA 1223X

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INTRODUCTION

This report contains information obtained during the course of an examination of the Bulldozer mine, Pima County, Ariz. The examination was made in response to a request for Governmental assistance by H. L. Berkey, 1749 So. 6th Ave., Tucson, Ariz. It was carried out by the Defense Minerals Administration, under docket DMA-1223X, as part of its program authorized by the Defense Production Act of 1950.

The applicant proposed an exploratory project designed to partially develop reserves of copper ore. The program involved the purchase of equipment, the sinking of a 50 to 100-foot shaft, the driving of crosscuts and tunnels from the shaft, and the construction of an ore bin. The estimated cost of the project was $30,000. During the examination it was found that the property was being operated by a lessee, P. J. Rainey, 834 W. Thomas Road, Phoenix, Ariz. Rainey had equipped the property, sunk the proposed shaft to a depth of 70 feet and had abandoned it when a 35-foot crosscut from the bottom of the shaft encountered "heavy" ground. Another reason for terminating the operations was because the workings had failed to encounter any sign of copper mineralization. Rainey stated that he wished to continue operations and would submit, in the applicant's name, an alternate exploratory program. After a delay of a few weeks he submitted a program that involved the sinking of a 50- to 100-foot shaft at a new location, and the driving of 100 feet of drifts and crosscuts at an estimated cost of $8,000.

The writer visited and made a cursory examination of the Bulldozer mine on August 8 and 10, 1951. A more detailed study of the property was made by the writer August 23, and the examination was completed the following day by mapping the property, assisted by B. C. Brown, Bureau of Mines.

ACKNOWLEDGMENTS

The writer wishes to thank R. E. Chilson, Tucson, Ariz., for information regarding one of the inaccessible ore deposits of the Bulldozer mine. Chilson supervised operations at this deposit during World War II. He is well informed on the geology and the ore deposition of the Helvetia mining district and has conducted successful operations, mainly under lease agreements, in this and other nearby districts. At present he is producing ore from two small mines near the Bulldozer property.

LOCATION, TOPOGRAPHY AND CLIMATE

The Bulldozer mine is about 28 air-miles southeast of Tucson, Ariz. (fig. 1). The property is accessible from Tucson by traveling south for 28 miles to the village of Sahuarita, and thence 13.4 miles southeasterly on the graded, dirt road that leads to the Helvetia mining camp. From that point that has a sign "Bulldozer mine", the property is about 1.5 miles over a winding, unimproved road.

Sahuarita on the Nogales branch of the Southern Pacific Railroad is the railroad shipping point.

The property is on the western slope and near the northern extremity of the Santa Rita Mountains. It is at an altitude of about 4,100 feet on the northwest slope of Tiptop Mountain. This Mountain is connected to the main range by a cross ridge. The area of the property is moderately rugged and has a range in relief of about 100 feet. About 2 miles east of the property the mountains have a crest-line altitude of about 6,000 feet.

The climate is arid, with hot summers and mild winters.

There are no permanent streams in the district.

Vegetation is confined to native grasses, scattered bushes and cacti, mainly ocotilla. Pinon, juniper pine and other conifers appear at higher altitudes.

HISTORY AND PRODUCTION

The Bulldozer mine first was active between 1879 and 1883. During that period, development work consisted of a 90-foot tunnel, a 40-foot winze, several shafts, and several open cuts. From the deepest shaft, bottomed at 115 feet from the surface, a 100-foot drift and a 130-foot crosscut was driven. The 2 principal open cuts were each about 60 feet long, 25 feet wide and 25 feet deep. The next period of activity was from 1904 to 1906 when the Tiptop Copper Co. worked the mine spasmodically. Schrader[1/] visited the property in 1909 and found that most of the workings were inaccessible. He stated that production was not learned, but it was not large.

1/ Schrader, Frank C., Mineral Deposits of the Santa Rita and Patagonia Mountains, Arizona. U.S.Geol. Surv. Bull. 582.

The mine next was worked during World War I. The present owner of the property stated that 500 feet of drifts and crosscuts were run from the 90-foot tunnel mentioned by Schrader during this period. He also stated production amounted to 35,000 tons of 7 to 8 percent copper ore and reported operations ceased when metal prices dropped at the end of the war. The next period of activity was during 1944 and 1945 when an 80-foot shaft was sunk, 100 feet of crosscuts and drifts were driven, and ore was produced from a timbered stope. Operations were terminated late in 1945 when a drift caved in and killed one of the workmen. Production records show that 3,030 tons of ore, containing 3.87 percent copper and about 0.20 ounce silver a ton, was produced during that period.

PROPERTY AND OWNERSHIP

The property consists of a group of 4 lode mining claims, one of which is patented, in the Helvetia Mining District, Pima County, Ariz. It is owned by H. L. Berkey, 1749 South 6th Ave., Tucson, Arizona.

P. J. Rainey, 834 Thomas Road, Phoenix, Ariz., is operating the property under a lease and option agreement. The lessee stated that the agreement calls for the payment of production royalties of 10 percent on ore containing up to 10 percent copper. The royalty payments on high-grade ore were not learned. Royalty payments may be applied toward purchase of the property for $50,000.

GENERAL GEOLOGY

A coarse granite, probably of pre-Cambrian age, is the basement rock of the district. It is overlain, successively, by Cambrian (?) quartzite, and Paleozoic limestones. Both the granite and the sedimentary rocks have been intruded by a stock of alaskite granite-porphyry and by dikes, principally of the alaskite and aplite types. The granite occurs in both normal and fault contact with the overlying rocks.

At the Bulldozer mine the exposed rocks are confined to limestone and granite (fig. 2). The most extensive workings are located in Copper Duke hill that rises about 100 feet above the surrounding lowland. It has a diameter of a few hundred feet and its upper portion is composed of crushed and altered limestone. The limestone, where the bedding is identifiable, dips about 45° to the south. It rests on a floor of granite that slopes downward to the west at a small angle. Overburden covers much of the property west of Copper Duke hill.

ORE DEPOSITS

Production of the Bulldozer mine has been from open cuts and underground workings in Copper Duke hill and from underground workings a few hundred feet west of the hill (fig. 2).

The ore of Copper Duke hill occurred as a filling of open spaces in fractured zones of highly altered limestone. Schrader[2/]

2/ Previously cited in Footnote 1.

stated that the ore minerals were malachite, azurite and small amounts of chrysocolla, black copper sulfide, and native copper. Significant mineralization on the surface at present is confined to a few small pockets in the walls of the open pits. The ore in these pockets, none of which contain more than a few tons, is present mainly as malachite. Ore production from the surface excavations, based on the size of dumps, probably amounted to a few thousand tons. There are no available records on the grade of ore produced from these excavations. However, a reputable miner of the district told the writer that he had mined one of the open cuts. From this operation he produced several carloads of run-of-mine ore containing 1.7 percent copper. He said the highest grade zones contained as much as 4 percent copper. He also had inspected the workings from the adit that now are inaccessible. He found that the degree and extent of mineralization was similar to that of the surface. He said little or no developed ore remained in the underground workings and that these workings yielded only a few thousand tons of selectively mined ore.

Significant mineralization on the south side of the hill, in the area of the proposed exploratory work, is confined to a zone of fractured limestone at the inaccessible inclined shaft. The shaft was sunk at the contact of granite with overlying limestone. Rainey, the lessee, said that a test of the ore in this shaft showed 4 percent

copper. The writer found by visual inspection that this grade of ore is probably present and is confined to a zone 3 to 4 feet thick. The inspection also indicated that the mineralized zone does not extend laterally more than a few feet beyond the shaft and that it is cut off near the bottom of the shaft by granite.

The deposit north of the hill was described to the writer by Chilson[3/] as follows: Exploratory work that resulted in discovery of the deposit was carried out under his supervision from the bottom of 115-foot shaft (fig. 2). After much drifting and crosscutting in barren limestone, the deposit was encountered at a vertical depth of 75 feet from the surface by a raise. The deposit then was mined from an inclined shaft. The widest part of the deposit was at the intersection of 2 fairly strong shear zones. Mineralization persisted southeasterly along one of the shears. The ore occurred as small pockets and discontinuous veins in a zone composed mainly of gouge-like material and boulders of limestone. It consisted of granular chrysocolla, and its occurrence suggested that it had been transported by water and redeposited in open spaces. Selective mining yielded some high-grade ore in the widest section of the deposit but the degree and extent of mineralization decreased as the working was extended to the southeast. Very low-grade ore was being produced when operations were terminated by a collapse of part of the workings.

3/ Previously cited under Acknowledgments.

Production records submitted by the applicant substantiate Chilson's statements regarding the grade of ore produced. The records show that ore containing about 7 percent copper was produced from January to March 16, 1945. The grade of ore for the following 3 months averaged about 5 percent copper and the remaining shipments contained about 2 percent copper. The ore contained little or no silver.

ORE RESERVES

The Bulldozer mine contains no measured nor indicated ore reserves other than a few hundred tons of material, containing 3 to 5 percent copper, that is present on the dumps and in the open cuts.

There are no criteria for determining the tonnage and grade of inferred ore reserves. However, these reserves are believed to be insignificant for the following reasons: The favorable ore zone probably is cut off at a shallow depth by granite that is not receptive to ore mineralization at this mine; and all but a very small portion of the zone has been rather thoroughly explored and exploited.

PRESENT STATUS

Three men under Rainey's supervision are presently engaged in sorting ore from the dumps. The sorted ore was being trucked to Sahaurita for railroad shipment to a smelter at Hayden, Ariz. The writer's estimated cost of producing this ore, the most easily obtainable ore on the property, indicates this operation will be uneconomic.

Rainey also is removing timber from the crosscut driven from the recently completed shaft.

PROPOSED EXPLORATORY PROGRAM

The shaft of the original proposal was sunk at a site designated by the applicant. Both the shaft and crosscut were in decomposed granite. The granite contained no copper mineralization.

The alternate proposal calls for the sinking of a 60-to 100-foot vertical shaft and for the driving of 100 feet of drifts and crosscuts on ore interestected by the shaft. The shaft would be sunk from the location shown on figure 2.

Rainey, the lessee, estimated the proposed work could be completed in 5 months at a cost of $8,000. He expressed a willingness to share the costs of the work with the Government on a 50-50 basis. As part of his share of the cost, he proposed to supervise the work for $300 a month and to furnish all necessary equipment. This equipment is valued at $3,410.

CONCLUSIONS

The ore occurs in fractured zones of a thin section of altered limestone that overlies unmineralized granite. Field evidence and information obtained from a reliable source regarding inaccessible workings indicate that only a very small part of one favorable zone has not been explored. There are no criteria for determining the location of mineralized zones that may occur in the unexplored limestone. Furthermore, any mineralized zones that may occur cannot be developed and mined at a cost commensurate with their potential value.

The mine contains no measured nor indicated ore reserves.

RECOMMENDATIONS

It is recommended that the request for a loan to carry out exploratory work at the Bulldozer mine, at an estimated cost of $8,000, be denied for the reasons presented in the conclusions of this investigation.

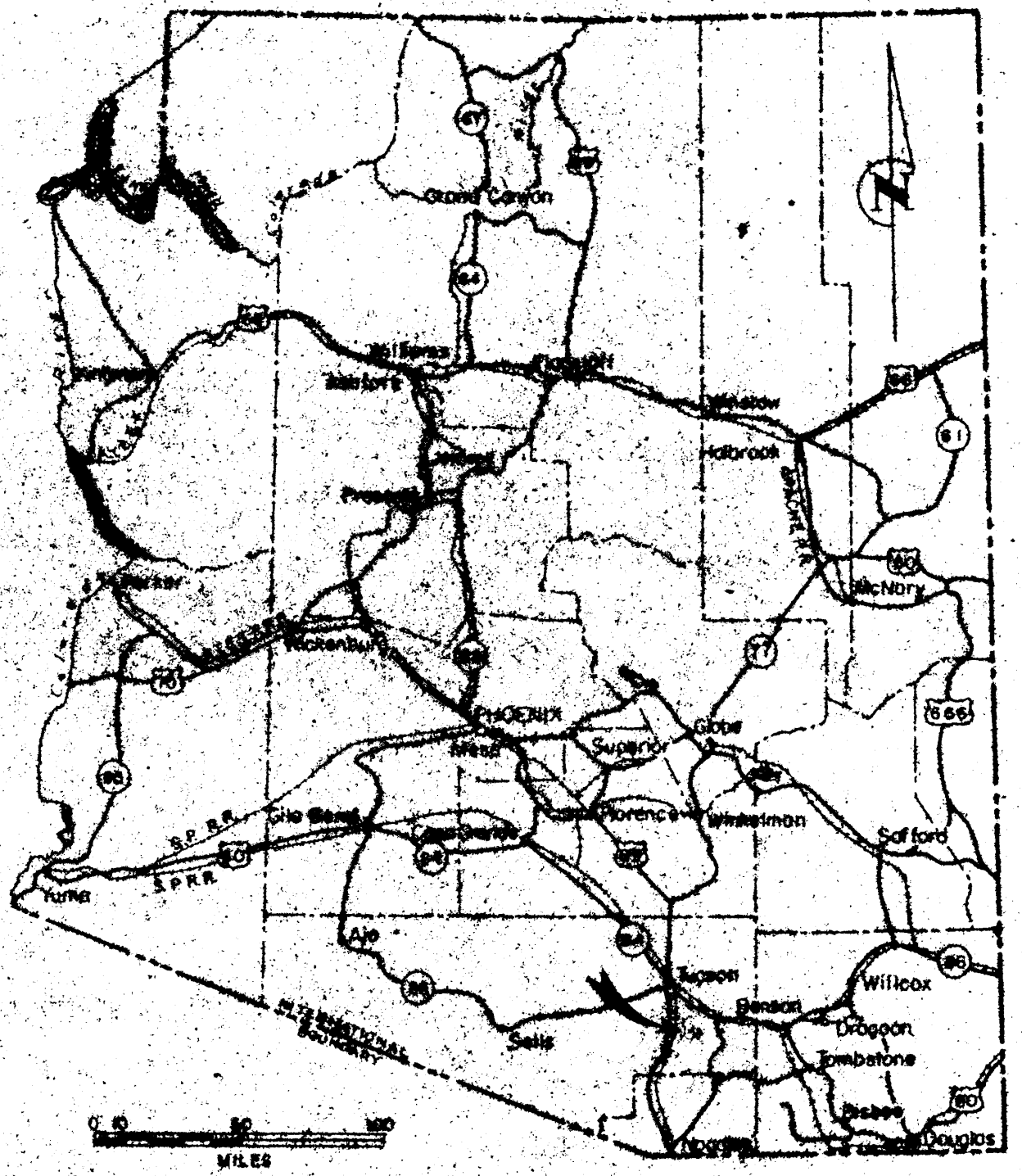


FIG. 1 LOCATION MAP, BULLDOZER MINE
HELVITIA MINING DISTRICT,
PIMA COUNTY, ARIZONA
DMA 1223X

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

224 New Customhouse
Denver 2, Colorado

September 14, 1951

Memorandum

To: Executive Secretary, Defense Minerals Administration

From: DMA Field Team, Region IV

Subject: Final Report, DMA Docket 1223-X, H. L. Berkey, applicant, Bulldozer Copper Mine, Helvetia Mining District, Pima County, Arizona

Enclosed herewith are the original and two copies of the report on the subject docket.

We concur with the conclusions and recommendations of the examining team that the exploration loan of $8,000 be denied.

The brochure is enclosed.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 17 1951

Paul T. Allsman, Alternate

A. H. Koschmann

Enclosures

310
FILE COPY
SURNAME:

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

Gowen

W. E. C.

Mr. M. L. Berkey
Gates Hotel
Sixth, Figueroa & Wilshire
Los Angles 14, California

Re: Docket No. DMA-1223X

Dear Mr. Berkey:

This is to acknowledge your letter of July 25, 1951 written to Mr. Tom Lyon and which was referred to the Copper Branch, Defense Minerals Administration for reply.

Our records show that your application for exploration aid docket number DMA 1223X is still in the hands of the field team. If you have not yet heard from Mr. East it is because of the tremendous backlog of work now confronting his staff, which is undermanned.

Your application is being given every consideration for possible exploration aid, but no decision can be made before the Field Team report is received in Washington D. C.

Very truly yours,

J. B. Gowen

J. B. Gowen, Chief
Copper Branch

RW:augh:jp

Copy to: Reports and Records Branch, w.c.i.
Executive Officer, Region IV, w.c.i.
Administrator's Reading File, w.c.i.
Copper Branch, w.c.i.
Files-DMA Docket

G.E.C.

Mr. H. L. Berkey
Gates Hotel
Sixth, Figueroa & Wilshire
Los Angles 14, California

Re: Docket No. DMA-1223

Dear Mr. Berkey:

This is to acknowledge your letter of July 29, 1951 written to Mr. Tom Lyon and which was referred to the Copper Branch, Defense Minerals Administration for reply.

Our records show that your application for exploration aid docket number DMA 1223 is still in the hands of the field team. If you have not yet heard from Mr. Hast it is because of the tremendous backlog of work now confronting his staff, which is undermanned.

Your application is being given every consideration for possible exploration aid, but no decision can be made before the field team report is received in Washington D. C.

Very truly yours,

J. B. Gowen

J. B. Gowen, Chief
Copper Branch

RVaughn:jp

Copy to: Reports and Records Branch, w.c.i.
Executive Officer, Region IV, w.c.i.
Administrator's Reading File, w.c.i.
Copper Branch, w.c.i.
Files-DMA Docket

Hotel
GATES

SIXTH, FIGUEROA & WILSHIRE
LOS ANGELES 14
CALIFORNIA

Via Air Mail

LOS ANGELES
JUL 26
6 PM
1951
CALIF.
18

AIR MAIL
6¢
U.S. POSTAGE

E. L. Berkey

Sam Lyon
United States, Department
Of The Interior
Defense Minerals Adm
Washington 25
DC

Re Docket no
DMA-1223X

Hotel Gates
Sixth, Figueroa & Wilshire
Los Angeles 14

July 25, 1951

United States
Department of Minerals In
Defense Minerals Administration
Washington 25, D. C.

DMA 1223X

Mr. Tom Lyon:

Your letter of June 28 was received after some delay and I do hope that there will be a consideration, on thir exploration loan in the near future, as to thir writing I have not heard from Mr. J. E. East, Jr., as to his decision on this matter. I would like to have a line from you by return mail. Please send all letters to this address, Gates Hotel

Waiting your reply

Respuctfully

/s/ H. L. Berkey

COPY

July 25-51

Hotel GATES
SIXTH, FIGUEROA & WILSHIRE
LOS ANGELES 14

TRA 1223X

United States
Department of Minerals in
Defense Minerals Administration
Washington 25, D.C.,

Mr Tom Lyon;
your letter of June 28 was
received after some delay
and I do hope that there
will be a consideration, on
this exploration loan in
the near future, as to this
writing I have not heard
from Mr J.E. Earl, Jr;

FIREPROOF

Hotel
GATES
SIXTH, FIGUEROA & WILSHIRE
LOS ANGELES 14

as to his decision
on this Matter, I would
like to have a line from
you by return Mail
Please send all letters
to this address, Gates Hotel
Waiting your reply
Respectfully
H. L. Berkey

FIREPROOF ®

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 30 1951
LANDON F. STROBEL
Executive Secretary

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 30 1951
LANDON F. STROBEL
Executive Secretary

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

REGIONAL DIRECTOR'S OFFICE
REGION IV
JUL 1 1951
BUREAU OF MINES
DENVER, COLORADO

Mr. J. H. East, Jr.
Executive Officer, DMA Field Team
224 New Customhouse
Denver 2, Colorado

JUN 28 1951

WRH 7-11-51

Dear Sir:

We attach "Review of Application for Exploration Assistance" on:

Docket No. 1223X

Commodity Copper

Applicant Mr. H. L. Berkey, 1749 South 6th Avenue, Tucson, Arizona

Please expedite the consideration of this application with particular reference to the points noted in the attached "Review."

Very truly yours,

Tom Lyon

Tom Lyon, Chairman
Coordinating Committee

Lowell B. Moon
For Bureau of Mines

E. T. McKnight
For Geological Survey

FILE COPY
SURNAME:

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

Gowen
Myers
Stubbs 6/27

June 26, 1951

Mr. H. L. Berkey
Arizona Courts
1749 South 6th Avenue
Tucson, Arizona

White House

DMA-1223X

Dear Mr. Berkey:

Your letter addressed to President Harry S. Truman and dated June 5, 1951 was received on June 12 and referred to the Defense Minerals Administration for reply.

Your application for Exploration Aid was referred to the Copper Branch of the Supply Division for study and consideration. It is now being referred to the DMA Field Team for further investigation.

You should shortly hear from Mr. J. E. East, Jr., Executive Officer, DMA Field Team, Region IV, or one of his staff.

Sincerely yours,

JAMES BOYD

Administrator

W

JBGowen:pk

Copy to: Executive Secretary
Executive Officer, DMA Field Team, Region IV
Copper Branch
Administrator's Reading File
File

Source 1223

452

6/5/51

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. DMA-1223X

Commodity Copper

Total Amount $30,000

Govt. Participation 50 Percent

1. Name and Address of Applicant H. L. Barkey, 1749 So. 6th Ave., Tucson, Arizona

2. Location of Property Pima County, Arizona, 12 miles east of Sahuarita; 18 miles southeast of Tucson; Helvetia Mining District

3. Mineral or metal Copper Is it listed in Section 9 of MO-5?

If not, application will be rejected.

4. Geologic probability of discovery—based on data in application (question #16, 17, 18, 20 and 22)*

Mines or Survey reports, etc., do you rate chances:

a) Good Do not Know

b) Poor

c) None

d) Don't know—needs field examination yes

e) Is there an alternative and favorable project?
(If so, attach an explanation)

5. Is the applicant's right to the property clearly stated? Yes
(question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? Not a Lessee

Does the lease have sufficient time to run to cover a future productive period?

*question numbers are those of MF-103

7. Are subordination agreements necessary? No

a) MF-201? no

b) MF-202 no

8. From the data presented, does the proposed project appear feasible from the point of view of:

a) Available manpower Not stated

b) Equipment and supplies None available.
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* Good roads

d) Water (question 13)* adequate

e) Power (question 13)* Will use gasoline and diesel engines

Is a field check needed on any of these points? Yes - Check costs

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* Yes - Field Team could check on this

Is a field check needed on this point? Yes.

10. Exhibit A. (questions 21 and 22)*

a) Is the project adequately described? No

If not, are there sufficient data given so that you can describe the project? No If so, attach a draft.

b) Is there an adequate map or sketch of the proposed work? No

c) Is the proposed work "exploration" under the definition of Section 8, MO-5? Yes, some of it is, but should be checked.

If not, what part of it is? Question necessity of hoist house, change house, trunk house, sinking machine, and one truck, for the exploratory work

Is this part a worthwhile exploration project? _____

d) Are the cost estimates detailed? No

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? No If so, attach a draft.

e) Are the cost estimates reasonable? No. of supervisors appears high.

f) Should more information be requested from applicant? Yes

g) Is a field examination necessary to complete Exhibit A? Yes.

11. Exhibit B (question 23-d)*

a) Is it applicable? Cost should be checked with applicant

b) If so, are sufficient data furnished? _____ If so, attach a draft.

c) Is a field check needed? Yes

12. Exhibit C (question 23-e, f and g)*

a) Is it applicable? Costs should be checked.

b) Sufficient data? _____ If so, attach a draft.

c) Are rents and charges reasonable? _____

d) Is a field check needed? Yes

13. Exhibit D (question 23-a, b)*

a) Are there sufficient data? Yes

b) Is the schedule adequate for the work proposed? No definite proposal.

c) Is the schedule excessive for the work proposed? _____

d) Are the proposed wages and salaries reasonable? Question on No. of supervisors

e) Is a field check needed? Yes

14. Exhibit E (question 23-c)*

a) Is it applicable? _____

b) Sufficient data? _____

c) Reasonable? _____

d) Field check needed? _____

15. In your judgment, can the proposed work be done in the proposed time? No definite proposal of work to be done.

(All exploration must be completed within two years)

16. If field examination is not needed, attach your recommendation.

17. If field examination is needed, do you have any special instructions for the field team not indicated by your answers to the foregoing question? Applicant should definitely state and show on map where he proposes to do the work. Entire project should be delineated on maps. Also any part which may be for production should be taken out of the project

Reviewed by: J. W. Alb.
C. A. Johnson
J. B. Gowen
D. E. Macharen

Date 6/25/57

97692

FILE COPY
SURNAME:

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

June 8, 1951

Mr. H. L. Berkey
1749 So. 6th Avenue
Tucson, Arizona

Subject: DMA-1223X
Re: Exploration Loan
Bulldozer Mine

My dear Mr. Berkey:

Receipt is acknowledged of your application and attachments of May 10, 1951 for an exploration loan under the Defense Production Act of 1950.

The application was assigned Docket Number DMA-1223X and was referred to Mr. J. B. Gowen, Chief, Copper Branch on May 23, 1951.

In any future correspondence relating to your application, kindly refer to DMA-1223X.

Sincerely yours,

LANDON F. STROBEL

Landon F. Strobel
Executive Secretary

LFSTROBEL:js
cc: Strobel-2
Files
Gowen
Lyon

Interior

INTERIOR DEPT.
SECRETARY'S
MAIL CENTER
JUN 12 1951
MINES

RESPECTFULLY REFERRED
FOR CONSIDERATION
AND ACKNOWLEDGEMNT

William D. Hassett
Secretary to the President

~~BANDON F. STROBEL~~
Mr. Bowen

June 5 - 1951
Answered 6/27/51
12237

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 13 1951
BANDON F. STROBEL
Executive Secretary

Harry S. Truman
Washington D.C.

I am Writing you for your help due to a loan Which We applied for 3 Weeks ago and up to this date, We have not received any ans to the loan We applied for on the Bulldogs Mine in the Helvetia, district, Pima, 12 miles from Sahrita, We have our men on ground and We are down 40 ft We also have quite a bit of Machinery on the Property and if you can help me out in getting the loan. I would be Very thankful for your cooperation if there is any loans being granted on Copper Properties, Which my Mine is Van Carbon Copper ore.

which I have been keeping in
tuch with Price, and have shiped
quite a bit of ore, from this mine
I have sent in all of my shiping
recept and all of the Information
that I have in conection with this
Mine, as I own the Property my
self and have owned this Mine
about 32 years. I let a Man go
in there in 1944-45 and he sold
me blind, and had to have him
removed from the Property, so
now I need to have some help
in the Way of finances, I have
never had a loan on this mine
so I have sent my application in
to The Defense Minerals Administration
Department of The Interior
Washington D.C.
I have not received any reply from them
and I would appreciate your
Coporation on this loan
Waiting your reply
yours Truly H.L. Berkey

P.S. I will be Pulling for you if you decide to run again in 1962, also Mrs Bucahanan a friend of yours in Los angeles, is a very good friend of yours also and a friend of our which she was back of you in all of the McArthur stir up

Thanking you in advance and hoping to here from you soon

Via Air Mail

TUCSON
JUN 6
2 2:30 PM
1951
ARIZ.

AIR MAIL
6¢
U.S. POSTAGE

Mr Harry S. Truman
Washington
D.C.

H. D. Berkey
c/o Arizona Courier
1749 So 6th ave
Tucson
Ariz

LANDON F. STROBEL
Wilmington, Ohio

June 5 - 1951

RESPECTFULLY REFERRED
FOR CONSIDERATION
AND ACKNOWLEDGEMENT

William D. Hassett
Secretary to the President

INTERIOR DEPT.
SECRETARY'S
MAIL CENTER
JUN 12 1951
BUREAU OF MINES

Harry S. Truman
Washington D.C.

I am writing you for your help due to a loan which we applied for 3 weeks ago and up to this date, we have not received any ans to the loan we applied for on the Bulldogg Mine in the Helena, district, Pima Co Ariz 12 miles from Sahrita, we have our men on ground and we are down 40 ft we also have quite abit of machinery on the property and if you can help me out in getting the loan, I would be very thankful for. Corporation if there is any loans being granted on copper properties, which my mine is an carbon copper one.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 1 3 1951
LANDON F. STROBEL
Executive Secretary

Dear Sir

I have been keeping in
touch with Brian and have shipped
quite a bit of ore from this mine
I have put in a lot of my savings
right and get the information
that I have no contact with this
mine as I own the Property my
self and have owned this mine
about 32 years. I let a man go
in there in 1944-46 and he sold
me blind, and had to have him
removed from the Property, so
now I need to have some help
in the way of finance, I have
never had a loan on this mine
so I have sent my application in
to The Defense Minerals Administration
Department of The Interior
Washington D.C.
I have not received any reply from them
and I would appreciate your
Coporation on this loan
Waiting your reply
Yours Truly N.J. Berry

P.S. I will be Pulling for
you if you decide to run for
[illegible] and wish the best
[illegible] in Possession
[illegible] good friend [illegible]
[illegible]

Mr. Dower
Reply for Boyd

JUN 12 1951

Dma-1223X

5/16/61

Defence Minerals Administration
Department Of The Interior
Washington 25, D.C.

Dear Sirs;

Please find inclosed form 100-103 which I hope you will give your imediate attention, and I am waiting for your Coporation and Consideration of these forms and let me here from you by return Mail

Respectfully
H.L. Berkey

Bowen

6/6/1951
Air Mail

Defense Minerals Administration
Department Of The Interior
Washington, D.C.

Dma-1223X

Dear Sir;

I am Writing to you in Conection to a loan. I applied for 3 Weeks ago, and as to this Writing I have not recived any Word from you up to this date, I have over men Working on the Property, and we are down 40 ft. and I want to Keep them Working We have all of our Machenery on the grounds and I would appreciate your Coporation on helping me to get the loan through if there is a loan to be had, in any Way, Please advise me if you

F-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE _____

REFERRED TO:
1. Sowers B 3423
2. _____
3. _____
4. _____

JUN 8 1951

FOR:

- _____ Action
- _____ Approval
- _____ Comment
- _____ Conference
- _____ Consideration
- _____ Filing
- _____ Instructions
- _____ Investigation
- _____ Initials
- _____ Mailing
- _____ Previous correspondence
- _____ Recommendation
- _____ Record of _____
- ✓ Referring to _____
- _____ Reply for signature of _____
- _____ Rewriting
- _____ Signature
- _____ Suggestions
- _____ Your information

REMARKS: _____

Check (X) before the items needing attention.

LB

LANDON F. STROBEL
Initials of sender.

GPO 16—63815-1

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 8 1951
LANDON F. STROBEL
Executive Secretary

received My aplication sent in
for The book

Waiting your reply by
return Mail
yours Truly

H. L. Berkey

P S Will be in Los angeles
at Gater Hotel, for a few days
you Can Write us There

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 8 1951

LANDON F. STROBEL
Executive Secretary

Mr. Bowen
June 17 – 51

Hotel
GATES
SIXTH, FIGUEROA & WILSHIRE
LOS ANGELES 14

United States
Department of the Interior
Defense Minerals Adm.
Washington 25, D.C.
D.M.A.-1223X

Dear Sir:

In receipt of your letter of June 8th We have returned Losangeles for a while you can write us here at this address, Gates Hotel until further Notice
We have received a letter notifying us for any other information due to our loan from the Gov, to direct our letters to this division to Mr J B Bowers, Chief, Copper branch D.M.A.-1223X. on the Bulldozer Mine in Pima Co Tucson, Ariz.

FIREPROOF

HF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE JUN 19 1951

REFERRED TO:
1. Mr. Gower
2.
3. JUN 19 1951
4.

Rm 2522

FOR:

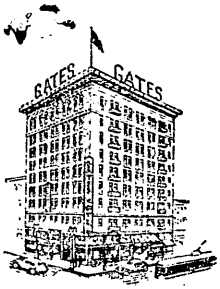
____ Action	____ Recommendation
____ Approval	____ Record of ____
____ Comment	____ Referring to ____
____ Conference	X Reply for signature of ____
____ Consideration	____ Rewriting
____ Filing	____ Signature
____ Instructions	____ Suggestions
____ Investigation	____ Your information
____ Initials	
____ Mailing	
____ Previous correspondence	

REMARKS: ____

Check (X) before the items needing attention.

LANDON F. STROBEL
LFS
Initials of sender.

GPO 16—63815-1



Hotel
GATES
SIXTH, FIGUEROA & WILSHIRE
LOS ANGELES 14

We now have our Men and Machinery on the grounds and they are going ahead With the Work of Putting down a Shaft and We are down 50 ft and Will Cut a Station and began to Cross Cut over to the ore, We are Very anxious to know if We Will be able to get this loan, Which We have applied for from U. S. Gourment, if it is not Posiable to get this loan let us know as soon as Posiable as We Will have to Make other arangement to finance the Work We have laid out to do so We want be delayed

FIREPROOF

Hotel
GATES
SIXTH, FIGUEROA & WILSHIRE
LOS ANGELES 14

In our Work
Thanking for your
Courtesy, hoping to hear from
you by return Mail
Respectfully Yours
H. L. Berkey

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 1 9 1951
LANDON F. STROBEL
Executive Secretary

FIREPROOF

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. dma-1223X

Date received 5/21/51

H. L. Berkey
1749 S. 6th Ave.
Tucson, Ariz.

Name and address of applicant

Date May 10, 1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) Necessity Certificate pursuant to the provisions of Sec. 124-A (Amortization Deduction) of Internal Revenue Code, 1950, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

NO CORPORATION

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation		Life Insurance Carried for Benefit of Applicant	
				Common (e)	Preferred (f)	Amount (g)	Net Cash Surrender Value After Loans (h)
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production: Mine has not been in operation since 1945

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)	15,000	7%	$25.00	$18.00	$6.00
Indicated (probable)	20,000	7-10%	$25.00	$18.00	$6.00

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

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

(Name of company)

By H. L. Berkey X
(Signature of authorized official)

(Date)

(Title)

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—63792-1

MF-100

H. L. Berkey
1749 S. 6th Ave.
Tucson, Ariz.

GENERAL TECHNICAL DATA

1. Materials produced;
   (a) copper and silver
   (b) none

2. Bulldozer Mine
   (a) one 80 ft. shaft
   (b) 90 ft. crosscut
   (c) 100 ft. tunnels on ore
   (d) 500 ft. tunnel work in ore body on hill (separate workings from those referred to in a, b and c.
   No flooding; no pumping problems.
   Has never been worked to capacity.
   Probable production capacity 5 cars a week.

3. (a) 12 miles east of Suharita; 18 miles southeast of Tucson.
   (b) Helvetia Mining District
   (c) S 15-18-15
   (d) Pima County, Ariz.

4. (a) Property now be opened up by owner.
   (b) Owner

5. Years in production;
   World War I - 3 years
   World WarII- 2 years
   New peoduction will begin in 60 days-July 1, 1951

6. Experience of operators;
   (a) Have been mining for nearly 60 years all over the U.S.; purchasing, rehabilitating mines, putting them into production (mining, mills, smelters). Have mined gold, silver, lead, copper, zinc--all hard rock mining in Calif. Nevada, Idaho, Utah, Arizona, etc.
   (b) Owner managed.

7. History;
   (a) World War I--tunnels were run into the dome ore body for 500 ft. (owners previous to 1915 had tunneled into this hill, taken out large quantities of ore, operated a smelter and have left a large ore dumpt there.) The WWI operations showed 35,000 tons of 7 to 8% ore. Operations closed down because of drop in prices after the war.
   World War II-- An 80 ft. shaft was sunk, and a 100 ft. crosscut and tunnel produced 3300 tons of 7 to 10% ore. Production stopped when tunnel cave in at close of war.
   (b) Peach claims, adjoining, produced 10,000 tons of 4½% ore during W.W. II
   (c) Helvetia group, neighboring, shipped from dumps during WW II around 600 car of 3% ore.
   Previous to this a large Eastern corporation owned and operated the whole district--had shafts, mills, smelters at town of Helveta--produced great quantities of copper around 5½%.
   (c) U.S. Governemnt reports at office of U.S. Bureau of Mines, Tucson, contain complete reports of geology, surveys etc. Reports of inspecting field engineer of State Dep't. of Mineral Resources attached.

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

8. No corporation

9. None

10. No mining done since 1945

11. Mine is now in the process of being re-opened, and will be shipping ore within 30 days.
As now set up, expect to ship 8 cars a month.
With additional funds, can increase equipment and labor, and can ship 24 cars a month.

12. (a) Contact vein running NE by SW between granite and lime, was averaging more than 6 feet in width at time of cave-in. 7% or better. Several thousand tons of surface ore, plus a like amount of ore in the dome at east side of property, averaging around 4%.
(b) Smelter reports enclosed to show grade of ore.

		assay	pr.ton	pr.ton	cost pr ton
Measured	15,000 tons,	av. 7%,	gross val.$25.00,	net $18.00	$6.00
Indicated	20,000 tons	7-10	"	"	"

(c) not placer.

13. Hard surface road. 12 miles downgrade from mine to Suharita R.R., where loading dock is located. Paved U.S. Highway 18 miles Suharita to Tucson, supply and residence point.

14. One half inch pipe for water on property. coming from pumps inside Cameron Quartsite dikes, sufficient for all seasons.

15. No power uses, use gasoline and diesel engines.

16. Labor;
2 miners
1 timberman
1 working mining engineer supervisor

17. No building
Air compressor, drills, hoist.

18 No.

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

7--(c)

Excerpts from reports of George A. Ballam, Dep't. Engineer, to Director of Mineral Resources, Fairgrounds, Phoenix, Ariz.

1. Memorandum dated July 17, 1944.

" RFC has examined the property and reported favorably on a $15,000 loan for shovel and other equipment to take out 15,000 tons positive and 20,000 tons probable ore."

2. Memorandum March 20, 1944.

"The east end of the property some 600 hundred feet away (from the shaft which was sunk to get to main ore vein) is a lime-capped dome which has been pushed up in the monzonite. There are several thousand tons of similar ore here and if the smaller operation can be made to go, Owens (lessee) is planning on putting in a shovel with additional equipment. The hill is honeycombed with earlier operations. There is a lot of 6% to 8% ore which it is impossible to take and big bodies of 3% ore which couldn't be mined and shipped profitably. With a shovel he can pull it all down and throw the lime out keeping the ore above 3%. I believe it will be a large operation which can be handled in this manner.

This is an old operation and at one time a smelter was maintained on sulfides mined about 100 feet below the lowest workings in the hill, where sulfides were just beginning to show. The odl shaft, between two ore bodies, is now inaccessible, but the area of the hill is sufficient to bench to a considerable depth.

C O P Y

March 11, 1947

Mr. H. L. Berkey
Tucson, Arizona

BULLDOZER MINE, HELVETIA DISTRICT, PIMA CO. ARIZ.

Dear Mr. Berkey;

Under the terms of an option agreement dated March 17, 1944, between yourself as owner of subject property and Mr. Sherwood B. Owens, Optionee, Mr. Owens shipped to our Hayden and El Paso smelters a total of 3030.2 dry tons of ore from the Bulldozer Mine.

According to an abstract in my file, I understand that the option agreement contained a royalty provision requiring Optionee to pay to the owner a rpyalty based on 10% of the net smelter proceeds, to be paid monthly. The smelter was not required by the agreement to deduct royalties for the owners account, according to my records, and we therefore did not handle the royalty payments for shipper's account.

From copies of settlement sheets in this office, our El Paso and Hayden plants received a total of 3030.2 dry tons during the period April 14, 1944 through December 27, 1945 with total net smelter proceeds of $4033.18. The government premiums paid to Optionee by Smelter as Agent for Metals Reserve Company during this period total $30,100.85. The term "net smelter proceeds" is the net amount paid by the smelter to the shipper after deduction of freight and smelting charges. The following tabulation gives detail of tons received at each plant and the payments made.

	Period	Dry Tons	Net Smelter Proceeds	Gov't. Premiums	Total Paid
Hayden, Ariz.	Apr.4,1944-Dec.27,1945	2055.5	$5,633.35	$25,902.42	$31,536.77
El Paso, Texas	Dec.24,1944 May28,1945	974.7	$1,600.17-	4,197.43	2,597.26
	Total	3030.2	4,033.18	30,100.85	34,134.03

Yours very truly,

BRENT N. RICKARD
Buyer, A.S.& R. Smelting Co.
El Paso, Texas.& Tucson,Ariz.

BULLDOZER MINE, HELVETIA DISTRICT
PIMA COUNTY, ARIZONA.

RECEIPTS AT HAYDEN AND EL PASO PLANTS DURING YEARS 1944-45

Hayden Plant

Date Rec'd.	Lot	Dry Tons	Gold oz.	Silver oz.	Copper %	SiO_2 %	Al_2O_3 %	Fe %	CaO %	Total Copper lbs.	Net Smelter Returns
1944											
4/14	-328/1	49.1	----	----	3.58	41.2	9.2	3.9	12.6	3512	$ 1.93-
4/21	346/2	52.0	.003	1.01	1.70	48.4	4.5	3.6	24.6	1769	63.61-
4/21	347/3	53.6	.003	1.15	1.80	48.2	3.4	3.4	23.2	1931	51.17-
5/3	381/4	61.9	.003	1.08	1.75	46.9	4.3	3.0	22.3	2166	66.42-
5/3	383/5	56.2	.003	1.15	2.04	46.8	5.0	3.1	24.7	2293	33.47-
5/3	382/6	50.6	.003	1.01	1.69	48.8	4.7	3.0	27.1	1711	61.12-
5/3	384/7	52.8	.003	.85	1.62	47.3	5.3	3.1	22.3	1711	83.53-
9/18	620/8	36.4	--	--	5.29	42.5	12.7	3.6	6.3	3850	84.82
10/9	652/9	50.8	--	.11	4.14	47.2	7.9	2.8	9.2	4206	63.63
10/16	663/10	50.2	--	.06	5.14	48.5	9.3	2.5	5.6	5161	138.34
10/23	677/11	46.5	--	.08	4.55	48.3	8.9	2.5	6.3	4234	92.18
11/2	694/12	47.7	--	.71	2.97	47.0	5.6	2.4	13.8	2835	23.42-
11/27	726/13	50.9	--	1.00	3.11	49.6	4.6	3.0	18.1	3163	8.70-
11/30	735/14	16.8	--	.43	2.84	43.1	3.8	8.8	19.3	951	15.24-
1945		Above shipments sent to obtain W.W.II premiums.									
1/4	9/21	43.3	--	.16	7.60	46.2	9.5	4.0	3.8	6585	302.49
1/11	16/23	41.4	--	.18	10.60					8624	485.19
1/29	41/26	42.7	--	--	6.37	48.9	7.9	3.3	4.7	5444	195.17
1/31	49/27	38.1	---	.10	5.72	47.5	8.5	3.9	4.9	4356	134.74
1/31	50/28	50/8	--	--	5.74	49.0	7.6	2.6	5.0	5831	199.78
2/2	56/29	40.0	--	--	7.12	45.2	7.2	3.3	5.3	5695	247.88
2/9	63/30	42.2	--	.09	7.32	47.2	7.2	2.9	5.7	6173	273.23
2/13	69/31	44.2	--	--	7.92	46.2	6.5	3.1	6.7	7002	335.96
2/23	89/32	52.0	--	.77	5.66	45.7	5.0	3.2	14.3	5890	183.21
2/26	95/33	41.2	--	.04	7.06	48.4	6.7	2.8	5.5	5823	253.19
2/26	96/34	43.5	--	.17	6.36	46.4	7.2	3.9	4.5	5532	211.86
3/12	115/35	36.5	--	.06	7.87	45.5	2.8	5.6	5.6	5741	271.08
3/15	119/36	44.1	--	--	10.05	40.1	6.6	3.6	7.1	8856	486.66
3/22	129/37	43.9	--	.10	10.25	47.8	7.0	2.8	4.7	9004	499.13
3/30	139/38	45.6	--	.06	9.39	47.4	6.6	2.7	5.1	8569	459.54
4/2	143/39	42.9	--	.04	7.85	47.4	7.2	2.7	5.6	6749	319.23
4/9	153/40	43.6	--	.16	6.94	48.1	7.2	2.1	4.8	6049	255.68
4/16	161/40	43.1	--	--	8.30	45.3	6.2	3.0	3.8	7148	348.96
4/16	162/42	44.4	--	.04	4.87	49.2	8.4	2.4	5.2	4327	103.12
4/26	181/44	48.0	--	.10	4.75	48.3	9.0	3.0	5.4	4559	104.09
4/30	186/46	45.6	--	--	4.35	44.0	8.7	3.2	7.1	3970	67.57
5/25	223/52	43.6	--	--	5.71	48.9	8.2	2.2	6.7	4975	168.06
6/9	240/54	35.7	--	--	5.67	47.7	7.7		6.8	4045	136.02
10/9	370/55	43.9	--	.08	5.73	44.8	8.4	2.8	6.7	5030	172.64
10/22	385/56	51.7	--	.05	3.19	45.5	10.3	3.0	5.8	3296	31.79-
11/5	400/57	52.4	--	---	2.70	45.2	8.7	2.8	9.8	2830	64.31-
11/30	401/58	48.1	--	.06	2.90	45.2	8.7	2.5	8.5	2791	41.29-
12/4	429/59	45.0	--	.04	2.41	42.4	9.5	2.4	10.1	2168	76.38-
12/4	433/60	46.5	--	.06	2.61	40.3	10.4	2.8	8.5	2427	68.48-

BULLDOZER MINE, HELVETIA DISTRICT
PIMA COUNTY, ARIZONA.

Hayden Plant, Con't.

Date Rec'd.	Lot No.	Dry Tons	Gold	Silver	Copper	SiO2	Al2O3	Fe	CaO	Total Copper	Net Smelter Returns *
			Assay and Analysis								
12/13	446/61	46.2	--	.08	1.65	45.7	8.3	2.5	12.1	1526	$ 136.94-
12/27	462/62	49.8	--	.06	1.85	43.7	8.0	2.4	10.0	1844	132.32-
Total Hayden Receipts		2055.5								202,352	$5,633.35

El Paso Plant

Date Rec'd.	Lot No.	Dry Tons	Gold	Silver	Copper	SiO2	Al2O3	Fe	CaO	Total Copper	Premium** Copper
1944											
11/24	3017	50.0	.005	1.9	2.62	49.2	3.0	3.0	20.8	2494	$ 15.58
12/9	3145	53.0	.005	2.0	3.02	50.6	2.4	2.3	22.8	3022	65.04
12/13	3189	50.5	--	1.5	2.32	46.0	2.4	2.1	22.9	2275	18.51-
12/14	3194	46.4	.005	1.9	2.57	45.9	2.2	3.3	21.6	2313	14.41
12/22	3270	55.2	--	1.5	2.00	48.6	3.1	2.1	22.3	2143	47.07-
12/29	3326	56.2	--	1.3	2.07	47.8	4.4	2.2	22.5	2256	49.66-
1945		57.0									
1/6	62		--	1.2	1.89	48.0	3.7	2.0	21.9	2090	73.27-
1/10	87	57.8	--	1.1	1.90	45.4	4.1	2.6	23.4	2131	68.05-
1/19	211	51.6	---	1.4	2.10	46.4	4.0	2.1	23.5	2104	32.03-
4/23	1035	57.6	--	.6	1.17	40.4	.4	4.3	25.8	1308	151.94-
4/26	1058	64.5	--	.6	1.16	39.9		4.6	24.0	1451	176.33-
4/30	1081	131.1	--	.4	.81	42.0	.3	4.2	28.2	2059	433.52-
5/4	1133	61.1	--	.5	.97	36.6	.3	4.2	31.1	1150	185.79
5/7	1160	56.7	--	.2	.94	38.4	6.5	4.9	31.2	1033	174.63-
5/8	1164	62.7	--	.4	.83	37.4	6.2	6.2	29.9	1008	203.36-
5/28	1354	63.7	--	.9	1.83	44.0	4.2	4.7	28.2	2260	81.04
Total El Paso Receipts		974.7								31,092	1600.17-

*Net return at Smelter after deducting freight and treatment charges.

** Premium Copper equivalent to 97% of total copper content.

Tucson, Arizona
December 26, 1946

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. Dma-1223X

Date received 5/21/51

H. L. Berkey
1749 S. 6th Ave.
Tucson, Ariz.

Name and address of applicant

Date May 10, 1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) Necessity Certificate pursuant to the provisions of Sec. 124-A (Amortization Deduction) of Internal Revenue Code, 1950, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation		Life Insurance Carried for Benefit of Applicant	
				Common (e)	Preferred (f)	Amount (g)	Net Cash Surrender Value After Loans (h)
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(*a*) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

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

By H. L. Berkey
(Signature of authorized official)

(Name of company)

(Date)

(Title)

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—63792-1

MF-100

H. L. Berkey
1749 S. 6th Ave.
Tucson, Ariz.

GENERAL TECHNICAL DATA

1. Materials produced;
   (a) copper and silver
   (b) none

2. Bulldozer Mine
   (a) one 80 ft. shaft
   (b) 90 ft. crosscut
   (c) 100 ft. tunnels on ore
   (d) 500 ft. tunnel work in ore body on hill (separate workings from those referred to in a, b and c.
   No flooding; no pumping problems.
   Has never been worked to capacity.
   Probable production capacity 5 cars a week.

3. (a) 12 miles east of Suharita; 18 miles southeast of Tucson.
   (b) Helvetia Mining District
   (c) S 15-18-15
   (d) Pima County, Ariz.

4. (a) Property now be opened up by owner.
   (b) Owner

5. Years in production;
   World War I - 3 years
   World WarII- 2 years
   New production will begin in 60 days-July 1, 1951

6. Experience of operators;
   (a) Have been mining for nea ly 60 years all over the U.S.; purchasing, rehabilitating mines, putting them into production (mining, mills, smelters). Have mined gold, silver, lead, copper, zinc--all hard rock mining in Calif. Nevada, Idaho, Utah, Arizona, etc.
   (b) Owner managed.

7. History;
   (a) World War I--tunnels were run into the dome ore body for 500 ft. (owners previous to 1915 had tunneled into this hill, taken out large quantities of ore, operated a smelter and have left a large ore dumpt there.) The WWI operations showed 35,000 tons of 7 to 8% ore. Operations closed down because of drop in prices after the war.
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   (c) U.S. Governemnt reports at office of U.S. Bureau of Mines, Tucson, contain complete reports of geology, surveys etc. Reports of inspecting field engineer of State Dep't. of Mineral Resources attached.

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

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10. No mining done since 1945

11. Mine is now in the process of being re-opened, and will be shipping ore within 30 days.
As now set up, expect to ship 8 cars a month.
With additional funds, can increase equipment and labor, and can ship 24 cars a month.

12. (a) Contact vein running NE by SW between granite and lime, was averaging more than 6 feet in width at time of cave-in. 7% or better. Several thousand tons of surface ore, plus a like amount of ore in the dome at east side of property, averaging around 4%.
(b) Smelter reports enclosed to show grade of ore.

		assay	pr.ton	pr.ton	cost pr ton
Measured	15,000 tons,	av. 7%,	gross val.$25.00,	net $18.00	$6.00
Indicated	20,000 tons	7-10	"	"	"

(c) not placer.

13. Hard surface road. 12 miles downgrade from mine to Suharita R.R., where loading dock is located. Paved U.S. Highway 18 miles Suharita to Tucson, supply and residence point.

14. One half inch pipe for water on property. coming from pumps inside Cameron Quartsite dikes, sufficient for all seasons.

15. No power uses, use gasoline and diesel engines.

16. Labor;
2 miners
1 timberman
1 working mining engineer supervisor

17. No building
Air compressor, drills, hoist.

18 No.

H. L. Berkey
1749 So. 6th Av
Tucson, Ariz.

7--(e)

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" RFC has examined the property and reported favorably on a $15,000 loan for shovel and other equipment to take out 15,000 tons positive and 20,000 tons probable ore."

2. Memorandum March 20, 1944.

"The east end of the property some 600 hundred feet away (from the shaft which was sunk to get to main ore vein) is a lime-capped dome which has been pushed up in the monzonite. There are several thousand tons of similar ore here and if the smaller operation can be made to go, Owens (lessee) is planning on putting in a shovel with additional equipment. The hill is honeycombed with earlier operations. There is a lot of 6% to 8% ore which it is impossible to take and big bodies of 3% ore which couldn't be mined and shipped profitably. With a shovel he can pull it all down and throw the lime out keeping the ore above 3%. I believe it will be a large operation which can be handled in this manner.

This is an old operation and at one time a smelter was maintained on sulfides mined about 100 feet below the lowest workings in the hill, where sulfides were just beginning to show. The odl shaft, between two ore bodies, is now inaccessible, but the area of the hill is sufficient to bench to a considerable depth.

COPY

March 11, 1947

Mr. H. L. Berkey
Tucson, Arizona

BULLDOZER MINE, HELVETIA DISTRICT, PIMA CO. ARIZ.

Dear Mr. Berkey;

Under the terms of an option agreement dated March 17, 1944, between yourself as owner of subject property and Mr. Sherwood B. Owens, Optionee, Mr. Owens shipped to our Hayden and El Paso smelters a total of 3030.2 dry tons of ore from the Bulldozer Mine.

According to an abstract in my file, I understand that the option agreement contained a royalty provision requiring Optionee to pay to the owner a royalty based on 10% of the net smelter proceeds, to be paid monthly. The smelter was not required by the agreement to deduct royalties for the owners account, according to my records, and we therefore did not handle the royalty payments for shipper's account.

From copies of settlement sheets in this office, our El Paso and Hayden plants received a total of 3030.2 dry tons during the period April 14, 1944 through December 27, 1945 with total net smelter proceeds of $4033.18. The government premiums paid to Optionee by Smelter as agent for Metals Reserve Company during this period total $30,100.85. The term "net smelter proceeds" is the net amount paid by the smelter to the shipper after deduction of freight and smelting charges. The following tabulation gives detail of tons received at each plant and the royalties made.

	Period	Dry Tons	Net Smelter Proceeds	Gov't. Premiums	Total Paid
Hayden, Ariz.	Apr.4,1944-Dec.27,1945	205[illegible]	[illegible],633.35	125,902.42	31,536.77
El Paso, Texas	Dec.24,1944-May28,1945	974.[illegible]	*1,600.17-	4,1[illegible].43	2,597.26
	Total	3030.2	4,033.18	30,100.85	34,134.03

Yours very truly,

BRENT L. RICHARD
Buyer, A.S.& R. Smelting Co.
El Paso, Texas & Tucson, Ariz.

BULLDOZER MINE, HAYDEN DISTRICT
PINAL COUNTY, ARIZONA.

RECEIPTS AT HAYDEN AND EL PASO SMELTERS FOR 6 YEARS 1944-45

Hayden Plant

Date Rec'd.	Lot	Dry Tons	Gold oz.	Silver oz.	Copper %	SiO2 %	Al2O3 %	Fe %	CaO %	Total Copper lbs.	Net Smelter Returns
1944											
4/14	328/1	49.1	----	----	3.58	41.2	4.2	3.9	12.6	3512	$ 1.93-
4/21	346/2	50.0	.003	1.01	1.70	48.4	4.5	3.6	24.0	1769	63.61-
4/21	347/3	53.6	.003	1.15	1.80	48.2	3.4	3.4	23.8	1931	51.17-
5/3	381/4	61.9	.003	1.08	1.79	46.9	4.3	3.[illegible]	22.3	2166	65.42-
5/3	383/5	56.2	.003	1.15	2.04	4[illegible].8	5.0	3.1	24.5	2293	33.47-
5/3	382/6	50.5	.003	1.01	1.69	48.5	4.7	3.0	27.1	1711	61.12-
5/3	384/7	52.8	.003	.85	1.62	47.3	5.3	3.1	22.3	1711	83.53-
9/18	620/8	36.4	--	--	5.29	42.5	12.7	3.6	6.3	3850	94.82
10/9	652/9	50.8	--	.11	4.14	47.2	7.9	2.8	9.2	4206	63.63
10/16	663/10	50.2	--	.06	5.14	48.5	9.3	2.5	5.6	5161	138.34
10/23	677/11	46.5	--	.08	4.55	48.3	8.9	2.5	6.3	4234	92.18
11/2	694/12	47.7	--	.71	2.97	47.0	5.6	2.4	13.8	2835	23.42-
11/27	726/13	50.9	--	1.00	3.11	49.6	4.6	3.0	18.1	3163	8.70-
11/30	735/14	26.8	--	.43	2.84	43.1	3.8	3.8	19.3	951	15.24-
			Above shipments sent to obtain government premiums.								
1945											
1/4	8/21	43.3	--	.16	7.60	46.2	9.5	4.0	3.8	6585	302.49
1/11	15/22	41.4	--	.18	10.60					8624	485.19
1/29	41/26	42.7	--	--	6.37	48.9	7.9	3.3	4.7	5441	195.17
1/31	49/27	38.1	---	.10	5.72	47.5	8.5	3.9	4.9	4356	174.74
1/31	50/28	50/8	--	--	5.74	49.0	7.6	2.6	5.0	5831	199.78
2/2	56/29	40.0	--	--	7.12	49.2	7.2	3.3	5.3	5695	247.88
2/9	62/30	42.2	--	.09	7.32	47.2	7.2	2.9	5.7	6173	273.23
2/13	69/31	44.2	--	--	7.92	46.2	6.5	3.1	6.7	7002	335.06
2/23	89/32	52.0	--	.77	5.66	45.7	5.0	3.2	14.3	5890	183.21
2/26	95/33	41.2	--	.04	7.06	48.4	6.7	2.8	5.5	5823	213.19
2/26	96/34	43.5	--	.07	6.36	46.4	7.2	3.9	[illegible]	5532	211.86
3/12	115/35	36.[illegible]	--	.06	7.87	48.5	2.8	5.6	5.6	5741	271.08
3/15	119/36	44.1	--	--	10.05	46.1	6.6	3.6	7.1	[illegible]	496.66
3/22	129/37	43.9	--	.10	10.25	47.8	7.0	2.6	4.7	9004	499.13
3/30	139/38	45.6	--	.06	9.39	45.4	6.6	2.7	5.1	8569	[illegible]
4/2	143/39	42.9	--	.04	7.85	47.4	7.2	2.7	5.6	6749	319.23
4/9	153/40	43.6	--	.16	6.94	48.1	7.2	2.1	1.8	5045	255.68
4/16	161/40	43.1	--	--	8.30	45.3	6.2	3.0	3.8	7148	318.06
4/16	162/42	44.4	--	.04	4.87	49.2	8.4	2.1	5.2	1327	163.12
4/26	181/44	48.0	--	.10	4.75	48.3	8.0	3.0	[illegible]	[illegible]	105.0[illegible]
4/30	188/46	45.6	--	--	4.35	41.0	6.7	3.2	1.1	3[illegible]	62.[illegible]
5/2[illegible]	2[illegible]/52	43.6	--	--	5.71	46.9	8.2	2.2	6.7	1[illegible]	168.0[illegible]
5/9	2[illegible]0/54	35.7	--	--	5.62	4[illegible]	6.7		6.6	4[illegible]	136.[illegible]
10/9	370/55	43.9	--	.18	5.73	44.8	8.4	2.6	6.7	5030	172.[illegible]
10/[illegible]	385/56	51.7	--	.05	3.19	45.5	10.3	3.0	5.8	3276	31[illegible]
11/[illegible]	4[illegible]0/57	52.4	--	---	2.70	45.2	8.7	2.8	9.8	2830	[illegible]
11/30	401/58	48.1	--	.04	2.90	46.2	8.7	2.5	8.5	2721	[illegible]
12/4	429/59	47.0	--	.04	2.41	42.4	9.5	2.4	10.1	2168	7[illegible]
12/4	433/60	46.5	--	.06	2.61	40.3	10.4	2.8	8.5	2427	[illegible]

BULLOZER MINE, [illegible] DISTRICT
PIMA COUNTY, ARIZONA.

Hayden Plant, Con't.

Date Rec'd.	Lot No.	Dry Tons	Gold	Silver	Copper	SiO2	Al2O3	Fe	CaO	Total Copper	Net Smelter Returns *
			Assay and Analysis								
12/3	446/61	46/2	--	.08	1.65	45.7	8.3	2.5	12.1	1526#	136.94-
12/7	462/62	49.8	--	.06	1.85	43.7	8.0	2.4	10.0	1844	332.32-
Total Hayden Receipts		2055.5								202,352#	$5,633.35

Elpaso Plant

										Premium** Copper	
194	3017	50.0	.005	1.9	2.62	49.2	3.0	3.0	20.8	2461	$ 15.58
11/	3145	53.0	.005	2.0	3.02	50.6	2.4	2.3	22.6	3022	65.04
12/	3189	50.5	--	1.5	2.32	46.6	2.4	2.1	22.9	2275	10.51-
12/8	3194	46.4	.005	1.9	2.17	45.9	2.2	3.3	21.6	2313	14.41
12/	3270	55.2	--	1.5	2.00	48.6	3.1	2.1	22.3	2143	47.07-
12/9	3326	56.2	--	1.3	2.07	49.8	4.4	2.2	22.5	2256	49.66-
194		57.0									
1/6	62		--	1.2	1.89	48.0	3.7	2.0	21.9	2090	73.27-
1/1	87	57.8	--	[illegible]	1.90	4[illegible].4	4.1	2.6	23.4	2131	68.05-
1/1	211	61.6	---	[illegible]	2.[illegible]	46.4	4.0	2.1	23.5	2104	32.03-
4/2	1032	57.6	--	.6	1.47	40.4	.4	4.3	[illegible].8	1308	101.94-
4/2	1058	64.5	--	.6	3.16	39.9		4.6	24.0	1451	176.33-
4/2	1081	131.1	--	.4	.81	42.0	.3	4.2	28.2	2059	43[illegible].52-
4/3	1133	61.1	--	.[illegible]	.97	3[illegible].6	.3	4.2	31.1	1150	185.79
5/4	1160	46.7	--	.2	.84	38.4	6.5	4.9	31.2	1033	174.63-
5/7	1164	62.7	--	.4	.83	37.4	6.2	6.2	29.9	1002	203.36-
5/8	1394	63.[illegible]	--	.9	1.83	47.0	4.2	4.7	28.2	2260	81.04
Total El Paso Receipts		974.7[illegible]								31,092	1600.17-

*Net return at Smelter after deducting freight and treatment charges.

** Premium Copper equivalent to 97% of total copper content.

Tucson, Arizona
December 6, 1946

3.87 oz

Form MF-103
(April 1951)

U. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. Dma - 1223X

Date received 5/21/51

Participation

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

Name and address of applicant

Date May 10, 1951

FILL IN THIS BLOCK

Date of application May 10, 1951

Estimated cost $30,000.00

Mineral or metal Copper

Percentage of Government participation 50%

Location of mine Sahuarita, Ariz.

Date of filing MF-100 May 10, 1951

DMA Docket Number, if available Dma - 1223X

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.

(*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:

(*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.

(*b*) State briefly the known history and production of adjoining and neighboring properties.

(*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:

(*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)

(*a*) Describe the ore or mineral deposits briefly.

(*b*) Submit available maps and assay data.

(*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:

(*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.

(*b*) Supervisors, by numbers and positions, with salaries of each.

(*c*) Cost of necessary repairs to existing facilities, structures, and buildings.

(*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.

(*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.

(*f*) Cost of rental for equipment which the operator proposes to rent.

(*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.

(*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.

(*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

---------- (Name of company)

By H. L. Berkey (Signature of authorized official)

---------- (Date)

---------- (Title)

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

MF-103

H. L. Berhey
1749 So. 6th Ave.
Tucson, Ariz.

THE APPLICANT

L
1. See MF-100
2. " "
3. " "
4. " "
5. " "
6. Property is clear.
7. No.
8. None- mine not yet in operation
9. Around $17,500.00 cash. Yes
10.

THE PROPERTY

10. (a) Bulldozer Mine, patented claim S15-18-15, 20.66 acres, Pima County, Arizona, and three adjoining unpatented claims.
(b)Same as (a)

11. Bulldozer Mine.
12. See MF-100
13. " "
14. " "
15. Trucked 12 miles to R.R. at Sahuarita, Ariz.; 80 miles by R.R. freight to smelter at Hayden or Inspiration, Ariz.
16. See MF-100
17. Mine not yet in operation.
18. See MF-100
19. None

THE EXPLORATION.

20. Copper ore.
21. We are prepared to sink a new shaft 50 to 100feet, to contaact the main ore vein. It will take three months to dig the shaft, crosscut, run the tunnel, build the ore bin, and start shipments.
22. The spot where we propose to sink the new shaft is 30 feet ahead of the spot where the old tunnel caved-in in 1945, that tunnel being 100 feet from the original 80 foot shaft. At the time of the cave-in, ore assaying 7 to 10% was being taken out on a 20 foot wide vein. We propose to go down on this same vein, and go deeper, as the ore gets richer the deeper we go. In addition to sinking the shaft onto the main ore vein, we expect to ship 4% ore now on the surface, and that exposed on the dome of the claim, together with the 3% ore on the old ore dump. This latter would be an additional operation after the main shaft and tunnel operation had become effective.
Reports on same, plus assay reports on final shipments of 1945 are attached to MF-100.

THE REQUIREMENTS AND COSTS.

23.(a) Labor-- for 2(2) shifts at full operation;
6 miners at $12.00 a day
2 mucking machine operators @ $12.00 a day
(b)Supervisors
General supervisor- $15.00 a day
Second supervisor $12.00 a day
General manager $15.00 a day.
(c) None

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

(d)	New shaft with timber	$3000.00
	Gallus frame	100.00
	Hoist house-change room-	100.00
	Bunk house	500.00
(e)	Compressor	3000.00
	Mucking machine	1000.00
	Cars and track	1000.00
	Lighting system	1500.00
	Skip bucket	200.00
	Ore bins	500.00

(f) Compressor, listed above, can be rented @ $250.00 monthly.

(g) None

(h)	Small tools, cables, barrels, containers, etc.	$1000.00
	Timbers for shaft, below 50 ft.	750.00
(i)	General	500.00

24. Once project approved, we will start immediately, and within 6 weeks can be shipping 6 carloads (50 tons each) per week, with operating expense around $1000.00 a week maximum.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. Dma-1223X

Date received 5/21/51

Participation

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

Name and address of applicant

Date May 10, 1951

FILL IN THIS BLOCK

Date of application May 10, 1951

Estimated cost $30,000.00

Mineral or metal Copper

Percentage of Government participation 50%

Location of mine Sahuarita, Ariz.

Date of filing MF-100 May 10, 1951

DMA Docket Number, if available Dma-1223X

INSTRUCTIONS

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THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

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9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

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16—64067-1

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    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

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*11. State the present and former names of the property, if any.
*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.
*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.
*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.
15. State in detail how the ore could be shipped and how and where milled.
*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
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    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.
19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?
21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.
22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

By H. L. Berkey
(Signature of authorized official)

(Name of company)

(Date)

(Title)

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

MF-103

H. L. Berney
1749 So. 6th Ave.
Tucson, Ariz.

THE APPLICANT

L
1. See MF-100
2. " "
3. " "
4. " "
5. " "
6. Property is clear.
7. No.
8. None- mine not yet in operation
9. Around $17,500.00 cash. Yes
10.

THE PROPERTY

10. (a) Bulldozer Mine, patented claim S15-18-15, 20.66 acres, Pima County, Arizona/ and three adjoining unpatented claims.
(b)Same as (a)

11. Bulldozer Mine.
12. See MF-100
13. " "
14. " "
15. Trucked 12 miles to R.R. at Sahuarita, Ariz.; 80 miles by R.R. freight to smelter at Hayden or Inspiration, Ariz.
16. See MF-100
17. Mine not yet in operation.
18. See MF-100
19. None

THE EXPLORATION.

20. Copper ore.
21. We are prepared to sink a new shaft 50 to 100feet, to contact the main ore vein. It will take three months to dig the shaft, crosscut, run the tunnel, build the ore bin, and start shipments.
22. The spot where we propose to sink the new shaft is 30 feet ahead of the spot where the old tunnel caved-in in 1945, that tunnel being 100 feet from the original 80 foot shaft. At the time of the cave-in, ore assaying 7 to 10% was being taken out on a 20 foot wide vein. We propose to go down on this same vein, and go deeper, as the ore gets richer the deeper we go. In addition to sinking the shaft onto the main ore vein, we expect to ship 4% ore now on the surface, and that exposed on the dome of the claim, together with the 3% ore on the old ore dump. This latter would be an additional operation after the main shaft and tunnel operation had become effective.
Reports on same, plus assay reports on final shipments of 1945 are attached to MF-100.

THE REQUIREMENTS AND COSTS.

23.(a) Labor-- for 2(2) shifts at full operation;
6 miners at $12.00 a day
2 mucking machine operators @ $12.00 a day
(b)Supervisors
General supervisor- $15.00 a day
Second supervisor $12.00 a day
General manager $15.00 a day.
(c) None

H. L. Berkey
1749 So. 6th Ave
Tucson, Ariz.

(d)	New shaft with timber	$3000.00
	Gallus frame	100.00
	Hoist house-change room-	100.00
	Bunk house	500.00
(e)	Compressor	3000.00
	Mucking machine	1000.00
	Cars and track	1000.00
	Lighting system	1500.00
	Skip bucket	200.00
	Ore bin	500.00

(f) Compressor, listed above, can be rented @ $250.00 monthly.

(g) None

(h)	Small tools, cables, barrels, containers, etc.	$1000.00
	Timbers for shaft, below 50 ft.	750.00
(i)	General	500.00

24. Once project approved, we will start immediately, and within 6 weeks can be shipping 6 carloads (50 tons each) per week, with operating expense around $1000.00 a week maximum.

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. DMA-1223X

Date received 5/21/51

Participation

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

Name and address of applicant

Date May 10, 1951

FILL IN THIS BLOCK

Date of application May 10, 1951

Estimated cost $30,000.00

Mineral or metal Copper

Percentage of Government participation 50%

Location of mine Sahuarita, Ariz.

Date of filing MF-100 May 10, 1951

DMA Docket Number, if available DMA-1223X

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

DMA 1223 (Ariz.)

856

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.
*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.
*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.
*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.
15. State in detail how the ore could be shipped and how and where milled.
*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.
*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.
19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?
21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.
22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.
24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

(Name of company)

By H. L. Berkey
(Signature of authorized official)

(Date)

(Title)

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

MF-103

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

THE APPLICANT

L
1. See MF-100
2. " "
3. " "
4. " "
5. " "
6. Property is clear.
7. No.
8. None- mine not yet in operation
9. Around $17,500.00 cash. Yes
10.

THE PROPERTY

10. (a) Bulldozer Mine, patented claim S15-18-15, 20.66 acres, Pima County, Arizona/ and three adjoining unpatented claims.
(b)Same as (a)

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15. Trucked 12 miles to R.R. at Sahuarita, Ariz.; 80 miles by R.R. freight to smelter at Hayden or Inspiration, Ariz.
16. See MF-100
17. Mine not yet in operation.
18. See MF-100
19. None

THE EXPLORATION.

20. Copper ore.
21. We are prepared to sink a new shaft 50 to 100feet, to contaact the main ore vein. It will take three months to dig the shaft, crosscut, run the tunnel, build the ore bin, and start shipments.
22. The spot where we propose to sink the new shaft is 30 feet ahead of the spot where the old tunnel caved-in in 1945, that tunnel being 100 feet from the original 80 foot shaft. At the time of the cave-in, ore assaying 7 to 10% was being taken out on a 20 foot wide vein. We propose to go down on this same vein, and go deeper, as the ore gets richer the deeper we go. In addition to sinking the shaft onto the main ore vein, we expect to ship 4% ore now on the surface, and that exposed on the dome of the claim, together with the 3% ore on the old ore dump. This latter would be an additional operation after the main shaft and tunnel operation had become effective.
Reports on same, plus assay reports on final shipments of 1945 are attached to MF-100.

THE REQUIREMENTS AND COSTS.

23.(a) Labor-- for 2(2) shifts at full operation;
6 miners at $12.00 a day
2 mucking machine operators @ $12.00 a day
(b)Supervisors
General supervisor- $15.00 a day
Second supervisor $12.00 a day
General manager $15.00 a day.
(c) None

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

(d)	New shaft with timber	$3000.00
	Gallus frame	400.00
	Hoist house-change room-	100.00
	Bunk house	500.00
(e)	Compressor	3000.00
	Mucking machine	1000.00
	Cars and track	1000.00
	Lighting system	1500.00
	Skip bucket	200.00
	Ore bins	5000.00

(f) Compressor, listed above, can be rented @ $250.00 monthly.

(g) None

(h)	Small tools, cables, barrels, containers, etc.	$1000.00
	Timbers for shaft, below 50 ft.	750.00
(i)	General	500.00

24. Once project approved, we will start immediately, and within 6 weeks can be shipping 6 carloads (50 tons each) per week, with operating expense around $1000.00 a week maximum.

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. dma. 1223X

Date received 5/21/51

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

Name and address of applicant

Date May 10, 1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) Necessity Certificate pursuant to the provisions of Sec. 124-A (Amortization Deduction) of Internal Revenue Code, 1950, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation		Life Insurance Carried for Benefit of Applicant	
				Common (e)	Preferred (f)	Amount (g)	Net Cash Surrender Value After Loans (h)
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(a) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)					
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

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

(Name of company)

By H. L. Berkey
(Signature of authorized official)

(Date)

(Title)

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—63792-1

MF-100

H. L. Berkey
1749 S. 6th Ave.
Tucson, Ariz.

GENERAL TECHNICAL DATA

1. Materials produced;
   (a) copper and silver
   (b) none

2. Bulldozer Mine
   (a) one 80 ft. shaft
   (b) 90 ft. crosscut
   (c) 100 ft. tunnels on ore
   (d) 500 ft. tunnel work in ore body on hill (separate workings from those referred to in a, b and c.
   No flooding; no pumping problems.
   Has never been worked to capacity.
   Probable production capacity 5 cars a week.

3. (a) 12 miles east of Suharita; 18 miles southeast of Tucson.
   (b) Helvetia Mining District
   (c) S 15-18-15
   (d) Pima County, Ariz.

4. (a) Property now be opened up by owner.
   (b) Owner

5. Years in production;
   World War I - 3 years
   World WarII- 2 years
   New peoduction will begin in 60 days-July 1, 1951

6. Experience of operators;
   (a) Have been mining for nea ly 60 years all over the U.S.; purchasing, rehabilitating mines, putting them into production (mining, mills, smelters). Have mined gold, silver, lead, copper, zinc--all hard rock mining in Calif. Nevada, Idaho, Utah, Arizona, etc.
   (b) Owner managed.

7. History;
   (a) World War I--tunnels were run into the dome ore body for 500 ft. (owners previous to 1915 had tunneled into this hill, taken out large quantities of ore, operated a smelter and have left a large ore dumpt there.) The WWI operations showed 35,000 tons of 7 to 8% ore. Operations closed down because of drop in prices after the war.
   World War II-- An 80 ft. shaft was sunk, and a 100 ft. crosscut and tunnel produced 3300 tons of 7 to 10% ore. Production stopped when tunnel cave in at close of war.
   (b) Peach claims, adjoining, produced 10,000 tons of 4½% ore during W.W. II
   (c) Helvetia group, neighboring, shipped from dumps during WW II around 600 car of 3% ore.
   Previous to this a large Eastern corporation owned and operated the whole district--had shafts, mills, smelters at town of Helveta--produced great quantities of copper around 5½%.
   (e) U.S. Governemnt reports at office of U.S. Bureau of Mines, Tucson, contain complete reports of geology, surveys etc. Reports of inspecting field engineer of State Dep't. of Mineral Resources attached.

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

8. No corporation

9. None

10. No mining done since 1945

11. Mine is now in the process of being re-opened, and will be shipping ore within 30 days.
As now set up, expect to ship 8 cars a month.
With additional funds, can increase equipment and labor, and can ship 24 cars a month.

12. (a) Contact vein running NE by SW between granite and lime, was averaging more than 6 feet in width at time of cave-in. 7% or better. Several thousand tons of surface ore, plus a like amount of ore in the dome at east side of property, averaging around 4%.
(b) Smelter reports enclosed to show grade of ore.

		assay	pr.ton	pr.ton	cost pr ton
Measured	15,000 tons,	av. 7%,	gross val.$25.00,	net $18.00	$6.00
Indicated	20,000 tons	7-10	"	"	"

(c) not placer.

13. Hard surface road. 12 miles downgrade from mine to Suharita R.R., where loading dock is located. Paved U.S. Highway 18 miles Suharita to Tucson, supply and residence point.

14. One half inch pipe for water on property. coming from pumps inside Cameron Quartsite dikes, sufficient for all seasons.

15. No power uses, use gasoline and diesel engines.

16. Labor;
2 miners
1 timberman
1 working mining engineer supervisor

17. No building
Air compressor, drills, hoist.

18 No.

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

7--(e)

Excerpts from reports of George A. Ballam, Dep't. Engineer, to Director of Mineral Resources, Fairgrounds, Phoenix, Ariz.

1. Memorandum dated July 17, 1944.

" RFC has examined the property and reported favorably on a $15,000 loan for shovel and other equipment to take out 15,000 tons positive and 20,000 tons probable ore."

2. Memorandum March 20, 1944.

"The east end of the property some 600 hundred feet away (from the shaft which was sunk to get to main ore vein) is a lime-capped dome which has been pushed up in the monzonite. There are several thousand tons of similar ore here and if the smaller operation can be made to go, Owens (lessee) is planning on putting in a shovel with additional equipment. The hill is honeycombed with earlier operations. There is a lot of 6% to 8% ore which it is impossible to take and big bodies of 3% ore which couldn't be mined and shipped profitably. With a shovel he can pull it all down and throw the line out keeping the ore above 3%. I believe it will be a large operation which can be handled in this manner.

This is an old operation and at one time a smelter was maintained on sulfides mined about 100 feet below the lowest workings in the hill, where sulfides were just beginning to show. The odl shaft, between two ore bodies, is now inaccessible, but the area of the hill is sufficient to bench to a considerable depth.

C O P Y

March 11, 1947

Mr. H. L. Berkey
Tucson, Arizona

BULLDOZER MINE, HELVETIA DISTRICT, PIMA CO. ARIZ.

Dear Mr. Berkey;

Under the terms of an option agreement dated March 17, 1944, between yourself as owner of subject property and Mr. Sherwood B. Owens, Optionee, Mr. Owens shipped to our Hayden and El Paso smelters a total of 3030.2 dry tons of ore from the Bulldozer Mine.

According to an abstract in my file, I understand that the option agreement contained a royalty provision requiring Optionee to pay to the owner a royalty based on 10% of the net smelter proceeds, to be paid monthly. The smelter was not required by the agreement to deduct royalties for the owners account, according to my records, and we therefore did not handle the royalty payments for shipper's account.

From copies of settlement sheets in this office, our El Paso and Hayden plants received a total of 3030.2 dry tons during the period April 14, 1944 through December 27, 1945 with total net smelter proceeds of $4033.18. The government premiums paid to Optionee by Smelter as Agent for Metals Reserve Company during this period total $30,100.85. The term "net smelter proceeds" is the net amount paid by the smelter to the shipper after deduction of freight and smelting charges. The following tabulation gives detail of tons received at each plant and the payments made.

	Period	Dry Tons	Net Smelter Proceeds	Gov't. Premiums	Total Paid
Hayden, Ariz.	Apr. 4, 1944-Dec. 27, 1945	2055.5	$5,633.35	$25,902.42	$31,536.77
El Paso, Texas	Dec. 24, 1944 May 28, 1945	974.7	$1,600.17-	4,197.43	2,597.26
	Total	3030.2	4,033.18	30,100.85	34,134.03

Yours very truly,

BRANT V. RICKARD
Buyer, A.S.& R. Smelting Co.
El Paso, Texas.& Tucson, Ariz.

BULLDOZER MINE, HAYDEN DISTRICT
PIMA COUNTY, ARIZONA.

RECEIPTS AT HAYDEN AND EL PASO PLANTS DURING YEARS 1944-45

Hayden Plant

Date Rec'd.	Lot	Dry Tons	Gold oz.	Silver oz.	Copper %	SiO2 %	Al2O3 %	Fe %	CaO %	Total Copper lbs.	Net Smelter Returns
1944											
4/14	328/1	49.1	----	----	3.58	41.2	9.2	3.9	12.6	3512	$ 1.93-
/21	346/2	52.0	.003	1.01	1.70	48.4	4.5	3.6	24.6	1769	63.61-
/21	347/3	53.6	.003	1.15	1.80	48.2	3.4	3.4	23.2	1931	51.17-
/3	381/4	61.9	.003	1.08	1.75	46.9	4.3	3.0	22.3	2166	66.42-
/3	383/5	56.2	.003	1.15	2.04	46.8	5.0	3.1	24.7	2293	33.47-
/3	382/6	50.6	.003	1.01	1.69	48.8	4.7	3.0	27.1	1711	61.1[illegible]-
/3	384/7	52.8	.003	.85	1.62	47.3	5.3	3.1	22.3	1711	83.5[illegible]-
/18	620/8	36.4	--	--	5.29	42.5	12.7	3.6	6.3	3850	84.82
0/9	652/9	50.8	--	.11	4.14	47.2	7.9	2.8	9.2	4206	63.63
0/16	663/10	50.2	--	.06	5.14	48.5	9.3	2.5	5.6	5161	138.34
0/23	677/11	46.5	--	.08	4.55	48.3	8.9	2.5	6.3	4234	92.18
1/2	694/12	47.7	--	.71	2.97	47.0	5.6	2.4	13.8	2835	23.42-
1/27	726/13	50.9	--	1.00	3.11	49.6	4.6	3.0	18.1	3163	8.70-
1/30	735/14	16.8	--	.43	2.84	43.1	3.8	8.8	19.3	951	15.24-
1945			Above shipments sent to obtain government premiums.								
/4	9/21	43.3	--	.16	7.60	46.2	9.5	4.0	3.8	6585	302.49
/11	16/23	41.4	--	.18	10.60					8624	485.19
/29	41/26	42.7	--	--	6.37	48.9	7.9	3.3	4.7	5444	195.17
/31	49/27	38.1	---	.10	5.72	47.5	8.5	3.9	4.9	4356	134.74
/31	50/28	50/8	--	--	5.74	49.0	7.6	2.6	5.0	5831	199.78
/2	56/29	40.0	--	--	7.12	45.2	7.2	3.3	5.3	5695	247.88
/9	63/30	42.2	--	.09	7.32	47.2	7.2	2.9	5.7	6173	273.23
/13	69/31	44.2	--	--	7.92	46.2	6.5	3.1	6.7	7002	335.96
/23	89/32	52.0	--	.77	5.66	45.7	5.0	3.2	14.3	5890	183.21
/26	95/33	41.2	--	.04	7.06	48.4	6.7	2.8	5.5	5823	253.19
/26	96/34	43.5	--	.17	6.36	46.4	7.2	3.9	4.5	5532	211.86
/12	115/35	36.5	--	.06	7.87	45.5	2.8	5.6	5.6	5741	271.08
/15	119/36	44.1	--	--	10.05	40.1	6.6	3.6	7.1	8856	486.66
/22	129/37	43.9	--	.10	10.25	47.8	7.0	2.8	4.7	9004	499.13
/30	139/38	45.6	--	.06	9.39	47.4	6.8	2.7	5.1	8569	459.[illegible]
/2	143/39	42.9	--	.04	7.85	47.4	7.2	2.7	5.0	6749	319.23
/9	153/40	43.6	--	.16	6.94	48.1	7.2	2.1	4.8	6040	255.68
/16	161/40	43.1	--	--	8.30	45.3	6.2	3.0	3.8	7148	348.96
/16	162/42	44.4	--	.04	4.87	49.2	8.4	2.4	5.2	4327	103.12
/26	181/44	48.0	--	.10	4.75	48.3	9.0	3.0	5.4	4559	104.09
/30	186/46	45.6	--	--	4.35	44.0	8.7	3.2	7.1	3970	67.57
5/25	223/52	43.6	--	--	5.71	48.9	8.2	2.2	6.7	4975	168.06
5/9	240/54	35.7	--	--	5.67	47.7	7.7		6.8	4045	136.02
10/9	370/55	43.9	--	.08	5.73	44.8	8.4	2.8	6.7	5030	172.64
10/22	385/56	51.7	--	.05	3.19	45.5	10.3	3.0	5.8	3296	31.7[illegible]-
11/5	400/57	52.4	--	---	2.70	45.2	8.7	2.8	9.8	2830	64.31-
11/30	401/58	48.1	--	.06	2.90	45.2	8.7	2.5	8.5	2791	41.2[illegible]-
12/4	429/59	45.0	--	.04	2.41	42.4	9.5	2.4	10.1	2168	76.3[illegible]-
12/4	433/60	46.5	--	.06	2.61	40.3	10.4	2.8	8.5	2427	68.48-

BULLDOZER MINE, BELVEDERE DISTRICT
PIMA COUNTY, ARIZONA.

Hayden Plant, Con't.

Date Rec'd.	Lot No.	Dry Tons	Assay and Analysis Gold	Silver	Copper	SiO2	Al2O3	Fe	CaO	Total Copper	Net Smelt Returns *
12/13	446/61	46.2	--	.08	1.65	45.7	8.3	2.5	12.1	1526	136.94-
12/27	462/62	49.8	--	.06	1.85	43.7	8.0	2.4	10.0	1844	132.32-
Total Hayden Receipts		2055.5								202,352	5,633.35

El Paso Plant

										Premium** Copper	
1944											
11/24	3017	50.0	.005	1.9	2.62	49.2	3.0	3.0	20.8	2494	15.58
12/9	3145	53.0	.005	2.0	3.02	50.6	2.4	2.3	22.8	3022	65.04
12/13	3189	50.5	--	1.5	2.32	46.0	2.4	2.1	22.9	2275	18.51-
12/14	3194	46.4	.005	1.9	2.57	45.9	2.2	3.3	21.6	2313	14.41
12/22	3270	55.2	--	1.5	2.00	48.6	3.1	2.1	22.3	2143	47.07-
12/29	3326	56.2	--	1.3	2.07	47.8	4.4	2.2	22.5	2256	49.66-
1945		57.0									
1/6	62		--	1.2	1.89	48.0	3.7	2.0	21.9	2090	73.27-
1/10	87	57.8	--	1.1	1.90	4[illegible].4	4.1	2.6	23.4	2131	68.05-
1/19	211	51.6	---	1.4	2.10	46.4	4.0	2.1	23.5	2104	32.03-
4/23	1039	57.6	--	.6	1.17	40.4	.4	4.3	2[illegible].8	1308	151.94-
4/26	1058	64.5	--	.6	1.16	39.9		4.6	24.0	1451	176.33-
4/30	1081	131.1	--	.4	.81	42.0	.3	4.2	28.2	2059	433.52-
5/4	1133	61.1	--	[illegible]	.97	36.6	.3	4.2	31.1	1150	185.79
5/7	1160	56.7	--	.2	.94	38.4	6.5	4.9	31.2	1033	174.63-
5/8	1164	62.7	--	.4	.83	37.4	6.2	6.2	29.9	1003	203.36-
5/28	1394	63.7	--	.9	1.83	44.0	4.2	4.7	28.2	2260	81.04
Total El Paso Receipts		974.7								31,092	1600.17-

*Net return at Smelter after deducting freight and treatment charges.

** Premium Copper equivalent to 97% of total copper content.

Tucson, Arizona
December 26, 1946

Form MF-103
(April 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Budget Bureau No. 42-R1035.
Approval expires 6-30-51.

APPLICATION FOR AID FOR AN EXPLORATION PROJECT PURSUANT TO MINERAL ORDER 5, UNDER DEFENSE PRODUCTION ACT OF 1950

DO NOT FILL IN THIS BLOCK

Docket No. dma-1223X

Date received 5/21/51

Participation

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

Name and address of applicant

Date May 10, 1951

FILL IN THIS BLOCK

Date of application May 10, 1951

Estimated cost $30,000.00

Mineral or metal Copper

Percentage of Government participation 50%

Location of mine Sahuarita, Ariz.

Date of filing MF-100 May 10, 1951

DMA Docket Number, if available dma-1223X

INSTRUCTIONS

Read Mineral Order 5, Regulations Governing Government Aid in Defense Projects, before completing this application. Submit four signed copies of the application to Defense Minerals Administration, Department of the Interior, Washington 25, D. C., or to the nearest field executive officer thereof, with your name and address on each sheet of the application and all accompanying papers. If any question is inapplicable, or if you cannot answer it, so state on the form. Where the space provided for answer is insufficient, answer on a separate sheet, annex it to the application form, and refer to it in space for answer. If the application is approved, you will be presented with an exploration project contract on Form MF-200, for your signature.

THE APPLICANT

*1. Is applicant an individual, partnership, or corporation?
*2. If a partnership, state names and addresses of partners.
*3. If a corporation, state names and addresses of officers, directors, and five largest stockholders.
*4. Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who will manage the project.
*5. Are you the owner or the lessee of the property?
6. If owner, state what claims, liens, or encumbrances, if any, are against the property.
7. If lessee, attach a copy of the lease and state if it is in good standing.

NOTE.—It will be necessary to procure and attach to the exploration project contract agreements of claimants, lienors, encumbrances and lessors subordinating their interests in the property to the interest of the Government under the contract.

8. Furnish current financial statement, showing assets and liabilities, and a profit and loss statement.
9. How much money is applicant prepared to invest in proposed project? Is it sufficient to pay your part of the cost of the project as detailed in question 23 of this application form, in accordance with the regulations on Government participation (Section 9 of Mineral Order 5)?

*If you have already answered these questions on MF-100, you are not required to answer the questions for this application.

16—64067-1

THE PROPERTY

10. (*a*) Give a description of the real property that will be in any way involved in the exploration project, including any existing mine or operating property.
    (*b*) Give the legal description of the exact parcel, plot, or area upon which the exploration is to be conducted.

    NOTE.—If both areas are the same, so state. The only obligation to repay the Government is from the net earnings from any commercial discovery made in the area specified in (*b*) above in which the exploration is to be conducted, and the expenditure of funds which may be charged as costs of the project must be limited to that area or to work necessary to perform the exploration in that area.

*11. State the present and former names of the property, if any.

*12. State, in detail, the location of the property with reference to towns, railroads, roads, shipping points, including distances and directions and kinds and conditions of roads.

*13. State source and quantity of water available for operations and its sufficiency at all seasons.
State amount of power to be used, rate per hour or other cost, and source.

*14. Describe any existing useable facilities, equipment, buildings, or structure now on the property that will be devoted to the exploration work.

15. State in detail how the ore could be shipped and how and where milled.

*16. History:
    (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for any past suspensions of operations.
    (*b*) State briefly the known history and production of adjoining and neighboring properties.
    (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

*17. Production:
    (*a*) If mine is in production, furnish the following information:

	Tons per day	*Grade or analysis*	*Cost per ton*	*Net value per ton*
(1) Mining				
(2) Milling				
(3) Shipped or sold				

*18. Ore or mineral reserves: (If property is or has been operating.)
    (*a*) Describe the ore or mineral deposits briefly.
    (*b*) Submit available maps and assay data.
    (*c*) Give estimated tonnage and grade of each class of ore reserves.

19. State any conditions or circumstances regarding the property not sufficiently brought out by the foregoing questions.

THE EXPLORATION

20. For what mineral or minerals and for what types of deposits and ores will the exploration be conducted?

21. Describe briefly, but concisely, the proposed work and the estimated time required to complete it.

    NOTE.—The Government will not participate in a project that will require more than 2 years to complete.

22. Furnish statement of the geological basis of the project with particular emphasis on factors leading the operator to expect the finding of commercial ore bodies. This statement should be accompanied by supporting maps such as geological maps, maps of the proposed openings and assay maps, sample lists, and other pertinent data.

THE REQUIREMENTS AND COSTS

23. Tabulate in the form of an itemized statement with a sum for each item the estimated requirements and costs of the project so that the total will give the estimated cost of the project in which the Government will participate, as follows:
    (*a*) Labor, by numbers and classes (miners, muckers, millmen, etc.), with wages of each.
    (*b*) Supervisors, by numbers and positions, with salaries of each.
    (*c*) Cost of necessary repairs to existing facilities, structures, and buildings.
    (*d*) Cost of necessary installation or construction of additional facilities, structures, and buildings.
    (*e*) Cost of items of equipment, not now owned by the applicant which must be purchased for operations at a cost of $50 or more each.
    (*f*) Cost of rental for equipment which the operator proposes to rent.
    (*g*) Rental value of items of equipment which the operator now owns and which will be devoted to the work.
    (*h*) Cost of materials and supplies, including items of equipment costing less than $50 each.
    (*i*) Cost of power, water, utilities, and any other items not provided for above.

24. Furnish a time schedule of the project, stated in terms of months after project is approved, showing progress expected to be accomplished and the money expected to be spent.

CERTIFICATION

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

(Name of company)

By H. L. Berkey
(Signature of authorized official)

(Date)

(Title)

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.

*Same as footnote on page 1.

16—64067-1 U. S. GOVERNMENT PRINTING OFFICE

MF-103

H. L. Berney
1749 So. 6th Ave.
Tucson, Ariz.

THE APPLICANT

L
1. See MF-100
2. " "
3. " "
4. " "
5. " "
6. Property is clear.
7. No.
8. None- mine not yet in operation
9. Around $17,500.00 cash. Yes
10.

THE PROPERTY

10. (a) Bulldozer Mine, patented claim S15-18-15, 20.66 acres, Pima County, Arizona/ and three adjoining unpatented claims.
(b)Same as (a)

11. Bulldozer Mine.
12. See MF-100
13. " "
14. " "
15. Trucked 12 miles to R.R. at Sahuarita, Ariz.; 80 miles by R.R. freight to smelter at Hayden or Inspiration, Ariz.
16. See MF-100
17. Mine not yet in operation.
18. See MF-100
19. None

THE EXPLORATION.

20. Copper ore.
21. We are prepared to sink a new shaft 50 to 100feet, to contaact the main ore vein. It will take three months to dig the shaft, crosscut, run the tunnel, build the ore bin, and start shipments.
22. The spot where we propose to sink the new shaft is 30 feet ahead of the spot where the old tunnel caved-in in 1945, that tunnel being 100 feet from the original 80 foot shaft. At the time of the cave-in, ore assaying 7 to 10% was being taken out on a 20 foot wide vein. We propose to go down on this same vein, and go deeper, as the ore gets richer the deeper we go. In addition to sinking the shaft onto the main ore vein, we expect to ship 4% ore now on the surface, and that exposed on the dome of the claim, together with the 3% ore on the old ore dump. This latter would be an additional operation after the main shaft and tunnel operation had become effective.
Reports on same, plus assay reports on final shipments of 1945 are attached to MF-100.

THE REQUIREMENTS AND COSTS.

23.(a) Labor-- for 2(2) shifts at full operation;
6 miners at $12.00 a day
2 mucking machine operators @ $12.00 a day
(b)Supervisors
General supervisor- $15.00 a day
Second supervisor $12.00 a day
General manager $15.00 a day.
(c) None

H. L. Berkey
1749 So. 6th Ave
Tucson, Ariz.

(d)	New shaft with timber	$3000.00
	Gallus frame	500.00
	Hoist house-change room-	100.00
	Bunk house	500.00
(e)	Compressor	3000.00
	Mucking machine	1000.00
	Cars and track	1000.00
	Lighting system	1500.00
	Skip bucket	200.00
	Ore bins	5000.00

(f) Compressor, listed above, can be rented @ $250.00 monthly.

(g) None

(h)	Small tools, cables, barrels, containers, etc.	$1000.00
	Timbers for shaft, below 50 ft.	750.00
(i)	General	500.00

24. Once project approved, we will start immediately, and within 6 weeks can be shipping 6 carloads (50 tons each) per week, with operating expense around $1000.00 a week maximum.

Form MF-100
(March 1951)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

Form approved.
Budget Bureau No. 42-R1026.

GENERAL TECHNICAL DATA
FOR USE UNDER THE
DEFENSE PRODUCTION ACT OF 1950

NOT TO BE FILLED IN BY APPLICANT

Docket No. Dma-1223X

Date received 5/21/51

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

Name and address of applicant

Date May 10, 1951

INSTRUCTIONS

This form is to be filed with Defense Minerals Administration, Department of the Interior, Washington 25, D. C. It should be accompanied by appropriate application form when a specific type of Government assistance is requested, in the form of (1) loan, (2) purchase contract, (3) Government guarantee of a private loan, (4) Necessity Certificate pursuant to the provisions of Sec. 124-A (Amortization Deduction) of Internal Revenue Code, 1950, (5) priorities or allocation of mining equipment, and maintenance, repair and operating supplies, and (6) other forms of Government assistance that might arise under the Act. Submit four (4) signed copies of the form and accompanying papers. Name and address should be stamped or typed on each sheet of this form and all accompanying papers. *When a question is inapplicable it should be so stated on the form.* Additional sheets may be attached in answering any questions or in supplying additional information. (IF YOU CANNOT ANSWER A QUESTION, SO STATE.) If a question is answered elsewhere indicate where answered. It is not necessary to answer it again.

GENERAL TECHNICAL DATA

Supply the following information on separate sheets, arranged, numbered, and lettered as indicated:

1. Materials produced:
   (*a*) What are the chief mine, mill, or smelter products?
   (*b*) What are the byproducts, if any?
2. Name(s) and type(s) of mine(s), mill(s), smelter(s), refinery(ies), pit(s), quarry (ies), drilling operation(s). Include old names of property, if any. Show extent of workings, including the following:
   (*a*) Linear feet of shafts.
   (*b*) Linear feet of drifts and crosscuts.
   (*c*) Linear feet of tunnels or adits.
   (*d*) Linear feet of other mine openings (explain briefly).

   Indicate whether mine is flooded or not. Describe any pumping problems. Give size or productive capacity.
3. For each operation listed above supply the following:
   (*a*) Distance and direction from nearest town and shipping point.
   (*b*) Mining district.
   (*c*) Township, Section, Range.
   (*d*) County, State.
4. (*a*) State whether or not property is now in operation, and if in operation, by whom operated.
   (*b*) Are you operating this property as:
   - ☐ Owner.
   - ☐ Lessee.
   - ☐ Contractor.
5. Number of years in production _____

   If not in production or operation, estimated date when production will begin _____
6. Experience of operators:

   Describe the mining and general business experience of (*a*) the applicant, and (*b*) the person or persons who manage the project.
7. History:
   (*a*) Give a statement, as complete as possible, of previous exploration, development, operation, and production of property, with reasons for suspension of operation.
   (*b*) State briefly the known history and production of adjoining and neighboring properties.
   (*c*) Furnish any available (private) reports that may apply to this application, including results of mine examinations, recommended exploration and development, and metallurgical investigations.

8. Names and addresses of Officers, Directors, or Partners, and in addition thereto, the five largest stockholders if applicant is a corporation.

Name and Address (a)	Official Title (If officer is also director indicate by "D") (b)	Total of Annual Salary, Commissions, Bonuses, Etc., Received From Applicant and Affiliates During Last Fiscal Year (c)	Estimated Net Worth Outside of Interest in Applicant (d)	Number of Shares Held in Applicant Corporation		Life Insurance Carried for Benefit of Applicant	
				Common (e)	Preferred (f)	Amount (g)	Net Cash Surrender Value After Loans (h)
	Total		x x x x x			x x x x x	x x x x x

If more lines are needed continue on separate sheet.

9. Capital Stock Issues:

For Corporate Applicants

Item	Authorized (a)	Outstanding (b)	Par Value (c)	Number of Shares Outstanding (d)	Dividend Rate Last Paid* (e)
Common stock	$	$	$		
Preferred stock	$	$	$		

*Indicate period covered.

10. Production:

Item	Kind of Product (a)	1948 Total (b)	1949 Total (c)	1950 Total (d)	Present Average Monthly (e)
1. Quantity of product mined or quarried (Short, long, metric tons; barrels; pounds; etc.)					
2. Quantity of product processed (specify unit of measure and type of process)					
3. Quantity and grade of product sold or shipped (specify units of measure)					

11. Do you contemplate a change in the present average monthly rate of production? If so, state estimated maximum monthly production and basis of change.

12. Ore or Mineral Reserves:

(*a*) Describe the ore or mineral deposit briefly. Accompany the application by any available report on the geology and ore reserves.

(*b*) If deposit is other than placer:

(1) Submit assay plans and/or sections showing location and size of proved (measured) and probable (indicated) ore or mineral reserve.

(2) State the tonnage (indicate type of ton) and grade of each class of ore reserve, as above, and show how computed. Tabulated total ore reserve as follows:

TOTAL ORE OR MINERAL RESERVES

Ore or Mineral Reserve	Estimated Tons (a)	Metal or Mineral Content Per Ton (Grade) (b)	Gross Value Per Ton (c)	Recoverable Unit Value Per Ton (d)	Estimated Cost of Production Per Ton (e)
Measured (proved)		7%	25.00	18.00	6.00
Indicated (probable)					

(*c*) If placer:

(1) Give estimated total yardage and average marketable mineral content of each deposit.

(2) Submit map showing location of placer deposit and surrounding area, with all test holes or pits. Submit logs of each hole and test pit with depth and average value of each.

(3) Describe gravel, stating whether fine, medium or coarse; loose, tight, cemented, or frozen, and whether it contains stumps or boulders more than 1 foot in diameter; if so, how large, and in what proportion.

(4) Describe bedrock, giving type (granite, sandstone, shale, etc.) and state whether it is hard or soft, smooth, uneven or rough.

(5) Describe overburden, stating whether loose, tight, or cemented; fine or coarse textured; furnish estimate of average thickness and total amount.

(6) Tabulate the reserves using the form outlined above for ore or mineral reserves.

13. Access Roads:

Give road distances to shipping, supply and residence points, stating kind and condition of roads.

14. Water Supply:

State source and quantity of water available for operations and whether sufficient for all seasons of year.

15. Power:

State amount of power used, rate per hour, and source thereof.

16. Labor:

State number and classes (miners, muckers, millmen, etc.) of men employed during a recent representative payroll period.

17. Equipment and Facilities:

Describe present equipment on the property, including buildings. (State condition.) List major pieces of equipment now owned or controlled and in serviceable condition available for this operation.

18. Are there any particular conditions or circumstances affecting your operations that are not described above? If so, explain.

CERTIFICATION

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

(Name of company)

By H. L. Berkey
(Signature of authorized official)

(Date)

(Title)

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—63792-1

MF-100

H. L. Berkey
1749 S. 6th Ave.
Tucson, Ariz.

GENERAL TECHNICAL DATA

1. Materials produced;
   (a) copper and silver
   (b) none

2. Bulldozer Mine
   (a) one 80 ft. shaft
   (b) 90 ft. crosscut
   (c) 100 ft. tunnels on ore
   (d) 500 ft. tunnel work in ore body on hill (separate workings from those referred to in a, b and c.
   No flooding; no pumping problems.
   Has never been worked to capacity.
   Probable production capacity 5 cars a week.

3. (a) 12 miles east of Suharita; 18 miles southeast of Tucson.
   (b) Helvetia Mining District
   (c) S 15-18-15
   (d) Pima County, Ariz.

4. (a) Property now be opened up by owner.
   (b) Owner

5. Years in production;
   World War I - 3 years
   World WarII- 2 years
   New peoduction will begin in 60 days-July 1, 1951

6. Experience of operators;
   (a) Have been mining for nea ly 60 years all over the U.S.; purchasing, rehabilitating mines, putting them into production (mining, mills, smelters). Have mined gold, silver, lead, copper, zinc--all hard rock mining in Calif. Nevada, Idaho, Utah, Arizona, etc.
   (b) Owner managed.

7. History;
   (a) World War I--tunnels were run into the dome ore body for 500 ft. (owners previous to 1915 had tunneled into this hill, taken out large quantities of ore, operated a smelter and have left a large ore dumpt there.) The WWI operations showed 35,000 tons of 7 to 8% ore. Operations closed down because of drop in prices after the war.
   World War II-- An 80 ft. shaft was sunk, and a 100 ft. crosscut and tunnel produced 3300 tons of 7 to 10% ore. Production stopped when tunnel cave in at close of war.
   (b) Peach claims, adjoining, produced 10,000 tons of 4½% ore during W.W. II
   (c) Helvetia group, neighboring, shipped from dumps during WW II around 600 car of 3% ore.
   Previous to this a large Eastern corporation owned and operated the whole district--had shafts, mills, smelters at town of Helveta--produced great quantities of copper around 5½%.
   (e) U.S. Governemnt reports at office of U.S. Bureau of Mines, Tucson, contain complete reports of geology, surveys etc. Reports of inspecting field engineer of State Dep't. of [illegible] Resources attached.

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

8. No corporation

9. None

10. No mining done since 1945

11. Mine is now in the process of being re-opened, and will be shipping ore within 30 days.
As how set up, expect to ship 8 cars a month.
With additional funds, can increase equipment and labor, and can ship 24 cars a month.

12. (a) Contact vein running NE by SW between granite and lime, was averaging more than 6 feet in width at time of cave-in. 7% or better. Several thousand tons of surface ore, plus a like amount of ore in the dome at east side of property, averaging around 4%.
(b) Smelter reports enclosed to show grade of ore.

		assay	pr.ton	pr.ton	cost pr ton
Measured	15,000 tons,	av. 7%,	guess val.$25.00,	net $18.00	$6.00
Indicated	20,000 tons	7-10	"	"	"

(c) not placer.

13. Hard surface road. 12 miles downgrade from mine to Suharita R.R., where loading dock is located. Paved U.S. Highway 18 miles Suharita to Tucson, supply and residence point.

14. One half inch pipe for water on property. coming from pumps inside Cameron Quartzite dikes, sufficient for all seasons.

15. No power uses, use gasoline and diesel engines.

16. Labor;
2 miners
1 timberman
1 working mining engineer supervisor

17. No building
Air compressor, drills, hoist.

18 No.

7--(e)

H. L. Berkey
1749 So. 6th Ave.
Tucson, Ariz.

Excerpts from reports of George A. Ballam, Dep't. Engineer, to Director of Mineral Resources, Fairgrounds, Phoenix, Ariz.

1. Memorandum dated July 17, 1944.

" RFC has examined the property and reported favorably on a $15,000 loan for shovel and other equipment to take out 15,000 tons positive and 20,000 tons probable ore."

2. Memorandum March 20, 1944.

"The east end of the property some 600 hundred feet away (from the shaft which was sunk to get to main ore vein) is a lime-capped dome which has been pushed up in the monzonite. There are several thousand tons of similar ore here and if the smaller operation can be made to go, Owens (lessee) is planning on putting in a shovel with additional equipment. The hill is honeycombed with earlier operations. There is a lot of 6% to 8% ore which it is impossible to take and big bodies of 3% ore which couldn't be mined and shipped profitably. With a shovel he can pull it all down and throw the lime out keeping the ore above 3%. I believe it will be a large operation which can be handled in this manner.

This is an old operation and at one time a smelter was maintained on sulfides mined about 100 feet below the lowest workings in the hill, where sulfides were just beginning to show. The odl shaft, between two ore bodies, is now inaccessible, but the area of the hill is sufficient to bench to a considerable depth.

March 11, 194[illegible]

Mr. H. L. Berkey
Tucson, Arizona

BULLDOZER MINE, HELVETIA DIS TRICT, PIMA CO. ARIZ.

Dear Mr. Berkey;

Under the terms of an option agreement dated March 17, 1944, between yourself as owner of subject property and Mr. Sherwood B. Owens, Optionee, Mr. Owens shipped to our Hayden and El Paso smelters a total of 3030.2 dry tons of ore from the Bulldozer Mine.

According to an abstract in my file, I understand that the option agreement contained a royalty provision requiring Optionee to pay to the owner a royalty based on 10% of the net smelter proceeds, to be paid monthly. The smelter was not required by the agreement to account royalties for the owners account, according to my records, and we therefore did not handle the royalty payments for shipper's account.

From copies of settlement sheets in this office, our El Paso and Hayden plants received a total of 3030.2 dry tons during the period April 14, 1944 through December 27, 194[illegible] with total net smelter proceeds of $4,033.18. The government premiums paid to Optionee by Smelter as Agent for Metals Reserve Company during this period total $30,1[illegible]0.85. The term "net smelter proceeds" is the net amount paid by the smelter to the shipper after deduction of freight and smelting charges. The following tabulation gives detail of tons received at each plant and the payments made.

Period	Dry Tons	Net Smelter Proceeds	Govt. Premiums	Total Paid
Hayden, Ariz. Apr.14,1944-Dec.27,1945	2055.5	$2,633.35	$28,903.42	$31,536.77
El Paso, Texas Dec.24,1944-May28,1945	974.7	$1,600.17-	$1,197.43	2,597.26
Total	3030.2	4,033.18	30,100.85	34,13[illegible].03

Yours very truly,

[illegible] R. [illegible]
Buyer, [illegible] Smelting Co.
El Paso, Texas & Tucson, Ariz.

BULLDOZER MINE, [illegible] DISTRICT
[illegible] COUNTY, ARIZONA.

RESULTS AT SMELTER [illegible] FOR FISCAL YEARS 1944-45

Hayden Plant

Date Rec'd.	Lot	Dry Tons	Gold oz.	Silver oz.	Copper %	SiO2 %	Al2O3 %	Fe %	CaO %	Total Copper lbs.	Net Smelter Returns
1944											
4/14	328/1	49.1	----	----	3.58	11.2	[illegible]	3.9	12.6	3512	1.93-
4/21	346/2	57.0	[illegible]	1.11	1.70	[illegible]	[illegible]	[illegible].6	24.6	1769	63.61-
4/21	349/3	[illegible].6	[illegible]	2.14	1.80	[illegible]	[illegible]	[illegible]	[illegible]	1331	41.17-
5/3	381/4	[illegible].9	[illegible]	1.[illegible]	1.[illegible]	[illegible]	4.3	[illegible]	[illegible]	2166	66.42-
5/3	383/5	[illegible]	[illegible]	1.[illegible]	2.04	[illegible]	5.0	3.1	24.[illegible]	[illegible]	33.[illegible]7-
5/3	385/6	[illegible]	[illegible]	1.[illegible]	1.69	[illegible]	4.7	3.0	27.1	[illegible]	61.[illegible]2-
5/3	386/7	[illegible]	[illegible]	.[illegible]	1.62	[illegible]	[illegible]	3.1	[illegible]	1713	83.53-
9/28	[illegible]	36.[illegible]	--	--	[illegible]	[illegible]	[illegible]	[illegible]	6.3	3650	84.82
10/9	[illegible]	[illegible]	--	.[illegible]	4.14	[illegible]	[illegible]	2.8	[illegible]	42[illegible]6	63.63
10/10	[illegible]3/10	[illegible]	--	.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.6	[illegible]161	138.34
10/23	[illegible]7/11	46.5	--	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.3	4234	98.18
11/2	[illegible]/12	[illegible]	--	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2835	23.42-
11/27	[illegible]/12	[illegible]	--	1.00	2.11	49.6	[illegible]	[illegible]	[illegible]	[illegible]	8.70-
11/30	[illegible]5/1[illegible]	16.8	--	.45	2.84	43.1	[illegible]	[illegible]	19.3	[illegible]	[illegible]
1945											
1/4	[illegible]/21	[illegible].3	--	.1[illegible]	7.60	46.2	9.5	4.0	3.8	6585	302.49
1/11	[illegible]/23	41.[illegible]	--	.1[illegible]	10.60					8624	485.19
1/29	41/26	42.7	--	--	6.37	48.9	7.9	3.3	[illegible].7	5411	195.17
1/31	49/27	38.1	--	.10	5.72	47.5	[illegible]	3.9	[illegible]	4356	134.74
1/31	[illegible]/28	[illegible]	--	--	[illegible].74	49.0	7.6	2.6	5.0	5831	199.78
2/2	[illegible]/29	40.0	--	--	[illegible].12	[illegible]	7.2	3.3	5.3	5695	247.88
2/9	[illegible]/30	[illegible]	--	.09	[illegible].32	47.[illegible]	7.2	2.9	5.7	6173	273.23
2/13	[illegible]/31	44.[illegible]	--	--	[illegible]	[illegible]	6.5	3.1	6.7	7002	315.36
2/23	[illegible]/32	[illegible]	--	.77	[illegible].66	[illegible]	5.0	3.2	14.3	5890	183.21
2/26	[illegible]/33	[illegible]	--	.[illegible]	[illegible].06	48.4	6.7	2.8	5.5	[illegible]823	253.19
2/26	[illegible]/3[illegible]	[illegible]	--	.17	[illegible].36	[illegible]	7.2	[illegible]	[illegible].5	5533	21[illegible].86
3/12	115/3[illegible]	[illegible]	--	.06	[illegible].87	[illegible]	2.8	5.6	5.5	5[illegible]41	271.08
3/15	119/36	[illegible].1	--	--	10.[illegible]5	[illegible]	[illegible].6	3.6	[illegible]	8856	486.66
3/22	120/37	43.[illegible]	--	[illegible]	10.2[illegible]	47.8	7.0	2.8	[illegible]	9004	499.13
3/3[illegible]	1[illegible]/38	[illegible]	--	.0[illegible]	[illegible].3[illegible]	47.4	[illegible].6	2.7	[illegible].1	8569	459.[illegible]
[illegible]/2	2[illegible]/39	[illegible]	--	.0[illegible]	[illegible].65	47.4	[illegible].2	2.7	[illegible].6	6740	319.23
[illegible]/9	1[illegible]/40	[illegible]	--	.1[illegible]	6.04	48.1	7.2	2.1	[illegible]	6049	255.68
[illegible]/16	141/40	[illegible].1	--	--	8.30	[illegible]	6.2	3.0	3.8	[illegible]148	348.96
[illegible]/16	162/42	[illegible]	--	.[illegible]	[illegible]	[illegible]	8.4	2.4	[illegible]	[illegible]327	103.1[illegible]
[illegible]/26	1[illegible]/43	18.0	--	.10	[illegible]	[illegible]	9.0	3.0	[illegible]	[illegible]59	104.0[illegible]
[illegible]/30	1[illegible]/46	[illegible]	--	--	4.3[illegible]	44.0	[illegible]	3.0	[illegible].1	[illegible]70	67.57
[illegible]/23	2[illegible]/[illegible]	3.6	--	--	5.[illegible]1	48.9	8.2	2.2	[illegible]	[illegible]	168.0[illegible]
[illegible]/9	2[illegible]/[illegible]	3[illegible].7	--	--	5.67	4[illegible].7	[illegible]		6.8	4045	136.0[illegible]
[illegible]/9	3[illegible]/[illegible]	[illegible]	--	.18	5.73	44.8	8.4	2.[illegible]	[illegible]	[illegible]30	172.64
[illegible]/2	3[illegible]/[illegible]	[illegible]	--	.05	3.[illegible]	[illegible]	1[illegible].3	3.[illegible]	[illegible]	[illegible]6	31.7[illegible]-
[illegible]	[illegible]/[illegible]	[illegible]	--	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2830	[illegible].31-
[illegible]/30	40[illegible]/[illegible]	48.1	--	.04	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	41.2[illegible]-
[illegible]	[illegible]/[illegible]	[illegible].0	--	.0[illegible]	[illegible].11	42.4	[illegible]	2.[illegible]	10.1	2166	[illegible].3[illegible]-
[illegible]	[illegible]/62	[illegible]	--	.0[illegible]	[illegible].61	[illegible].3	10.4	[illegible]	[illegible]	[illegible]427	68.4[illegible]-

MILLICENT LE, ARIZONA DISTRICT
PIMA COUNTY, ARIZONA.

Lazeen Plant, Con't.

Date Rec'd.	Lot No.	Dry Tons	Ole	Assay and Analysis Silver	Copper	SiO2	Al2O3	Fe	CaO	Copper	Total Net Smelter Returns *
12/13	146/61	46.2	--	.08	1.[illegible]	4.[illegible]	8.3	[illegible].5	12.1	1596	136.[illegible]-
12/27	162/62	19.8	--	.06	[illegible]	[illegible]	8.0	2.4	30.0	1844	132.32-

Total Lazeen receipts 205[illegible].5 — 268,352 5,633.2[illegible]

El Paso Plant

Date	Lot No.	Dry Tons	Ole	Assay and Analysis Silver	Copper	SiO2	Al2O3	Fe	CaO	Copper	Premium** Copper	Total Net Smelter Returns *
1941												
11/24	3017	70.0	[illegible]	1.9	2.62	[illegible]	3.0	3.[illegible]	20.8	2494	$ 15.58	
12/9	31[illegible]	[illegible]3.0	.0[illegible]	[illegible].0	[illegible].02	[illegible]	2.4	2.3	22.[illegible]	[illegible]	65.04	
12/13	3163	10.5	--	1.[illegible]	[illegible]	46.6	2.4	2.1	22.9	2275	18.51-	
12/14	3[illegible]	46.1	[illegible]	1.9	[illegible]	45.[illegible]	[illegible].2	3.3	21.6	2313	14.41	
12/22	3[illegible]26	[illegible]5.2	--	1.5	2.0[illegible]	48.6	3.1	2.1	22.[illegible]	2143	47.07-	
12/29	3326	[illegible].2	--	1.3	2.07	[illegible]	1.4	2.2	22.[illegible]	[illegible]	49.66-	
1942		57.0										
1/5	62		--	1.2	1.62	48.0	3.7	2.0	21.9	2090	73.27-	
1/10	67	57.8	--	1.1	1.90	4[illegible].4	4.1	2.6	23.4	2131	68.05-	
1/19	211	51.6	---	1.4	2.10	46.4	4.0	2.1	23.5	2104	32.03-	
1/23	1039	57.6	--	.6	1.17	[illegible]	.4	1.3	[illegible].8	1308	151.94-	
1/26	1058	64.5	--	.6	1.1[illegible]	39.9		4.6	24.0	1451	176.33-	
1/30	1081	131.1	--	.4	.81	4[illegible].0	.3	4.2	28.2	2059	433.52-	
[illegible]/4	1133	61.1	--	[illegible]	.97	36.6	.3	4.2	31.1	1150	185.79	
5/7	1160	[illegible]6.7	--	.2	.[illegible]	38.1	6.5	4.9	31.2	1033	174.63-	
[illegible]/8	1104	62.7	--	.1	.83	37.4	6.2	5.2	29.9	1003	203.36-	
[illegible]/28	1344	63.7	--	.0	1.83	41.0	4.2	4.7	28.2	2260	81.04	
										31,092	1600.17-	

Total El Paso receipts 974.7

* Net return at smelter after deducting freight and treatment charges.

** Premium for copper equivalent in excess of total copper content.

Tucson, Arizona
Dec Mar 20, 1946

file

January 10, 1951

Mr. H. L. Berkey
Hotel Gates
830 W Sixth Street
Los Angeles, California

Dear Mr. Berkey:

Replying to your letter of December 30 inquiring concerning the proper procedure for obtaining Government loan for financing the operation of valuable mineral mines:

Attached are five copies of Form NSRB-146 and one copy of the regulations pertaining thereto. Applications should be submitted in quadruplicate to the Defense Minerals Administration; one copy may be retained for filing.

A press release dated December 5, copy attached, describes the types of assistance that can be given to mining enterprises. The last paragraph of this release outlines the type of information we need in addition to that given in the form.

Sincerely yours,

Landon F. Strobel
Executive Secretary

Enclosures 7

Copy to: Mr. H. C. Miller, San Francisco, California
H. F. Strobel
Files

I

Hotel
GATES
SIXTH, FIGUEROA & WI
LOS ANGELES 14

Dec 30 30

U.S. Mining Bureau
Washington D.C.

Dear Sir
Please Mail Me
Nessetary forms; I wish
to apply for a mining
Loan on some Property I
Owne near Tuesón Arizona
Thanking you
H.L. Eskey
830 W 6 st
Los Angeles
Cal

at the above Hotel

FIREPROOF

DMA Form 1

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 1223X

DO NOT DETACH THIS SLIP

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

This document has been recorded as

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

Routing Slip

To:	Gowen	Date	5/23/51
To:	Lyon	Date	10/11/51
To:	[illegible]	Date	OCT 16 1951
To:		Date	
To:		Date	
To:		Date	
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To:		Date	
To:		Date	

DO NOT DETACH

CONTROLLED DOCUMENT

INT.-DUP. SEC., WASH., D.C.

1211-X

Map of NATRONA COUNTY Wyoming

Compiled from
Government and State Bulletins Local Records and Surveys

By

WHEELER & WORTHINGTON

Civil Engineers

Map Makers Blue Printers

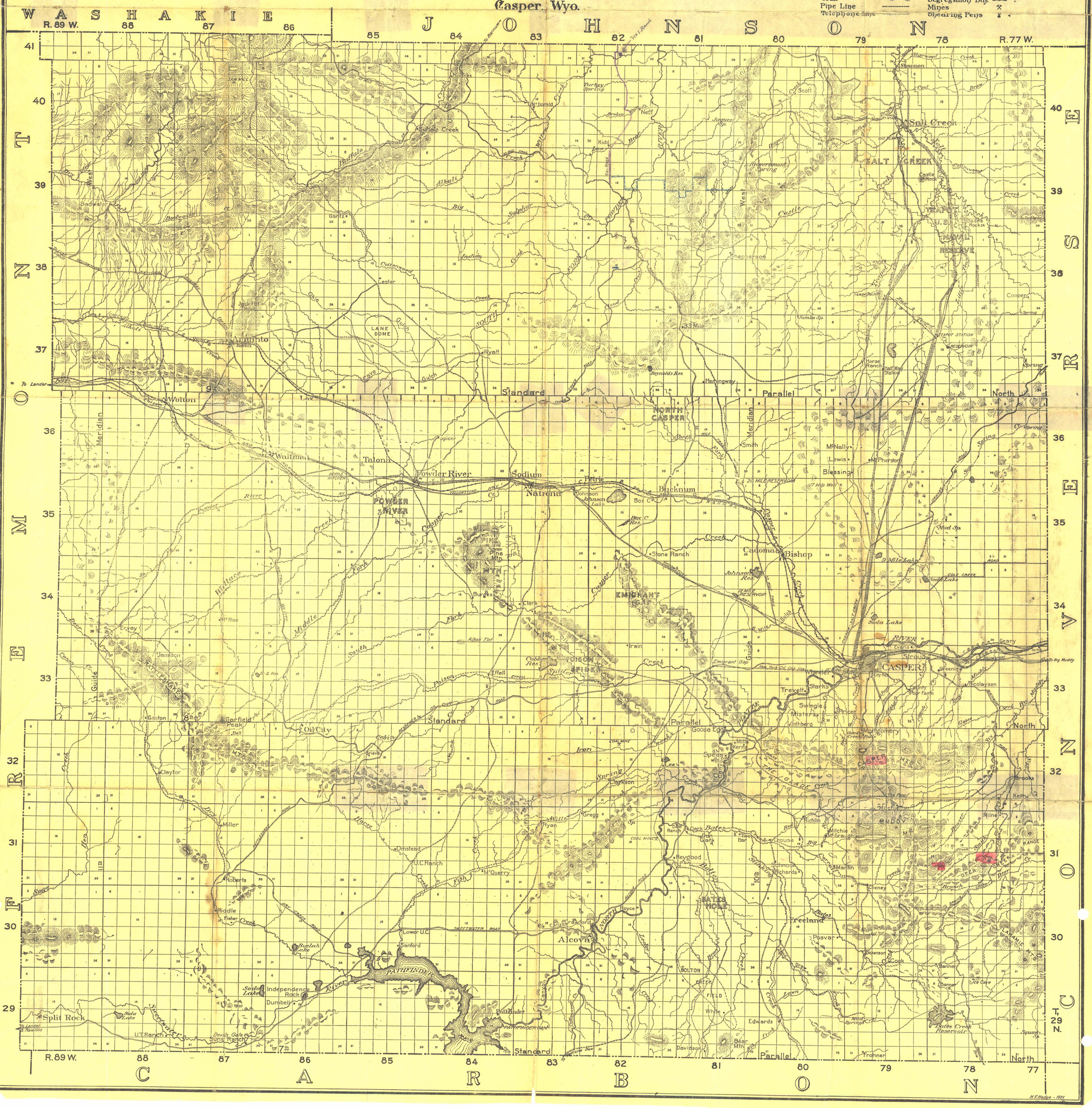
Casper, Wyo.

SCALES
½ inch - 1 mile

LEGEND

Railroad		Post Office	
Road Primary		Ranch	
Road Secondary		School	
Trail		Segregation Bdy.	
Pipe Line		Mines	
Telephone Line		Shearing Pens	

---- Sec. Line Snodgress Leases



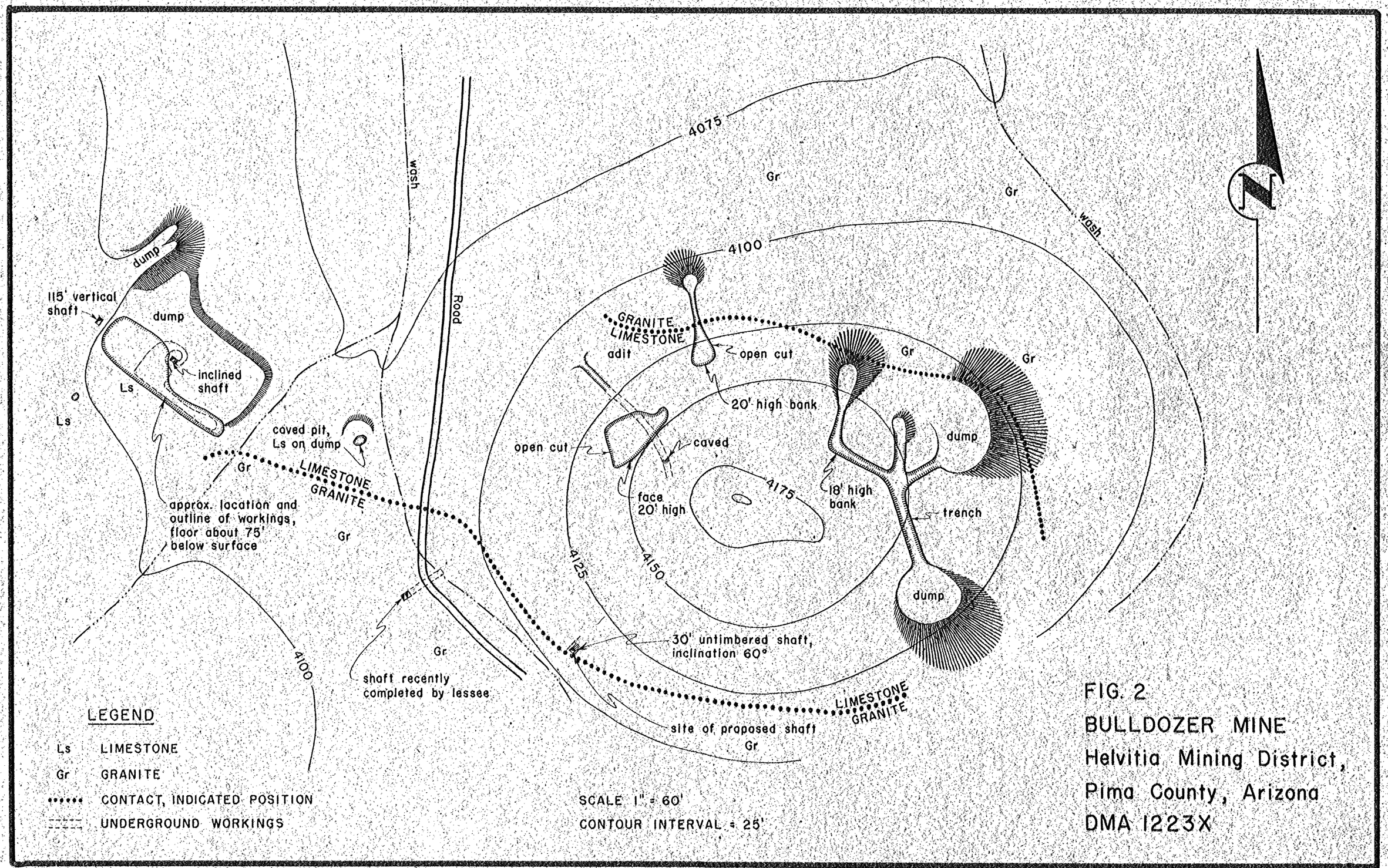


FIG. 2
BULLDOZER MINE
Helvitia Mining District,
Pima County, Arizona
DMA 1223X