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

Zth New Customhouse
Denver 2, Colorado

April 4, 1952

Memorandum

To: Acting Administrator, Defense Minerals Exploration Administration, Attention: Code 210

From: Field Team, Region IV

Subject: Final Report, DMA Docket 164BX, Zinc Mountain Claims (Frank H. Horton) Yavapai County, Arizona (Copper-Zinc)

Inclosed are the original and three copies of the final report on DMA-164BX, the original and one copy of DMA form 30, and a copy of the letter of denial to the applicant.

J. H. Kent, Jr.

A. H. Koschmann

Inclosures

cc: WRStorms w/copy of final report
CAAnderson w/copy of final report
AHKoschmann w/copy of final report
Mining Div. w/copy of final Report
DMA Final Report

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

April 3, 1952

Memorandum

To: Field Team, Region IV

From: Acting Chief, Mining Division, Region IV

Subject: Final Report, DMA Docket 1648X, Zinc Mountain Claims (Frank M. Morton), Yavapai County, Arizona

Enclosed are nine copies of the report by C. S. Bromfield of the Geological Survey on subject docket. T. M. Romslo of the Bureau of Mines participated in the field examination, but did not prepare a report because the evaluation of this property is dominantly a geologic problem.

In the opinion of the examining engineers, there are no indications that exploration of these claims would lead to any significant discovery of either copper or zinc, and they recommend that the application be denied.

We concur in the recommendations of the examining engineers.

W. H. King

W. H. King

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.
200 New Customhouse
Denver 2, Colorado

April 1, 1952

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMA Docket 1648X, Zinc Mountain Claims (Frank M. Morton), Yavapai County, Arizona (Copper-Zinc)

Enclosed are the original and 8 copies of the final geologic report by C. S. Bromfield of the U. S. Geological Survey covering the above docket. It has been recommended that the loan be denied.

The U. S. Bureau of Mines will not prepare a report.

The brochure is enclosed.

A. H. Koschmann
A. H. Koschmann
Supervising Geologist
Colorado-Wyoming

Enclosures (10)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P.O.Box 4126, University Station
Tucson, Arizona

MAR 1952
RECEIVED
U.S. Geological Survey
Mineral Deposits Branch
Denver

March 27, 1952

Memorandum

To: Field Team, Region IV, Denver, Colorado
Through: A. H. Koschmann

From: A. F. Shride, Tucson, Arizona

Subject: Final Report, DMA 1648X, Zinc Mountain Claims (Frank M. Morton), Yavapai County, Arizona (Copper-Zinc)

Enclosed are the original and 8 copies of the above report by C. S. Bromfield of the Geological Survey.

This report and the recommendation that exploratory drilling is not warranted have my approval. Gossans in the area are insignificant in quantity and apparently are derived from sulfides of low copper content.

T. M. Romslo of the Bureau of Mines participated in the field examination, but because this is dominantly a geologic problem he did not prepare a report. However, Romslo wholeheartedly endorses Bromfield's conclusions and recommendations.

A. F. Shride

A. F. Shride
Acting District Supervisor
Arizona-New Mexico

Enclosures 9

P.S. The brochure is also enclosed, making 10 enclosures instead of 9.

FRANK M. MORTON
ZINC MOUNTAIN CLAIMS
EUREKA MINING DISTRICT
YAVAPAI COUNTY, ARIZONA
DMA 16L8X

(COPPER-ZINC)

Geology

By
Calvin S. Bromfield
Geologist, U. S. Geological Survey

FRANK M. MORTON
ZINC MOUNTAIN CLAIMS
EUREKA MINING DISTRICT
YAVAPAI COUNTY, ARIZONA
DMA 1648X

(COPPER-ZINC)

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SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The Zinc Mountain claims (DMA 1648X), Yavapai County, Arizona were examined in February, 1952. Frank M. Morton, the applicant, proposed exploration of two iron-stained outcrops by drilling six 175 foot diamond drill holes, and subsequently sinking a 100 foot shaft, or alternately, carrying on further drilling. The total cost was estimated by the applicant at $9,968.

The property consists of 11 unpatented mining claims held by the applicant. Workings are limited to a 70 foot adit and several shallow pits and trenches. There has been no production from the property.

The area of the claims is underlain by pre-Cambrian rhyolite and alaskite porphyry which are intruded by small stocks of late Cretaceous to early Tertiary quartz monzonite. The Bagdad porphyry copper deposit is in an equivalent quartz monzonite stock 2 miles to the east (Fig. 2).

The applicant proposes to drill one small intrusion of quartz monzonite. The outcrop of this intrusion includes (1) an area of weakly iron-stained capping, (2) a small (15-20 ft. in diameter) area showing chrysocolla crusts and stains on fracture surfaces, and nearby (3) three en echelon fractures containing weak evidence of copper mineralization. These outcrops have no value individually, except as they might indicate a potential secondarily enriched copper deposit at depth. From an interpretation of the character of the small area of capping, it is inferred that any underlying mineralization probably consists of lean pyritic sulfides.

Several alaskite porphyry breccia pipes, one of which the applicant proposes to drill, show evidence of scant pyritic mineralization, but little or no indication of copper or zinc at the surface, and no evidence that ore-grade mineralization would be encountered at depth. Similar breccia pipes in the region are not known to contain any significant mineralization.

As the negative nature of the capping on the quartz monzonite outcrops and the small areal extent of capping do not favor important copper mineralization with depth, and as the alaskite breccia pipes are essentially barren of copper or zinc with no reasonable indication that copper or zinc ore would be found at depth, it is recommended the loan be denied.

INTRODUCTION

The Zinc Mountain claims, Yavapai County, Arizona were examined in connection with an application by Frank M. Morton for exploration assistance to the Defense Minerals Administration, docketed as DMA 1648X.

The applicant proposes to conduct a diamond drilling program involving a minimum of 6 holes, each to a depth of 175 feet, followed by either further drilling or, alternately, sinking a 100 foot shaft. The applicant estimates the program could be completed in 6 months at a cost of $9,968.

Examination of the property was made by the writer on February 27, 1952 in company with T. M. Romslo, U. S. Bureau of Mines; Charles A. Anderson, U. S. Geological Survey; and Frank M. Morton, the applicant.

ACKNOWLEDGMENTS

Thanks are due to Frank M. Morton for courtesies extended during the examination. Particular assistance was rendered by Charles A. Anderson, U. S. Geological Survey, in contributing his knowledge of the area and in interpreting the character of the oxidized capping on the applicant's claims in light of his experience in studying the Bagdad porphyry copper deposit.

LOCATION AND PHYSICAL FEATURES

The Zinc Mountain claims are located 2 miles west of Bagdad in Yavapai County, Arizona (Fig. 1). The property is reached by taking the Hillside-Bagdad road to a point approximately 4 miles

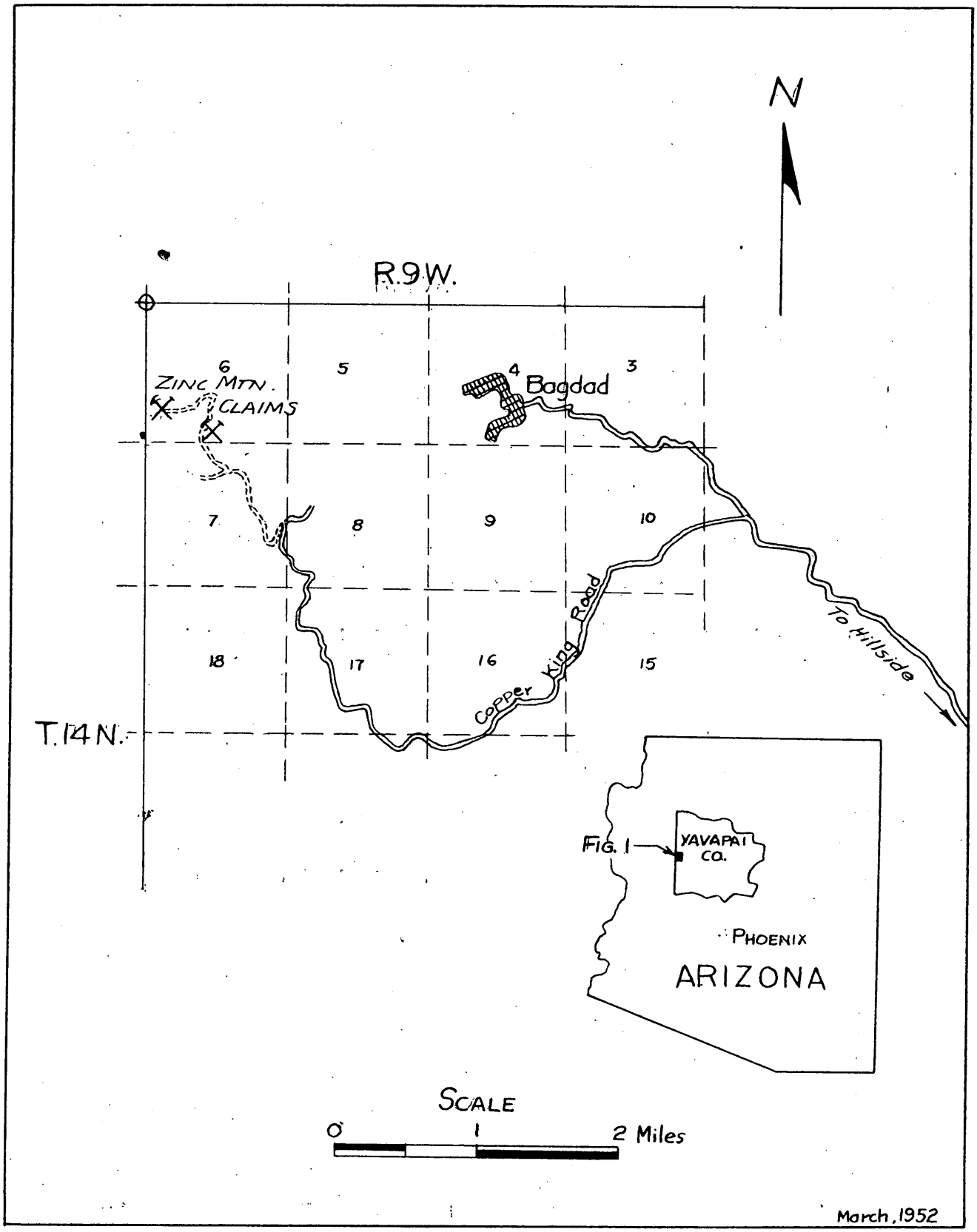

FIG. 1 LOCATION MAP, ZINC MOUNTAIN CLAIMS
YAVAPAI CO., ARIZONA
DMA-1648 X

southeast of Bagdad, thence 6.1 miles on the Copper King road to a junction on the left with a poor side road. This road goes to the Zinc Mountain claims, an additional distance of 1.4 miles.

Hillside, Arizona is the nearest railroad point, a distance of 30 miles by road to the southeast.

The claims are in an area of moderately rugged topography. The maximum relief in the area is 300 feet, and the average altitude is 3750 feet.

The area is one of scant rainfall and sparse desert vegetation. Water is not available on the property and has to be hauled from Mountain Springs, a distance of 3 miles.

HISTORY AND PRODUCTION

A short 70 foot adit reported to have been driven around 1920 is the only development work of any consequence on the applicant's property. The applicant has dug a few shallow trenches and during 1950 or 1951 drilled one 77 foot diamond drill hole in a breccia pipe. Results of the drilling were negative. There has been no production from the Zinc Mountain claims.

OWNERSHIP AND EXTENT

The applicant, F. M. Morton, holds title to the 11 unpatented mining claims known as the Zinc Mountain group (formerly known as the Cactus group) which are located in secs. 6 and 7, T. 14 N., R. 9 E. The exploration project proposed would be confined to claims 1 and 2.

GEOLOGY

The region surrounding Bagdad, Arizona in which the Zinc Mountain claims are located is underlain by a pre-Cambrian complex of

meta-sediments, meta-volcanics, and intrusives. A late Cretaceous or early Tertiary quartz monzonite intrudes the pre-Cambrian terrane forming several small stocks and plugs (Fig. 2). The quartz monzonite stock that contains the Bagdad porphyry copper deposit is the only one of these that shows significant mineralization. Figure 2 shows the relation of the applicant's property to the Bagdad deposit. To the north extensive mesas are formed from late Tertiary and/or Pleistocene alluvium and intercalated basalt.

The applicant proposes exploring two separate locations on his claims. One locality occurs in a small outcrop of quartz monzonite intruding pre-Cambrian rhyolite (Fig. 2). The quartz monzonite is cut by minor northwest and northeast joints and fractures. Iron oxides occur as "paint" on fracture surfaces and form a capping. An adit, approximately 70 feet long, has been driven near the west edge of this quartz monzonite body and is headed in a brecciated outcrop that contains copper stains and crusts of chrysocolla on the fracture surfaces. The area marked by chrysocolla is about 15 to 20 feet in diameter at the surface. Little copper mineralization is evident in the adit.

To the southeast of this quartz monzonite outcrop in the intruded pre-Cambrian rhyolite are 3 fractures of N. 45° W. to N. 55° W. trend and steep southwest dip. These fractures outcrop en echelon and are approximately 50 to 75 feet apart. Prospect pits on each (Fig. 2) reveal the fracture zone to be 1 to 3 feet wide and to contain minor evidences of copper mineralization, mostly sparse amounts of chrysocolla on fracture planes. The meager mineralization is commonly most abundant on the footwall side of the zones.

The outcrop marked by the adit, the iron-stained capping, and the three parallel fractures have little value individually, except as they might serve as an indication of a possible secondarily enriched copper deposit at depth. These indications are unfavorable.

Locke[1] and others have made extensive studies in the interpretation of leached outcrops and in general have shown that in disseminated ores, excepting those with calcite gangue, the iron precipitate tends to form at the place of the sulfide when that sulfide was rich in copper; and tends to migrate away from the place of the sulfide when that sulfide was rich in pyrite. The important distinction is between indigenous iron and transported iron.

Examination of the quartz monzonite plug and the surrounding rocks shows that the dominant type of "limonite" formed yellow-brown stain or "paint" on rock surfaces and was transported. Indigenous limonite and voids were rare. The conclusions is that the lack of indigenous limonite indicates there is little copper in the outcrop, whereas the abundance of transported limonite implies the original sulfide was largely pyritic.

This inference is further strengthened by a comparison with capping over the nearby Bagdad deposit.[2] Over known chalcocite ore at Bagdad little or no transported iron oxide is present, but in contrast each void representing an original sulfide grain is occupied

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1/ Locke, Augustus, Leached Outcrops as Guides to Copper Ore, Baltimore, Md., Williams and Wilkins Co., 1926.

2/ Anderson, C. A., Alteration and metallization in the Bagdad porphyry copper deposit, Arizona: Econ. Geol., Vol. 45, p. 627, 1950, and personal communication.

by red, and rarely black, aggregates of iron oxides. The color of the powder is always a deep maroon regardless of the color of the aggregate.

The second locality the applicant proposes to explore lies about one-half mile northwest of the area discussed above (Fig. 2). Here the prevailing rock is pre-Cambrian alaskite porphyry. Several irregular breccia areas or pipes with a rough northwest orientation occur in the porphyry. Locally these breccia areas are stained with iron oxides and are referred to by the applicant as an "intrusion of gossan."

The largest of these breccia pipes is perhaps 100 feet in diameter and consist of a silicified breccia of alaskite porphyry, in which the individual fragments do not appear to have been appreciably reoriented. Red-brown iron oxides occur staining some surfaces. Specimens show a few negative-pseudomorphs after pyrite, but on the whole there are few voids and little evidence of any significant mineralization. The applicant's proposal is to drill this outcrop in the hope of finding zinc or perhaps copper with depth. There are no evident reasons for expecting either.

A few hundred feet southeast at a smaller breccia outcrop, iron-stained, and containing euhedral quartz crystals, the applicant has put down a 77 foot diamond drill hole. No copper or zinc mineralization was encountered. Examination of the core showed a few scattered pyrite crystals to be the extent of the sulfide mineralization.

CONCLUSIONS AND RECOMMENDATIONS

In the opinion of the examining engineers there are no indications that exploration on the Zinc Mountain claims would lead to any significant discovery of either copper or zinc.

It is recommended that the application be denied.

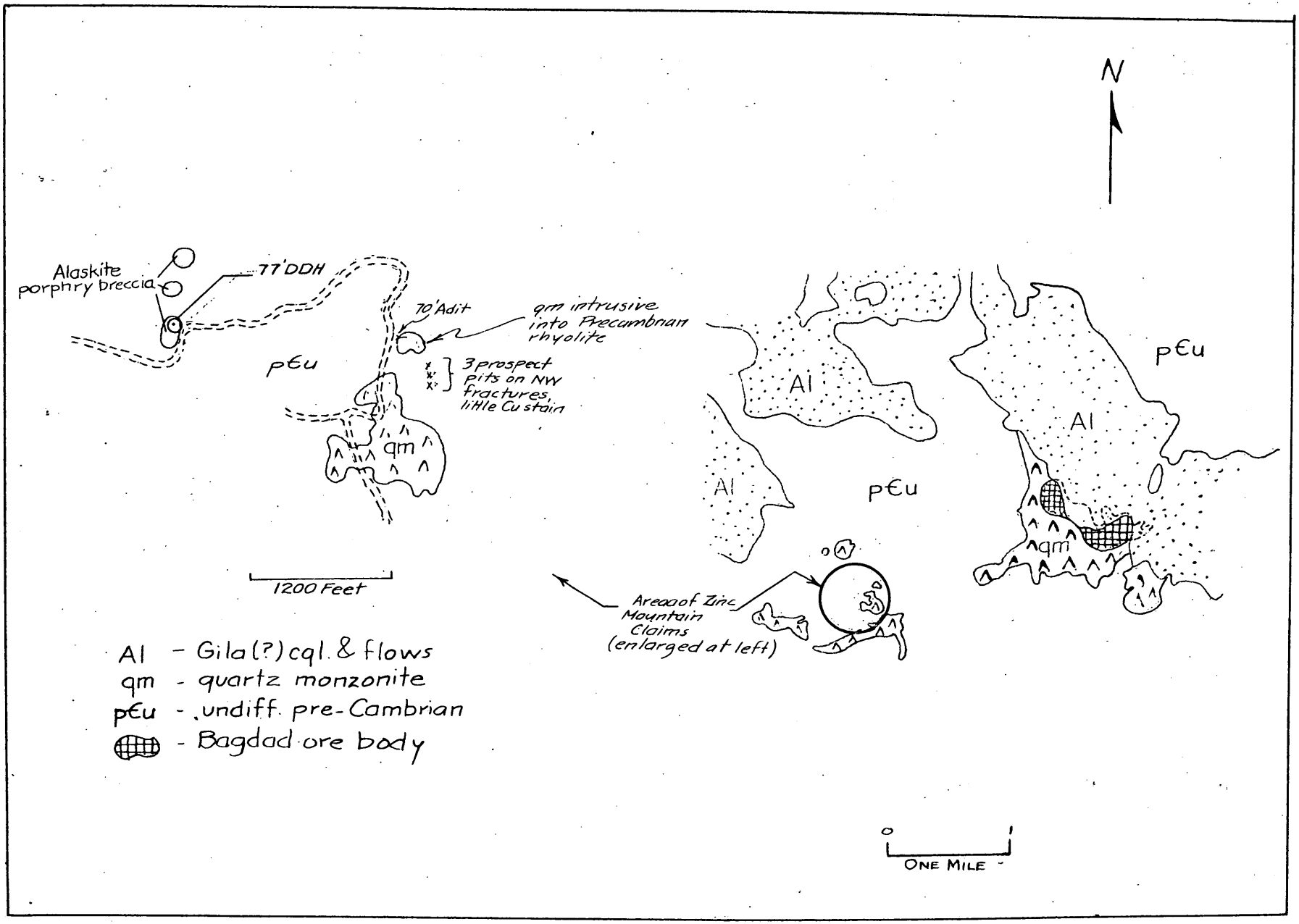

FIG. 2 - GEOLOGIC MAP, ZINC MOUNTAIN AREA
DMA-1648 X

[illegible] New Customhouse
Denver 2, Colorado

April 4, 1952

Memorandum

To: Acting Administrator, Defense Minerals Exploration Administration, Attention: Code 210

From: Field Team, Region IV

Subject: Final Report, DMA Docket 164EX, Zinc Mountain Claims (Frank M. Norton) Yavapai County, Arizona (Copper-Zinc)

Enclosed are the original and three copies of the final report on DMA-164EX, the original and one copy of DMA Form 3b, and a copy of the letter of denial to the applicant.

J. H. Eardley
J. H. Eard, Jr.

A. H. Koschmann
A. H. Koschmann

Enclosures

cc: WRStorms w/copy of final report
CAAndersen w/copy of final report
AHKoschmann w/copy of final report
Mining Div. w/copy of final Report
DMA Final Report

HMC:oc
cc: DMA Subject
Chron.
AHKoschmann (2)

224 New Customhouse
Denver 2, Colorado

April 4, 1952

Mr. Frank W. Morton
1636 West 266th
Harbor City, California

Dear Mr. Morton:

Your application, DMA-1648X, for exploration aid on your Zinc Mountain claims has received careful consideration.

A field examination indicates that there is little possibility of making a significant discovery of strategic minerals on your property. We therefore regret to inform you that your application for aid is denied.

Very truly yours,

J. H. East, Jr.
J. H. East, Jr.
Field Team, Region IV

A. H. Koschmann
A. H. Koschmann
Field Team, Region IV

HMC:oc

cc: Acting Administrator - Wash.
WRStorms
DMA Subject
DMA Chron.
AHKoschmann (2)

DMA Form 3b.

DEFENSE MINERALS ADMINISTRATION

CONTROLLED DOCUMENT
Revised Abstract

DMA Docket No. 1648X

Change: From		To	
I 1	☐	I 1	☐
I 2	☐	I 2	☐
I 3	☒	I 3	☒
I 4	☐	I 4	☐
I 5	☐	I 5	☐
I 6	☐	I 6	☐
III 1	☐	III 1	☐
III 2	☐	III 2	☒ 4-2-52
III 3	☐	III 3	☐
III 4	☒	III 4	☐

Add:

II 7 $9,968

II 8 $ - -

II 8a %

Initials of person preparing sheet H.M.C.

Date sheet prepared 4-2-52

Mining Division
Region IV

April 3, 1952

Memorandum

To: Field Team, Region IV

From: Acting Chief, Mining Division, Region IV

Subject: Final Report, DMA Docket 164BK, Zinc Mountain Claims (Frank N. Morton), Yavapai County, Arizona

Enclosed are nine copies of the report by C. S. Bromfield of the Geological Survey on subject docket. T. M. Hemple of the Bureau of Mines participated in the field examination, but did not prepare a report because the evaluation of this property is dominantly a geologic problem.

In the opinion of the examining engineers, there are no indications that exploration of these claims would lead to any significant discovery of either copper or zinc, and they recommend that the application be denied.

We concur in the recommendations of the examining engineers.

W. H. King
W. H. King

HMC:oc

cc: DMA Subject
DMA Chron.
AHKoschmann (2)

UNITED STATES 310
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

REGIONAL DIRECTOR'S OFFICE REGION IV OCT 22 1951 BUREAU OF MINES DENVER

OCT 19 1951

Mr. Frank M. Morton
1636 W. 266th Street
Harbor City, California

Re: Docket No. DMA-164,8X

Dear Mr. Morton:

This is to inform you that your application for aid for an exploration project has been referred to the field team for further study. You will hear from Mr. J. H. Bent, Jr., Executive Officer, DMA Field Team Region IV, Bureau of Mines, 224 New Customhouse Building, Denver 2, Colorado, or one of his staff when they are ready to visit your property.

Very truly yours,

SIGNED

Tom Lyon, Director
Supply Division

H/Waugh:rw
10-16-51

Copy to: Administrator's Reading File
Executive Officer, DMA Field Team IV
Mr. Gowen
Mr. MacLaren
Files-DMA Docket

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

REGIONAL DIRECTOR'S OFFICE
REGION IV
OCT 22 1951
BUREAU
DENVER

OCT 19 1951

Mr. J. H. East, Jr.
Executive Officer, DMA Field Team Region IV
Bureau of Mines
224 New Customhouse Building
Denver 2, Colorado

Dear Sir:

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

Docket No. DMA-1648X

Commodity Copper

Applicant Mr. Frank M. Morton, 1636 W. 266th Street, Harbor City, California

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

Very truly yours,

Tom Lyon

Chairman
Coordinating Committee

H. W. St. Clair
For the Bureau of Mines

T. P. Thayer
For the Geological Survey

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

Mr. J. H. East, Jr.
Executive Officer, DMA Field Team Region IV
Bureau of Mines
224 New Customhouse Building
Denver 2, Colorado

OCT 19 1951

Dear Sir:

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

Docket No. DMA-1648

Commodity Copper

Applicant Mr. Frank M. Morton, 1636 W. 266th Street, Harbor City, California

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

Very truly yours,

Chairman
Coordinating Committee

For the Bureau of Mines

For the Geological Survey

6/5/51

Defense Minerals Administration

Review of Application for Exploration Assistance

Docket No. 1648X

Commodity COPPER

Total Amount $9,968.00

Govt. Participation $4,984.00

1. Name and Address of Applicant FRANK M. MORTON
1636 W. 266TH ST. HARBOR CITY, CALIFORNIA

2. Location of Property EUREKA MINING DISTRICT, YAVAPAI COUNTY, ARIZONA.

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

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

b) Poor

c) None

d) Don't know—needs field examination ✓

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 - OWNER
(question 5, 6, 7)*

6. If applicant is a lessee, is a copy of the lease attached? —

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? –

b) MF-202 –

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

a) Available manpower YES

b) Equipment and supplies No – To be acquired
(Question 14 plus general knowledge of availability)*

c) Accessibility (question 12)* YES poor road for 1.7 mi

d) Water (question 13)* No

e) Power (question 13)* YES

Is a field check needed on any of these points? YES - WATER

9. Does the experience of the applicant appear to be adequate to assure that he can properly conduct the proposed project? (question 4)* PROBABLY

Is a field check needed on this point? No

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

a) Is the project adequately described? YES

If not, are there sufficient data given so that you can describe the project? – 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

If not, what part of it is?

Is this part a worthwhile exploration project? —

d) Are the cost estimates detailed? YES

Can they be summarized, as on page 2 of Procedural Instruction 5-A, from the available data? YES If so, attach a draft.

e) Are the cost estimates reasonable? YES

f) Should more information be requested from applicant? No

g) Is a field examination necessary to complete Exhibit A? No

11. Exhibit B (question 23-d)*

a) Is it applicable? YES

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

c) Is a field check needed? No

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

a) Is it applicable? e & g applicable f. Not

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

c) Are rents and charges reasonable? Yes (might be a little low)

d) Is a field check needed? No

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

a) Are there sufficient data? YES

b) Is the schedule adequate for the work proposed? YES

c) Is the schedule excessive for the work proposed? No

d) Are the proposed wages and salaries reasonable? YES

e) Is a field check needed? No

EXHIBIT A

The applicant proposes to first initiate a diamond drilling program for at least six holes the depth of 175 ft. Next he either will continue the drilling or start an exploration shaft, whichever the circumstances warrant.

LABOR	$2904.00
SUPERVISION	1848.00
STRUCTURES	500.00
EQUIPMENT	1050.00
RENTAL OF EQUIPMENT OWNED BY APPLICANT	1170.00
MISC SUPPLIES	2496.00
TOTAL	$9968.00

23 d. SHOP SHED AND MINE HEADFRAME $500.00

e. LIGHT PLANT, MINE CAR & RAILS $750.00

f. NONE

g. 105 ft. portable SULLIVAN COMPRESSOR complete with hammer @ $5.00/DAY - 66 DAYS 330.00

BOYLES DIAMOND DRILL COMPLETE - $5.00/DAY - 66 DAYS 330.00

1943 FORD 6-4 WHEEL DRIVE 1½ TON TRUCK @ $60.00/MO - 6 MOS. 360.00

GASOLENE POWERED HOIST @ $50.00/MO. - 3 MOS. 150.00

a. DRILL OPERATOR @ $12.00/DAY - 22 DAYS/MO - $264.00/MO

6 MO'S PAY 1584.00

HELPER, (1) @ $10.00/DAY - 22 DAYS/MO. - 6 MOS. 1320.00

b. WORKING FOREMAN (1) $14.00/DAY - 22 DAYS/MO - 6 MOS 1848.00

C. NO BUILDINGS.

h. MISC MATERIALS 300.00

i. LIGHT PLANT, hauling water & MISC - $75.00/MO - 6 MOS 450.00

GASOLENE, OIL DIAMOND BITS 900.00

TIMBER & LAGGING 240.00

PLUS 10% LEAKAGE WAY 906.00

TOTAL 9968.00

14. Exhibit E (question 23-c)*

a) Is it applicable? No

b) Sufficient data? –

c) Reasonable? –

d) Field check needed? No

15. In your judgment, can the proposed work be done in the proposed time? YES

(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? Check feasibility of project. In costs light plant has been included twice. Check geologic probability, get map showing location of proposed drill holes.

If exploration is desirable, consult with applicant and have project mapped and planned in detail. Advise against doing our drilling.

Reviewed by: [illegible]

D R MacDonald

C Johnson

Date 10/15/51 J B Gower

97692

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 1648X

Date received 6-7-51

Participation

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 7 - 1951
LANDON F. STROBEL
Executive Secretary

Frank M. Morton
1636 W. 266th St.
Harbor City, Calf.

Name and address of applicant

Date May 29, 1951

FILL IN THIS BLOCK

Date of application May 29, 1951

Estimated cost $ 9,968.00

Mineral or metal Metal

Percentage of Government participation 50%

Location of mine Eureka Mining District, Yavapai County, Arizona.

Date of filing MF-100

DMA Docket Number, if available

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 fr 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.

Zine Porphyry Mine
(Name of company)

By Frank [illegible]
(Signature of authorized official)

May 29 1951
(Date)

Owner & Manager
(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

Frank H. Morton
1636 W. 266th. St.
Harbor City, Calif.

May 29, 1951.

Date of application May 29, 1851. Estimated cost $9,968.00

Mineral or metal copper and zinc. Percentage of Government participation 50 %

Location of mine Eureka mining district, Yavapai County, Arizona.

THE APPLICANT

1. The applicant is an individual.
2. No partnership.
3. Not a corporation.
4. Practical miner and millman with 17 years experience in field.
5. I am the owner of the property.
6. There is no lien, claim or encumbrances against the property whatever.
7. There is no lease.
8. The property has never been operated.
9. I am willing and prepared to furnish my part of the obligation.
10.

THE PROPERTY

10. The Zinc Mountain groupe of mining claims 1 to 11 inclusive located in the Eureka mining district, Yavapai County, Arizona about two miles in a southwesterly direction fron the Bagdad mine pit.

(b) The exploration work to be conducted on claim Nos.1 and 2.
11. The name is the Zinc Porphyry Mine. Formely the Cactus groupe.
12. The location is 30 miles morthwesterly from Hillside, Arizona, a Santa Fe railway station and is accessible via the Bagdad Copper Co. road to a point within four miles of Bagdad then over the Copper King road for a distance of six miles. After leaving the Copper King road a very bad road is encountered for a distance of 1.7 tenths miles. The roads from Hillside to the King are good.
13. No known source of water on the property for operational purposes and thus far shipping operations only are considered.
14. No buildings on property. No equipment there at present.
15. Copper ore of sufficient grade could be trucked to Hillside a distance of 30 miles then shipped by rail to Magma smelter a distance of around 145 miles. In case of zinc ore it could be treated or milled at the Hillside mine mill 15 miles by road. Then the concentrate trucked to Hillside a distance of 30 miles. (The Hillside mill does custom milling) There will have to be an access road of about two miles built on and to the property. There will be no right of way trouble.
16. There is no history of note on the property.
17. The property has never produced.
18. There is two different potential ore deposits which merrit exploration: No. 1, a large intrusion of gossin capping disseminated with very live quartz. At one place being around 100 feet in width and can be traced for more than 1200 feet. No. 2, a copper deposit which is in the nature of a brecciated pipe which will assay 2.86 at the surface across a ten foot face. I have no maps available here at the present time nor assay data. However, I think there was a record made by Mr. A. C. Nebeker of the Dept. of Mineral Resources in August 1948, prior to his passing. He went over the ground on August 26th, 1948 and seemed very well impressed.

Frank M. Morton
1636 W. 266th. St.
Harbor City, Calif.

May 29 1951

19. This property has not been developed on account of lack of merrit but solely because I have not had the finances to explore or develope it.

THE EXPLORATION

20. Exploration work will be conducted in an effort to locate disseminated deposits of copper located in the brecciated area and under the capping. At depth in the area of the gossin capping zinc should be encountered. The Dick mine which is in the locality of my property, ~~xxx~~ according to the owners, has recently had a very successful development program disclosing a large body of a very good grade ore. My property, according to them, is comparable to the Dick both in surface indications and size.

21. The proposed work is first to initiate a diamond drilling program of at least six holes to a depth of 175 feet. This should be completed within a period of 3½ months employing a five day week only. Next is to either continue diamond drilling or start an exploration shaft, whichever the circumstances warrant. In all probabilities a shaft will be more feasible at that time. By proper planning and distribution of work a shaft should be completed to a depth of 100 feet beforethe six months period has expired.

22. Primarily due to the fact that I have alone carried the necessary financing I have not deemed it necessary to acquire extensive mapping or reports. Time being so short as I received these forms upon leaving for work late yesterday afternoon I am not able to get this data. I have not cared about selling. I would appreciate your engineer on the property.

23.

THE REQUIREMENTS AND COSTS

23.	(a) Drill operator @ $ 12.00 per day- 22 days per Mo. $ 264.00 per Mo. Six Mo's pay	$ 1584.00
	Helper, (1) @ $10.00 per day- 22 days per month - six months	1320.00
(b)	Working foreman (1) $14.00 per day- 22 days per month- six months	1848.00
(c)	No buildings.	
(d)	Shop shed and mine headframe	500.00
(e)	Light plant, mine car and rails	750.00
(f)	None.	
(g)	105 ft. portable Sullivan compressor complete with hammer- @$5.00 per day- 66 days	330.00
	Boyles Diamond Drill complete - $5.00 per day-66 days-	330.00
	1943 Ford 6- 4 wheel drive 1½ ton truck @ $ 60.00 per month-- 6 months	360.00
	Gasolene powered hoist @ $ 50.00 per month- 3 Mo's	150.00
(h)	Misc. materials	300.00
(i)	Light plant, hauling water and Misc.--$ 75.00 per Mo. six months	450.00
	Gasolene, oil, diamond bits for drilling	900.00
	Timber and lagging	240.00
	Plus 10% leaveway	906.00
	Total	$ 9968.00

Frank M. Morton
1636 W. 266th. St.
Harbor City, Calif.

May 29, 1951.

24. At the time of approval of the project I expect to be on the ground with the necessary equipment and ready to work. Diamond drilling will be started immediately and continued until six holes of 175 feet depth each is reached. An expectency of two holes per month or an average of approximately 16 feet per day should be realized. With three men working it wont be necessary to hire additional help at any time for any new construction.
Below is a tabulated list of estimated progress and expendures;

1st. Month

Item	Costs	Allotment	Balance
Labor	$ 790.00	$ 4752.00	$ 3962.00
Shed	150.00	500.00	350.00
L.Plant	550.00	750.00	200.00
D.D.rent	110.00	330.00	220.00
Truck rent	60.00	360.00	300.00
Camp upkeep	75.00	450.00	375.00
D.D.costs	297.50	900.00	602.50
Plus 10%	203.00	906.00	703.00

2nd. Month

Labor	$ 790.00	3962.00	3172.00
D.D.rent	110.00	220.00	110.00
Truck rent	60.00	300.00	240.00
Camp upkeep	75.00	375.00	300.00
D.D.costs	297.50	602.50	305.00
Plus 10%	133.00	703.00	570.00

3rd. Month

Labor	$ 790.00	3172.00	2382.00
Headframe	350.00	350.00	
Mine car & rails	200.00	200.00	
D.D. rent	110.00	110.00	
Truck rent	60.00	240.00	180.00
Misc. Material	150.00	300.00	150.00
Camp upkeep	75.00	300.00	225.00
D.D. costs	305.00	305.00	
Timber and lagging	75.00	240.00	165.00
Plus 10%	211.00	570.00	359.00

The following three months should be more smothly than the first three due to the fact that the sinking of a shaft depends most entirely upon the individual efforts applied.

I received this and had only time enough to barely get it out to meet the airmail service to have it in on the deadline so will have to cut it shorter than contemplated in order to get it in the mail.

Respectfully Submitted,

Frank M. Morton

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUN 7 - 1951
LANDON F. STROBEL
Executive Secretary

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 21 1951
LANDON F. STROBEL
Executive Secretary

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

Mining Division
Date Rec'd.
FEB 25 1952
BUREAU OF MINES
Denver, Colorado

TELEGRAM

OFFICIAL BUSINESS—GOVERNMENT RATES

FROM Walter R. Storms

BUREAU of Mines

CHG. APPROPRIATION ~~Ex~~ Night letter DMA

Tucson, Arizona, Feb. 21, 1952

U. S. GOVERNMENT PRINTING OFFICE 10—1723

Phoned 2.45 p.m. frj

Mr. Frank M. Morton
1636 W. 266th Street
Harbor City, California

Engineers of Defense Minerals Exploration Administration plan examination your property near Bagdad, Ariz., Wednesday February 27. Can you meet them at United States Geological Survey office, Prescott, Arizona 8.00 a.m. same day. Wire answer to U. S. Bureau of Mines, Telephone 3-1602, Tucson, Arizona.

Walter R. Storms

CC Confirmation
W. H. King
1648X DMA
TG (2)
DF

TMRomslo:frj

224, New Customhouse
Denver 2, Colorado

October 26, 1951

Memorandum

To: W. R. Storms (with brochure)

(Through Chief, Mining Division, Region IV)

C. A. Anderson

From: DMA Field Team, Region IV

Subject: DMA Docket 1643X, Frank M. Morton, applicant, Zinc Mountain Nos. 1 & 2 Zinc-Copper Claims, Eureka Mining District, Yavapai County, Arizona

Enclosed herewith is the application of the subject docket and a review by the Coordinating Committee for an exploration loan of $9968.00.

The proposed program of exploration is by 1050 feet of diamond core drilling in 6 holes.

The geologic probability of discovery, the feasibility of the project, costs, and drilling procedure require field investigations.

If the project is approved, maps showing the location of drill holes and data for Exhibit A should be included with the final report.

J. H. East, Jr.

A. H. Koschmann

Enclosure

WDM:oj
cc: DMA subject, chron.
AHKoschmann