MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

REFERENCE SLIP

DATE 9/2/53

REFERRED TO:

1. ~~Mr. Hedges~~
2. Obowles
3. 3522
4.

FOR:

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

REMARKS: Field Report & Denial
For Agenda 9/4/53

Check (X) before the items needing attention.

Ernest Wm. Ellis
Initials of sender.

GPO 16—63815-1

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 4 - 1953

August 24, 1953.

224 New Customhouse
Denver 2, Colorado

Mr. Walter W. Henderson
Box 2282
Globe, Arizona

Re: Docket No. DMEA-3038

Dear Mr. Henderson:

Reference is made to your application for Government aid on the G. & H. Mine No. 2.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding material of acceptable grade, and in quantities that will significantly improve the mineral supply position for the National Defense Program.

A careful study of your property and data available to this agency reveals that the probability of disclosing mineable reserves of asbestos by your proposed exploration program is not considered sufficiently promising to justify Government participation. Under these circumstances, we regret to advise that your application for exploration aid is denied.

Very truly yours,

/s/ W. H. King
W. H. King
Field Team, Region IV

HMC:cwm

cc: Docket
Administrator, DMEA
WRStorms
RFRobinson
AHKoschmann (2)
Chron.

/s/ E. N. Harshman
for A. H. Koschmann
Field Team, Region IV

DMEA-3038
Asbestos
Region IV

WALTER W. HENDERSON, GLOBE, ARIZONA. G. and H. Mine No. 2, Gila County, Arizona.
Field Report and Denial. The report was referred to the Commodity Group.

9/4/53
#264

COPY

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 4 - 1953

August 24, 1953.

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 3038 (Asbestos), Walter W. Henderson, G. & H. Mine No. 2, Gila County, Arizona.

Enclosed are four copies of the final report on the subject docket, a copy of the letter of denial to the applicant, and two copies of Form 3b.

/s/ W. H. King
W. H. King

/s/ E. N. Harshman
for A. H. Koschmann

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

August 24, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 3035 (Asbestos), Walter W. Henderson, G. & H. Mine No. 2, Gila County, Arizona.

Enclosed are nine copies of the final report on the subject docket. The Geological Survey did not participate.

The applicant requested $26,250.00 to explore the property by crosscutting and drifting. The field examiner believes that there is little chance of finding asbestos of strategic grade in this deposit, and he recommends denial of the application.

We concur in this recommendation.

W. H. King

W. H. King

Enclosures

MINING DIVISION
REGION IV

August 3, 1953

Memorandum

To : W. R. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Report on Docket DMEA-3038, Walter W. Henderson's G. & H. No. 2 Asbestos Prospect, Gila County, Ariz.

Enclosed are original and 8 copies of a report on the above property by L. A. Stewart of the Bureau of Mines. The Geological Survey did not participate in this examination so will not submit a report.

As there seems little chance of discovering asbestos of strategic grade in this deposit, the examiner recommends that a loan be denied. I concur with this recommendation.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

cc W. R. King (8)
W. F. Robinson
DMEA-3038
LP

WRStorms:frj

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA-3038, Walter W. Henderson's G. & H. No. 3 Asbestos Prospect

Gila County, Arizona

Lincoln A. Stewart, Mining Engineer
U. S. Bureau of Mines

August 1953

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

by Lincoln W. Stewart 1/

An application from Walter W. Henderson for a $20,250 exploratory loan on his G. & H. No. 2 asbestos property was received on May 29, 1953 by the Tucson office of the Defense Minerals Exploration Administration as docket [illegible]-3036. The purpose of the loan was to explore each of 2 deposits by a 100-foot inclined shaft and 350 feet of drifting, and construction of a 3-mile access road to the property.

The property consists of 2 unpatented claims adjacent to the San Carlos Indian Reservation, 9 airmiles northeast of Globe, Gila County, Ariz. There has been no production from this area.

An investigation was made by the writer and Robert W. Ageton of the Bureau of Mines on June 11, 1953. A deposit on each of the 2 claims was examined. Each deposit consisted of narrow, discontinuous asbestos veinlets in weakly serpentinized limestone immediately above the contact of a concordant diabase sill. The mineralization is contained in weakly serpentinized bands of thin-bedded, shaley limestone. In the local deposits the asbestos is short, harsh, often spicular or glassy, and is unfit for strategic use.

These thin shaley beds of Mescal formation have never been commercially productive anywhere in this district. Therefore, it is recommended that the exploratory loan to Walter W. Henderson for his G. & H. No. 2 prospect be denied.

1/ Mining Engineer, Bureau of Mines

[illegible]-1035, [illegible]
[illegible] COUNTY, [illegible]

Engineering Report

by Lincoln A. Stewart
Mining Engineer
Bureau of Mines

August 1937

DMEA-3038, WALTER W. HENDERSON'S G. & H. NO. 2 ASBESTOS PROSPECT
GILA COUNTY, ARIZONA

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INTRODUCTION

An application was submitted to the Defense Minerals Exploration Administration for a $26,250 exploratory loan by Walter W. Henderson, Globe, Ariz. for the C. & H. No. 2 prospect. This application, docketed as DMEA-3035, was received by the Tucson, Ariz. office of the Defense Minerals Exploration Administration on May 29, 1953. The purpose of the requested work was to explore an asbestos deposit on each of 2 claims by 100-foot inclined shafts and drifting 350 feet from each shaft. Included in the request was the construction of a 3-mile access road to the property.

Field investigation was made on June 11, 1953 by the writer and Robert W. Ageton, engineers of the Bureau of Mines.

LOCATION AND ACCESSIBILITY

The C. & H. No. 2 property is located just off the west side of the San Carlos Indian Reservation at about 6 air miles northeast of Globe, Gila County, Ariz. (figure 1). Access to the claims is gained by traveling U. S. Highway 60 northward from Globe for 4 miles, turning right at the airport, and meandering northeast through low hills for 2.5 miles to the end of a poor truck trail, then walking northward along the Reservation west boundary fence for about ½ mile. The average altitude of the property is about 4,200 feet.

OWNERSHIP AND EXTENT

The property consists of 2 unpatented mining claims, the eastern ends of which overlap at the Reservation boundary. One claim, the Carol A. No. 1 bears northwest and the other, the Carol A. No. 2 lays

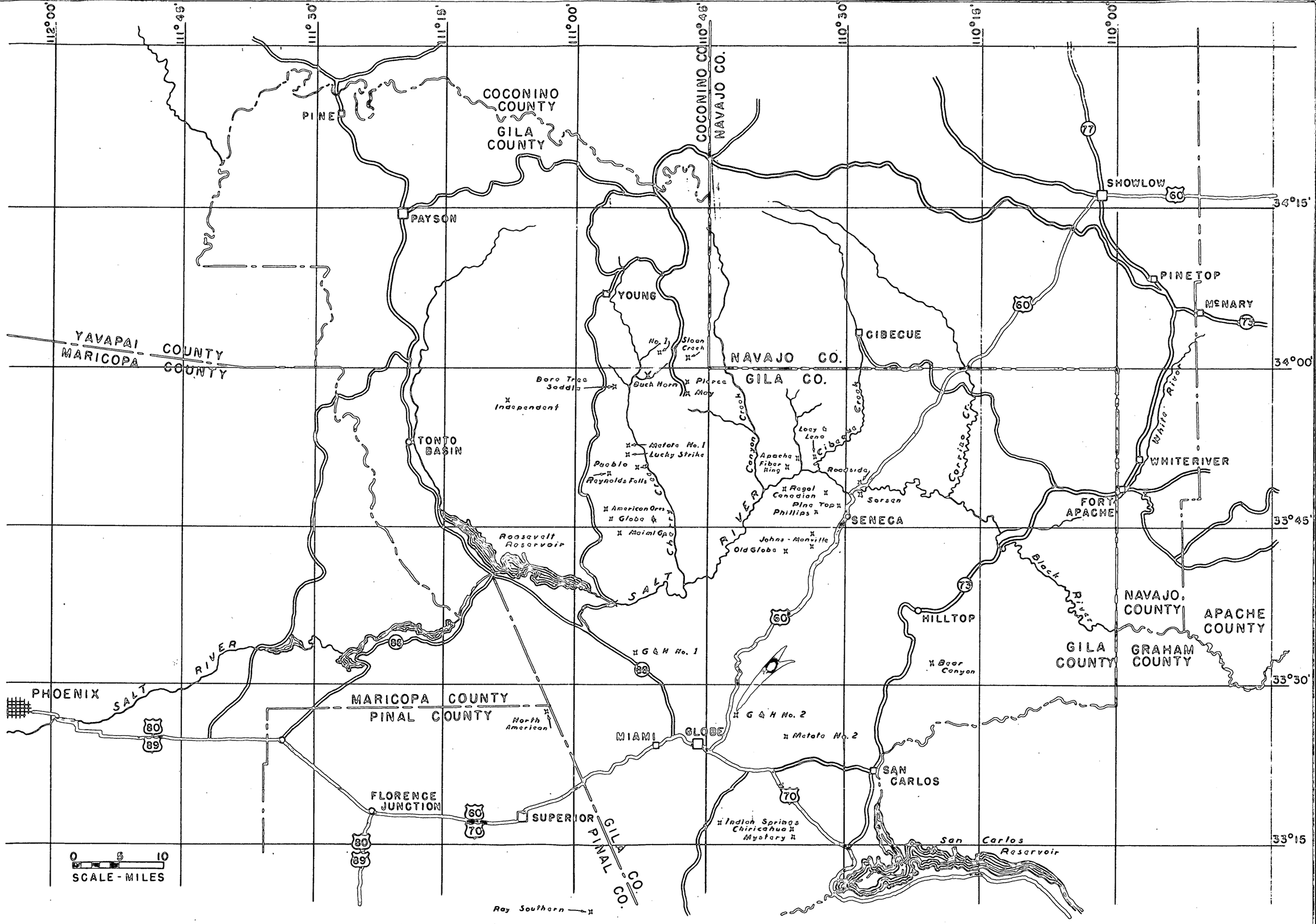

FIGURE 1. – LOCATION MAP - ASBESTOS DEPOSITS - CENTRAL ARIZONA DMEA 3038

north-northwesterly. These claims are recorded at the Gila County Courthouse, Globe, in Book of Mines 49, pages 481 and 482. The claims are owned by a partnership composed of Walter W. and Jack S. Henderson, Box 2282, Globe; Steve Giene, Box 1029, Globe; and Henry L. Ramsey, Box 788, Clarkdale, Ariz.

HISTORY AND PRODUCTION

There are numerous pits and cuts on each claim, attesting to previous unknown ownership. The applicant has dug one new prospect pit on each claim. There has been no production from this area.

DESCRIPTION OF THE DEPOSITS

These deposits are situated in an area that has been deformed by post mineral block faulting and tilting. The Carol M. No. 1 claim is laid northwesterly from the west Reservation boundary fence on the north slope of a long westerly trending ridge. Near the bottom of the slope, the top of a westerly trending, generally concordant diabase sill contacts the limestone bedding that dips about 25° southerly. The contact has been prospected by about 8 pits, some of which show slight amounts of harsh asbestos on the dumps. The applicant made a cut 15 feet deep into the contact at a point where a narrow, nearly vertical dike cuts upward from the sill. Small amounts of short, harsh, spicular fiber were exposed in the limestone bedding. Total width of mineralization was about 3 feet from the dike, and the veinlets were discontinuous, even in this short distance. About 100 feet west of this pit, the underlying diabase sill cut up across the limestone. Below this discencordancy in the bottom of the gulch, coarse-grained granite and a fine-grained rhyolitic intrusive were exposed.

On the Carol M. No. 2 claim, erosion has exposed the upper contact of an apparently concordant diabase sill, in a sinuous line around ridges of low relief. Numerous old pits likewise were seen in this area. Applicant had driven a cut into the ridge exposing about 20 feet of the bedding immediately above the sill. The formations here had a strike of N. 65° W. dipping 22° southwest. At the surface there was exposed a 2-to 3-inch poorly serpentinized band that contained more than an inch of harsh, weathered fiber. The fiber content of the zone decreased away from the outcrop, and had pinched to 1/8 inch glassy harsh fiber at the face.

On both of the claims, the diabase was intruded into thin bedded, shaley limestone, that is not favorable for the formation of fiber in other than narrow, usually harsh veinlets.

CONCLUSIONS

The little asbestos that is present on either claim occurs in narrow veinlets in thin-bedded, shaley limestones that have not been productive anywhere in the district.

There is no justification for the slightest exploration here, consequently there is no point in detailing the exploration proposal or estimated costs.

RECOMMENDATIONS

The asbestos that is present on this property is in narrow discontinuous veinlets in thin-bedded shaley limestone. The fiber is not of strategic grade, as it is short, harsh, spicular, and sometimes

even glassy harsh. This is one of the least interesting prospects we have examined in our asbestos work.

It is recommended that the exploratory loan to Walter W. Henderson for his G. & H. No. 2 prospect be denied.

September 9, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: A denial of exploration assistance - Docket No. DMEA-3038 - Asbestos
Walter L. Henderson
G. & H. Mine No. 2
Gila County, Arizona

We recommend denial of this application and concur with the field team and the commodity specialists in their recommendations, because this portion (thin-bedded section) of the Mescal formation to be explored has never been commercially productive of asbestos and the asbestos is short and harsh and unfit for strategic use.

LGHouk:gad 9/9/53

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

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 4 - 1953

September 4, 1953

Memorandum

To: Lawrence G. Houk, Director, Non-Metallic Minerals Division, DMEA

From: Oliver Bowles, Commodity Specialist, Construction and Chemical Materials Branch

Subject: DMEA Docket No. 3038, Walter W. Henderson, G. & H. Mine No. 2, Gila County, Arizona

In view of the information contained in the engineering report on this property I concur in the recommendation that the application for an exploratory loan be denied.

Oliver Bowles, Commodity Specialist
Construction and Chemical Materials Branch

IN REPLY REFER TO:

G-TE-CRV

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
SEP 4 1953

September 3, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-3038 (Asbestos)

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. M. Larrabee, U. S. Geological Survey
Applicant: W. W. Henderson, Box 2282, Globe , Arizona.
Name of property: G. & H. Mine No. 2.
Location of property: Gila County, Arizona.
Date of field team report: August 1953.
Authorship of field team report: Lincoln A. Stewart.
Field team's recommendation: Denial.
Comments:

Asbestos is not of strategic quality and the host beds have never been productive in this area.

ACTION SUGGESTED:

Follow field team's recommendation.

D. M. Larrabee

Larrabee:jeh
9/3/53
cc: Director's reading 4212
Branch reading 4212
DMEA 3
Larrabee G-230

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

224 New Customhouse
Denver 2, Colorado

September 10, 1953

Mr. Byard C. Wilburn
Box 31
Wellton, Arizona

Re: Docket No. DMEA-3138

Dear Mr. Wilburn:

Returned herewith is your application and the following supporting data:

1. One copy Bureau of Land Management Sodium Prospecting Permit dated April 13, 1953.

2. One copy University of Arizona letter dated January 19, 1949, appertaining to salts analysis.

3. One copy University of Arizona letter dated April 16, 1952, appertaining to sodium and other mineral descriptions.

4. One copy University of Arizona letter dated June 4, 1952 appertaining to gypsum.

No evidence has been submitted that uranium or thorium occurs in the lands involved in your application or that you have the right to mine uranium on this land, so this docket is closed.

It is suggested that you forward to the following address, postpaid, representative one-pound samples of the material you believe to contain uranium and/or thorium and these samples will be tested for radioactivity and reported to you free of charge:

Chief, Process Development and Research Branch
Metallurgical Division
Region IV, U.S. Bureau of Mines
Tucson, Arizona

When you have proof that uranium or thorium is present on land which you have a valid right to mine we will be glad to receive another application for DMEA aid in the exploration work.

Very truly yours,

W. H. KING

W. H. King
Executive Officer, DMEA
Field Team, Region IV

HMC:jp
cc Subject
Chron
WRStorms
AHKoschmann
Chairman, Oper. Comm. (2)

Enclosures

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

mas
Noted

September 9, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division LGH

Subject: A denial of exploration assistance - Docket No. DMEA-3038 - Asbestos
Walter W. Henderson
G. & H. Mine No. 2
Gila County, Arizona

We recommend denial of this application and concur with the field team and the commodity specialists in their recommendations, because this portion (thin-bedded section) of the Mescal formation to be explored has never been commercially productive of asbestos and the asbestos is short and harsh and unfit for strategic use.

FILE COPY
SURNAME:

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

600

September 9, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: A denial of exploration assistance - Docket No. DMEA-3038 - Asbestos
Walter W. Henderson
G. & H. Mine No. 2
Gila County, Arizona

We recommend denial of this application and concur with the field team and the commodity specialists in their recommendations, because this portion (thin-bedded section) of the Mescal formation to be explored has never been commercially productive of asbestos and the asbestos is short and harsh and unfit for strategic use.

LGHouk:gad 9/9/53

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

R.C.G.
9-11-53

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 4 - 1953

September 4, 1953

Memorandum

To: Lawrence G. Houk, Director, Non-Metallic Minerals Division, DMEA

From: Oliver Bowles, Commodity Specialist, Construction and Chemical Materials Branch

Subject: DMEA Docket No. 3038, Walter W. Henderson, G. & H. Mine No. 2, Gila County, Arizona

In view of the information contained in the engineering report on this property I concur in the recommendation that the application for an exploratory loan be denied.

Oliver Bowles

Oliver Bowles, Commodity Specialist
Construction and Chemical Materials Branch

OB

IN REPLY REFER TO:
DEPARTMENT OF THE INTERIOR G-MD-CNM
Defense Minerals Administration
RECEIVED
SEP 4 - 1953

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

September 3, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-3038 (Asbestos)

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. M. Larrabee, U. S. Geological Survey
Applicant: W. W. Henderson, Box 2282, Globe, Arizona.
Name of property: G. & H. Mine No. 2.
Location of property: Gila County, Arizona.
Date of field team report: August 1953.
Authorship of field team report: Lincoln A. Stewart.
Field team's recommendation: Denial.
Comments:

Asbestos is not of strategic quality and the host beds have never been productive in this area.

ACTION SUGGESTED:

Follow field team's recommendation.

D. M. Larrabee

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION
WASHINGTON 25, D. C.

C
O
P
Y

224 New Customhouse
Denver 2, Colorado

August 24, 1953

Mr. Walter W. Henderson
Box 2282
Globe, Arizona

Dear Mr. Henderson:

Reference is made to your application for Government aid on the G. and H. Mine No. 2.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding material of acceptable grade, and in quantities that will significantly improve the mineral supply position for the National Defense Program.

A careful study of your property and data available to this agency reveals that the probability of disclosing mineable reserves of asbestos by your proposed exploration program is not considered sufficiently promising to justify Government participation. Under these circumstances, we regret to advise that your application for exploration is denied.

Very truly yours,

/s/ W. H. King
Field Team, Region IV

/s/ E. N. Harshman for
A. H. Koschmann
Field Team, Region IV

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

224 New Customhouse
Denver 2, Colorado

August 24, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 3038 (Asbestos), Walter W. Henderson, G. & H. Mine No. 2, Gila County, Arizona.

Enclosed are four copies of the final report on the subject docket, a copy of the letter of denial to the applicant, and two copies of Form 3b.

W. H. King
W. H. King

E. H. Koschmann
for A. H. Koschmann

Enclosures

DENIED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

August 24, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 3038 (Asbestos), Walter W. Henderson, G. & H. Mine No. 2, Gila County, Arizona.

Enclosed are nine copies of the final report on the subject docket. The Geological Survey did not participate.

The applicant requested $26,250.00 to explore the property by crosscutting and drifting. The field examiner believes that there is little chance of finding asbestos of strategic grade in this deposit, and he recommends denial of the application.

We concur in this recommendation.

W. H. King
W. H. King

Enclosures

MINING DIVISION
REGION IV

August 3, 1953

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Report on Docket DMEA-3038, Walter W. Henderson's C. & H. No. 2 Asbestos Prospect, Gila County, Ariz.

Enclosed are original and 8 copies of a report on the above property by L. A. Stewart of the Bureau of Mines. The Geological Survey did not participate in this examination so will not submit a report.

As there seems little chance of discovering asbestos of strategic grade in this deposit, the examiner recommends that a loan be denied. I concur with this recommendation.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC W. H. King (8)
R. F. Robinson
DMEA-3038
DF

WRStorms:frj

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA-3038, Walter W. Henderson's G. & H. No. 2 Asbestos Prospect

Gila County, Arizona

Lincoln A. Stewart, Mining Engineer
U. S. Bureau of Mines

August 1953

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By Lincoln A. Stewart[1]

An application from Walter W. Henderson for a $26,250 exploratory loan on his G. & H. No. 2 asbestos property was received on May 29, 1953 by the Tucson office of the Defense Minerals Exploration Administration as docket DMEA-3038. The purpose of the loan was to explore each of 2 deposits by a 100-foot inclined shaft and 350 feet of drifting, and construction of a 3-mile access road to the property.

The property consists of 2 unpatented claims adjacent to the San Carlos Indian Reservation, 6 airmiles northeast of Globe, Gila County, Ariz. There has been no production from this area.

An investigation was made by the writer and Robert W. Ageton of the Bureau of Mines on June 11, 1953. A deposit on each of the 2 claims was examined. Each deposit consisted of narrow, discontinuous asbestos veinlets in weakly serpentinized limestone immediately above the contact of a concordant diabase sill. The mineralization is contained in weakly serpentinized bands of thin-bedded, shaley limestone. In the local deposits the asbestos is short, harsh, often spicular or glassy, and is unfit for strategic use.

These thin shaley beds of Mescal formation have never been commercially productive anywhere in this district. Therefore, it is recommended that the exploratory loan to Walter W. Henderson for his G. & H. No. 2 prospect be denied.

1/ Mining Engineer, Bureau of Mines

DMEA-3038, WALTER W. HENDERSON'S G. & H. NO. 2 ASBESTOS PROSPECT
GILA COUNTY, ARIZONA

Engineering Report

By Lincoln A. Stewart
Mining Engineer
Bureau of Mines

August 1953

DMEA-3038, WALTER W. HENDERSON'S G. & H. NO. 2 ASBESTOS PROSPECT
GILA COUNTY, ARIZONA

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INTRODUCTION

An application was submitted to the Defense Minerals Exploration Administration for a $26,250 exploratory loan by Walter W. Henderson, Globe, Ariz. for the G. & H. No. 2 prospect. This application, docketed as DMEA-3038, was received by the Tucson, Ariz. office of the Defense Minerals Exploration Administration on May 29, 1953. The purpose of the requested work was to explore an asbestos deposit on each of 2 claims by 100-foot inclined shafts and drifting 350 feet from each shaft. Included in the request was the construction of a 3-mile access road to the property.

Field investigation was made on June 11, 1953 by the writer and Robert W. Ageton, engineers of the Bureau of Mines.

LOCATION AND ACCESSIBILITY

The G. & H. No. 2 property is located just off the west side of the San Carlos Indian Reservation at about 6 air miles northeast of Globe, Gila County, Ariz. (figure 1). Access to the claims is gained by traveling U. S. Highway 60 northward from Globe for 4 miles, turning right at the airport, and meandering northeast through low hills for 2.5 miles to the end of a poor truck trail, then walking northward along the Reservation west boundary fence for about ½ mile. The average altitude of the property is about 4,200 feet.

OWNERSHIP AND EXTENT

The property consists of 2 unpatented mining claims, the eastern ends of which overlap at the Reservation boundary. One claim, the Carol M. No. 1 bears northwest and the other, the Carol M. No. 2 lays

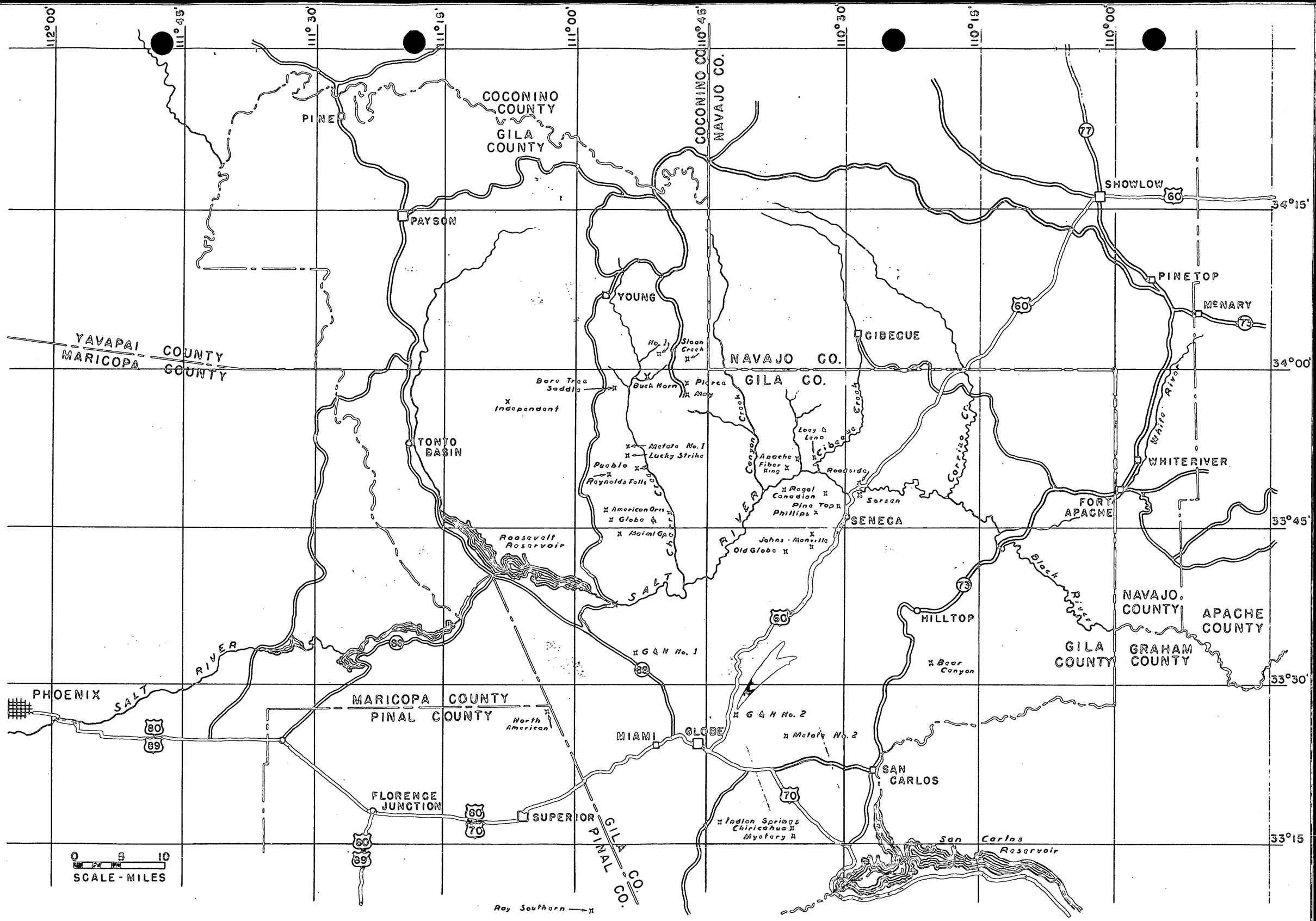

FIGURE 1. - LOCATION MAP - ASBESTOS DEPOSITS - CENTRAL ARIZONA DMEA 3038

north-northwesterly. These claims are recorded at the Gila County Courthouse, Globe, in Book of Mines 49, pages 481 and 482. The claims are owned by a partnership composed of Walter W. and Jack B. Henderson, Box 2282, Globe; Steve Giono, Box 1029, Globe; and Henry L. Ramsey, Box 788, Clarkdale, Ariz.

HISTORY AND PRODUCTION

There are numerous pits and cuts on each claim, attesting to previous unknown ownership. The applicant has dug one new prospect pit on each claim. There has been no production from this area.

DESCRIPTION OF THE DEPOSITS

These deposits are situated in an area that has been deformed by post mineral block faulting and tilting. The Carol M. No. 1 claim is laid northwesterly from the west Reservation boundary fence on the north slope of a long westerly trending ridge. Near the bottom of the slope, the top of a westerly trending, generally concordant diabase sill contacts the limestone bedding that dips about 25° southerly. The contact has been prospected by about 8 pits, some of which show slight amounts of harsh asbestos on the dumps. The applicant made a cut 15 feet deep into the contact at a point where a narrow, nearly vertical dike cuts upward from the sill. Small amounts of short, harsh, spicular fiber were exposed in the limestone bedding. Total width of mineralization was about 3 feet from the dike, and the veinlets were discontinuous, even in this short distance. About 100 feet west of this pit, the underlying diabase sill cut up across the limestone. Below this disconcordancy in the bottom of the gulch, coarse-grained granite and a fine-grained rhyolitic intrusive were exposed.

On the Carol M. No. 2 claim, erosion has exposed the upper contact of an apparently concordant diabase sill, in a sinuous line around ridges of low relief. Numerous old pits likewise were seen in this area. Applicant had driven a cut into the ridge exposing about 20 feet of the bedding immediately above the sill. The formations here had a strike of N. 65° W. dipping 23° southwest. At the surface there was exposed a 2-to 3-inch poorly serpentinized band that contained more than an inch of harsh, weathered fiber. The fiber content of the zone decreased away from the outcrop, and had pinched to 3/8 inch glassy harsh fiber at the face.

On both of the claims, the diabase was intruded into thin bedded, shaley limestone, that is not favorable for the formation of fiber in other than narrow, usually harsh veinlets.

CONCLUSIONS

The little asbestos that is present on either claim occurs in narrow veinlets in thin-bedded, shaley limestones that have not been productive anywhere in the district.

There is no justification for the slightest exploration here, consequently there is no point in detailing the exploration proposal or estimated costs.

RECOMMENDATIONS

The asbestos that is present on this property is in narrow discontinuous veinlets in thin-bedded shaley limestone. The fiber is not of strategic grade, as it is short, harsh, spicular, and sometimes

even glassy harsh. This is one of the least interesting prospects we have examined in our asbestos work.

It is recommended that the exploratory loan to Walter W. Henderson for his G. & H. No. 2 prospect be denied.

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

224 New Customhouse
Denver 2, Colorado

August 24, 1953.

Mr. Walter W. Henderson
Box 2282
Globe, Arizona

Henderson

Re: Docket No. DMEA-3038

Dear Mr. Henderson:

Reference is made to your application for Government aid on the G. & H. Mine No. 2.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding material of acceptable grade, and in quantities that will significantly improve the mineral supply position for the National Defense Program.

A careful study of your property and data available to this agency reveals that the probability of disclosing mineable reserves of asbestos by your proposed exploration program is not considered sufficiently promising to justify Government participation. Under these circumstances, we regret to advise that your application for exploration aid is denied.

Very truly yours,

W. H. King
W. H. King
Field Team, Region IV

HMC:cwm

CC: Docket
Administrator, DMEA
WRStorms
RFRobinson
AHKoschmann (2)
Chron.

E. N. Harshman
for A. H. Koschmann
Field Team, Region IV

Reviewed by
DMEA OPERATING COMMITTEE
9-4-53
(date)

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

224 New Customhouse
Denver 2, Colorado

August 24, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 3038 (Asbestos), Walter W. Henderson, G. & H. Mine No. 2, Gila County, Arizona.

Enclosed are four copies of the final report on the subject docket, a copy of the letter of denial to the applicant, and two copies of Form 3b.

W. H. King
W. H. King

E. M. Hawkman
for A. H. Koschmann

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
9-x-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

August 24, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 3038 (Asbestos), Walter W. Henderson, G. & H. Mine No. 2, Gila County, Arizona.

Enclosed are nine copies of the final report on the subject docket. The Geological Survey did not participate.

The applicant requested $26,250.00 to explore the property by crosscutting and drifting. The field examiner believes that there is little chance of finding asbestos of strategic grade in this deposit, and he recommends denial of the application.

We concur in this recommendation.

W. H. King
W. H. King

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
9-4-53
(date)

MINING DIVISION
REGION IV

August 3, 1953

Memorandum

To : W. H. King, Chief, Mining Division, Region IV

From : Chief, Mining Methods Br., Mining Div., Region IV

Subject : Report on Docket DMEA-3038, Walter W. Henderson's J. & R. No. 2 Asbestos Prospect, Gila County, Ariz.

Enclosed are original and 8 copies of a report on the above property by L. A. Stewart of the Bureau of Mines. The Geological Survey did not participate in this examination so will not submit a report.

As there seems little chance of discovering asbestos of strategic grade in this deposit, the examiner recommends that a loan be denied. I concur with this recommendation.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC W. H. King (8)
R. F. Robinson
DMEA-3038
DF

WRStorms:frj

Reviewed by
DMEA OPERATING COMMITTEE
9-4-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMEA-3038, Walter W. Henderson's G. & H. No. 2 Asbestos Prospect

Gila County, Arizona

Lincoln A. Stewart, Mining Engineer
U. S. Bureau of Mines

August 1953

9-4-53
(date)

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

by Lincoln D. Stewart 1/

An application from Walter W. Henderson for a $[illegible],250 exploratory loan on his G. & H. No. 2 asbestos property was received on May 29, 1953 by the Tucson office of the Defense Minerals Exploration Administration as docket DMA-3038. The purpose of the loan was to explore each of 2 deposits by a 100-foot inclined shaft and 150 feet of drifting, and construction of a 3-mile access road to the property.

The property consists of 2 unpatented claims adjacent to the San Carlos Indian Reservation, 6 airmiles northeast of Globe, Gila County, Ariz. There has been no production from this area.

An investigation was made by the writer and Robert W. Ageton of the Bureau of Mines on June 11, 1953. A deposit on each of the 2 claims was examined. Each deposit consisted of narrow, discontinuous asbestos veinlets in weakly serpentinized limestone immediately above the contact of a concordant diabase sill. The mineralization is contained in weakly serpentinized bands of thin-bedded, shaley limestone. In the local deposits the asbestos is short, harsh, often spicular or glassy, and is unfit for strategic use.

These thin shaley beds of Mescal formation have never been commercially productive anywhere in this district. Therefore, it is recommended that the exploratory loan to Walter W. Henderson for his G. & H. No. 2 prospect be denied.

1/ Mining Engineer, Bureau of Mines

[illegible]

9-4-53
(date)

DMEA-3038, WALTER W. HENDERSON'S G. & H. NO. 2 ASBESTOS PROSPECT
GILA COUNTY, ARIZONA

Engineering Report

By Lincoln A. Stewart
Mining Engineer
Bureau of Mines

August 1953

Reviewed by
DMEA OPERATING COMMITTEE
9-x-53
(date)

BMEA-3038, WALTER W. HENDERSON'S G. & H. NO. 2 ASBESTOS PROSPECT
GILA COUNTY, ARIZONA

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Engineering report — Page

Introduction ---------- 1
Location and accessibility ---------- 1
Ownership and extent ---------- 1
History and production ---------- 2
Description of the deposits ---------- 2
Conclusions ---------- 3
Recommendations ---------- 3

ILLUSTRATIONS

Figure — Following page

1 Location map ---------- 1

INTRODUCTION

An application was submitted to the Defense Minerals Exploration Administration for a $25,250 exploratory loan by Walter W. Henderson, Globe, Ariz. for the G. & H. No. 2 prospect. This application, docketed as DMEA-3038, was received by the Tucson, Ariz. office of the Defense Minerals Exploration Administration on May 29, 1953. The purpose of the requested work was to explore an asbestos deposit on each of 2 claims by 100-foot inclined shafts and drifting 350 feet from each shaft. Included in the request was the construction of a 3-mile access road to the property.

Field investigation was made on June 11, 1953 by the writer and Robert W. Ageton, engineers of the Bureau of Mines.

LOCATION AND ACCESSIBILITY

The G. & H. No. 2 property is located just off the west side of the San Carlos Indian Reservation at about 6 air miles northeast of Globe, Gila County, Ariz. (figure 1). Access to the claims is gained by traveling U. S. Highway 60 northward from Globe for 4 miles, turning right at the airport, and meandering northeast through low hills for 2.5 miles to the end of a poor truck trail, then walking northward along the Reservation west boundary fence for about ½ mile. The average altitude of the property is about 4,200 feet.

OWNERSHIP AND EXTENT

The property consists of 2 unpatented mining claims, the eastern ends of which overlap at the Reservation boundary. One claim, the Carol M. No. 1 bears northwest and the other, the Carol M. No. 2 lays

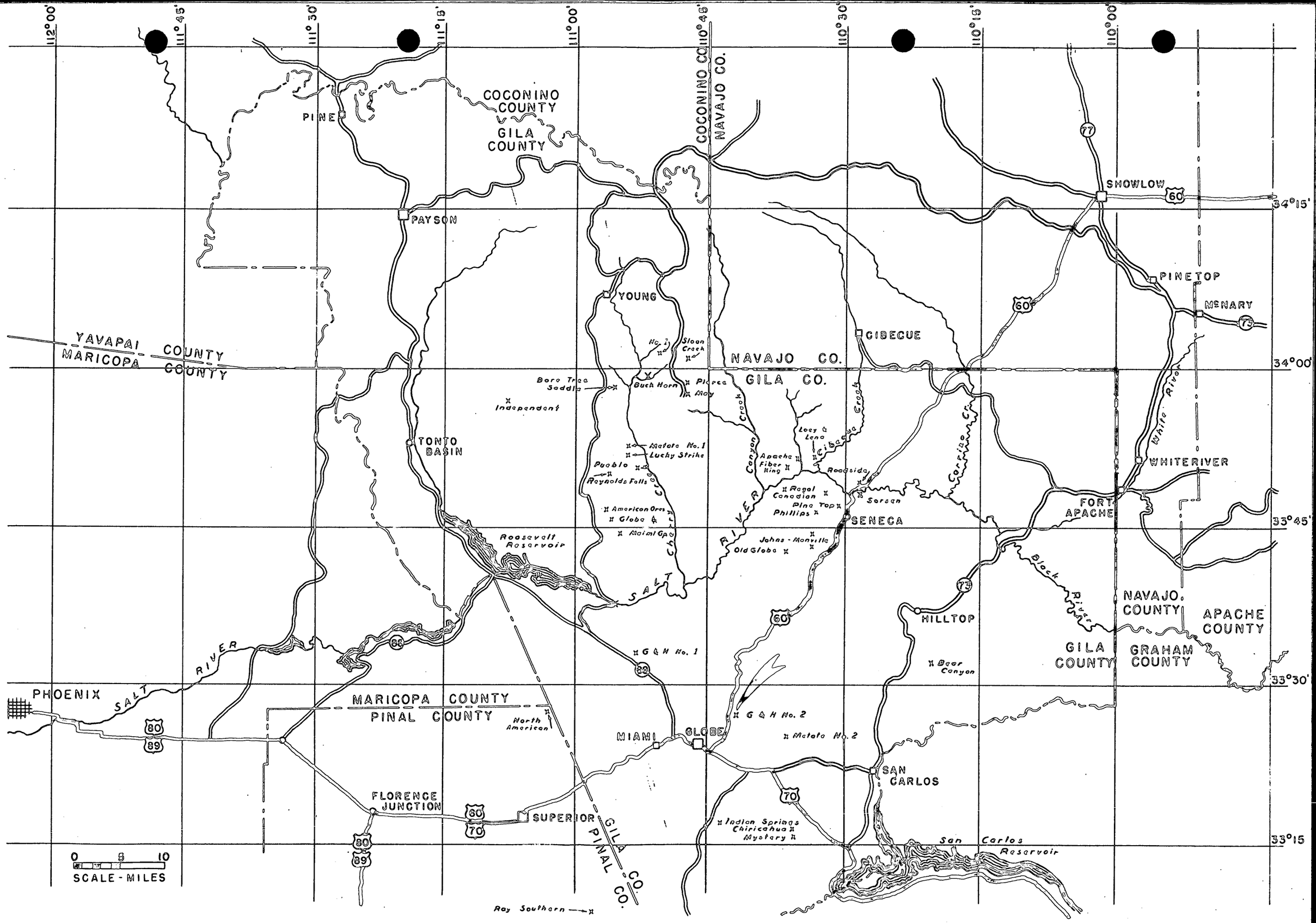


FIGURE 1.- LOCATION MAP - ASBESTOS DEPOSITS - CENTRAL ARIZONA DMEA 3038

north-northwesterly. These claims are recorded at the Gila County Courthouse, Globe, in Book of Mines 49, pages 481 and 482. The claims are owned by a partnership composed of Walter W. and Jack B. Henderson, Box 2282, Globe; Steve Gione, Box 1029, Globe; and Henry L. Ramsey, Box 788, Clarkdale, Ariz.

HISTORY AND PRODUCTION

There are numerous pits and cuts on each claim, attesting to previous unknown ownership. The applicant has dug one new prospect pit on each claim. There has been no production from this area.

DESCRIPTION OF THE DEPOSITS

These deposits are situated in an area that has been deformed by post mineral block faulting and tilting. The Carol M. No. 1 claim is laid northwesterly from the west Reservation boundary fence on the north slope of a long westerly trending ridge. Near the bottom of the slope, the top of a westerly trending, generally concordant diabase sill contacts the limestone bedding that dips about 25° southerly. The contact has been prospected by about 8 pits, some of which show slight amounts of harsh asbestos on the dumps. The applicant made a cut 15 feet deep into the contact at a point where a narrow, nearly vertical dike cuts upward from the sill. Small amounts ofshort, harsh, spicular fiber were exposed in the limestone bedding. Total width of mineralization was about 3 feet from the dike, and the veinlets were discontinuous, even in this short distance. About 100 feet west of this pit, the underlying diabase sill cut up across the limestone. Below this disconcordancy in the bottom of the gulch, coarse-grained granite and a fine-grained rhyolitic intrusive were exposed.

On the Carol M. No. 2 claim, erosion has exposed the upper contact of an apparently concordant diabase sill, in a sinuous line around ridges of low relief. Numerous old pits likewise were seen in this area. Applicant had driven a cut into the ridge exposing about 20 feet of the bedding immediately above the sill. The formations here had a strike of N. 65° W. dipping 23° southwest. At the surface there was exposed a 2-to 3-inch poorly serpentinized band that contained more than an inch of harsh, weathered fiber. The fiber content of the zone decreased away from the outcrop, and had pinched to 3/8 inch glassy harsh fiber at the face.

On both of the claims, the diabase was intruded into thin bedded, shaley limestone, that is not favorable for the formation of fiber in other than narrow, usually harsh veinlets.

CONCLUSIONS

The little asbestos that is present on either claim occurs in narrow veinlets in thin-bedded, shaley limestones that have not been productive anywhere in the district.

There is no justification for the slightest exploration here, consequently there is no point in detailing the exploration proposal or estimated costs.

RECOMMENDATIONS

The asbestos that is present on this property is in narrow discontinuous veinlets in thin-bedded shaley limestone. The fiber is not of strategic grade, as it is short, harsh, spicular, and sometimes

even glassy harsh. This is one of the least interesting prospects we have examined in our asbestos work.

It is recommended that the exploratory loan to Walter W. Henderson for his G. & H. No. 2 prospect be denied.

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

224 New Customhouse
Denver 2, Colorado

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 18 1953

May 15, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: Code 200

From: Executive Officer, DMEA Field Team, Region IV

Subject: Docketing for Exploration Assistance

Enclosed herewith in duplicate is DMA Form 3a and MF-103, and supporting data pertaining to the following applications for Government assistance in exploration work:

Walter W. Henderson
Box 2282
Globe, Arizona (G & H Mine #1) DMEA-3039

Walter W. Henderson
Box 2282
Globe, Arizona (G & H Mine #2) DMEA-3038

Grants Mining and Leaching Trust DMEA-3040
c/o Gus F. Ingwersen
1434 Forest Street
Denver, Colorado

W. H. King
W. H. King

Enclosures

Globe, Arizona
May, 9, 1953

United States Department of Interior
224 New Customs H ouse Building
U. S. B ureau of Mines

Attention; Mr. W. H. King

Dear Mr. King:

Please find enclosed our application for DMEA exploration loan at our G & H Mine #2, Globe Arizona.

The exploration program will consist of approximately 15000' of road building and 3 days bulldozer work for benching and facing, and 700' of drifting to explore the depth and width of ore body.

The estimated cost of the drift work is $23,044.00 or $32.92 per foot.

The time necessary to complete the project is estimated to be a maximum of 24 months.

The G & H Mine #2 is prepared to contact the proposed drift work for $22,050.00, or $31.50 per foot, plus $3,750.00 for road building and $450.00 for benching and facing, making a grand total of $26,250.00.

Yours very truly,

Walter W. Henderson

Walter W. Henderson

MF-103
(Revised April 1952)

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAY 18 1953

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

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

Not to be filled in by applicant

Docket No. DMEA-3038
Metal or Mineral
Date Received 5/18/53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Walter W. Henderson Box 2282 Globe Arizona

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

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. Does not apply.

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

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

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract Carol M #1 & #2. Two unpatented mining claims located in Gila County Arizona seven miles in a northerly direction from Globe, Arizona and three miles due east of the Roland Jones Ranch on Highway 60.

(*b*) State any mine name by which the property is known. G & H Mine #2.

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

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

(*e*) If you own the land, describe any liens or encumbrances on it None.

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. Carol M #1 -book 49, page 481 Carol M #2 -book 49, page 482 Gila County, Arizona

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

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. None.

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

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

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

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

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

(*c*) The work will start within 60 days and be completed within 24 months from the date of an exploration project contract.

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

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

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

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

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

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

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project. None.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project. None.

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

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

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

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

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

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

Explain in detail on acompanying paper.

CERTIFICATION

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

Dated May 9, 1953

Walter W. Henderson
(Applicant)

By

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.

Member
a.a.p.a.

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

1. (d)

Walter W. Henderson 787 North High Box 2282 Globe, Arizona.
Jack B. Henderson 787 North High Box 2282 Globe, Arizona.
Steve Gione Box 1029 Globe, Arizona.
Henry L. Ramsey Box 788 Clarkdale, Arizona.

4. (a)

Carol M #1 & #2:

New location work done on claim consists of open cut going in on vein, This exposes fibre and serpentine bands across vein. Old work consists of four old open cuts which exposes fibre and serpentine on vein. Fibre is exposed on surface of vein for approximately 700'. We have two to four bands of serpentine and fibre showing from 1"to 6"" wide.

There is sime old work done on reservation side which has good showing of fibre and serpentine.

We are starting new incline shaft to open up ore body on Carol M#1. We are also starting new incline shaft to open up ore body on Carol M #2.

Partners will share equally in mine.

Accessibility:

We will need three miles of road in order to get equipement into mine. This will be minimum road at present time.

4. (b)

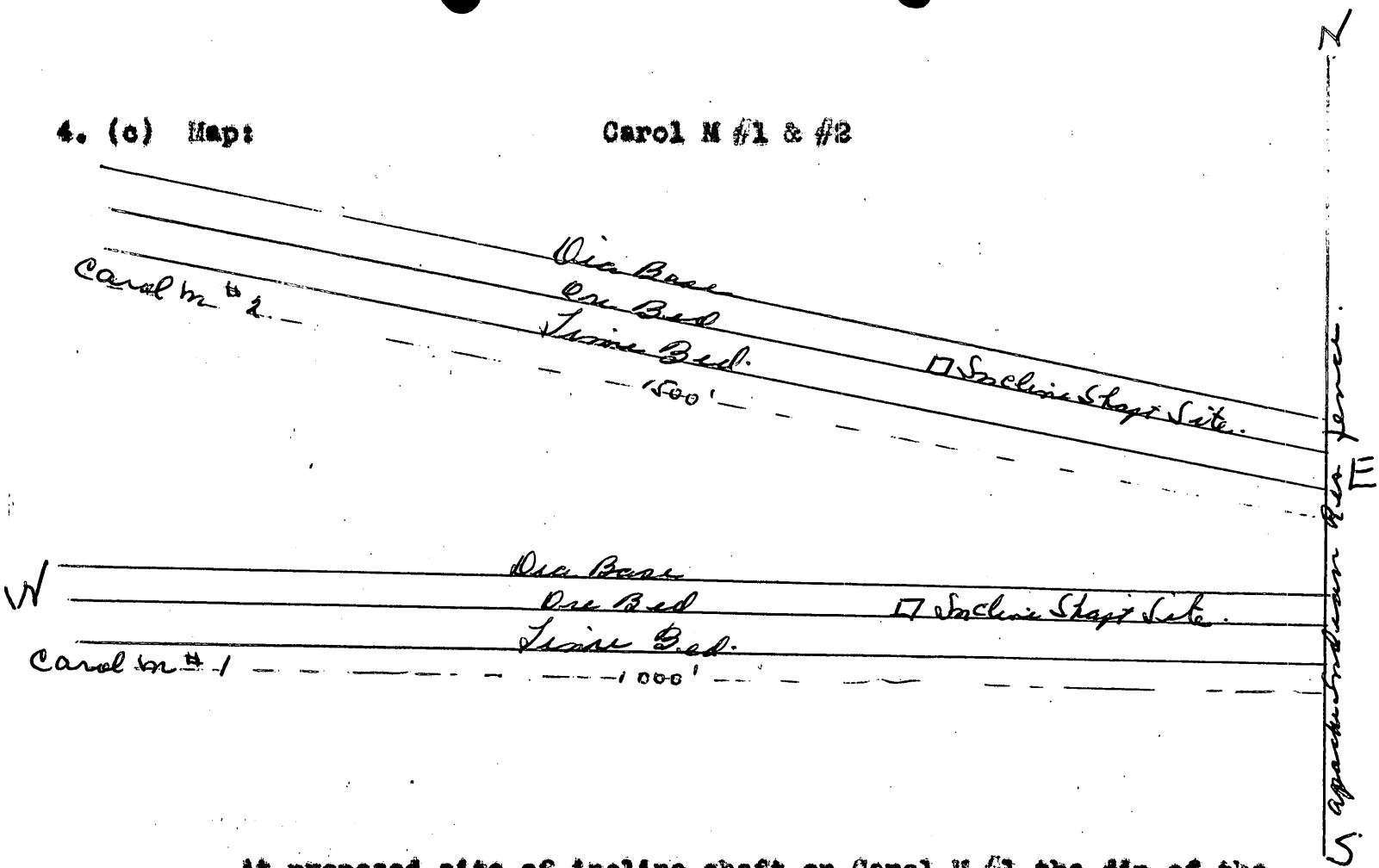
This is a new find and there is no past production and all present work has been done in order to open up property for exploration program.

4. (c)

Carol M #1:
Large sedimentary lime beds which have been split by upheaval of Diabase. The ore body lays on top of Diabase. We have fibre showing in ore zones for approximately 700'. Our work shows good ore zones, therefore, a chance to make a good mine.

Carol M #2:
Runs from reservation fence to northeast 1500'. Fibre is exposed approximately 200' in center of claim. Two good fibre and serpentine bands. Very little old work. New work exposes fibre and serpentine.

4. (c) Map: Carol M #1 & #2



At proposed site of incline shaft on Carol M #1 the dip of the vein is approximately 25 . We wish to put down incline shaft for 100' and if we have commerical ore we will drift to east and west and continue sinking operation. Same applies to Carol M #2. We want to explore this property because we think it will make a mine.

Mining method will be determined after ground is opened up and can see which will be most satisfactory from stand point of cost and etc.

On this property we will have lime for a hanging wall, and Diabase for a foot wall.

4. (d)

We will need three miles of minimum access road to put us to main highway which is 7 miles from Globe, Arizona, our milling, shipping residence point.

5. (b) See 4. (c).

5. (d)

Applicant will be supervisor of project. He has 23 years mining experience. Ten years of which has been as supervisor for Anaconda Copper Co. Miami, Arizona. Applicant has had practical mining experience in all types of mining operations including, sinking, drifting, raising and stopeing in Arizona, California, Nevado, and Idaho. Other partners are good practical miners with five to ten years experience.

CALCULATION OF COSTS
(Furnished by the Hendersons)

6. Rental of Equipment

	Present Value
210 Cu. Ft. Compressor	$6,500.00
7½ H.P. Slusher	1,800.00
Jackhammer	500.00
Jackleg	200.00
Line oiler	20.00
3/4" Air line (rubber) 200'	50.00
1/2" Water hose " 50'	15.00
Water gooseneck	10.00
2 Mine cars	500.00
	$9,295.00

Rental Basis per Month

$\frac{\$9,295.00}{60}$ - $154.91

Rental Basis per foot advance
3 Ft./day x 25 days /month - 75'

$\frac{\$154.91}{75}$ - $2.07 per foot

Labor

2 miners @ $15.00 per shift	$30.00
2 muckers @ $13.00 per shift	26.00
	$56.00

Includes overtime, industrial insurance of 9.92% and Social Security Tax of 4.5%.

On advance of 3' per day

$\frac{\$56.00}{3.0}$ - $18.67 per foot

Supplies

Explosives (14 holes per round)

Dynamite, 28 pounds @ $0.21 / lb.	$5.88
Caps, 14 @ $0.02 each	.28
Fuse, 112' @ $0.12 / ft.	1.34
Total	$7.50

$\frac{\$750}{3.0}$ - $2.50 / ft.

Fuel for Compressor

Compressor to be in operation 16 hours per day.
8 hous drilling and 8 hours slushing.

30 gal. gas @ $0.305/gal. 2 qts. oil @ $0.30 - $9.75

$\frac{\$9.75}{3.0}$ - $3.25 per foot.

Pipe and Track

Pipe and track to be purchased by G & H Mine and to remain in the company's possession upon the termination of the project. The project to be charged 40% of the estimated purchase price for these items.

	Per Foot
Rails, spikes, ties, fishplates, switches	$1.25
2" air line, with valves and fittings	.80
1" water line, with valves and fittings	.25
Total	$2.00

$2.00 x 40% - $0.80 per foot

Drill Steel and Bits

Steel breakage estimated to be 1-4 foot piece per 3 rounds, or 9 feet advance
4 Timken detachable bits per round; this also includes sharpening.

Steel - $\frac{\$6.00}{9.0}$ - $0.67 per foot

Bits - $\frac{4 \times \$0.56}{3.0}$ - $0.74 per foot

Total $1.41 per foot

Other Supplies

	Per Foot
Machine oil for drill slusher	$0.15
Carbide	.10
Picks, shovels, flatsheet, wrenches, jimerow bars, moils, loading sticks and other small tools	.30
(This covers replacement and breakage)	
Total per foot	$0.55

Repairs

Normal repairs on machinery to be rented from company, including breakage and obsolesence
$0.75 per foot

Supervision and Engineering

Estimated at $1.25 per foot.

Water Haulage

Tank truck two trips per week $20.00 per trip

$40.00 per week = 2.22 per foot
18 feet advance

The above included rental on tank truck, labor and operating expense.

Summary		Cost per foot
Rental of equipment		$ 2.07
Labor		18.67
Supplies:		
Explosives	$2.50	
Fuel	3.25	
Pipe and Track	.80	
Steel and bits	1.41	7.96
Repairs		.75
Supervision and Engineering		1.25
Water Haulage		2.22
	Total Cost	$32.92

Estimated Cost of Project

700' Drifting and Cross cutting @ $31.50 per ft.	$22,050.00
15000' Road Work @ $0.25 per foot	3,750.00
24 hrs. Dozer work @ $18.75 per hr.	450.00
	$26,250.00

G & H Mining Co.	10%	=	$ 2,625.00
DMEA	90%	=	23,625.00
		Total	$ 26,250.00