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

224 New Customhouse
Denver 2, Colorado

September 8, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 2976 (Asbestos), Cibecue Mining Company, Inc., 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

A. H. Koschmann
A. H. Koschmann

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(date)

MF-500

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION

# REFERENCE SLIP

DATE 9/22/53

REFERRED TO:
1. Code 600 Room 4537
2.
3.
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: .....

Check (X) before the items needing attention.

ROBERT E. ADAMS

*Initials of sender.*

GPO 16—63815-1

DMEA-2976
Asbestos
Region IV

RESCUE MINING COMPANY, INC., PHOENIX, ARIZONA. Lost Mine Claims, Gila County, Arizona.
Field Report and Denial. The report was referred to the Marketing Group.

270
9/21/53

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

224 New Customhouse
Denver 2, Colorado

September 8, 1953.

Mr. George A. Troik, Secretary
Cibecue Mining Company, Inc.
3635 North 21st Avenue
Phoenix, Arizona

Re: Docket DMEA 2976

Dear Mr. Troik:

Reference is made to your application for Government aid on the Lost Mine Claims.

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

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

HMC:cwm

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

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(date)

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

RECEIVED

October 8, 1953

Memorandum

To: Lawrence G. Houk, Director, Non-Metallic Minerals Division
Defense Minerals Exploration Administration

From: G. W. Josephson, Chief, Construction and Chemical Materials Branch, Bureau of Mines

Subject: Final Report, DMEA Docket 2976 (Asbestos), Cibecue Mining Company, Inc., Gila County, Arizona

The subject report has been reviewed in this Branch. We agree with the field team that the property appears to have very little promise as an asbestos prospect. Not only is very little fiber available but the quality also is poor. Therefore, we concur in their suggestion that the application be denied.

G. W. Josephson
Chief, Construction and
Chemical Materials Branch

September 22, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: A denial of exploration assistance - Docket No. DMEA-2976 - Asbestos
Cibecue Mining Company, Inc.
Gila County, Arizona

The Nonmetallic Minerals Division concurs with the Field Team in its recommendation of denial of this application because of mineralization is in stratigraphic unit unfavorable to asbestos deposition, and asbestos is not of strategic quality.

LGHouk:gad 9/22/53

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

600

September 22, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: A denial of exploration assistance - Docket No. DMEA-2976 - Asbestos
Cibecue Mining Company, Inc.
Gila County, Arizona

The Nonmetallic Minerals Division concurs with the Field Team in its recommendation of denial of this application because of mineralization is in stratigraphic unit unfavorable to asbestos deposition, and asbestos is not of strategic quality.

LGHouk:gad 9/22/53

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

IN REPLY REFER TO:
G-AD-CN

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

September 21, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-2976 (Asbestos)

To: L. G. Hous, Defense Minerals Exploration Administration
From: Donald A. Brobst, U. S. Geological Survey
Applicant: Cibecue Mining Co., Inc.
Name of property: Lost Mine (Prechow Roadside)
Location of property: 2.5 miles NE. by road of the Salt River bridge on U. S. Highway 60, Gila County, Arizona.
Date of field team report: August 1953.
Authorship of field team report: Lincoln A. Stewart, U. S. Bureau of Mines.
Field team's recommendation: Denial.
Comments: Field team considers the claims poor prospects for commercial asbestos -- poor quality asbestos and probably small deposits.
ACTION SUGGESTED: Follow field team's recommendation.

Donald A. Brobst

Brobst:jeh
9/21/53
cc: Director's reading 4212
Branch reading 4212
DMEA 3
Brobst G-230

IN REPLY REFER TO:

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

September 21, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-2976 (Asbestos)

To: L. G. Hoult, Defense Minerals Exploration Administration
From: Donald A. Brobst, U. S. Geological Survey
Applicant: Cibecue Mining Co., Inc.
Name of property: Lost Mine (Prochow Roadside)
Location of property: 2.5 miles NE. by road of the Salt River bridge on U. S. Highway 60, Gila County, Arizona.
Date of field team report: August 1953.
Authorship of field team report: Lincoln A. Stewart, U. S. Bureau of Mines.
Field team's recommendation: Denial.
Comments: Field team considers the claims poor prospects for commercial asbestos -- poor quality asbestos and probably small deposits.
ACTION SUGGESTED: Follow field team's recommendation.

Donald A. Brobst

Brobst:jeh
9/21/53
cc: Director's reading 4212
Branch reading 4212
DMEA 3
Brobst G-230

IN REPLY REFER TO:

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

September 21, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-2976 (Asbestos)

To: L. G. Houn, Defense Minerals Exploration Administration
From: Donald A. Brobst, U. S. Geological Survey
Applicant: Gibecue Mining Co., Inc.
Name of property: Lost Mine (Preshaw Roadside)
Location of property: 2.5 miles NE. by road of the Salt River bridge on U. S. Highway 60, Gila County, Arizona.
Date of field team report: August 1953.
Authorship of field team report: Lincoln A. Stewart, U. S. Bureau of Mines.
Field team's recommendation: Denial.
Comments: Field team considers the claims poor prospects for commercial asbestos -- poor quality asbestos and probably small deposits.
ACTION SUGGESTED: Follow field team's recommendation.

Donald A. Brobst

Brobst:jeh
9/21/53
cc: Director's reading 4212
Branch reading 4212
DMEA 3 ✓
Brobst G-230

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

224 New Customhouse
Denver 2, Colorado

September 8, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 2976 (Asbestos), Cibecue Mining Company, Inc., Lost Mine, Gila County, Arizona.

Enclosed are nine copies of the final engineering report on the subject docket.

The applicant requested $23,200.00 to bulldoze and bench 2500 feet along the outcrop.

The field examiners concur that the deposits are adequately explored and they recommend that the application be denied.

We concur in this recommendation.

W. H. King
W. H. King

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(Date)

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

August 31, 1953

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 2976, Lost Mine claims (asbestos), Cibicue Mining Company, Inc., Gila County, Arizona

Enclosed are 9 copies of the geologic report by A. F. Shride of the U. S. Geological Survey covering the above docket.

It has been recommended that the loan be denied.

The brochure is enclosed.

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

Enclosures (9)

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P.O. Box 4126, University Station
Tucson 5, Arizona

August 26, 1953

Memorandum

To: A. H. Koschmann

From: R. F. Robinson

Subject: Geologic Report, DMEA-2976, Lost Mine Claims (Asbestos), Cibicue Mining Company, Inc., Gila County, Arizona

Enclosed are the original and 8 copies of the above report by A. F. Shride of the Geological Survey.

There is no potential for strategic quality chrysotile on these properties, and all deposits have been adequately explored. Therefore, denial of an exploration loan is recommended.

Brochure is enclosed.

Raymond F. Robinson

Raymond F. Robinson
Acting District Supervisor
Arizona - New Mexico

Enclosures 10

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(Date)

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-2976, Cibecue Mining Co., Inc. (Asbestos), Gila County, Ariz.

Enclosed are original and 8 copies of a report on the above property by Lincoln A. Stewart of the Bureau of Mines. A separate report on the geology will be submitted by the Geological Survey.

As there seems little chance of making a significant discovery of strategic quality asbestos, the examiner recommends denial of a loan. I concur with his recommendation.

Brochure ~~xxxxxxxxxx~~ will be submitted by the Geological Survey.

Walter R. Storms

Walter R. Storms

CC W. R. King (8)
DMEA-2976
DF

WRStorms:frj

Reviewed by
DMEA OPERATING COMMITTEE

9-21-53
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

# DMEA-2975, Cibecue Mining Company, Inc., (Asbestos)

## Fort Apache Indian Reservation

## Gila County, Arizona

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

August 1953

Reviewed by
DMEA OPERATING COMMITTEE

9-21-53
(Date)

## SUMMARY, CONCLUSION, AND RECOMMENDATION

By Lincoln A. Stewart 1/

An application from the Cibecue Mining Co., Inc., for a $23,200 exploration loan on its Lost Mine group of claims was received April 13, 1953 by the Tucson, Ariz. office of the Defense Minerals Exploration Administration as docket DMEA-2976. The purpose of the loan was to explore an asbestos horizon by outcrop benching and by 650 feet of drifting in 3 unspecified locations.

The property consists of 4 unpatented claims on the Fort Apache Indian Reservation, 2.5 miles north of the Salt River bridge on U. S. Highway 60. There has been only an insignificant previous production of harsh fiber from these claims.

An examination was made by the writer and Robert W. Ageton of the U. S. Bureau of Mines on May 14, 1953.

The property encompasses a segment of Mescal limestone some 2,000 feet long, that is underlain and overlain by diabase sills. The asbestos-bearing horizon on which exploration was proposed is in the Algal member, 20 feet below the overlying diabase sill. The deposit is localized directly under a "V"-shaped discordancy of the diabase, where a total of 2 inches of harsh fiber is exposed.

The deposit has been opened by 60 feet of benching along the cliff face, in which 3 short adits have been driven. The intensity of mineralization decreases laterally from the point of closest proximity to thediabase, and the veins pinch down within 10 feet from the surface in the adits.

---

1/ Mining Engineer, U. S. Bureau of Mines

Reviewed by
DMEA OPERATING COMMITTEE
9-21-53
(Date)

It is concluded that (1) the deposit is very local in extent; (2) that no additional deposits along this zone could be expected as the overlying diabase is cutting upward to greater distances above this horizon; (3) the fiber is harsh and of low tensile strength, not suitable for strategic uses; and (4) this deposit, and extensions postulated by the applicant, lie in the upper or Algal member of the Mescal limestone formation, an unfavorable stratigraphic unit for asbestos deposition.

It is therefore recommended that the application of the Cibecue Mining Co., Inc., for exploration of its Lost Mine property be denied.

## INTRODUCTION

The Lost Mine group of asbestos claims, formerly known as the Prochnow Roadside claims, are 2.5 miles by road northeast of the Salt River bridge on U. S. Highway 60. The deposits are immediately north of Highway 60 (see fig. 1) on the steep north wall of the Salt River Canyon. A small amount, probably not exceeding 10 tons, of harsh fiber was mined from the westernmost deposit of the group between 1939 and 1943.

None of the 7 deposits on the Lost Mine claims is known to include or is likely to include strategic quality chrysotile. The deposits are adequately explored. Therefore an exploration loan should be denied.

## DESCRIPTION OF DEPOSITS

The 7 known occurrences of asbestos are in a flat-lying block of pre-Cambrian limestone. Over much of the outcrop area thick concordant sills overlie and underlie this block of limestone. Along the southwest and southeast parts of the outcrop the underlying sill cuts discordantly up across the limestone and meets the overlying sill, thus terminating the limestone block (see fig. 1). Because of these discordancies the limestone block varies in thickness, but nowhere exceeds 100 feet.

The principal occurrences of asbestos on the Lost Mine claims are in the upper part of the algal member of the Mescal limestone. All deposits approximately parallel the bedding of the enclosing limestone. For description the deposits are arbitrarily designated as A, B, C, etc. on figure 1. Deposit A, near the southwestern corner of the Lost Mine No. 4 claim, is exposed by a 30-foot adit. This deposit is in shaly impure limestone that represents the stratigraphic transition zone between the massive algal (middle) member and the upper siltstone-shale member of the Mescal limestone. The overlying concordant sill is 6 feet above the fiber horizon. The adit exposes the contact between the shaly limestone and the underlying sill which is discordant in this portion of the area. This contact strikes N. 70° E. and dips steeply NW. A small thrust fault in the limestone approximately parallels this contact in strike; displacement along the fault diminishes away from the limestone-diabase contact. Asbestos is concentrated adjacent to the diabase where thrust faulting and diabase intrusion caused folding and faulting of the shaly limestones. The deposit is approximately 20 feet long and 15 feet wide. The last 10 feet of the adit is barren of asbestos. A serpentine-asbestos zone as much as 30 inches thick existed near the contact; ten feet from the contact the zone is 12 inches thick and can be expected to pinch out a few feet further

away from the contact. Narrow "ribbon" veins of very harsh asbestos comprise approximately 50 percent of the zone.

Deposit A is a local concentration of asbestos in limestone that has been much distorted adjacent to a diabase limestone contact. The deposit is narrow, and not likely to be persistent parallel to the contact. Very likely the exposure in the adit represents the entire deposit.

Adit B (fig. 1) is 15 feet long and exposes a zone of soft, talc-like serpentine approximately 5 feet stratigraphically below the serpentine-asbestos zone of Adit A. No fiber was observed in the adit or on the dump. The adit was probably started on traces of harsh fiber.

Adit C, 20 feet long, exposes traces of "bone" (serpentine that includes minute veinlets of asbestos) along a bedding-plane 10 feet stratigraphically below the zone of Adit A, and 20 feet below the overlying concordant sill. The serpentine of the zone is not continuous. Small chips of harsh fiber were observed on the dump; apparently the original outcrop included narrow veins of asbestos.

At "D" (fig. 1) a 35-foot quarry face and 3 short adits - the longest 15 feet - expose a V-shaped outcrop at the head of a gully. This is the so-called "Lost Mine".

These workings expose an 8-inch thick serpentine zone that includes veins of harsh asbestos totaling 3/4 to 3 inches in cumulative thickness. The asbestos-serpentine zone is in flat-bedded limestone of medium thickness near the top of the algal member. The asbestos-serpentine zone is covered along the outcrop to the northwest and southwest of the gully, but obviously thins to the northwest. The zone also appears to thin into the hill where exposed by the 15-foot adit. A minor, northeast- or east-striking discordancy exists in the overlying diabase-limestone contact; therefore above the northwestern part of the asbestos outcrop the diabase sill is 12 feet above the zone and above the southwestern part of the outcrop is 20 feet above the zone. The deposit is related spatially to this discordancy, and is likely to be limited in areal extent.

At "E" (fig. 1) are two short adits and a quarry face 15 feet long in thin beds of the lower member of the Mescal limestone. At the foot of the quarry face traces to ½ inch of harsh asbestos exist in an incompletely serpentinized limestone bed. This zone is 15 feet above the underlying concordant sill and approximately 20 feet below the top of the lower member.

An 8-foot adit floored on the sill below the quarry face was apparently driven on a slightly serpentinized limestone bed. This adit does not expose asbestos. Forty feet south of the quarry an 8-foot adit exposes traces of harsh asbestos at a horizon 5 feet higher than that of the asbestos zone of the quarry.

At "F" (fig. 1) a 10-foot adit exposes traces of harsh asbestos at the base of the algal member of the Mescal limestone. This is the only exposure of asbestos on the Lost Mine claims that is in a stratigraphic unit favorable to extensive deposits of asbestos. The underlying sill is discordant and outcrops 12 feet below the asbestos. The underlying limestone-diabase contact dips steeply north. Very likely this minor showing of asbestos represents an erosional remnant of a small deposit localized at the intersection of the discordant contact and the favorable stratigraphic unit.

The Prochnow Roadside Mine (at "G", fig. 1) is in impure massive limestones approximately 20 feet below the top of the algal member and 30 feet below the overlying concordant sill. The asbestos-bearing limestones are terminated 50 feet southwest of the mine against the lower sill, which here cuts discordantly up across the limestones and joins the upper sill. A 2-foot diabase dike that strikes northeast

and dips northwest, transects the asbestos-bearing limestones a few feet northwest of the asbestos outcrop. A belt of small-scale thrust-faults approximately parallel this dike. Four adits and a quarry face along the outcrop expose $\frac{1}{4}$ to 4 inches of very brittle, harsh asbestos in two zones. The zones are in general about 3 feet apart but the distance between the zones varies because the asbestos is in part along the thrust-faults, rather than along bedding planes, and in places the section has been thinned or thickened by the faulting. The asbestos concentrations are sporadic in distribution. Some asbestos is exposed through an area 90 by 140 feet.

## CONCLUSIONS

None of the deposits of the Lost Mine claims warrant further exploration for the following reasons:

1. Deposits A, B, C, D, and G are in the upper part of the algal member of the Mescal limestone. Although the reason is not understood, empirically from past studies of the district, all known deposits in this part of the formation are harsh - as are these 5 deposits. The occurrences at "E" and "F" in the lower member, although harsh, are in stratigraphic units which commonly contain soft fiber.

2. Deposit F is the only asbestos occurrence of the group that is in a stratigraphic unit favorable to persistent and widespread deposits. However, as noted this is an insignificant occurrence of asbestos. Asbestos occurrences at "E", though in the lower member, are in very thin-bedded limestones not favorable to large concentrations of asbestos.

3. Pre-mineral faulting (i.e. structural preparation of the limestone for access to mineralizing solutions) was prevalent only at deposit G, which is likely to be entirely harsh. Pre-mineral faults probably did not persist far from the discordant contacts between limestone and diabase in the vicinity of this deposit.

In summary, deposits A, B, C, D, E, and G are in unfavorable stratigraphic units; of these only deposit G is favorable structurally and is the only exposure of a significant amount of asbestos. Occurrences A, B, C, D, and G are likely to be harsh throughout. All deposits are adequately explored.

It is recommended that the application for a DMEA loan be denied.

# DMEA-2976, CIBECUE MINING COMPANY, INC., (ASBESTOS)
# FORT APACHE INDIAN RESERVATION
# GILA COUNTY, ARIZONA

Engineering Report

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

August 1953

Reviewed by
DMEA OPERATING COMMITTEE

9-21-53
(date)

DEA-297G, [illegible] MINING COMPANY, [illegible], (ACCESS)
FORT APACHE INDIAN RESERVATION
GILA COUNTY, ARIZONA

---

CONTENTS


Engineering report — Page

Introduction ---------- 1
Location and accessibility ---------- 1
Ownership and extent ---------- 2
History and production ---------- 2
Description of the deposit ---------- 3
Proposed exploration and cost ---------- 4
Conclusions ---------- 5
Recommendations ---------- 6


ILLUSTRATIONS


Figure — Following page

1 Location map ---------- 1
2 Claim map ---------- 2
3 Plan and sections of lost mine workings ---------- 4

## INTRODUCTION

An application was submitted to the Defense Minerals Exploration Administration for a $23,200 exploratory loan by the Cibecue Mining Co., Inc. for its Lost Mine asbestos claims. This application, docketed as DMEA-2976, was received by the Tucson, Ariz. office of the Defense Minerals Exploration Administration on April 13, 1953.

The requested work was for the purpose of exploring 3 favorable locations by a total of 650 feet of drifting, after these locations had been determined by a 2,500-feet combination exploration cut and access road.

Field investigation was made on May 14, 1953 by the writer and Robert W. Agston, engineers of the Bureau of Mines.

## LOCATION AND ACCESSIBILITY

The Cibecue Mining Co.'s property is on the Fort Apache Indian Reservation, abutting U. S. Highway 60 on the northwest side of a point 2.5 miles northeast of Salt River bridge, which is 43 road miles northeast of Globe, Gila County, Ariz. (figure 1). According to the Indian Service map, the claims are in approximate sec. 20, T. 5 N., R. 18 E., unsurveyed.

At a point 2.8 miles north of the Salt River bridge, a poor 0.4 mile access road leads to a bench from which foot trails go to the various workings. The average altitude of the property is about 4,350 feet.

## OWNERSHIP AND EXTENT

The property consists of a group of four unpatented mining claims known as the Lost Mine No.s 1, 2, 3, and 4 (figure 2). The property is on the Fort Apache Indian Reservation. The initial lease, issued to Clifford Gardner (one of the partners), consisted of an irregular parcel of land that merely covered the limestone outcrop. This error in location later was discovered and an application for amended location was submitted for 4 full mining claims that adequately covered the area.

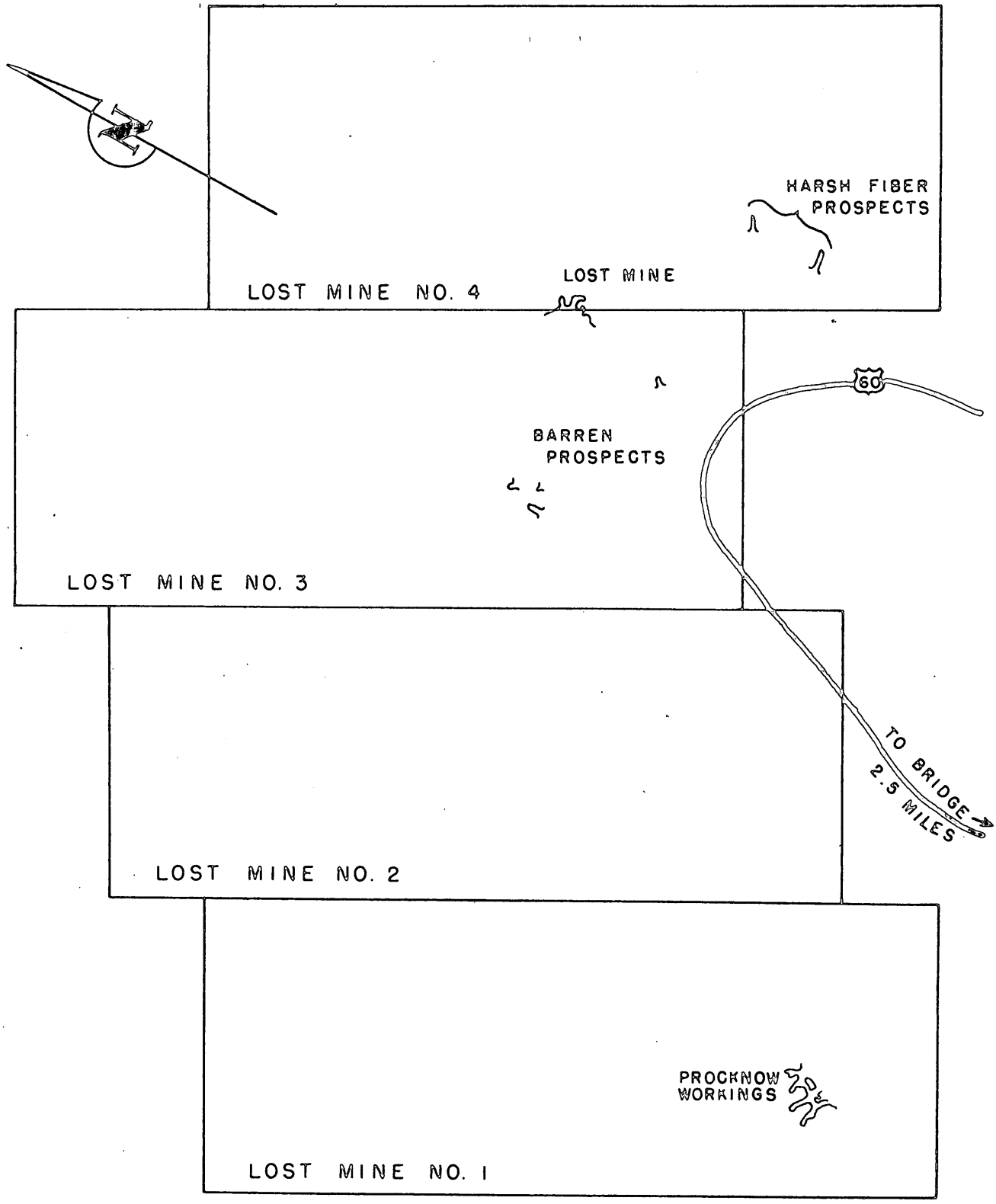
Approval by the Tribal Council was granted and the amended lease was forwarded to Washington for final approval at the same time that the BMEA application was submitted to Denver.

The location notices of these 4 claims are recorded in the Gila County Recorder's office at Globe in Book of Mines 49, pages 434 and 435.

The Cibecue Mining Co., Inc., consists of Clifford Gardner, president, 4042 E. Katherine, Phoenix, Ariz.; Richard Haught, vice-president, Box 852, Globe, Ariz.; and George A. Troik, secretary-treasurer, 3635 N. 21st Ave., Phoenix, Ariz.

## HISTORY AND PRODUCTION

In the early 1940's the property was known as the Roadside claims and also as Procknow. About this time a very small production of extremely harsh fiber was reported from a working on the west side of the property. The present Lost Mine claims have been relocated over these original claims. The Cibecue Mining Co. may have recovered 100 to 200 pounds of fiber from its open-cut work.




AFTER DOCKET MAP

SCALE 1" = 300'

DMEA 2976

FIGURE 2. - CLAIM MAP - CIBECUE MINING CO., INC.

GILA COUNTY, ARIZONA

## DESCRIPTION OF THE DEPOSIT

The 4 claims encompass a segment of Mescal limestone not more than 2,000 feet long that is underlain and overlain by diabase intrusions. The claims are located side to side across a relatively small circular valley, the course of which is southeast. The underlying discordant diabase sill has a general strike to the northeast, and dips 20° to 30° northwest. Thus the contact makes a sweeping arc across the southern part of the property.

On the east side of the valley (claim No. 4) are 2 adits, 20 and 40 feet in length, in the distorted limestone beds near the diabase contact. Only short, glassy, harsh fiber was encountered near the surface. The old Prockmow workings (claim No. 1) are on the west side of the valley in an algal limestone wedge between the lower cross-cutting diabase intrusion and the concordant upper sill where a 2-foot diabase dike transversely cuts the wedge. Four interconnecting adits, varying from 40 to 70 feet in length have explored a lens of very harsh fiber.

Near the center of the valley (claim No. 3), an open cut and 2 small adits, each of the latter approximately 20 feet above the lower diabase, were driven in shaley limestone beds that showed weak serpentinization, but no fiber. About 300 feet southeast of this group of workings a 10-foot adit, driven immediately under the base of the algal limestone and 12 feet above the diabase contact, showed some serpentine that contained only traces of harsh, spicular fiber.

All the above described work was done by previous prospectors prior to 1942.

The present lessees have discovered the so-called "Lost mine" and opened a small lens of fiber in the limestone bedding 55 feet stratigraphically above the bottom of the algal limestone. This mineralization is due to proximity of the overlying diabase sill which at this point is 20 feet above the ore zone (figure 3). From this point of closest approach, the sill cuts upward sharply to the south, and rises gradually across the limestone bedding to the north.

The applicants have cut a 60-foot long shallow bench along the cliff face and have driven 3 small adits that expose the fiber vein to a maximum of 15 feet from the surface. The resultant showings indicate that the strongest mineralization is directly under the point of the diabase "V", where there is up to 2 inches of total fiber. The strength of the mineralization decreases laterally, and virtually pinches out in the face of the adit. As elsewhere on the property, the fiber is harsh, usually spicular, and of low tensile strength; hence it is not of strategic quality.

## PROPOSED EXPLORATION AND COST

The proposed exploration program was predicated on the assumption that the ore zone opened by the applicant was on a favorable horizon that had possibilities of mineralization along its entire extent. Applicant proposed to dose and bench, for 2,500 feet, the limestone bedding that contains asbestos at the "Lost Mine" exposure.

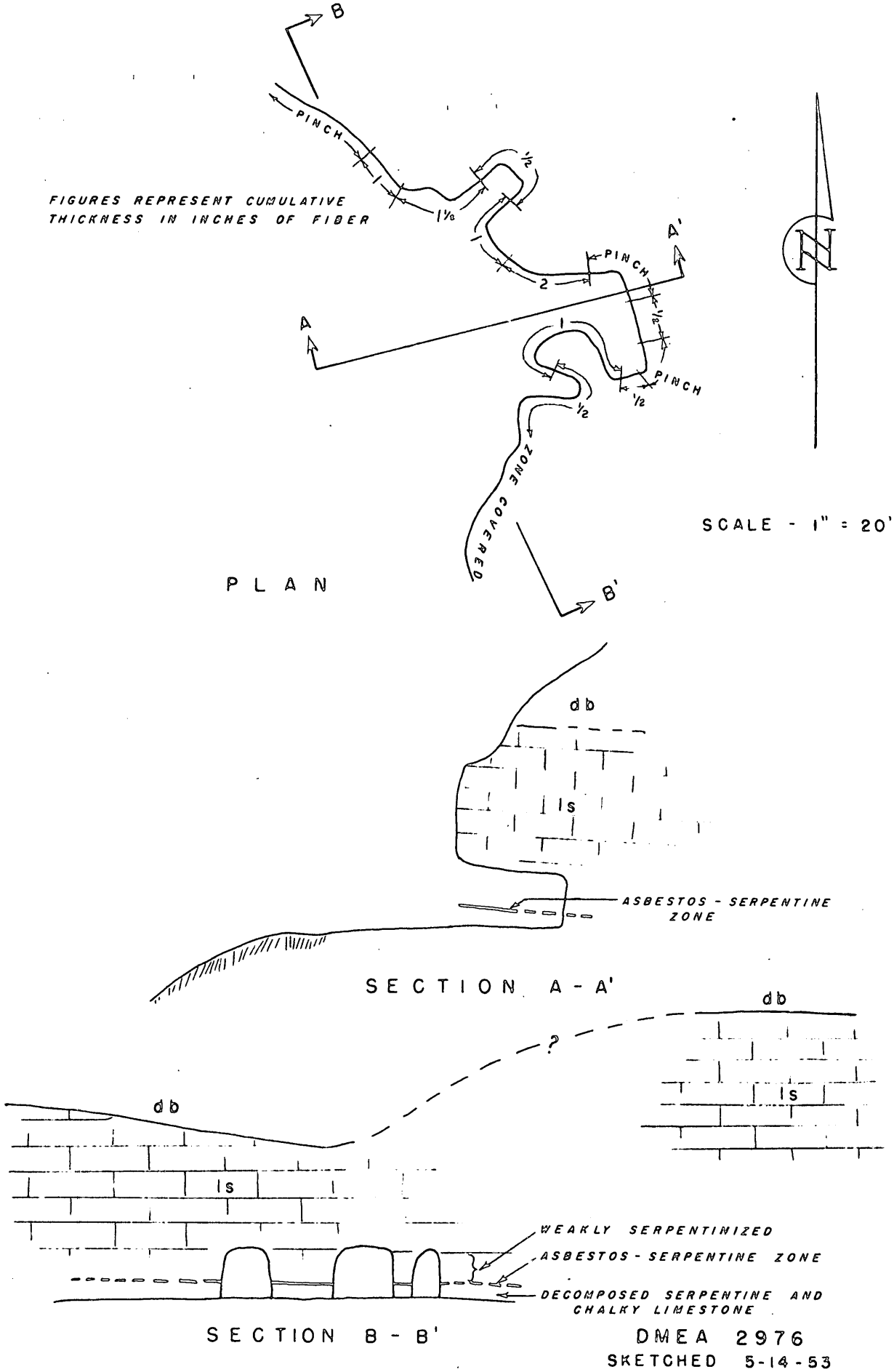



FIGURE 3. - PLAN AND SECTIONS OF LOST MINE WORKINGS

This work, constituting Stage I, would serve both as exploration and as an access road. Stage II was to consist of a total of 650 feet of exploratory drifting from 3 sites shown to be the most favorable by the outcrop benching.

On a unit cost basis, Stage I was in the amount of $5,000 and Stage II was for $18,200, or a total project cost of $23,200.

CONCLUSIONS

In view of the following conclusions, there is no point in discussing the applicant's proposed exploration costs.

The proposed exploration was for a deposit that occurs along a bedding plane in the massive Mescal algal limestone about 55 feet stratigraphically above the base of this member. It is evident that the mineralization is related to the proximity of an overlying diabase sill and is localized directly under a "V"-shaped discordancy of the diabase. Intensity of mineralization decreases laterally as the distance from the diabase increases. The little work that has been done shows that the fiber veins pinch within 10 feet from the surface. Although there is considerable serpentinization, the fiber is harsh, usually spicular, and of low tensile strength.

Although no work was proposed along the contact with the underlying sill, the examiners investigated this lower area. Very harsh fiber is present only at each side of the property, and geologic conditions are not favorable for mineralization elsewhere.

## RECOMMENDATIONS

It is concluded that no exploration work is justified at this property for the following reasons:

1. The deposit that has been opened, is pinching in all directions, therefore is considered local in extent;

2. No additional deposits along this bedding plane would be expected because the overlying diabase is cutting upward to greater distances above this horizon;

3. This deposit and extensions postulated by the applicant, all lie in the Algal member of the Mescal limestone, an unfavorable stratigraphic unit for asbestos deposition;

4. The asbestos of this deposit and the fiber found elsewhere on the property are not of strategic quality.

Therefore it is recommended that the exploratory loan to the Gibsone Mining Co., Inc., be denied.

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

October 8, 1953

Memorandum

To: Lawrence G. Houk, Director, Non-Metallic Minerals Division
Defense Minerals Exploration Administration

From: G. W. Josephson, Chief, Construction and Chemical Materials Branch, Bureau of Mines

Subject: Final Report, DMEA Docket 2976 (Asbestos), Cibecue Mining Company, Inc., Gila County, Arizona

The subject report has been reviewed in this Branch. We agree with the field team that the property appears to have very little promise as an asbestos prospect. Not only is very little fiber available but the quality also is poor. Therefore, we concur in their suggestion that the application be denied.

G. W. Josephson

G. W. Josephson
Chief, Construction and
Chemical Materials Branch

IN REPLY REFER TO:
G-MD-CNM

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

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
SEP 22 1953

September 21, 1953

Memorandum

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-2976 (Asbestos)

To: L. G. Houk, Defense Minerals Exploration Administration
From: Donald A. Brobst, U. S. Geological Survey
Applicant: Cibecue Mining Co., Inc.
Name of property: Lost Mine (Prochow Roadside)
Location of property: 2.5 miles NE. by road of the Salt River bridge on U. S. Highway 60, Gila County, Arizona.
Date of field team report: August 1953.
Authorship of field team report: Lincoln A. Stewart, U. S. Bureau of Mines.
Field team's recommendation: Denial.
Comments: Field team considers the claims poor prospects for commercial asbestos -- poor quality asbestos and probably small deposits.
ACTION SUGGESTED: Follow field team's recommendation.

Donald A. Brobst

Donald A. Brobst

OFFICE OF THE ADMINISTRATOR

C
P
Y

RECEIVED 9/14/53

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

September 8, 1953

224 New Customhouse
Denver 2, Colorado

Mr. George A. Troik, Secretary
Cibecue Mining Company, Inc.
3635 North 21st Avenue
Phoenix, Arizona

RE: Docket DMEA-2976

Dear Mr. Troik:

Reference is made to your application for Government aid on the Lost Mine Claims.

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 theis 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
Field Team, Region IV

A. H. Koschmann
Field Team, Region IV

HMC:cwm

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

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

September 22, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: A denial of exploration assistance - Docket No. DMEA-2976 - Asbestos
Cibecue Mining Company, Inc.
Gila County, Arizona

The Nonmetallic Minerals Division concurs with the Field Team in its recommendation of denial of this application because of mineralization is in stratigraphic unit unfavorable to asbestos deposition, and asbestos is not of strategic quality.

DENIED

FILE COPY
SURNAME:

Lawrence G. Houk

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

September 22, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: A denial of exploration assistance - Docket No. DMEA-2976 - Asbestos
Cibecue Mining Company, Inc.
Gila County, Arizona

The Nonmetallic Minerals Division concurs with the Field Team in its recommendation of denial of this application because of mineralization is in stratigraphic unit unfavorable to asbestos deposition, and asbestos is not of strategic quality.

LGHouk:gad 9/22/53

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

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

224 New Customhouse
Denver 2, Colorado

September 8, 1953.

Memorandum

To: Administrator, Defense Minerals Exploration Administration
Attention: 200

From: Field Team, Region IV

Subject: Final Report, DMEA Docket 2976 (Asbestos), Cibecue Mining Company, Inc., 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

A. H. Koschmann
A. H. Koschmann

Enclosures

DENIED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

224 New Customhouse
Denver 2, Colorado

September 8, 1953.

Memorandum

To: Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: Final Report, DMEA Docket 2976 (Asbestos), Cibecue Mining Company, Inc., Lost Mine, Gila County, Arizona.

Enclosed are nine copies of the final engineering report on the subject docket.

The applicant requested $23,200.00 to bulldoze and bench 2500 feet along the outcrop.

The field examiners concur that the deposits are adequately explored and they recommend that the application be denied.

We concur in this recommendation.

W. H. King
W. H. King

Enclosures

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

August 31, 1953

Memorandum

To: DMEA Field Team, Region IV

From: A. H. Koschmann

Subject: DMEA Docket 2976, Lost Mine claims (asbestos), Cibicue Mining Company, Inc., Gila County, Arizona

Enclosed are 9 copies of the geologic report by A. F. Shride of the U. S. Geological Survey covering the above docket.

It has been recommended that the loan be denied.

The brochure is enclosed.

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

Enclosures (9)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P.O. Box 4126, University Station
Tucson 5, Arizona

August 26, 1953

Memorandum

To: A. H. Koschmann

From: R. F. Robinson

Subject: Geologic Report, DMEA-2976, Lost Mine Claims (Asbestos), Cibicue Mining Company, Inc., Gila County, Arizona

Enclosed are the original and 8 copies of the above report by A. F. Shride of the Geological Survey.

There is no potential for strategic quality chrysotile on these properties, and all deposits have been adequately explored. Therefore, denial of an exploration loan is recommended.

Brochure is enclosed.

Raymond F. Robinson

Raymond F. Robinson
Acting District Supervisor
Arizona - New Mexico

Enclosures 10

MINING DIVISION
REGION IV

August 5, 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-2976, Cibecue Mining Co., Inc. (Asbestos), Gila County, Ariz.

Enclosed are original and 8 copies of a report on the above property by Lincoln A. Stewart of the Bureau of Mines. A separate report on the geology will be submitted by the Geological Survey.

As there seems little chance of making a significant discovery of strategic quality asbestos, the examiner recommends denial of a loan. I concur with his recommendation.

Brochure ~~xxxxxxxxxx~~ will be submitted by the Geological Survey.

Walter R. Storms

Walter R. Storms

cc W. H. King (8)
DMEA-2976
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-2975, Cibecue Mining Company, Inc., (Asbestos)

## Fort Apache Indian Reservation

## Gila County, Arizona

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

August 1953

## SUMMARY, CONCLUSION, AND RECOMMENDATION

By Lincoln A. Stewart [1]

An application from the Cibecue Mining Co., Inc., for a $23,200 exploration loan on its Lost Mine group of claims was received April 13, 1953 by the Tucson, Ariz. office of the Defense Minerals Exploration Administration as docket DMEA-2976. The purpose of the loan was to explore an asbestos horizon by outcrop benching and by 650 feet of drifting in 3 unspecified locations.

The property consists of 4 unpatented claims on the Fort Apache Indian Reservation, 2.5 miles north of the Salt River bridge on U. S. Highway 60. There has been only an insignificant previous production of harsh fiber from these claims.

An examination was made by the writer and Robert W. Ageton of the U. S. Bureau of Mines on May 14, 1953.

The property encompasses a segment of Mescal limestone some 2,000 feet long, that is underlain and overlain by diabase sills. The asbestos-bearing horizon on which exploration was proposed is in the Algal member, 20 feet below the overlying diabase sill. The deposit is localized directly under a "V"-shaped discordancy of the diabase, where a total of 2 inches of harsh fiber is exposed.

The deposit has been opened by 60 feet of benching along the cliff face, in which 3 short adits have been driven. The intensity of mineralization decreases laterally from the point of closest proximity to thediabase, and the veins pinch down within 10 feet from the surface in the adits.

---

1/ Mining Engineer, U. S. Bureau of Mines

It is concluded that (1) the deposit is very local in extent; (2) that no additional deposits along this zone could be expected as the overlying diabase is cutting upward to greater distances above this horizon; (3) the fiber is harsh and of low tensile strength, not suitable for strategic uses; and (4) this deposit, and extensions postulated by the applicant, lie in the upper or Algal member of the Mescal limestone formation, an unfavorable stratigraphic unit for asbestos deposition.

It is therefore recommended that the application of the Cibecue Mining Co., Inc., for exploration of its Lost Mine property be denied.

## INTRODUCTION

The Lost Mine group of asbestos claims, formerly known as the Prochnow Roadside claims, are 2.5 miles by road northeast of the Salt River bridge on U. S. Highway 60. The deposits are immediately north of Highway 60 (see fig. 1) on the steep north wall of the Salt River Canyon. A small amount, probably not exceeding 10 tons, of harsh fiber was mined from the westernmost deposit of the group between 1939 and 1943.

None of the 7 deposits on the Lost Mine claims is known to include or is likely to include strategic quality chrysotile. The deposits are adequately explored. Therefore an exploration loan should be denied.

## DESCRIPTION OF DEPOSITS

The 7 known occurrences of asbestos are in a flat-lying block of pre-Cambrian limestone. Over much of the outcrop area thick concordant sills overlie and underlie this block of limestone. Along the southwest and southeast parts of the outcrop the underlying sill cuts discordantly up across the limestone and meets the overlying sill, thus terminating the limestone block (see fig. 1). Because of these discordancies the limestone block varies in thickness, but nowhere exceeds 100 feet.

The principal occurrences of asbestos on the Lost Mine claims are in the upper part of the algal member of the Mescal limestone. All deposits approximately parallel the bedding of the enclosing limestone. For description the deposits are arbitrarily designated as A, B, C, etc. on figure 1. Deposit A, near the southwestern corner of the Lost Mine No. 4 claim, is exposed by a 30-foot adit. This deposit is in shaly impure limestone that represents the stratigraphic transition zone between the massive algal (middle) member and the upper siltstone-shale member of the Mescal limestone. The overlying concordant sill is 6 feet above the fiber horizon. The adit exposes the contact between the shaly limestone and the underlying sill which is discordant in this portion of the area. This contact strikes N. 70° E. and dips steeply NW. A small thrust fault in the limestone approximately parallels this contact in strike; displacement along the fault diminishes away from the limestone-diabase contact. Asbestos is concentrated adjacent to the diabase where thrust faulting and diabase intrusion caused folding and faulting of the shaly limestones. The deposit is approximately 20 feet long and 15 feet wide. The last 10 feet of the adit is barren of asbestos. A serpentine-asbestos zone as much as 30 inches thick existed near the contact; ten feet from the contact the zone is 12 inches thick and can be expected to pinch out a few feet further

away from the contact. Narrow "ribbon" veins of very harsh asbestos comprise approximately 50 percent of the zone.

Deposit A is a local concentration of asbestos in limestone that has been much distorted adjacent to a diabase limestone contact. The deposit is narrow, and not likely to be persistent parallel to the contact. Very likely the exposure in the adit represents the entire deposit.

Adit B (fig. 1) is 15 feet long and exposes a zone of soft, talc-like serpentine approximately 5 feet stratigraphically below the serpentine-asbestos zone of Adit A. No fiber was observed in the adit or on the dump. The adit was probably started on traces of harsh fiber.

Adit C, 20 feet long, exposes traces of"bone" (serpentine that includes minute veinlets of asbestos) along a bedding-plane 10 feet stratigraphically below the zone of Adit A, and 20 feet below the overlying concordant sill. The serpentine of the zone is not continuous. Small chips of harsh fiber were observed on the dump; apparently the original outcrop included narrow veins of asbestos.

At "D" (fig. 1) a 35-foot quarry face and 3 short adits - the longest 15 feet - expose a V-shaped outcrop at the head of a gully. This is the so-called "Lost Mine".

These workings expose an 8-inch thick serpentine zone that includes veins of harsh asbestos totaling 3/4 to 3 inches in cumulative thickness. The asbestos-serpentine zone is in flat-bedded limestone of medium thickness near the top of the algal member. The asbestos-serpentine zone is covered along the outcrop to the northwest and southwest of the gully, but obviously thins to the northwest. The zone also appears to thin into the hill where exposed by the 15-foot adit. A minor, northeast- or east-striking discordancy exists in the overlying diabase-limestone contact; therefore above the northwestern part of the asbestos outcrop the diabase sill is 12 feet above the zone and above the southwestern part of the outcrop is 20 feet above the zone. The deposit is related spatially to this discordancy, and is likely to be limited in areal extent.

At "E" (fig. 1) are two short adits and a quarry face 15 feet long in thin beds of the lower member of the Mescal limestone. At the foot of the quarry face traces to ½ inch of harsh asbestos exist in an incompletely serpentinized limestone bed. This zone is 15 feet above the underlying concordant sill and approximately 20 feet below the top of the lower member.

An 8-foot adit floored on the sill below the quarry face was apparently driven on a slightly serpentinized limestone bed. This adit does not expose asbestos. Forty feet south of the quarry an 8-foot adit exposes traces of harsh asbestos at a horizon 5 feet higher than that of the asbestos zone of the quarry.

At "F" (fig. 1) a 10-foot adit exposes traces of harsh asbestos at the base of the algal member of the Mescal limestone. This is the only exposure of asbestos on the Lost Mine claims that is in a stratigraphic unit favorable to extensive deposits of asbestos. The underlying sill is discordant and outcrops 12 feet below the asbestos. The underlying limestone-diabase contact dips steeply north. Very likely this minor showing of asbestos represents an erosional remnant of a small deposit localized at the intersection of the discordant contact and the favorable stratigraphic unit.

The Prochnow Roadside Mine (at "G", fig. 1) is in impure massive limestones approximately 20 feet below the top of the algal member and 30 feet below the overlying concordant sill. The asbestos-bearing limestones are terminated 50 feet southwest of the mine against the lower sill, which here cuts discordantly up across the limestones and joins the upper sill. A 2-foot diabase dike that strikes northeast

and dips northwest, transects the asbestos-bearing limestones a few feet northwest of the asbestos outcrop. A belt of small-scale thrust-faults approximately parallel this dike. Four adits and a quarry face along the outcrop expose $\frac{1}{4}$ to 4 inches of very brittle, harsh asbestos in two zones. The zones are in general about 3 feet apart but the distance between the zones varies because the asbestos is in part along the thrust-faults, rather than along bedding planes, and in places the section has been thinned or thickened by the faulting. The asbestos concentrations are sporadic in distribution. Some asbestos is exposed through an area 90 by 140 feet.

## CONCLUSIONS

None of the deposits of the Lost Mine claims warrant further exploration for the following reasons:

1. Deposits A, B, C, D, and G are in the upper part of the algal member of the Mescal limestone. Although the reason is not understood, empirically from past studies of the district, all known deposits in this part of the formation are harsh - as are these 5 deposits. The occurrences at "E" and "F" in the lower member, although harsh, are in stratigraphic units which commonly contain soft fiber.

2. Deposit F is the only asbestos occurrence of the group that is in a stratigraphic unit favorable to persistent and widespread deposits. However, as noted this is an insignificant occurrence of asbestos. Asbestos occurrences at "E", though in the lower member, are in very thin-bedded limestones not favorable to large concentrations of asbestos.

3. Pre-mineral faulting (i.e. structural preparation of the limestone for access to mineralizing solutions) was prevalent only at deposit G, which is likely to be entirely harsh. Pre-mineral faults probably did not persist far from the discordant contacts between limestone and diabase in the vicinity of this deposit.

In summary, deposits A, B, C, D, E, and G are in unfavorable stratigraphic units; of these only deposit G is favorable structurally and is the only exposure of a significant amount of asbestos. Occurrences A, B, C, D, and G are likely to be harsh throughout. All deposits are adequately explored.

It is recommended that the application for a DMEA loan be denied.

# DMEA-2976, CIBECUE MINING COMPANY, INC., (ASBESTOS)
# FORT APACHE INDIAN RESERVATION
# GILA COUNTY, ARIZONA

Engineering Report

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

August 1953

DMEA-2976, CIBECUE MINING COMPANY, INC., (ASBESTOS)
FORT APACHE INDIAN RESERVATION
GILA COUNTY, ARIZONA

---

## CONTENTS


| Engineering report | Page |
|---|---|
| Introduction | 1 |
| Location and accessibility | 1 |
| Ownership and extent | 2 |
| History and production | 2 |
| Description of the deposit | 3 |
| Proposed exploration and cost | 4 |
| Conclusions | 5 |
| Recommendations | 6 |


## ILLUSTRATIONS


| Figure | | Following page |
|---|---|---|
| 1 | Location map | 1 |
| 2 | Claim map | 2 |
| 3 | Plan and sections of Lost Mine workings | 4 |

## INTRODUCTION

An application was submitted to the Defense Minerals Exploration Administration for a $23,200 exploratory loan by the Cibecue Mining Co., Inc. for its Lost Mine asbestos claims. This application, docketed as DMEA-2976, was received by the Tucson, Ariz. office of the Defense Minerals Exploration Administration on April 13, 1953.

The requested work was for the purpose of exploring 3 favorable locations by a total of 650 feet of drifting, after these locations had been determined by a 2,500-foot combination exploration cut and access road.

Field investigation was made on May 14, 1953 by the writer and Robert W. Ageton, engineers of the Bureau of Mines.

## LOCATION AND ACCESSIBILITY

The Cibecue Mining Co.'s property is on the Fort Apache Indian Reservation, abutting U. S. Highway 60 on the northwest side of a point 2.5 miles northeast of Salt River bridge, which is 43 road miles northeast of Globe, Gila County, Ariz. (figure 1). According to the Indian Service map, the claims are in approximate sec. 20, T. 5 N., R. 18 E., unsurveyed.

At a point 2.8 miles north of the Salt River bridge, a poor 0.4 mile access road leads to a bench from which foot trails go to the various workings. The average altitude of the property is about 4,350 feet.

## OWNERSHIP AND EXTENT

The property consists of a group of four unpatented mining claims known as the Lost Mine No.s 1, 2, 3, and 4 (figure 2). The property is on the Fort Apache Indian Reservation. The initial lease, issued to Clifford Gardner (one of the partners), consisted of an irregular parcel of land that merely covered the limestone outcrop. This error in location later was discovered and an application for amended location was submitted for 4 full mining claims that adequately covered the area.

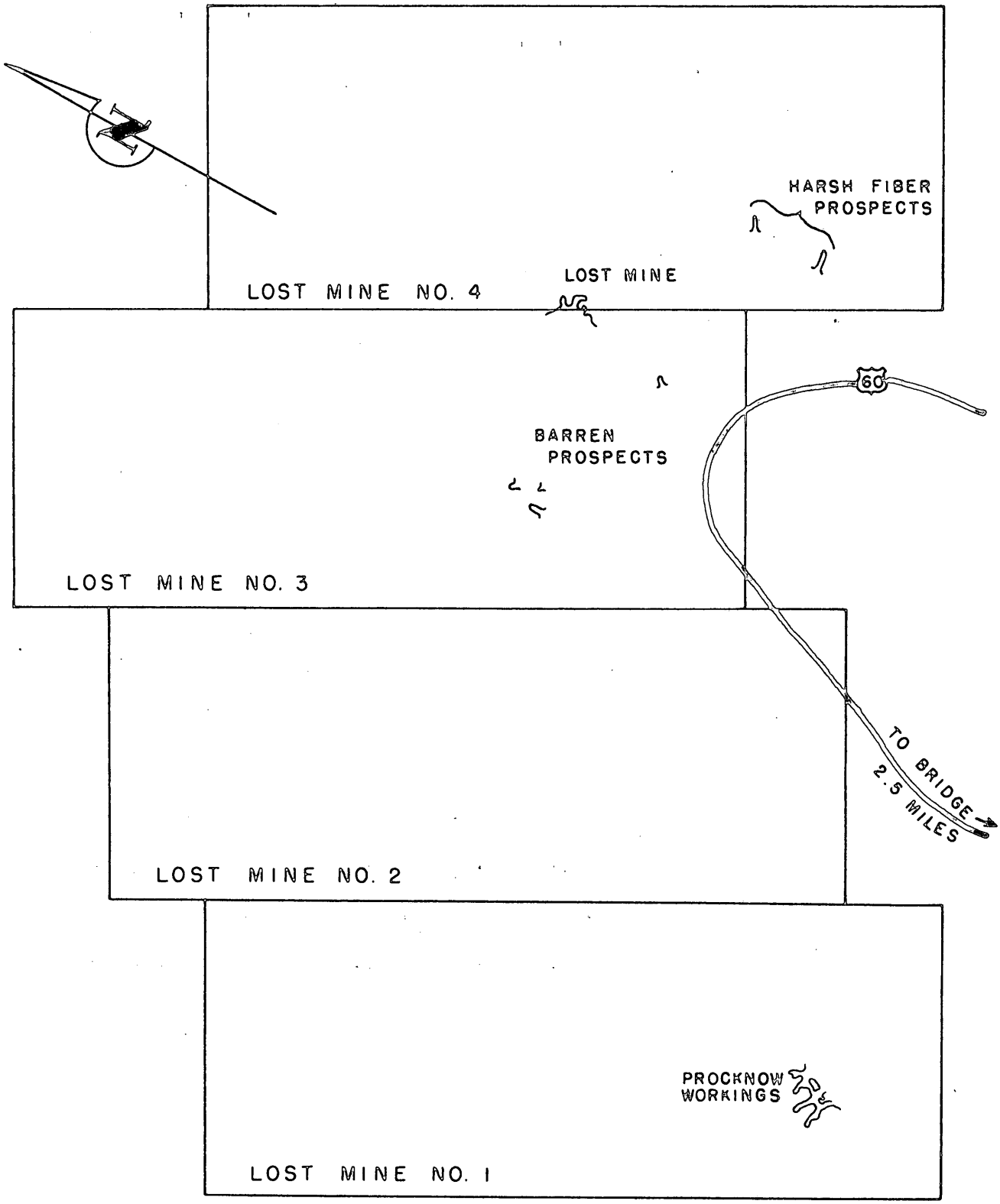
Approval by the Tribal Council was granted and the amended lease was forwarded to Washington for final approval at the same time that the DMEA application was submitted to Denver.

The location notices of these 4 claims are recorded in the Gila County Recorder's office at Globe in Book of Mines 49, pages 434 and 435.

The Cibecue Mining Co., Inc., consists of Clifford Gardner, president, 4042 E. Katherine, Phoenix, Ariz.; Richard Haught, vice-president, Box 852, Globe, Ariz.; and George A. Troik, secretary-treasurer, 3635 N. 21st Ave., Phoenix, Ariz.

## HISTORY AND PRODUCTION

In the early 1940's the property was known as the Roadside claims and also as Procknow. About this time a very small production of extremely harsh fiber was reported from a working on the west side of the property. The present Lost Mine claims have been relocated over these original claims. The Cibecue Mining Co. may have recovered 100 to 200 pounds of fiber from its open-cut work.




AFTER DOCKET MAP

SCALE 1" = 300'

DMEA 2976

FIGURE 2. - CLAIM MAP - CIBECUE MINING CO., INC.

GILA COUNTY, ARIZONA

## DESCRIPTION OF THE DEPOSIT

The 4 claims encompass a segment of Mescal limestone not more than 2,000 feet long that is underlain and overlain by diabase intrusions. The claims are located side to side across a relatively small circular valley, the course of which is southeast. The underlying discordant diabase sill has a general strike to the northeast, and dips 20° to 30° northwest. Thus the contact makes a sweeping arc across the southern part of the property.

On the east side of the valley (claim No. 4) are 2 adits, 20 and 40 feet in length, in the distorted limestone beds near the diabase contact. Only short, glassy, harsh fiber was encountered near the surface. The old Procknow workings (claim No. 1) are on the west side of the valley in an algal limestone wedge between the lower cross-cutting diabase intrusion and the concordant upper sill where a 2-foot diabase dike transversely cuts the wedge. Four interconnecting adits, varying from 40 to 70 feet in length have explored a lens of very harsh fiber.

Near the center of the valley (claim No. 3), an open cut and 2 small adits, each of the latter approximately 20 feet above the lower diabase, were driven in shaley limestone beds that showed weak serpentinization, but no fiber. About 300 feet southeast of this group of workings a 10-foot adit, driven immediately under the base of the algal limestone and 12 feet above the diabase contact, showed some serpentine that contained only traces of harsh, spicular fiber.

All the above described work was done by previous prospectors prior to 1942.

The present lessees have discovered the so-called "Lost mine" and opened a small lens of fiber in the limestone bedding 55 feet stratigraphically above the bottom of the algal limestone. This mineralization is due to proximity of the overlying diabase sill which at this point is 20 feet above the ore zone (figure 3). From this point of closest approach, the sill cuts upward sharply to the south, and rises gradually across the limestone bedding to the north.

The applicants have cut a 60-foot long shallow bench along the cliff face and have driven 3 small adits that expose the fiber vein to a maximum of 15 feet from the surface. The resultant showings indicate that the strongest mineralization is directly under the point of the diabase "V", where there is up to 2 inches of total fiber. The strength of the mineralization decreases laterally, and virtually pinches out in the face of the adit. As elsewhere on the property, the fiber is harsh, usually spicular, and of low tensile strength; hence it is not of strategic quality.

## PROPOSED EXPLORATION AND COST

The proposed exploration program was predicated on the assumption that the ore zone opened by the applicant was on a favorable horizon that had possibilities of mineralization along its entire extent. Applicant proposed to doze and bench, for 2,500 feet, the limestone bedding that contains asbestos at the "Lost Mine" exposure.

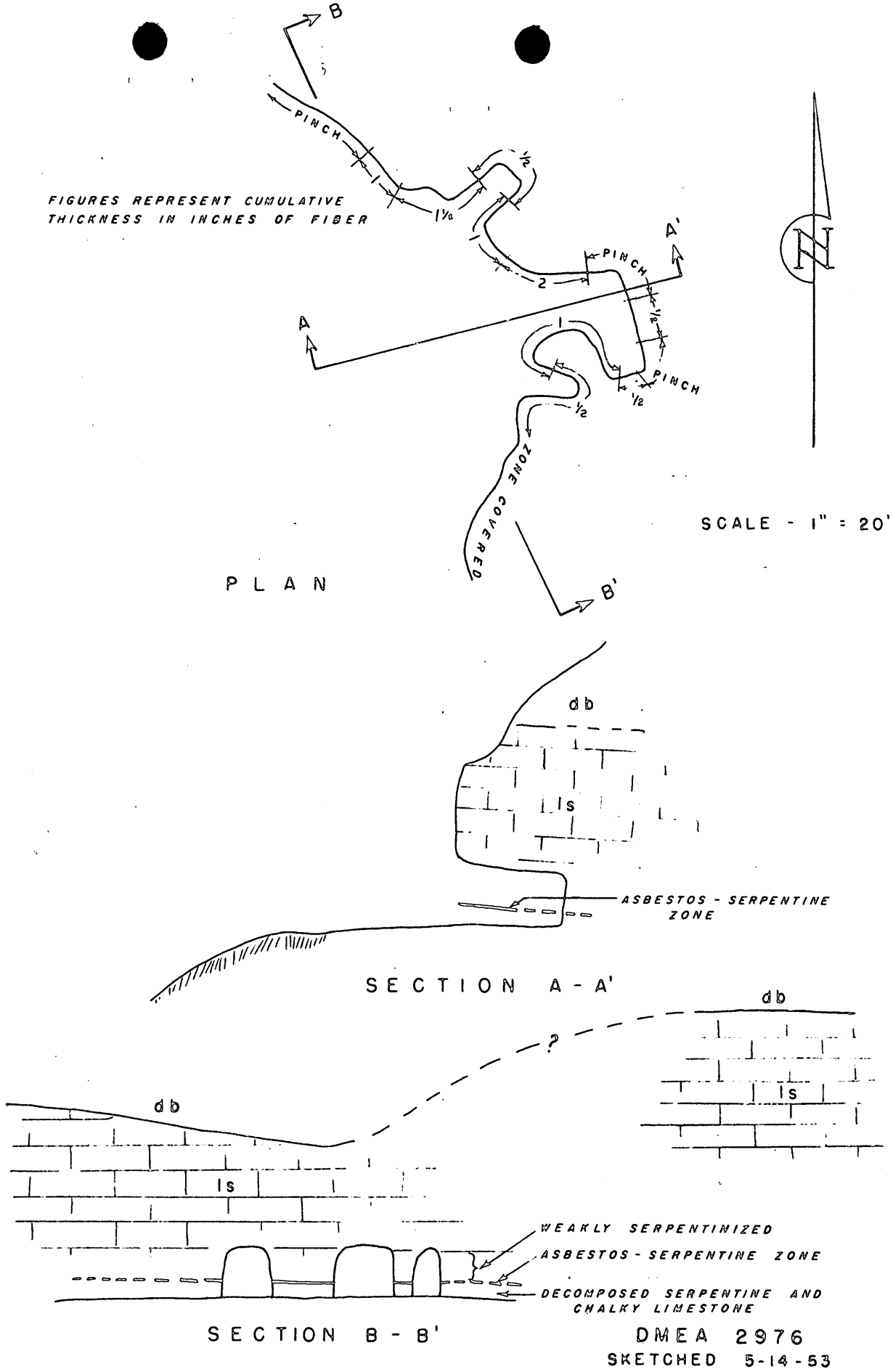



FIGURE 3. - PLAN AND SECTIONS OF LOST MINE WORKINGS

This work, constituting Stage I, would serve both as exploration and as an access road. Stage II was to consist of a total of 650 feet of exploratory drifting from 3 sites shown to be the most favorable by the outcrop benching.

On a unit cost basis, Stage I was in the amount of $5,000 and Stage II was for $18,200, or a total project cost of $23,200.

## CONCLUSIONS

In view of the following conclusions, there is no point in discussing the applicant's proposed exploration costs.

The proposed exploration was for a deposit that occurs along a bedding plane in the massive Mescal algal limestone about 55 feet stratigraphically above the base of this member. It is evident that the mineralization is related to the proximity of an overlying diabase sill and is localized directly under a "V"-shaped discordancy of the diabase. Intensity of mineralization decreases laterally as the distance from the diabase increases. The little work that has been done shows that the fiber veins pinch within 10 feet from the surface. Although there is considerable serpentinization, the fiber is harsh, usually spicular, and of low tensile strength.

Although no work was proposed along the contact with the underlying sill, the examiners investigated this lower area. Very harsh fiber is present only at each side of the property, and geologic conditions are not favorable for mineralization elsewhere.

## RECOMMENDATIONS

It is concluded that no exploration work is justified at this property for the following reasons:

1. The deposit that has been opened, is pinching in all directions, therefore is considered local in extent;

2. No additional deposits along this bedding plane would be expected because the overlying diabase is cutting upward to greater distances above this horizon;

3. This deposit and extensions postulated by the applicant, all lie in the Algal member of the Mescal limestone, an unfavorable stratigraphic unit for asbestos deposition;

4. The asbestos of this deposit and the fiber found elsewhere on the property are not of strategic quality.

Therefore it is recommended that the exploratory loan to the Cibecue Mining Co., Inc., be denied.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
APR 13 1953

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-2976
Metal or Mineral
Date Received 4-13-53
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:

CIBECUE MINING CO. INC.
3635 N. 21st. Ave.
Phoenix, 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.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

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

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

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

SEE ATTACHED SHEET

(*b*) State any mine name by which the property is known.

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

SEE ATTACHED SHEET

(*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

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice.

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

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

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

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

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

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

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

(*c*) The work will start within 90() days and be completed within 12 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.

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

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

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

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

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

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*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.

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

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

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

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

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

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

Explain in detail on acompanying paper.

## CERTIFICATION

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

Dated March 28, 1953, 195--

CIBECUE MINING CO. INC.
(Applicant)

By George A. Troik
SEC.

Clifford Gardner
PRES.

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

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

THE CIBECUE MINING COMPANY
INCORPORATED
3635 NORTH 21ST AVENUE
PHOENIX • ARIZONA

PRESIDENT
CLIFFORD GARDNER
CHAIRMAN
GEORGE TROIK

VICE PRESIDENT
RICHARD HAUGHT
SEC'Y TREAS.
GEORGE TROIK



January 15th, 1953

1. (A) Cibecue Mining Co. Inc.

(B) Corporation, Incorporated in State of Arizona.

(C) President, Clifford Gardner 4042 E. Katherine, Phoenix, Ariz.

Vice President, Richard Haught, Box 852 Globe, Arizona.

Sec'y - Treas. George A. Troik, 3635 N. 21st Ave. Phoenix, Ariz.

(D) Not applicable.

3. (A) A group of claims known as "Lost Mine" Nos 1,2,3,4. application for amended Location to an existing lease known as "Lost Mine" and issued to Clifford Gardner has been submitted to the Tribal Council of the Fort Apache Indian Reservation for their approval. This group is located on U.S. Hwy. 60 about 2.3 mi. ea east of Salt River Bridge and on the North side of the highway. The above amended lease is being issued to the Cibecue Mining Co Inc. and has been approved by the Tribal Council. As soon as the final approval of the Secretary of the Interior has been received copies of the lease will be sent to your office.

(B) Property has been known as Roadside Mine and Procknow.

(C) Lessee

(D) Copy of lease submitted

(E) Not applicable

(F) Recorded in Gila County Recorder's Office, Globe, Arizona Page 434-5 Book 49

4. (A) There are 9 prosepect tunnels and 6 prospect holes on the property. There is approximately 400' of exploration work. A connecting access road between the highway and the property is approxomately 1000' long. There are foot trails leading

THE CIBECUE MINING COMPANY
INCORPORATED
3635 NORTH 21ST AVENUE
PHOENIX • ARIZONA

PRESIDENT
CLIFFORD GARDNER
CHAIRMAN
GEORGE TROIK

VICE PRESIDENT
RICHARD HAUGHT
SEC'Y TREAS.
GEORGE TROIK



to the various prospect sites.

(B) In the past considerable work was done at the West End of the property. All grades of fibre were encountered in the same harsh range. We have opened a 30' adit in the East End of the property and have exposed some soft fibre in the longer range. The total fibre length averages 2".

(C) The Mescal limestone was intruded by diabase sills. Secondary minerals produced were serpentine and chrysatile. Diabase contacts the Algol L.S. on its lower surface. Four feet below this contact is a zone of serpentine and asbestos about 3' thick. There are 35' of massive L.S. beds below this at which zone more serpentine and asbestos horizons are in evidence. Below this zone about 10' is the contact with the lower diabase. The L.S. beds are cut off on each end of the property by diabase intrusions. There is minor faulting and folding as well as surface slump thruoughout the length of the outcrop. We wish to explore this property furher on the basis of the showing made in the current workings and because the geology conforms with the pattern of the Regal, Johns Manville, and other successful producers near at hand. The bedding is dipping about 5 degrees into the hill. There is a major roll at each end of the property with evidence of long fibbe.

(D) The property is 45 mi. from Globe on U.S. Hwy 60. There is a passable 1000' access road into the claims. There are lving facilities 2.3 mi. from the property.

THE CIBECUE MINING COMPANY
INCORPORATED
3635 NORTH 21ST AVENUE
PHOENIX • ARIZONA

PRESIDENT
CLIFFORD GARDNER
CHAIRMAN
GEORGE TROIK

VICE PRESIDENT
RICHARD HAUGHT
SEC'Y TREAS.
GEORGE TROIK



(E) There is ample skilled labor available at Globe.

Semi - skilled labor from the Indian Reservation.

Common " " " " " .

Mateirals, supplies and equipment are available at Globe.

Drinking water hauled 2.3 mi.

Drilling water available from the river, haul 2.3 mi.

Power could be in the form of gasoline or diesel engine.

5.(A) Chrsatile asbestos.

(B) A combination exploration cut and access road 2500' in length. Propose to expose most favorable location for underground exploration stage.

650' of 5 by 7 exploration tunnels - sites to be chosen after stage 1 completed.

(C) The work will start within 90 days and be completed within 12 months from starting date.

(D) The company has secured the services of Mr. Packard, as Mine Foreman, who has had ten years experience in asbestos mining. Mr. Richard Haught will act as Mine Supt. His experience includes 15 years of underground mining.

6. We wish to do the work on a unit bid.

2500' of exploration cut and access road @ $2 per lineal foot $5,000.00

650' of 5 by 7 tunnel including timber where necessary @ $28 per foot - $18,200.00

7. (A) Yes.

(B) Money - all work will be paid for by operator currently. He will be reinbursed to the extent of 90 % of the bid price for work completed each month.

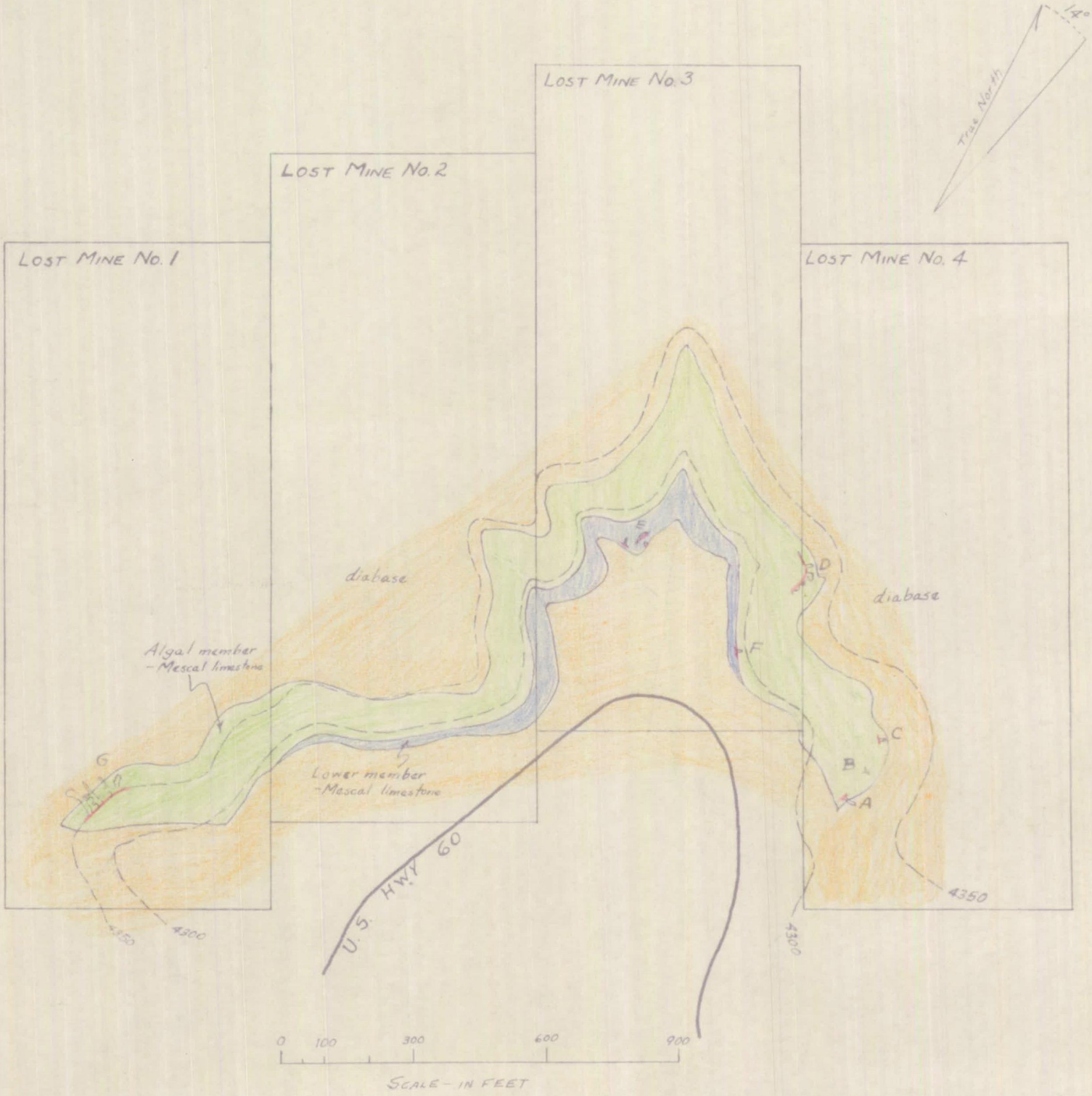



FIGURE 1.- SKETCH MAP SHOWING GEOLOGY OF LOST MINE CLAIMS

DMEA-2976

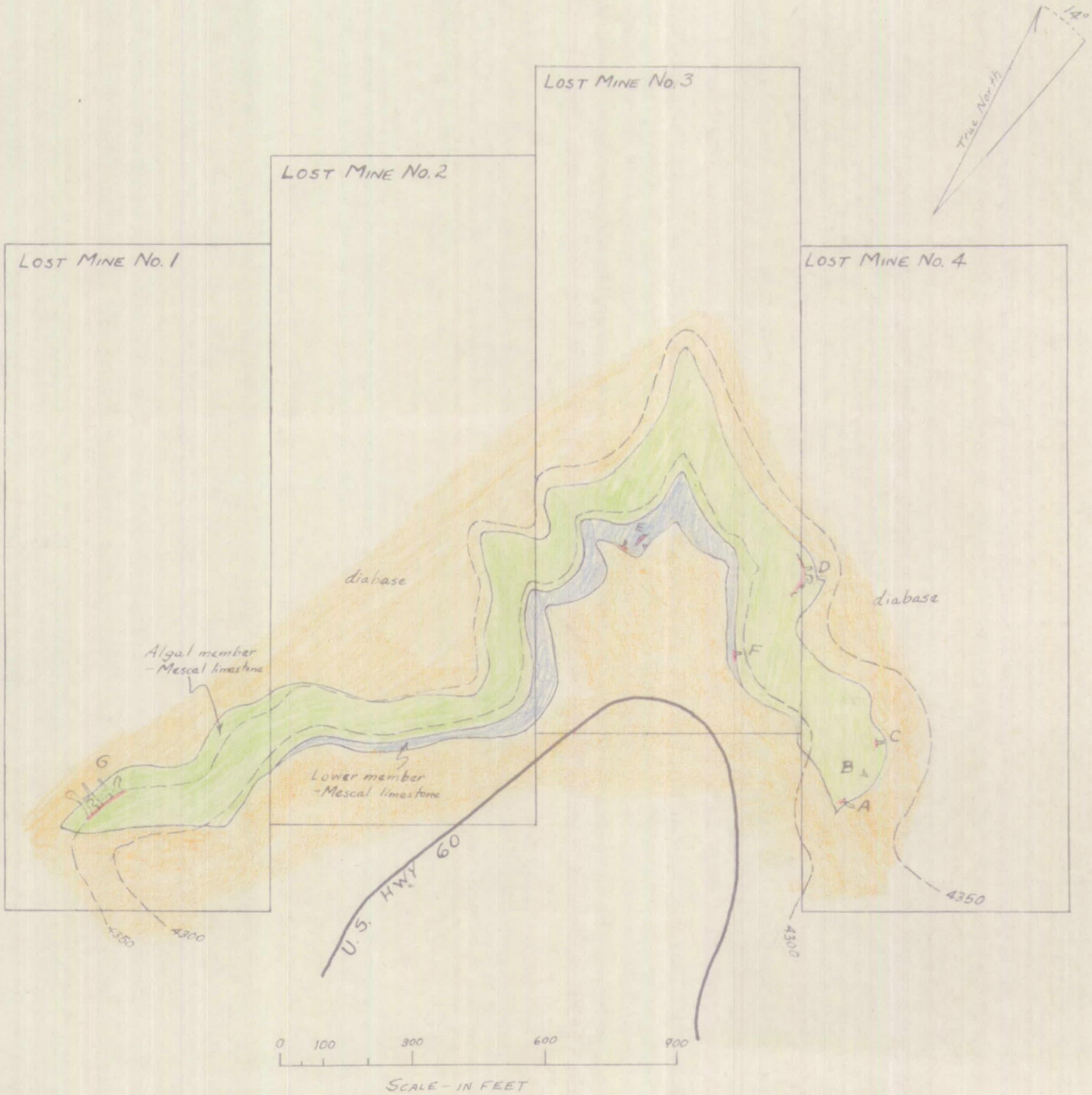



FIGURE 1.- SKETCH MAP SHOWING GEOLOGY OF LOST MINE CLAIMS

DMEA-2976

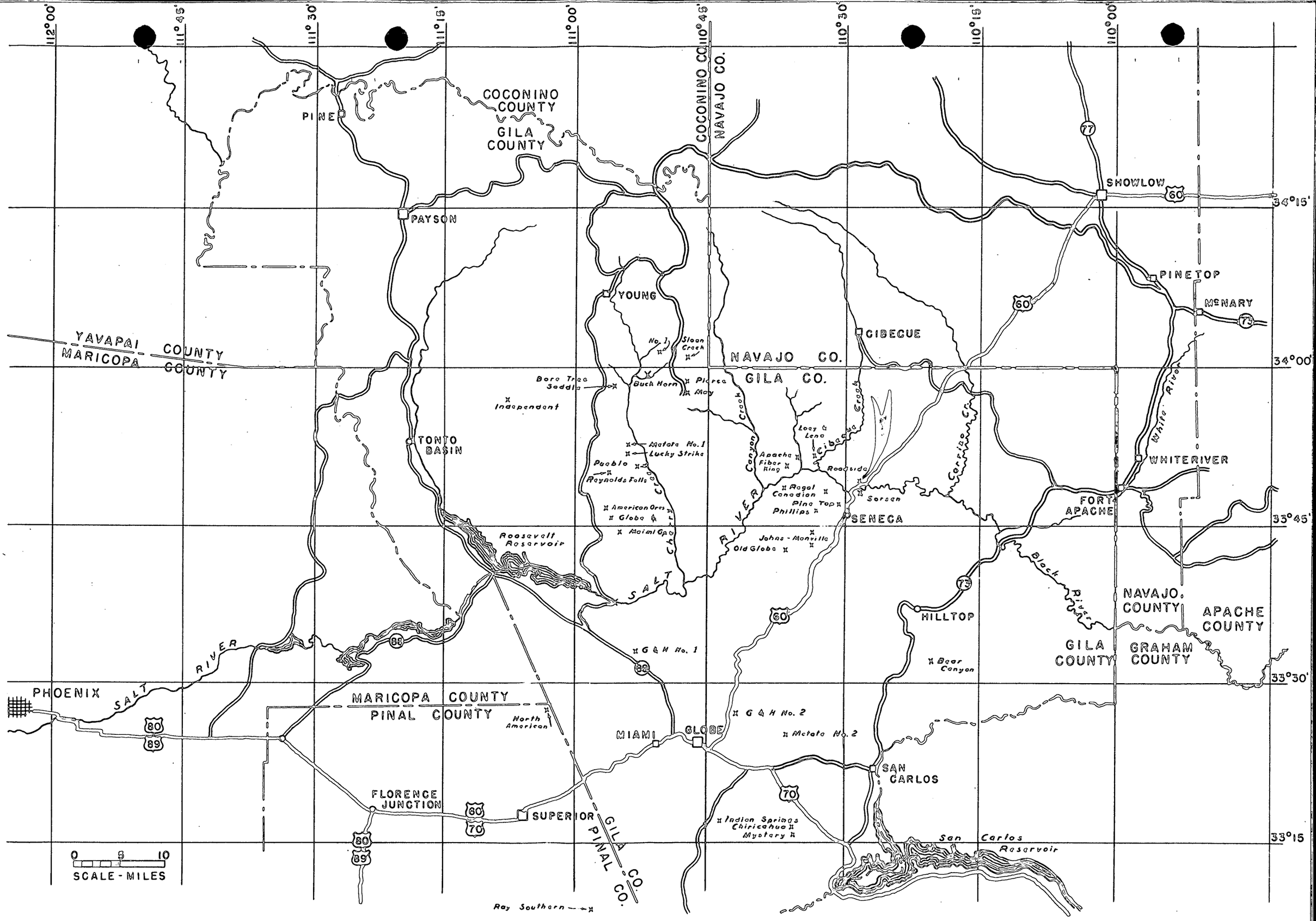



FIGURE 1.- LOCATION MAP - ASBESTOS DEPOSITS - CENTRAL ARIZONA DMEA 2976

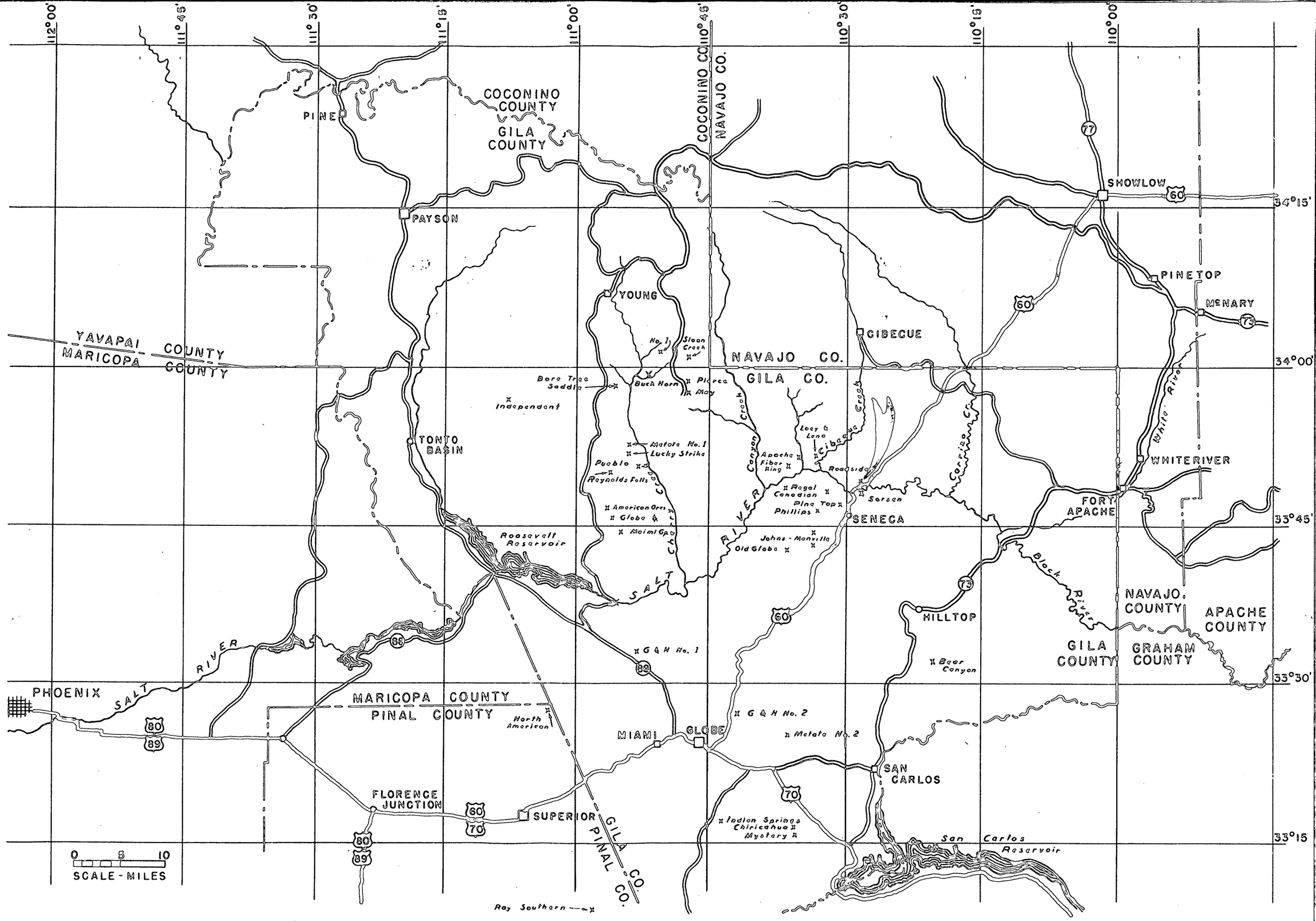
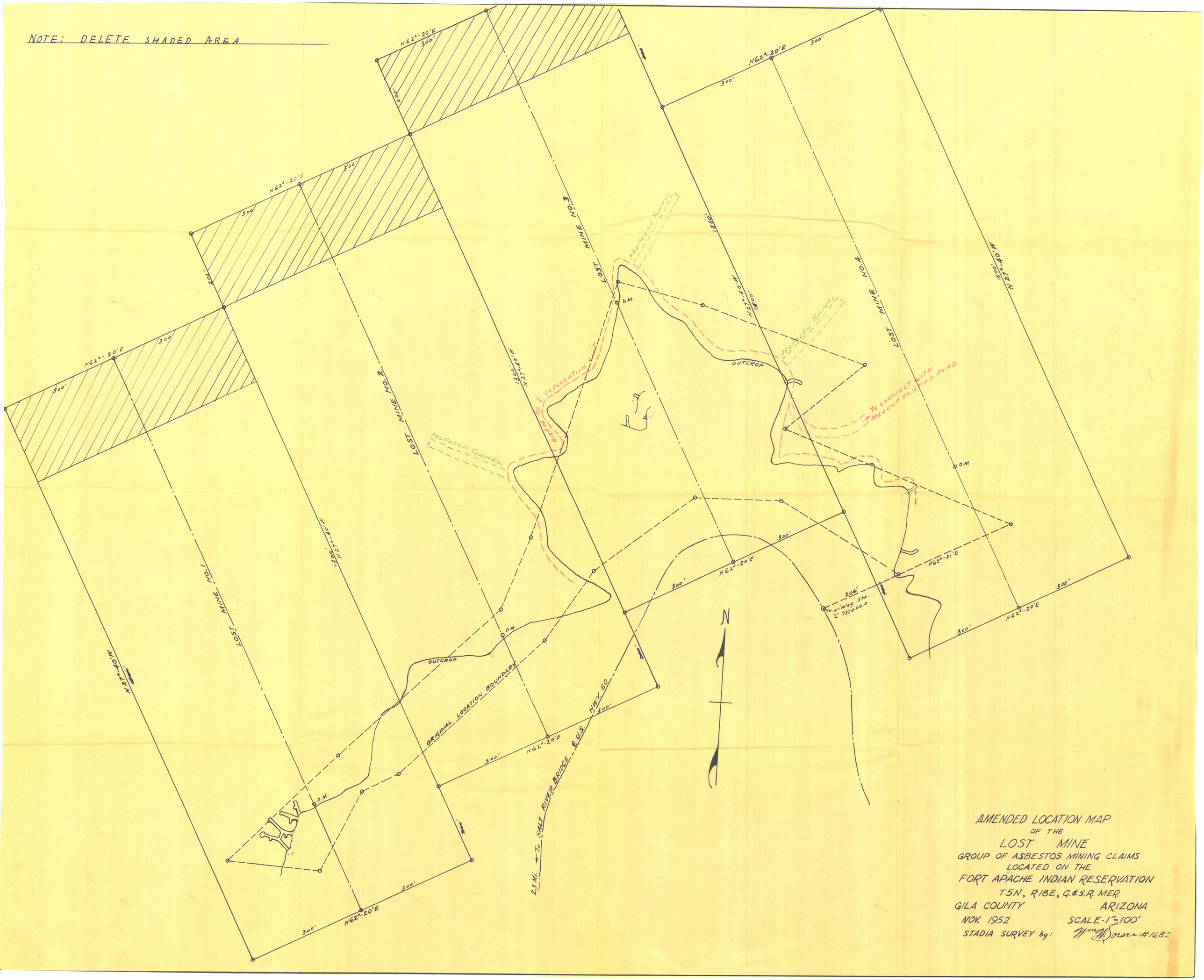



FIGURE 1.- LOCATION MAP - ASBESTOS DEPOSITS - CENTRAL ARIZONA DMEA 2976

DMEA - 2976

1 copy of map enclosed

NOTE: DELETE SHADED AREA




AMENDED LOCATION MAP
OF THE
LOST MINE
GROUP OF ASBESTOS MINING CLAIMS
LOCATED ON THE
FORT APACHE INDIAN RESERVATION
T5N, R18E, G.&S.R. MER.
GILA COUNTY ARIZONA
NOV. 1952 SCALE-1"=100'
STADIA SURVEY by: Wm. H. Jensen #1682