400

JUL 25 1955

400

Messrs. Clements A. Botner
and Paul F. Ortega
229 North Glassell Street
Orange, California

Re: Docket No. DMEA 3671-Manganese
La Palma, San Francisco, and
Venus Mining Claims
Greenlee County, Arizona

Gentlemen:

Your application for aid for an exploration project and other data available to us in Washington relating to the above-noted property have been carefully reviewed.

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

Careful study of all our information indicates to us that, although limited manganese mineralization of a fair grade occurs on your property, the probability of disclosing minable ore reserves in a significant quantity by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, therefore, that your application for exploration assistance is denied.

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

As you requested, we are returning original copy of lease and of assay report.

Sincerely yours,

E. O. Mittendorf

Administrator

CC: Docket
Code 400
Adm. Read. File
Oper. Committee
Thor Kiilsgaard, USGS
Gilbert DeHuff, USBM
FT, Region 3- Denver

TLChapman/ls
7/19/55

July 18, 1955

MEMORANDUM

400

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of application for exploration assistance to the amount of $48,683.00
Docket No. DMEA 3671 - Manganese
Clements A. Botner and Paul P. Ortega
La Palma, San Francisco, and Venus Mining Claims
Greenlee County, Arizona

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

1. The applicants, Clements A. Botner and Paul P. Ortega, 229 North Glassell Street, Orange, California, requested exploration assistance to the amount of $48,683.00 for bulldozing an access road, clearing drill sites, and diamond drilling.

2. The property under a lease dated September 13, 1954, to the applicants from Juan Varela and Eugenio C. Rivas, the owners, is located in Sec. 19, T. 13 S., R. 29 E., Metcalf Mining District, Greenlee County, Arizona, and consists of the La Palma, San Francisco, and Venus lode mining claims.

3. The exposed area of the mineralized zone consists of Modoc, Morenci, and Longfellow limestones underlain by quartzite and granite. Basalt, which at one time covered this area, has been eroded and is the probable source of the manganese mineralization. The manganese occurs in the form of oxides, mainly psilomelane, in vugs and pods. The mineralization occurs in the exposed surface of the limestones and follows the surface dip.

4. Four different zones of mineralization are noted, although only one is of any importance. The limits of this ore zone are already exposed and need no further exploration. It is estimated that 2,000 tons of measured and indicated ore, averaging 30 percent manganese, are present. No ore is inferred.

5. The property was first located in 1920. The main work consists of a trench 50 feet long, 10 feet wide, and 6 feet deep. One small car of lead oxide ore was mined from the property.

6. Two samples taken by the Field Team assayed 27.4 and 36.6 percent manganese. The main ore zone is well exposed and the limits are shown and indications are that there is little probability of making a significant discovery. The Field Team recommends denial and the Commodity Divisions of the Geological Survey and the Bureau of Mines concur in the recommendation.

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

cc; Docket
Adm. Read. File
Oper. Comm.
Code 400

TLChapman/ls
7/19/55

IN REPLY REFER TO:

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

400

RECEIVED
JUL - 6 1955

July 5, 1955

Re: DMEA 3671
Bettner & Ortega
Manganese Claims
Greenlee Co., Ariz.
$48,683 - Manganese

Copy retained 100

Memorandum

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

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

Subject: Review of Field Team report.

From the sketch map, the section, and the description it is difficult to visualize this deposit of manganese, to guess where it came from and where it might go. The examiners after consideration of the same uncertainties decided on a denial of the unreasonable application.

I agree with the conclusions, and recommendation.

N. E. Nelson

N. E. Nelson

NENelson:iml
G-7/5/55

cc: Director's reading, 4212
Branch reading, 4212
DMEA (3)
Docket file
G. DeHuff, 3521

400

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

224 New Customhouse
Denver 2, Colorado

June 17, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Report of Examination, DMEA Docket 3671 (Manganese), Ortega and Botner, Venus, La Palma and San Francisco claims, Greenlee County, Arizona

Enclosed are the original and three copies of the report pertaining to the above application.

We concur in the recommendation of the field examiners that the application be denied.

DMEA Field Team, Region III

W. M. Traver

W. M. Traver

E. N. Harshman

E. N. Harshman

Enclosures

RECEIVED JUN 24 1955

DME
Date Rec'd
JUN 16 1955
BUREAU OF MINES
Denver, Colorado

TRANSMITTED
JUN 17 1955

June 14, 1955

Memorandum

To : W. M. Traver, Executive Officer, DMEA Field Team Region III

From : Superintendent, Southwest Experiment Station

Subject : Field Examination Report, Docket DMEA-3671, Sotner & Ortega, La Palma, Venus and San Francisco Manganese Claims, Greenlee County, Arizona.

Enclosed are original and 8 copies of the section on Summary, Conclusions and Recommendations by Leonid Bryner of the Geological Survey and T. M. Romale of the Bureau of Mines, and the section on Engineering by Romale for the above report. A separate section on Geology will be submitted by the Geological Survey.

As the principal deposit seems to be limited to 2,000 tons of ore averaging about 30 percent manganese, and there is little chance of discovering any significant amount of new ore by further exploration work, the examiners recommend denial of Government exploration assistance. I concur with this recommendation.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC W.M. Traver (8)
J.N. Faick
DMEA-3671
DF

WRStorms/jlb

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-3671, La Palma, Venus and San Francisco Manganese Claims

Greenlee County, Arizona

L. Bryner, Geologist
U. S. Geological Survey

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

June 1955

TRANSMITTED

JUN 17 1955

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By L. Bryner[1] and T. M. Romalo[2]

La Palma, Venus and San Francisco claims in Greenlee County, Ariz. were examined by field examiners for the Defense Minerals Exploration Administration in connection with an application for Governmental aid by Clements A. Botner and Paul P. Ortega of Orange, Calif. The application, docketed as DMEA-3671, proposed an exploratory project for manganese that involved road building and diamond drilling. Cost of the proposed work totaled $48,000.00.

Since 1920, when about one carload of oxidized lead ore reportedly was produced, activity on the claims has been confined to intermittent assessment work in the form of shallow trenches.

The deposits are situated on the crest and on the east slope of a ridge that is composed of gently dipping Paleozoic sedimentary rocks. Of the 4 or 5 deposits seen, almost all the estimated reserves of manganese ore are believed to be in Deposit No. 1 on the crest of the ridge. Deposit No. 1 consists of 2 adjacent and parallel lenses of manganese oxides, more of less concordant in their attitude with the enclosing Mississippian Modoc limestone. The reserves of the 2 lenses are estimated at 2,000 tons of material averaging about 30 percent manganese. As the deposits are close to the surface and their limits are more or less exposed, the reserves are classed as measured and indicated; there are no inferred reserves.

Denial of the requested assistance is recommended because there are no indications of significant reserves of manganese in the proposed project area.

1/ Geologist, U. S. Geological Survey
2/ Mining engineer, U. S. Bureau of Mines

DMLA-3671, LA PALMA, VENUS AND SAN FRANCISCO MANGANESE GLADES
GRENELEF COUNTY, ARIZONA

Engineering Report

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

June 1955

DMEA-3671, LA PALMA, VENUS AND SAN FRANCISCO MANGANESE CLAIMS
GREENLEE COUNTY, ARIZONA

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Engineering report — Page

Introduction — 1
Location and accessibility — 1
Physical features and climate — 2
History and production — 2
Extent and ownership — 3
Description of deposits — 3
Ore reserves — 4
Conclusions and recommendations — 4

ILLUSTRATIONS

Figure No. 1 — Following Page

1 Location map — 1
2 Geological map and section — (see Geological Report)

INTRODUCTION

An application for Governmental aid in exploring for manganese ores on La Palma, Venus and San Francisco claims of Greenlee County, Ariz. was received by the Defense Minerals Exploration Administration from Clements A. Botner and Paul P. Ortega of Orange, Calif. The application, designated as DMEA-3671, briefly outlined a proposed project that evolved road building and diamond drilling at an estimated total cost of $48,000.00.

The properties were examined on April 26, 1955 by L. Heyner, geologist, U. S. Geological Survey, and the writer. Messrs. Botner and Ortega, the applicants, and Juan Varela, one of the owners of the property, accompanied the examining team.

LOCATION AND ACCESSIBILITY

The contiguous La Palma, Venus and San Francisco claims are situated about 9 air miles northwest of Clifton, Ariz., probably in unsurveyed sec. 19 of T. 13 S., R 29 E., Metcalf Mining District, Greenlee County, Ariz. (figure 1). Clifton is on U. S. Highway 666 and is the northern terminus of a branch line of the Southern Pacific railroad.

To reach the claims from Clifton, follow U. S. Highway 666 northwesterly about 1 mile to a junction with the paved road to the town of Morenci. Proceed 9 miles northerly on U. S. 666 to a ranch house that is situated close to the highway on the west side. A foot trail from the highway at about 0.25 mile south of the ranch is followed westerly for an air line

distance of about 1 mile to the main deposit at an altitude of about 1,500 feet above the highway.

PHYSICAL FEATURES AND CLIMATE

The property is situated along the crest and east slope of a northerly trending ridge that forms the divide between Chase Creek to the east and Eagle Creek to the west. The terrain is extremely rugged. Altitudes range from about 4,800 feet, where the trail to the deposits leaves the highway, to 6,700 feet at the main deposit on the crest of the ridge.

There is abundant vegetation in the area. From the highway to the crest of the ridge, vegetation ranges from small trees and bushes to mainly pine trees.

Annual precipitation is about 20 inches, of which possibly 15 inches occurs as summer showers, the remainder as winter rains and snows.

HISTORY AND PRODUCTION

According to Juan Varela, La Palma, Venus and San Francisco claims first were located and worked by his father in 1920. During that year approximately one carload of oxidized lead ore was produced from a shallow shaft on the San Francisco claim. Since then no ore of any kind has been produced from intermittent assessment work that has been confined to the excavation of several shallow trenches. Most of this work was done by the elder Varela who died in 1936.

EXTENT AND OWNERSHIP

The property comprises a group of 3 unpatented lode mining claims, La Palma, Venus and San Francisco.

The applicants, Clemente A. Botner and Paul P. Ortega of Orange, Calif., hold the property under a lease agreement with the owners, Juan Varela and Eugenio C. Rivas of Clifton, Ariz. The agreement is for a period of 5 years from September 13, 1954.

DESCRIPTION OF THE DEPOSITS

Manganese oxides have been exposed at 4 places on the 3 claims by shallow cuts. However, only at Deposit No. 1 are the showings of sufficient extent and grade to justify description (figure 2). There, the deposit has been explored by an open cut averaging about 50 feet long by 10 feet wide by 6 feet deep. The ore occurs mainly as psilomelane that partially fills vugs in limestone. Small quartz crystals are closely associated with the ore.

The ore follows the limestone beds which strike about N. 40° E. and dip about 30° NW. At the east end of the open cut it reaches a maximum thickness of 8 feet. The ore thins to the east, and its western limit is an erosional one. A second much thinner ore-bearing zone crops out within a few tens of feet north of the open cut. It occurs at a slightly higher horizon of the limestone. This deposit appears to cross the bedding at a slight angle. Its lateral extent of about 70 by

100 feet is limited either by erosion or by fading out of the mineralization.

Two samples were taken for assay. Sample USBM-12776, representing 15 pounds of material from the dump at the open cut, assayed 27.4 percent manganese. Selected high-grade specimens from the open cut, Sample USBM-12777, assayed 36.6 percent manganese.

ORE RESERVES

The measured and indicated ore reserves of No. 1 deposit, the only one of possible economic importance, have been estimated at about 2,000 tons with an average manganese content of approximately 30 percent.

There are little or no inferred reserves.

CONCLUSIONS AND RECOMMENDATIONS

The reserves of manganese oxides are confined largely to an estimated 2,000 tons of 30 percent manganese in 2 nearly adjoining deposits. The reserves are classified as measured and indicated ore, there being no inferred ore because the limits of the deposits are more or less exposed.

Denial of the requested assistance is recommended because there is little or no chance of discovering significant amounts of manganese ore.

IN REPLY REFER TO:
DMEA
Date Rec'd
JUN 14 1955
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

June 13, 1955

TRANSMITTED
JUN 17 1955

Memorandum

To: Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 3671 (Manganese), Ortega and Botner, Venus, LaPalma, and San Francisco claims, Greenlee County, Arizona

Enclosed are the original and 8 copies of a geologic report by Leonid Bryner, U. S. Geological Survey, covering his examination of the subject property.

Bryner concludes that the proposed exploration will not lead to the discovery of significant manganese deposits, and he recommends denial of the application for Government aid in exploration.

I concur with this recommendation.

E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures (9)

ENHarshman:arh

Box 4126 University Station
Tucson, Arizona

June 9, 1955

MEMORANDUM

To: Mr. E. H. Harshman

From: J. H. Faick

Subject: DMEA Docket 3671 (Manganese)
Ortega and Bryner, applicants
Venus, LaPalma and San Francisco claims
Greenlee County, Arizona

Enclosed are the original and 8 copies of a geological report by Leonid Bryner, on a field examination of the above property. This report recommends denial of Government participation in exploration because it is unlikely that significant tonnage of manganese ore would be discovered in the project area.

This report has my approval.

John H. Faick
John H. Faick

JHF:ms

cc: 8 Mr. Harshman
1 Mr. Sherms

U. S. DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REGION III

GEOLOGY

EXAMINATION REPORT

DMEA 3671

GREECIA AND ROTHER
VENUS, LaPALMA, AND SANFRANCISCO CLAIMS

GREENLEE COUNTY, ARIZONA

(Manganese)

By
Leonid Bryner
Geologist
U. S. Geological Survey

June 9, 1955

U. S. DEPARTMENT OF THE INTERIOR
BUREAU MINERALS EXPLORATION ADMINISTRATION
FIELD TEAM REGION III

GEOLOGY
EXAMINATION REPORT
MMEA 3671
OTTERA AND BOTHER
VENUS, LaPAZA, AND SAN FRANCISCO CLAIMS
GREENLEE COUNTY, ARIZONA
(Manganese)

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ILLUSTRATIONS

Fig. 1 Location	See Engineering Report
Fig. 2 Geologic Map and Sections	Following page 2

INTRODUCTION

In an application to the Defense Minerals Exploration Administration, dated September 30, 1954, Paul P. Ortega and Clemente A. Botner requested Government participation in a program estimated to cost $48,683 to explore for manganese on the Venus, LaPalma, and San Francisco claims, Greenlee County, Arizona.

The claims are located 1.5 airline miles south of the summit of Enebro Mountain, on the crest and east flank of the ridge that runs almost due south from the mountain. Enebro Mountain is at the headwaters of Chase Creek, about 7 airline miles north of Morenci. The elevation of the property is about 6,900 feet above sea level. It is about a 3-mile walk to the property from where U. S. Highway 666 reaches an east-trending spur of Enebro Mountain.

The claims are leased by the applicants from Juan Varela and Eugenio G. Rivas.

The examination was made on April 26 by T. M. Romslo of the Bureau of Mines and the writer. Both applicants, as well as Varela, guided the examiners to the property.

The deposits have not been described in any report known to the examiners. Lindgren, however, in his Clifton Folio shows the general geology of the mine area.

GEOLOGY

The top of the ridge that contains the deposit consists of the Mississippian Modoc Limestone. This limestone is about 180 feet thick in the district. It is underlain by the Devonian Morenci formation, consisting of about 190 feet of black, clay shale with

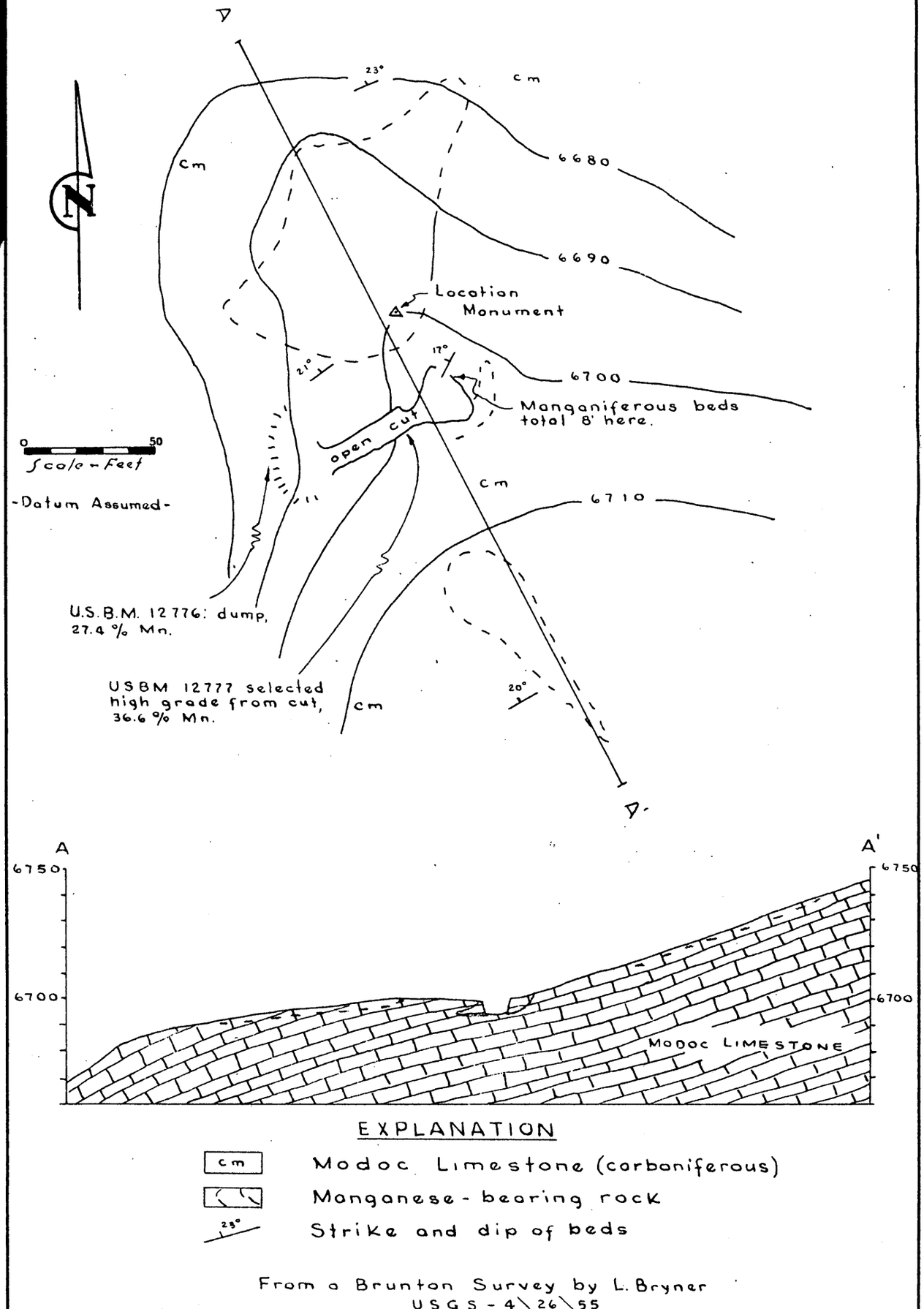
local argillaceous limestone near its base. These rocks are underlain by the Ordovician Longfellow formation, the Cambrian Corrando quartzite and, finally, by Precambrian granite. Several hundred feet north of the deposits the Modoc limestone is overlain by Tertiary basalt and the basalt is overlain, in turn, by rhyolite tuffs and breccias. Both the sedimentary and the volcanic rocks are rather flat-lying, but the contact of the sedimentaries with the volcanic displays several hundred feet of relief in places, indicating considerable erosion between the two intervals of deposition. Several hundred feet north of the deposits, in fact, this contact, as it is followed east from the crest of the ridge, cuts down across the Modoc and Morenci formations into the underlying Longfellow formation.

The deposits are in an interval extending from the crest of the ridge to several hundred feet below the crest, on the east slope. They are, therefore, in the Modoc, Morenci and Longfellow formations.

The three lowest showings in this interval are in partly caved cuts or in dump material from these cuts. These showings are so low grade or so small that they were passed over in favor of the two upper deposits.

Almost all of the examination time was devoted to the deposit on top of the ridge, called here, for convenience, the No. 1 Deposit. The geology of this working is shown in figure 2, and the following description applies to it.

Most of the exposed ore in the No. 1 Deposit is in the very crest of the ridge in a small natural bench between steeper slopes immediately to the north and to the south. The limestone



EXPLANATION

cm — Modoc Limestone (carboniferous)

Manganese-bearing rock

23° — Strike and dip of beds

From a Brunton Survey by L. Bryner
USGS - 4\26\55

FIGURE 2 GEOLOGIC MAP AND SECTIONS OF THE NO. 1 DEPOSIT, VENUS CLAIM, GREENLEE CO. ARIZ.

beds that contain the deposit dip about 20 degrees to the northwest, but the beds immediately surrounding the ore have a slightly flatter dip (Sec. A-A', fig. 2). The ore appears to form an intimate mixture with the more siliceous parts of the limestone. The limestone is partly cavernous and manganese oxides together with quartz crystals line some of the caverns. The ore mineral is mostly psilomelane. No primary manganese minerals were recognized.

The ore in the open cut follows the limestone bedding. It reaches a maximum thickness of 8 feet at the east end of the cut. About 20 feet down dip from here the ore abruptly pinches out. It also thins towards the west more or less along the strike, but its western limit is established by erosion. The ore-bearing limestone horizon can be traced down dip beyond the cut to where it is devoid of manganese. The short interval in which the limestone changes from ore to barren rock is concealed, so the nature of the pinchout could not be observed. Uphill from the cut, that is, along the crest of the ridge in a southerly direction, there is a "skin" of manganiferous rock in the exposed dip-slope of the ore horizon. Downhill from the cut, that is, along the crest of the ridge in a northerly direction, a second, slightly higher, but thinner, ore horizon is exposed. The ore in this higher horizon pinches out about 70 feet down dip from its outcrop near the open cut. It seems to lie across the limestone bedding at a small angle. These features are shown in Section A-A' in figure 2. The manganiferous rock in the higher horizon may be traced from the crest of the ridge,

northeast, down the flank of the ridge across the bedding through a stratigraphic interval of 10 to 15 feet. Here the mineralized rock appears to occupy an interval and a horizon about equivalent to both of the ore horizons described above.

The deposit second in size, but considerably smaller than the No. 1 Deposit, is 600 or 700 feet northeast of it and about 100 feet lower than the crest of the ridge. It is exposed by a 20-foot cut oriented southwest. The cut is in the Modoc Limestone which here strikes N 40° E and dips 17° NW. The manganese oxides occur in a cherty bed about one foot thick. The bed is manganiferous for its exposed length, which is about 10 feet.

The deposits seen in this examination are spread through a wide stratigraphic interval, yet do not appear to be related to a fault or fissure. They seem, rather, to be superficial in that they follow topography and do not penetrate very deeply along bedding. Also they are distributed in a belt more or less parallel to the tongue of Tertiary basalt that cuts down toward the east across the Paleozoic sediments. The No. 1 Deposit also has a northeasterly extension across bedding and down the slope in the direction of the lower deposits. These features, together with the very limited persistence below surface of the No. 1 Deposit, suggest supergene origin for these deposits. Possibly the manganese was leached from the nearby basalt which at one time probably covered the area where the manganese deposits are found. The association of manganese deposits with nearby basalt flows has been noted before.

GRADE

There apparently has been no production from these deposits. Juan Varela's father worked them, but, according to his son, did not ship any ore. The deposits and workings are all small and isolated and have the aspect of "prospect holes" rather than mines.

At the No. 1 Deposit the cut and dump material from the cut were sampled, with the following results:

USGS 12776: 15 lbs. grab sample of dump; 27.4 percent Mn.

USGS 12777: selected high grade from floor of cut; 36.6 percent Mn.

The location of these samples is shown in figure 2. The average grade of the deposit probably is near these two values. The applicant submitted an assay return of 65.8 percent Mn. for a single sample. This sample undoubtedly represents a hand-picked specimen. In the docket the average grade of the deposit is said to be 30 percent manganese with silica the greatest impurity, but the basis for this average grade is not given.

EXPLORATION

The exploration program proposed by the applicant consists essentially of building about three miles of access road from U. S. Highway 666 and some drilling 29 holes at four of the deposits. The total cost of this work was estimated at $48,693.

RESERVES

Reserves are estimated only for the No. 1 Deposit, and most of the ore in the project area is probably contained in this deposit. Here the total reserves are estimated at about 2,000 tons, averaging about 30% manganese. Probably about half of this tonnage could be considered indicated ore and half, measured ore. There are no inferred reserves.

CONCLUSIONS AND RECOMMENDATIONS

The limits of the No. 1 Deposit are fairly apparent without the aid of exploration, and these limits are such as to indicate a small, medium grade deposit. The other deposits in the project area appear to be smaller and lower grade than the No. 1 Deposit. The superficial character of the deposits and their small size make it unlikely that any significant tonnage can be discovered in the project area. It is recommended, therefore, that government participation in exploration of this area be denied.

400

April 18, 1955

MEMORANDUM

To: Frank E. Johnson, Deputy Administrator, DMEA

From: Iron and Ferro-Alloys Division

Subject: Region III dockets

This Division has a total of four dockets that refer to applications from Region III. A summary of each follows:

DMEA 3701 - L. C. Harris

Formerly DMEA 1476 - denied July 1951, and denial reaffirmed October 29, 1951.
Formerly DMEA 3276 - denied April 15, 1954.

October 4, 1954	L. C. Harris called Division office to discuss denial.
November 1, 1954	Advised Field Team of L. C. Harris' conference and requested additional data.
November 8, 1954	Field Team will make exam.
February 28, 1955	Field Team report received. Contract recommended.
March 14, 1955	Rough draft of contract sent to Legal.
April 14, 1955	Contract sent to field for execution.

DMEA 3671 - Clemente A. Botner and Paul P. Ortega

February 7, 1955	Application received in Washington.
March 3, 1955	Application referred to Field Team for field examination.

DMEA 3607 - Manganese Corporation of Arizona

December 17, 1955	Application received in Washington.
December 29, 1955	Application referred to Field Team for field examination.

DMEA 3546 - Meach, Brown, and Meach (Region IV docket)

December 16, 1954	Field Team requests permission to release western 300 feet of Steel Plate No. 1 claim, Contract No. Idm-E54, to referenced applicant.
January 5, 1955	We tell Field Team such a release is not in the best interest of the Government.
January 24, 1955	Field Team requests decision.

January 26, 1955	We ask for copy of Field Team report.
January 27, 1955	Field Team report received.
February 8, 1955	We ask Field Team if applicants would be interested in smaller project on Big Cameron claim only. Field Team is advised that any production made from adjoining Steel Plate No. 1 claim would be subject to royalty under Contract No. Idm-E54.
February 3, 1955	One of applicants asks that application for exploration assistance be cancelled.
February 7, 1955	Same applicants ask that above request be deleted.
February 10, 1955	Field Team tells applicants that docket will be kept in line for further processing.
February 11, 1955	Field Team asks applicants if they will be interested in project confined to Big Cameron claim.
March 25, 1955	Field Team advises Washington that it recommends application be held active for at least 30 days.
March 22, 1955	Alvin Mosch and Hans Mosch advise DMEA that they have accepted from Mac Brown all of his interest in the Big Cameron claim. They now propose to sink the Big Cameron shaft 100 feet and drive a drift from the bottom of shaft 300 feet in a southwesterly direction.
March 28, 1955	Field Team advises Washington that it will submit supplemental report.
April 4, 1955	We advise Field Team that application will be held in abeyance until its report is received.

Sgd

F. A. Rutledge, Acting Chief
Iron and Ferro-Alloys Division

cc: Mails & Files
Code 400
Adm. Read. File

FARutledge/ls
4/18/55

MAR 16 1955

400

Messrs. Clements A. Botner and Paul P. Ortega
229 North Glassell Street
Orange, California

Re: Docket No. DMEA 3671 Manganese
La Palma, San Francisco, and
Venus mining claims
Greenlee County, Arizona

Gentlemen:

This will acknowledge receipt of your letter of March 8, 1955, stating that on January 28, 1955, you delivered to the Denver office a reply to W. H. King's letter to you of October 6, 1954. We thank you for this information and for calling our attention to the error in the reference caption of our March 3 letter to you.

Sincerely yours,

C. O. Mittendorf
Administrator

cc: Docket
Field Team, Reg. 3 Denver
Adm. Read. File
Code 400
Gilbert DeHuff, USBM
Thor Kiilsgaard, USGS

WSMartin/ls
3/16/55

400

224 New Customhouse
Denver 2, Colorado

March 10, 1955

Memorandum

To: W. R. Storms
J. N. Faick

From: Field Team, Region III

Subject: DMEA Docket 3671 (Manganese), Botner and Ortega, Partnership, LaPalma, Venus, and San Francisco claims, Copper Mining District, Greenlee County, Arizona

We herewith transmit a complete copy of the subject application to W. R. Storms. Copies of a letter from the Chairman, DMEA Operating Committee with enclosed memorandum from Louis Pavlides of the U. S. Geological Survey are transmitted to both W. R. Storms and J. N. Faick. A copy of the application will be supplied to J. N. Faick by E. N. Harshman as soon as it is obtained from the Washington Office.

The applicant requests $16,500.00 to perform 3300 feet of diamond drilling and estimates 3 miles of access road is required. The cost of roadbuilding is estimated at $31,500.00 which seems to be extremely high in comparison to the amount of exploration work proposed.

We believe a field examination of the property should be scheduled based on the present information supplied by the applicants, as any additional information probably will be hard to obtain. If the property looks promising and a program can be recommended without roadbuilding consuming the major share of expenses, a suitable map for contract use can then be prepared or requested from the applicant.

Please examine the property and submit the usual report to this office.

W. M. TRAVER

W. M. Traver

Enclosures

E. N. Harshman

E. N. Harshman
DMEA Field Team, Region III

EDH:pw

cc: Subject
Chron
Harshman A.J. Martin Sec.Op.Com.

400

COPY

Re: Docket No. DMEA 3671, Manganese

Paul P. Ortega
Clements A. Botner
229 North Glassell
Orange, California
March 8, 1955

C. O. Mittendorf
Administrator's Office
Defense Minerals Exploration Administration
Washington 25, D. C.

Dear Sir:

Thank you for your letter advising us that our application for exploration of the Venus, La Palma, and San Francisco claims in Greenlee County, Arizona, has been referred to Mr. W. M. Traver, Executive Officer, DMEA Field Team, Region Three, 224 New Custom House, Denver 2, Colorado, for a field examination.

We have notified him of our desire to cooperate with his office.

However, in your letter to us, at the heading of it, Greenlee County is set down as being located in California. No doubt it was just an oversight and on the records there Greenlee County is correctly stated as an Arizona County. Also you mention that we did not apparently answer W. H. King's letter, dated October 6, 1954, asking for additional information. The information in question on drilling data, location, and road estimate cost was delivered to the Denver office on January 28, 1955. The fact that we did not submit more than one copy may have caused the discrepancy.

Thanking you for your help in expediting our application thus far.

Very truly yours,

Signed: Paul P. Ortega

Signed: Clements A. Botner

400

MAR 3 - 1955

Messrs. Clements A. Botner and Paul P. Ortega
229 North Glassell Street
Orange, California

Re: Docket No. DMEA 3671 - Manganese
La Palma, San Francisco, and
Venus mining claims
Greenlee County, California

Gentlemen:

The above-docketed application for exploration assistance for manganesehas been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. W. M. Traver, Executive Officer, DMEA Field Team, Region III, 224 New Custom House, Denver 2, Colorado, for a field examination of your property.

We note that Mr. W. H. King, Executive Officer, DMEA Field Team, Region IV (now Region III), wrote you on October 6, 1954, requesting further information, but apparently no reply has yet been received to his letter. To avoid further delay, we are referring the application for field examination and any assistance you can give the Field Team will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

CC: Docket
Code 400
FT, Reg. 3-Denver
Adm. Read. File
Oper. Comm.
G. DeHuff, USBM
T. Kiilsgaard, USGS

TLChapman/ls
2/25/55

400

MAR 3 - 1955

Mr. W. M. Traver, Executive Officer
DMEA Field Team, Region III
224 New Custom House
Denver 2, Colorado

Re: Dooket No. DMEA 3671 --Manganese
Clements A. Botner & Paul P. Ortega
La Palma, San Francisco, &
Venus mining claims
Greenlee County, Arizona

Dear Mr. Traver:

The above-referenced application for exploration assistance is being referred to your office for a field examination of the property. The application is incomplete, but due to the delay since receipt of application, we believe it is advisable for the Field Team to obtain directly from the applicant the necessary details for the preparation of a contract if one is to be recommended.

Two copies of a relevant memorandum dated February 17, 1955, by Louis Pavlides, Geological Survey, are enclosed for your information.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee

Enclosures

APPROVED:

J. H. Hedges
Member, Bureau of Mines

E. L. Newcomb
Member, Geological Survey

cc: Docket
FT, Reg. 3
Code 400
Oper. Comm.
Adm. Read. File
~~XXXXXXXXXXXXXXXX~~
T. Kiilsgaard, USGS
G. DeHuff, USBM

TLChapman/ls
2/24/55

400

IN REPLY REFER TO:

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

Defense Minerals Administration
RECEIVED
FEB 17 1955

Contrel 400

February 17, 1955

Memorandum

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

From: Louis Pavlides, U. S. Geological Survey

Subject: DMEA Docket 3671 -- Manganese -- $48,683, Venus, La Palma and San Francisco mining claims, Greenlee County, Arizona

The subject docket proposes to explore 3 mining claims designated as the Venus, La Palma and San Francisco in the Clifton-Morenci copper district, Greenlee County, Arizona. The exploration proposal calls for 3360 feet of vertical "core holes" (presumably diamond drilling) at an estimated cost of $5 per foot. The drilling is to be distributed among the different claims as follows: (1) Venus claim: 15 holes, 50 ft. deep and spaced 30 ft. apart in a N-S direction and 18 ft. apart in an E-W direction, and 6 holes 50 ft. deep on 30 foot centers, (2) La Palma claim: 10 holes, 75 ft. deep on 30 foot centers, (3) San Francisco claim: 10 holes, 50 ft. deep and 10 holes 100 ft., all on 30 feet centers.

The targets to be explored are presumed to be "a deep pocket or a steeply dipping wide vein" (Venus claim).

Little can be gleaned from this application as to the local geologic setting of these deposits; the applicant's description being limited to one sentence stating, "Area appears to have signs of volcanic action and main body of claim area seems to be metamorphosed sediment (limestone, silica, fossils, etc.) -- also chert." By projecting the applicant's outlined location map (Morenci quadrangle, New Mexico) onto Lindgren and Bonstelle 1/ geologic map, the subject claims fall within a synclinal area of Lower Paleozoic sedimentary rocks composed of limestones, shales and some chert. The syncline is bounded on the east, south and west by faults and capped by Tertiary basalt to the north. Unfortunately there is no specific information in the Survey files on the subject deposits.

1/ Lindgren, Waldemar, 1905, The copper deposits of the Clifton-Morenci district, Arizona: U. S. Geol. Survey Prof. Paper 43, Pl. 1.

Recommendations

The application is poorly prepared and documented and the applicant should be requested to furnish additional information before the docket can be properly evaluated for possible referral for a Field Team examination. Specifically:

(1) Maps on a scale of 1" = 200' should be requested which show topographic contours, geologic contacts, proposed drill sites, trails and roads, and the three trenches as well as any other exploration carried out thus far by the applicants. Sample sites or assays should also be appropriately posted on these maps. The maps submitted with the application are crude sketches; they appear to be composites of relief and plan maps which even lack a scale.

(2) Under item 4c the applicants mention "samples *** averaged 50 percent Mn with the greatest impurity being silica" yet only one assay showing 65.8 percent Mn is submitted with the application. This high manganese content of this assay suggests the sample might be more in the nature of a mineral specimen rather than "ore." The applicant should be asked to furnish all his assay data and describe the samples they represent, i.e., grab samples, channel samples or mineralogic specimens.

(3) The type of "core" drilling planned should be specified as well as the reasons why such drilling is suited to the rocks to be drilled.

(4) Only 1/3 of the money requested by the applicants will be spent in actual exploration under the present proposal; the remainder is to be used on building an access road to the deposits. This allocation of funds is completely out of proportion to a realistic exploration program. Undoubtedly the cost figures for the road construction can be considerably reduced if among other things the heavy equipment cited for purchase by the applicant is recalculated on a rental basis.

(5) The density of drilling proposed by the applicants is definitely development rather than exploration and a more widely spaced and consequently fewer holes would be more appropriate to an exploration program. Furthermore the targets to be drilled are very indefinite and should be more closely defined and outlined both as to shape and attitude before it can be decided whether vertical or inclined holes are more practical for exploring the deposits. The lack of water at or near the property (the nearest water being six miles away, item 4e) may well preclude diamond drilling at a reasonable cost as an exploration tool on these claims.

CC: Director's reading, 4212
Branch reading, 4212
BMEA (3)
Docket file
Gilbert DeHuff

Louis Pavlides

LPavlides:hlm G-2/17/55

400

DOCKET
Surname:
Chapman
Martin
DeHuff
Geehan
Kilsgaard
Hoffman

JUL 2 5 1955

Messrs. Clements A. Botner
and Paul F. Ortega
229 North Glassell Street
Orange, California

Re: Docket No. DMEA 3671-Manganese
La Palma, San Francisco, and
Venus Mining Claims
Greenlee County, Arizona

Gentlemen:

Your application for aid for an exploration project and other data available to us in Washington relating to the above-noted property have been carefully reviewed.

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

Careful study of all our information indicates to us that, although limited manganese mineralization of a fair grade occurs on your property, the probability of disclosing minable ore reserves in a significant quantity by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, therefore, that your application for exploration assistance is denied.

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

As you requested, we are returning original copy of lease and of assay report.

Sincerely yours,

C. O. Mittendorf

Administrator

CC: Docket
Code 400
Adm. Read. File
Oper. Committee
Thor Kiilsgaard, USGS
Gilbert DeHuff, USBM
FT, Region 3- Denver

TLChapman/ls
7/19/55

R.C.J.

DOCKET
Surname:
Chapman
Martin
Weatherby

July 18, 1955

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of application for exploration assistance to the amount of $48,683.00
Docket No. DMEA 3671 - Manganese
Clements A. Botner and Paul P. Ortega
La Palma, San Francisco, and Venus Mining Claims
Greenlee County, Arizona

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

1. The applicants, Clements A. Botner and Paul P. Ortega, 229 North Glassell Street, Orange, California, requested exploration assistance to the amount of $48,683.00 for bulldozing an access road, clearing drill sites, and diamond drilling.

2. The property under a lease dated September 13, 1954, to the applicants from Juan Varela and Eugenio C. Rivas, the owners, is located in Sec. 19, T. 13 S., R. 29 E., Metcalf Mining District, Greenlee County, Arizona, and consists of the La Palma, San Francisco, and Venus lode mining claims.

3. The exposed area of the mineralized zone consists of Modoc, Morenci, and Longfellow limestones underlain by quartzite and granite. Basalt, which at one time covered this area, has been eroded and is the probable source of the manganese mineralization. The manganese occurs in the form of oxides, mainly psilomelane, in vugs and pods. The mineralization occurs in the exposed surface of the limestones and follows the surface dip.

4. Four different zones of mineralization are noted, although only one is of any importance. The limits of this ore zone are already exposed and need no further exploration. It is estimated that 2,000 tons of measured and indicated ore, averaging 30 percent manganese, are present. No ore is inferred.

5. The property was first located in 1920. The main work consists of a trench 50 feet long, 10 feet wide, and 6 feet deep. One small car of lead oxide ore was mined from the property.

6. Two samples taken by the Field Team assayed 27.4 and 36.6 percent manganese. The main ore zone is well exposed and the limits are shown and indications are that there is little probability of making a significant discovery. The Field Team recommends denial and the Commodity Divisions of the Geological Survey and the Bureau of Mines concur in the recommendation.

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

cc; Docket
Adm. Read. File
Oper. Comm.
Code 400

TLChapman/ls
7/19/55

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

July 18, 1955

MEMORANDUM

To: Administrator, DMEA

From: Iron and Ferro-Alloys Division, DMEA

Subject: Denial of application for exploration assistance to the amount of $48,683.00
Docket No. DMEA 3671 - Manganese
Clements A. Botner and Paul P. Ortega
La Palma, San Francisco, and Venus Mining Claims
Greenlee County, Arizona

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

1. The applicants, Clements A. Botner and Paul P. Ortega, 229 North Glassell Street, Orange, California, requested exploration assistance to the amount of $48,683.00 for bulldozing an access road, clearing drill sites, and diamond drilling.

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3. The exposed area of the mineralized zone consists of Modoc, Morenci, and Longfellow limestones underlain by quartzite and granite. Basalt, which at one time covered this area, has been eroded and is the probable source of the manganese mineralization. The manganese occurs in the form of oxides, mainly psilomelane, in vugs and pods. The mineralization occurs in the exposed surface of the limestones and follows the surface dip.

4. Four different zones of mineralization are noted, although only one is of any importance. The limits of this ore zone are already exposed and need no further exploration. It is estimated that 2,000 tons of measured and indicated ore, averaging 30 percent manganese, are present. No ore is inferred.

5. The property was first located in 1920. The main work consists of a trench 50 feet long, 10 feet wide, and 6 feet deep. One small car of lead oxide ore was mined from the property.

6. Two samples taken by the Field Team assayed 27.4 and 36.6 percent manganese. The main ore zone is well exposed and the limits are shown and indications are that there is little probability of making a significant discovery. The Field Team recommends denial and the Commodity Divisions of the Geological Survey and the Bureau of Mines concur in the recommendation.

W S Martin

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

Docket

IN REPLY REFER TO:

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

RECEIVED
JUL - 6 1955

July 5, 1955

Re: DMEA 3671
Botner & Ortega
Manganese Claims
Greenlee Co., Ariz.
$48,683 - Manganese

WSM

Copy retained 400

Memorandum

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

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

Subject: Review of Field Team report.

From the sketch map, the section, and the description it is difficult to visualize this deposit of manganese, to guess where it came from and where it might go. The examiners after consideration of the same uncertainties decided on a denial of the unreasonable application.

I agree with the conclusions, and recommendation.

N. E. Nelson

N. E. Nelson

Docket

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

224 New Customhouse
Denver 2, Colorado

June 17, 1955

Memorandum

To: Chairman, Operating Committee, DMEA

From: DMEA Field Team, Region III

Subject: Report of Examination, DMEA Docket 3671 (Manganese), Ortega and Botner, Venus, La Palma and San Francisco claims, Greenlee County, Arizona

Enclosed are the original and three copies of the report pertaining to the above application.

We concur in the recommendation of the field examiners that the application be denied.

DMEA Field Team, Region III

W. M. Traver

E. N. Harshman

Enclosures

RECEIVED
JUN 24 1955

Reviewed by
DMEA OPERATING COMMITTEE
7-1-55
(date)

TRANSMITTED
JUN 17 1955

DMEA
Date Re...
JUN 16 1955
BUREAU OF MINES
Denver, Colorado

June 14, 1955

Memorandum

To : W. M. Traver, Executive Officer, DMEA Field Team Region III

From : Superintendent, Southwest Experiment Station

Subject : Field Examination Report, Docket DMEA-3671, Bernar & Ortega, La Palma, Venus and San Francisco Manganese Claims, Gravelles County, Arizona.

Enclosed are original and 8 copies of the section on Summary, Conclusions and Recommendations by Leonid Bryner of the Geological Survey and T. M. Rennie of the Bureau of Mines, and the section on Engineering by Rennie for the above report. A separate section on Geology will be submitted by the Geological Survey.

As the principal deposit seems to be limited to 2,000 tons of ore averaging about 30 percent manganese, and there is little chance of discovering any significant amount of more ore by further exploration work, the examiners recommend denial of Government exploration assistance. I concur with this recommendation.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC W.M. Traver (8)
J.H. Faich
DMEA-3671
WF

WRStorms/jlb

Review by
DMEA OPERATING COMMITTEE
7-1-55
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
DOUGLAS MCKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

DMEA-3671, La Palma, Venus and San Francisco Manganese Claims

Greenlee County, Arizona

L. Bryner, Geologist
U. S. Geological Survey

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

June 1955

Reviewed by
DMEA OPERATING COMMITTEE
7-1-55
(date)

TRANSMITTED

JUN 17 1955

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By L. Bryner[1] and T. M. Romslo[2]

La Palma, Venus and San Francisco claims in Greenlee County, Ariz. were examined by field examiners for the Defense Minerals Exploration Administration in connection with an application for Governmental aid by Clements A. Botner and Paul P. Ortega of Orange, Calif. The application, docketed as DMEA-3671, proposed an exploratory project for manganese that involved road building and diamond drilling. Cost of the proposed work totaled $48,000.00.

Since 1920, when about one carload of oxidized lead ore reportedly was produced, activity on the claims has been confined to intermittent assessment work in the form of shallow trenches.

The deposits are situated on the crest and on the east slope of a ridge that is composed of gently dipping Paleozoic sedimentary rocks. Of the 4 or 5 deposits seen, almost all the estimated reserves of manganese ore are believed to be in Deposit No. 1 on the crest of the ridge. Deposit No. 1 consists of 2 adjacent and parallel lenses of manganese oxides, more of less concordant in their attitude with the enclosing Mississippian Modoc limestone. The reserves of the 2 lenses are estimated at 2,000 tons of material averaging about 30 percent manganese. As the deposits are close to the surface and their limits are more or less exposed, the reserves are classed as measured and indicated; there are no inferred reserves.

Denial of the requested assistance is recommended because there are no indications of significant reserves of manganese in the proposed project area.

1/ Geologist, U. S. Geological Survey
2/ Mining engineer, U. S. Bureau of Mines

DMEA-3671, LA PALMA, VENUS AND SAN FRANCISCO MANGANESE CLAIMS
GREENLEE COUNTY, ARIZONA

Engineering Report

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

June 1955

Reviewed by
DMEA OPERATING COMMITTEE
7-1-55
(date)

DMEA-3671, LA PALMA, VENUS AND SAN FRANCISCO MANGANESE CLAIMS
GREENLEE COUNTY, ARIZONA

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Physical features and climate ---------- 2
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Extent and ownership ---------- 3
Description of deposits ---------- 3
Ore reserves ---------- 4
Conclusions and recommendations ---------- 4

ILLUSTRATIONS

Figure No. 1 — Following Page

1 Location map ---------- 1
2 Geological map and section --- (see Geological Report)

INTRODUCTION

An application for Govermmental aid in exploring for manganese ores on La Palma, Venus and San Francisco claims of Greenlee County, Ariz. was received by the Defense Minerals Exploration Administration from Clements A. Botner and Paul P. Ortega of Orange, Calif. The application, docketed as DMEA-3671, briefly outlined a proposed project that evolved road building and diamond drilling at an estimated total cost of $48,000.00.

The properties were examined on April 26, 1955 by L. Bryner, geologist, U. S. Geological Survey, and the writer. Messrs. Botner and Ortega, the applicants, and Juan Varela, one of the owners of the property, accompanied the examining team.

LOCATION AND ACCESSIBILITY

The contiguous La Palma, Venus and San Francisco claims are situated about 9 air miles northwest of Clifton, Ariz., probably in unsurveyed sec. 19 of T. 13 S., R 29 E., Metcalf Mining District, Greenlee County, Ariz. (figure 1). Clifton is on U. S. Highway 666 and is the northern terminus of a branch line of the Southern Pacific railroad.

To reach the claims from Clifton, follow U. S. Highway 666 northwesterly about 1 mile to a junction with the paved road to the town of Morenci. Proceed 9 miles northerly on U. S. 666 to a ranch house that is situated close to the highway on the west side. A foot trail from the highway at about 0.25 mile south of the ranch is followed westerly for an air line

distance of about 1 mile to the main deposit at an altitude of about 1,500 feet above the highway.

PHYSICAL FEATURES AND CLIMATE

The property is situated along the crest and east slope of a northerly trending ridge that forms the divide between Chase Creek to the east and Eagle Creek to the west. The terrain is extremely rugged. Altitudes range from about 4,800 feet, where the trail to the deposits leaves the highway, to 6,700 feet at the main deposit on the crest of the ridge.

There is abundant vegetation in the area. From the highway to the crest of the ridge, vegetation ranges from small trees and bushes to mainly pine trees.

Annual precipitation is about 20 inches, of which possibly 15 inches occurs as summer showers, the remainder as winter rains and snows.

HISTORY AND PRODUCTION

According to Juan Varela, La Palma, Venus and San Francisco claims first were located and worked by his father in 1920. During that year approximately one carload of oxidized lead ore was produced from a shallow shaft on the San Francisco claim. Since then no ore of any kind has been produced from intermittent assessment work that has been confined to the excavation of several shallow trenches. Most of this work was done by the elder Varela who died in 1936.

EXTENT AND OWNERSHIP

The property comprises a group of 3 unpatented lode mining claims, La Palma, Venus and San Francisco.

The applicants, Clements A. Botner and Paul P. Ortega of Orange, Calif., hold the property under a lease agreement with the owners, Juan Varela and Eugenio C. Rivas of Clifton, Ariz. The agreement is for a period of 5 years from September 13, 1954.

DECRIPTION OF THE DEPOSITS

Manganese oxides have been exposed at 4 places on the 3 claims by shallow cuts. However, only at Deposit No. 1 are the showings of sufficient extent and grade to justify description (figure 2). There, the deposit has been explored by an open cut averaging about 50 feet long by 10 feet wide by 6 feet deep. The ore occurs mainly as psilomelane that partially fills vugs in limstone. Small quartz crystals are closely associated with the ore.

The ore follows the limstone beds which strike about N. 40° E. and dip about 20° NW. At the east end of the open cut it reaches a maximum thickness of 8 feet. The ore thins to the east, and its western limit is an erosional one. A second much thinner ore-bearing zone crops out within a few tens of feet north of the open cut. It occurs at a slightly higher horizon of the limestone. This deposit appears to cross the bedding at a slight angle. Its lateral extent of about 70 by

100 feet is limited either by erosion or by fading out of the mineralization.

Two samples were taken for assay. Sample USBM-12776, representing 15 pounds of material from the dump at the open cut, assayed 27.4 percent manganese. Selected high-grade specimens from the open cut, Sample USBM-12777, assayed 36.6 percent manganese.

ORE RESERVES

The measured and indicated ore reserves of No. 1 deposit, the only one of possible economic importance, have been estimated at about 2,000 tons with an average manganese content of approximately 30 percent.

There are little or no inferred reserves.

CONCLUSIONS AND RECOMMENDATIONS

The reserves of manganese oxides are confined largely to an estimated 2,000 tons of 30 percent manganese in 2 nearly adjoining deposits. The reserves are classified as measured and indicated ore, there being no inferred ore because the limits of the deposits are more or less exposed.

Denial of the requested assistance is recommended because there is little or no chance of discovering significant amounts of manganese ore.

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

DMEA Date Rec'd
JUN 1 1955
BUREAU OF MINES
Denver, Colorado

June 13, 1955

TRANSMITTED
JUN 17 1955

Memorandum

To: Field Team, Region III

From: E. N. Harshman

Subject: DMEA Docket 3671 (Manganese), Ortega and Botner, Venus, LaPalma, and San Francisco claims, Greenlee County, Arizona

Enclosed are the original and 8 copies of a geologic report by Leonid Bryner, U. S. Geological Survey, covering his examination of the subject property.

Bryner concludes that the proposed exploration will not lead to the discovery of significant manganese deposits, and he recommends denial of the application for Government aid in exploration.

I concur with this recommendation.

E. N. Harshman

E. N. Harshman
Member, Field Team

Enclosures (9)

ENHarshman:arh

Reviewed by
DMEA OPERATING COMMITTEE
7-1-55
(date)

Box 4126 University Station
Tucson, Arizona

JUN 13 1955
U. S.
GEOLOGICAL SURVEY
DENVER, COLORADO

June 9, 1955

MEMORANDUM

To: Mr. E. H. Harshman

From: J. N. Faick

Subject: DMEA Docket 3671 (Manganese)
Ortega and Botner, applicants
Venus, LaPalma and San Francisco claims
Greenlee County, Arizona

Enclosed are the original and 8 copies of a geological report by Leonid Bryner, on a field examination of the above property. This report recommends denial of Government participation in exploration because it is unlikely that significant tonnage of manganese ore would be discovered in the project area.

This report has my approval.

John N. Faick

John N. Faick

JNF:ms

cc: 8 Mr. Harshman
1 Mr. Sborns

Reviewed by
DMEA OPERATING COMMITTEE

(date)

TRANSMITTED
JUN 17 1955

U. S. DEPARTMENT OF THE INTERIOR
DOUGLAS McKAY, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REGION III

GEOLOGY

EXAMINATION REPORT

DMEA 3671

ORTEGA AND BOTNER
VENUS, LaPALMA, AND SANFRANCISCO CLAIMS

GREENLEE COUNTY, ARIZONA

(Manganese)

By
Leonid Bryner
Geologist
U. S. Geological Survey

June 9, 1955

Reviewed by
DMEA OPERATING COMMITTEE
7-1-55
(date)

U. S. DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
FIELD TEAM REGION III

GEOLOGY
EXAMINATION REPORT
DMEA 3671
ORTEGA AND BOTNER
VENUS, LaPALMA, AND SAN FRANCISCO CLAIMS
GREENLEE COUNTY, ARIZONA
(Manganese)

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ILLUSTRATIONS

Fig. 1 Location	See Engineering Report
Fig. 2 Geologic Map and Sections	Following page 2

Reviewed by
DMEA OPERATING COMMITTEE
7-1-55
(date)

INTRODUCTION

In an application to the Defense Minerals Exploration Administration, dated September 30, 1954, Paul P. Ortega and Clements A. Botner requested Government participation in a program estimated to cost $48,683 to explore for manganese on the Venus, LaPalma, and San Francisco claims, Greenlee County, Arizona.

The claims are located 1.5 airline miles south of the summit of Enebro Mountain, on the crest and east flank of the ridge that runs almost due south from the mountain. Enebro Mountain is at the headwaters of Chase Creek, about 7 airline miles north of Morenci. The elevation of the property is about 6,500 feet above sea level. It is about a 3-mile walk to the property from where U. S. Highway 666 reaches an east-trending spur of Enebro Mountain.

The claims are leased by the applicants from Juan Varela and Eugenio C. Rivas.

The examination was made on April 26 by T. M. Romslo of the Bureau of Mines and the writer. Both applicants, as well as Varela, guided the examiners to the property.

The deposits have not been described in any report known to the examiners. Lindgren, however, in his Clifton Folio shows the general geology of the mine area.

GEOLOGY

The top of the ridge that contains the deposit consists of the Mississippian Modoc Limestone. This limestone is about 180 feet thick in the district. It is underlain by the Devonian Morenci formation, consisting of about 150 feet of black, clay shale with

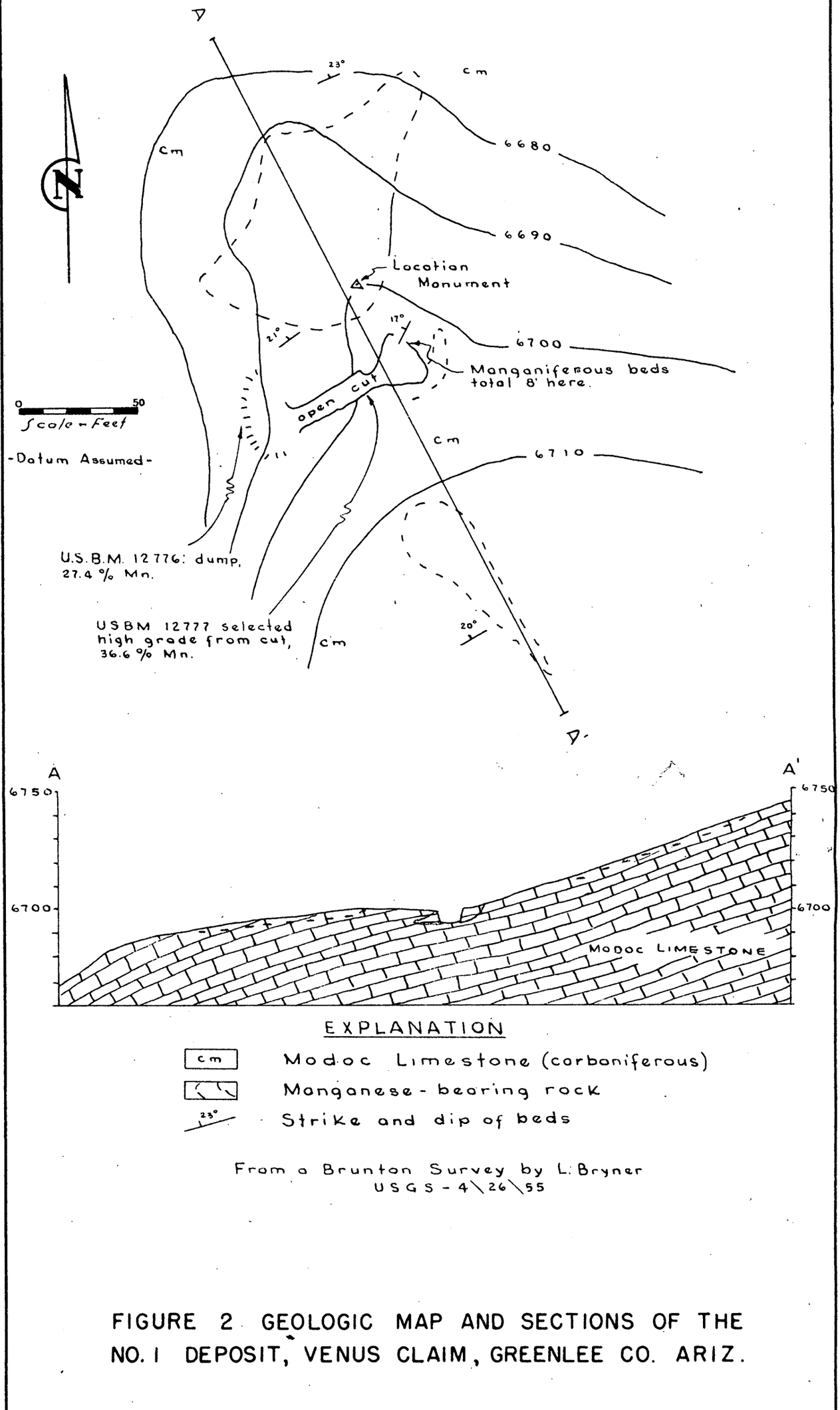
local argillaceous limestone near its base. These rocks are underlain by the Ordovician Longfellow formation, the Cambrian Coronado quartzite and, finally, by Precambrian granite. Several hundred feet north of the deposits the Modoc Limestone is overlain by Tertiary basalt and the basalt is overlain, in turn, by rhyolite tufts and breccias. Both the sedimentary and the volcanic rocks are rather flat-lying, but the contact of the sedimentaries with the volcanic displays several hundred feet of relief in places, indicating considerable erosion between the two intervals of deposition. Several hundred feet north of the deposits, in fact, this contact, as it is followed east from the crest of the ridge, cuts down across the Modoc and Morenci formations into the underlying Longfellow formation.

The deposits are in an interval extending from the crest of the ridge to several hundred feet below the crest, on the east slope. They are, therefore, in the Modoc, Morenci and Longfellow formations.

The three lowest showings in this interval are in partly caved cuts or in dump material from these cuts. These showings are so low grade or so small that they were passed over in favor of the two upper deposits.

Almost all of the examination time was devoted to the deposit on top of the ridge, called here, for convenience, the No. 1 Deposit. The geology of this working is shown in figure 2, and the following description applies to it.

Most of the exposed ore in the No. 1 Deposit is in the very crest of the ridge in a small natural bench between steeper slopes immediately to the north and to the south. The limestone



From a Brunton Survey by L. Bryner
USGS - 4\26\55

FIGURE 2 GEOLOGIC MAP AND SECTIONS OF THE NO. 1 DEPOSIT, VENUS CLAIM, GREENLEE CO. ARIZ.

beds that contain the deposit dip about 20 degrees to the northwest, but the beds immediately surrounding the ore have a slightly flatter dip (Sec. A-A', fig. 2). The ore appears to form an intimate mixture with the more siliceous parts of the limestone. The limestone is partly cavernous and manganese oxides together with quartz crystals line some of the caverns. The ore mineral is mostly psilomelane. No primary manganese minerals were recognized.

The ore in the open cut follows the limestone bedding. It reaches a maximum thickness of 8 feet at the east end of the cut. About 20 feet down dip from here the ore abruptly pinches out. It also thins towards the west more or less along the strike, but its western limit is established by erosion. The ore-bearing limestone horizon can be traced down dip beyond the cut to where it is devoid of manganese. The short interval in which the limestone changes from ore to barren rock is concealed, so the nature of the pinchout could not be observed. Uphill from the cut, that is, along the crest of the ridge in a southerly direction, there is a "skin" of manganiferous rock in the exposed dip-slope of the ore horizon. Downhill from the cut, that is, along the crest of the ridge in a northerly direction, a second, slightly higher, but thinner, ore horizon is exposed. The ore in this higher horizon pinches out about 70 feet down dip from its outcrop near the open cut. It seems to lie across the limestone bedding at a small angle. These features are shown in Section A-A' in figure 2. The manganiferous rock in the higher horizon may be traced from the crest of the ridge,

northeast, down the flank of the ridge across the bedding through a stratigraphic interval of 10 to 15 feet. Here the mineralized rock appears to occupy an interval and a horizon about equivalent to both of the ore horizons described above.

The deposit second in size, but considerably smaller than the No. 1 Deposit, is 600 or 700 feet northeast of it and about 100 feet lower than the crest of the ridge. It is exposed by a 20-foot cut oriented southwest. The cut is in the Modoc Limestone which here strikes N 40° E and dips 17° NW. The manganese oxides occur in a cherty bed about one foot thick. The bed is manganiferous for its exposed length, which is about 10 feet.

The deposits seen in this examination are spread through a wide stratigraphic interval, yet do not appear to be related to a fault or fissure. They seem, rather, to be superficial in that they follow topography and do not penetrate very deeply along bedding. Also they are distributed in a belt more or less parallel to the tongue of Tertiary basalt that cuts down toward the east across the Paleozoic sediments. The No. 1 Deposit also has a northeasterly extension across bedding and down the slope in the direction of the lower deposits. These features, together with the very limited persistence below surface of the No. 1 Deposit, suggest supergene origin for these deposits. Possibly the manganese was leached from the nearby basalt which at one time probably covered the area where the manganese deposits are found. The association of manganese deposits with nearby basalt flows has been noted before.

GRADE

There apparently has been no production from these deposits. Juan Varela's father worked them, but, according to his son, did not ship any ore. The deposits and workings are all small and isolated and have the aspect of "prospect holes" rather than mines.

At the No. 1 Deposit the cut and dump material from the cut were sampled, with the following results:

USBM 12776: 15 lbs. grab sample of dump;	27.4 percent Mn.
USBM 12777: selected high grade from floor of cut;	36.6 percent Mn.

The location of these samples is shown in figure 2. The average grade of the deposit probably is near these two values. The applicant submitted an assay return of 65.8 percent Mn. for a single sample. This sample undoubtedly represents a hand-picked specimen. In the docket the average grade of the deposit is said to be 50 percent manganese with silica the greatest impurity, but the basis for this average grade is not given.

EXPLORATION

The exploration program proposed by the applicant consists essentially of building about three miles of access road from U. S. Highway 666 and core drilling 29 holes at four of the deposits. The total cost of this work was estimated at $48,683.

RESERVES

Reserves are estimated only for the No. 1 Deposit, and most of the ore in the project area is probably contained in this deposit. Here the total reserves are estimated at about 2,000 tons, averaging about 30% manganese. Probably about half of this tonnage could be considered indicated ore and half, measured ore. There are no inferred reserves.

CONCLUSIONS AND RECOMMENDATIONS

The limits of the No. 1 Deposit are fairly apparent without the aid of exploration, and these limits are such as to indicate a small, medium grade deposit. The other deposits in the project area appear to be smaller and lower grade than the No. 1 Deposit. The superficial character of the deposits and their small size make it unlikely that any significant tonnage can be discovered in the project area. It is recommended, therefore, that government participation in exploration of this area be denied.

400

DOCKET
Surname:
Martin

MAR 16 1955

Messrs. Clements A. Botner and Paul P. Ortega
229 North Glassell Street
Orange, California

Re: Docket No. DMEA 3671-Manganese
La Palma, San Francisco, and
Venus mining claims
Greenlee County, Arizona

Gentlemen:

This will acknowledge receipt of your letter of March 8, 1955, stating that on January 28, 1955, you delivered to the Denver office a reply to W. H. King's letter to you of October 6, 1954. We thank you for this information and for calling our attention to the error in the reference caption of our March 3 letter to you.

Sincerely yours,

E. O. Mittendorf
Administrator by ESY

cc: Docket
Field Team, Reg. 3 - Denver
Adm. Read. File
Code 400
Gilbert DeHuff, USBM
Thor Kiilsgaard, USGS

WSMartin/ls
3/16/55

R.C.G.

Re:Docket No. DMEA 3671,Manganese

Docket.

Paul P. Ortega
Clements A. Botner
229 North Glassell
Orange,California
March 8,1955

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
MAR 14 1955

WSay

C.O.Mittendorf
Administrator's Office
Defense Minerals Exploration Administration
Washington 25,D.C.

Dear Sir:

Thank you for your letter advising us that our application for exploration of the Venus,La Palma,and San Francisco claims in Greenlee county,Arizona, has been referred to Mr. W.M.Traver,Executive Officer,DMEA Field Team,Region Three, 224 New Custom House,Denver 2,Colorado, for a field examination.

We have notified him of our desire to cooperate with his office.
However, in your letter to us,at the heading of it,Greenlee County is set down as being located in California.No doubt it was just an oversight and on the records there Greenlee County is correctly stated as an Arizona County.Also you mention that we did not apparently answer W.H.King's letter,dated October 6,1954,asking for additional information.The information in question on drilling data,location,and road estimate cost was delivered to the Denver office on January 28,1955.The fact that we did not submit more than one copy may have caused the discrepancy.
Thank you for your help in expediting our application thus far.

Very truly yours,
Paul P. Ortega
Clements A. Botner

Copy made + returned w/ 400. cc sent to F.T. with our reply to Messrs. Botner & Ortega la 3/16/55.

Docket

224 New Customhouse
Denver 2, Colorado

March 10, 1955

Memorandum

To: W. R. Storms
J. N. Faick

From: Field Team, Region III

Subject: DMEA Docket 3671 (Manganese), Botner and Ortega, Partnership, LaPalma, Venus, and San Francisco claims, Copper Mining District, Greenlee County, Arizona

We herewith transmit a complete copy of the subject application to W. R. Storms. Copies of a letter from the Chairman, DMEA Operating Committee with enclosed memorandum from Louis Pavlides of the U. S. Geological Survey are transmitted to both W. R. Storms and J. N. Faick. A copy of the application will be supplied to J. N. Faick by E. N. Harshman as soon as it is obtained from the Washington Office.

The applicant requests $16,500.00 to perform 3300 feet of diamond drilling and estimates 3 miles of access road is required. The cost of roadbuilding is estimated at $31,500.00 which seems to be extremely high in comparison to the amount of exploration work proposed.

We believe a field examination of the property should be scheduled based on the present information supplied by the applicants, as any additional information probably will be hard to obtain. If the property looks promising and a program can be recommended without roadbuilding consuming the major share of expenses, a suitable map for contract use can then be prepared or requested from the applicant.

Please examine the property and submit the usual report to this office.

W. M. TRAVER

W. M. Traver

Enclosures

E. N. Harshman

E. N. Harshman
DMEA Field Team, Region III

RDB:pw

cc: Subject
Chron
Harshman A.J. Martin Sec.Op.Com.

400

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

MAR 3 - 1955

DMEA
Denver
MAR 7 1955

Mr. W. M. Traver, Executive Officer
DMEA Field Team, Region III
224 New Custom House
Denver 2, Colorado

Re: Docket No. DMEA 3671 - Manganese
Clements A. Botner & Paul P. Ortega
La Palma, San Francisco, &
Venus mining claims
Greenlee County, Arizona

Dear Mr. Traver:

The above-referenced application for exploration assistance is being referred to your office for a field examination of the property. The application is incomplete, but due to the delay since receipt of application, we believe it is advisable for the Field Team to obtain directly from the applicant the necessary details for the preparation of a contract if one is to be recommended.

Two copies of a relevant memorandum dated February 17, 1955, by Louis Pavlides, Geological Survey, are enclosed for your information.

Sincerely yours,

George C. Selfridge
Chairman, Operating Committee

Enclosures

APPROVED:

J. H. Hedges
Member, Bureau of Mines

E. L. Newcomb
Member, Geological Survey

400

DOCKET
Surname:
Chapman
Martin
DeHuff
Selfridge
Johnson

MAR 3 - 1955

Mr. W. M. Traver, Executive Officer
DMEA Field Team, Region III
224 New Custom House
Denver 2, Colorado

Re: Docket No. DMEA 3671 - Manganese
Clements A. Botner & Paul P. Ortega
La Palma, San Francisco, &
Venus mining claims
Greenlee County, Arizona

Dear Mr. Traver:

The above-referenced application for exploration assistance is being referred to your office for a field examination of the property. The application is incomplete, but due to the delay since receipt of application, we believe it is advisable for the Field Team to obtain directly from the applicant the necessary details for the preparation of a contract if one is to be recommended.

Two copies of a relevant memorandum dated February 17, 1955, by Louis Pavlides, Geological Survey, are enclosed for your information.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JB)

Enclosures

APPROVED:

J. H. Hedges (JB)
Member, Bureau of Mines

E. L. Newcomb (JB)
Member, Geological Survey

cc: Docket
FT, Reg. 3
Code 400
Oper. Comm.
Adm. Read. File
~~W. McKnight, USBM~~
T. Kiilsgaard, USGS
G. DeHuff, USBM

TLChapman/ls
2/24/55

R.C.G.

IN REPLY REFER

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

February 17, 1955

Memorandum

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

From: Louis Parides, U. S. Geological Survey

Subject: DMEA Docket 3071 -- Manganese -- (AC,CD), Venus, Le Palm and San Francisco mining claims, Greenlee County, Arizona

The subject docket proposes to explore 3 mining claims designated as the Venus, Le Palm and San Francisco in the Clifton-Morenci copper district, Greenlee County, Arizona. The exploration proposal calls for 3300 feet of vertical "core holes" (presumably diamond drilling) at an estimated cost of $5 per foot. The drilling is to be distributed among the different claims as follows: (1) Venus claim: 15 holes, 50 ft. deep and spaced 30 ft. apart in a N-S direction and 18 ft. apart in an E-W direction, and 5 holes 30 ft. deep on 30 foot centers, (2) Le Palm claim: 20 holes, 75 ft. deep on 30 foot centers, (3) San Francisco claim: 10 holes 30 ft. deep and 10 holes [illegible] ft. [illegible]

The targets to be [illegible] center of a deeply dipping [illegible] (Venus claim).

Little can be gleaned from the application as to the local geologic setting of these deposits, the applicant's description being limited to one sentence reading, "Area appears to have signs of volcanic action and main body of claim area seems to be metamorphosed sediment (limestone, slates, fossils, etc.) -- also chert." By projecting the applicant's original location map (Morenci quadrangle, New Mexico) onto Lindgren and Ransome 1/ geologic map, the subject claims fall within a synclinal area of Lower Paleozoic sedimentary rocks composed of limestones, shales and some chert. The syncline is bounded on the east, south and west by faults and capped by Tertiary basalt to the north. Unfortunately there is no specific information in the Survey files on the subject deposits.

1/ Lindgren, Waldemar, 1905, The copper deposits of the Clifton-Morenci district, Arizona: U. S. Geol. Survey Prof. Paper 43, Pl. 1.

Recommendation

The application is poorly prepared and unwanted and the applicant should be requested to furnish additional information before the claims can be properly evaluated for possible inclusion in a Plant Term application. Specifically:

(1) Maps on a scale of 1" = 100' should be requested which show topographic contours, geologic contacts, proposed drill sites, roads and roads, and the three tunnels as well as any other exploration carried out thus far by the applicants. Sample sites or assays should also be appropriately posted on these maps. The maps submitted with the application are crude sketches; they appear to be composites of relief and plan maps which even lack a scale.

(2) Under item 4c the applicants mention "samples are averaged 59 percent Mn with the greatest impurity being silica" yet only one assay showing 65.8 percent Mn is submitted with the application. The high manganese content of this assay suggests the sample might be more in the nature of a mineral specimen rather than "ore." The applicant should be asked to furnish all his assay data and describe the samples they represent, i.e., grab samples, channel samples or microscopic specimen.

(3) The type of "core" drilling planned should be specified as well as the manner by which drilling is suited to the rocks to be drilled.

(4) Only 1/4 of the money requested by the applicants will be spent in actual exploration. Under the present proposal, the remainder is to be used on building an access road to the deposits. This allocation of funds is completely out of proportion to a realistic exploration program. Presumably the cost figures for the road construction can be considerably reduced if among other things the heavy equipment cited for purchase by the applicant is recalculated on a rental basis.

(5) The density of drilling proposed by the applicants is definitely development rather than exploration and a more widely spaced and consequently fewer holes would be more appropriate to an exploration program. Furthermore the targets to be drilled are very indefinite and should be more closely defined and outlined both as to shape and attitude before it can be decided whether vertical or inclined holes are more practical for exploring the deposits. The lack of water at or near the property (the nearest water being six miles away, item 4c) may well preclude diamond drilling at a reasonable cost as an exploration tool on these claims.

CC: Director's reading, 4212
Branch reading, 4212
[illegible] (3)
Docket file
Gilbert Arthur

Reviewed by: [illegible]

[illegible] 6-8/17/55

DOCKET
Surname:
Chapman
Martin
DeHuff
Hedges
Newcomb
Selfridge
Johnson

400

MAR 3 - 1955

Messrs. Clements A. Botner and Paul P. Ortega
229 North Glassell Street
Orange, California

Re: Docket No. DMEA 3671 - Manganese
La Palma, San Francisco, and
Venus mining claims
Greenlee County, ~~California~~ Arizona

Gentlemen:

The above-docketed application for exploration assistance for manganese has been reviewed by the Iron and Ferro-Alloys Division of the Defense Minerals Exploration Administration and referred to Mr. W. M. Traver, Executive Officer, DMEA Field Team, Region III, 224 New Custom House, Denver 2, Colorado, for a field examination of your property.

We note that Mr. W. H. King, Executive Officer, DMEA Field Team, Region IV (now Region III), wrote you on October 6, 1954, requesting further information, but apparently no reply has yet been received to his letter. To avoid further delay, we are referring the application for field examination and any assistance you can give the Field Team will be appreciated.

Sincerely yours,

C. O. Mittendorf

Administrator

CC: Docket
Code 400
FT, Reg. 3-Denver
Adm. Read. File
Oper. Comm.
G. DeHuff, USBM
T. Kiilsgaard, USGS

TLChapman/ls
2/25/55

R.C.G.

Docket

IN REPLY REFER TO:

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

Defense Minerals Administration
RECEIVED
FEB 17 1955

February 17, 1955

WSM

Copy, Mr. Martin 400

Memorandum

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

From: Louis Pavlides, U. S. Geological Survey

Subject: DMEA Docket 3671 -- Manganese -- $48,683, Venus, La Palma and San Francisco mining claims, Greenlee County, Arizona

The subject docket proposes to explore 3 mining claims designated as the Venus, La Palma and San Francisco in the Clifton-Morenci copper district, Greenlee County, Arizona. The exploration proposal calls for 3300 feet of vertical "core holes" (presumably diamond drilling) at an estimated cost of $5 per foot. The drilling is to be distributed among the different claims as follows: (1) Venus claim: 15 holes, 50 ft. deep and spaced 30 ft. apart in a N-S direction and 18 ft. apart in an E-W direction, and 6 holes 50 ft. deep on 30 foot centers, (2) La Palma claim: 10 holes, 75 ft. deep on 30 foot centers, (3) San Francisco claim: 10 holes, 50 ft. deep and 10 holes 100 ft., all on 30 foot centers.

The targets to be explored are presumed to be "a deep pocket or a steeply dipping wide vein" (Venus claim).

Little can be gleaned from this application as to the local geologic setting of these deposits; the applicant's description being limited to one sentence stating, "Area appears to have signs of volcanic action and main body of claim area seems to be metamorphosed sediment (limestone, silica, fossils, etc.) -- also chert." By projecting the applicant's outlined location map (Morenci quadrangle, New Mexico) onto Lindgren and Boutwells 1/ geologic map, the subject claims fall within a synclinal area of Lower Paleozoic sedimentary rocks composed of limestones, shales and some chert. The syncline is bounded on the east, south and west by faults and capped by Tertiary basalt to the north. Unfortunately there is no specific information in the Survey files on the subject deposits.

1/ Lindgren, Waldemar, 1905, The copper deposits of the Clifton-Morenci district, Arizona: U. S. Geol. Survey Prof. Paper 43, Pl. 1.

Recommendations

The application is poorly prepared and documented and the applicant should be requested to furnish additional information before the docket can be properly evaluated for possible referral for a Field Team examination. Specifically:

(1) Maps on a scale of 1" = 200' should be requested which show topographic contours, geologic contacts, proposed drill sites, trails and roads, and the three trenches as well as any other exploration carried out thus far by the applicants. Sample sites or assays should also be appropriately posted on these maps. The maps submitted with the application are crude sketches; they appear to be composites of relief and plan maps which even lack a scale.

(2) Under item 4c the applicants mention "samples *** averaged 50 percent Mn with the greatest impurity being silica" yet only one assay showing 65.8 percent Mn is submitted with the application. This high manganese content of this assay suggests the sample might be more in the nature of a mineral specimen rather than "ore." The applicant should be asked to furnish all his assay data and describe the samples they represent, i.e., grab samples, channel samples or mineralogic specimens.

(3) The type of "core" drilling planned should be specified as well as the reasons why such drilling is suited to the rocks to be drilled.

(4) Only 1/3 of the money requested by the applicants will be spent in actual exploration under the present proposal; the remainder is to be used on building an access road to the deposits. This allocation of funds is completely out of proportion to a realistic exploration program. Undoubtedly the cost figures for the road construction can be considerably reduced if among other things the heavy equipment cited for purchase by the applicant is recalculated on a rental basis.

(5) The density of drilling proposed by the applicants is definitely development rather than exploration and a more widely spaced and consequently fewer holes would be more appropriate to an exploration program. Furthermore the targets to be drilled are very indefinite and should be more closely defined and outlined both as to shape and attitude before it can be decided whether vertical or inclined holes are more practical for exploring the deposits. The lack of water at or near the property (the nearest water being six miles away, item 4e) may well preclude diamond drilling at a reasonable cost as an exploration tool on these claims.

Louis Pavlides

Louis Pavlides

February 9, 1955
Subject: DMEA 3671
Re: Exploration Assistance
Venus, La Palma

Messrs. Paul P. Ortega
and Clements A. Botner
229 North Glassell Street
Orange, California

Gentlemen:

The receipt of your application dated September 30, 1954 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA 3671 and referred to the Iron and Ferro-Alloys Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

February 9, 1955

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region III.

DMEA - 3671 Clements A. Botner and Paul P. Ortega

Robert E. Adams,
Chief, Operation's Control
and Statistics Division

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

224 New Customhouse
Denver 2, Colorado

February 2, 1955

Memorandum

To: Secretary to the Operating Committee

From: DMEA Field Team, Region III

Subject: Application for DMEA Assistance (Manganese), Clements A. Botner and Paul P. Ortega, (partnership), Greenlee County, Ariz.

Enclosed is the original and two copies of the subject application for Government aid to explore the property for manganese at a total expense of $48,683.00.

Through our error we have considered this application to be within our delegated authority and have requested a claim map which shows the applicant's proposed work and an estimate of the costs. We are enclosing copies of our letter and the additional material furnished by the applicant.

This application provides for twice the amount of money to be allocated to road building as to true exploration work. This is definitely not in the best interest of the Government even though this extent of road building may be necessary to the exploration proposals.

W. M. Traver

Enclosures

W. M. Traver

RDB:pw

224 New Customhouse
Denver 2, Colorado

October 5, 1954

Mr. Clemente A. Rotner
331 South Olive Street
Orange, California

Re: Application for DMEA assistance (Manganese) Rotner and Ortega, partnership, La Palma, Venus, and San Francisco claims, Copper Mining District, Greenlee County, Arizona.

Dear Mr. Rotner:

We hereby acknowledge receipt of your application to explore your property for manganese. We have made duplicate copies of the lease and assay report and are returning herewith the originals submitted with your application.

Before your application can be processed we will require the following information which should be submitted to this office in quadruplicate:

(1) A map showing the boundary lines of the three claims upon which must be shown the locations of your proposed road work and diamond drill hole locations. This map should also show the important geologic features in the vicinity of the claims.

(2) A definite statement of your exploration program; number of diamond drill holes, inclination, depth. Total footage of holes with your cost estimate for this total footage. Cost estimate for the three miles of access road proposed.

Send above information to Executive Officer, DMEA Region IV, Room 224 New Customhouse, Denver 2, Colorado.

Yours very truly,

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

Enclosures
RDB:dm
cc Docket (Rotner & Ortega)
Chron.
RDBerk.

Original copy

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

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

RECEIVED

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. 3671
Metal or Mineral Manganese
Date Received 2-7-55
Estimated Cost $48,683
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: Clements A. Botner, 331 So. Olive St., Orange, California
Paul P. Ortega, 229 North Glassell St., Orange, California
Partnership. Organized in Orange, California.

(*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 no legal description as the land is not yet patented; proof of labor in file #847, State of Arizona, County of Greenlee, recorded in Book 3, Page 382. PLEASE RETURN ORIGINAL LEASE.

(*b*) State any mine name by which the property is known. Venus; La Palma

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

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

(*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. File #847, State of Arizona, Greenlee County, Book 3, Page 382.

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 Manganese

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

(*c*) The work will start within 30 days and be completed within four (4) 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)? 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 September 30, 1954

Paul P. Ortega
Clementa A. Bohner
(Applicant)

By

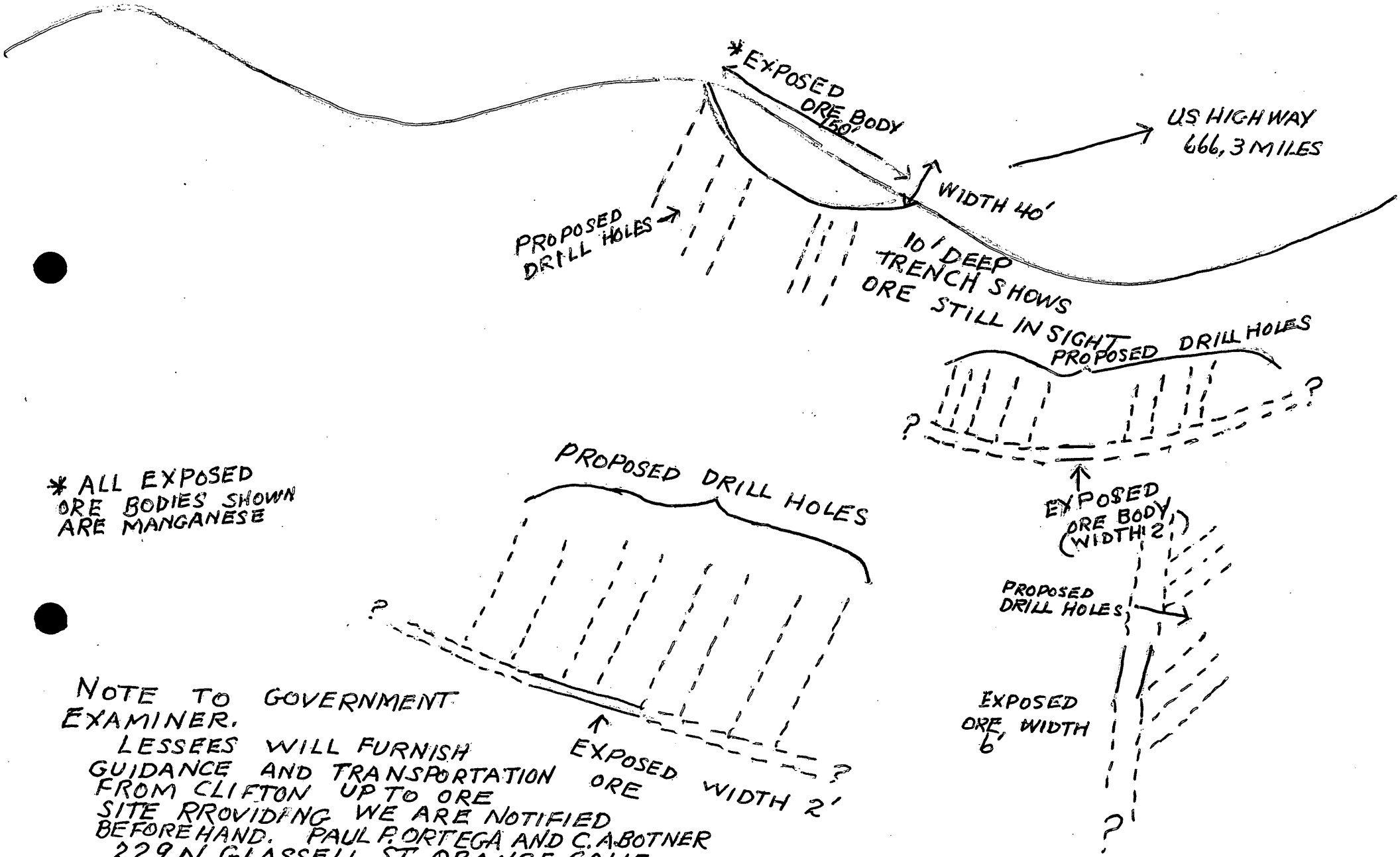
229 N. Glassell St
Orange, Calif.

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.

PAUL P. ORTEGA
C.A. BOTNER.
229 N. GLASSELL ST.
ORANGE, CALIF.

Original Copy

ELEVATION 6800'



* ALL EXPOSED ORE BODIES SHOWN ARE MANGANESE

NOTE TO GOVERNMENT EXAMINER.
LESSEES WILL FURNISH GUIDANCE AND TRANSPORTATION FROM CLIFTON UP TO ORE SITE PROVIDING WE ARE NOTIFIED BEFOREHAND. PAUL P. ORTEGA AND C.A. BOTNER 229 N. GLASSELL ST. ORANGE, CALIF. PHONE 935 OR 1979 OR CONTACT JOHNNY (JUAN) VARELA, CLIFTON ARIZ. BOX 794 PHONE ?

Original Copy

CONTINUATION SHEETS

(Paul P. Ortega
C.A. Botner
229 North Glassell Street
(Orange, California

4. Physical description:

(a) Assessment work has been done yearly, consisting so far of three (3) trenches and clearing trail to claims. No production work has been done except for assaying purposes.

Prior to our leasing, we had no legal interest in the property.

The claims are accessible either by foot or horseback over a trail.

(b) No past or current production or ore reserves are known except what is exposed on the surface and through assessment work.

Assay report enclosed shows ore 65.8% MN

(c) Area appears to have signs of volcanic action and main body of claim area seems to be metamorphosed sediment (limestone, silicia, fossils, etc.) - also chert. Some manganese ore is an open exposed deposit on top of ridge with no apparent seperations. This deposit appears to be about 40 feet wide by 150 feet long and around 10 feet thick. The other deposits of manganese are solid layers around 6 to 7 feet thick, of undetermined length and about 150 to 200 feet below the uppermost claim. (See sketch enclosed). The samples so far have averaged 50% Manganese with the greatest impurity being silica.

(d) There is no road to the claims except a horse or foot trail. It will be necessary to build a truck road to ship ore. This road will be about three (3) miles long to reach Highway 666. It is 135 miles from the intersection of proposed truck road to the Deming NEW MEX. depots in

Paul P. Ortega
C.A. Botner
229 North Glassell St.
Orange, California

New Mexico. The town of Clifton is about 12 miles from the claims. From this town will be purchased all the operating supplies available there.

(e) Abundant manpower as well as materials, supplies and equipment is available near by. There is no water on the claims. The nearest water is about six miles away, on Highway 666. Power could be run in from the highway, if necessary.

5. (b) Sketch enclosed showing proposed exploration drill holes.

Quite a bit of the work will be required to be spent towards construction of a crude access road in order to transport materials to the exploration project. The rest of the work will consist of drill holes and assaying on location tests. Possibly some shallow shaft work will be done if necessary.

(d) The applicant, PAUL P. ORTEGA, has had previous experience in copper mines. The applicant C.A. BOTNER, has had experience in construction work, and has had practical experience in laboratory work as well as geology. Both applicants have had wide experience in labor management.

6. (a) We will accept bids, but at the present time, we intend to do all the work ourselves, with suitable hired help. If any bid is lower than our estimated cost, we will hire ~~said~~ a contractor.

(b) We will have a maximum of eight men including ourselves. The labor will be paid according to the

Original Copy

CONTINUATION SHEET

Paul P. Ortega
C.A. Botner
229 North Glassell St.
Orange, California

(6-b) prevailing wage scale in that area, which is $15.75 (five day week). We will have five laborers and one caterpillar operator, at $25.00 per day. Our duties will be to supervise and expedite the project, as well as actual participation. Also, it will be necessary to engage the services of a professional geological consultant at some point in the work, his total fee will be in the neighborhood of Five Hundred ($500.00) Dollars.

(c) Of operating materials and supplies. Dynamite, fuses, detonators, etc.: Cost:$500.00

Shovels, picks, sledges, wedges, 1/2" rope,:	" $250.00
Wheelbarrows:	" $150.00
Nails, hammers, saws:	" $150.00
Carbide lamps, flashlights, axes:	" $150.00
Lumber:	"$1,000.00
Timbering:	"$1,000.00
Cooking equipment:	"$ 250.00
Heating equipment:	"$ 100.00
Pneumatic air hose, valves, faucets:	"$ 900.00
Electrical wiring and supplies:	"$ 150.00
Fuel:	"$1,000.00

(d) It will be necessary to have a Caterpillar with suitable attachments, cost estimated at about:$11,000.00 and other tools and equipment as follows:

One Jeep (for expediting):	$2,200.00
One 2-ton truck:	$2,500.00

Paul P. Ortega
C.A. Botner
229 North Glassell St.
Orange, California

DEPT OF THE INTERIOR
Minerals Administration
RECEIVED
FEB 7 1955

CONTINUATION SHEET

6. (d)Cont'd:

	Core drilling equipment:	$2,000.00
	Steel cables, welding outfits, water storage tank:	$1,700.00
	Rock drilling equipment with compressor:	$2,500.00
	Surveying equipment:	$ 700.00
	Portable electric power plant:	$ 700.00
	Small water pump:	$ 50.00
(e)	No existing buildings or equipment:	
(f)	Tool shed:	$ 600.00
	Living quarters (shed)	$1,500.00
(g)	Tires and chains (if necessary)	$ 600.00
	Maintenance tools-wrenches, vise, forge:	$ 300.00
	Gas cylinders:	$ 150.00
	Analytical work and laboratory interpretation of samples:	$1,000.00
	Accounting, workman's Compensation, Employers' Liability Insurance:	$ 800.00
(h)	Contingencies:	$2,000.00
	Total estimated wages for exploration project:	$12,283.00
	TOTAL:	$48,683.00

P.P.Ortega
C.A.Botner

January 20,1955

DEPARTMENT OF THE INTERIOR
Bureau of Mines Administration
RECEIVED
FEB 7 1955

Re:-Drilling schedule and road cost cost estimate

The Venus claim

On the Venus claim at the top of the ridge is an exposed ore body approximately 40 feet by 150 feet.It has been trenched to a depth of 10' by about 25' long and ore is still in sight.This ore body may well be either a deep pocket or a steeply dipping wide vein.The entire deposit as seen so far is a block of solid,almost homogeneous,manganese oxides. Part of it is exposed all the way down from the crest on the east side of the ridge and shows about 20' (feet) in thickness of the main mass.If this 20' thickness should persist thru its entirety,there is at least 11,000 tons of good ore to be mined with very little overburden.The actual thickness may be more than 20' or less depending on what is hidden by vegetation and unconsolidated material.

To test the homogeneity and extent of this upper and apparently largest deposit,we propose to drill 15 vertical core holes 50' deep,spaced in a grid pattern 30' apart north and south,and 18' apart east and west.On the smaller ore body (still on the Venus claim,but outcrop #1 on the map) approximately 250' distant we propose to drill 6 vertical holes 50' deep and 30' apart spaced in a staggered pattern so as to cover an area over the ore layer.

The La Palma Claim(outcrop #2 on map)

On this claim we propose to drill 10 holes 75' deep in a regular grid pattern and spacing the holes 30' apart.We feel that these holes should be drilled deeper than the holes further up above as the dip of the manganese layer is steeper,which is indicated by a cut into it.

The San Francisco claim

This claim shows two prominent outcrops which are exposed by tunnel like cuts.
We propose here to drill 10 holes 50' deep in a grid spacing of 30' between holes on outcrop #3(on map) which corresponds to the uppermost exposure of this claim.On the vicinity of the lower exposed outcrop (#4 on map) we will drill 10 holes 100 feet deep in a staggered grid pattern and spacing the holes 30' apart.

(continued on next page)

(continued)

The total footage of core-drilled holes is figured to be 3300 feet and the drilling cost has been estimated at five dollars per foot.

Access Road

The total cost of an access road is estimated at thirty-one thousand five hundred dollars. This is the figure that should cover all details pertaining to the construction of said access road. We have examined the terrain on which the road is to be built and would like to point out that after construction on the road is started we may be able to cut down the estimated cost. However we have made the estimate high enough to remove any doubt of completion of the road.

This road will be within three and one-half to four miles from highway 666 with which it will connect. There is a truck road already in existence approximately one and one-half miles long. After repairing this truck trail our new access road will take off from the south end of it.

It is understood by us, as partners, that if and when your representative comes out to look at the property we will follow his suggestions, if any are made, towards changing the drilling schedule or any other modifications, he (or your office) thinks necessary before work is begun and after as well.

Paul P. Ortega

16,500.00	Core Drilling (3300 ft)	Clemente G. Botnes
31,500.00	Access Road (3 mi)	
48,000.00		

Access Road = 65.6 % of Total.

Wish original copy

Paul P. Ortega
C. A. Bettner
229 N. Glassell St.
Orange, Calif.

MINERALS ENGINEERING CO

ENGINEERS Meco ASSAYERS

1299 SUBWAY TERMINAL BLDG.
417 SOUTH HILL STREET
LOS ANGELES
MUTUAL 6793

THIS CERTIFIES THAT THE SAMPLES DESCRIBED BELOW SUBMITTED BY DATE April 8, 1952

CHARGES $ 2.50 Paid

Paul Ortega ASSAY AS FOLLOWS:

LABORATORY NO.	OWNER'S MARK ON SAMPLE	Gold at $.....Per Oz.		Silver at $.....Per Oz.		TOTAL VALUE PER TON	PERCENTAGE OF MANGANESE
		OZ. PER TON	VALUE PER TON	OZ. PER TON	VALUE PER TON		
			$		$	$	
24546	"one						65.8%

MINERALS ENGINEERING CO.

BY [illegible]

PLEASE RETURN TO APPLICANT

MINING LEASE

THIS LEASE, made and entered into by and between JUAN VARELA and EUGENIO C. RIVAS, hereinafter called Lessor, and PAUL P. ORTEGA and CLEMENTS A. BOTNER, hereinafter called Lessee, W-I-T-N-E-S-S-E-T-H:

That Lessor, for and in consideration of the rents, royalties, covenants and agreements herein contained, does hereby lease and let to the Lessee those three certain mining claims located in the Copper Mining District, in Greenlee County, in the State of Arizona, approximately five (5) miles in a Northerly direction from Metcalf, Arizona, and known as "La Palma" mining claim, "San Francisco" mining claim, and "Venus" mining claim, together with the appurtenances belonging to each and all of said mining claims.

THE TERM of this lease shall be five (5) years commencing on the 13th day of September, 1954, and so long thereafter as minerals may be produced from each, any, or all of said mining claims in paying quantities in the discretion of the Lessee.

IT IS AGREED that Lessee shall have the sole and exclusive right of prospecting the demised premises and drilling for, mining and removing therefrom minerals and for such purpose to establish and maintain on said premises such buildings, fixtures, equipment, power lines, pipe lines, roads and other apparatus and appurtenances which may be necessary or convenient in the operation or production of minerals from said mining claims.

LESSEE AGREES TO and shall enter upon said mining claims and work the same in a manner necessary to good and economical mining so as to take out the greatest amount of

MARTELL THOMPSON
ATTORNEY AT LAW
146 SOUTH GLASSELL STREET
ORANGE, CALIFORNIA
PHONE 1549

minerals possible with due regard to reasonable mining practices.

LESSOR RESERVES the right for himself and his agents to enter upon and into all parts of said mining claim for the purpose of inspection.

IT IS AGREED that this Lease, or any interest thereunder, shall not be assigned or sub-let without first obtaining the written consent of the Lessor.

LESSEE AGREES TO and shall maintain, conduct and operate said mining claims in such manner so as not to violate any governmental Law, Regulation or Rule pertaining to mining or mining claims applicable to the demised premises, and Lessee does further agree to and shall not do or permit any act or acts on the demised premises which will impair the validity of the mining claims and the right, title and interest of the Lessor in and to such mining claims.

IT IS AGREED that any and all buildings, fixtures, equipment and all other apparatus erected or constructed upon, placed or installed upon, and used by the Lessee in mining operations upon said demised premises shall be deemed to be and remain personal property; and the Lessee shall have the right to remove said property at any time during the term of this lease or within Thirty Days (30) from and after the termination of this lease by any cause whatsoever.

LESSEE DOES HEREBY AGREE to and shall keep and maintain books of account showing all financial transactions in connection with the operation and conduct of said mining claims by Lessee, the amounts of minerals extracted from said mining claims and shipped, sold or treated, and the amounts of money received from time to time from the sale of minerals so recovered, shipped, sold or traded.

IT IS AGREED that Lessee may ship, sell or treat minerals recovered from said mining claims to such place, places,

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PHONE 1549

mills or smelters as Lessee may, from time to time, determine and within the sole discretion of the Lessee.

Should Lessee ootain an advance of funds from any governmental agency by way of loan for the purpose of developing, maintaining, operating and conducting any, each, or all of said mining claims, then IT IS AGREED that the proceeds of all minerals recovered from said mining claims, shipped, sold or treated, exclusive of reasonable operating expenses and wages for the Lessee, his agents, servants and employees, shall be applied to the payment of such funds so loaned and advanced as aforesaid.

LESSEE AGREES TO and shall pay to LESSOR Ten Percent (10%) of the net proceeds, by way of royalty, from the returns from minerals so removed, shipped, sold or treated. And that a duplicate of all mill, smelter or report returns shall be furnished by Lessee to Lessor; and the Lessee's books of account shall be open, at all reasonable times, to the inspection of the Lessor and his agents or representatives. Should the Lessee obtain a loan from any governmental agency as in the paragraph next above provided, then it is agreed that the payment of royalty to the Lessor as in this paragraph provided shall be suspended until said loan from any such governmental agency shall be fully paid, satisfied and discharged.

Each and all of the conditions, covenants and agreements herein contained shall, in accordance with the context, inure to the benefit of Lessor and apply to and bind Lessee, their respective heirs, legatees, devisees, administrators, executors, successors, assigns and sublessees, or any person who may come into possession of said premises or any part thereof in any manner whatsoever.

MARTELL THOMPSON
ATTORNEY AT LAW
146 SOUTH GLASSELL STREET
ORANGE, CALIFORNIA
PHONE 1549

In this Lease, whenever the context so requires, the masculine gender includes the feminine and/or neuter, and the singular number includes the plural.

SUBSCRIBED by the parties hereto this 13th day of September, 1954.

Juan Varela

Eugenio C. Rivas
Lessor.

Paul P. Ortega

Clemente A. Botello
Lessee.

STATE OF ARIZONA)
COUNTY OF Arizona) ss.

ON THIS 13th day of September, A.D., 1954, before me, Henry G. Marquez, a Notary Public in and for said County and State, personally appeared JUAN VARELA and EUGENIO C. RIVAS, known to me to be the persons whose names are subscribed to the within Instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Henry G. Marquez
Notary Public in and for said County and State.

My Commission Expires March 4, 1955

(SEAL)

MARTELL THOMPSON
ATTORNEY AT LAW
146 SOUTH GLASSELL STREET
ORANGE, CALIFORNIA
PHONE 1849

STATE OF CALIFORNIA)
) ss.
COUNTY OF ORANGE)

ON THIS 18th day of September, A.D., 1954, before me, MARTELL E. THOMPSON, a Notary Public in and for said County and State, personally appeared PAUL P. ORTEGA and CLEMENTS A. BOTNER, known to me to be the persons whose names are subscribed to the within Instrument, and acknowledged to me that they executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Martell E. Thompson
Notary Public in and for said
County and State.

(SEAL)

MARTELL THOMPSON
ATTORNEY AT LAW
146 SOUTH GLASSELL STREET
ORANGE, CALIFORNIA
PHONE 1549

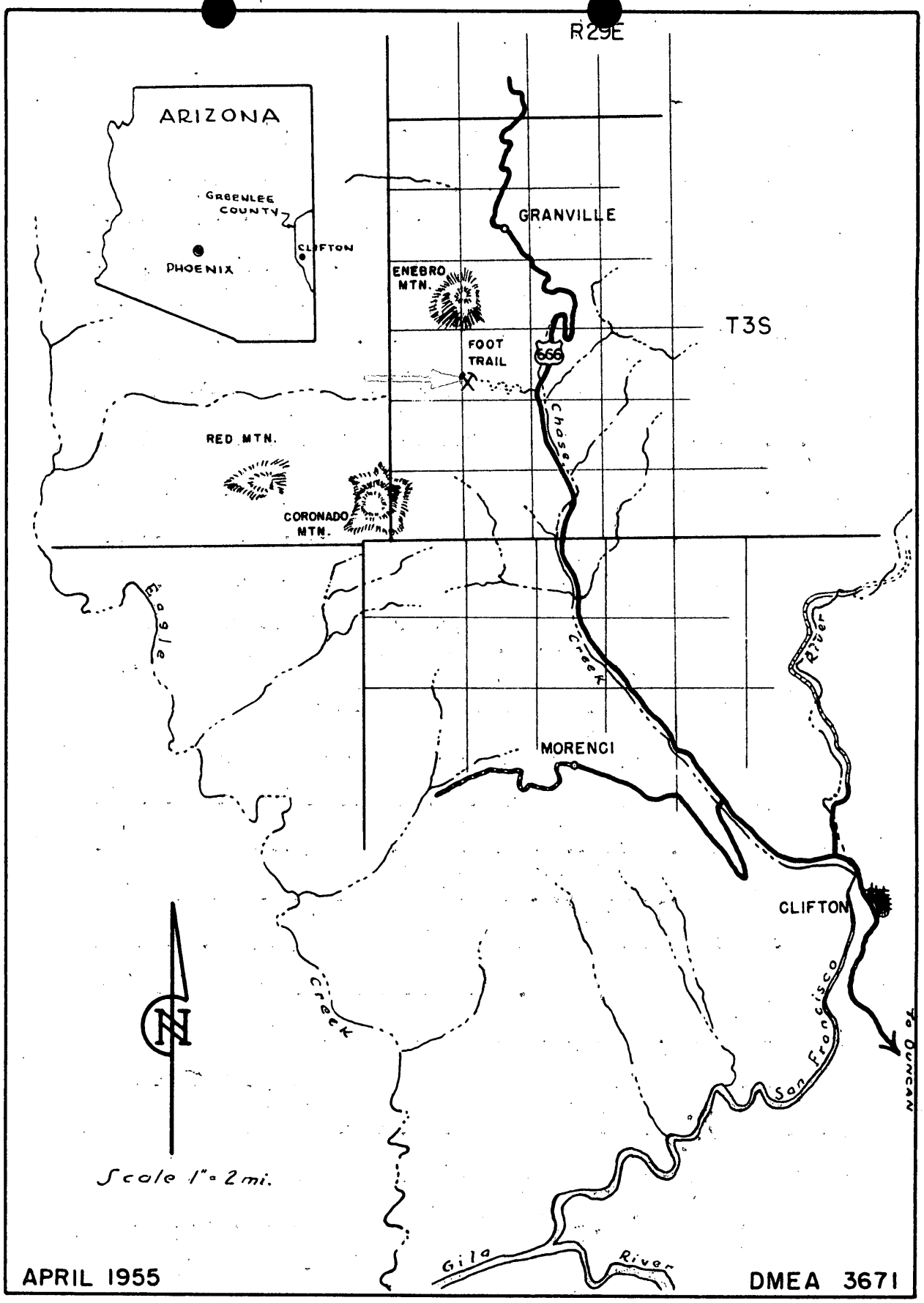

FIGURE - 1 - LOCATION MAP

LA PALMA, VENUS, AND SAN FRANCISCO CLAIMS (MANGANESE)

GREENLEE COUNTY, ARIZONA

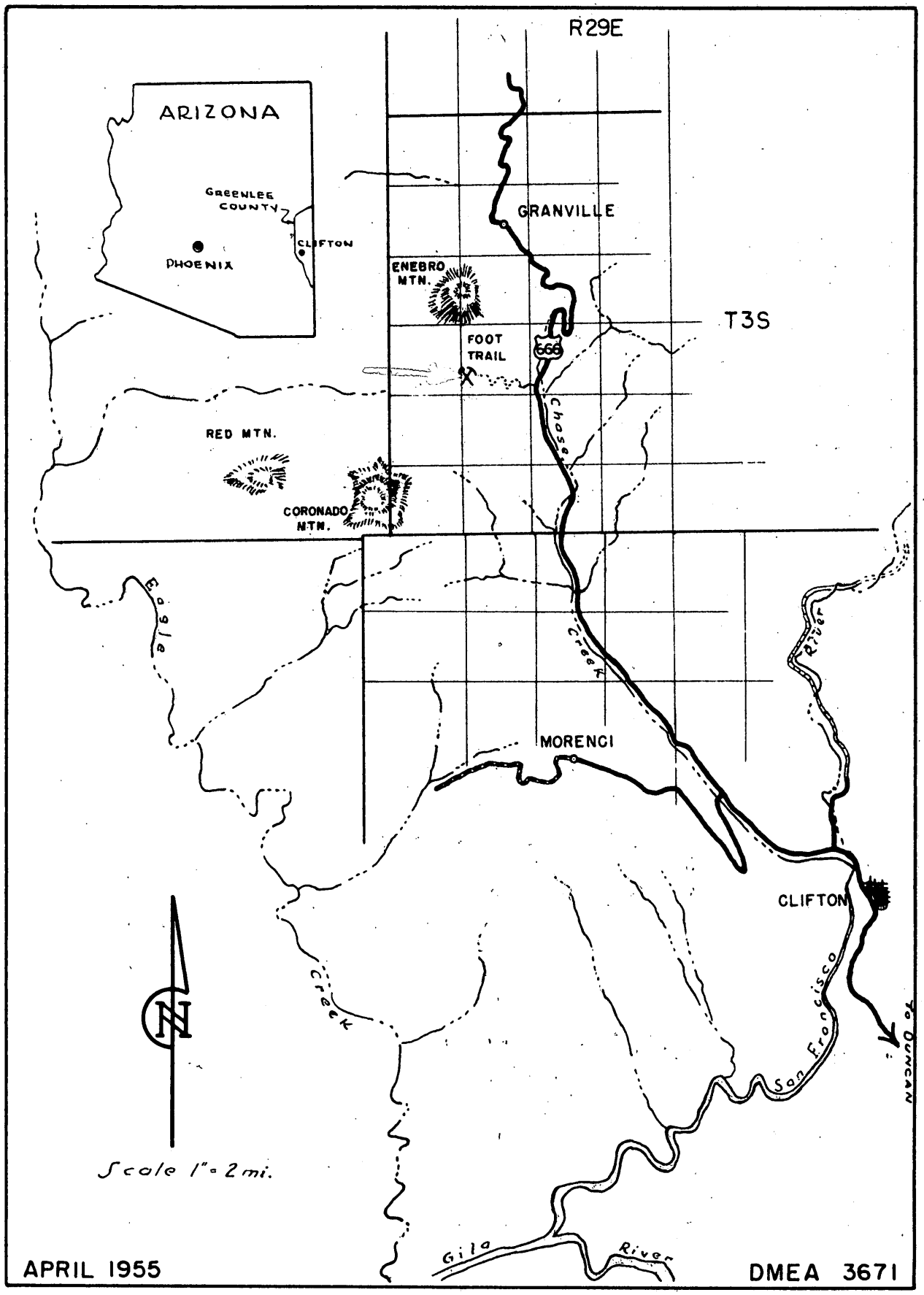

FIGURE - 1 - LOCATION MAP

LA PALMA, VENUS, AND SAN FRANCISCO CLAIMS (MANGANESE)

GREENLEE COUNTY, ARIZONA

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

OFFICIAL BUSINESS

KNOXVILLE
AUG 24
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1951
TENN

POSTAGE
THEODORE ROOSEVELT
1858-1919
30 CENTS 30

Maps

~~Mr. George C. Selfridge, Chairman~~
~~Operating Committee, DMEA~~
~~Dept. of the Interior~~
~~Washington 25, D.C.~~

U.S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

TOPOGRAPHY

ARIZONA-NEW MEXICO
MORENCI QUADRANGLE

ENGRAVED DEC. 1914 BY U.S.G.S.

R.B. Marshall, Chief Geographer.
Geo. R. Davis, Geographer in charge.
Topography by H.H. Hodgeson and L.H. Williams.
Southwest quarter reduced from Clifton sheet.
Control by R.H. Chapman, Chester Irvine, and R.R. Monbeck.
Surveyed in 1900-1901 and 1912-1913.

Scale $\frac{1}{125000}$

1 ½ 0 1 2 3 4 5 Miles

1 ½ 0 1 2 3 4 5 Kilometers

Contour interval 100 feet.
Datum is mean sea level.

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION 1913.

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

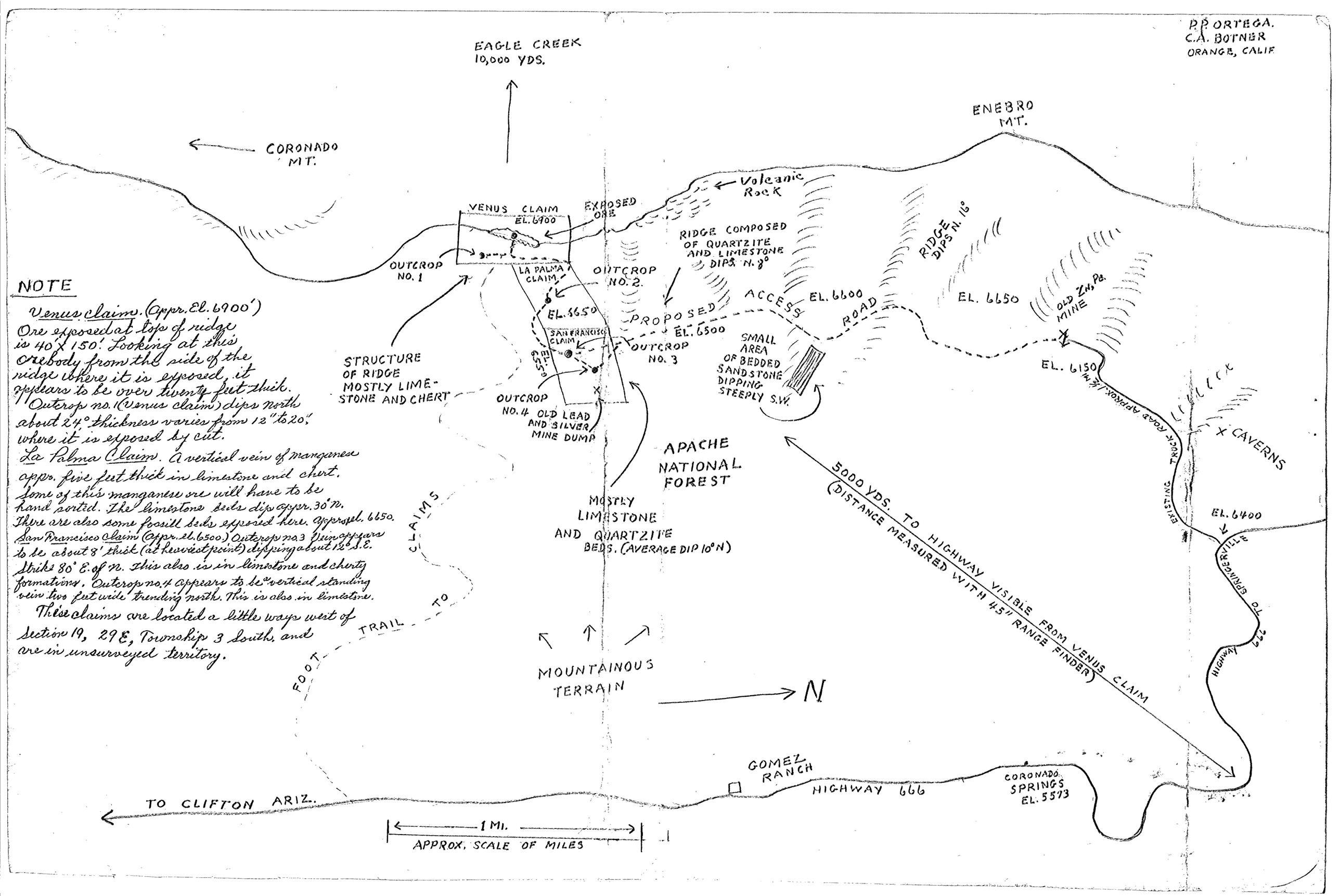
Edition of Mar. 1915.

Arizona - New Mexico
Morenci Quadrangle

MORENCI

24

P.P. ORTEGA.
C.A. BOTNER
ORANGE, CALIF



NOTE

Venus claim. (Appr. El. 6900') Ore exposed at top of ridge is 40' X 150'. Looking at this orebody from the side of the ridge where it is exposed, it appears to be over twenty feet thick.

Outcrop no. 1 (Venus claim) dips north about 24°. thickness varies from 12" to 20". where it is exposed by cut.

La Palma Claim. A vertical vein of manganese appr. five feet thick in limestone and chert. Some of this manganese ore will have to be hand sorted. The limestone beds dip appr. 30° N. There are also some fossill beds exposed here. Appr. el. 6650.

San Francisco claim (appr. el. 6500) Outcrop no. 3 Vein appears to be about 8' thick (at heaviest point) dipping about 12° S.E. Strike 80° E. of N. This also is in limestone and cherty formations. Outcrop no. 4 appears to be a vertical standing vein two feet wide trending north. This is also in limestone.

These claims are located a little ways west of Section 19, 29 E, Township 3 South, and are in unsurveyed territory.