July 18, 1951

Memorandum

To: Landon Strobel, Executive Secretary, Defense Minerals Administration

From: DMA Field Team, Region IV

Subject: DMA Docket 691, Thomas E. Ramey, Silver Lake Mine, Pinal County, Arizona

Herewith is transmitted the original and two copies of the examiners report on the above docket.

We concur with the examiners conclusions and recommend that a loan be denied.

F. T. Allman, Attorney

A. K. Engelmann

Attachments
One copy by Air Mail
Two copies by regular mail

FOR GOVERNMENT USE ONLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Mining Division
Region IV

224 NEW CUSTOMHOUSE
DENVER 2, COLORADO

July 17, 1951

Memorandum

To: DMA Field Team, Region IV

From: Chief, Mining Division, Region IV

Subject: DMA Docket 691, Thomas R. Denny, Silver Lake Mine, Pinal County, Arizona

The application of Thomas R. Denny was for an exploration loan of $49,500 to explore by an adit and raises the downward extension of a small low grade lead-zinc ore body. There are no measureable or indicated reserves, and inferred reserves in the area of the proposed exploration are only 3,000 tons, 4.6 percent combined lead, zinc and copper.

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

Paul T. Allsman

P. T. Allsman

Mining Division
Date Rec'd.
JUL 16 1951
BUREAU OF MINES
Denver, Colorado TUCSON, ARIZONA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

Arizona-New Mexico Branch
[redacted]
Box 4097
UNIVERSITY STATION

MINING DIVISION
REGION IV

July 11, 1951

Memorandum

To : Paul T. Allsman, Denver, Colorado

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

Subject : Final Report, DMA Docket 691, Silver Lake mine, (lead-zinc), Pinal County, Ariz.

Enclosed are original and 7 copies of a report on the above property by T. M. Romslo. As Romslo made the entire examination alone, no separate section on geology will be submitted.

The report has my approval.

Brochure is enclosed.

Walter R. Storms

Walter R. Storms

CC P. T. Allsman (7)
C. A. Anderson
DMA 691
DF

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

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION IV

DMA-641, Silver Lake Mine (Lead-Zinc)

Pinal County, Ariz.

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

July 1951

Engineering

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

By T. M. Rennie 1/

An examination was made on June 15, 1951 of the Silver Lake lead-zinc property, Pinal County, Ariz., in connection with a request by Thomas R. Berry, Box 631, Casa Grande, Ariz. for Governmental aid in carrying out an exploratory program. The examination was made by a Defense Minerals Administration engineer, under docket DMA-691, as part of the program authorized by the Defense Production Act of 1950.

The applicant originally proposed a project that could be completed at an estimated cost of $49,500 and expressed a willingness to provide his share of the cost. He did not realize, until the field examination was completed, that his share of the costs would include cash expenditures. He then asked that his application be withdrawn because he would be unable to finance the project in accordance with Government regulations. As the question of financing would not alter the writer's recommendation concerning justification of the project, the applicant was not requested to formally withdraw his application.

The mine probably was discovered and worked prior to 1900. Field evidence indicates little or no ore was produced during these operations. The present owner operated the mine from late 1949 to January 1950. During that period he produced 13 tons of handsorted, direct-shipping ore that contained 11.2 percent lead, 12.1 percent zinc, 0.90 percent copper, and 0.60 ounce of gold and 5.2 ounces of silver a ton.

Rocks exposed on the property consist of 2 limestone formations that are cut by steeply-dipping faults with northerly strikes. A 130-foot adit has been driven on one of those faults from a point about 30 feet below the contact of the formations that dip 10 to 30 degrees westerly. The ore, mainly as cerrusite and anglesite(?), occurs as discontinuous veinlets and pods that fill openings of a weak fault zone. Significant mineralization is restricted to a fractured zone at the intersection of 2 faults.

The mine contains no measured ore reserves and the indicated reserves are restricted to a few tons of ton that can be recovered by scaling the walls of the stope. Inferred ore reserves are confined to a downward extension of the zone exploited by the stope. This zone probably contains about 30 tons of ore per foot of depth that will average about 2.2 percent lead, 2.4 percent zinc, 0.5 percent copper, and 0.16 ounce gold and 1.1 ounces silver a ton.

The mine has been inactive since January 1980 and there are no buildings or equipment on the property.

The applicant proposed to drive a 200-foot adit, then raise 100 feet to the present workings. The cost of the project, that included expansion of camp facilities and working capital, was estimated at $48,500.

It is recommended that the applicant's request for an exploratory loan be denied because the chances of developing a substantial tonnage of minable ore are unfavorable.

SILVER LAKE MINE (LEAD-ZINC)
PINAL COUNTY, ARIZ.
BMA-691

Engineering Report

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

SILVER LAKE MINE (LEAD-ZINC)
PINAL COUNTY, ARIZONA
BMA-692

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INTRODUCTION

This report contains information obtained during the course of an examination of the Silver Lake mine, Pinal County, Ariz. The examination was made in connection with an application by Thomas R. Beary, Box 611, Casa Grande, Ariz., for Governmental aid as provided for by the Defense Production Act of 1950, and was carried out by a Defense Minerals Administration engineer under docket DMA-681.

The examination was made to determine if the Government would be justified in participating financially with the applicant in an exploratory project designed to increase reserves of lead-zinc ore. The applicant had expressed his willingness to provide his share of the expenses for carrying out the program at an estimated cost of $40,000. This decision was made when the applicant understood his financial participation would require only that he furnish necessary equipment. When informed otherwise, upon completion of the examination, the applicant stated he would be unable to provide his share of the cash requirement and that he would be willing to withdraw his application. He was not requested to take this action because findings of the examination showed that the question of financing would not alter the writer's recommendations concerning justification of the proposed project.

The examination was made June 14, 1951 by T. M. Beasley, Bureau of Mines, accompanied by the applicant and P. Hanchan, who acted as guide.

ACKNOWLEDGMENT

The writer wishes to acknowledge the assistance of F. Hamshaw, an old-time miner and prospector. He acted as guide and helped to expedite the examination by pointing out certain geologic features of the mine area.

LOCATION, PHYSICAL FEATURES AND CLIMATE

The Silver Lake property is in the Papago Indian Reservation and the Casa Grande mining district, sec. 14, T. 19 S., R. 2 E., Gila and Salt River Base Line and Meridian, Pinal County, Ariz. (fig. 1). It is accessible from Casa Grande, Ariz, by traveling 25.8 miles southwesterly on the "Sells" road, thence 6.7 miles westerly on a graded dirt road and thence 7.8 miles northwesterly on a winding desert road. The first 7 miles of the "Sells" road is hard-surfaced and the remainder is graded and surfaced with gravel.

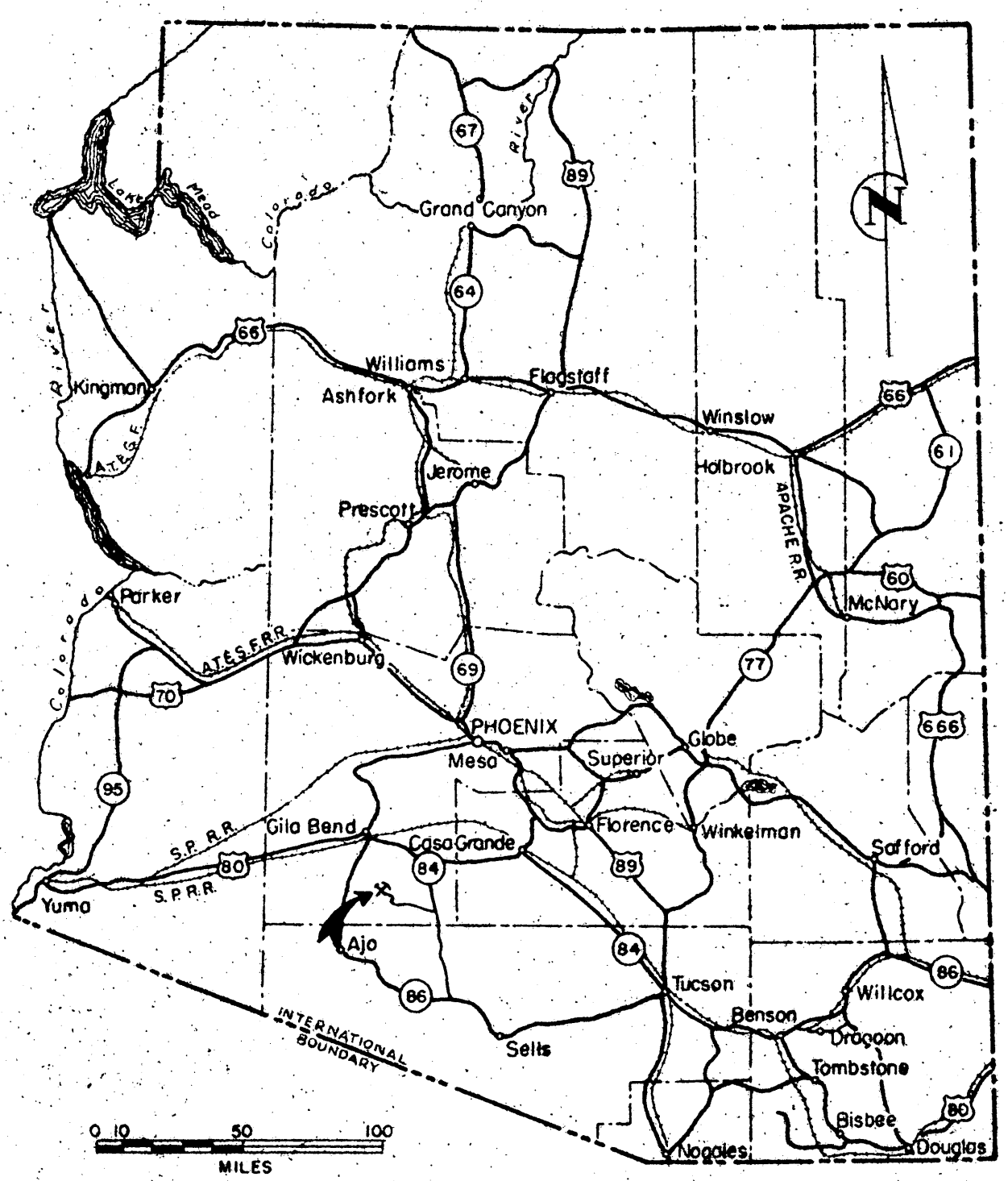
The property is near the base of the southwestern slope of the Vekol Mountains. It is located in a moderately rugged area at an altitude of about 2,100 feet.

The winters are mild and the summers are hot. The annual precipitation probably is about 9 inches.

Vegetation is of the desert variety, typical of the lower altitudes of southern Arizona.

PROPERTY AND OWNERSHIP

The property consists of one lode mining claim that is owned by the applicant, Thomas R. Denny, Box 329, Route 7, Tucson, Ariz. At the time the application was filed, Mr. Denny's address was Box 631, Casa Grande, Ariz.



D.M.A. 691 June 1951

Fig. 1 Location Map, SILVER LAKE MINE, PINAL COUNTY ARIZONA

HISTORY AND PRODUCTION

The Gaza Grande mining district includes many mines that were discovered during 1879-80 and were worked mainly prior to 1900. It is probable that the Silver Lake property also was discovered and worked during these periods. Field evidence indicates that little or no ore was produced from the early operations. The present owner of the property operated the mine from late in 1949 to January 1950. During this period he produced and shipped a little over 13 tons of hand-sorted and screened ore containing 11.2 percent lead, 13.1 percent zinc, 2.60 percent copper, and 0.8 ounce of gold and 4.3 ounces of silver a ton. Approximately 6 tons of this shipment was recovered from about 30 tons of mine ore and the remainder was produced from the dump.

DESCRIPTION OF THE DEPOSIT

Limestones, probably of Paleozoic age, are the only rocks exposed at the Silver Lake property. They consist of a white, sandy formation that overlies a dark gray limestone containing many small pods of calcite. The formations dip 15 to 30 degrees westerly and are cut by steep faults with northerly strikes.

The deposit is developed by an adit that follows a fault with an average strike of about N. 20° W. and an easterly dip of approximately 85°. The adit enters a hillside at a point about 20 feet vertically below the contact of the two limestone formations.

The ore mineralization is confined to weak fault zones and occurs mainly as discontinuous veinlets that range from a knife blade to ½ inch in thickness. A few pods of ore, up to 3 inches in diameter, also are present. Significant mineralization is restricted to one zone near the face of the adit. Here, 2 faults converge to form a fractured zone that has been mined by a stope about 4 feet wide and 15 feet long. This stope encountered white limestone, barren of ore mineralization, at a height of about 20 feet. Between the fault intersection and the face of the adit, the fault zone is very weak and contains no ore mineralization.

The identified ore minerals consist mainly of cerrusite and galena. Minor amounts of sphalerite, chalcopyrite and malachite also were noted.

ORE RESERVES

There are no measured ore reserves and the indicated reserves are confined to a few tens of tons of ore that can be recovered by scaling the walls of the stope. Inferred reserves are restricted to a downward extension of the zone mined by the stope. This zone contains an estimated 30 tons of ore per foot of depth.

Production records indicate the ore will contain about 2.5 percent lead, 2.4 percent zinc, 0.2 percent copper, and 0.16 ounce and 1.3 ounces a ton of gold and silver, respectively. Sorting and

screening of 5 tons of this ore will yield one ton of shipping ore containing 11.8 percent lead, 17.1 percent zinc, 0.2 percent copper, and 0.8 ounce of gold and 6.3 ounces of silver, a ton.

PRESENT STATUS

The mine workings consist of a 130-foot adit and a small stope near the face of the adit. The mine has been inactive since January 1950. There are no buildings nor equipment on the property.

PROPOSED EXPLORATION

The applicant proposed to explore the property by driving a 300-foot adit and a 100-foot raise (fig. 2).

Estimated Cost of Project

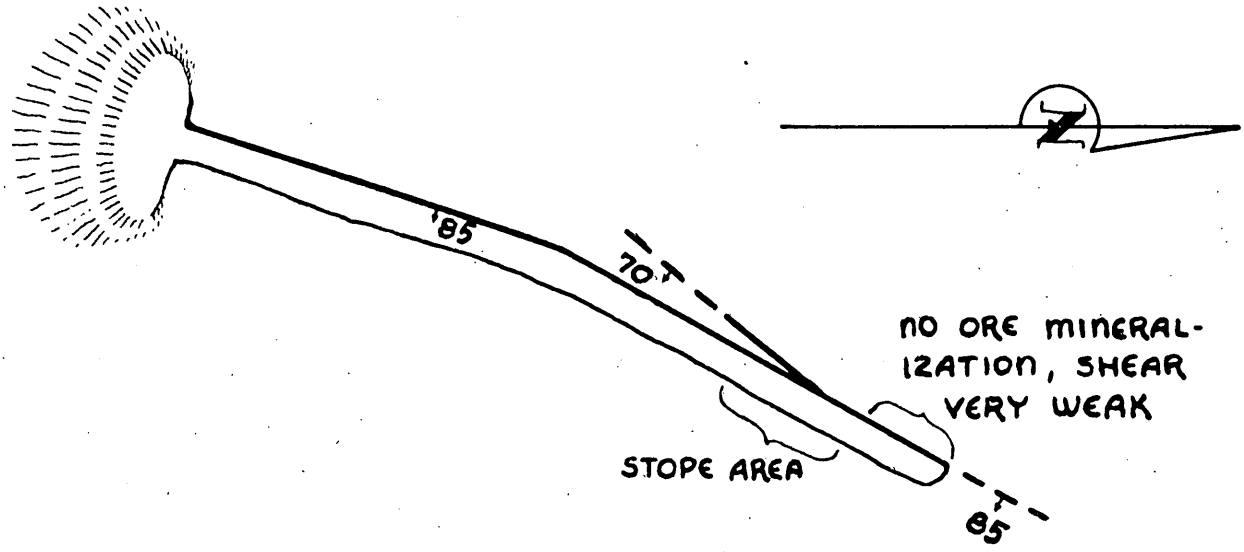
The estimated cost of the proposed project of $49,500 consisted of the following items:

Expansion of camp facilities	$2,500
Compressor	1,900
Pipe, hose, miscellaneous	300
Water-well improvements	1,000
Horizontal tunnel - 300 feet	5,000
Raise, vertical - 100 feet	2,500
Insurance, administrative, miscellaneous	1,650
Total salary, administrative and stenographer - 1 year	6,000
Two jackhammers	1,000
Working capital, loan amortization and reserve	21,350
Total	$49,500

CONCLUSIONS

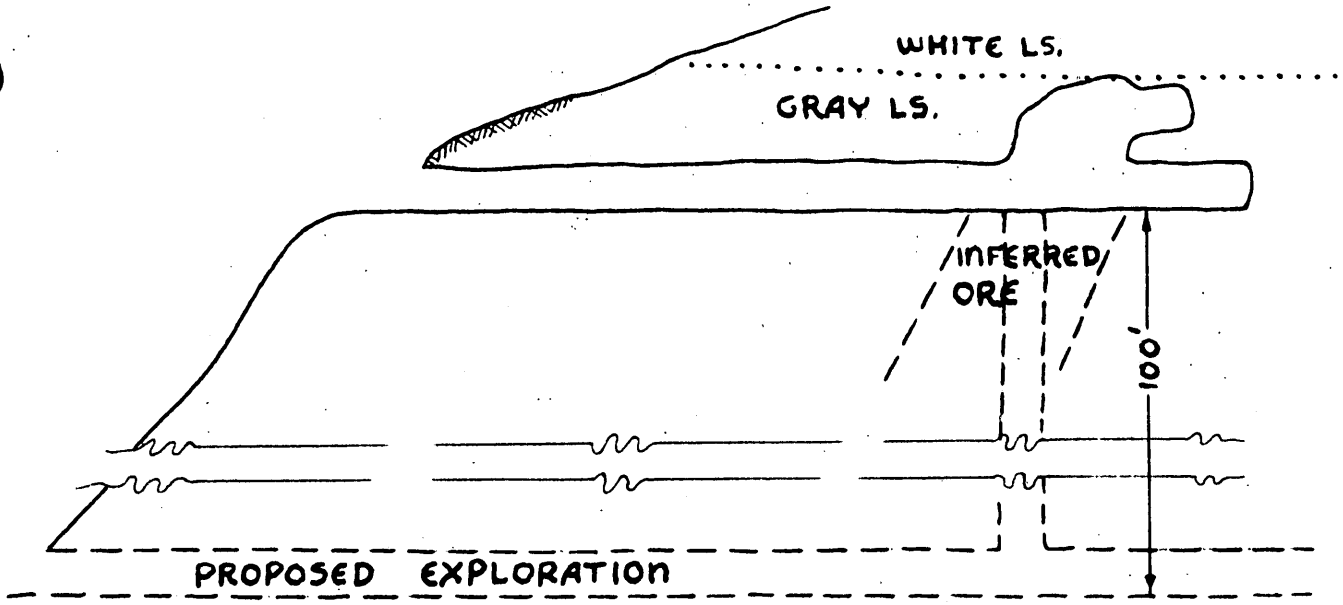
The mine contains no measured ore and only a few tons of tons of indicated reserves.

Inferred reserves are restricted to the downward extension of a zone estimated to contain about 30 tons of ore per foot of depth.



PLAN

VERTICAL SECTION
(IN PLANE OF WORKINGS)



SCALE 1" = 30'

DMA 691 JUNE 1951

FIG. 2 SILVER LAKE MINE, PINAL COUNTY, ARIZ.

The grade of "run of mine" ore is estimated at 2.5 percent lead, 2.4 percent zinc, 0.2 percent copper, and 0.16 ounce and 1.3 ounces of gold and silver a ton, respectively.

RECOMMENDATIONS

It is recommended that the applicant's request for an exploration loan be denied because the chances of developing a substantial tonnage of minable ore are unfavorable.