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

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED
MAR 30 1951
SAN FRANCISCO, CALIFORNIA

DA 135

March 1[illegible], 1951

Refer to	Noted	Date
	[illegible]	3/30
Answered		

Mr. [illegible], President
[illegible] Mines, Inc.
[illegible] Grove
[illegible], Nevada

Dear Mr. [illegible]:

Your application for a government loan on tungsten, which was intended to assist a mill to be built on your claims [illegible] Mine, [illegible], Nevada, has been reviewed by the Lend-Lease Branch.

A recent investigation of your property by a geologist-engineer field team, working for the Defense Minerals Administration, indicates that your property is not a promising source for long, sure or economical. The report shows that no ore is blocked out, that the mineralization is weak and the controlling structures are poorly defined. From geologic considerations it is most improbable that any sizeable tonnage of ore of sufficient grade for mining can be found by exploration in the area. For these reasons we do not consider it a justifiable expenditure of public funds to support your request for Federal aid on this property.

We wish to thank you for bringing this property to our attention.

Very truly yours,

Tom Lyon

Tom Lyon, Director
Supply Division

[illegible]/mp
3/1/51
Copies to: [illegible], Executive Dir.
[illegible]-5 - Midnight
[illegible] Moon
[illegible] Mote
2 copies to Exec. Officer
Regional Field Team, Region III [illegible] Wand Smith 3/30
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[illegible]ittendorf
Files

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

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BUREAU OF MINES
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RECEIVED
MAR 30 1951
SAN FRANCISCO, CALIFORNIA

Refer to	Noted	Date
	Helle	3/30
Answered		

March 1[illegible], 1951

Memorandum

To: The Executive Secretary, [illegible]

From: Lead-Zinc Branch, [illegible] Ref: [illegible]-135

Subject: Application of Donatello-Millard, Inc. Jess Millard, President 12[illegible] East Fremont [illegible], Nevada

Commodity: Lead, zinc, copper, silver and gold

Mines Hill Mine, Esmeralda County, Nevada

The Lead-Zinc Branch concurs with the Field Team, [illegible] in recommending a denial to the Donatello-Millard, Inc. application for a loan of $300,000, for the following reasons:

1. No ore is blocked out on the property.

2. No evidence of strong lead-zinc mineralization was found in the mineral bearing fractures on this property.

3. Concentrations of manganese ore (Mn - [illegible]) occur in small stringers but do not continue with depth.

4. Old workings are caved and inaccessible, but investigation of dump material did not indicate strong lead-zinc mineralization.

5. No strong faults or other major structures were found in or near the property and geological studies found nothing to indicate the presence of any large [illegible] ore on the property.

6. Production has been small and shipments made have been of very low-grade ore.

AMBriggs:emp
3/13/51

Copies to: Chief, Lead-Zinc Br.
[illegible], Chief, Lead-Zinc Branch
[illegible] Hanight
L. G. Moon
R. H. Note
2 copies to Exec. Officer
Regional Field Team Region III
Strobel
Mittendorf
Files

1 to Ward Smith 3/30

REGIONAL DIRECTOR

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
1415 U. S. APPRAISERS BLDG.,
630 SANSOME STREET,
SAN FRANCISCO 11, CALIF.

March 8, 1951

Memorandum

To: Otto Herres, Chief, Lead-Zinc Branch, Defense Minerals Administration, Washington, D. C.

From: Regional Director, Region III

Subject: Docket DMA-135 - Constant-Willard, Inc., Galena Hill Mine, Washoe County, Nevada

In conformance with the request indicated in your memorandum to me dated January 26, George H. Holmes, Jr., Mining Engineer, Bureau of Mines, and Donald E. White, Geologist, Geological Survey, examined and reported upon subject property. Four copies of their report are attached. As pointed out by the examiners in their report, they conclude from their study of the Galena Hill Mine that the Constant-Willard application for a $500,000 loan is not justified and they recommend that the loan be not approved.

The complete file on Docket DMA-135, including 4 copies of the report by Holmes and White, are attached herewith.

H. C. Miller
Regional Director, Region III

Copy to: Ward Smith
A. C. Johnson

File Copy

Mining Division
Region III

Nevada - California

P. O. Box 1551
Reno, Nevada

March 6, 1951

Memorandum

To: H. C. Miller, Regional Director, Region III

From: Chief, Mining Division, Region III

Subject: Docket DMA-135 -- Constant-Willard, Inc., Galena Hill Mine, Washoe County, Nev.

Enclosed herewith are 5 copies of the report made by an engineer of Region III and a geologist of the U. S. Geological Survey on an application for a loan from the Defense Minerals Administration on the Constant-Willard, Inc., Galena Hill Mine in Washoe County, Nev.

The engineer from the Bureau of Mines and the geologist from the Survey conclude that the Galena Hill property did not indicate sufficient mineralization to justify a loan under the Defense Minerals Administration.

The complete file on the Docket DMA-135 is being returned herewith.

A. C. Johnson

Encls.

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

DEFENSE MINERALS ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III - CALIFORNIA-NEVADA

DMA-135, Comstock-Willard, Inc., Galena Hill Mine
Washoe County, Nevada

George H. Holmes, Jr., Mining Engineer
U. S. Bureau of Mines

Donald E. White, Geologist
U. S. Geological Survey

March 2, 1951

DOCKET DMA-135

UNITED STATES DEPARTMENT OF THE INTERIOR - BUREAU OF MINES

CONSTANT-WILLARD, INC., GALENA HILL MINE
Washoe County, Nev.

By George H. Holmes, Jr.
Donald E. White

SUMMARY

The Galena Hill mine is in southwestern Washoe County, Nev., about 15 miles south of Reno. Claims were located in the 1880's and some small shipments were made at that time and again during the late 1920's. New owners acquired the property during 1950 and a 4-ton shipment was made.

Rocks in the area comprise metamorphosed tuffs and sediments intruded by granodiorite and overlain unconformably by volcanic rocks. Mineralization occurs in a poorly-defined zone in the western claims and in a northeast-striking vein in the eastern claims. Lead carbonates and possibly other lead minerals are concentrated on the surface of small fractures and joint blocks. No primary sulfide minerals were found.

Adits and shafts have caved and are inaccessible for examination but inspection of dump material does not indicate a strong lead-carbonate mineralization. Manganese oxides occur in small kidneys which do not persist at depth.

Recent mine work consists of an open cut about 40 feet square and 10 feet deep excavated on the mineralized zone near the top of

Galena hill. The mineralized showings are not impressive. There are no blocked out ore reserves on the property.

Based on the results of the joint Bureau-Survey examination, the applicants' request for a $500,000 mine loan is not justified and it is recommended this loan be not approved.

INTRODUCTION

The Galena Hill mine in southwest Washoe County, Nev., was examined on February 19, 1951 by an engineer[1] of the Bureau of Mines and a geologist[2] from the U. S. Geological Survey in connection with the Constant-Millard, Inc. application for a mine loan of $500,000 under the Defense Minerals Administration (Docket DMA-136). The purpose of the field examination was to determine if possible, the amount and grade of ore reserves; if the factual data supplied by the applicants was correct, and to investigate the proposed method of mining the deposits.

The property was previously examined by an engineer[3] of the Bureau of Mines on October 27, 1943 following a request by the owners for Bureau exploration work and again on February 9, 1945[3] in connection with an access road application. War Minerals Memorandum Nev.-156, November, 1943 entitled "Galena Hill" and Supplement to War Minerals Memorandum Nev.-156, "Galena Hill Mine", February, 1945, were subsequently written.

1/ George B. Holmes, Jr.
2/ Donald L. White
3/ Willmar T. Benson

OWNERSHIP

The 19 claims comprising the Galena Hill group are now owned by Constant-Willard, Inc. of Reno, Nev. Jess Willard, 129 East Arroyo St., Reno, Nev. is president of the corporation, Gladys E. Willard, same address, is secretary and treasurer, and Maurice Constant, 530 California Ave., Reno, Nev. is vice-president.

HISTORY AND PRODUCTION

The Galena Mining District was organized in 1860 and claims at the Galena Hill mine were probably located during the 1860's. Records indicate the Galena Hill lode claim was located Jan. 1, 1882 and patented Oct. 13, 1890. Production records are obscure but it is reported that small tonnages were shipped during the earlier years of its operation. Two cars of selectively mined ore shipped during the late 1920's reportedly averaged 23 percent lead, 21 percent zinc, with 7 ounces of silver per ton.

On October 4, 1950, a 4-ton shipment of sorted ore was shipped to the Selby Smelter of the American Smelting and Refining Company. Smelter returns indicated 28.55 percent lead, 1.50 percent zinc, and 11.65 ounces silver per ton.

LOCATION AND PHYSICAL FEATURES

The Galena Hill claims are in secs. 5, 6, and 7, T. 26 N., R. 20 E., M. D. B. & M., Washoe County, Nev., about 15 miles by road south of Reno. To reach the property from Reno, travel south on U. S. Highway 395 for 10 miles to its junction with State Highway 27. Go west on Highway 27 for 3 miles then turn south and proceed over a rough, unimproved dirt road 1-1/2 miles to the property.

The mineralized areas are on the north slope of Galena Hill at an altitude of 5,850 feet. The relief of the area is fairly rugged. Vegetation is sparse consisting principally of sagebrush and no water for mine or mill use has been developed on the property. Transmission line power is available at the Union Lead mine, 2 miles to the south.

Ore shipments could be made directly by truck to the Selby Smelter or by the Southern Pacific railroad which would necessitate car loading at Reno.

GEOLOGY[4]

The bedrocks of the area consist of metamorphosed tuffs and sediments (Triassic or pre-Triassic) intruded by granodiorite (Jurassic) and overlain unconformably by Kate Peak volcanics (Pliocene) and Steamboat Springs basaltic andesite lava flows (Pleistocene).

The ore showings are entirely restricted to the metamorphic rocks and are older than the relatively recent volcanic rocks. The metamorphic rocks consist of sediments and volcanic tuffs that have been metamorphosed to hornfels, schist, and minor tactite (a garnet-epidote rock that commonly contains scheelite but no tungsten was found in this area).

The area contains no clearly-defined faults or other major structures but two possible faults are shown on the sketch map in its western part. These possible faults lie on the strike of a well-defined fault northwest of the area of the sketch map. It seems probable, therefore, that the showings of lead ore in the western half of the mine area

4/ Unpublished report, "Galena Hill mine, Steamboat Hills, Washoe County, Nevada", February 1951 by Don White, geologist, U.S.G.S.

are localized in the zone of mild disturbance and fracturing that forms the southeastern termination of the fault that is for the most part outside of the area.

ORE DEPOSITS[5]

In detail, the weak showings of lead minerals are controlled by poorly-defined fractures that bear little obvious relation to the faults. Lead carbonate and possible other lead minerals are concentrated on the surfaces of small fractures and joint blocks. No primary sulfide minerals were found. As most of the rock of this western part of the area contains no lead and the known ore is irregularly distributed, it is most improbable that any large tonnage of ore of sufficient grade for mining occurs in the area.

In the eastern part of the mine area nearly all of the mineralization is restricted to a vein that strikes N. 60° E. and dips from 45° south to 80° north. The west half of this vein contains small kidneys of manganese ore that probably average 10 to 20 feet long, 2 to 5 feet wide, and about 5 to 10 feet down the dip. Lead minerals are scarce. The east half of this vein, separated from the west part by a barren zone, is marked by a strong outcrop that stands 5 to 10 feet above the general surroundings. The outcrop is stained by manganese but contains little lead. The several shafts and prospects are restricted to the southern border of the vein, which ranges from several feet to perhaps 10 feet wide.

5/ Unpublished report, "Galena Hill mine, Steamboat Hills, Washoe County, Nevada", February 1951 by Don White, geologist, U.S.G.S.

MINE WORKINGS AND EQUIPMENT

Development workings on the property comprised several crosscut adits driven to the southeast to intersect the northeast-southwest mineralized zone. These adits varied in length, according to reports, up to 900 feet, but all openings have caved and are now inaccessible for examination. Inspection of the dumps did not show more than very minor mineralization.

To the east along the NE-SW vein 4 shafts with reported depths from 10 to 60 feet were sunk, and several shallow test pits and trenches were excavated. The shafts are also inaccessible for examination.

Recent work in addition to new roads on the property built by bulldozer, consists of an open cut about 40 feet square and averaging 10 feet in depth which has been excavated on the mineralized zone near the top of Galena hill. Broken material has been stockpiled near the pit. The mineralized showings, however, are not impressive.

Equipment comprises a Link-Belt speeder 1/2-yard shovel and a Cletrac tractor equipped with a Keil bulldozer, both in good condition.

SAMPLING

Four grab samples were taken from dumps on the property to determine the type and grade of ore. Sample No. 60 represents sorted lead-carbonate ore from the high-grade stockpile; No. 61 is a composite of the reject stockpiles in present open-cut workings; No. 62 was taken from an upper adit dump and consists principally of tactite, and No. 63 was taken from a few-hundred pounds of sorted manganese ore stockpiled near a shaft on the NE-SW zone.

Sample No.	Percent			Ounces		Location
	Pb	Zn	Cu	Au	Ag	
60	41.5	0.5	0.26	0.02	21.40	sorted stock-pile ore
61	3.6	0.1	0.10	0.005	1.20	stockpile rejects
62	0.3	0.6	0.04	Tr	Tr	upper adit dump

	Percent						
	Mn	Pb	Zn	Cu	SiO_2	P	S
63	35.2	7.4	3.1	0.04	2.2	0.35	0.025

CONCLUSIONS

The Bureau of Mines - U. S. Geological Survey field team concludes that:

1. Examination of the Galena Hill property failed to indicate strong lead-zinc mineralization (along either the north-south or the northeast-southwest fractures). Lead carbonate and possibly other lead minerals are concentrated on the surfaces of small fractures and joint blocks. No primary sulfide minerals were found.

2. From a study of the geology it is most improbable that any large tonnage of ore of sufficient grade for mining occurs in the area. Sample returns substantiate this conclusion.

3. Inaccessibility of old adits and shafts prevented examination of the underground workings but inspection of dump material does not indicate strong lead-carbonate mineralization.

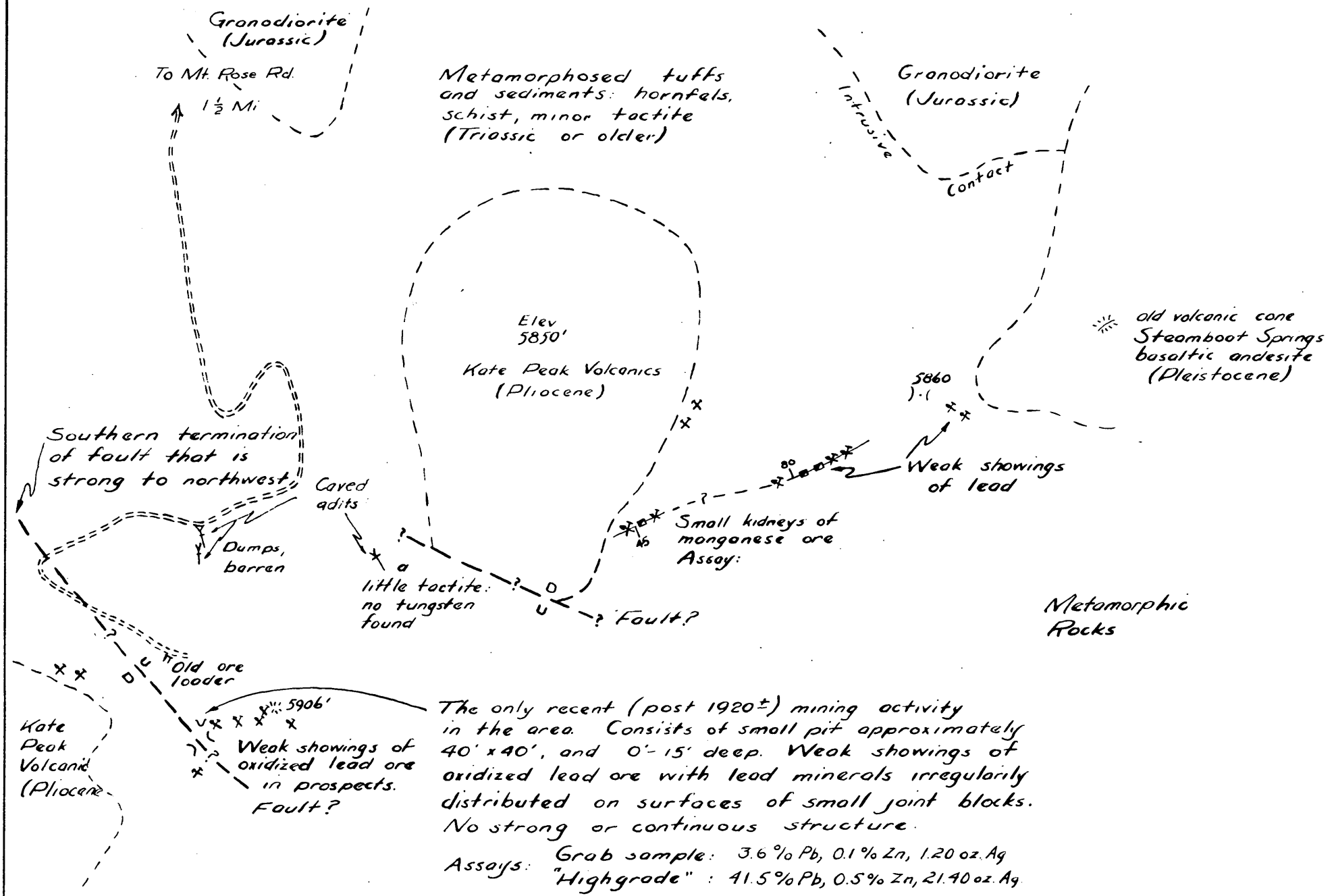
4. The manganese ore from the northeast-southwest fracture was sorted from small kidneys occurring along the vein. Manganese mineralization does not extend down-dip for any appreciable distance.

5. Small shipments of high-grade lead carbonate ore was obtained by close sorting of excavated material.

6. The area contains no strong faults or other major structures and there is no blocked out ore on the property.

7. The comparative narrowness of the mineralized veins, or fractures, (if found to contain ore of commercial grade) would preclude possible mining by open-cut methods. The topography of the area would justify mining the ore bodies by crosscut adits from surface and subsequent shrinkage stoping.

8. Based on results of the joint Bureau-Survey examination, the Constant-Willard application for a $500,000 mine loan is not justified and it is recommended this loan be not approved.

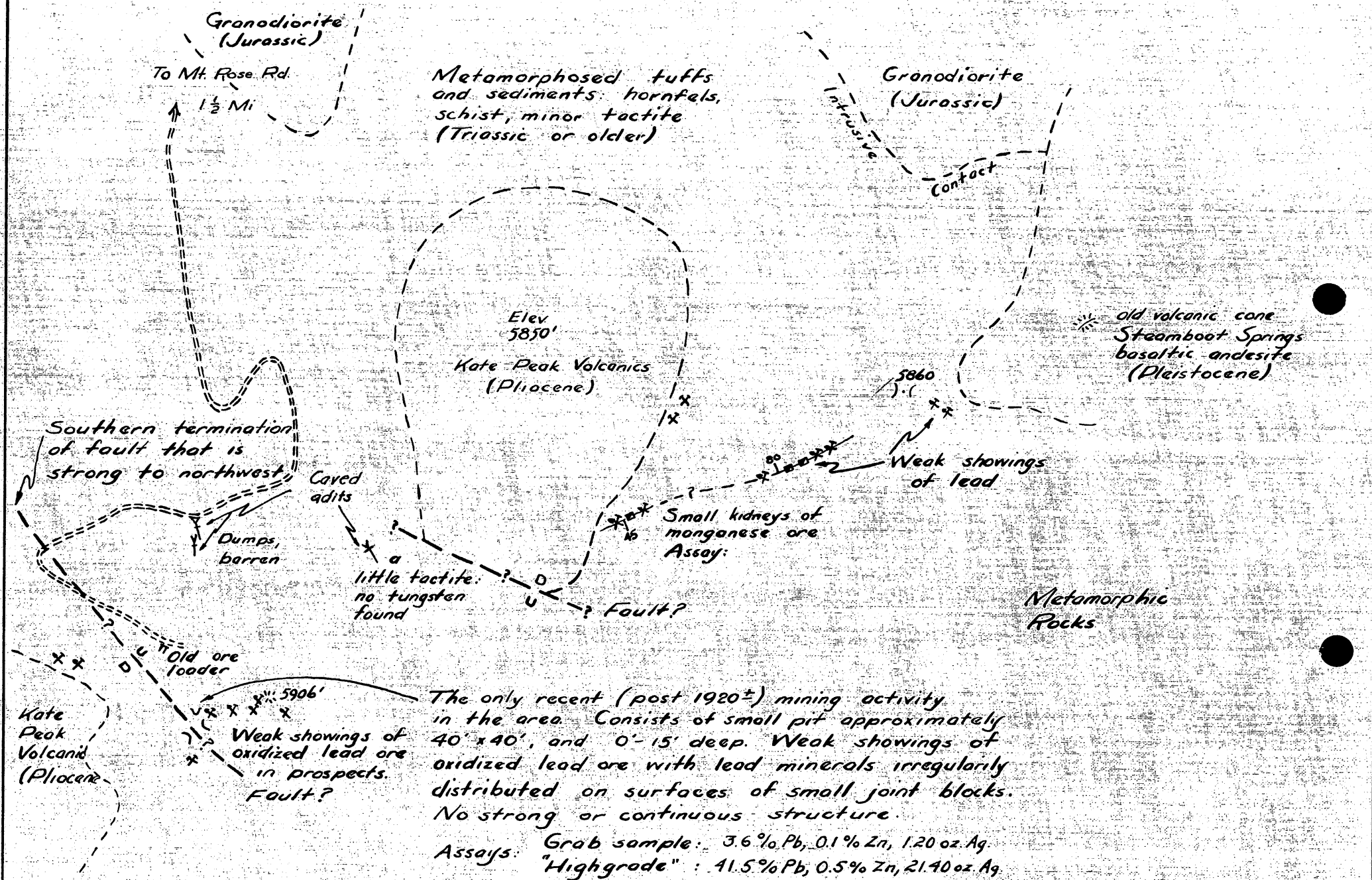


The only recent (post 1920±) mining activity in the area. Consists of small pit approximately 40' x 40', and 0'-15' deep. Weak showings of oxidized lead ore with lead minerals irregularily distributed on surfaces of small joint blocks. No strong or continuous structure.

Assays: Grab sample: 3.6 % Pb, 0.1 % Zn, 1.20 oz. Ag
"Highgrade": 41.5 % Pb, 0.5 % Zn, 21.40 oz. Ag

SKETCH MAP OF GALENA HILL MINE AREA
STEAMBOAT HILLS, WASHOE CO., NEVADA
Scale: 1" = 400'

Geology by Donald E. White
Feb 19, 1951



The only recent (post 1920±) mining activity in the area. Consists of small pit approximately 40' x 40', and 0'-15' deep. Weak showings of oxidized lead ore with lead minerals irregularly distributed on surfaces of small joint blocks. No strong or continuous structure.

Assays: Grab sample: 3.6% Pb, 0.1% Zn, 1.20 oz. Ag.
"Highgrade": 41.5% Pb, 0.5% Zn, 21.40 oz. Ag.

SKETCH MAP OF GALENA HILL MINE AREA
STEAMBOAT HILLS, WASHOE CO., NEVADA
Scale: 1" = 400'

Geology by Donald E. White
Feb 19, 1951

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
RARE AND PRECIOUS METALS EXPERIMENT STATION
METALLURGICAL DIVISION Hydrometallurgical and Ore-Dressing Branch RENO, NEVADA
Box D, University Station

Region III

February 27, 1951

Mr. George Holmes
Bureau of Mines
P. O. Box 1551
Reno, Nevada

Project No. Holmes

Galena Hill Mine
Washoe County, Nev.

Sample No.	%,Cu	%,Pb	%,Zn	Oz Au/T	Oz Ag/T
60	0.26	41.5	0.5	0.02	21.40
61	0.10	3.6	*0.1	0.005	1.20
62	0.03	0.3	0.5	Trace	Trace
63	0.04	7.4	3.1	0.005	2.00

	%,Mn	%,SiO_2	%,S	%,P
63	35.2	2.2	0.025	0.38

J. B. Zadra
Supervising Engineer

cc: A. C. Johnson

REGIONAL DIRECTOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF MINES
1415 U. S. APPRAISERS BLDG.,
630 SANSOME STREET,
SAN FRANCISCO 11, CALIF.

February 14, 1951

Memorandum

To: A. C. Johnson - Reno, Nevada

From: Regional Director, Region III

Subject: Docket DMA-135
Constant-Willard, Inc., Galena Hill Mine, Washoe County, Nevada

DMA Region III Field Team decided this morning to refer subject documents to the field for investigation.

Paul Bateman representing Ward Smith, of the Survey, at the meeting this morning, along with Mr. Bailey, of the Survey, suggested that if a field investigation is necessary you have Mr. Art Kinkel accompany your engineer on the investigation.

The complete DMA file on this project is attached herewith. Kindly return the file along with your final report and recommendations.

H. C. Miller
Regional Director, Region III

Attachment (File)

Copy to: Ward Smith, Geological Survey

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

January 26, 1951

DEPARTMENT OF INTERIOR
BUREAU OF MINES
REGION III
RECEIVED
FEB 9 1951
SAN FRANCISCO, CALIFORNIA

Memorandum

To: Executive Officer of Field Team, Region III

From: Lead-Zinc Branch, DMA

Subject: Docket DMA-135
Constant-Willard, Inc.
Galena Hill Mine
Washoe County, Nevada

The Constant-Willard, Inc. application has been reviewed by the Lead-Zinc Branch of the Defense Minerals Administration.

The loan ($500,000) requested in this application is for a construction program to facilitate open cut mining on a fissure vein (in a mass of granodiorite) having a width of 10-30 feet and a length of 6,000 feet. It is not stated where on the vein the operation will be started, nor is the distance they expect to open cut given. Assay data are presented for 54 samples, but only for six samples is the width of the cut given. The lead values range from 0.2% to 66.1%. Presumably these assays represent oxidized materials. The location of the sampling is not known. It can be assumed from the documents presented that this is primarily a gold-silver-lead prospect with very little chance of significant zinc production, although one assay does give a fair zinc value.

The Lead-Zinc Branch recommends that the application be referred to the field for review and field examination to determine, if possible, the amount and grade of reserves in the area to be mined.

It is further recommended that the method proposed for mining be investigated to determine if it is applicable to the deposit.

Otto Herres

OTTO HERRES, Chief
Lead-Zinc Branch, DMA

Copy given to Willard Smith 2/14

Approved:
DMA Operating Committee

C. O. Mitteness
Chairman

J. H. Hedges
J. H. Hedges

Olaf N. Rove
Olaf N. Rove