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Richard E. Mieritz
MINING CONSULTANT

May 17, 1957

Mr. F. F. Holly, Pres.
Southwestern Mining & Oil Co.
2308 E. Indian School Rd.
Phoenix, Arizona

Dear Mr. Holly:

At your request, I completed a field examination of the Linda Mine, Maricopa County, Arizona. The examination was made on May 15, 1957 in the company of Mr. Jack Askins who provided useful information regarding the property in question.

The following report is a discussion of my findings, opinions and recommendations. It has been kept to a minimum since there is little need to elaborate on the time consuming items which bear or add little to the significance of the examination.

All conditions relating to the property and the examination have been duly and carefully considered. The end results are discussed in the conclusions of the report.

Please feel free to call on me for any discussion of the report or its contents.

Very truly yours,

R. E. MIERITZ

cc

R. E. Mieritz

A RECONNAISSANCE
EXAMINATION
of
THE LINDA MINE
in
MARICOPA COUNTY, ARIZONA

by
R. E. Mieritz
Mining Consultant
Phoenix, Arizona

May 17, 1957

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CONCLUSIONS

The writer having personally and briefly examined the Linda Mine, Maricopa County, Arizona concludes the following: that

(1)-the property warrants no further consideration by your organization because of an overbalanced risk involved,

(2)-should the management decide in favor of further consideration, an expenditure of no less than \$13,000 will be required to adequately test an assumed possible ore reserve and grade,

(3)-because of the physical character of the ore zone, high mining costs could be expected, and

(4)-much consideration must be given a possible milling process should the ore value not support a direct shipping and smelting charge.

PROPERTY

The Linda Mine, consisting of six unpatented lode mining claims, is owned by Mr. F. R. Brown of Picacho, Arizona. Access to the property is over six miles of paved highway US 60-70 southwest of Aguila and 5½ miles over typical desert unimproved road south to the property. The last two miles is in disrepair and maintains grades up to 25%.

The property lies on the north slope of the Harquahala Mountains in the shadows of Harquahala Peak which attains an elevation of 5672 feet above sea level. Topography in the immediate area is deeply cut by recent erosion and the

area is heavily covered with huge boulders but very little soil cover, a condition which would make road construction difficult and expensive.

GEOLOGY

The property is in a setting of complex rock structures consisting of Arkean Schist, Pre-Cambrian Granite and related rocks and Tertiary volcanics primarily as dikes.

The hog-back on which all development has been done is composed, for the most part, of a loosely cemented "rubble" (various size angular erosional fragments) consisting of schist, granite and vein quartz. This material covers much of the hog-back slopes, is primarily residual, not having traveled very far, and is a direct result of a shear zone on which some development has been done. Recent erosion and alteration has, through surface percolation, loosely cemented and incrustated the fragments with a calcareous filling and precipitate.

Mr. Askins, the writers field trip companion, reported that some of this "rubble" carried as much as 0.6 oz of gold. This fact indicates the presence of gold in this material is a residual and mechanical deposition from a nearby source. The source of the gold mineralization is, in the writers opinion, the heavily iron stained granite shear zone exposed in the open cuts near the top of the hog-back. The rock exposed in the cuts, although extremely fragmental, is material in place. Mr. Askins advised that a

sample of the iron stained granite contained 1.1 oz. of gold. An additional rumor has it that the near vertical 70 foot shaft in one pit had gold values in excess of 3 oz. per ton at the bottom.

The iron stained granite shear zone has a N.10-15 E. strike and is exposed for not more than 100 feet along its strike. It is bounded by the "rubble" on the north and terminates beyond the most southerly cut or disappears under the schist capping. The limited exposures do not permit a definite conclusion as to the possible strength of the zone, consequently, its projection depth-wise is an undeterminable measurement and cannot be predicted to any degree of accuracy on the evidence available. It is the writers opinion, however, that a vertical extent of some 200 feet could be expected. Moreover, the same physical features (large, loose angular fragments) and conditions could be expected to a similar depth. One can therefore assume that the gold values can be present at this depth also as long as the associated iron oxides are also present.

EXPLORATION

The property is definitely in a "prospect" class and would require a high price exploration program to indicate a possible "not to bright a future" for the mine. Therefore, it is the writers opinion that the property warrants no further consideration by your organization.

In the event the writers opinion is not followed

and your organization wishes to enter into an exploratory program, the following is recommended:

(1)-clean out and timber the shaft reported to be in the open cut. Sample the walls normal to the dip on both walls at five foot intervals, and

(2)-diamond drill an aggregate of 600 feet as three holes to intersect the zone at a depth of 150 feet with two holes diverging from a single station or location on the east slope and a single hole to intersect the zone at a depth of 250 feet. The third hole can be drilled at a steeper angle from the same location or moved down the slope a hundred or more feet to get a better angle and intersection.

This type program will definitely justify additional work or prove the worthlessness of the property as a possible gold producer.

An estimated cost for this exploration would approximate the following:

Rebuilding old road and construct new road to drill locations	\$ 2,500.00
Rehabilitate old shaft, timber,	\$ 3,000.00
Diamond drill 600 feet	\$ 5,500.00
Core boxes, assaying, etc.	\$ 200.00
Technical Supervision & Expenses	\$ 1,000.00
	Total
	\$12,200.00
10% contingencies	\$ 1,200.00
	Grand total
	\$13,400.00

OPERATIONAL CONSIDERATIONS

Prior to considering the expenditures of the above sum, two important factors must be weighted which could influ-

ence a decision of further investigation. These factors are the mining and milling or treatment of the ore.

The physical makeup of the ore structure is one which will not lend itself to cheap mining, moderate tonnages, etc. Considerable timbering will be required as well as much secondary blasting of the large fragments. All this tends for high production costs.

Early day milling of this ore indicates a metallurgical problem in as much as the operation was not a success. This failure was probably due to the very fine grained character of the gold which required extreme fine grinding to unlock the particles. The cyanide process of extraction would have to be considered unless the gold values of the possible ore can be maintained at such a level to support shipping and smelting charges.

Respectfully submitted,

R. E. MIERITZ

R. E. Mieritz, P. E.

May 17, 1957



