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January 19, 1983

Mr. Greeg Frank
A. W. Arnold & Assoc.
P. O. Box 1182
Elko, Nevada, 89801

Re: Barite in Arizona

Dear Mr. Frank:

Thank you for your phone call of yesterday inquiring about the barite property I had mentioned to Bill Devitt several years ago.

I have checked my files and came up with the report I wrote on the Marcotte Barite property, about 35 miles west of Safford, Graham County, Arizona. This report is dated January 8, 1958.

I was a little wrong in some of the information I gave you over the phone, but I was relying on memory of 25 years. None-the-less, it will give you some idea of the property. I also include a copy of some information I found in Arizona's Water and Mineral Resources bulletin.

I have not checked the BLM here in Phoenix to determine if there are valid claims on the property or not, and if so, who is the owner. This can be done if after reviewing the enclosed information, the property would be of interest to you.

I enclose a copy of this letter for Bill, but would like to ask that you forward same to him because I do not have the Houston address. Moreover, you may wish to send some of this information to him.

Again, thanks for you phone call and if there is anything I can do for you please do not hesitate to advise.

Sincerely,

R. E. Mieritz,
Mining Consultant

Enclosures: Copy of Report dated January 8, 1958 by R. E. Mieritz
Copy of pages 312, 313 and 314 of Ariz. Bulletin 180.

cc: Bill Devitt:

Richard E. Mieritz
MINING CONSULTANT
307 E. INDIAN SCHOOL RD.
PHOENIX, ARIZONA
AMHERST 5-1607

January 8, 1958

Mrs. Rose Nunenmacher
Room 200
Mayfair Hotel
1256 W. 7th
Los Angeles, California.

Dear Madam:

Enclosed herewith is the original of my Geologic and Engineering Report on the Marcotte Barite Property in Graham County, Arizona.

Preparation of this report was authorized by yourself while we enjoyed a very delightful conference here im my office on this Monday last.

I have mimimized the report as much as possible without jepordizing the useful and justified information commpm to reports of this nature.

It is very gratifying to work for you and I do wish my services may again soon be required.

Sincerely yours,

R. E. Mieritz

Richard E. Mieritz
MINING CONSULTANT
307 E. INDIAN SCHOOL RD.
PHOENIX, ARIZONA
AMHERST 5-1607

January 8, 1958

Mr. Dale Hutchenson and
Sieven Incopporated
7044 E. Thomas Rd.
Scottsdale, Arizona

Gentlemen:

Enclosed herewith are four copies of my Geologic and Engineering Report on the Marcotte Barite property in the Clark Mining District, Graham County, Arizona.

This report was authorized by Mrs. Rose Nunenmacher of Los Angeles, California. The original of the report has been sent to Mrs. Nunenmacher.

Very truly yours,

R. E. Mieritz

ccMrs. Nunenmacher

GEOLOGIC and ENGINEERING REPORT

on the

MARCOTTE BARITE PROPERTY

in the

CLARK MINING DISTRICT

in

GRAHAM COUNTY, ARIZONA

by

R. E. Mieritz, P. E.
Mining Consultant
Phoenix, Arizona

January 8, 1958

CONCLUSIONS

Having briefly examined the Marcotte Barite property in Graham County, Arizona, the writer can conclude the following:

(1)-Geologic conditions in evidence indicate barite mineralization of good quality is available from the property,
(2)-An estimated 900,000 tons of 90% barite is inferred based on the present surface exposures and inaccessible near vertical shaft,
)3)-The property must be explored before a decision to operate or purchase is finalized, and
(4)-Beneficiation of the material by processes other than those using water should be investigated.

PROPERTY

The Marcotte Barite property consists of 12 contiguous unpatented lode mining claims known as Marcotte Numbers 1 to 12 and are located in Sections 13, 14 and 24 of T. 8 S., R. 21 E. of the Gila and Salt River Base and Meridian, in the Clark Mining District, Graham County, Arizona.

These claims lie in the southwest foothills of the Graham Mountain Range, approximately 34 miles by road southwest of Pima, a railroad loading ramp eight miles northwest of Safford, County Seat, Arizona. Travel by car from Pima is over 7 miles of paved highway 70, then 18 miles over a good graded County maintained gravel road and 9 miles over a narrow ranch type road.

LOCAL GEOLOGY

Barium, occuring as the mineral barite, is observed as moderately defined vein stringers and fissures in a host of Tertiary volcanic rocks. The thickness of the volcanic rocks cannot be stated at this time but a vertical relief difference between the property and the nearby Aravaipa Valley to the southwest is some 400 to 500 feet.

MINERALIZATION

The barite mineralization is thought to occur as a fissure filling of the cooling cracks developed in the

volcanic flows in the area. Two prominent parallel "veins" striking N. 45° W. with near vertical dips outcrop naturally in several places along their strike and are exposed in a few more places by man made cuts and holes. The major and most northerly vein was traced on the surface by the writer for 2000 feet from southeast to northwest. Barite float was noticeable in the distances beyond this point but was not personally examined. The minor structure, some 700 feet south of the major vein, was traced for some 900 feet from southeast to northwest.

Surfacewise, the general expression of these veins is not overly impressive. Width, 4 to 24 inches, massiveness, solidity or completeness of mineralization, is for the most part lacking; the vein material assuming a network pattern within the walls of the cooling cracks. Inclusions of waste, volcanic fragmental horses, were evidenced at least to a depth of 10 to 12 feet below the surface. The encouraging feature of the structures however, is the great continuity and consistant moderate strength along their strikes.

The depth to which this network condition might exist is not predictable. Erosional relief on the property suggests at least 75 feet. This is not a discouraging feature since the writer is of the opinion that the network is a reflection of the rapid cooling of the near surface portion of the flow, that is, the then existing surface very closely approximates the present surface. At depth, it is likely the network type mineralization can easily resolve itself into one of massiveness, one of sufficient width for proper mining and one of greater purity but with an occasional horse of waste.

Rumors have it that the near vertical shaft and its two (?) levels; sunk and drifted on the major vein near its eastern limit, encountered barite mineralization its full depth of 400 feet. Barite widths to 18 feet were also indicated. A caved shaft collar renders the shaft inaccessible at this time.

Except for the shaft described in the previous paragraph, additional development is limited to small, shallow trenchs or pits, excavated primarily as the discovery shafts.

ORE RESERVES

Any ore reserve assigned to this property at this stage is dependent to a large extent on the unrealistic desire of the individual. With the evidence at hand as

a result of the brief examination, the writer can infer 877,000 tons of barite before beneficiation. This figure is a resulting tonnage from the two veins, the dimensions for the major and minor structures being as follows: 3000 feet long, 300 feet in depth and 6 feet wide; 1200 feet long, 100 foot depth and 6 feet wide. A cubic foot per ton factor of 7 was used. The barite content of this reserve should approximate 90% or better. This grade estimate is the writers opinion, no samples had been taken.

EXPLORATION

Exploration of the property is definitely warranted and should be completed before any purchase or operation of the property is justified.

The objective of the initial exploration would be to determine and substaniate the existance and character of the barite mineralization at depth of the two prominent "veins" in evidence on the surface. The only penetration to depth is the near vertical inaccessible shaft whose rumored depth is 400 feet. Consequently, other penetrations or intersections must be made. Moreover, any exploration work completed within the confines of the dimensions indicated for the inferred reserve will, if successful, convert the inferred reserve to indicated, thus allowing added inference beyond the limit of indication.

Three avenues of exploration must be completed, they being in the order of their importance and prerequisitive value, (1) repair the near vertical shaft collar and any additional repair necessary to permit accessibility for examination, (2) bulldoze intermittent trenches across the structures and (3) diamond drill large diameter angle holes from strategic locations along the strike to intersect the veins at depths of 200 and 400 feet.

Simultaneous with this program must be included the necessary surface geologic mapping and surveying for good control on direction and angles of drill holes for desired target intersections.

Some eight holes for a total footage of 3000 feet of drilling is necessary. Three shallow holes and two deep holes should be spaced at 500 foot intervals along the strike of the major structure. Two shallow and one deep hole should be spaced at 400 foot intervals along the strike of the secondary structure.

An estimated expenditure to complete the exploration

program as outlined may approach the following figures. The costs are based on normal rental and contract prices.

Shaft Repair--Labor & Materials	$ 2,000.00
Trenching and some roads D-8 @ $18.00/hr-2 weeks	$ 2,000.00
Diamond drilling 3000 feet @ $10.00/ft (Includes extras, sampling, core boxes)	$ 30,000.00
Professional supervision-Mapping, etc	$ 3,000.00
20% contingencies	$ 7,500.00
Total possible expenditure	$ 44,500.00

Barring too frequent delays in diamond drilling with one drill, the entire program should be completed within two months to ten weeks. Two drills should of course cut the time in half, or nearly so, five to six weeks.

MINING

Mining of the ore should not present any great problem since the barite is readily distinguished from the waste rock and the walls of the veins are such that they should stand very well making for easy stoping and high daily production. The weight factor of barite may however require that timbering be done if a mining width of more than 6 or 7 feet is encountered.

Inspection of the shaft will render its fitness for use in a mining operation. It must be sufficiently sound to support a three ton pay-load per skip to attain and maintain a 6000 per month production.

Except for hoisting, the mining cost should not be excessive once the stoping areas have been prepared. A n in the bin price on the surface should not exceed $4.50 providing a minimum amount of timber must be done. Excessive timbering will add approximately a dollar per ton.

MILLING

Beneficiation of the material here mined is a re-

quirement for production of a marketable product, particularly if the product is to be petroleum drilling mud.

Flotation test conducted by the Bureau of Mines in Tucson, Arizona indicated recoveries of 60 to 62 % with a resulting gravity of 4.3 to 4.45. Installation of a flotation mill at the property would require an expensive water development program. Water in the area is at a high premium and the cost of such development might be prohibitive. For this reason the writer suggests the material should be metallurgically tested by dry - gravity or sink - float processes to determine their adaptability as a means of a possible mill installation at the property for the production of a marketable product at the mine.

RECOMMENDATIONS

The following recommendations are herewith provided for your consideration.

(1) Complete the exploration program as outlined.
(2) If successful, conduct metallurgical tests employing processes which do not require substantial amounts of water, and
(3) Lease or purchase the property on suitable terms and put into production if the marketing of the product has been investigated and found to be of an assured life for the next ten years.

Respectfully submitted,

B. E. MIERITZ

Richard E. Mieritz
Mining Consultant
Phoenix, Arizona

January 8, 1958