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#### ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: SILVER QUEEN CLAIMS

**ALTERNATE NAMES:** 

YAVAPAI COUNTY MILS NUMBER: 885

LOCATION: TOWNSHIP 9 N RANGE 1 W SECTION 16 QUARTER NW LATITUDE: N 34DEG 07MIN 25SEC LONGITUDE: W 112DEG 22MIN 35SEC TOPO MAP NAME: COPPEROPOLIS - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

SILVER LEAD **COPPER** 

**BIBLIOGRAPHY:** 

ADMMR SILVER QUEEN CLAIMS FILE CLAIMS EXTENDINTO SEC. 17

Jack Hughes, 3206 N. 30th Street, Phoenix, who, with Frank Moore, 6738 N. 11th Place, Phoenix, is leasing the Silver Queen Mine, Tiger District, Yavapai County, stated that they had driven the tunnel in 45 feet and that the entire width was mineralized from \$9 up to \$75 per ton. He was advised to continue the drift along the  $2\frac{1}{2}$  foot vein, but at the same time the vein could be mined for finances to continue the work. This tunnel was recommended by me after a visit to the mine in late May. LAS WR 7-15-60

Earl Button
Ben Benson
Robert Perkins
Phil Hallabrin - 3002 N. 23rd Ave.
Phoenix

Lease to Hughes & Moore and have least & option from Palmer, owner. Hughes & Moore have option to buy from Palmer if group does not take up option expiring Sept. 1, 1960. FPK

Sax. Chambag God Proporty (file) Yourgain

July 28, 1960

AM 5-11,59

Mr. Frank Moore Mr. Jack Aughes 6738 N. 11th Place Phoenix, Arizona

#### Gentlemen:

Herewith, my report of your Silver Queen Project which is based on the result of a brief examination completed on July 20th and 27.

Objectives of the examination were to (1) evaluate what has been developed to date and (2) to determine what future potential may possibly exist within the confines of the property and (3) whether additional sums of money should be expended to develop such possible potentials.

The examination included a general inspection of the surface outcroppings, observation and detail geologic mapping of the underground development thus far completed as well as a limited amount of sampling for use in evaluation. A geologic map of the underground workings is included as part of this letter report.

Such details as accessibility, facilities, etc will not be discussed. The Silver Queen property consists of three claims in the Tiger Mining District in Sec. 16 and 17 of T. 9 N., R. 1 W.

#### CONCLUSIONS and RECOMMENDATIONS

The following conclusions and recommendations are a result of the writers personal examination of the property and his knowledge of the mining district enhancing the Silver Queen property.

- (1)- Sufficient development as a surface pit and an 80 foot adit has been completed to suggest to the writer the type mineralization common to the property as well as the grade of such mineralization.
- (2)- The mineralization encountered, or that to be encountered with future development, is not of sufficient

dollar value per ton, even with hand sorting, to return the cost of the development, much less, earn a profit for the operating unit.

- (3)- To adequately develop a project which might be profitable on a large scale will require an estimated \$80,000 or more exploration program and if such is successful, an additional \$200,000 program of mill construction and mining equipment would be required.
- (4)- Geologic evidence, sampling, prevailing economic conditions all contribute to the writers recommendation that no further work be done nor additional monies be spent except such expenditures necessary to remove all your equipment and supplies from the property.

#### GENERAL GEOLOGY and MINERALIZATION

The Silver Queen property hosts the Yavapai Schist which is common to the Bradshaw Mountains. Except where locally distorted, the schist trends N. 50° E and dips 60° NW. The general area is not without the usual pegmatic dikes, andesite dikes and shear zones.

Mode of mineralization at the Silver Queen prospect is not of the usual variety common to the NE, SW trending "Bradshaw" zone which more or less extends from Morristown to Jerome. The common type mineralization includes sulphides of copper, lead, and zinc with varying values of silver and gold, all hosted in a strong siliceous gangue.

Mineralization at the Silver Queen is lead sulphide (galena) (some oxidation) and erratic silver values which are all confined to a "shear" zone cutting the Schistose country rock almost at right angles (about 85°). Other mineralization within the "shear" zone is black magnetite and barite (barium sulphate), both of which exist as fracture filling material; the magnetite occuring principally as a narrow "fissure" zone favoring the footwall of the "shear" and paralleling same in strike and dip. Lead and silver values have sporadically impregnated this 1.5 foot average width iron-baritic zone and such dollar-wise values may range to \$35.00 per ton. Isolated "hot" spots would occur, but will not be the rule. Observed evidence, in the adit, as irregular walls, rock fragments, etc, suggest the encountered ore shoot occupies an old water course.

A similar dollar-wise, 2-3 foot zone of lead-silver-barite mineralization favors the hanging wall of the iron-barite zone. Isolated "hot" spots will also occur in this zone and could be more numerous, however, not of sufficient frequency to greatly improve the dollar-wise value per ton to guarante a "dollar-swap" venture, much less a profitable venture.

Observation of the geologic evidence in the small surface cut, some 25 feet vertically above the adit, and the geologic evidence in the adit itself, suggests that such ore shoots encountered or to be encountered will be (1)-relatively narrow in width, (2) relatively short in strike length and (3) generally elliptical in shape, both horizontally and vertically. (See Geologic Map attached) Thus, great tonnages cannot be expected from any one single shoot. Upgrading by hand sorting or cobbing will further reduce the quanty of possible direct shipping ore.

"Hot spot" ore is characterized or recognizable by the greater abundance of lead sulphide (galena) but more so by the presence and abundance of the orange-yellowish brown amorphous material, no doubt containing oxidation compounds of iron, lead and silver. Barite appears to be in greater abundance in this type ore moreso than in the lesser value ore, thus, creating a more difficult hand sorting operation.

#### ECONOMIC EVALUATION

The Silver Queen project is so situated that any ore mined must bear, besides the normal mining and smalter charges, a heavy transportation charge to the nearest lead-silver smelter at El Paso, Texas. This charge alone for small lot (15 ton) truck shipments is about \$28.00 per ton. Were truck haulage to Morristown and rail shipment from there to El Paso used, the charge would be reduced to about \$19.00, still a pretty stiff charge against the ore.

Smelter charges, taxes, assaying, etc would average about \$15.00 per ton--providing the barite content is less than 5%--greater than this amount would result in non-acceptance by the smelter. Maintaining a 5% or less barite content would in the writers opinion, require a very tedious, time consuming, costly hand sorting operation.

An over all operational cost should approach \$30.00 per ton or more depending on the ore to waste ratio, the extent of the hand soring operation, waste removal, mining, etc. Thus, each ton of ore mined must have a dollar value of \$50.00 as a minimum for a break-even venture if the cheaper truck-rail shipment were used.

Based on the above freight and general charges, the economic conditions surrounding the Silver Queen project; are not in a favorable position for the production of a direct shipping product.

#### POTENTIAL of PROPERTY

The potential of the property must be considered both

geologically and metallurgically. It is very likely that additional "ore" shoots could be developed which are similar in character to that presently exposed in the existing workings. Same will contain "hot" spots, however, future "ore" shoots should not necessarily vary dollar-wise in value to any great extent. Thus, a limited tonnage potential exists that could be considered as a direct shipable ore. Moreover, because of the erratic geologic-mineralization conditions, much development expense would be incurred attempting to explore for possible existant "ore" shoots. Therefor, considerable financial reserve must be available to adequately promote the project.

The sampling evidence indicates the present "ore" shoot as well as perhaps future shoots would average dollar-wise approximately \$20.00. Available potential tonnages in this value range are thus greater, but metallurgical processing would be required to obtain an acceptable, saleable clean product, in other words, milling by gravity and possibly flotation, to upgrade the crude ore to an excellent concentrate. Consideration of such a project necessitates that sufficient "ore" reserves have been indicated to carry the project for five years or more. Again, the requirement of a considerable financial reserve for development as well as the added expense for mill construction.

All in all, the writer feels the Silver Queen property singly can not provide the required potential in either the above considered instances.

#### SAMPLING

The writer took five samples of exposed mineralization in the present workings. Three samples (101-103) were taken in the adit and two samples (104,105) were taken in the surface cut above the adit. Samples 101 and 104 respectively represent the magnetite-barite zone exposed in both the cut and adit. Samples 102 and 105 respectively represent a zone on the hanging wall of the magnetite-barite zone. Samples 101 and 102 (adit) are vertically below samples 104 and 105. Samples 103 (adit) represents mineralization at a point of the ore shoot where the magnetite-barite zone has pinched to a mere 2 inch width.

Results of these samples are tabulated below:

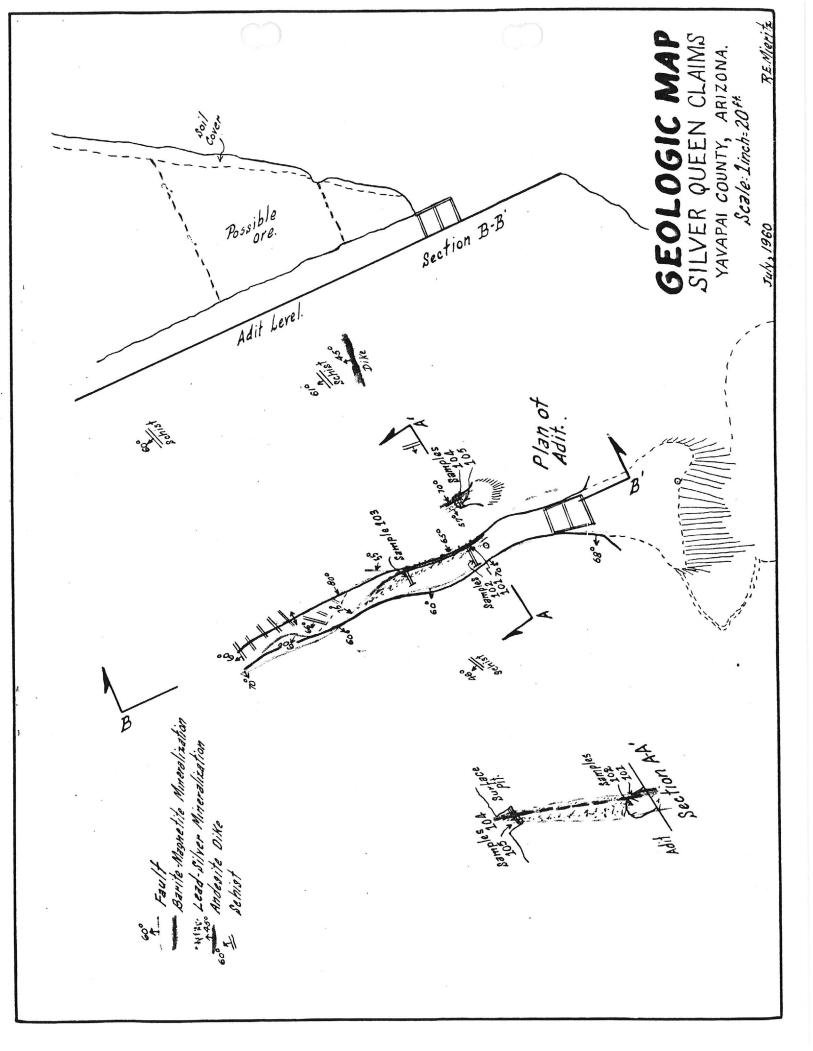
Sample	Width	Remarks	% Pb.	Oz. Ag
101	0.8ft.	27' in from portal,	1.0	0.98
		Magnetite-barite zone		1
104	2.Oft	Surf. cut. Mag-Bar.zone	4.1	8.59
102	4.5ft	27'in from portal, HW	0.9	0.52
		zone, back of adit	*	/ j
105	1.5ft	Surf. Cut, like 102	0.7	0.55
103	4.Oft	41' in from portal,	1.5	1.43
		across back		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \

The assays were made by Hawley and Hawley of Douglas, Ariz.

All samples taken are character samples to provide clues as the guide to the value of the mineralization. Lead mineralization and an estimate of its content is quite easily determined visually, whereas silver content is extremely difficult to forcast. All samples were cut using a  $l\frac{1}{2}$  inch chisel cutting a channel approximately  $\frac{1}{2}$  in.in depth.

Respectfully submitted,

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



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#### AMERICAN SMELTING AND REFINING COMPANY

SOUTHWESTERN ORE PURCHASING DEPARTMENT
803 VALLEY NATIONAL BUILDING
TUCSON, ARIZONA

REED F. WELCH MANAGER July 18, 1960

Mr. R. E. Mieritz 526 West Roosevelt Phoenix, Arizona

Dear Dick:

I have your letter of July 17 stating you expect to look at Mr. Hughes Silver Queen Mine in Yavapai County. When Mr. Hughes was in my office last week I advised him that ore containing very much barite must be avoided in the lead plant and I am interested to know the BaSO4 content in the samples you cut.

Mr. Hughes reported he had ten to fifteen tons of cobbed ore which he identified as galena. If this has been properly sorted no doubt the barite has been eliminated. I shall appreciate your sampling the sorted ore so that I may know the value of that product.

I understand that Hawley & Hawley will be instructed to send me copy of assay certificates showing results of your sampling. When I have the assay information I shall be glad to advise regarding purchase terms and outcome.

Lours very truly,

REED F. WELCH

cc:Mr. Jack Hughes c/o Mr. Frank Moore 6738 North 11th Place Phoenix, Arizona Hawley & Hawley, Assayers P. O. Box 1060 Douglas, Arizona

Centlemen:

Under separate but simultaneous parcel post I am forwarding to you one package containing five samples of crude ore all of which are to be assayed for silver and lead.

Each sample is identified with a slip of paper on the inside of the paper bag as to sample number, what is to be assayed, as well as my name.

The cost of assaying these samples are to be charged to Mr. Frank Moore, 6738 North 11th Place, Phoenix, Arizona. Mr. Moore is writing you today.

Because of the nature of the type mineralization I would very much appreciate if you will crush the entire sample, <u>DO NOT QUARTER</u> before pulverizing, but pulverise the entire sample and then after pulverizing, <u>roll</u> the entire sample fifty times. Please make sure these instructions are followed.

Please send a copy of the assay results to me at the above address, the original can be sent to Mr. Moore.

Thanking you in advance, I remain,

Sincerely,

R. E. Mieritz, P. E.

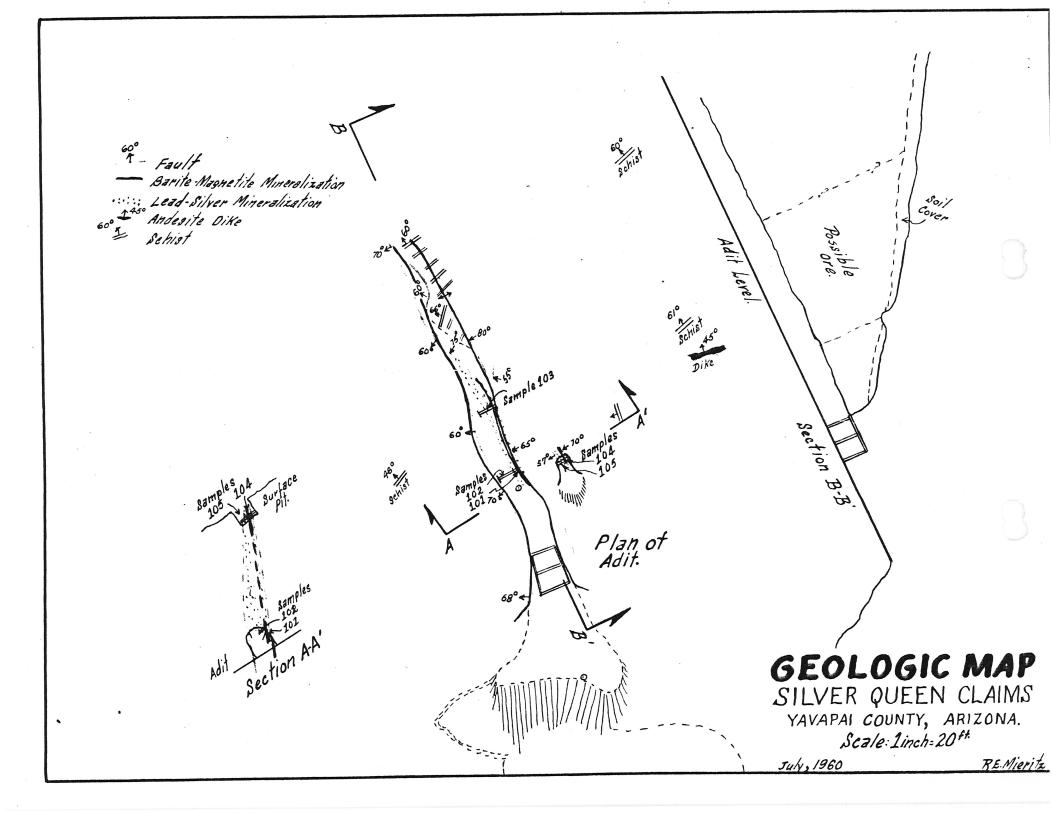
Co: Mr. Moore

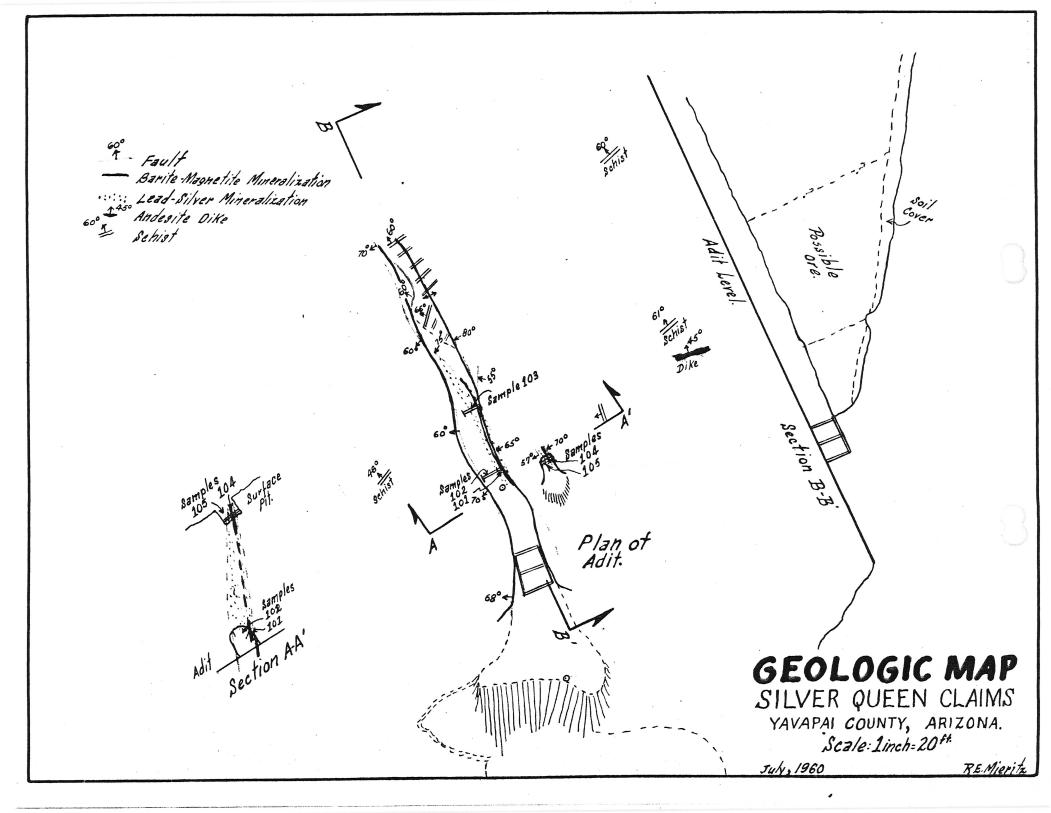
## Research report of Property A

Bradshaw Grad. Selver Mountain Distrect. Youapai County Prescott aris. Eleven mines of Crown King. ine) 1907 = as pacific capier mining Co. 30 patented Claims 10 of them with Clear titles or Deeds to 203.35, acres, has shaft of 500 ft. tunels and Cross Cuts on 450 ft. level, of 3500 ft. Blocking aut 7500 loves of one, all of this reportes in government records, ore on Dung estimated at aprox 65000d tons, Will run fram \$1,00 to 23,00 per tan of 3 to 9 % Coppere aprox. 90 03. Dilur, Dame Gald. 4.5.6.5. Report of property. Pacific mine Shows form blend phose of Manapai Dehist Josephyry Dibes of 50 to 150 peet in width, Carying 3 = contacto Deposito, one 9 ft. 2-14ft. MO Of 25 ft. no 3 traced 3000 ft. with north east strike, gassams of 100 to 500 ft width ore much Teached. Carying honey combed Hemotite; Lamanite, with Capsu Carbanationes melochite and agurite at and near surface, after 50 ft runs Dulphide Jone, Carying Chalcocite Burnite and Choles Pyritis orea) run fram 3 to 15% copper. Dameashigh as 30 90 and up to as light as 240 ounces of fine Deliver and 0.2% to 23. of folk per tun.

# U.S. 6.S. Report 1916 B.

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### DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Silver Queen Claims

Date

May 27, 1960

Division Minass Di

Tiger District (Silver Mtn.) Yavapai Co.

Engineer

Lewis A. Smith

Subject: Mine Visit

Property: 3 claims (Silver Queen, Silver Queen #2 and #3).

Location: T. 9 N., R. 1 W., S. 16-17 ( $1\frac{1}{2}$  miles SE of Silver Mountain). The property adjoins the Pacific Mine on the southwest side.

Access: (a) By means of Morristown - Castle Hot Springs road, thence northeast past Champie Ranch and thence 8 miles north to Humbug Creek (Total 32 miles).

(b) 4 miles north of New River (Black Canyon road), thence right for 28 miles northwest (crossing Agua Fria River, 9 miles, and thence up Humbug Creek to near mine).

Owner: W. L. Palmer, Castle Hot Springs route.

Lessees: Jack Hughes, 3206 N. 30th Street, Phoenix. Frank Moore, 6738 N. 11th Place, Phoenix.

(The lease is for 20 years.)

Work: A road from Humbug Creek (2 miles) was constructed by W. L. Parker (1930s) to the mine at a cost of \$15,000. This road has been roughly repaired by Moore and Hughes who employed an R. D. 4 Cat for the work. Moore and Hughes opened up two shallow pits on the vein. An old adit (15 feet) is still open but this missed the vein. This old adit lies 30 feet below the first new pit and it was suggested that this be extended to intercept the vein. It will have to be turned to the right at a flat angle. This will cost much less than a new adit further down the hill, which had been previously recommended. If the short crosscut encounters ore, then the lower adit would be advisable.

Mineralogy: The ore consists of platey barite intermixed with argentiferous galena. The material is impregnated with a chocolate colored relief limonite which is most characteristic of the oxidized sulphides. This may be a derivative of argentite. Black limonite, which shows some indications of tetrahedrite, shows in some fractures. This may indicate that copper may replace the lead-silver in depth. The barite in the more massive places is in strongly plated aggregates. These portions seem to be less mineralized by silver and lead than the less platey areas.

Geology: The area consists of a series of schists (Yavapai Formation). From the easternmost point on the mine road into the mine (3/4 mile), the observer passes a thin bedded sericite schist belt, thence a quartz-mica-schist belt, and finally for at least 300 feet, coarse bedded hornblende schists. The latter extend northwestward for at least 1000 feet past the workings. The general trend of these schists is roughly N 30° E and the laminae dip 60 to 70 degrees to the northwest. Considerable local distortion causes some divergences from this general strike and dip. A greenish dike is cut by the road at about 250 feet southeast of the working. This was intensely weathered but could be diabase or diorite. It apparently does not seem to have

influenced ore deposition. The schist belt is cut by two converging shears one of which is occupied by a glassy white limonite-stained quartz and the other is occupied by barite containing lead and silver. The latter barite filled shear is softer than the country rock and follows a series of saddles in the ridges, the crests of which project toward the southwest. The barite filled shear trends N 30° W and the hangingwall dips 750 to the southwest while the somewhat indefinite footwall (as shown in the first new cut) appears to dip 45-500 to the southwest. The barite exposures can be traced intermittently for 1000 feet on the surface, and another 1000 feet is indicated by the saddles. The vein exposure in the upper cut (in the saddle) is about 4-5 feet wide and is reported to run 9% lead with a little silver. The exposure in the first new cut shows 2 feet of \$45.00 ore and  $2\frac{1}{2}$  feet of \$175.00 ore (42% lead and about 70 ounces silver). The overall average here would approximate \$125.00. These samples were taken by the lessees. Further samples were taken under the direction of Lewis Smith. The quartz-filled shear tends to intercept the barite-filled shear a little northwest of the workings. The two shears are 65 feet apart at a distance of 150 feet to the southeast. A sample of this quartz was taken. At this place the quartz was at least 10 feet wide. This quartz is quite different from the pegmatitic quartz which trends parallel to the schist laminae and which bulges the schist out much like peas in a pod. Some of these quartz lenses are up to several feet wide. The prospect appears to have potential and is worth some work. The leaching of silver from the outcrop is evident and there may be increased silver in depth.

To the east, south and southwest, a few miles, the pre-Cambrian plunges under a thick series of mostly horizontal lake beds and Tertiary volcanics. The presence of a volcanic center between the mine and the Agua Fria River was seen. This spewed basaltic scoria over the previous flows and lake beds in haphazard fashion. These volcanics thus form a great crescent from Wickenburg around the Bradshaw pre-Cambrian rocks toward Jerome, forming the mesas north of New River. The series appear to have been formed in the following order:

1. Pre-Cambrian complex

2. Andesitic flows (purple to gray) (tilted to various degrees).

3. Unconformity in lake deposited tuffs (white to gray)

4. Agglomerate (rhyolitic)(contains schist, granite, andesite fragments.)
5. Gravel deposits (hard and firmly consolidated)

6. Soft lake tuffs (buff colored)

7. Slight unconformity.

8. Rhyolite (red stained and somewhat glassy in places). The rhyolite is locally prominent but is absent in places, being most prevalent near the volcanic center.

9. Slight unconformity.

10. Hard cliff forming white lake tuffs (may have been silicified)

11. Late Amygdaloidal alivine basalts and scoria.

The earlier flows (andesite, agglomerate and early tuffs) have steep dips in places and were severely disrupted by faulting.