CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
416 W. Congress St., Suite 100
Tucson, Arizona 85701
602-771-1601
http://www.azgs.az.gov
inquiries@azgs.az.gov

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Near Chloride
4 RR

Henry Kehoe E.M. report.

Copy of

REPORT MADE ON KEYSTONE MINE

CHLORIDE, ARIZONA, MAY 15th, 1918

I have made an examination of the Keystone Mine and herewith submit the result:

LOCATION:

The property is situated in the Cerbat Range and about 2 miles southwest of the town of Chloride, Mohave County, Arizona, at an elevation of 4,500 feet above sea level.

The Chloride branch of the Santa Fe Railroad is within two miles of the property, and Keystone Station is the loading place from which Golconda concentrates are being shipped daily and from which Keystone ores will be sent out.

The Keystone property is situated in theCerbat Range, which has a trend of about 60 degrees North and 27 degrees west and runs through and constitutes the entire Wallapai District, which is just now attracting so much attention. The topography is that usually caused by the erosion of granite cut by ravines and canyons.

The country rocks as given by F. C. Schrader of the U. S. G. S. in Bulletin 397, consist of pressed and crushed Microline, biotite, granite, and this is intruded by diabase and granite dikes in or near the property, the diabase apparently being the later of the intrusions.

The Keystone Group consists of four claims, viz: Keystone, Keystone Extension, Pennsylvania and Copper Domingo. The Keystone is the only one patented. The others are held under location and are properly surveyed by Deputy Mineral Surveyor, corners well marked and staked. In all approximately 60 acres, and located midway between the famous "Tennessee" and "Golconda" mines with the same formation and apparently on the same belt.

CHARACTER OF VEINS AND DEVELOPMENT:

There are two distinct and separate veins running parallel with each other and dipping about 80 degrees Northeast. The main vein has a width of from 25 to 30 feet on the surface, and crosses the property for 3,000 feet in length, and the outcrop is traceable the entire distance. It is a quartz fissure in granite, cross-cut in places with Deorite dikes which does not cut out or cause a discontinuance of the ore chute as has been proven on the 150 ft. level.

The mine is developed by perpendicular shaft 250 feet deep and is now being put down to 300 feet deep. Drifts have been made in the vein both ways from the shaft on the 100, 150, 220 and 265 ft. levels. The original early day owners who located and worked these mines in the early sixties, from good and reliable information which I have obtained, shipped more than $100,000 worth of high grade silver ores, beginning on the surface. The ore was rich enough to cause them to take it by teams to the Colorado River, float it down to tidewater on the Pacific Coast, and send by sailing vessels to "Wales" for treatment. These ores were extremely rich and mined only for the gold and silver, some of it being masses of wire, and there are many specimens now in "Kingman" and other places in "Mohave" County which are kept as "souvenirs". These ores were shipped largely from the surface and from a drift on the vein at 100 feet depth as great stopes are shown from which large bodies of ore have been extracted.

These rich deposits of silver and gold with depth of from 150 to 200 feet developed into high grade sulphides carrying lead, copper and zinc, and until recently could not be separated by old methods. On the 150 ft. level a drift was run to the Northwest for 400 feet in the vein which was cross-cut by Diorite, which did not injure or cut off the ore chute, and which is still exposed in the

face of the drift and is very high grade. Samples from this chute gave me 40 ounces silver, $6.00 gold, 8% zinc and 1% copper. Stoping has been done, however, and the ores "high-graded", but a large tonnage of zinc ores are left in the mine on this level. On the 220 ft. level a new drift is now being run both ways from the shaft and is in ore, thus far 50 feet in length; the same body as above and virgin ground. The average width of this ore body is 4 feet and some of my samples gave me 60 ounces silver, $4.00 gold, 10% zinc and 2% copper.

At 250 feet depth a drift is also being run and the same ore body as above has been exposed, and some samples from the face of the drift gave me 50 ounces silver, $4.00 gold, 10% zinc and 3% copper, which proves increase values with depth.

The shaft is now being sunk to the 300-ft. level, where drift will be run both ways. The formation shows permanency and the ore chute as exposed on the 150-level is very extensive.

There are at present two large ore "dumps" on the surface; one of approximately 10,000 tons, which has been assorted, hand picked and "high graded", and screened, many times. My samples from this lot gave me $10.00 in gold and 12 oz. silver and 5% zinc. The other "dump" contains approximately 2,000 tons of very fine ore which samples 89 ounces silver, 11% zinc, $7.00 gold and a small amount of copper. This lot has been carefully taken out of small stopes from rich stringers which were left on the 150-ft. level. (This ore has since been shipped.)

With the same ore chute on the 200' - 250' levels on which work is now being done and all in ore, the same body as above, you will have approximately 50,000 tons, which, together with the ores referred to on the surface, will give you over 60,000 tons.

It has been demonstrated that these ores are exceptionally fine for treatment by the "flotation" process. Six large lots have been shipped to and tested by reliable experts, and about 95% of the values have been recovered.

But little timbering is necessary in the mine. The pump handles at present but 12,000 gallons approximately, every 24 hours.

The "Tennessee Mine" on the northwest in the same Range and nearby, with the same general conditions, is now producing a very large monthly profit and are taking their ores from the 1200-ft. level. (This mine was worked to depth of over 2000 ft. and paid over 12 million dollars in dividends.)

The "Golconda" on the southeast, in the same Range and nearby, and with the same general conditions, is working on the 700-ft. level and running a large "flotation" plant and also earning a very large monthly profit. Both these properties have had greatly increased values in sulphides, I am told, below the 300 ft. level. (This mine worked to a depth of over 1000 ft. and paid over five millions in dividends up to the time their mill was destroyed by fire.)

The Keystone ores are much richer than any others on any property which I have examined or sampled in this district, and I have investigated a great number. I feel justified in saying that I consider the Keystone a fine property and the possibilities for the future are indeed very great.

Yours truly,

Extracts from three separate reports made by Engineers