

Royal Regent or West zone

The Royal Regent or West zone lies about 2 miles west of the town of Rawhide mostly in hilly or mountainous country of the Cone Mountains, figure 54 (photos 27 and 28). It has a length of about 2 miles and is nearly a mile wide. It extends from the Rawhide Regent mine and camp on the north south-southwestward to the Ruby Queen group. Prominent hills or land marks situated in or near the zone beginning on the north are Crescent Peak, Black Eagle Hill, Bullsken Mountain, Chicago Mountain, and Pilot Cone, figure 54 (photos 27 and 28). The country rock in the eastern part of the zone is chiefly Cone Mountains rhyolite, while in the western part it is andesite as described under geology.

Deposits

The deposits are nearly all Tertiary and occur chiefly in the volcanic rocks which have been described mainly in the Cone Mountains rhyolite and in the andesite. Their precious metal is chiefly gold in which some of them are very rich due to process of secondary enrichment. The mines and prospects beginning on the north include the Regent, the Black Eagle, Gray Eagle, Bullsken Mountain, Penglaze, Indiana, Royal Tiger, Royal Mines Company, Wonder King, McMann, and Steinheimer groups.

Regent mine

Location--The Regent mine, owned by the Virginia Hills Mining Company of Reno, is located at Regent 2 miles northwest of Rawhide, in what was formerly known as the Regent district. It is at the edge of the wash at an elevation of about 6,000 feet in low foot hills a couple hundred feet high at the outer edge of the Rawhide Mountains that overlook a broad expanse of detritus-filled Terrell Valley, figure 52 (geologic map), and figure 79 (photo 20).

History and production--The production of the property by 1922 was said to be \$150,000. Mineral ground was first located here by J. M. Schadler and the Regent property, now consisting of about 20 claims, figure 30 (claim map), was first located in December 1905. In February 1906, with only location work done on it, it was sold to a syndicate in Coldfield for \$55,000 which put down a 100-foot shaft on Czar Hill, but did very little else.

Later the property was subdivided into lease blocks, but owing to the financing stringency of 1907 the lessees were unable to do much development work. Some high-grade silver ore was taken out on Czar Hill near the apex, and some from the McKinley vein and shaft.

The property as a whole was located by later owners in June, 1911, but no material work was done until the fall of 1912 from which time till the close of 1913 the Groskey-Regent Gold Mining Company of Rawhide mined, shipped, and milled ore, and there was also three sets of lessees working on the property taking out both shipping and milling ore.

The total production at that time was \$35,000 of which about \$12,000 came from the Ozar lease; \$12,000 from McKinley shaft; \$2,000 from the Johnson vein in Silver Spring Hill, and \$3,000 from other leases. The ore was said to run about \$29 to the ton and that which was then being shipped to the Nevada New Mines Company mill \$40. In value, it averaged about 90% in silver and 10% in gold.

The total amount of development at that time was 2,400 feet of work extending to the maximum depth of 160 feet, with a good 2- to 3-foot vein of .7 ore in the bottom of the workings.

With the facilities then afforded by the operation of the Nevada New Mines Company's mill, the Regent mines could handle \$15 ore, but not ore of much lower grade. The ore haul was about $7\frac{1}{2}$ miles gently down grade from Regent to the Nevada New Mines Company mill. On completion of the New National or Black Eagle mill then building, the haul was later reduced to about 3 miles, which enabled a lower grade than \$15 ore to be worked.

In 1917 the property was acquired by the Mogul Mining Company, representing eastern capital.^{10/}

^{10/} Mining and Scientific Press, April 28, 1917, p. 596.

In February 1919 it was incorporated as the Seminole-Regent Mining Company with a capitalization of \$1,000,000 and headquarters at Reno. It was soon thereafter equipped with a 15-horse power gasoline hoist, compressor drills and the 125-ton Black Eagle mill. The mine was reopened in 1919 and was operating in 1920, at which time development work had been extended by a shaft to the 400-foot level and a crosscut driven there to cut the vein.

In 1923 the Seminole Regent Mining Company retired and by 1930 the property had been acquired by the Virginia Hills Mining Company of Reno, who, at that date, reported that for some time only assessment and a little lessee work had been done.

Geology--The geology at Regent is similar to that at Rawhide. The country rock is rhyolite which, in general, is light-brownish gray, fine grained, lithoidal or nearly dense. It is in part silicified, especially along the veins in Ozar Hill and Silver Spring Hill, particularly along the hanging-wall side of the Ozar vein, and shows other alterations and mineralization characteristic of the Rawhide rocks. The rhyolite is sheeted in an east-westerly direction and also variously crushed and subordinately sheeted in other directions. The flow structure and quartz banding in the rocks strike N. 25° E. and stand about vertical.

At about $1\frac{1}{3}$ mile west of Ozar Hill the rhyolite and wash give way to light-colored rhyolitic tuff, which is very calcareous and is possibly to be correlated with the tuff found at Pilot Cone and at the mill and flats to the south of Rawhide.

In places the rhyolite is cut by dikes of reddish gray Pilot Cone ? andesite, as just below the Regent-Schurz road forks where occurs a dike of this rock (spec. 272) 30 feet wide which is said to extend southerly to the Penglaze and Flynn mines. The rock is strongly porphyritic with large roundish tabular feldspar phenocrysts $3/10$ of an inch in average diameter which seem to have been replaced by calcite and other minerals. (Note. Have slide made of 272 a.)

Basalt caps a small north-south hill of the rhyolite at about $1/3$ mile S. 30° E. from Czar Hill and Regent. It is sheeted north north-easterly-south southwesterly about the same as in the rhyolite.

Deposits--The deposits of the camp are gold and silver. They are contained in 5 or 6 fairly strong veins ranging from 1 foot to 40 feet in width in the rhyolite including adjacent ore bodies replacing the rhyolite wall rock. They are about parallel, in general have a north-southerly strike (N. 15° E.) and steep westerly dip, figure 80 (claim map). They lie chiefly in Czar Hill and Silver Spring Hill. Those of Czar Hill are chiefly gold bearing, and those of Silver Spring Hill are chiefly silver bearing. Named in order from east to west the more important are the Czarina, Proskey, McKinley, and Czar Hill veins, to the west of which latter on the north is the Alexander, Maul, and Nye, and on the south in Silver Spring Hill, the Johnson and Josephine veins. The Annie Jane, a cross or east-west vein apparently about 1,000 feet in length, lies in low ground to the west of the middle part of the group.

The veins are in part fissure veins. They occupy fissures, fractures and fault zones. The gangue or filling (as shown in ore specimen 273), is chiefly quartz and altered silicified and replaced rhyolite, much of the rhyolite being flow-banded and the quartz conchoidal and glassy.

Barite as a gangue mineral is associated with some of the veins and deposits and is well and plentifully developed along some of the fissure wall faces, as seen in the Proskey vein and down the McKinley shaft (spec. 277 a). Here areas of the rhyolite wall rock 5 or 6 inches in diameter are overgrown with tabular sheets $3/10$ of an inch in thickness of barite in maximum dimension.

Banding is common and well developed, as shown in specimen 274 from the Proskey vein, where it is about 4 feet wide in the upper south slope of Silver Springs Hill, and in the rich ore (spec. 275) from the Johnson vein.

Croppings--The croppings of the veins and the adjoining silicified wall rock are in places prominent, standing 10 or more feet above the surface, as shown in Czar Hill, figure 79, and they are stained reddish brown and blackish with iron and manganese. In general the veins and ore are oxidized as deep as the workings extend, which is 400 feet, though there is commonly associated with the ore a little pyrite and in a few instances a little chalcopyrite, and in the Czar Hill deposits, as in the Czar vein, some antimony (spec. 276) is also present. It is regarded by the operators as indicating a decrease in gold values.

Strewn over the surface of the wash on the Seminole group and adjoining ground on the west occurs considerable good looking quartz float (spec. 277), mostly in scattered boulders, some of which range up to 4 or 5 feet in diameter, the source of which has not yet been determined, and seems to be puzzling, since on nearing the base of the mountains and hills on the southeast it ceases.

Some of the float resembles Ozar Hill vein croppings and ore, but the most of it seems to be different. Nothing like it has been found in the mountains on the south beyond Ozar and Spring Hills, which caused it to appear as if the float may have been derived from some vein or ledge on the Seminole group, all traces of which in place have apparently now disappeared by weathering and erosion.

The float in general carries high values in gold, which fact has aroused considerable interest in its source. Some of it is slightly greenish quartz and is pseudomorphic after spar, etc., and resembles the type of quartz, which for instance in the Catman and other districts in Mohave County, Arizona, carries good values. The float has led to prospecting by shafts on the David claim and adjoining ground of the Seminole group, but the results have not been encouraging.

McKinley or Big vein

The McKinley or "Big" vein lies about 200 feet west of the Prosskey vein in rhyolite. It is about 1,000 feet in length and varies from 3 to 40 feet and is opened to the depth of 400 feet. Its course is curved with the concavity facing westward in which direction the vein also dips at angles of about 60°. It is thought that it may join the Ozar Hill vein or be continuous with the Prosskey vein on the southwest.

At about 200 feet south of the shaft the Big vein and also the neighboring hanging-wall vein are faulted 100 feet or more to the east on the north side of the fault, from which point, however, the Big vein gradually curves back on its course and passing through the lower north-east slope of Ozar Hill extends beneath the wash on the northeast.

The vein is composed of quartz and replaced rock including some coarse boulders from 1 to 2 feet in diameter. Some of the quartz is of the glassy barren-looking type. The vein is said to have produced about \$25,000 worth of silver-gold ore, most of which ran \$30 to the ton and some \$200 to the ton, but the run-of-mine ore is only about \$12, the lowest grade that the company attempted to mine. One ore body about 7 feet wide is said to have run \$50 to the ton. The value ratio of the precious metal content of the ore is said to be about 90% silver and 10% gold.

The ore varies from very hard firm quartz and cemented rhyolite breccia to relatively soft phases of altered and in part silicified rhyolite.

In 1913 the vein had been opened mainly by the McKinley shaft 60 feet deep, started in the wash.

The shaft contained, on the 60-foot level, two 40-foot drifts, one each to the north and to the south and two stopes 20 feet in diameter in the hanging wall, showing the vein to contain the same characteristics, coarse bouldery faulted rhyolite and quartz lenses.

In 1920 the vein was being worked on the 200-, 300-, and 400-foot levels.

On the 200-foot level it was 30 feet wide and dipped with variations about 47° NW., and the ore in places was in part sulphide. South of the shaft the vein narrows and joins the hanging-wall vein.

On the 300-foot level, which contained 200 feet of work, the vein is 35 feet wide and has about 3 feet of gouge on the hanging wall. It had been opened mainly by a drift extending 150 feet north of the shaft. A general specimen of the ore (spec. 677) is siliceous and wuggy and is largely composed of silicified and in part brecciated and replaced rhyolite, with dark or blackish bodies containing argentite, and gold.

On the 400-foot level the vein lies 175 feet west of the shaft, where short drifts had been run both north and south showing banded quartz ore. It is about 12 feet wide, strikes N. 40° E., and dips with variations 47° NW., but much of the hanging wall stands nearly vertical. Some of the ore consisting of crushed and silicified rhyolite cemented with a network of secondary quartz-adularia veinlets is pyritic with finely disseminated pyrite and blackish grains and small bodies of argentite (spec. 678). At 200 feet from the shaft or 50 feet beyond the vein the working crosscut ended in rhyolite tuff.

Alexander or 45 vein--The Alexander or 45 vein lies in the northwest slope of Ozar Hill. It strikes N. 10° W. and stands about vertical. Shallow shafts at several points show it to be 6 feet wide and well banded with gangue on the west wall.

Proskey vein--Starting in the wash and road near the east base of Ozar Hill, the Proskey vein extends southerly through Silver Spring Hill with a length of nearly 2,000 feet. Portions of it have been worked by lease.

In the upper south slope of the hill the vein is about 3 to 4 feet wide and is well banded with quartz and iron-stained mineralized rhyolite (spec. 274). In the north base of the hill it is opened by the Sailor Boy shaft, 160 feet deep, which in 1913 was the deepest opening in the camp, and ended in an incline winze. In the bottom of the shaft, the vein is reported to have narrowed to 2½ feet in width but carried 40 to 450 ore.

The vein in general was disappointing to the Company in not carrying the values expected of it in Silver Hill. In this connection it may be noted that from the bottom of the 160-foot Ozar Hill shaft sunk in the southeast base of Ozar Hill in early days, a crosscut extended to a point beneath the top of the hill. The vein for which this crosscut was driven

was not found but at 150 feet from the shaft the crosscut cuts a 6 to 8-foot blind vein, which is composed largely of low-grade, \$8 to \$10 ore, and was too low grade to work.

Czar Hill vein--The Czar Hill vein has a length of 1,500 feet or more and is about 5 feet wide. It extends from the south slope of Czar Hill through the hill, thence nearly 1/4 mile northerly into the flats or wash. In 1913 it was opened chiefly in the upper northeast slope of the hill on the Golden Spring claim to the depth of 40 or 50 feet, and by stopes at a point where it is faulted. To the south of the fault the dip is 70° to the southeast. To the north it is about vertical. The vein has good looking quartz-rhyolite gangue, but the values, which range from \$10 to \$50, and are almost entirely in gold, are spotted.

The croppings to the north of the shaft are strong as shown in figure 79 (photo 20) and consist of quartz and silicified rhyolite stained with oxides of manganese and iron. Both croppings and the ore near the surface contain considerable "antimony" (?) (spec. 276), which is said to be not beneficial to the gold values.

Isabel or Maul-Nye vein

The Isabel or Maul-Nye vein situated to the northwest of Czar Hill on the Bourbon-Prince claim, trends north-northwesterly and dips 25° E. in rhyolite and outcrops at several points. It is opened by a crosscut tunnel and an upraise to the surface. It consists mainly of crushed and partly silicified rhyolite, contains but little quartz, and is said to carry about \$15 ore whose values is chiefly in gold. The dump is said to average about \$8 to the ton, the values having been derived mostly from a small quartz seam.

The Johnson and Josephine veins--The Johnson and Josephine veins which lie in the westerly slope of Silver Spring Hill, converge northerly and seem to unite in its mid-north slope at an elevation of about 5,460 feet. In 1913 both veins were being worked by lease. The Josephine vein carries considerable of its values in gold. It dips steeply to the west or northwest, and has gouge casing due to post-mineral movement.

Some of the best looking quartz on the property occurs in the Elma crosscut tunnel on what is thought to be the Johnson vein. It is a mixture of whitish and gray quartz, is some sugary and drusy, and a little brownish iron stained, with traces of replaced rhyolite through residuary quartz phenocrysts ?.

Profit Mine

The Profit (also called Matthews) mine, owned and operated in 1916 by J. F. Matthews and Bros., is 1 1/2 miles northwest of Rawhide and 1/3 of a mile southeast or Regent in the foothills.

The vein, which is $3/4$ of a foot to 2-feet wide, strikes north-northeast, dips 70° E., and was opened by an incline shaft to the depth of 110 feet. It consists of brecciated, somewhat pebbly, silicified quartz and rhyolite, and barite ?, more or less banded, streaked, iron stained and oxidized. (Spec. 550). Much of it is said to run \$35 to the ton in silver and gold and some is very high-grade ore. Some $1/4$ - to 1-inch wide soft talcose or alunitic streaks are said to carry good values.

Hauley Tungsten Prospect

In 1930 there was reported to have been discovered at Regent a deposit containing tungsten as well as silver and gold. It belongs to Dan Hauley and was being developed by a Tonopah party.
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11/ Salt Lake Mining Review, vol. 32, November 30, 1930.

Black Eagle Mine

Location

The Black Eagle mine is located in the Cone Mountains 2 miles west of Rawhide at an elevation of about 5,950 feet, fig. 52 (Geologic map of Rawhide) and fig. 81 (Photo 22). It is near the head of Black Eagle gulch or so-called canyon which drains northward into Terrell Valley, fig. 81 and fig. 52. (Topographic map). The topography, which is typical of that of deeply eroded volcanic rocks, is hilly to mountainous and rough but not difficult to access.

History and Production

The Black Eagle mine was discovered in 1907, a year before Rawhide was discovered by (Billy) W. W. Stockton who soon did considerable development work, before the mine, a little later, was acquired by the present owner, the Black Eagle Gold Mining Company of Berkeley, California. In 1909 the Company was reported to be working the mine and hauling several hundred tons of ore to the Victor mill. In 1911 it was said to have sufficient ore blocked out to serve the mill for 3 years, and about