Memo to: Don & Joey February 11, 2016

Subject: Pocket Mines

As requested, please find following some information about "pocket mines" that I believe will give whoever reads this a better understanding of the geology and the potential of gold to be found in mines of this nature. The normally accepted definition of a pocket mine is one in which much of the gold is very coarse and very erratically distributed, often occurring as high grade concentrations or pockets separated by lower grade run of mine material, or even by waste rock. Such pockets could be fist-sized, a few feet across or even tens of feet across and contain from a few ounces to thousands of ounces of coarse gold. Often much of this material can be sold as "specimen gold" at extremely high premium prices.

These pockets are generally found to be erratically distributed in a vein and may be a significant distance apart, separated by low grade material. One of the potential problems in mining these is there will probably be spurts of high grade production separated by lean times mining the intervening lower grade ores. The pockets are often localized by abrupt flexures or bends in the vein or by cross-cutting veins or fractures. With sufficient experience in a given mine, the occurrence of the pockets can become somewhat predictable.

Some districts gained a reputation for having more abundant or larger gold-bearing pockets than others. One of the best known of these is the Allegheny District northeast of Sacramento. The most famous one of these is the 16 to 1 Mine. It is still producing specimens, some found using metal detectors. There is quite a bit of information available on the internet about this mine. It produced some very rich pockets: 1) an 80 pound block of quartz that contained $275,000 in gold (250 ounces), 2) a 160 pound block that contained $1,540,000 in gold (1400 ounces), 3) a "larger bunch" that was worth $4,125,000 (37,500 ounces), d) in 1993 they found "the whopper" – an 18 pound specimen that contained 141 ounces of gold. Please note these prices are based on only $1,100 an ounce of Gold and not on what they might actually sell for. Have a look at their website - www.origsix.com for historical information and pictures. Here is a picture of their cabochon gold-in-quartz jewelry.

Some of the pocket gold is well crystallized and very valuable as specimens. Look at the website: www.kristalle.com/history-chrystalized-gold-california/ for some great photos. You

should also read the article at www.kristalle.com/california-gold/ - a good history of gold in California, including a discussion of pocket mines and very nice photos.

The area that includes the Red Cloud Mine has a history of several pocket mines which produced some great (and very valuable) specimens, most recently the Mocking Bird mine in 2006 using metal detectors. Look at their website: www.the-vug.com/vug/article 20.html.VrzPkrQrLcs and more pictures are available at www.mockingbirdgoldmine.com/store. The Diltz, Artru, Colorado Quartz and Harvard mines are also in Mariposa County, as is the Red Cloud, and all have produced beautiful (and expensive) gold specimens. I was told that there are various gold specimens from the pocket mines in the vicinity in the local museum located in Mariposa, including one from the Red Cloud which contains abundant coarse gold. A Google search for any of them will produce more great pictures.

The Colorado Quartz mine was most famous for its spectacular gold specimens. Historically it was a rather small mine with very limited production. It operated from 1915 to 1938 and produced perhaps $50,000 in gold based on $20 an ounce, (about 2500 ounces). So the amount of gold historically mined had no direct relationship with the quality or quantity of specimen gold produced. One of the enticing aspects of the earlier mines is that specimens had almost no additional value at the time of mining. Nearly all of the ore was crushed and the gold recovered. Any larger chunks of gold were simply melted down, even those taken home in miners' lunch boxes. High-graded lunchbox gold was a serious problem at the Red Cloud. The many local newspaper reports during the early mining years touted high grades being mined. At least some and perhaps a great deal of this must have been mined from high grade pockets. There is no way of knowing how much of this was specimen-quality gold, but surely some of it was. The photo on the cover of my Red Cloud report is coarse gold recovered by Ray Schilber from the quartz vein in the 110 foot shaft. I also saw visible gold in some samples from the Cat Cut area.

My general conclusion is that the Red Cloud had, and still has, pockets containing coarse high grade gold, just like several other mines in the district. We currently do not know how they are distributed, how large or how abundant they are, but they are almost certainly present. The walls of the old workings (once accessible) should be carefully checked with metal detectors for coarse gold, and the recovery of specimen quality gold should be an important part of the mining plan. The sale of specimen gold would have a significant impact on the amount of profitability that can be achieved at the Red Cloud.

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