Mining Comes to the Eldorado Forest

Stories Found in the Eldorado Forest Visitor Map by Lester Lubetkin

In the first article in this series, we looked at how to recognize the land that that the Federal government gave to the newly formed State of California to provide for public schools, recognizing that education for all is the foundation for our democracy. These lands were often sold by the State in order to raise money to pay for schools and their operation. Many of these parcels of land still can be identified when you look at the Eldorado Forest Visitor Map because they show up as white squares in Sections 16 and 36 of the Public Land Survey grid, amongst the sea of *Forest* green.

But it was the lure of gold that drove the creation of the State and attracted the thousands of immigrants at the expense of the indigenous people that had made their home here for thousands of years. We can still find evidence of some of that mining history when we look at the Forest Visitor Map!

Many are already familiar with the story of how James Marshall found gold in 1848 at the newly built mill in Coloma, some six miles west of the Eldorado Forest boundary. Of course, the Eldorado Forest would not be created for another 62 years and in the



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years that followed, the Forest boundary would change as

well. Early on, as would-be miners poured into California (not yet a State, nor even a Territory) they had to work out rules governing how someone would go about locating a claim to an area for mining, specifying the size of claims and the work that must be done to hold a mining claim from rival miners. These rules were developed by local groups of miners and differed from place to place. Following Statehood, the rules started to become more standardized, so that by 1866 (still 39 years before the creation of the National Forest and 44 years before the Eldorado Forest was established) a national Act had been created by the US Congress setting a single set of rules regarding claiming mineral rights and mining claims. One thing the Act of 1866 also did was to allow a miner to obtain legal title to their mining claim, thus transferring the land from the Federal government to private ownership.

The laws around locating and holding mining claims went through a few revisions until the General Mining Law of 1872 was passed. That is pretty much still the law relating to locating and holding mining claims. And when we look at the Forest Visitor Map we can see some of those mining claims that were **patented** (transferred to private ownership), some dating back to the 1870's. While local mining districts did establish rules for locating and keeping up mining claims, we don't see mining claims conveyed to private ownership prior to the 1870's since it wasn't until 1866 that there was a law allowing for this transfer of public lands.

Gold was the valuable mineral nearly all of the miners were seeking. And in the Sierra Nevada gold is commonly found in two types of occurances.



• One is *lode* gold, or *vein* gold. This is where the gold occurs in a fissure or crack in solid rock

• The second type of gold occurrence is *placer* gold, which is where the gold and other sediments have been eroded from their original source and later deposited. These deposits are the ones we commonly think of as the gold deposits filling in rivers and streams and mined using a gold pan or sluice box.

These two types of gold occurrences require two different types of mining claims. Because the shape and size of the deposits are different, the sizes and shapes of the mining claims are also different.



Placer mining claims are generally rectangular and follow the land survey coordinates. A miner could claim 20 acres and a group of miners could claim up to 160 acres in what is known as an association placer claim. The rectangular shape was because the placer deposits often covered large flats, such as alluvial fans, river terraces and ancient abandoned river channels. In addition, the deposits were often mined

by removing the topsoil and overburden, so that a large area was disturbed by the mining.

In contrast, lode mining claims had to recognize that the lode gold deposits were often narrow veins that extended deep into the earth and often did not extend vertically downward, but rather dipped away at some angle. Lode mining claims are narrow and long, usually having a width of 300 feet to either side of the vein (a total of 600 feet in width) and can be up to 1,500

feet in length. And they are described as dipping at the same angle as the vein, so that the miner has rights to the minerals within the vein. These are known as *extralateral rights.* Without this provision, if someone found a valuable vein, another miner could come along and locate a mining claim right next to the first claim and assert rights to the minerals in the vein at depth below their claim. As you can imagine, this issue of *extralateral rights* has made many mining attorneys rich over the years.

For both types of mining claims, the claimant is required to mark the corners and the "point of discovery". So, when you are out on the Forest, you may see a marker on a post or tree, identifying the mining claim and possibly the discovery point.

These two types of mining claims can be recognized when we look at the Visitor Map where they have been patented in past years. For instance, when we look in T9N. R13E and T10N. R13E. MDM (the first article in this series explained how to read and understand the public land surveys, if you need a refresher), you will notice several narrow, angled white patches, many of which seem to be lined up, such as in Sections 4, 9 and 21, T9N, R13E and Sections 14, 15, 22 and 27, T10N, R13E. These are lode mining claims that were originally located back in the 1850's through 1870's and private title to the land was conveyed back in the 1870's through 1890's, some even as recently as 1907. These lode mining claims are oriented so as to follow the gold veins that generally trend northnortheast, becoming more easterly as one goes northward. The lode gold was found in quartz-rich veins formed over 100 million years ago. Gold and guartz crystalize at relatively low temperatures (in comparison to many other common rock forming minerals). and so are often found together. The granite batholith that forms the core of the Sierra Nevada started out as a *magma chamber*. As the fluid in the magma chamber crystallized, there was a sequence in which the minerals formed and the residual fluid kept changing its chemistry as some of the constituents were incorporated into the newly formed minerals. The last phase of the hot liquid in the magma chamber was enriched in guartz and gold. Under pressure, this fluid was pushed up into faults, fractures and cracks in the rock surrounding the magma chamber, forming the gold-bearing veins.





A good example of a group of placer mining claims that can be seen in the Forest Visitor Map is at Henry's Diggins near Grizzly Flat, in Sections 28 and 29, T9N, R13E, MDM. This includes several association placer claims, known at the time as the Trinity Placer Claim and also as the Carrie Hale Hydraulic Mining Association. These claims covered 271 acres and were patented in 1871. The placer gold deposit was an ancient river deposit that is situated along the ridge

between the Middle Fork Cosumnes River and the Steely Fork of the Cosumnes River. The deposit was mined by washing with high powered water canons using the hydraulic mining technique. (You will also notice another lode mining claim along the west side of Henry's Digging's and to the south in Section 32).

The ragged western edge of the Eldorado Forest is in large part the result of the many placer mining claims that were located and patented in the goldbearing region of the central Sierra Nevada (although there were also a lot or **homesteads** and **cash entries**, which will be the subject of the next installment in this series on "Stories Found in the Forest Visitor Map"). As the rocks of the Sierra Nevada were eroded over the eons, the gold veins that formed as described above, were exposed and eroded as well. Gold is a fairly malleable metal, and so as the dense gold particles were carried along in the streams that were flowing westward down the



mountain front, heading towards the ancient Pacific Ocean, the particles were abraded, flattened and reshaped, creating the unique gold nugget forms we are familiar with.

There are still many mining claims within the Eldorado National Forest, most of which are in the western portion of the Forest. The reason they are in the western portion is because that is where the gold is found. As one goes east, the ancient gold-bearing veins have been eroded away and the underlying granite batholith (which was the original source for the gold) is now exposed. Placer and lode deposits still exist in the Forest, although the area was extensively prospected and "the easy pickin's" are long-gone.

Sources for this story include "Grizzly Flat - the First 50 Years" by Keith Algier (1992), Handbook of Mineral Law" by Terry Maley (1983) and the BLM Calif State Office Public Room Land Status Records.



Henry's Diggings was a small village about three miles south of Grizzly Flats. Although Henry's Diggins is not labeled on the Forest Visitor Map, it is labeled on many of the topographic quad maps and was labeled on an earlier Forest Visitor Map. It was named for Henry Cole, brother to the family that owned Cole's Station and one of the miners that was working in the area in the 1850's. The 1874 Survey map of the area labels one of the the roads leading north to Grizzly Flat as the "Road from Henry's Diggings to Grizzly Flat".

And the Carrie Hale Hydraulic Mine was named after a woman that taught school in Grizzly Flat in the early years.