REVELL PLACER Illinois River area

Owner: James D. Revell, Selma, Oregon

Location: NE¼ SW¼ sec. 7, T. 38 S., R. 8 W., on south bank Illinois River. Reached via Selma, a distance of 3.6 miles on Oak Flat road, then southwestward on road marked "mouth of Deer Creek", 1.3 miles to forks, thence westward down Illinois River .8 mile to Revell's cabin.

Area: 3 claims, namely Buena Vista, Meander No. 1 and Meander No. 2.

History: The history of the claims is complicated by several locations, transfers to various individuals of the located land by deed and by wills, etc. Apparently no divided ownership resulted. The Buena Vista claim was last located in 1936, under that name.

Development: There has been a small amount of hydraulicking in the past. Present operation consists of a small pit in the bank. The "ore" is trammed to a 10 yard hopper where it is allowed to soak and slack. Slimes are washed out and the remainder is run through a sluice box.

Equipment: A 10 yard flat hopper, about 50 feet of sluice box (upper third has no riffles), a punched-screen-netting riffle for one third, then metal lath for last one-third. An automobile engine raises water some 15 feet for sluicing the material. A small skip is used to raise the muck from the pit to the hopper.

Geology: Principal country rock is serpentine with inclusions of greenstone which would be classed probably as meta-volcanic.

The placer material appears to be a mixture of river-worn gravel and hillside slump. Angular, blocky material in a clayey sand filling lies between lenses of river gravel. According to Revell the river gravel material carrys little gold; the gold seems to be concentrated best in the clayey-sandy filling of the talus. It is suggested that river-bar material was covered intermittently by slump and talus, and then by river-bar material. The gold in the river gravel became concentrated on and within the talus material which acted as a false bedrock.

The gold is exceedingly fine so that 100 to 150 colors are equivalent to one cent. These tiny flakes are flat and well rounded; none was seen that showed any suggestion of roughness. It may be that this rounding and flattening of exceedingly small gold particles indicates that the gold came down the Illinois River. Free quicksilver associated with the rock is further evidence of this idea. Some quartz was mortared, and yielded a small amount of black sand and amalgam. When the piece of quartz was examined at least one small globule of quicksilver was noted in a cavity that was lined with mud. Further, Revell states that more quicksilver is recovered than is added.

It is concluded, therefore, that the origin of the gold is from river wash by the Illinois River and is a concentration principally from former workings upstream. If a former, higher channel can be found, it may be that some of this gold is from such an old high channel. The small size of gold flakes indicates however that it is not "high channel gold.

Mining problems: Gravity concentration yields metallic gold. The tailings consist of a barren gray sand; a brown sand that yields gold upon fine grinding; and black sand that contains some fine gold and platinum. It is reported that Revell's partner obtains gold from the brown sand by mulling it, and then treating it with chemicals; information concerning the process used was not available.

A small amount of free gold is recovered but the owner estimates that about $4 in gold from the brown sand is lost. Insufficient work has been done to permit any sort of sampling that would be indicative.

Report by: Ray C. Treasher, August 7, 1940