

C O P Y

351 California Street  
San Francisco, California.

January 25,  
1934.

TANNEN PLACER MINE, SUCKER CREEK,  
JOSEPHINE COUNTY, OREGON

The Tannen Placer Mine is located on the head water of Sucker Creek in Josephine County, Oregon, a few miles north of the California-Oregon Boundary in T. 41 S. - R. 6 W., N.M. It can be said to form a part of the Kirby-Waldo Mining District, since Sucker Creek is tributary to the East Fork of the Illinois River near these towns.

Travel to the property is by way of the Redwood Highway from Grants Pass, Oregon, southwestward, or northeastward from Crescent City, California, to the Oregon Caves Highway at Caves Junction, thence eastward on the latter highway to a point well within the valley of Sucker Creek and about ten miles from the property. From this point a Forest Reserve road runs two miles up the creek, and thence by pack trail eight miles to the property.

There are eleven placer locations included in the property, eight of which are arranged two abreast for four claims along Sucker Creek, one claim across the valley at the mouth of Grizzley Creek, the lower, or north end of the property, and the balance of the claims up Tannen Gulch, to the south about midway of the property.

Sucker Creek rises just north of the State Line, in many steep gulches, flowing northeastward to the main creek, which flows northwestward, and all rise at elevations in excess of 6,000 feet above sea-level along the north flank of a series of peaks, known as Grizzley Peak, Bolan, Althouse and Tannen Mountains.

The elevation along the lower end of the property is about 3,000 feet, in two miles up the creek it is 3,500 feet, and in three and one-half miles it is 4,000, which indicated the available grade lines for hydraulic work.

The presence of valuable bench deposits along and near the head of such a rugged canyon is very unusual and an understanding of this can only be obtained from the geologic history of the Klamath Mountains, within which this area is included. Your attention is directed to the major, or trunk drainage systems of this region, such as the Trinity, Klamath, and Rogue Rivers, with their innumerable benches rising in unbroken succession to over 1,000 feet above the present stream levels. Many of these benches date back to early Tertiary time and are directly connected to the deposits of shore gravels of similar age, such as are found near Waldo and Holland, on Foots Creek, and Upper Applegate near Jacksonville.

It naturally follows that the physical conditions and development found in the major trunk streams must be reflected in their principal branches. Bench development on Sucker Creek is therefore

not an exception, but a condition to be expected. Benches on Sucker Creek are very pronounced throughout it's length as will be noted by traversing the trail. At the property, the lowest bench is near and less than 20 feet above the bedrock of the present stream, the second bench seems to occur from sixty to eighty feet above the Creek level, and a third, less well preserved, at about 100 to 120 feet.

Beginning at the lower end of the property, the first and second benches are on the right limit, the latter being the most important on account of it elevation, length and depth of gravel. This bench was examined for about 3,000 feet and appeared to extend down stream on adjacent property, and upstream beyond the point reached. The maximum depth of gravel for a greater part of this distance is about 90 feet, and the apparent width of the trough containing it exceeds 100 feet. The surface of this bench is fairly well marked by a distinct shoulder on the steep hillside.

Rough calculation only can be made from measurements taken during the limited time at my disposal, and those indicate a volume for the second bench of from 500 to 600 cubic yards per lineal foot of channel. Large variations will be found in this, due to the near or distant approach to the present creek, with the consequent sloughing or retention of the original deposit. The overburden accumulated on the up-hill side will be offset by the sloughing on the downhill side.

The value of this gravel is unknown except as to the indications given by rough estimate of two small pits on the property. One at the present point of operation, of about 1,500 yds., which produced about \$225 or at the rate of 15¢ per yard.

About 1,000 feet upstream a small pit of about 100 cu yds yielded \$30.00, and on the adjacent property below, but on the left limit below Grizzley Gulch a pit of about 2,000 yards is said to have produced over \$300.00. These pits were on the outer rim and free of top gravels, and may therefore yield higher values than the average run, unless offset by the richer central trough.

The proximity of this bench to the creek valley, the steep slopes about 35°, a grade line of about 5% for Sucker Creek and an apparent agreement with this for the bench channels makes an ideal set-up for hydraulic grade.

The bottom gravel for a depth of over twenty feet can be classed as heavy gravel, in which the boulders can not easily be forced through the sluice, will form about 20% of the volume. Overlying this is medium, thin, fine gravels in strata of varying thickness that will yield to hydraulic very easily. The overburden of talus from the hill sides is mostly fine broken angular schist and will offer no unusual difficulty. Water supply appears to be adequate for this deposit, owing to the natural facilities for snow accumulations about the high sharp peaks that form a semi-circular basin about the head of Sucker Creek. Several glacial cirques occur at the head of some of the tributaries, within which are small glacial lakes, which offer storage facilities of considerable magnitude. On January 8, 1934, shortly after the first storms there were about

2,000 Miners Inches passing the head of the lower ditch, or at a point 3,500 feet above the lower end of the property. The crest of the run-off had passed this point at least a week previously. Low summer water no doubt will be sufficient for opening new cuts, running bedrock cuts, and other necessary summer operations such as running a sawmill for lumber and sluice blocks.

There will no doubt occur during winters of deep snow and cold weather periods of low water and this needs some study from the rainfall and run-off data available from the U. S. Geological Survey - Water Resources Division.

Timber of excellent quality is abundant on the property and can be cut as needed by installing a portable sawmill. The present equipment is entirely inadequate, and it consists of a small ditch not over 3,500 feet long, with a capacity of about 500 miners inches. It ends opposite the camp some 600 feet above the lower end of the property on the right limit where a working head of about 100 feet is attained.

About 500 feet of pipeline, a small giant, a hand derrick, blacksmith shop, Cook and Bunkhouse, with necessary utensils and small tools. A survey for a high line ditch shows that working head of about 350 feet can be secured opposite to the camp from a point on this survey some 7,000 feet from the proposed intake. This, together with the water supply is a very favorable combination for hydraulic. I do not hesitate to recommend this property for consideration, and feel confident that by careful preparation, the difficulties offered by heavy gravel and lack of roads can easily be overcome.

The question of values should be answered first before any major expenditures, either by shafting or by cross-cutting the channel, in one or two places by actual hydraulic operations, using the present equipment for this purpose.

Very truly yours,

G. A. Bigelow

GAB:OO

---

Note:

Above copy made September 23, 1936 by Earl A. Nixon from copy submitted by Mrs. Maude Masters, owner of the property in question.

The following information was obtained from a report by Mr. G. A. Bigelow made in 1934:

The Tannen Placer Mine is located on the head water of Sucker Creek in Josephine County, Oregon, a few miles north of the California-Oregon boundary in T. 41 S., R. 6 W., N.M.

Travel to the property is eastward on the Oregon Caves Highway from the Junction to a point well within the valley of Sucker Creek and about ten miles from the property. From this point a Forest Reserve road runs two miles up the creek, and thence by pack trail eight miles to the property.

There are eleven placer locations included in the property, eight of which are arranged two abreast for four claims lengthwise along Sucker Creek. One claim lies across the valley at the mouth of Grizzley Creek, the lower, or north end of the property, and the balance of the claims are up Tannen Gulch, to the south about midway of the property.

The elevation along the lower end of the property is about 3,000 feet; in two miles up the creek it is 3,500 feet, and in three and one-half miles it is 4,000, which indicate the available grade lines for hydraulic work.

Benches on Sucker Creek are very pronounced throughout its length. At the property, the lowest bench is less than 20 feet above the bedrock of the present stream; the second bench seems to occur from sixty to eighty feet above the Creek level; and a third, less well preserved, lies at about 100 to 120 feet.

Rough calculation indicates a volume for the second bench of from 500 to 600 cubic yards per lineal foot of channel. The overburden accumulated on the up-hill side will be offset by the sloughing on the downhill side.

"The value of this gravel is unknown except as to the indications supplied from two small pits. One at the present point of operation, of about 1,500 yds., produced about \$225 or at the rate of 15¢ per yard.

About 1,000 feet upstream a small pit of about 100 cu. yds. yielded \$30.00, and on the adjacent property below, but on the left limit below Grizzley Gulch a pit of about 2,000 yards is said to have produced over \$300.00. These pits were on the outer rim and free of top gravels, and may therefore yield higher values than the average run, unless offset by the richer central trough.

The proximity of this bench to the creek valley, the steep slopes about 35°, a grade line of about 5% for Sucker Creek, and an apparent agreement with this for the bench channels makes an ideal set-up for hydraulic grade.

The bottom gravel for a depth of over twenty feet can be classed as heavy gravel, in which the boulders can not easily be forced through the sluice. This bottom gravel will form about 20% of the volume. Overlying this is medium and fine sizes of gravels in strata of varying thicknesses that will yield to hydraulicking very easily. The overburden of talus from the hillsides is mostly fine, broken, angular schist and will offer no unusual difficulty. Water supply appears to be adequate for this deposit.

Timber of excellent quality is abundant on the property. The present equipment consists of a small ditch not over 3,500 feet long, with a capacity of about 500 miner's inches. It ends opposite the camp some 600 feet above the lower end of the property on the right limit where a working head of about 100 feet is obtained. Equipment consists of about 500 feet of pipeline, a small giant, a hand derrick, blacksmith shop, cook-house and bunkhouse, with necessary utensils and small tools. A survey for a high line ditch shows that working head of about 350 feet can be secured opposite to the camp from a point on this survey some 7,000 feet from the proposed intake.

Informant: G. A. Bigelow, 34.