

Briefed Report
On
Jomervic Placer Property and Area
Josephine County, Oregon
1962

BRIEFED ALLUVIAL PLACER DATA

Title: Ownership of unpatented possessory right locations of association placer claims, by legal subdivisions of government survey, situated in Josephine County, Oregon.

Area: Approximately 740 acres, more or less. Workable tonnage virgin and hydraulic residues. Estimated over 20 million tons.

Type and Topography: Uncemented alluvial tertiary conglomerate placer reposing in lowridges and hills. Bedrock appears to be formations of peridotite, serpentine and altered greenstone. Some brush and second growth timber cover part of the surface. Elevation about 1400 feet.

Evaluations: Numerous trenches 12 feet deep were excavated in about 200 cubic feet in various locations thruout the alluvial mass tonnage. Large composite samples taken at ten locations were screened at various ratios by weight basis, ranging in values from \$55.00 to \$280.00 per screened ton, as shown on the detail evaluation sheet and in ratios varying from about 8 to 16 into one, at minus 18 square mesh screening. Gold, platinum metals and mercury estimated to average over \$7.50 per ton.

Origin and Character of Deposits: Geologists who have made a study of Pacific Coast rock formations concede that the placers with gold and platinum content have been derived from the disintegration of basic igneous rocks of the ferro-magnesian type.

J. S. Diller, eminent geologist, has reported that the aforesaid rocks underlie extensive areas in Southern Oregon and Northern California; and that, "In Southwestern Oregon igneous rocks are abundant and cover a greater area than the sedimentary rocks. They are of great variety in composition, texture, mode of occurrence, including greenstones, serpentines, granodiorite, dacite, porphory and augite andesite. Peridotite and serpentine derived from it are generally considered to be the native rocks from which platinum is derived; and, the abundance of serpentine in Southwest Oregon may account for its presence in that region, altho the platinum has not yet been found in place."

Roads: Good graded rock government road crosses portion of subject property. County road is within one mile and paved highway within four miles. Railroad within 40 miles, and Pacific Coast harbor at Crescent City, California, about 50 miles.

ALLUVIAL PLACER DEPOSIT
EXPLORATIONS & EVALUATIONS

Explorations: Numerous excavations about 12 feet at locations across the mass tonnages in order to get a cross section of ton-values from surfact to 12 feet which was the depth limit for the Deisel Backhoe Shovel used.

Sampling: Ten of those locations extending across the mass tonnages were sampled by removal of a 200 pound composite screened minus 5/8 inch from about 200 cubic feet of well mixed excavated mass at each location. All samples were screened and scale-weighed in order to obtain ratios of screen reductions. The screen ratios varied at the various excavations.

Remarks: In my opinion, it is logical to expect that other location mass tonnages down 12 feet should average similar values to the above ten locations thruout the virgin and/or accumulated residue mass. The values below 12 feet from surface to bed-rock have not been determined; however, due to uniformity of mass alluvial tonnages, the ton values deeper than 12 feet may logically be expected similar to those values hereinabove shown in the mass tonnages sampled, due to the fairly well distributed values thruout mass alluvials.

History: The subject property and nearby placer area was discovered in 1852. Increasing gold production operations followed until the general area and subject property became the foremost gold producer in the state; and, has been reported to have during some years produced 75% of the platinum produced annually in the United States. Total production records are not available.

Geology: Numerous comprehensive U.S.G.S. reports of the general alluvial area state that the precious metal values in alluvial placers are very uniformly distributed thruout the conglomerate mass, and that values do not occur as irregular channel enrichments, or on and near bedrock, as placer values are usually found in riverflow gravels in many placer areas. However, value recovery systems require better controls than can be had with sluice boxes, or means without water control, due to finely divided metal values.

Sample values: Dry ton values of screened composites of twelve average trenched locations were reported by disinterested capable chemical analyst, were:

JM No. 10--	Gold	2.10	ozs.	Platinum	1.50	ozs.	Palladium	0.30	oz
JM No. 12--	"	3.20	"	"	1.40	"	"	0.60	"
JM No. 9--	"	4.00	"	"	0.80	"	"	0.60	"
JM No. 11--	"	1.20	"	"	0.40	"	"	0.50	"
JM No. 4--	"	0.50	"	"	0.50	"	"	0.00	"

Sample Values (continued):

BA No. 16--	Gold	3.20	ozs.	Platinum	0.90	ozs.	Palladium	0.03	ozs.
BA No. 15--	"	3.00	"	"	1.40	"	"	0.70	"
BA No. 11--	"	4.10	"	"	1.60	"	"	0.66	"
BA No. 9--	"	2.00	"	"	0.00	"	"	0.00	"
NA No. 1--	"	3.30	"	"	0.30	"	"	0.02	"

Metal Quotations: The recent E. and M. J. quotations on various metals per ounce: Gold \$35.00, Platinum \$80.00 to \$85.00, Palladium \$24.00 to \$26.00. The mercury values are not included but were material. Platinum being an Industrial metal has an increasing and assured market, since now about 90% of U. S. needs is imported.

The above ten excavation-locations were selected at random thruout the property area extending in a lineal distance about 5,000 feet North and South, and about the same lineal distance East and West in order to reveal the general distribution of heavy mineral values thruout the tonnage of the property area and hydraulic residues.

The refined values determined and reported were: Gold @ \$35.00, Palladium @ \$25.00 and Platinum @ \$75.00 per ounce. The values of the other platinum group, silver, or other minor metals have not been determined.

Respectfully submitted,

BIDWELL ENGINEERING COMPANY

By: H. Victor Burgard
H. Victor Burgard
Executive Engineer

Grants Pass, Oregon
October 30, 1962

(The undersigned H. Victor Burgard was elected Associate Member of The American Institute of Mining and Metallurgical Engineers, May 26, 1927, H. Foster Bain, Secretary.)

PRE-OPERATION ESTIMATES-ALLUVIAL PLACER
48,000 TONS SCREENED RATIOS 4 INTO 1. AVERAGE \$30.00 PER TON

1. Annual Gross Proceeds:

48,000 Screened tons @ \$30.00 per ton ----- \$1,440,000.00

2. Costs 240 Day Year:

a. Excavating - Screening (800 tons daily) @ \$0.60 ---	\$ 115,200.00
b. Trucking 48,000 tons @ \$1.25 per ton -----	60,000.00
c. Rod-Milling 35 mesh @ \$1.00 per ton -----	48,000.00
d. Conditioning and concentration @ \$0.50 per ton ----	24,000.00
e. Reduction (20 Into 1) 2,400 tons @ \$15.00 per ton -	36,000.00
f. Value Separation 2 men and supplies, \$18,000, \$12,000	30,000.00
g. Marketing and Transportation @ 5% of gross -----	72,000.00
h. Clearing surface and road upkeep annual -----	5,000.00
i. Equipment maintainance @ 5% on 192000 -----	9,600.00
j. Supervision and Insurance annual -----	<u>12,000.00</u>

Estimated Total ----- \$ 411,800.00

SUMMARY RESUME

Gross Proceeds -----	\$1,440,000.00
Costs -----	<u>411,800.00</u>

Estimated Operating Net ----- \$1,028,200.00

Before Royalties and Taxes. Depletion and depreciation credits not calculated.

Estimated 200 ton per 24 Hour Capacity Plant.
Recovery Plant for Minus 1/4 inch Screened Placer

One 200 ton steel tank type receiving bin -----	\$ 400.00
One 24" X 60" X 30" No. F45 B.D.T. Syntron feeder-	2,957.00
One 3' X 6' 8 $\frac{1}{4}$ " Denver Equipment Rod Mill -----	7,500.00
One Rod charge 7500 pounds 2 $\frac{1}{2}$ "-2"-1 $\frac{1}{2}$ " rods -----	500.00
One 4' X 4' Denver Duplex Agitator Unit -----	2,637.00
One "Krebs" Cyclone for water return D30L -----	2,850.00
Six concentrators @ \$2,219.00 each -----	<u>13,314.00</u>

Quoted Total ----- \$30,158.00

Remarks: Terms and freight rates have been requested, as well as final particulars on concentrate reduction units estimated about \$15,000.00. Installations, power connections, etc. are estimated at from \$15,000.00 to \$20,000.00.