

State Department of Geology and Mineral Industries

702 Woodlark Building
Portland 5, Oregon

CAPE BLANCO MINE (Beach placer)

SIXES RIVER AREA

CURRY COUNTY

Owners:

Ed. A., Thomas P., and Frances Hughes, Sixes, Oregon. Property leased to the Pacific Coast Mining & Refining Co., an Oregon corporation, with office at Bandon. E.R. Marshall, president, and Joseph McKeown, secretary-treasurer.

Location:

On the beach at Cape Blanco in sec. 7, T. 32 S., R. 15 W., and secs. 1, 2, and 12, T. 32 S., R. 16 W., 7 miles west of the Sixes postoffice which is on Highway 101.

Area:

Three hundred ninety-seven acres of patented land in a strip approximately $\frac{1}{4}$ of a mile wide and running $2\frac{1}{4}$ miles south from Cape Blanco along the ocean.

History:

The beach sands just south of Cape Blanco have been worked off and on for almost a century. For five years prior to March 29, 1938, the property had been operated by Carl Hopping. He collected the sands in a truck and hauled them to a sluicing plant which consisted of a large wooden hopper with three openings at the bottom. A small stream of water would wash the sands down and over small riffles and plates. It is said that Hopping was very successful, but most of his records as to production were lost in the Bandon fire. However, he did have records covering the period from January 4 to July 8, 1937, during which time he ran approximately 700 yards of sand. His mint receipts amounted to \$1,650.32. Platinum and osmium amounted to \$1,133.93. The gold averaged about 860 in fineness. About 1934 a Mr. J.F.T. Kirkup subleased a portion of the beach from Hopping and carried on quite extensive operations. The results of this operation were also burned in the Bandon fire. During the winter of 1938 this plant was wrecked by the waves.

The present company secured control of Hopping's operations in the spring of 1938, and is carrying on test work. Marshall states that approximately \$2.00 per yard is being saved. Recovery probably does not exceed 50%.

Informant:

J.E. Morrison, June 8, 1939.

CAPE BLANCO PLACER PROPERTY

Our property is located on Cape Blanco, Curry County, Oregon. It is two and one-quarter miles in length by one-quarter mile wide. The tidelands on which our mainland fronts is mostly fee-owned and are very rich in gold and platinum; in fact, it is the opinion of the Oregon State Geological Department that this property is the richest on the Oregon Coast. It also contains great quantities of chromite and magnetite which are also valuable minerals.

A small sluicing plant has been operating on this property for several years and we have United States Mint returns on Gold and Wildberg Brothers' returns on Platinum actually recovered by this plant from our sands. The average recovery being about \$2.00 per cubic yard.

After the expenditure of \$15,000.00 on experimental work over a period of four years we have solved all of the concentration, extraction, separation and recovery problems connected with the fine values in our sands.

The final problem was that of concentration on a large commercial basis. This has been recently solved by the Cottrell Engineering Company of Los Angeles, who have put on the market a machine designed for the purpose of recovering fine values from slimes (400 to 500 mesh). Forty sacks of beach sand were shipped to the plant and the efficiency of this Cottrell machine tested. It made a 90% recovery.

Since the advent of this machine we are now able to accomplish as much with a \$10,000.00 plant construction fund as we could have accomplished before its appearance on the market with \$50,000.00.

There is no room at the location of our small plant to increase its capacity and not a sufficient supply of water. It is our intention, therefore, to erect a plant about one-quarter mile south of our present small plant and start operations with one Cottrell machine and purchase three additional Cottrell machines from profits. They cost \$1000.00 each. The makers claim it has a handling capacity of twenty tons per hour of minus ten mesh material. We, however, are basing our estimates on fifteen tons per hour. Our new plant is designed to serve four Cottrell machines, which should give our plant a handling capacity of over one thousand cubic yards of common sand and gravel per day of twenty-four hours. Our new plant will be erected on the side of a hill overlooking a great swamp, miles in extent, which will hold many millions of tons of tailings.

We must obtain our water supply from the ocean and pump it to a reservoir located at a higher elevation than our plant.

We will need a total of \$10,000.00 to build and equip this new plant. Three thousand dollars has already been secured and from present indications, the balance will be obtained very soon. For the \$10,000.00 we are selling a one-quarter undivided interest in our leased property rights, together with an obligation to repay the \$10,000.00 out of first net profits, plus interest at the rate of seven per cent per annum. In addition, these investors may appoint any representative they desire to control the expenditure of all money. All revenue shall also be under their control until they are fully repaid.

Occasionally hundreds of dollars per cubic yard are recovered from our sands in places where rich concentrations have taken place but we are not considering such rich spots. Our estimates are based on an average recovery of \$2.00 in Gold and Platinum per cubic yard of common sand and gravel handled in our plant so that within thirty days after commencement of operations we should be able to repay the \$10,000.00 and we agree to repay it out of net profits before any other distribution of profits shall be made. Our proposed plant with one Cottrell machine should handle more than three hundred cubic yards of common sand and gravel per day which at a recovery of \$2.00 per cubic yard would give us a revenue of \$18,000.00 per month which is ample to repay the \$10,000.00 and purchase three additional Cottrell machines. We estimate that our total operating costs should not exceed fifty cents per cubic yard.

A plant with a capacity of one thousand cubic yards per day of twenty-four hours should be adequate to efficiently mine this property. By excavating a strip seventy-five feet in width along the upper edge of the beach where the greatest concentration by the ocean takes place, it will require between two and three months' time to excavate this strip from one end of our property to the other end, a distance of two and one-quarter miles. While this excavating work is being done the ocean will be working for us by transporting additional quantities of sand, filling our excavations and concentrating it.

As evidence of this action, Mr. Simpson, who is operating the present small plant for us on a 25% royalty basis, excavated the same area of beach ten times during the month of February 1940. The sea filled the excavations each time with sand and concentrated it. This material was sluiced in our plant and from it Mr. Simpson recovered over \$2.00 in Gold and Platinum per cubic yard. Because he has no vibrating screens he has to handle the boulders as well as sand and, therefore, is making only about a 55% recovery. With sand screened to ten mesh a 70% recovery of these fine values is possible by our methods of sluicing but the capacity of this present plant is only about five cubic yards per day.

We are now extracting practically all of the Gold and Platinum contained in our screen concentrate, and separating the fine platinum from the gold. The next step to be taken is to build a plant with a greater capacity. THERE CAN BE NO RISK OF LOSS INVOLVED IN BUILDING A PLANT SIMILAR IN PRINCIPLE TO OUR PRESENT PLANT AS WE KNOW WHAT IT WILL DO. By the addition of four Cottrell machines we should have a daily capacity of one thousand cubic yards and make a 90% recovery.

In our opinion, the possibilities for a large, successful and permanent mining operation on our Cape Blanco property is one which would not be questioned by any well-informed person.

We are not selling stock, you understand. Individual assignments will be made to each investor for his or her interest in proportion to the amount of his or her investment in the purchase of the one-quarter interest. These assignments shall be in legal form so that they may be recorded in the Official Records of Curry County, Oregon. For instance, an investment of \$1,000 will entitle you to an assignment of a two and one-half per cent interest in our Cape Blanco property rights under and by virtue of our mining lease. On the basis of production and recovery as above outlined, we estimate that those who participate in the purchase of the one-quarter undivided interest should receive between 25% and 100% per month on the amount of their investment for many years, by reason of the fact that the sea will furnish us with practically an inexhaustible supply of material to mine, and will continue to do so as long as the mainland and the sea exist.

The above estimates of revenue are based only on the recovery of the free gold and platinum content of the common sand and gravel. The so-called by-product minerals, namely, chromite and magnetite will, in due time, provide us with a very large additional revenue. The recovery and separation of the magnetite from the chromite is comparatively a simple matter.

The Dings Magnetic Separator Company make various magnetic machines which are in successful use in thousands of manufacturing plants throughout the world. We have discussed our magnetic separation problems with these people and are assured by them that a simple magnetic pulley driven by a canvas belt carrying on its surface the material to be separated will efficiently separate the magnetite from the chromite and non-magnetic material. These pulleys cost less than \$500.00 each. The chromite can then be put through one of their High-Intensity Magnetic Separators and several grades of quality may be extracted and separated each from the other. These machines cost about \$4000.00 each.

Several months ago two samples of our Cape Blanco sands were taken by Mr. Nixon and Mr. Lowell of the Oregon State Department of Geology and Mineral Industries. One of these samples was taken about 1/3rd and the other about 2/3rds of the distance from the northerly end of our Cape Blanco property. We are informed that the one sample assayed 13% and the other 25% in volume of the common sand, in chromic oxide. We, however, are estimating on an average volume of 15% of chromite being present in our Cape Blanco sands.

According to determinations made by Mr. E. J. May, Metallurgist, of Los Angeles, California, samples of magnetite taken by him from our Cape Blanco sands assayed \$1.50 per ton in gold. We estimate that our sands contain about 15% of magnetite and 15% of chromite so that this would represent about 30¢ per cubic yard of common sand in gold locked up in the magnetite. To recover this gold the magnetite would need to be milled to free the gold and then it can be recovered by amalgamation. We believe that it would be profitable to do this but that feature remains to be proved on a large scale operation.

It is our intention to finance the installation of magnetic separators and the costs for experimental work in connection with our by-product minerals, with a portion of our profits from gold and platinum.

Mr. F. W. Libbey, Mining Engineer, of the Oregon State Department of Geology and Mineral Industry, with whom we have discussed our flow sheet and proposed plant plans has requested us to leave space below the tailings from our Cottrell Roto tables to enable their Mr. Joseph Schulein to install equipment for the handling, separation and electro-chemical treatment of our black sands. Mr. Schulein's experiments will be financed by the State of Oregon and we will receive the benefit of considerable knowledge acquired therefrom.

PACIFIC COAST MINING & REFINING COMPANY

By E. R. Marshall President