

COLUMBIA & WESTERN RY. CO.

Time Table No. 6, to take effect July 3, 1907.

EASTBOUND.

No. 2 passenger (daily except Sunday)
 Leaves Rossland 3:00 p.m.
 Arrives at Trail 3:50 p.m.
 No. 1 passenger (daily)
 Leaves Rossland 11:00 a.m.
 Arrives at Trail 12:00 p.m.
 No. 4 passenger (daily except Sunday)
 Leaves Rossland 7:00 a.m.
 Arrives at Trail 7:50 a.m.

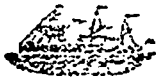
WESTBOUND.

No. 3 passenger (daily except Sunday)
 Leaves Trail 7:45 a.m.
 Arrives in Rossland 9:30 a.m.
 No. 1 passenger (daily)
 Leaves Trail 12:30 p.m.
 Arrives in Rossland 1:30 p.m.
 No. 5 passenger (daily except Sunday)
 Leaves Trail 5:45 p.m.
 Arrives in Rossland 7:00 p.m.

Connections made with all boats arriving and departing from Trail.

GENERAL OFFICES: **E. P. GUTENUS,**
 TRAIL, B.C. Gen. Supt.

FOR PUGET SOUND POINTS



SS. ROSALIE

Leaves Victoria (except Sundays) for Port Townsend, Seattle and Tacoma, at 8:30 p.m., making close connection at Victoria with the SS. "Charmer," returning leaves Seattle daily (except Sundays) at 9:30 a.m.

Passengers may, if desired, remain on board at Seattle for breakfast, as steamer lies at her dock until 9 a.m., when she leaves for Victoria.

Round trip tickets at reduced rates. For tickets and information call on

J. K. DEVLIN, Agent,
 21-7-9711 75 Government St.

Union Steamship Co., of B.C., Ltd.

**Head Office and Wharf
 VANCOUVER, B.C.**

Northern Settlements—SS. Comox sails from Company's Wharf every Tuesday at 9 a.m. for Bowen Island, Howe Sound, Sechart, Jarvis Inlet, Broeck, Fox, Ida, Island, Lund, Bernardo, Island, Cortez Island, Head Island, Valdez Island, Shoal Bay, Phillips Arm, Ericrick Arm, Thurlow Island, Loughborough Inlet, Salmon River, Port Neville, and sails every Friday at 4 p.m. for way ports and Shoal Bay, calling at home Inlet every six weeks.

Rivers Inlet and Naas River—SS. Coquitlam sails on 2nd and 4th of each month and will proceed to any part of the Coast should inducements offer.

Moodyville and North Vancouver Ferry—Leaves Moodyville: 8, 9:15, 10:15 noon, 2, 4 and 5:45 p.m. Leaves Vancouver: 8:35, 9, 11:30, 1:15 p.m., 3:15, 5:15 a.m. Calling at North Vancouver each way, excepting the noon trip.

Freight Steamer—SS. Coquitlam and S.S. Coquitlam, capacity 300 tons, D.W.

Tugs and Scoops always available for towing and freighting business. Large storage accommodation on company's wharf

H. DARLING,
 Manager

Telephone 91.

RAND BROS.

STOCK AND MINING BROKERS

Real Estate Agents

**CAMBIE STREET, - -
 Vancouver, - B. C.**

PLATINUM.

SOURCES OF SUPPLY, IDENTIFICATION AND SEPARATION OF THE ORE. FACTS OF INTEREST TO PROSPECTORS AND MINERS.

Compiled by
BAKER & COMPANY,
 Platinum Refiners,
 Newark, N. J., U. S. A.

The constantly increasing demand for platinum in the arts and manufactures of the world and the present limited sources of supply, have in recent years greatly enhanced the price of the metal. Because of the peculiar and valuable quantities of platinum it is believed that the consumption of the metal would be greatly increased if the supply was sufficient to materially lower the cost.

This circular is issued for the purpose of calling the attention of prospectors and miners to the increasing demand for the metal, even at present prices, and to the wide distribution of the ore, with the hope that by their aid new and rich deposits of the same may be located.

Contrary to popular impression, platinum and associated metals are widely distributed, although they have thus far been found in paying quantities in but few locations. This condition is perhaps largely due to the higher intrinsic value of gold and to the limited acquaintance of prospectors and miners with the means of identifying platinum ore and of its economic separation. Up to the present time the platinum of commerce has been obtained entirely from alluvial deposits, although it has been reported in limited quantities in situ. About eighty per cent. of the present supply is derived from the alluvial deposits of the Ural Mountains, but there are few, if any, of the gold-bearing gravel beds of the world that have failed to yield platinum, and it is more than likely that large quantities of platinum ore have been thrown away with the black sand washings from gold placer deposits. The distribution of the ore may in fact be regarded as practically coexistent with gold placer deposits, as is evidenced by the following list of localities, excepting Russia, that have yielded the ore in varying quantities. In California it nearly, if not all of the gold-bearing gravel and sands; in Oregon, Georgia, North Carolina, Alaska on the Yukon River, Canada, British Columbia, Mexico, Colombia and Brazil, South America, and Australia.

The genesis of native platinum is not well understood. In two cases it has been reported as found in quartz veins, but these reports have never been verified, and the theory of deposition from solution based upon them is rendered extremely doubtful, by the known insolubility of the metal. The undoubted occurrences of platinum in situ are in Russia, Brazil, New South Wales, Canada and Colombia.

Platinum ore is usually found in the form of rounded or flattened grains or "scales" occasionally in irregular lump; of the size of peas; large nuggets are very rare—the largest as yet found weighing twenty-one pounds.

The ore has a metallic lustre and is distinguished by its steel grey color, shining light gray streak when rubbed on a hard white surface, high specific gravity (16 to 19) infusibility in the hottest blast furnaces and insolubility

in any single acid. It is not affected by borax or salt of phosphorus before the blowpipe, except in the finely divided state, when reactions for iron and copper may be obtained. It is soluble only in hot nitro-hydrochloric acid (Aqua Regina).

Platinum ore is a complex body consisting of the metal in combination with varying proportions of the other members of the platinum group, such as iridium, rhodium, palladium, ruthenium and osmium, together with from four to twenty per cent. of iron. In alluvial deposits the ore is generally associated with iridosmine (a native alloy of iridium and osmium possessing a degree of hardness superior to that of hard-tempered steel) magnetic iron sand, chromite, garnet, epidote and often with zircon, serpentine, ilmenite, peridot, quartz, diamond and chrysolite. Russia is the only country, excepting possibly New South Wales, that at the present time mines platinum ore for itself alone.

In the former country the platinum-bearing sand is found at depths of between six and forty feet, the "pay streak," averaging less than a foot in depth, resting directly on serpentine bed-rock. In New South Wales the "pay streak" is from sixty to one hundred and fifty feet wide and underlies a loam bed sixty to seventy feet deep, the ore occurring in the crevices of the bed-rock and in the gravel resting thereon.

The method generally adopted for extracting the ore is to pass the sand and gravel with water through puddling machines or revolving conical screens; the platinum and fine sand pass through into circular boxes beneath, while the coarse materials are discharged at one side. The contents of the sluice boxes are washed in the usual manner, and when gold is present in paying quantities it is removed by amalgamation with mercury, the platinum remaining behind. Experience shows that it is seldom profitable to work mines yielding less than three grams of platinum ore to the ton of gravel. The average yield of the richest Russian mines is about six grams per ton.

The refining of crude platinum is a difficult operation to perform and requires apparatus and experience not generally available.

As we are extensive buyers and refiners of platinum and manufacturers of the metal in all forms, we are most anxious to encourage the search for and the development of new sources of supply of the ore.

We have the best facilities for the correct assaying and refining of platinum ore and are purchasers at the highest market prices of the crude ore in either small or large quantities. We shall be pleased, therefore, to give additional and detailed information bearing upon this subject to such persons as are practically interested in this matter and to make tests for platinum, free of charge, on samples delivered F. O. B. at our works.

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