

mines at Phoenix reached an aggregate of 8,000,000 tons, all of which was smelted at the company's works at Grand Forks. While exact figures of the total quantity of foreign ores, also smelted there, and the quantities of all metals produced to date, are not just now available, a rough estimate may be made, as follows: Total quantity of foreign ore treated to date, say 250,000 tons. All metals produced, that is, from the above-mentioned 8,250,000 tons of ore, say: Gold, 456,000 oz.; silver, 3,150,000 oz.; and copper, 190,000,000 lbs. Although this is given as a rough estimate, it is evident it is a reasonable one, for the company's published figures to the end of its fiscal year to June 30th, 1910, were as under:

Granby mines ore smelted	6,263,091 tons.
Foreign ores smelted	214,544 tons.
Foreign matte smelted	13,514 tons.
Metals produced from ores, etc., as above:	
Gold	389,589 oz.
Silver	2,589,213 oz.
Copper	161,168,537 lb.

A very approximate valuation (gross) of these metals gives an aggregate of \$40,000,000. It may be that if value were calculated at the exact average prices of the several metals year by year a greater amount, or possibly a smaller sum total, would be arrived at. Without any claim to reliability for the aggregate sum given above, it seems quite reasonable to assume that, for general purposes, it may be said the gross value of the metals produced by the Granby Company is about \$40,000,000, this including, as well, the value of metals recovered from foreign ores. But the before-mentioned total sum by no means represents the whole of the value of the output of Boundary district mines, for there are several others to be taken into account. Of these, though, the British Columbia Copper Company's Mother Lode mine is the only one the production of which will be stated here. The aggregate output of that mine to date may be placed at about 2,500,000 tons of ore, having a gross of \$8,000,000 to \$9,000,000.

If to the value of ore from the mines of the Granby and British Columbia Copper Companies be added that of the Snowshoe, the several mines in Phoenix camp of the New Dominion Copper Company, and those in Summit camp that were also producers, not to say anything of numbers of shippers of comparatively small quantities of ore, it would appear to be quite reasonable to claim for the whole Boundary district, east of the Okanagan, an aggregate output of a gross value of well on toward \$60,000,000.

Bearing in mind that Boundary mines are still producing large quantities of ore — it is estimated that in the Granby mines alone there still remains about 5,000,000 tons of developed ore—it will not be surprising to find that eventually an aggregate gross value of \$100,000,000, as the output of that district, will be reached.

SOUTH BELT, ROSSLAND CAMP.—Several mining properties, situated in what is known as the South Belt of Rossland camp, are again being worked, these including the Blue Bird, Richmond group, Lily May, and Phoenix. The Curlew shaft was recently unwatered for examination preliminary to determining what further development shall be done.

Of the before-mentioned properties, the Blue Bird was, until a few weeks ago, the only one from which ore had been shipped in quantity. To date, seventeen

carloads, containing some 400 to 500 tons, have been shipped to the smeltery at Trail during the period Mr. Lyman Carter has been manager of the mine. When the property was visited on August 2nd, the eighteenth car was being loaded. For the last year or two lack of funds had prevented the owners from providing sufficient power equipment to admit of needed development work being done. This difficulty was recently overcome by the organization of the Rosalia Mining Company, Limited. Now, there is a small but efficient power plant, and the shaft is being sunk from the 200 to the 300-foot level. This plant comprises two vertical steam boilers, together 50 h.p.; a Canadian Rand Company's four-drill compressor and an air receiver; a double-cylinder hoist; pump; two machine drills, etc. A crosscut tunnel connects with the shaft at the 94-foot level, improving ventilation and facilitating disposal of the water by the steam pump. There are five veins on the property, and the shaft has been sunk on the middle one, which has also been opened by a drift, 70 feet in length, extending westward on the 94-foot level. It is intended to crosscut south to cut another vein on the same level.

Besides the Curlew, already mentioned, there are other properties in the near vicinity of the Blue Bird, among them the Homestake and Mayflower, but both are unworked at the present time. About a mile to westward are the Lily May, Hattie Brown, Richmond, and other mineral claims, these having been acquired by the Richmond Consolidated Mines, Ltd., of which Mr. J. L. Warner is manager. It is stated that there are on this group of claims five well-defined veins—three having an easterly and westerly and two a northerly and southerly course. In the ore of the former, silver and lead are the chief metals; that of the latter contains gold and copper. During several recent months much exploratory work has been done near the surface, and it is stated that some showings of gold ore have been uncovered. Quite lately the Lily May, which was the first claim located in Rossland camp, dating back to 1889, was added to the Richmond group, and as there is on it a shaft of a depth of 200 ft. or more, it is intended to put in machinery and work the property from this shaft. On the occasion of the valedictory banquet given to Mr. J. S. C. Fraser on July 30, Mr. J. L. Warner, who for some time past has given much attention to the South Belt, said, in part: "As a result of exploratory operations for some months in the South Belt, I have become convinced that we are working in formations identical in character to those of Red mountain, on which are situated the Le Roi, Centre Star-War Eagle group, Josie and other well-known productive mines. The same dikes cross the series of parallel veins in both North and South Belts, but the greater depth of decomposed surface rock in the latter makes exploration of veins on the surface more difficult. New places show gold-copper ore, but this class of ore, which is similar to that occurring in the North Belt, is being exposed in proximity to the strongest dikes. There exists evidence for my opinion that the prevailing galena ores—a type of vein-filling with the associated volatile metals, arsenic, antimony and zinc, in the iron croppings of the South Belt veins) are but the emanations from the deeper ore bodies of gold-copper pyrrhotite ore. One indication of their origin is seen in the changing character of ore in all east and west veins near their junctions with the prominent dikes. I can express my absolute confidence that all the South Belt needs to disclose large ore bodies, of the same character of gold-copper