

mine—a result first of the lead bounty granted by the Dominion government and next to the higher average price of that metal. The Crow's Nest Pass Coal Co.'s collieries also contributed to this increase to the extent of about \$327,000. In the Boundary section of Yale district the increase of more than 33 per cent is in a large measure the direct outcome of a combination of a much bigger production of copper-gold ore and the higher average price of copper the year through. The production by districts is shown in the following table:

District	1904.	1905.
Cariboo	\$ 474,600	\$ 460,000
Cassiar (Atlin, etc.)	558,573	563,500
East Kootenay	3,210,573	4,927,500
West Kootenay	5,806,070	5,706,000
Lillooet	34,583	30,000
Yale (Boundary and Similkameen)	4,190,281	5,651,500
Coast (Mainland, Vancouver Island, etc.)	4,102,679	3,114,500
Miscellaneous (building materials, etc)	600,000	750,000
Totals	\$18,977,359	\$21,203,000

THE MINERALS AND THEIR PRODUCTION SEPARATELY REVIEWED.

REVIEWING separately the production in 1905 of the several minerals, details of which are given in the foregoing comparative review, the following observations may be taken to indicate in a general way the position in regard to them, respectively:

GOLD.

A DECREASE IN PLACER AND AN INCREASE IN LODE GOLD.

Placer Gold—The dry and short season for placer mining operations was accountable for the lack of progress, from a production point of view, in connection with this branch of the mining industry. This, notwithstanding there has been real progress in the direction of mining methods that give much promise of making for permanent improvement in placer mining, whether by hydraulic mining, deep drifting or dredging. Before glancing at these in passing, it should be stated that though estimates published in provincial newspapers have variously stated the season's total recovery of gold in Atlin district at amounts ranging from \$600,000 to \$1,000,000, it has been deemed advisable, in view of the general unfavourableness of the season, to place it at less than \$550,000 in the accompanying estimate, no verified figures having yet been received to prove the district's production to have been much larger than that of 1904, which appears in the official records as having totalled \$530,000. Further, it will be seen that since the Consolidated Cariboo Hydraulic Co. recovered gold to the value of only \$21,733 in 1905, as compared with \$85,936 in 1904, it will be understood that even the considerably better season reported by several individual placer mines in Cariboo could hardly be expected to have overcome this shortage, hence the decrease shown

in the production of that district, which is only in gold. Some information concerning the Consolidated Cariboo Hydraulic Mining Co. is given on another page, for the purpose of showing its improved prospects.

In regard to improved methods in mining for placer gold—these are several, including the deep drifting now appearing to be approaching a successful outcome to the efforts of the past two or three years to overcome the serious difficulties that have attended it; the measure of success that has attended gold dredging operations, especially in the Atlin district, and the profitable return reported to have been obtained following the installation, late in the season, of a steam shovel, also at Atlin. The interesting notes by Mr. H. W. Ebbs Canavan, C. E., on dredging at Atlin, printed elsewhere in this issue, show some of the difficulties met with as well as the success achieved. The deep drifting operations at La Fontaine on Lightning Creek, of the Cariboo Consolidated (1904) Ltd., and on Slough Creek, also in the Cariboo district, of the Slough Creek Gravel Gold, Ltd., give promise of eventually proving successful. The great flow of water from the ends of the drifts, which is the chief obstacle in the way of mining the gold-bearing gravels occurring in the ancient channels in which these deep-drift workings are gradually being advanced, is being lessened, and the expectation is that ere long it will be possible to proceed with the extraction of the gravels lying on bedrock and which contain gold in such quantities as will yield large profits. An idea of the flow of water may be obtained from mention of the fact that last June more than 1,000,000 gallons per day were flowing into the deep drifts of the Slough Creek mine, which quantity kept the pumps going constantly at a moderate speed. Until the high pressure of so large a volume of water flowing in at the drift ends shall have been considerably reduced, the mining of the gravels on a payable basis will not be practicable. No particulars have been received relative to the steam shovel at Atlin other than that its operations were successful and profitable.

Lode Gold.—The increase in lode gold was contributed largely by the copper-gold mines of the Boundary section of Yale district, and by the Nickel Plate mine, near Hedley, Similkameen. These are estimated to have added about \$400,000 to the year's total. Ainsworth and Kamloops divisions will probably be found to have contributed from \$15,000 to \$20,000 on this account. On the other hand Rossland mines have, it is thought, yielded about \$250,000 less in gold this year. If this estimate be borne out by the actual returns, the smaller gold yield may be attributed to the fact that reduced freight and smelting costs admit of the marketing of lower grade ores, which in itself is an important gain, since there are, beside a fair proportion of higher grade, large quantities of such ores in Rossland mines ready to be turned to profitable account so soon as conditions shall admit of their being so disposed of. The Coast districts will probably be found to have suffered a loss of about \$100,000 in their lode gold, for which the lessened output of the Tyee mine will have been responsible.