

# Annual Report of Consolidated Smelting Company

**While Earnings Show a Decrease Developments at Smelter and Refineries and Company Mines Hold Much Promise for the Future—Report of President Warren and General Manager Blaylock.**

We are in receipt of the fourteenth annual report of the Consolidated Mining & Smelting Co. of Canada, Ltd., being for the fifteen months ending December 31st, 1919. Mr. James J. Warren, president of the company, reporting for the directors, covered the salient features of the fifteen months' operation. In regard to earnings he said that after charging \$280,271 in development account, setting aside \$150,391 for taxes, writing off \$102,139 for depreciation of plant and equipment and providing for capital renewals as well as all ordinary repairs, the net profits were \$1,011,212, of which \$185,539 were disbursed for bond interest, and the remainder transferred to profit and loss account. During the fifteen months five dividends were declared, amounting to \$1,315,462, leaving a deficit, but which the directors felt justified in creating on account of the temporary conditions obtaining not likely to recur.

Heavy disbursements were made on capital account, the principal items being West Kootenay Power & Light Co., for extensions of its power line to Copper Mountain, \$754,000; expended on property and plant account of Fluorspar property, \$217,304; expended on Sunloch Mines, \$105,861; advanced to Coast Copper Company, \$170,145; smelter improvement and extensions, \$637,413. The result from these heavy disbursements were not felt, but will be in evidence in future operation. Ore reserves have been largely increased, the developments in the Sullivan Mine being most satisfactory. For many years the company has been ambitious to be a large producer of copper. Originally the Rossland Mines promised to contribute considerable quantities of this metal, but latterly the copper content is almost negligible, the gold value being the important one. With the acquisition of controlling interests in the Coast Copper Co. (Quatsino), and the Sunloch Mines (Jordan River), both properties being situated on Vancouver Island, and the satisfactory development in these properties, the ambition referred to seems about to be realized.

Outside of the remarkable advancement in the Sullivan Mine, the outstanding occurrence of the period was the demonstration of a satisfactory process of treating the lower grade ores of the Rossland camp, a problem that has taken over twenty years to solve, and which will add many years to the life of the Rossland mines. The concentrating mill at the Fluorspar property, Rock Candy, has been completed, in consequence of which a product of the highest grade can be turned out and lower grades can be produced uniformly and economically.

The copper refinery is being enlarged to a capacity of fifty tons per day and a rod mill of the same capacity is being installed. These extensions are made necessary to take care of the concentrates of the Canada Copper Corporation, shipments of which will begin in the coming summer.

The head office is moved from Toronto to Montreal, and the company has undertaken to market in future all its products. The fiscal year formerly ended on September 30th has now been changed to the calendar year, for the purpose of presenting the same report both to shareholders and tax gatherers, thus saving an additional audit. The three million dollar bond issue authorized at the last annual meeting has been fully subscribed.

In reviewing the smelter and mine operations Mr. S. G. Blaylock, general manager, reviews the year's operations and developments, part of which are as follows:

**The Copper Plant**—The main source of tonnage for this plant is the company's Rossland property. Owing to the very high cost of operation and the small available

tonnage of ore sufficiently high in grade to offset this cost, it was not considered advisable to mine a large tonnage at Rossland. Mining operations were, therefore, conducted on a very small scale, and only one copper furnace was operated at the smelter. While the tonnage was so small that both mining and smelting costs were high, the metallurgical recoveries were the best that have ever been obtained in the smelter, and tonnage considered, the costs were very low.

**The Lead Plant**—Most of the ore treated came from the Sullivan Mine, and consisted of crude ore or zinc plant tailings, but there was an insufficient supply of ore, a condition that will be remedied when the new Sullivan concentrators have reached the point where they can provide the required lead tonnage. There has been much improvement in the class of cusoms ore received, shippers taking more care to eliminate the zinc from their lead concentrates.

The metallurgical work of the Lead Plant has been greatly improved, this year's work, considering the analyses of the ores treated being better metallurgically than that of any of the last ten years.

**The Zinc Plant**—Owing to the delayed completion of the magnetic concentrator, through the non-delivery of machinery, the cost of production in this plant did not decline as expected. This cost was increased too through the raw ore dropping grade owing, mainly to shortage of labor at the mine. The magnetic concentrator is now completed, so that much lower costs and higher production should prevail.

**The Copper Refinery**—Improved methods have been introduced, and better practice prevails. The product is now admitted to be thoroughly high grade and most suitable for the trade. The present capacity (20 tons of refined copper per day) is being increased to 50 tons of refined copper per day to take care of the production of the Canada Copper Corporation under a contract with that Company.

**The Lead Refinery**—This Plant has continued to turn out its uniformly high grade product and has shown very marked improvements in costs which are now well below the costs of a Parkes' Process Plant operating on the same tonnage.

**Gold and Silver Refinery**—The Gold and Silver Refinery has been practically rebuilt and is now thoroughly up-to-date.

**The Concentration Department—Zinc Lead Ores**—Concentration has been carried on a part only of the Sullivan ore and has raised the percentage of metal recovered in spite of the drop in the grade of the ore supply. Concentrator capacity is now built to handle 600 tons of Sullivan ore. The operation of this plant will bring about a very large improvement in the cost of producing zinc and lead. The Concentration Processes have been much improved during the year and very rapid developments are expected in these lines.

**Rossland Ores**—A flotation mill of 200 tons daily capacity was run for several months on low grade Rossland ore; this mill proved beyond a doubt that the Rossland ores can be concentrated at reasonable cost and with good recoveries. Plans are well under way for a Concentrator to handle 1,500 tons of Rossland ore daily.

**Mining Department**—Mining costs have been affected by the low tonnage produced in the same manner as the reduction plants. While the developments in the Coast Copper and Sunloch properties have been very satisfactory, probably the most gratifying thing has been the actual opening up of the ore bodies on the lower tunnel level at the Sullivan Mine. The ore opened up here, while slightly different in character, is richer and larger than any one expected, and assures even greater tonnages in this tremendous ore deposit. The tonnage developed at this mine