

Mineral Productions of Ontario in 1906

A SUMMARY OF THE STATISTICAL FEATURES OF THE ANNUAL REPORT OF THE ONTARIO BUREAU OF MINES.

The Report of the Ontario Bureau of Mines for 1906, which will be ready for distribution in a few days, shows the output of mines and mineral works in Ontario during 1906 to be \$22,388,383, computed at the selling price of the products at the mines or works, and not taking into account the additional values induced by subsequent refinement or treatment. This is an increase of \$4,534,087 or about 25 per cent., as compared with the production of 1905.

The chief increase is in metallic minerals where the gain is due to two factors, the development of silver and nickel mining and the increased activity in the smelting of pig iron. Among non-metallic minerals, the chief gains are in the production of Portland cement, common building brick and natural gas.

The great diversity of mineral production and the steady expansion of the industry is shown in the following table showing the production during the last three years:

PIG IRON AND STEEL.

There were produced in the blast furnaces of Ontario during the year 1906, 275,558 tons of pig iron valued at \$4,554,247, as compared with 256,704 tons worth \$3,909,527 in 1905. The number of furnaces in operation remained the same, namely, five, situated at Hamilton, Deseronto, Midland and Sault Ste. Marie. The Province's capacity for pig iron production is undergoing enlargement, as the blast furnace at Port Arthur in which it is proposed to smelt the output of the Atikokan mines was nearly completed at the end of the year, and early in 1907 the construction of a new furnace by the Hamilton Steel & Iron Works at Hamilton was well under way. This furnace was being erected by Frank C. Roberts & Co., of Philadelphia. The measurement of the stack was 85 feet high by 22 feet 6 inches in diameter, and the new furnace will enable the company to increase its pig iron product by 110,000

gross tons per annum. In addition the company are erecting a fourth open-hearth steel furnace under the supervision of Alex. Laughlin & Co., of Pittsburg, which when completed will nearly double their production of steel bars. The production of steel in the Province was as shown in the table below. Of the pig iron output 49,907 net tons were used by the Hamilton Steel & Iron Co., in the production of steel ingots and castings, while the whole product of the Algoma Steel Co., at Sault Ste. Marie, was converted into steel rails. The latter company are installing a plant for the production of open-hearth steel, their present works being for the Bessemer process.

Following are details of the operation and production of the blast furnaces and steel works in 1906:

Product.	1904	1905	1906
Metallic:			
Gold.....	\$40,000	\$99,885	\$66,193
Silver.....	111,887	1,372,877	3,689,286
Platinum.....	10,452		
Palladium.....	18,564	28,116	5,652
Cobalt.....	36,620	100,000	80,704
Copper.....	297,126	688,993	960,813
Nickel.....	1,516,747	3,354,934	3,839,419
Iron ore.....	108,068	227,909	301,032
Pig iron.....	1,811,664	3,909,527	4,554,247
Steel.....	1,188,349	3,321,884	
Lead ore.....	11,000		
Pig lead.....	2,500	9,000	93,500
Zinc ore.....	3,700		6,000
	\$5,321,677	\$13,113,125	\$13,596,846
Less value Ontario iron ore smelted into pig iron, and pig iron converted into steel.....	250,000	2,912,115 (a)	423,766
Net metallic production.....	\$4,906,667	\$10,201,010	\$13,353,080
Non-Metallic:			
Actinolite.....	\$102		
Arsenic.....	903	\$2,693	\$15,858
Brick, common.....	1,430,000	1,937,500	2,157,000
Brick, paving.....	55,450	54,000	45,000
Brick, pressed.....	226,750	234,000	337,795
Building and Crushed Stone.....	700,000	700,000	660,000
Carbide of calcium.....	152,295	156,755	162,780
Cement, natural rock.....	65,250	10,402	6,000
Cement, Portland.....	1,239,971	1,783,451	2,381,014
Corundum.....	150,645	152,464	262,448
Feldspar.....	21,966	29,968	43,849
Graphite.....	4,700	9,825	15,000
Gypsum.....	10,674	4,118	6,605
Iron Pyrites.....	43,716	21,885	40,583
Lime.....	406,800	424,700	496,785
Mica.....	37,847	50,446	69,041
Natural gas.....	253,524	316,476	533,446
Peat fuel.....	2,400	1,200	900
Petroleum products.....	904,437	\$98,545	761,546
Pottery.....	100,000	60,000	65,000
Quartz.....			65,765
Salt.....	362,621	356,783	367,738
Sewer pipe.....	283,000	225,835	279,620
Sodalite.....			6,000
Talc.....	2,919	2,240	3,030
Tile, drain.....	210,000	220,000	252,500
Total non-metallic production.....	\$6,065,970	\$7,653,286	\$9,035,303
Add metallic production.....	4,906,677	10,201,010	13,353,080
Total production.....	\$11,572,647	\$17,854,296	\$22,388,383

Ontario ore smelted..... tons	101, 569
Foreign ore smelted..... "	396,463
Scale and mill cinder..... "	24,282
Limestone for flux..... "	153,702
Coke for fuel..... "	304,676
Value of do.....	\$1,589,941
Charcoal for fuel..... bush.	811,926
Value of do.....	\$32,477
Pig iron product..... tons	275,558
Value of do.....	\$4,554,247
Steel product..... tons	167,026
Value of do.....	\$4,202,278
Workmen employed..... No.	1,095
Wages paid.....	\$576,206

It will be seen that of the total quantity of ore charged into the blast furnaces last year only 101,569 tons, or some 20 per cent. was of domestic origin, the remainder being imported from the United States. Several reasons have operated in favor of the use of iron ores from south of the line. One is the enormous and constant movement of ore cargoes from lake Superior ports to eastern furnaces, which enables supplies of ore of any desired kind to be easily obtained at current prices, and another is the fact that there are very few iron mines in Ontario in a position to maintain shipments of ore on any considerable scale. The former advantage can be freely availed of by Ontario furnace men because of the absence of any import duty on ore brought from the United States, Canadian fiscal arrangements being such as to impose no such obstacle to the use of foreign ores as the United States tariff, for instance, with its import of 40 cents per gross ton, places on Canadian ores. The Helen mine has for years been the chief source of iron ore within the limits of the Province which could be drawn upon by blast furnaces here, but this paucity of supply is likely to disappear in large degree at an early date, with the opening up of the Moose Mountain and Mineral Range mines. It must be remembered, too, that all ores are not suitable for all purposes. Hence, although a large proportion of the Ontario ore produced, which comes from the Helen mine is exported to the United States, the practical effect is that it is exchanged there for other ores better suited for the manufacture of steel rails by the Bessemer process as carried on by the Algoma Commercial Co., at Sault Ste. Marie.

Particulars with regard to the operations