

The continuing high demand for nickel for civilian and defence purposes further stimulated the expansion under way within the nickel-copper industry in the Sudbury area. The International Nickel Company of Canada Limited, the source of 73 p.c. of the world output of nickel, has practically completed the \$150,000,000 expansion program commenced almost a decade ago. The program has included the changeover from open-pit and underground mining to almost entirely underground mining, as well as the mining of low-grade ore at its Creighton mine through the utilization of caving, a low-cost bulk mining method. During the review period the Company further raised the capacity of the concentrator at its Creighton mine from 10,000 to 12,000 tons. At the end of 1953, International Nickel Company's nickel-producing capacity was over 275,000,000 lb. a year compared with 250,000,000 lb. at the end of 1952. Capacity will be further increased by output from a \$16,000,000 plant now under construction in which nickeliferous pyrrhotite will be treated for the recovery of nickel and high-grade iron ore. The process involved is the result of years of research. It is expected that the plant will eventually produce 1,000,000 tons of iron ore a year.

Falconbridge Nickel Mines Limited, the other major producer, is also expanding its nickel-producing capacity, and during the review period raised its sights to a production of 55,000,000 lb. by 1960. Ore handled in 1953 totalled 1,298,000 tons, an increase of 169,000 tons over 1952, of which 134,000 tons came from three new and independent producers in the area—Milnet Mines Limited, East Rim Nickel Mines Limited and Nickel Offsets Limited. Most of the Company output came from the Falconbridge and McKim mines.

The program involves the bringing in of six new mines, all on the rim of the Sudbury basin—the Falconbridge East, Mount Nickel, Hardy, Boundary, Longvack and Fecunis mines. Three of these, the Falconbridge East, Mount Nickel and Hardy mines, are expected to start production in 1954. The Boundary and Longvack mines have small ore reserves but they will contribute to production until the large Fecunis orebody comes into full operation in 1958. The expansion in refinery capacity at Kristiansand, Norway, includes a new cobalt refinery.

International Nickel Company accounts for 90 p.c. of Ontario's output of copper and Falconbridge Nickel Mines for most of the remainder. Output in 1953 rose to 130,000 tons, an increase of 5,000 tons over 1952.

The Canadian nickel industry is the source of all of Canada's output of the platinum metals which in 1953 amounted to 296,000 oz. t. compared with 280,000 oz. t. in 1952.

A high level of development activity was maintained throughout the review period in Ontario's three iron-ore fields—the Steep Rock and Michipicoten fields in northwestern Ontario which at present account for all of the Province's output of iron ore, and the Marmora field in southeastern Ontario from which initial production is expected late in 1954. Present plans indicate a total output of 12,000,000 tons of iron ore from these fields by 1960. Output in 1953 amounted to 2,529,464 long tons compared with 2,426,330 long tons in 1952. Most of Ontario's output is exported to the United States where it is in demand because of its high grade and good furnace qualities, and most of the ore used in Ontario blast furnaces is imported from the United States.

At Steep Rock Mines Limited, expansion plans are designed to increase production to 5,500,000 long tons annually from an output of 1,301,000 long tons in 1953. Production in 1954 is expected to equal that of 1953. During the review