

at the mines of Noranda Mines, Limited (Horne mine), Waite Amulet Mines, Limited and Gaspé Copper Mines, Limited. Solbec Copper Mines, Ltd. started production of copper and zinc concentrates in January at its 1,000-ton-a-day mill about 53 miles northeast of Sherbrooke in the Eastern Townships. Cupra Mines Ltd. started shaft-sinking at its property approximately  $2\frac{1}{2}$  miles south of the Solbec mine; mining will start in 1964 and the ore will be trucked to the Solbec plant for milling. In the Chibougamau district, Campbell Chibougamau Mines Ltd. started development of a new ore occurrence on four levels below the previously mined orebody. Merrill Island Mining Corporation, Ltd. deepened its main shaft and started exploration and development on three levels of a recently discovered orebody. In the Noranda-Val d'Or-Normetal area of northwestern Quebec, production was maintained at the established mines and underground exploration and development started at several prospects. Lake Dufault Mines, Limited started shaft-sinking at its property adjoining Waite Amulet Mines, on the east. In Joutel Township north of Amos, Joutel Copper Mines Limited started sinking a three-compartment shaft on its property, and Rio Algom Mines Limited announced plans to start sinking on its claims in the same area. Mine plant construction and underground development was proceeding at the mines of Mattagami Lake Mines Limited, New Hosco Mines Limited and Orchan Mines Limited in the Mattagami Lake area; production from these properties is scheduled to begin in the latter part of 1963. Exploration parties were active in all parts of Quebec, particularly in the Belleterre, Noranda and Joutel areas in the northwest and in Ungava where interest was centred around Romanet Lake.

Copper production in Ontario declined in 1962 to 184,684 tons valued at \$113,481,766 from the 211,647 tons valued at \$122,421,860 produced in 1961, a result of the cut in production by International Nickel at its Sudbury mines. This company operated seven mines, three mills, two smelters and a copper refinery in the Sudbury district. Falconbridge Nickel Mines, Limited, the other large nickel-copper producer in the area, operated six mines, three mills and a smelter and shipped nickel-copper matte to its refinery in Norway. The copper-zinc mines in the Manitouwadge area produced steadily all year as did North Coldstream mine near Kashabowie and Rio Algom's Pater mine at Spragge. Kam-Kotia Porcupine Mines, Limited, west of Timmins, discovered a new orebody close to its 900-ton-a-day open-pit mine and preparations were made to sink a shaft and explore the mineralized zone by lateral development. McIntyre-Porcupine Mines, Limited at Timmins modified a portion of its mill in preparation for the treatment of low-grade copper ore to be produced from a section of the McIntyre mine in 1963.

In Manitoba-Saskatchewan, Hudson Bay Mining and Smelting Co., Limited, Sherritt Gordon Mines, Limited and Stall Lake Mines Limited had a combined copper output of 43,061 tons valued at \$26,527,365, a decrease of 2,872 tons and \$288,906 from 1961. Stall Lake Mines started production of copper-zinc ore late in 1962 from a property four miles southwest of Snow Lake, Man. The ore is sold to Hudson Bay for smelting. Hudson Bay operated a central mill and smelter on ores from the Schist Lake and Chisel Lake mines in Manitoba, the Coronation mine in Saskatchewan and the Flin Flon mine that straddles the Manitoba-Saskatchewan boundary. Development of the Stall Lake and Osborne mines near Snow Lake, Man., was continued by Hudson Bay. Sherritt Gordon produced copper concentrate at its nickel-copper mine and mill at Lynn Lake, which was smelted at Flin Flon.

Copper production in British Columbia continued the spectacular rise that started in 1960. The 1962 production of 53,709 tons valued at \$33,299,715 exceeded that of 1961 by 37,864 tons and \$24,093,777. Craigmont Mines Limited, near Merritt, is now Canada's third largest copper mine and produced approximately three quarters of British Columbia's 1962 copper production. Bethlehem Copper Corporation Ltd. started production in December 1962 at its open-pit mine in Highland Valley, approximately 26 miles southeast of Ashcroft; output will be at the rate of 3,300 tons of ore a day and concentrates will be shipped to Japan. Howe Sound Company's mine at Britannia Beach continued production at 1,500 tons of ore a day and concentrates were shipped to Tacoma, Washington. Phoenix Copper Company Limited, near Greenwood, increased its mill capacity to 1,500 tons a day