

Alberta. Mineral production was valued at \$1,978.6 million in 1972 with crude petroleum, natural gas and natural gas by-products representing 93.8% of the total. Sulphur, produced as a by-product in the processing of natural gas, represented 0.9% of the mineral production. Alberta produced 79.0% of Canada's petroleum and 81.9% of Canada's natural gas in 1972. Coal production accounted for 2.6% of provincial production. Structural materials made up most of the remainder.

British Columbia. Mineral output increased 24.7% to \$678.0 million in 1972. Metallics comprised 59.2% and mineral fuels 27.0% of the mineral production. Copper, zinc, molybdenum and lead accounted for 35.1%, 7.6%, 6.4% and 4.4% of the total mineral production, respectively. Coal, crude petroleum and natural gas represented 10.7%, 9.4% and 6.3% of the total production, respectively. The copper industry continued to expand rapidly with mine production increasing 66.4% over the previous year. Coal production increased to 6.5 million tons in 1972 as some operational problems were solved. Asbestos was the principal non-metal produced.

Northwest Territories. The value of mineral production in 1972 increased to \$120.3 million from \$115.6 million in 1971. Metallic minerals accounted for almost all of the production. Zinc, lead, gold and silver comprised 53.8%, 23.1%, 14.7% and 5.6%, respectively, of the total mineral output. Crude oil and natural gas are of considerable potential value.

Yukon Territory. The value of production increased to \$106.8 million compared to \$93.1 million in 1971. Zinc, lead and asbestos comprised 42.3%, 32.2% and 12.2%, respectively. Output is not large by national standards but is increasing rapidly.

12.1.2 Metals

Copper. Canadian production of recoverable copper amounted to 793,303 tons valued at \$806.4 million in 1972. Canada produced 10.5% of the world's copper and ranks as the third largest producer. World mine production of copper increased 8% over the previous year, with all major producers except Japan registering increases. Canadian exports of copper concentrates and refined copper increased 32% and 3%, respectively. Imports declined 18.5%. Domestic consumption of copper rose slightly, but remained relatively consistent with the levels of the past eight years (Table 12.9).

Copper and nickel-copper ores were smelted at five locations in Canada at the end of 1972. The International Nickel Company of Canada, Limited (INCO) continued to operate a smelter at Copper Cliff, Ont., but temporarily suspended operations of the Coniston smelter. INCO cut back operations by 20% in 1971 and 9% in 1972 because of large nickel stocks. Falconbridge Nickel Mines Limited operated a smelter at Falconbridge, Ont. Ores and concentrates from most mines in the Atlantic Provinces, Quebec and Ontario were processed at the Noranda smelter of Noranda Mines, Limited or at the Murdochville smelter of Gaspe Copper Mines, Limited, both in Quebec. Major expansion programs were under way at both the Noranda and Murdochville smelters. At Murdochville smelter capacity will be raised by 27,000 tons of anode copper a year. A 300,000-ton-a-year sulphuric acid plant is under construction and some of the acid produced will be used to leach copper from low-grade oxide ores from the Copper Mountain mine. At Noranda the smelter is being expanded by the construction of a Noranda continuous smelting process reactor capable of producing 55,000 tons a year of blister copper in one furnace directly from concentrates. Operation of the reactor began early in 1973. Hudson Bay Mining and Smelting Co., Limited operates a smelter at Flin Flon, Man. Hudson Bay plans to produce anode copper instead of blister copper and has announced plans to erect an 825-ft smokestack to improve the dispersion of sulphur gases.

Electrolytic copper refineries were operated by INCO at Copper Cliff and by Canadian Copper Refiners Limited, a subsidiary of Noranda Mines, Limited, at Montreal East, Que. INCO's copper refining capacity at Copper Cliff is being increased by 10% through the installation of an electrowinning circuit to recover copper as a by-product. Canadian Copper Refiners Limited completed an expansion program in 1972 and announced plans for a further increase in capacity for 1973.

Fourteen small- and medium-sized mines were closed, production at four others was suspended for marketing reasons, and 14 new mines were opened, four of which were large open-pit operations in British Columbia. Production declined 18.3% in the Atlantic Provinces, 4.5%