

A significant increase in silver production in Yukon resulted from greater byproduct output at the lead-zinc-silver mine of Cyprus Anvil Mining Corp. at Faro.

Base-metal ores continue to be the main source of Canadian silver output, accounting for about 80% of total mine production in 1978. About 19% is derived from mines whose primary product is silver. The remaining 1.0% comes from silver-cobalt ores mined in the Cobalt district of northern Ontario or as byproduct recovery from lode and placer gold ores.

Canadian silver production was valued at about \$238.9 million in 1978 (Table 12.4). The \$31.1 million increase from 1977 resulted from significantly higher prices. The price in Canada fluctuated in 1978 between a low of \$170.1 a kilogram and a high of \$237.2. Reported industrial consumption of silver in 1978 was 280.7 t compared with 264.4 t in 1977. Additional quantities of about 9.2 t in 1978 and 8.4 t in 1977 were used by the Royal Canadian Mint for coinage.

In 1978 refined silver was produced at six Canadian primary refineries, the largest being Canadian Copper Refiners Ltd. at Montreal, Que. In 1977 it recovered 683 841 kg from the treatment of anode and blister copper. The silver refinery of Cominco at Trail, BC was the second largest producer, in 1977 recovering 292 248 kg of byproduct silver in processing lead and zinc ores and concentrates. Other producers of refined silver were Inco at Copper Cliff, Ont., from nickel-copper concentrates; Canadian Smelting & Refining (1974) Ltd. at Cobalt, Ont., mainly from silver-cobalt ores and concentrates produced by the Cobalt area mines; and the mint at Ottawa, from gold bullion. At Belledune, NB, Brunswick Mining and Smelting Corp. recovered byproduct silver bullion from lead concentrates treated in a blast furnace.

Molybdenum

12.3.8

Canadian shipments of molybdenum in 1978 were 14.1 million kilograms valued at \$170 million. Over 95% of Canadian molybdenum is produced in British Columbia with Quebec the only other producing province. Canada is the second largest producer in the world, accounting for some 16% of western world production.

Prior to 1969, most molybdenum in Canada was produced from primary sources. Since 1969, molybdenum has also been produced as a byproduct or a coproduct with copper from large low-grade copper-molybdenum deposits in British Columbia. These deposits have become an important source of supply accounting for approximately 50% of Canadian production.

There are two primary producers of molybdenum in Canada — Endako Mines Division of Canex Placer Ltd. and Brynnor Mines Ltd. — both in British Columbia. Endako is the largest, accounting for approximately 45% of Canada's production. In 1978, molybdenum was recovered as a byproduct or coproduct of copper at five mines in British Columbia: Bethlehem Copper Corp., Brenda Mines Ltd., Gibraltar Mines Ltd., Lornex Mining Corp. Ltd. and Utah Mines Ltd., and from one mine in Quebec, Gaspé Copper Mines Ltd. Brenda is the second largest, accounting for approximately 23% of molybdenum production.

Climax Molybdenum Corp. of British Columbia, Ltd. announced plans to reopen a molybdenum mine located near Kitsault, BC. This mine, which last produced in 1972, was purchased by Climax in 1973 from Kennecott Copper Corp. Climax will double the existing mining and milling capacity and at capacity it will produce 4 500 t of molybdenum a year in the form of disulphide concentrate. Production start-up is set for mid-1981. Reserves are estimated at nearly 100 million tonnes averaging nearly 0.2% molybdenum disulphide.

Platinum group metals

12.3.9

Production of these metals in 1978 was 8.7 million grams valued at \$55.7 million compared with 14.5 million grams in 1977 valued at \$62.0 million. The 40% decrease was largely due to reduced nickel production and a strike at Inco. Canada produces platinum metals as a byproduct of nickel refining. When nickel matte is electrolytically refined, the platinum group metals — platinum, palladium, rhodium, ruthenium, iridium and osmium — concentrate in the residue. The residue or sludge is upgraded and sent to refineries in Britain and the US for recovery of the platinum metals. Canada