

America. Japan, however, continued to be the most important market for Canadian copper concentrates, consuming 70% of all concentrate exports.

Further erosion of mine production capacity occurred, particularly in Eastern Canada, with decisions to close a number of small mines in Quebec. Development of new copper mines took place at a reduced pace.

In 1976 copper production in Canada increased by 2% to 747 135 tonnes. Production in the Atlantic provinces and Manitoba decreased by 12%. In Quebec production increased by 2% and in British Columbia by 6%. In Ontario production was unchanged from 1975.

Union Minière opened a new mine at Pickle Lake, Ont., in 1976 at a cost of \$104 million. The mine is expected to produce 13 000 tonnes of copper in concentrate annually.

Copper production in Newfoundland in 1976 came from two mines and totalled 6 764 tonnes valued at \$10.2 million. In New Brunswick copper production from four mines was 9 678 tonnes valued at \$14.6 million. In Quebec production increased to 120 411 tonnes valued at \$181.5 million from 117 556 tonnes valued at \$165.2 million in 1975. About 20 mines were operating in Quebec in 1976, the main production centres being Rouyn-Noranda, Val d'Or, Matagami, Chibougamau, Murdochville and Stratford Centre.

Copper was produced at about 30 mines in Ontario in 1976, the main operations being the nickel-copper mines of the Sudbury district, copper-zinc and copper mines near Timmins, and copper-zinc mines near Manitouwadge. Ontario producer shipments amounted to 258 981 tonnes valued at \$390.4 million compared to 257 778 tonnes valued at \$361.4 million in 1975.

Production in Manitoba and Saskatchewan was 66 283 tonnes valued at \$99.9 million. The major producer was Hudson Bay Mining which produced copper in Manitoba's Flin Flon and Snow Lake areas. Sherritt Gordon Mines, Ltd. at Lynn Lake, Man., Fox Lake, Sask., and Ruttan, Man., and INCO at Thompson, Man., were the other main producers.

Production of copper in British Columbia in 1976 amounted to 273 541 tonnes valued at \$412.3 million compared to 258 518 tonnes valued at \$363.3 million in 1975. Most production comes from large open-pit mines. Production in the Yukon Territory increased substantially in 1976 due to higher shipments of concentrates from Whitehorse Copper Mines Ltd.

#### 12.3.4 Lead and zinc

Canadian production of lead in 1976 was 259 083 tonnes valued at \$129 million, a decrease of 25.8% in volume and 17.1% in value compared to 1975 (Table 12.12). Output of refined lead was 175 720 tonnes, a 2.5% increase from 1975.

Production of zinc in 1976 was 1.0 million tonnes valued at \$862 million. Production decreased 1.2% in value and 1.5% in volume from 1975 (Table 12.13). Output of refined zinc was 472 316 tonnes in 1976, up 10.6%.

Exports of refined lead in 1976 increased to 129 311 tonnes, up 6.2% from 1975. Exports of refined zinc increased to 350 487 tonnes, up 41.7% from 1975. Exports of lead in ores and concentrates declined due to strikes at several major producers.

In the Atlantic provinces lead production increased 21.1% to 77 994 tonnes and zinc production decreased 9.7% to 134 733 tonnes in 1976. Brunswick Mining and Smelting Corp. Ltd. in New Brunswick was the largest area producer.

In Quebec zinc production decreased 1.9% to 122 934 tonnes. Mining companies associated with Noranda Mines Ltd. produced most of the zinc in Quebec. Lemoine Mines Ltd. near Chibougamau completed construction at its zinc-copper mine late in 1975 and began production early in 1976. Only 814 tonnes of lead was produced in Quebec in 1976.

In Ontario zinc production decreased 4.8% to 320 030 tonnes. Texasgulf Canada Ltd., a wholly owned subsidiary of Texasgulf, Inc., operates Canada's largest zinc mine at Timmins and was the largest zinc producer in the province. Lead production in Ontario increased slightly to 3 379 tonnes.