the price collapse, Rio Algom wrote off its investment in the mine, and ownership reverted to a consortium of creditor banks. In late 1987, Rio Algom announced its interest in repurchasing the mine.

Mining at East Kemptville, NS continued throughout 1987 and production of tin in concentrates is slowly rising toward an annual capacity of about 4200 t. Tin byproduct recovery at base metal mines at Timmins, Ont. and Kimberley, BC, has been discontinued.

Molybdenum. Canada ranks third among the world's leading molybdenum producers, accounting for about 16% of the western world's total supply. In 1987, Canada's molybdenum was produced solely in British Columbia as production from Quebec had been discontinued. Ontario and New Brunswick mines have installed capacities during recent years for the recovery of byproduct molybdenum at some time in the future.

Canadian mine shipments were marginally higher in 1987 at 11 581 t versus 11 251 t in 1986. A large increase at Canada's only primary molybdenum mine, which reopened during the second half of 1986, was partly offset by lower output from byproduct producers.

Canada is one of the world's major exporters of molybdenum, shipping most of its annual output to Western Europe and Japan.

Cobalt. Canada is the world's fourth largest producer of cobalt, following Zaire, Zambia and the Soviet Union. In 1987, Canada produced about 2880 t of cobalt valued at $54 million, compared to 2300 t valued at $47 million in 1986.

Cobalt is recovered as a byproduct of nickel-copper production. Mines are in operation at Sudbury, Ont. and Thompson, Man. At Port Colborne, Ont., a cobalt refinery which has a capacity of 900 t/y of electrolytic cobalt rounds is in operation. The refinery was opened in 1983 and high quality cobalt metal is produced for use primarily in making superalloys. A refinery at Fort Saskatchewan, Alta. tolls and custom refines cobalt obtained from other producers, mostly from abroad.

A major use for cobalt is in superalloys where it improves the strength, wear and corrosion resistance of the alloys at elevated temperatures. The major application of cobalt-based superalloys is in turbine blades for aircraft jet engines and gas turbines for gas pipelines. Cobalt-based superalloys normally contain 45% or more cobalt.

Other important uses for cobalt are in magnets and abrasion-resistant and heat-resistant tools. Cobalt is also used to promote the adherence of enamel to steel in applications such as appliances, and the adherence of steel to rubber in the manufacture of steel-belted tires.

Magnesium. Canada's only current producer of primary magnesium operates a 6000 t/y reduction facility at Haley, Ont. about 80 km west of Ottawa.

In October of 1986, a Norwegian company formally announced that it would build a new 60 000 t/y magnesium smelter at Bécancour, Que., with the possibility of increasing smelting capacity to over 200 000 t/y at some future date. The plant was expected to commence production in 1989, and cost about $500 million, creating 350 permanent jobs.

In 1987, Magnesium International Corporation and Alberta Natural Gas formed a joint-venture, MagCan, to produce magnesium metal at High River, Alta. and a 12 500 t/y plant was targetted for completion by November 1989. As in the case of the Norsk Hydro project in Quebec, the plant could be expanded by increments of 25 000 t/y to an ultimate annual capacity of 62 500 t, subject to market demand.

The largest single use for magnesium is as an alloying agent with aluminum. The addition of magnesium to aluminum imparts greater tensile strength, increased hardness and better corrosion resistance. The second largest use for magnesium is for structural applications of which pressure die-cast products constitute the most important component. Anticipated growth in demand for magnesium metal is primarily related to such die-casting applications for the automotive sector. Recent increases in the price of aluminum, which averaged US$1.05/lb. in 1988 compared to US$1.35/lb for magnesium, should encourage more extensive use of magnesium which is 30% lighter than aluminum.

Columbium. Canada is the world's second largest producer of columbium, with an annual output of about 15% of the world's total supply. Production in 1987 was 2630 t of contained columbium pentoxide, a decline of 10% compared with 1986. The decline was due to a nine-week shutdown at Canada's only mine in late August due to high inventories and weak demand. Canada's concentrate is produced near Chicoutimi, Que. from pyrochlore ore, one of the three pyrochlore operations in the world; the other two are in Brazil.

Canada became the only major supplier of columbium concentrate following a decision by the Brazilian producers in 1981 to convert all their output to intermediate products.

Development work is continuing on a rare metal deposit that includes columbium and tantalum near Great Slave Lake, NWT.

Tantalum. The Bernic Lake, Man. tantalum operation resumed production in July 1988; tantalum