

In November 1972, Denison and UCAN confirmed a sales agreement valued at nearly \$60 million, involving delivery of 8.9 million lb. of uranium oxide to a group of Spanish utilities over the period 1974 to 1977. The sale will completely dispose of the 3,200-ton uranium oxide stockpile accumulated by the companies between 1971 and 1974 as well as a portion of the federal government's general stockpile. This brought total Canadian uranium commitments made since 1966 to over 73,000 tons of uranium oxide, an estimated 9,500 tons of which had been delivered by the end of 1972.

In February 1972, Canada signed an agreement with the International Atomic Energy Agency (IAEA) providing for IAEA inspection of Canadian nuclear installations. The safeguard inspections will not extend to the mining and milling stage of the uranium industry, but will begin at the "product-output" stage of uranium refining. Canada is the first "near-nuclear weapon" state to enter into an IAEA safeguards agreement, as required under the terms of the Non-Proliferation Treaty.

**Molybdenum.** Canadian shipments of molybdenum in 1972 amounted to 28.5 million lb. valued at \$44.1 million. Shipments increased 25.7% in volume and 14.9% in value compared to the previous year. Canada remained the second largest producer in the world (excluding the Sino-Soviet bloc) with 18.7% of world production.

Before 1969 production of molybdenum as a co-product or by-product from large tonnage and low-grade copper-molybdenum deposits was not significant. Production cutbacks and closing of primary molybdenum mines during 1971 and 1972 and the opening of large copper deposits in which molybdenum is a secondary mineral have increased the proportion of molybdenum recovered as a secondary mineral to approximately one half of the total Canadian production.

Quebec produced a small amount of molybdenum from two mines in 1972. Gaspé Copper Mines, Limited produced 206,000 lb. of molybdenum in concentrate as a by-product of its copper operation. Mill capacity will triple to 34,000 tons a day and production of molybdenum should increase substantially. Molybdenite Corporation of Canada Limited closed its mine and mill near Lacorne, Que. in September 1972 after receiving financial assistance from the provincial government for about one year.

In British Columbia shipments increased 28.1% over the previous year. British Columbia was the largest producer in Canada with 98.4% of Canada's shipments in 1972. Brenda Mines Ltd. near Kelowna produced 10 million lb. of by-product molybdenum in 1972 of which 6.6 million lb. were sold and 3.4 million lb. were added to inventory. British Columbia Molybdenum Limited, a primary molybdenum producer, ceased production in April 1972 at its mine near Alice Arm. Endako Mines Division of Canex Placer Limited at Endako is the largest primary molybdenum producer in Canada. In an effort to balance production and demand and reduce a large stockpile of concentrates Endako reduced production in 1971 and 1972 to 75% and 50% of the 1970 production levels respectively. Lornex Mining Corporation Ltd. near Ashcroft produced its first by-product molybdenum concentrates in August. Full production commenced in October. Utah Mines Ltd. near Port Hardy produced 1.9 million lb. of by-product molybdenum in its first full year of operation. Red Mountain Mines Limited closed its molybdenum operations at Red Mountain. Gibraltar Mines Ltd. in the Cariboo District began production in 1972; recovery of molybdenum from molybdenum-copper ores was found to be uneconomic in initial tests and this portion of the mill will be placed on standby until it becomes economic to recover the quantity of molybdenum in the ore.

**Platinum metals.** Production of platinum metals in Canada amounted to 406,048 oz t valued at \$34.6 million in 1972. Production declined 14.5% in volume and 13.0% in value compared to the previous year. Canada produces platinum metals as a by-product of nickel refining. When nickel matte is electrolytically refined, the platinoids — platinum, palladium, rhodium, ruthenium, iridium and osmium — are precipitated in the electrolytic tanks as a sludge. The sludge is purified and sent to refineries in Britain and the United States for recovery of the platinum metals. During 1971 major Canadian nickel producers reduced nickel output in an attempt to balance supply and demand with the result that Canadian platinoid production also declined; this situation persisted in 1972.

The decision of the automotive industry to use platinum and palladium as catalysts in emission control devices has raised expectations for increased world production of these two metals.