Columbium.—St. Lawrence Columbium and Metals Corporation, the only Canadian producer of columbium concentrates, in 1962 shipped pyrochlore concentrates containing 967,000 lb. of columbium pentoxide from its mine and mill at Oka, Que., about 30 miles west of Montreal. Two other companies have carried out extensive research and exploration programs in the same area. Geo-Met Reactors Limited produced ferrocolumbium and a pyrochlore steel additive at its Ottawa, Ont., plant for domestic consumption and for export.

Molybdenum.—Molybdenite Corporation of Canada Limited was the principal Canadian producer of molybdenite in 1962 and the only producer of molybdic oxide; its mine and plant are at La Corne, Que. Pax International Mines Limited shipped trial lots of molybdenite from a property near Matachewan, Ont. In 1962, Canadian shipments of molybdenum contained in molybdenite amounted to 797,452 lb. valued at $1,228,672. Preissac Molybdenite Mines Limited and Anglo-American Molybdenite Mining Corporation continued exploration and development work in the Lake Preissac area of Quebec. Gaspé Copper Mines, Limited successfully completed a pilot-plant study of the feasibility of recovering molybdenite as a by-product of its copper milling operations and will begin recovering molybdenite in 1963.

Titanium.—Ilmenite, an iron-titanium oxide, is mined in the Allard Lake and St. Urbain areas of Quebec; ilmenite from St. Urbain is sold as heavy aggregate and most of the ilmenite from Allard Lake is melted at Sorel, Que., in electric furnaces by Quebec Iron and Titanium Corporation to produce a high titania slag and pig iron. The slag is used by pigment producers in the manufacture of titanium-base pigments. Exports go mainly to the United States, Britain and Japan.

Domestic consumers of titania slag are Canadian Titanium Pigments Limited at Varennes, Que., and British Titan Products (Canada) Limited at Tracy, Que. The plant at Varennes has a capacity of 50,000,000 lb. of titanium dioxide pigment a year; the plant at Tracy, completed late in 1962, has a capacity of 44,000,000 lb. a year. Atlas Titanium Limited produced ferrotitanium from scrap metal at Welland, Ont., and Geo-Met Reactors Limited made trial lots of low-carbon ferrotitanium using titania slag from Sorel.

Selenium and Tellurium.—These metals are recovered from the anode muds produced by the refining of blister copper in the plants of Canadian Copper Refiners Limited at Montreal East, Que., and International Nickel at Copper Cliff, Ont. The principal use of selenium is in the manufacture of dry-plate rectifiers for electronic use; small quantities are used in the manufacture of glass, rubber and pigments. Tellurium is finding increasing use in the electronics fields for the manufacture of modules for the direct conversion of heat into electricity and the conversion of electric energy in a heat-sink for refrigeration purposes; small quantities are used in stainless steel castings, synthetic rubber and glass manufacture. Selenium production in 1962 totalled 506,015 lb. valued at $2,799,929, an increase of 75,403 lb. and $951 over 1961 output; tellurium production in 1962 was 61,211 lb. valued at $367,466, compared with 77,609 lb. valued at $376,404 in 1961.

Magnesium.—Production of magnesium metal in Canada was estimated at 8,235 tons in 1962 compared with 7,635 in 1961. Dominion Magnesium Limited is the only producer and most of the output is exported. Dolomite of exceptional purity is quarried and reduced to metal by the ferrosilicon method at Haley, Ont. Plant expansion from 8,000 to 10,000 tons annual capacity was completed in 1962. The company is also the only Canadian source for the metals calcium, thorium, strontium and zirconium.

Aluminum.—Canada is second, after the United States, in Free World aluminum production and has an annual capacity at six smelters of 872,000 tons. There are two companies operating. Aluminum Company of Canada, Limited has smelters at Arvida, Isle Maligne, Shawinigan and Beauharnois in Quebec and at Kitimat in British Columbia.