

plant which will have a capacity of 5,000 tons per day of the asbestos ore. Murray Mining Corporation continued development of a deposit near Deception Bay in northern Ungava; the year's exploration program added to company ore reserves and engineering studies were under way for developing the deposit for production.

One of the important developments in 1961 was the establishment of an Asbestos Fibre Standards Laboratory by the Quebec Asbestos Mining Association (representing the asbestos producers in that province) and the University of Sherbrooke. The new Laboratory is intended as an impartial testing unit which will ensure uniformity of grading throughout the Quebec industry. It is housed in the Engineering Division of the University.

Construction Materials.—Portland cement production now ranks ninth in the entire mineral industry in terms of value of output. In the industrial mineral group, it is exceeded only by asbestos, sand and gravel. For several years after World War II, Canada imported considerable cement to supplement production from domestic plants, but the industry has since expanded so rapidly that today this country exports between 3 p.c. and 5 p.c. of its output to the United States. There are 19 plants in operation across Canada, with a combined annual capacity of 8,750,000 tons; cement is manufactured in every province except Nova Scotia and Prince Edward Island.

The steadily increasing market for cement products, such as ready-mixed concrete (in which form about 30 p.c. of the production is currently marketed), masonry and precast and prestressed shapes, is reflected in the establishment of new plants for their manufacture and also in the establishment of a trend toward more uniformity and improved quality in aggregates. Recently, as a result of this change in the market, several cement manufacturers have partially integrated their operations with companies making cement products and quarrying stone for concrete aggregate.

Lightweight aggregates have experienced rapid growth in recent years and are now important construction materials, especially in multi-storey structures. The use of this product in the construction of a 44-storey building in Montreal is reported to have replaced 1,200 tons of high quality structural steel. There are in Canada 11 plants making lightweight aggregate by expanding clay and shale, 10 plants processing vermiculite and nine plants expanding perlite.

Potash.—There was no production of potash in 1961 from the extensive deposits in Saskatchewan but it is anticipated that two companies will be mining the mineral during 1962. What is believed to be the world's largest high grade deposit of potash, in the form of the minerals sylvite and carnallite, occurs at depths varying from 2,800 feet to 3,500 feet under a large area of southern Saskatchewan. Reserves have been estimated at more than 6,400,000,000 tons of recoverable potash grading more than 25 p.c. K_2O .

Attempts to mine potash through shafts encountered technical difficulties caused by high water pressures in the wet and largely unconsolidated Blairmore formation. However, the two major companies pioneering in Canadian potash have applied substantial technical and financial resources in developing a solution to this problem. At the end of 1961, Potash Company of America Limited was completing the strengthening and repair of a 16-foot diameter concrete shaft installed during 1958; this company has a mining property at Patience Lake near Saskatoon and expects to ship potash to market during 1962. International Minerals and Chemical Corporation (Canada) Limited at Esterhazy used a novel technique, known as tubbing, to sink a shaft through the Blairmore. Seventy five-foot-high, segmented, cast iron rings were placed in a 300-foot section of the shaft to resist the hydraulic pressures experienced in the formation. The Esterhazy mine also is scheduled for production in 1962. By 1963, the company will have almost tripled the original size of its beneficiation plant needed to treat the crude potash and the 1,200,000-ton-a-year plant then will be the largest capacity potash unit on the Continent.