

A network of oil pipelines carries crude oil from Western Canada to consuming areas from Vancouver to Toronto and to export markets in the State of Washington and the Great Lakes region of the United States. Gas pipelines carry natural gas to markets stretching from Vancouver to Montreal and to connecting pipelines in the United States at Cornwall and Niagara Falls in Ontario, Emerson in Manitoba, Cardston in Alberta, and Kingsgate and Sumas in British Columbia. The Canadian petroleum refining industry is the fourth largest in the world and one of the most modern. It had, at the end of 1960, an aggregate crude oil capacity of over 950,000 bbl. a day in 44 plants. Natural gas processing plants had a capacity to process over 2,300,000 Mcf. daily from which could be recovered each day some 1,900,000 Mcf. of pipeline gas, 55,000 bbl. of propane, butane and condensate and over 2,000 tons of sulphur. Natural gas processing capacity was increased by one-fifth in 1961 to supply greatly increased export markets.

The mineral and mineral-based industries are of vital importance in Canada's trade position. The export value of minerals either as raw materials or semi-processed goods reached a record of \$680,000,000, or 32 p.c. of the value of all exports in 1960. If fully manufactured goods of mineral origin, valued at \$487,200,000 in 1960, are included, the value of mineral-based exports was 41 p.c. of all exports in that year. Approximately the same respective proportions of mineral and mineral-based exports to total exports obtained in 1961.

Notwithstanding conditions of mineral over-supply in the world, increasing activity in the development of Canadian mineral deposits is evidence that a new period of accelerated production has begun. The increased need for mineral raw materials by the industrial nations of the Free World and the mineral resource deficiency in most of those nations have stimulated both domestic and foreign investment in Canada's mineral industry. The future holds much promise for further development and diversification of the Canadian mineral economy.

Subsection 1.—Metals

Nickel.—Production of nickel in Canada during 1961 reached an all-time high of 237,948 tons, an 11-p.c. increase over the previous record of 214,506 tons in 1960. The 1961 production value at \$357,515,337 was also an all-time high. Two important events contributing to the record year were the commencement of nickel production in northern Manitoba from the Thompson project of International Nickel and a 10-p.c. increase in the price of nickel, effective July 1.

Little change occurred in world supply. Canada and New Caledonia continued to provide the bulk of the Free World's nickel requirements; Russia and Cuba supplied the bulk of the Soviet bloc requirements. Canadian nickel-producing companies operated at rated mill capacity and supplied over 75 p.c. of the Free World's nickel in 1961. The outlook for nickel markets remains encouraging as markets in the United States, Britain, Western Europe and Japan are firm and growing steadily.

The Thompson project was officially opened on Mar. 25, 1961 and was up to rated annual capacity of 75,000,000 lb. of nickel by mid-year. Shipments of electrolytic nickel to European markets commenced during the summer through the port of Churchill, Man.

Most Canadian nickel production, as usual, came from the Sudbury area of Ontario. International Nickel operated its five mines—Frood-Stobie, Creighton, Garson, Levack and Murray—throughout 1961. Production from the Frood open pit was curtailed but the Clarabelle open pit was prepared for mining. Major additions to treatment facilities at Copper Cliff included the construction of a fluid-roast plant and the enlargement of the iron-recovery plant from 300,000 to 900,000 tons of pellets a year, both scheduled for completion in 1963.

Falconbridge Nickel Mines, Limited at Sudbury operated the Falconbridge, East, Hardy and Fecunis mines throughout 1961. The Longvack and McKim mines were closed and the Boundary and Onaping mines commenced production. Development