

Uranium.—Production of uranium oxide (U_3O_8) in 1960 amounted to a total of 12,518 tons valued at \$262,935,404 compared with 15,892 tons valued at \$331,143,043 in 1959. Decreased production was the result of the closing of ten mines after the United States Atomic Energy Commission, the principal outlet for Canadian uranium, announced it would not continue to purchase uranium from Canada in excess of commitments that were to expire in 1962 and 1963. At the time of the announcement, arrangements were also made to allow Canadian producers to 'stretch-out' to the end of 1966 the undelivered portion of uranium under the original sales contracts. The transfer of contracts from one company to another was also permitted. The stretch-out plan was designed to prevent the closing of all mines from Mar. 31, 1962 to Mar. 31, 1963. By the end of 1960, the industry was sufficiently re-oriented to permit the larger, low-cost producers to continue production beyond 1963, with a few expected to operate into 1966.

At the end of 1960, there were only ten mines in operation compared with 20 a year earlier. Some mines could not have fulfilled their contracts in any event owing to insufficient ore reserves or high operating costs, or both; some also had large capital overruns which made it difficult to repay their debt obligations. For these mines especially, the provisions of the stretch-out plan were of great assistance. Plans for future production call for a reduction year by year over the next six years so that in 1966 contract deliveries will be reduced to 1,100 tons. Mine employees declined from 11,792 at the beginning of 1960 to about 6,000 at the end of the year; 4,000 of these were employed in the Elliot Lake district of Ontario and 1,000 each in the uranium mining areas of Bancroft, Ont., and Beaverlodge Lake, Sask.

Although Canadian uranium producers are allowed to sell any amount of surplus uranium to countries that hold bilateral agreements with Canada for co-operation in the peaceful uses of atomic energy, there have been very few sales of this nature. Apart from the special contract agreements for the sale of uranium to the United States and the United Kingdom, Canada holds bilateral agreements with Switzerland, Japan, Pakistan, Australia, and Euratom (which comprises six European nations). For other countries, a Canadian producer may, subject to government approval, sell up to 2,500 lb. of uranium but when this limit is reached for a given country further shipments from Canada are not permitted.

Ontario's output of 9,883 tons of uranium oxide (U_3O_8) in 1960 was 79 p.c. of the Canadian total. In the Elliot Lake camp, which is the largest uranium mining camp in the world, ten mines were in operation at the beginning of 1960 but by the end of the year five had closed as a result of consolidations that had taken place. The mines that closed were the Pronto, Quirke and Lacnor mines of Rio Algom Mines Limited, Can-Met Explorations Limited, and Stanleigh Uranium Mining Corporation Limited. The mines that remained in production were Denison Mines Limited, Stanrock Uranium Mines Limited, and three mines operated by Rio Algom Mines Limited—Milliken, Nordic and Panel. Ore reserves in the Elliot Lake camp are estimated at 298,000,000 tons grading 0.12 p.c. U_3O_8 .

In the Bancroft area there were only two mines in operation at the end of 1960—Bicroft Uranium Mines Limited and Faraday Uranium Mines Limited. Each mine operated throughout the year at an average rate of about 1,200 tons of ore a day. A third producer, Canadian Dyno Mines Limited, made arrangements with Gunnar Mines Limited early in the year, allowing Gunnar to fulfil the remainder of Dyno's contract. The Dyno mine was closed in June. Ore reserves in the Bancroft camp are estimated at 4,000,000 tons grading 0.1 p.c. U_3O_8 .

The Beaverlodge Lake area in northwestern Saskatchewan produced 2,307 tons of uranium concentrates (U_3O_8) during 1960, a slight decrease from the previous year. The principal producers were Eldorado Mining and Refining Limited and Gunnar Mines Limited, both of which continued production throughout the year. In March, Lorado Uranium Mines Limited sold its contract to Eldorado and the Lorado mine and custom