

from the Giant mine of Giant Yellowknife Gold Mines, Limited, the leading producer, began in May, 1948. The milling rate, which averaged 235 tons a day during that year, reached 400 tons at the end of 1949 and was expected to be at its capacity of 500 tons during 1950.

Occurrences of radioactive minerals in scattered localities, mainly around the easterly side of Great Slave Lake, were examined but no information concerning them has been published.

A syndicate backed by the Consolidated Mining and Smelting Company of Canada, Limited, is (1950) carrying out intensive exploration of lead-zinc deposits near Pine Point on the south shore of Great Slave Lake.

Section 2.—Federal Government Aid to the Mining Industry*

The Department of Mines and Technical Surveys

The Federal Department of Mines and Technical Surveys, which came into being on Jan. 18, 1950, as a result of a departmental reorganization at Ottawa, continues the services, but in larger measure, rendered to the mining industry by the former Department of Mines and Resources. These services are effected mainly through its Geological Survey and its Mines Branch, and also through the Surveys and Mapping Branch and Dominion Observatories Branch.

Geological Survey.—The chief function of the Geological Survey is to map and report on the geology of Canada. Work by field parties is mainly in areas of known or potential mineral resources, and consists largely of systematic geological study and mapping of standard-sized areas on scales of 1 inch to 1 mile and 1 inch to 4 miles, together with detailed geological mapping on much larger scales in mining areas of special economic interest; and reconnaissance surveys in the lesser known regions of Canada.

Since the establishment of the Survey in 1842, geological maps on one scale or another have been prepared covering in all about 30 p.c. of the total area of Canada. In 1950, 83 parties were assigned to field work compared with 70 in 1949. Projects receiving particular attention include study of: the Quebec-Labrador iron belt; areas favourable to the accumulation of oil and gas in Western Canada and Ontario; and occurrences of radioactive minerals, mainly in the Northwest Territories and Saskatchewan.

Field work has been devoted to problems of fundamental and specific research, designed in part to assist the geologist in geological mapping, and in part to test the adequacy of new survey methods or the utility of special instruments in locating favourable oil or gas structures or important rare minerals. Of particular interest in the latter connection is the use of: gravimetric and seismic surveys in potential oil and gas fields; the geiger counter and scintillometer in the discovery of radioactive minerals; and the magnetometer or other geophysical equipment in mapping bedrock geology in drift-covered areas, and in detecting certain types of ore deposits.

The Geological Survey advises and assists prospectors and others engaged in mining development; acts as consultant to, and co-operates with, other government agencies engaged in development of or research on resources; and issues reports and maps embodying the results of its field investigations and office studies.

* Prepared under the direction of Marc Boyer, Deputy Minister, Department of Mines and Technical Surveys, by L. O. Thomas, Mineral Resources Division.