

**Eastern Canada.** A new wet gas discovery was made seven miles southwest of a previous discovery on the western tip of Sable Island off Canada's east coast. The new well, Mobil Tetco Thebaud P-84, recovered significant flows of gas from five separate zones, some of which also produced condensate. The team of Mobil Oil Canada, Ltd. and Texas Eastern Transmission Corporation is currently using a drilling platform on the western end of the Island to develop the oil and gas field they discovered in 1971. In addition, there were four semi-submersible drilling rigs operating off the east coast at the end of 1972.

Ontario produced small amounts of oil and gas. Drilling declined 8% to 232,002 ft in 1972. A few small oil discoveries were made and some gas wells were completed during the year. Exploration continued in the Hudson Bay area with further off-shore drilling expected.

## 12.2 Government aid to the mineral industry

### 12.2.1 Federal government aid

Federal assistance to the mining industry takes the form of the provision of detailed geological, geophysical, topographical, geodetic, geographical and marine data which are of fundamental importance to the discovery and development of the mineral resources of Canada; the provision, through laboratory and pilot-plant research, of technical information concerning the processing of ores, industrial minerals and fuels on a commercial scale; certain tax incentives; and financial and technical assistance to the gold-mining industry under the Emergency Gold Mining Assistance Act.

**The Department of Energy, Mines and Resources.** The federal Department of Energy, Mines and Resources was created by the Government Organization Act on October 1, 1966 (RSC 1970, c.E-6). Apart from its administrative establishments, the Department is made up of three Sectors — Science and Technology, Mineral Development and Energy Development — each headed by an Assistant Deputy Minister and each aiding the Canadian mineral industry according to its assigned responsibility.

The Science and Technology Sector contains the Mines Branch, the Geological Survey of Canada, the Surveys and Mapping Branch, the Earth Physics Branch, the Polar Continental Shelf Project, the Canada Centre for Remote Sensing, and the Explosives Division.

The Mines Branch consists of a large laboratory and pilot-plant complex and conducts research into methods of extracting and processing minerals and fuels. Emphasis is placed on recovery techniques for ores and minerals with low-grade impurities or complex mineral composition. Fuels research includes a comprehensive evaluation of the quality of Canada's fossil fuels and the development of refining methods for the low-grade, high-sulphur petroleum of the Athabasca oil sands. Mining research is aimed at maximizing ore production with minimum physical hazard and at minimum cost. A five-year project will greatly lower waste rock production and costs by improving the design of the walls of open-pit mines. Research is also being conducted on coal beneficiation and carbonization. In the related area of pyrometallurgy, the extraction of metal by heat, applied research is concentrated on the development of a shaft electric furnace for smelting iron ore. In the mineral sciences, the Mines Branch carries out physical, chemical, crystallographic and magnetic studies to determine mineral characteristics important to extraction and processing methods. The Branch also produces standard reference ores and metals needed by mining and metallurgical companies. In metals research, in addition to improving traditional techniques for metal forming, attention is focused on ensuring the structural soundness of metal pipelines for use in the Arctic. Another program is directed toward the development of methods of mineral recovery that will reduce pollution problems. Research is conducted on the development of chemical methods of ore processing that avoid the sulphur dioxide production of the smelting process and the conversion of mineral waste into useful materials such as fillers and ceramics.

The Mines Branch is assisted in its work by the National Advisory Committee on Mining and Metallurgical Research, comprising senior executives and researchers from industry, government and universities.

The Geological Survey of Canada maps and studies the geology of Canada. It is the major organization engaged in this work in Canada and its studies extend to all provinces and territories. Its activities are designed to support two programs of the federal Department of Energy, Mines and Resources: the Mineral and Energy Resources Program and the Earth Sciences