Two successful delineation wells and one unsuccessful were drilled in the offshore extension of the Hecla gas field west of Melville Island, all from reinforced shore-fast ice platforms. One well was a deeper-pool discovery, encountering gas pay in sandstone below the main Borden Island reservoir. Delineation drilling continued in 1977 with one unsuccessful well at Hecla and one unsuccessful step-out to the Drake Point gas field offshore east of Melville Island. In July 1977, Panarctic reported proven reserves in both fields combined at 260 billion cubic metres.

The Bent Horn F-72A oil discovery of 1975 on Cameron Island was successfully offset in 1976 by the A-02 well 1.6 kilometres to the southwest, testing at 865 m^3 of oil a day. Two further delineation wells drilled in 1977 were abandoned.

In the southern Northwest Territories, one dry exploratory well was drilled in 1976. In 1977, the Columbia Gas et al Kotaneelee YTH-38 well, a step-out to the North Beaver River discovery of 1964 in the southeast Yukon Foothills belt, tested gas at 600 000 m^3 a day absolute open flow.

Eastern offshore region. Off the East Coast, 11 wells were drilled in 1976 compared with 10 in 1975 although the depth decreased; five wells were drilled off Labrador, where most industry interest has now concentrated. Entry of Petro-Canada into the East Coast exploration play early in the year was largely responsible for the six wells drilled off Nova Scotia in 1976. No discoveries were made off the East Coast in 1976, but production testing confirmed hydrocarbons at the Snorri J-90 well, drilled by the Total Eastcan group in 1975. The well gave flow rates of 275 000 m^3 a day of gas and 37 m^3 a day of condensate, the third wet gas discovery by the group on their Labrador Shelf permit block. No drilling took place off Newfoundland–Labrador in 1977.

The only drilling in 1977 was carried out on the Scotian Shelf with two wells completed, both involving Petro-Canada. The company also began work on the first of five wells in the shallow waters around Sable Island, using a jack-up type drilling-unit to delineate two discoveries made by Mobil in 1972 and 1973 and test undrilled prospects. Results of this program, scheduled for completion in 1979, will probably determine the commercial viability of oil and gas production in this region of the shelf.

Exploration expenditures off the East Coast for 1976 amounted to $62 million, down 22% from 1975, with 1977 costs estimated at about $23.5 million, a further 62% decrease, reflecting continuing inactivity off Labrador.

No exploration took place off the West Coast or in Hudson Bay in 1976 or 1977.

13.4.3 Federal incentives

Other federal initiatives contributed to the increase in exploration. A bill was introduced to create a Petroleum Corporations Monitoring Act. If passed, the act would require petroleum companies to report aspects of their cash flow resulting from increased revenues thus enabling the government to ensure that a significant portion of the increase is invested in exploration and development of petroleum and natural gas resources.

A strong incentive to exploration has been provided by a revised tax structure. Companies investing new oil or gas revenue in exploration R&D pay taxes at a lower rate than those which do not. In fact, oil and gas exploration and development expenditures amount to at least 70% of industry cash flows. Since 1975, both federal and provincial tax changes have encouraged exploration investment. Activity has been especially heavy in Alberta where additional supplies of natural gas have been located. A special federal tax allowance on wells costing $5 million or more has been introduced. This tax benefit can be applied to any source of income, making it available to investors outside the oil industry. The three-year moratorium on the proposed progressive incremental royalty for new oil and gas discoveries in the frontier regions has been extended until 1982 to encourage the search for new supplies.

Companies holding rights to potential oil and natural gas areas will, in future, be required to undertake certain exploratory work within a reasonable time. New legislation and regulations govern land tenure, royalties and Canadian-content guidelines for about 526 million hectares of land in Canada's northern and offshore oil and gas frontier regions. As an interim measure, these lands will be made available, on a selective basis,