Major study of marine environment before oil-drilling begins

Indian and Northern Affairs Minister Hugh Faulkner has announced a $13-million "unique" environmental research program in the Arctic waters of Baffin Island, which hold potential for some of the largest unexplored oil and gas-bearing formations in Canada.

"The Eastern Arctic Marine Environmental Studies (EAMES)," said Mr. Faulkner, "will enable us to determine the environmental constraints on a systematic basis before any offshore exploratory drilling for petroleum might be allowed in the eastern Arctic."

While oil companies had permits to explore in the area and a substantial amount of seismic surveying had been done there in recent years, said the minister, offshore drilling had not yet been permitted.

Unique project

The four-year studies, which will cover Lancaster Sound, Baffin Bay and Davis Strait, were unique for a number of reasons, said Mr. Faulkner. Among them:

- It is the first time research will have been carried out before authority to drill is granted.
- Northern residents, particularly the Inuit, will be involved both in the conduct of the studies and as representatives from ten Baffin communities on an advisory board to the management committee.
- It is the first time the potential effects of exploration will be examined on a broad regional, ecological, rather than on a "site-specific basis".
- The major portion of the cost will be borne by the petroleum industry.

How the money will be spent

Some of the programs involve:

Oceanography – To provide a description of the ocean waters, with emphasis on currents and their variability. Also to provide a knowledge of wave action.

Weather and related factors – To improve the ability to predict the direction in which oil spills would move. The project will involve collection of information concerning distribution of sea ice; the formation and characteristics of the sea ice; and detailed weather information, particularly from offshore areas.

Sea-ice scouring – To collect information on the scouring of the ocean floor by sea ice.

Land-use maps – To create a series of maps showing the surface geology of the coastal area; the biological resources; sensitivity of the land; current land use; ice distribution; and type of coastline.

Sea mammals – To gather information on the number and movements of seals and whales; to help identify areas and times when the mammals may be sensi-

The birth of beluga or white whales has never been witnessed or recorded. The beluga whale's main food is squid, polar cod and invertebrates – predators are killer whales, polar bears and man.

Large male polar bears stalk the leads for seal birth-lairs, make the kill, then eat only the skin and some blubber before moving on. The remaining carcasses provide food for female and young bears and Arctic foxes which would have difficulty finding enough food for themselves.

Deaf seals

Inuit hunters at Lake Harbour reported having seen seals that were not frightened away by the noise of outboard motors and asked if it was possible they had been deafened by seismic exploration explosions.

Dr. Norman Snow, a biologist with the Department of Indian Affairs and Northern Development, explained that it was quite possible "that seals, like men, can have their hearing damaged".

He explained that seals' ears are very similar to those of men, "and studies have shown that the constant noise of artillery can cause permanent damage to men's hearing. In effect, a part of the ear dies and does not grow back. Seals could certainly be affected the same way."