

They are the coldest and darkest part of North America. From December to February the islands have only a few hours of twilight, but there is a great deal of moonlight, reflected by the snow-covered landscape. The sun returns in February. In the spring it shines twenty-four hours a day, the temperatures climb and the snows melt, though some ice remains in bays and channels. In July and August the mean daily temperatures across the Arctic stand at 41°F (5°C.) or higher, and in the large southern islands they may reach 68°F (20°C.).

Under the Ice

Below, Minnie Arnaq of Kangirsuq describes a fascinating method for gathering mussels during the long winter months.

The women from the village help get food for the family. We usually wait until the tide goes out and then go down to the edge of the water to gather mussels. We even go in the wintertime when the bay is frozen in. We wait until the ice is thick and then dig a hole through the ice and go under the ice for them. The reason we can do this is that when the tide goes out the ice sinks down, but it doesn't go all the way down to the ground that the water has receded from.

There is a space under the ice varying from three to six feet. First we try to find a place where we think there will be a lot of headroom under, and then we dig a two by two hole through the ice, and then we go through the hole and under the ice. It's very dark down there so we take candles for light. It's also very wet. The water runs off the ice in some places just like rain. I try to find a place where it's not too wet and roam around looking for mussels. I walk around all over the place when I'm under the ice. You have to be careful that the water doesn't come up and trap you while you're under the ice, and you have to be sure you find your way back to the hole before the tide comes in.



Drills Under the Sea



The Arctic is a potentially rich source of gas as well as oil. This Panarctic drill probes 1,700 metres below the seabed in the Whitefish gas field, located 40 kilometres west of Lougheed Island.

Oil and gas companies drilling in the North have done most of their work on coastal land or on man-made gravel islands, but two Canadian companies are pioneering north of the continent, both on islands and out on the ice.

The prospects are challenging. Sixteen trillion cubic feet of natural gas have been found in the far North, and an estimated 6.9 billion barrels of oil and 60 trillion cubic feet of natural gas lie under the waters and ice of the Beaufort Sea.

Ice is the major obstacle to drilling in the North. The risers which connect oil rigs to the ocean floor are in constant danger of being severed by moving masses of ice. Pack ice can cut a hole in a drill ship, and large, apparently permanent, ice islands circulate in the Beaufort Gyre. These ice masses have "pressure ridges" that extend 40 feet above the surface and 135 feet below. Such an ice chunk drifting across a well site would sweep the riser before it, spilling oil into the sea.

Dome Petroleum Ltd., which has ten offshore well sites and hopes to be producing by 1985, is drilling where the weather is relatively calm and the water only 200 feet deep. A specially designed icebreaker and supply ships chop the moving ice into bits, and radar is used to spot threatening ice masses. Dome has perfected a technique for breaking off operations in a hurry. Captain Graham Harrison told *The New York Times* that his drill ship