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Husky prepares an Arctic expedition

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With technological advances allowing access to possibly large deposits of oil in the Mackenzie Valley, the company is planning major exploration

Before the end of the year, Husky Energy Inc. HSE-T will begin preparing 40 kilometres of winter roads through the forests of the western Northwest Territories. Operating just below the Arctic Circle, it will build an ice bridge across the Mackenzie River and clear a landing strip on a frozen lake.

By February, it will begin drilling a pair of exploratory wells.

Those wells will prod beneath the permafrost in search of oil, something the North hasn't thought much about in the past few decades. What Husky uncovers there stands to provide an early answer to one of the more intriguing questions in the oil and gas sector today: Is the NWT an important new frontier for liquid hydrocarbons?

"Obviously gas in the North isn't the next big thing. But oil could be the next big thing," said Henry Sykes, president of MGM Energy Corp., which owns about 23,000 hectares of land in the play Husky plans to drill.

Already, there is speculation that the North could produce a flush of new crude - it's very early days, but some suggest the central Mackenzie Valley could produce more than a billion barrels - using the drilling and fracturing techniques that have brought an explosion in new crude supplies to southern parts of the continent.

If the geologists are right, a pair of underground formations named the Canol and Hare Indian, which underlie a vast swath of land around the communities of Tulita and Norman Wells, contain significant deposits of crude oil. Previous wells have showed hydrocarbons locked in those formations, but they went overlooked for many years as impossible to produce. The rock is simply too "tight," as industry terms it, for oil to flow out freely.

But the development of horizontal wells and underground fracturing has unlocked similar deposits in the south, where shale oil plays like the Bakken in Montana and South Dakota have created a modern-day bonanza, producing so much new oil that U.S. domestic output is on the rise after decades of decline.

The wells Husky intends to drill this winter are termed "exploratory" - they are expected to be simple vertical tests. But MGM is already planning more sophisticated work, including fracturing, for 2013.

The hope of finding oil is based on the geological features of the rock, which may also produce natural gas or so-called "natural gas liquids," which include propane, ethane and pentane.

If the geological hints prove correct, however, the central Mackenzie Valley stands to become an important new source of crude, made even more attractive since it's already served by a 40,000-barrel-a-day Enbridge Inc. pipeline that is

running at little more than one-third of its capacity.

Husky, which reports earnings on Thursday, has offered relatively few details about what it is pursuing in the North. But it's clear it believes the prospects are substantial: In July, it committed to spend \$376-million on land parcels that it was awarded by the federal government. The company was the leader in a bidding round that saw a total of \$534-million committed by Husky, ConocoPhillips Canada Resources Corp., Shell Canada Ltd., Imperial Oil Resources Ventures Ltd. and MGM.

To maintain ownership of the land, those companies must spend that money; if they don't, they forfeit a quarter of the value of their bids.

It is, of course, tough terrain. By some estimates, a well costs four times as much to drill in the NWT as in Alberta, although that could be cut in half if activity levels increase.

In Norman Wells, the work has already begun. Husky has collected data using laser radar, bathymetric surveys and an archaeological survey. A company called Explor has barged equipment for underground seismic testing to the banks of the Mackenzie River, and work crews have begun descending upon the town of 816.

Since August, "I've seen more crews in Norman Wells coming in and out than I've seen in 12 years," said Mayor Dudley Johnson.

It is in many ways a return to the historical roots of the area. Oil was first discovered near Norman Wells a century ago by the explorer Alexander Mackenzie. Imperial Oil Ltd. built an aviation fuel refinery there in 1937, and the town was touted as an important energy source during the Second World War, which brought the rapid construction of a pipeline to Yukon. Imperial has piped oil south, in ever-declining quantities, since the mid-1980s.

Since the 1970s, however, natural gas occupied centre stage, thanks to the promise of a Mackenzie Valley gas pipeline. With the prospects for that pipeline now uncertain, however, the discovery of oil could serve to revive an economically depressed region.

"We need it," Mr. Johnson said. "Things have been pretty dead - most of this area has been reporting a downturn of about 40 per cent in business in the last couple of years."

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