



POTENTIAL:

THE NWT AND NUNAVUT ARE HOME TO SOME OF THE WORLD'S GREAT MINERAL DEPOSITS. BUT THOSE CHALLENGES CAN – AND ARE – BEING MET. BOTTOM LINE? THE

Need to Know The NWT and Nunavut are home to world-class mineral deposits. They are famous not only for their size, but also for their variety. Despite soft financing conditions today, the **Conference Board of Canada** expects substantial growth in NWT and Nunavut mining GDP in the next few years. • In its annual **Survey of Mining Companies**, the **Fraser Institute** reports that investment conditions are improving across the North, with the NWT and Nunavut moving up in the institute's rankings. • Changes to regulatory frameworks are creating greater **investment certainty** in the NWT and Nunavut.

When it comes to mineral development, everything ultimately boils down to the quality of the rocks. The NWT and Nunavut have some very good ones. That much has been known for a very long time.

In the late 19th century, for instance, E.A. Blackney stopped at the shores of Great Slave Lake on his way to the Klondike gold fields and staked a claim that assayed at a remarkable two ounces of gold per tonne. A generation later, Gilbert LaBine discovered silver, copper, cobalt and uranium ores at Great Bear Lake, setting off a staking rush that led to the creation of the NWT's first mine in 1933, Eldorado, which produced uranium, copper and silver. Eldorado was followed by the discovery of gold at Yellowknife Bay and the establishment of many mines, including Giant and Con, which remained in production for more than 50 years.

WELCOME TO MARY RIVER: Baffinland Iron Mines is developing the Mary River iron mine on Baffin Island. The ore body holds approximately 365 million tonnes of mineable, high-grade ore. Photo courtesy Baffinland

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DEVELOPING THEM RESPONSIBLY COMES WITH MANY CHALLENGES. MINERAL POTENTIAL OF CANADA'S FAR NORTH IS A STORY YOU DON'T WANT TO MISS.

Those early efforts were followed by the development of many other world-class projects. The Pine Point lead-zinc mine near Hay River produced more than eight billion pounds of zinc and 2.6 billion pounds of lead during its life. In Nunavut, the Polaris lead-zinc project mined 21 million tonnes of ore valued at \$15 billion over its 20-year life. Millions more tonnes of ore were produced from the territory's Nanisivik mine, which operated between 1976 and 2002.

And of course, there was the Great Lac de Gras Diamond Rush of 1990s, leading to the founding of the Ekati, Diavik and Snap Lake diamond mines, which today have established Canada as the third largest diamond producer in the world.

All in, mining in Canada's Far North has generated more than \$60 billion in production since the 1930s. But the scale of the discoveries

is only part of the equation. Of equal importance is their variety, a point that Avalon Rare Metals president and CEO Don Bubar makes specifically about the Slave geological province in the NWT, where his company expects to bring a rare earths mine into production, hopefully by 2017. "The Slave geological province is one of the most richly endowed mineral terrains on Earth," he says. "If you want to find truly world-class mineral deposits, regardless of type, the NWT is a very good place to find them." Nunavut holds similar promise, says Jim Paterson, CEO of Kivalliq Energy, which is exploring promising uranium deposits in the territory's Kivalliq region. "You really need expertise. But once you have it, and if you can raise the capital, the potential is huge." CONTINUED ...



ABOVE: ANGELA GZOWSKI/UP HERE PUBLISHING RIGHT: COURTESY NUNA LOGISTICS BOTTOM: COURTESY DEBEERS GROUP OF COMPANIES/BILL BRADEN

Indeed, the North has globally significant potential. But as Paterson notes in his comment, it also comes with challenges. Market conditions for raising financing are certainly one of the most pointed at the moment. In a presentation at the Nunavut Mining Symposium this past March, Patricia Mohr, vice-president of economics at ScotiaBank and a commodities market specialist, noted that global concerns over sovereign debt in Europe, the slowdown in economic growth in China, and the sluggish recovery from recession in U.S. have all contributed to a serious slump in commodity markets and a severe pullback in investment. Conditions haven't improved since then.

But difficult as times may be for financing, the NWT and Nunavut are showing resilience. In a report released in October, the Conference Board of Canada estimated that the North's overall mineral output (including the northern provinces) will grow at 7.5 percent on a compound annualized basis between 2011 and 2020, almost doubling during that timeframe. (For comparison, the conference board noted that the growth rate forecast for the Canadian economy over the same period comes in at 21.5 percent, or 2.2 percent on a compound annualized basis.)

ABOVE: Agnico Eagle Mines' Meadowbank project is expected to produce 360,000 ounces of gold in 2013. RIGHT: TMAC's Hope Bay gold project, 160 kilometres southwest of Cambridge Bay, could host nine million ounces of gold. BELOW: The view inside the processing plant De Beer's Snap Lake mine.



The NWT and Nunavut will share in that bounty. After a brief dip, the conference board foresees an upswing in NWT mining GDP, which it estimates will reach \$1.3 billion in 2020, with new diamond, gold, lead-zinc and rare-earth projects coming online over the next few years. Nunavut's mining GDP, meanwhile, will reach \$325 million by 2020, a remarkable figure given that its mining GDP in 2009 was zero.

Adding to the cause for optimism is this year's Fraser Institute Survey of Mining Companies, in which both the NWT and Nunavut improved their rankings as attractive investment environments.



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Don Bubar, president and CEO of Avalon Rare Metals

That said, there are still several challenges ahead in seeing the full, responsible and sustainable development of the Northern mineral industry. Infrastructure — or the lack thereof — remains a major concern. This can be espe-

cially true for companies developing certain kinds of projects, says Robin Goad, president of Fortune Minerals, which is now in the permitting process for its NICO gold-cobalt-bismuth-copper project in the Tlicho region north of Yellowknife. “You have to be in an area where you can get your product out,” he says. “Or you have to be looking at commodities where you

can fly product out. Diamonds, for example. Or gold... You can fly out a gold bar.” Interestingly, though, mineral development makes a significant contribution to addressing the North’s infrastructure deficit, Goad notes. The hydro dams that today help power Yellowknife were first built to support its gold mines. The rail line to Hay River was installed to serve lead-zinc operations at Pine Point. The longest all-weather road in Nunavut today, at 24 kilometres, links Agnico Eagle’s Meliadine project to Rankin Inlet. The prospect of further infrastructure development, Goad says, increases with mineral industry interest, providing the rationale and return that lays important groundwork for investment.

A second challenge — arguably the major one — comes from investment certainty. Issues surrounding regulatory regimes and the settlement of land claims have long been a disincentive to mineral development in the NWT. The good news is that considerable improvements have been made to date, especially with the settlement of the Nunavut land claim and several more in the NWT, although there is still work to be done in the territory.


mitting process. Aboriginal groups, such as those in the Tlicho and Sahtu regions of the NWT, have meanwhile developed land-use plans that provide greater clarity on where exploration companies are most welcome to do their work.

All of this points to a growing maturity in the North and its attitudes towards resource development. A notable example comes from Kivalliq Energy and its Angilak and Baker Basin uranium projects.

The politics surrounding uranium is always charged, and the story is no different in Nunavut. Yet in 2007, Nunavut Tunngavik Inc., the body that oversees the Nunavut claim, released a policy detailing the terms under which it would support uranium proposals. The Nunavut government released a similar policy last year. With clear-cut policies and a stable regulatory process, Kivalliq Energy — along with uranium developers such as Cameco and — is now pursuing a project that would have been hard to imagine not all that long ago. Nunavut Tunngavik is even a partner in the Angalik project, which is on land owned by Inuit under the Nunavut claim.

Without the certainty created by the claim and government policy, Paterson says his company probably wouldn’t be working in the territory. But he’s pleased with the clarity of the working environment in Nunavut. Regulations can be tough, he says, but “it doesn’t matter as long as they are consistent and understandable. If they are tough, you plan accordingly. You just have to raise more money or allocate more time or bring in different professionals.”

In the NWT, Bubar says the devolution of control over resources to the NWT government from the federal government, which officially takes effect in April 2014, will create further incentives to improve the regulatory system in the territory. “You’ll have a local government that will be motivated to do what it can to make the process more efficient,” he says. “They’re obviously motivated to promote more investment and economic development generally.”

To put that another way, the story of mining in the NWT and Nunavut continues to move forward. The territories are steadily rising to challenges and working to improve their attractiveness as destinations for resource investment. There are many more improvements to come on many fronts, but the potential remains — starting from the ground up. The North has a story to tell. It’s one you don’t want underestimate. 



LEFT: COURTESY OF RIVO TINDO DIAMOND MINE; BELOW: COURTESY OF RIVO TINDO DIAMOND MINE



ABOVE: Wind now generates about seven percent of the electricity that powers the Diavik diamond mine. LEFT: Diavik has been an all-underground diamond mine since 2012.

Encouraging progress is also being made on the regulatory front. Elsewhere in this issue of *Mining North*, you’ll read about developments like the new Nunavut Planning and Project Assessment Act, which will help streamline the territory’s regulatory processes. In the NWT, amendments to the Mackenzie Valley Resource Management Act will also help streamline per-