

**DIAVIK**  
DIAMOND MINE

# DIAVIK DIAMOND MINE

## ONE MILLION TONS AND COUNTING



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# ONE MILLION TONS AND COUNTING

*An investment of US\$800 million by owners Rio Tinto and Harry Winston Diamond Corporation to build the underground mine will sustain Diavik production well past 2020*

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Safety is always the number one priority

The Diavik Diamond Mine in the remote Northwest Territories of Canada reached a major milestone earlier this year in its transition from an open-pit to an underground mine, with the announcement that one million tonnes of ore had been produced from underground mining. Production from Diavik’s underground mine commenced in early 2010 in parallel with open-pit operations, but the transition to a fully underground operation will be completed this year and will sustain Diavik’s production well past 2020.

“These are exciting times at Diavik and this is an accomplishment shared by our workforce and partners,” said president and chief operating officer Niels Kristensen. “Most importantly, we can celebrate reaching this milestone in a manner that has always put safety first.”

Throughout the transition, safety will continue to be given the highest priority. Diavik is also committed to maintaining its high standards of environmental protection and to creating significant local socio-economic benefits. Its 2012 mid-year socio-economic monitoring report provides a detailed summary of the mine’s annual training, employment, and business initiatives. At the mid-year point, Diavik and its contractors employed 36 apprentices, all of whom were northern and 21 Aboriginal. In terms of overall employment, at 30 June the Diavik operations workforce averaged 1165 people, of whom 642 (55 percent) were priority hire Aboriginal and non-Aboriginal northern workers.







The entire year's supplies of fuel, explosives and cement are brought in on the ice road during its two month operating period

During the first half of 2012, Diavik's combined capital and operating expenditures were CDN \$237.6 million, of which \$146.7 million (62 percent) was with northern businesses, including \$61.7 million with Aboriginal companies. Northern cumulative spending is \$3.8 billion, of which \$2.1 billion is with Aboriginal businesses and their joint ventures. During the first six months of the year, Diavik's employee donations committee supported over 40 local initiatives with funding of approximately \$125,000 to benefit local communities.

The Diavik Diamond Mine is located 300 kilometers northeast of Yellowknife in Canada's Northwest Territories. A mere 140 miles south of the Arctic Circle, you could say that almost everything that happens in

Canada happens to the south of Diavik. The mine is an unincorporated joint venture between Diavik Diamond Mines Inc. (60 percent) and Harry Winston Diamond Limited Partnership (40 percent). Diavik Diamond Mines Inc. is a wholly owned subsidiary of Rio Tinto plc, and Harry Winston Diamond Limited Partnership is wholly owned by Harry Winston Diamond Corporation of Toronto, Canada.

The climate at this latitude fluctuates between warm sunny summers and bitterly cold dark winters, and one aspect of life in this unique environment has been made famous the world over by the Ice Road Truckers TV series. The landscape between Yellowknife and the mines is one of innumerable lakes, where permanent roads could never be built. During the coldest months of the year, financed by a joint venture of the mines in

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the region, a massive effort gets under way to build an ice road over lakes that cover the landscape. Inuit company Nuna Logistics begins construction in early January, then operates and maintains the road through its two month lifespan.

“The winter road usually opens in early February and is built to take light loads at first, progressing to heavy loads by mid-March and then generally closing

in early April,” said VP operations Marc Cameron. “During that two month period we bring in the entire year’s supplies of fuel, explosives and cement for the backfill in our underground operation.”

The Diavik mine itself is also a triumph of engineering. Its three kimberlite ore bodies are not on dry land but are located below the waterline on the lakebed, and two highly engineered dikes designed to function

“THE DIAMONDS UNEARTHED AT DIAVIK ARE AMONGST THE BEST WHITE GEM DIAMONDS PRODUCED IN THE WORLD TODAY”



Diavik diamonds are among the best white gem diamonds produced in the world



One million tonnes of ore have now been produced from underground mining

efficiently under all weather conditions hold back the lake’s massive weight of water and ice. The larger of the two pits, the A154, contains the north and south kimberlite pipes and has been in production since January 2003, while the smaller of the two, the A418, went into production in 2007.

The transition to underground mining involves major changes in operations, including different mining methods, skills, equipment, and additional supporting infrastructure. Several years of design and engineering feasibility work were conducted to prepare for it and over C\$800 million of

**C\$800  
MILLION**

Investment in  
the transition to  
underground mining

funding was required from Rio Tinto and its 40 percent joint venture partner, Harry Winston. This level of investment demonstrates both joint venture partners’ confidence in Diavik’s future as a significant supplier of high end white diamonds. “The diamonds unearthed at Diavik are amongst the best white gem diamonds produced in the world today,” said Kristensen. “We have seen and continue to see, strong demand for Diavik diamonds in both established and emerging markets.”

The original mine plan proposed that once the two open pit mines reached their



The transition to underground mining is almost complete

maximum working depths, underground mining would commence, following the kimberlite pipes downwards and extending the life of the mine to the planned 16 to 22 years. The construction program included 13 miles of tunnels connecting to each of the pipes, along with all the usual facilities such as rescue bays, washrooms, ventilation, pumps and storage areas. On the surface a new crusher and paste backfill plant were added, and expansions were made to many existing elements of infrastructure such as water treatment and power plants, accommodation and mine buildings.

To prepare for the changes Diavik has been working closely with its staff to ease the transfer to completely new methods of operation. "Over the last two years we have been running a very successful program referred to as the My Future Plan," said Cameron. "We've been working with every employee whose job was likely to be affected by the closure of the open pit, identifying who would like to continue working at Diavik and what type of job they would like to do."

The transition to underground mining fulfills the promise Diavik made in the 1990s before construction even began—to deliver a mine life of 16 to 22 years. A smooth and efficient transition will guarantee the mine's continued success as a leading Canadian mining operation. **BE**

For more information about Diavik Diamond Mine visit: [www.diavik.com](http://www.diavik.com)



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