

# THE VANCOUVER SUN

## B.C.'s Brucejack gold mine approved; first since Mount Polley tailings dam failure

### Mine will not use a dam to store waste

By Gordon Hoekstra, Vancouver Sun March 29, 2015 8:15 PM



*Underground operators at the site of the Brucejack mine, which has been approved by the B.C. government.*

*Photograph by: Handout , Vancouver Sun*

**The B.C. government has approved Pretium's \$450-million Brucejack gold mine, the first mine approved since the collapse of the Mount Polley mine tailings dam last year.**

Construction of the mine, about 275 km northwest of Smithers, is expected to begin this summer and it is to be in commercial production by 2017.

The project will create 500 jobs during the two-year construction period and 300 permanent jobs during its 16-year life.

The Ministry of Energy and Mines said the mine, unlike Imperial Metal's Mount Polley gold and copper mine, will not have a facility to store mine waste held back with an earth-and-rock dam.

The failure of the Mount Polley earth dam last summer released millions of cubic metres of water and finely-ground rock containing potentially-toxic metals (called tailings) into the Quesnel watershed in the B.C. Interior.

It has raised concerns on the long-term effects of the spill on millions of spawning salmon and other aquatic life, and has led to intense scrutiny of tailings dams in B.C.

Instead of building a storage facility with a dam, Pretium will backfill about half its mine waste in a paste mixed with cement in the underground mine. The other half will be stored in the 100 metre-deep Brucejack Lake, which has no fish, said the company. The tailings will take up about 40 metres of the lake's depth.

The tailings design, in the works before the Mount Polley failure, made sense for a small, underground mine, said Pretium president and CEO Robert Quartermain. "(The B.C. approval) shows that high-grade quality projects can still be found in British Columbia and can be permitted," he said in an interview.

"Now it's our plan to get it developed and put in production and provide the high-paying jobs we need in the North to keep the economy solid for the province," said Quartermain.

He said he was "very comfortable" the mine would also get federal approval, given First Nation support and the low environmental impact.

Quartermain said the company is working on financing, noting it received an \$81-million injection last December from Chinese Zijin Mining Group.

In announcing approval, the B.C. government noted Pretium's tailings storage choice was a method recommended by an expert engineering panel it appointed to investigate the cause of the Mount Polley dam failure.

The panel recommended moving away from storing mine waste under water behind dams to reduce dam failures. It called for storing waste underground, and by filtering out the water and stacking and compacting the tailings on the surface (commonly called dry stacking).

In a written statement, B.C. Environmental Assessment Office director Greg Leake said it was important to note Brucejack was not planning to use a tailings dam, as the assessment office was asking all mine projects with proposed dams to examine alternatives.

In its project application filed with B.C., Pretium concluded building a conventional tailings facility with a dam was technically “onerous,” and that dry-stacking was unfeasible because of high rainfall and not economically viable.

The B.C. government has put conditions on Brucejack’s approval.

Before beginning construction, the company must provide more information to the province on water quality effects and ensure its water treatment proposal will work.

“The project will move forward to construction only when, and if, regulators are satisfied that discharges will comply with provincial requirements and therefore will not cause significant adverse effects downstream from the mine and to the Unuk River,” the province said in a news release.

The conservation group Rivers Without Borders has raised concerns about the effects of the project on water quality and fish habitat on the Unuk and Nass rivers.

The Brucejack mine is much smaller than the Mount Polley open pit mine. Brucejack’s daily production capacity is about 2,700 tonnes. It will produce about 16 million tonnes of tailings over its life. The Mount Polley mine had produced more than 80 million tonnes of tailings when the dam failed, and had a production rate of more than 20,000 tonnes a day.

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