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Copper Mountain

Revitalized B.C. mine making the most of new lease on life

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Copper Mountain high

Historic B.C. mine is making the most of its landmark re-opening

In real estate, it's all about location. In mining, it's about timing.

At least that's part of the story behind Copper Mountain Mining Corporation, which became the first major open-pit copper mine to begin production in B.C. in more than a decade when it reopened just south of Princeton, B.C. last August.

Forced to shut its doors in 1996 due to its aging infrastructure and plummeting global copper prices, the revitalized base metal mine is now reaping the rewards of a more stable market and a strong financial backing.

It's a fitting new chapter for a company with the motto: "At Copper Mountain, we can do anything; the impossible just takes a few days more."

"You have to have the attitude that you can't take the approach that it can't be done," says chief executive Jim O'Rourke, who has nearly half a century of experience in B.C.'s mining industry, including 24 years on and off again with Copper Mountain.

"You have to take the approach that it will be done, and how it will be done and when."

History

Copper Mountain's story begins a lot earlier than last summer. In fact, the area has nearly 100 years of mining activity to its name, featuring some iconic industry names such as Granby Consolidated Mining and Newmont Mining.

Some of these companies chose to go underground, while others eventually built three large open pits to get mostly at the copper, and, to a lesser extent, gold and silver.

In 1988, Newmont sold the asset to Princeton Mining, headed by O'Rourke, which continued to operate the mine until 1996. Even though it still had reserves, Princeton Mining closed the mine because of weakening global copper prices, aging equipment and the large capital expenditure needed to replace the machinery.

At the time, Mitsubishi Materials Cor-

poration had approached O'Rourke with an offer to develop the copper/molybdenum Huckleberry mine near Houston, B.C. The Japanese company would finance the endeavor through to production, eventually leading to another partnership with O'Rourke: Copper Mountain.

In late 2006, O'Rourke found himself with the opportunity to once again buy the Copper Mountain site.

He knew the area still had the reserves, but required more follow-up exploration on the area to confirm feasibility.

In January 2007, Copper Mountain Mining Corporation, with O'Rourke at its helm, purchased the site and started an ambitious drilling exploration program that totalled about 44,000 metres by year-end.

Its purpose was to determine the economic viability of the three existing pits located at the nearly 7,300-hectare mine site.

"The first question really was, was there continuity of mineralization between these pits," explains O'Rourke.

"The 44,000 metres of drilling in 2007 confirmed there was continuity, and that there was a significant enough resource to go ahead with the project."

Drilling continued in 2008 that confirmed the economic viability of a "super pit" by merging the three existing pits into one deeper and wider pit. The result was a 45 per cent increase in the resource estimate: five billion pounds of copper, nearly 500,000 ounces of gold and 4.5 million ounces of silver.

"It gave us more information that brought the inferred resources up to measured and indicated, and then confirmed viability of our super pit," says O'Rourke.

The Mitsubishi deal

After confirming the viability of the super pit in 2008, Copper Mountain had to secure the appropriate financing.

Looking back, the eventual agreement with Mitsubishi Materials Corporation to purchase a 25 per cent equity in the project for \$28.75 million, arrange a \$322-million project loan and contract to purchase all the copper concentrate from the mine at market rates was critical for the company, both in size and in timing, says O'Rourke.

The agreement demonstrated confidence in the management team and provided the market confidence for the development, he says.

The agreement was also favourable for investors because the company was able to maintain a favourable capital structure during a time when accessing the equity markets would have resulted in significant dilution.

"We had a plus \$400-million project, but our market capitalization was probably \$20 million," recalls O'Rourke.

"We had met with some banks and the prospects weren't wonderful. So we went to Mitsubishi ... which had a long history with this property in that they'd taken the concentrate from here since 1972."

Ramping up

It didn't take long after the initial Mitsubishi agreement for the trucks to start rolling.

In fact, some eight months before a memorandum of understanding was finalized with Mitsubishi, and a full year before confirming the resource increase, O'Rourke, so confident in the project, ordered the grinding equipment — knowing he was facing a 36-month lead time for the SAG (semi-autogenous grinding) and ball mills.

A SAG mill breaks down ore by friction and impact with steel balls. A ball mill is a cylindrical-shaped grinder that rotates on horizontal access partially filled with the ore to be further ground to the consistency of salt, as well as the grinding solution.

O'Rourke's decision to move ahead led for some to label the University of British Columbia mining engineering graduate as



An interior view of the new process plant at Copper Mountain. The SAG (semi-autogenous grinding) mill is pictured on the left, ball mill on the right and concentrator thickener in the foreground. Photos courtesy Copper Mountain Mining Corporation.

a bit of a renegade. O'Rourke downplays it, saying it was simply a well-calculated risk.

"I knew when the mine shut down, we had a fairly good reserve," says the Prince George, B.C. native. "The only thing that was holding it back was the lack of capital."

Plus, things had changed. First, copper prices were higher. Second, there were significant advances in technology, such as 240-tonne capacity trucks versus 85-tonne before.

"We just had a lot of history with the property," says O'Rourke. "We knew what was there, and we thought we could make some pretty valued judgments."

In July 2009, Copper Mountain and Mitsubishi finalized their agreement. Two months later, the project secured \$50 million equity financing to fund its share of the project.

From October to December, concrete was poured for the mill foundation. With approval by the province in April 2010 to move ahead with the mine plan and reclamation program, followed in July by an impact benefits agreement with the Upper Similkameen Indian Band, the stage was officially set for production to begin.

In August, the ball and SAG mills arrived, followed by pre-production mining activities in November. The mine's first ore was processed in May 2011, followed by its official opening in August.

With a targeted mill throughput of 35,000 tonnes per day, and an average annual production target of approximately 100 million pounds of copper with gold and silver credits, the Copper Mountain Mine represents Canada's third largest copper mine.



Copper Mountain Mining Corporation chief executive Jim O'Rourke has been described as a renegade by some for going ahead and ordering equipment prior to a final feasibility study.

Prior to the mine closing in 1996, daily production was pegged at 25,000 tonnes per day.

O'Rourke points out it took less than five years from when the first hole was put in the ground to when the mine was commissioned.

"As you go through a project, you have a lot of obstacles," he says.

"Number one, was the resource there? Number two, could we finance? Number three, could we build it on time and on schedule? And number four, could we ramp up and meet all of our targets? This all happened over four and a half years, and that is an impressive achievement."

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Once at the Vancouver Port, the trucks unload on a tipper. The concentrate is then shipped to Mitsubishi's smelters in Japan. Photo courtesy Copper Mountain Mining Corp.

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What's new

The mine's existing infrastructure, permits and water licenses helped with that quick turnaround and relatively low start-up costs, notes O'Rourke.

Located just 20 kilometers from Princeton, the mine already had full electrical power from a 138-kilovolt power line, and even a paved road leading up the mine's gates — a rarity for such a project.

"Our capital costs were \$438 million, but the project had been de-risked substantially," says O'Rourke, noting they were also able to use the existing tailings facility, freshwater supply and licenses.

"Ours at \$438 million, I won't say it's a steal, but having the infrastructure in place provides us with a tremendous advantage when you go to finance."

The future

With a rising outlook to meet production targets and a management team with a proven track record, looking ahead, it's hard not to be optimistic if you're one of the 310 people employed at the Copper Mountain Mine.

Many industry analysts continue to be bullish on copper, as global copper warehouse stock levels continue to decrease due to a reduced supply. New discoveries are simply becoming scarcer because of the time and costs of finding, developing and permitting new mines. This is expected to cause a rebound in copper prices.

At the same time, world copper demand growth is forecasted at about four per cent annually, or 800,000 tonnes per year. To put

that into perspective, that's the equivalent of 200 Copper Mountains per year.

Combine the fact that new mines are unable to satisfy this forecasted demand growth with Copper Mountain's closeness to Asian markets future and the mine's "favourable geo-political risk profile," the company's future couldn't look brighter, says O'Rourke, who shared the Mining Association of B.C.'s Mining Person of the Year Award for 2010.

"If we assume (copper prices) are going to stay up, it's a tremendous change," he says.

"Right now, from a company point of view, our share of the copper production is in the order of 0.6 pounds per share per year to our credit. Our costs, this year, are going to be higher because we're in a ramp-up stage, but it's typically less than \$1.80 pound. So at \$3.80 pound, there's a \$2 margin.

"It gives us much longer longevity.

The key, however, is future exploration, adds O'Rourke.

"The deposit is open both laterally and at depth, and follow-up exploration drilling on the mine is expected to continue to identify additional mineralization that will conceivably lead to a resource expansion(s) or perhaps a deeper super pit or a significantly longer mine life," he says.

"So we've got a lot of exploration to do below our existing pits to see if, in fact, that materializes and the continuity is as we think it might be. If it is, we'll have a significant improvement in our capacity." **SS**

About the Author: Jamie Zachary is the editor of PROCESSWest.

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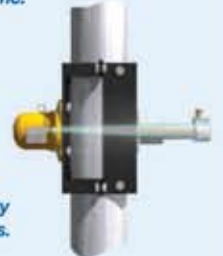
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