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Veolia Water Technologies settles in at Brucejack Mine

Each mine site Veolia works with poses its own challenges

by Jillian Clark



Veolia's Actiflo water treatment technology was the perfect fit for Pretivm's Brucejack Gold Mine.

— Photo courtesy Veolia Water Technologies

Veolia Water Technologies was working with Pretivm Resources at its Brucejack project for two years before Pretivm officially chose Veolia as its permanent water treatment system supplier. The Brucejack Gold Mine is shifting from Veolia's mobile treatment plant to the permanent wastewater treatment system. The permanent system “has been designed by Veolia for low-level metals precipitation and TSS (total suspended solids) removal utilizing our Actiflo and Discfilter technologies,” said David Oliphant, vice-president of business development—heavy industry at Veolia Water Technologies Canada.

The welcomed permanency comes after thorough testing completed by both Veolia and Pretivm. The extensive lab work was meant “to replicate the waste streams that they were going to need to treat at the mine site,” Oliphant said. “They were extremely aware of the environmental responsibilities that come with a new mine. They took it very seriously and with the amount of test work completed, it was evident that it was a top priority for Pretivm.”

The technology being used at Brucejack is high-rate clarification technology Veolia created over 25 years ago: Actiflo. “It is a proven technology that has been used by numerous mining companies across the globe,” said Oliphant. Its operating performance and minimal environmental footprint make Actiflo applications and adaptations successful in the mining sector. “The small footprint of our technology was a definite driver at Brucejack,” Oliphant said.

The permanent facility meets Brucejack’s strict environmental regulations and is designed to treat up to 10,000 cubic metres of effluent each day.

Veolia’s work at Brucejack is ongoing, despite securing its position to supply the permanent water treatment system. “We still have a small crew at the site,” Oliphant said. The team’s current on-site duties include some commissioning activities as the permanent facility nears completion. “Certainly, the big focus for Pretivm right now is getting its mill operational, but the water treatment plant will be operational shortly,” he said.



Pretivm used Veolia's mobile water treatment systems throughout construction before installing Veolia's permanent system.

— Photo courtesy Veolia Water Technologies

A personal investment in company clients

Oliphant has 25 years of experience working with water treatment. He first worked with a private water treatment company before joining Veolia Water Technologies in 2003. “I certainly grew to appreciate the business and what it was doing to meet future needs of municipalities and industries,” he said.

His current role is fast paced but rewarding. Between daily interactions with clients and working with his team of engineers and experts at Veolia, Oliphant remains motivated by and focused on

the clients. “I look at ways to meet our client’s requirements with regards to the challenges of industrial water treatment, whether it’s mining, pulp and paper, or power,” he said. “The real joy of all that is coming up with unique technical solutions for our clients in both industrial and municipal applications.”

Water treatment technology in mining

Veolia values its clients’ safety and satisfaction. “When we are dealing with clients, it is all about transparency and integrity,” Oliphant said. “At the end of the day, it’s our goal to make sure we have a happy client and a client who has a system that does what we said it was going to do. We strive to be a trusted advisor for our clients.”

Each mine site Veolia works with poses its own challenges. “Within many mine water applications, there is a constant change in water quality,” said Oliphant. “You need to be able to design a plant and have the technology that can take variations in your influent feedwater criteria.”

In terms of the Actiflo technology now installed at the Brucejack Gold Mine, “Veolia worked at preparing many different treatment scenarios with regards to solids loading, metals loading, etcetera,” said Oliphant, “but also engineering a process that can take those variations and really give the client the confidence that they need when dealing with such strict environmental discharge requirements.”



The Brucejack Mine site posed unique challenges for Veolia Water Technologies, particularly, transporting equipment and supplies over 12 kilometres of glacier.

— Photo courtesy Veolia Water Technologies

In addition, there was the challenge of moving equipment across a 12-kilometre glacier at Brucejack. “They’ve done a fabulous job in developing strategies to get equipment to such a remote site,” Oliphant said.

Despite the challenges presented with Pretivm’s Brucejack project, Oliphant and his team at Veolia were able to spend a significant amount of time working with Pretivm “to develop a comprehensive treatment chain” that met the permitting, environmental and production requirements of its new treatment facility.

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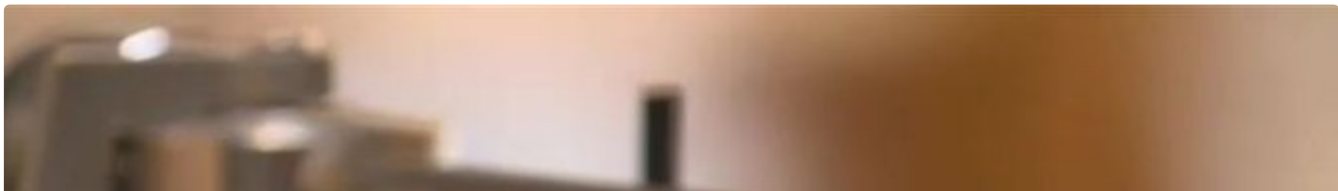
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