

Wyssen Reference Project

## Protection of access road in the Brucejack mine



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Project:	Protection of access road in the Brucejack mine
Place:	Brucejack mine, BC
Country:	Canada
Year:	2019
Customer:	Pretium Exploration Inc.
Protected Object:	Road
Installed Systems:	- 12x Wyssen Avalanche Towers 12 shots



### Initial Situation

Brucejack is a high-grade gold underground mine located in northwestern British Columbia. The year-round access road to the mining camp is crucial for the operation. The access road is routed near slopes that can collect significant amounts of snow. Traditional methods of case charging and helicopter control were considered not sufficient since the road needed to stay operational 24/7 year-round. Snowstorms in the Coast Mountains can last long and are often accompanied by heavy precipitation limiting flying conditions. The avalanche safety program operates 24/7 and is monitoring snow conditions and performing active and passive avalanche mitigation measures to ensure safe travel for workers. Worker safety is the highest priority in the mine.

## Our Solution

In 2019 Wyssen Canada Inc. was awarded to supply 12 Remote Avalanche Control Systems (RACS) to protect the access road. The slope in question above the road presented upper start zones below the ridge and lower start zones underneath a natural bench mid slope. All start zones can collect enough snow to reach the road. The RACS were installed in two rows with seven avalanche towers on the upper slope and five towers on the lower slope. The avalanche towers are equipped with radio and satellite communication due to the absence of mobile network connection. A permanent radio link between the avalanche safety office and the avalanche towers provides a constant communication line and enables forecasters to monitor and operate the avalanche towers at any time during the day and night. The radio link is connected to the internet at the main operations building and allows the Wyssen support team to monitor the system remotely and troubleshoot should support be required. Alternatively, the forecasters can operate the towers via radio from a safe location on the road within direct line of sight to the towers. The satellite communication acts as a backup should the radio link be interrupted. WAC.3<sup>®</sup> is a web-based platform which allows the forecasters to comfortably monitor and operate the avalanche towers from any web-enabled device independent of the used communication technology. WAC.3<sup>®</sup> is designed to be simple and intuitive to use.



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## A Project of:

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