HECLA

A Tunnel Radio case study

Founded in 1891, Hecla Mining Company is the largest silver producer in the United States. It currently runs four large mining operations in the US and Canada and promotes safety and health as core values throughout their system. As the largest silver mine in the United States, the team at the Greens Creek Mine in Alaska has demonstrated that its safety record and environmental stewardship are among the best in the world.

TUNNEL RADIO'S FIRST UNDERGROUND SYSTEM

In 1989, as part of their focus on mining safety, Hecla recognized the need to improve underground communications within the Greens Creek Mine, located off the coast of Juneau, Alaska. In addition to basic radio communications, they wanted a system that would broadcast emergency alarms when needed. They reached out to Tunnel Radio to help design and build this new system.

SAFETY COMES FIRST

Tunnel Radio designed and implemented a two-pronged system for Hecla's operation: basic voice alarms, which gave Hecla the ability to broadcast emergencies throughout the Greens Creek Mine, including critical buildings, and a radio-based voice communications system which provided communications to every corner of the mining operation.

"The solution we put together was focused on helping Hecla improve safety over the long term—and was designed to expand and grow with the mine."

–Scott Rose, CEO, Tunnel Radio

DISTRIBUTED ANTENNA SYSTEM (DAS)

The core of their solution was a Distributed Antenna System, which provided effective, reliable communications between the underground tunnel network and surface work areas, using a combination of advanced radiating coaxial (or leaky feeder) cable and bi-directional amplifiers, along with continuous antenna coverage. By allowing radio signals to radiate from the whole length of the cable, the DAS enabled constant RF coverage throughout the mine.

The result was clear voice and alarms coverage within the underground tunnel network, as well as above ground. In addition to enabling critical wireless communication from the surface to all levels, the system eliminated dead spots and gaps in coverage—providing a reliable solution that fostered a safer work environment for all employees underground—and increased productivity for all operations in the tunnels.

According to JP Roulet, Health and Safety Manager, at Hecla, "Safety is paramount in all our facilities and Tunnel Radio, using their Ultracomm® system, helped us in achieving the highest levels of safety."

ULTRACOMM'S GROWTH PARALLELS THE INDUSTRY

In the last 33 years, Hecla Greens Creek Mine has grown dramatically. And just as mining has developed and changed during that time, Tunnel Radio's R&D has continued to expand and improve its flagship Ultracomm product line. The DAS used in Ultracomm was patented in 1998, with multiple iterations since then, including the TR-160 line of amplifiers, featuring improved filtering and automatic frequency gain control.

"We've been utilizing Tunnel Radio's reliable confined-space communications system continuously since 1989," says JP Roulet. "And we've been able to count on their promised reliability to keep our people safe over the years. Tunnel Radio has always been available to support us with 24/7 technical assistance and quickly fulfilling parts orders. They're just someone we know we can count on—as we've counted on them for over 30 years."

CONTACT TUNNEL RADIO TODAY

to learn more about how an Ultracommm system can improve worker safety and connectivity for your operation.

ABOUT TUNNEL RADIO

With nearly 40 years of expertise in confined space communications, Tunnel Radio knows firsthand that reliable connectivity and communication isn't just a matter of convenience—it's a critical component of worker safety.