

BARRICK MINES FINDS DUST MONITORING EASY

Barrick Gold Corporation is the largest gold mining company in the world, headquartered in Toronto, Ontario, Canada with regional offices located in Australia, Africa, North America and South America. They are currently undertaking mining and exploration projects in numerous countries around the world, including the United States. This particular case study takes place in the Barrick Goldstrike underground mine in Elko, Nevada. It discusses the value TSI equipment provides in helping to identify the most effective and efficient dust control measures to employ, ensuring the health and safety of Barrick Goldstrike employees and surrounding communities within the vicinity of the mine.

Issue

Barrick Goldstrike faces the constant challenge of the control of excessive dust due to heavy travel of unpaved haulage roads. This dust, containing crystalline silica, is important to monitor to understand the magnitude of exposure to workers and surrounding communities. With this, Barrick Goldstrike's primary focus was to understand the effectiveness of a new chemical dust suppressant over an extended period of time. To establish a baseline, the plan was to monitor two days prior to applying a new chemical dust suppressant. After five days, another measurement was to be taken to determine the effectiveness of the suppressant in maintaining the dust. This requires an instrument capable of real-time, continuous evaluation with the ability to collect comparison data.

Solution

In the search for a reliable dust monitoring solution, Barrick Goldstrike considered TSI instrumentation as well as other alternative industry suppliers/instrumentation. Having past experience and success working with TSI instruments, it was easy for Barrick Goldstrike to choose TSI as their preferred partner for this evaluation.

Compared to other options, the TSI DustTrak™ Aerosol Monitor proved most effective. Utilizing the DustTrak's superior real-time data collection and visual display, the effectiveness of the chemical dust suppressant was easy to understand. This data was essential to convince mine management of the effectiveness in implementing a new dust control method. Gravimetric sampling was also performed to confirm the accuracy of the DustTrak data.

"Upon completion of our evaluation, it was easy to see the effectiveness with which our chemical dust suppressant performed," said Kaylun Grandy, Barrick Goldstrike Industrial Hygienist. He continued on saying, "The DustTrak made it easy with its comprehensive capabilities and its ability to provide immediate feedback to demonstrate issue resolution."

For these types of applications, a specially designed environmental enclosure is also used to protect the DustTrak Monitor from harsh underground and outdoor elements and to secure the instrument from potential vandalism and/or damage.

Benefits

TSI DustTrak DRX Aerosol Monitor is the only instrument capable of simultaneous real-time measurement of both aerosol mass and size fraction. This capability along with data logging, graphing, alarm functions and ease of use make data collection and analysis effective and efficient. Real-time data allows the immediate implementation of corrective measures and verification that the measures are in fact effective.

For Further Information

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