

Fortune 500 mining leader builds 360° hydrological awareness for flood-prone mine sites



Maximizing intelligence for water management & flood monitoring

OVERVIEW

There's an international mining company with a multi-decade history whose name you might not know, but metal from one of their mines is likely somewhere in your house right now. That company manages an impressive portfolio of mining sites across the globe, each of which faces its own localized challenges.

In recent years, as major weather events and natural hazards have grown, this forward-thinking industry leader has continually added to their technology stack and operational approach to remain resilient and continue to thrive. Working with AEM, they've evolved weather intelligence, worker safety, and alerting strategy at a variety of mine sites around the world.

Overcoming evolving industry challenges

Mines around the world must manage water carefully for the safety of their workers and infrastructure and to minimize their impact on the environment. Furthermore, our global mining leader has holdings in a wide variety of settings worldwide, including several key mines in exceptionally dry climates, where flash floods can develop quickly when storms appear. To maintain their reputation as an industry leader and minimize the impact of storms and potential floods on operations, the company needed to:

1
PROTECT MINERS & WORKERS FROM POTENTIAL FLASH FLOODS

The company wanted timely alerts that would provide advance notice of approaching weather hazards.

2
CREATE A VISUAL SOURCE OF TRUTH FOR WATER MANAGEMENT PROFESSIONALS

The company required a single dashboard that would centralize water and flood risk management.

3
DEMONSTRATE A CULTURE OF SAFETY & ENVIRONMENTAL COMPLIANCE

The company needed to clearly demonstrate compliance with OSHA, MSHA, and EPA standards.

SCALING SOLUTIONS TO SITE-BASED NEEDS

Mining is an exceptionally challenging industry to manage from a corporate perspective because each site presents its own individual challenges based on geography, geology, hydrology, climate, local regulations, and more.

That's why the company in question needs partners that understand how to assess each mine on a project-based level while establishing best practices that can be replicated easily at scale for other sites in the future.

AEM and the Earth Networks brand first engaged with this industry giant more than seven years ago and have grown into a trusted provider.



Solution: hydrology stations & software with custom alerts

Having established ourselves as a go-to weather partner for this mining giant, AEM also provides custom hydrology monitoring and flood warning solutions for a number of their sites. By combining expertise from our portfolio of brands, we grew to meet their needs. Our initial project established a replicable model, and we've subsequently provided several of their mines with:



HYDROLOGY STATIONS

Packaged pressure transducer stations enable real-time water level monitoring and simplified reporting for key sites, even in remote locations.



HIGH WATER DETECTION SYSTEMS

Lighted signage and automated gates alert workers and close at-risk roadways during a flash flood event to maximize worker safety.

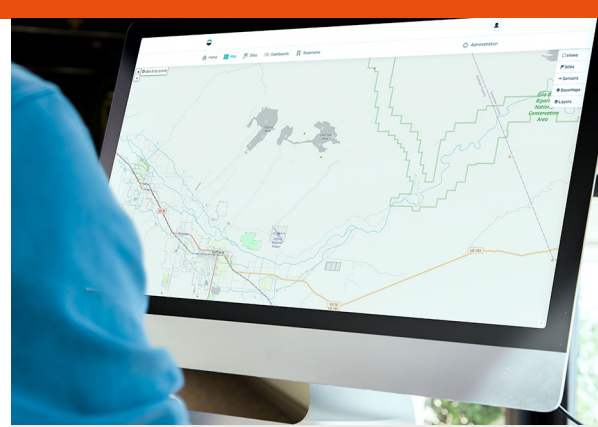


EASY-TO-INTERPRET SOFTWARE

Real-time data and alerts are presented side-by-side with weather maps in AEM Elements™ 360 to inform timely decision-making and demonstrate regulatory compliance.

Weather resiliency for mines around the world

Now, thousands of miners across the globe are better protected from flash floods than ever before, and their leaders have the capacity to lead proactively and decisively in the face of whatever Mother Nature brings their way. Site-based AEM solutions for this Fortune 500 leader have maintained a Total Reportable Incident Rate (TRIR) of zero across all mines.



Why AEM?

AEM's purpose is to empower communities and organizations to survive – and thrive – in the face of escalating environmental risks. A big part of that is supporting mining companies around the world so they can power the global supply chain and economy while continually adopting safer practices and operating better in tune with growing weather and climate challenges.

If you're in the mining industry – anywhere in the world and at any scale – we'd love to have a chat about our:

1. MINING INDUSTRY EXPERTISE

Mines around the world trust AEM because we understand the space and have an established record of success.

2. NEEDS-BASED WEATHER RESILIENCY

Operations of all sizes and types look to AEM to tailor natural hazard monitoring to their hyperlocal site-based challenges.

3. END-TO-END SOLUTIONS

Whether your mining company is looking for a transformational multi-hazard management partner or just trying to get over the next hill, AEM can help.