
ACCESS SOLUTIONS: MINING SITE PROFILE

Xstrata Mount Isa Mines

Gallagher's access system helps manage the risks of underground mining at Xstrata Copper's Mount Isa Mines.



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"The Gallagher access system (formerly Cardax FT) as a tool, provides better control of access management health and safety systems and we wouldn't hesitate to recommend it."

Darren Bracey Emergency and Protective Services Superintendant, Xstrata Copper

Located in mineral-rich north-west Queensland, in the sun-baked heart of Australia, 'the Isa' has the distinction of being one of the few places in the world where four metals (copper, zinc, lead and silver) are found and mined. Xstrata Copper's Mount Isa Mines, operates one of the largest underground mines in the world. The Enterprise underground copper mine, the most recent copper ore source at Mount Isa, is Australia's deepest mine, with an internal shaft that reaches 1800m deep.

Mount Isa Mines also mines and processes zinc, lead and silver and runs these operations on behalf of Xstrata Zinc. Xstrata Copper is one of four commodity businesses within the major global diversified mining group Xstrata plc. Along with Mount Isa Mines, acquired in 2003, Xstrata Copper's operations comprise the Townsville copper refinery and Bowen Coke works, the Ernest Henry open pit copper-gold mine and the Townsville Port facilities. It also operates the Alumbra copper-gold mine in the Catamarca Province in Argentina, South America.

The company's mining and smelting complex at Mount Isa produces copper anode and lead bullion containing silver

and zinc concentrate. Copper anode is transported for refining at the company's copper refinery in Townsville, while lead bullion is transported for refining at the company's lead-silver refinery in England. Zinc concentrate is sold directly to customers in Australia and overseas.

Handling explosives, operating machinery and working as deep as 1800 metres below ground require first class safety and security systems. Because Xstrata Copper is committed to providing a safe, productive and healthy work environment the company is diligent in protecting its employees from unnecessary risks while striving for a zero-harm goal. Sjeff Klaassen, from Xstrata Copper's security partner ADT Queensland said ongoing security reviews and upgrades had become an integral part of the business planning process with a range of safety management and improvement systems being implemented in line with Xstrata Copper's Safety and Health policies.

This was confirmed by Mount Isa Mines Emergency and Protective Services Superintendent, Darren Bracey who said the complex mix of mining, processing and smelting at Mount Isa presented numerous challenges when it came to ensuring the safety of employees and

the general public. "We must allow for movement of authorised personnel with a minimum of effort, while ensuring all the necessary training, induction and other entry requirements are current," he said.

"We must also be able to ensure that personnel who are not authorised to access certain areas are prevented from doing so. Another challenge for us is having the ability to account for personnel in the event of an incident, particularly in our underground environment."

Bracey said collection and management of all the associated data was a significant issue in itself – and aligning this with access requests complicated it even more.

Mines present numerous challenges when it comes to ensuring the safety of employees and the general public.

Bracey: "The powerful software leads itself well to integration with other third party software applications to allow better management of security, health, safety, access control and contractor management".



To cope with the movements of personnel at Mount Isa Mines and establish a safe and secure environment, the Mine originally installed the Cardax UNIX access control system including Cardax Commander architecture at its copper mining site in 1990. Today, the site boasts world-leading security systems technology in the form of the cutting-edge Gallagher access management system, a comprehensive Microsoft® Windows®-based security system. The site has been able to extend the life of its five legacy Commanders through the Commander Interface, enabling the site to migrate to the latest Gallagher security hardware architecture over time. Already, 20 Controller 5000s, complemented by three Controller 3000s for integrated intruder alarms management, have been installed. The Controllers utilise the company's existing LAN/WAN, reducing the overall labour component of Gallagher installations.

Ten workstations enable the system to be used as an efficient tool by authorised staff on site, each of whom is assigned operator privileges to report and perform a multitude of functions. The Gallagher system employed at Mount Isa Mines has several integration applications

including an interface with the CCTV management system. It is integrated with reporter software packaged to provide a customised reporting tool to monitor the whereabouts of underground staff. As well as being interfaced to the company's HR management system, the Gallagher system also monitors

card design and printing of Photo ID cards and Challenge, a feature that enables a cardholder's image from their CCTV system to be checked against the cardholder image in the Gallagher system.

The latest release of Gallagher's security

"Mines present numerous challenges when it comes to ensuring the safety of employees and the general public."

alarms including environmental, fire, intrusion and production alarms and domestic site associated alarm systems. In addition to on-site alarms management, the system's field Controllers support dial-up to a remote alarm monitoring company for backup.

Cardholder Import enables cardholder data to be imported from other systems using an XML interface. There's also PhotoID for image capture,

software enables business managers to directly control the access periods given to each contractor for specific areas. This helps ensure contractor compliance for site access and generate reports on times spent in a defined area by a person, contract company or other defined unit. Bracey is quick to praise the Gallagher system. "The advanced technology of the Gallagher system is flexible enough to meet the changing mining environment. It has enabled better management

of contractors. The development of electronic tagging to manage firing (of explosives) underground has significantly reduced risk of injury, as well as reducing the cost of miss-firings often experienced using the old manual tag board systems. "The system has many different types of hardware that can be adapted to suit the site's needs, while the powerful software lends itself well to integration with other third party software applications to allow better management of security, health, safety, access control and contractor management."

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Gallagher would like to acknowledge the support of the security team at Xstrata's Mount Isa Mines, ADT Queensland and

Compete Solutions with the development of this in-site study. Photos reproduced with permission from Xstrata.

ABOUT GALLAGHER

Gallagher security systems (formerly Cardax FT) are the choice of market leaders in a diversity of sectors: Mining and Resources Government, Education, Industry, Banking and Finance, Communications, Commerce, Transport, Health.

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To find out more about the security system that companies put their faith in every day, contact your nearest Gallagher office, or visit us at www.gallaghersms.com.

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