

# In the driver's seat for safety

An underground mining contractor is embracing vehicle simulator technology to drive improvements in unscheduled maintenance costs and operator safety and efficiencies. **Jamie Wade** writes for *Australian Mining*.

**W**A-based underground mining contractor Barminto has its pedal to the metal.

With base metal prices shooting to record highs and gold prices hovering at near record levels the company is experiencing rapid growth, but that growth is not without its share of challenges.

With a workforce in excess of 1600 employees in Australia including more than 120 heavy vehicle truck drivers and 50 loader operators in underground operations, training new and existing operators to safely and effectively operate a heavy vehicle has become a critical factor.

To that end, Barminto has turned to vehicle simulator technology to boost training capacity and reinforce its approach to safety with the purchase of a UG360 Advanced Equipment Simulator from Immersive Technologies.

The acquisition includes a transportable UG360 simulator, three modular Conversion Kits - equipment modules - and a virtual Custom Mine Site training environment.

Barminto CEO Neil Warburton said the advanced operator training solution would support Barminto's 'Safety First - Safety Foremost' commitment to its employees and drive improvements in unscheduled maintenance costs and operator efficiencies.

"This is a significant addition to our training capacity and we are looking forward to passing the benefits realised through this process onto our clients," he said.

"Maintaining a high standard of training is vital for ensuring high safety standards across all of our projects. This is particularly important as we grow our presence in the international market and seek to maintain a strong position in the Australian market."

Immersive Technologies' chief executive officer Peter Salfinger said the company



The simulators allow for training on replicas of the operator's actual underground worksites.

was proud to partner with Barminto to deliver a sustainable training solution that underpinned its proactive approach to safety management and to measured work performance.

"Immersive chose not to enter into the underground market until it was confident it could provide the industry's best simulator solution," Salfinger said.

"The UG360 achieves that goal and we look forward to helping Barminto achieve its business goals."

The sale to Barminto continues Immersive Technologies' strong growth during 2010 which follows the company's launch of its next generation product range, the PRO3 for surface mining and the UG360 for underground mining in August 2010.

"We are pleased to see the level of positive interest from the mining industry to our new UG360 technology," he said.

"In addition to partnering with Barminto, two underground mining customers in Australia have already acquired these simulators and have

since incorporated them into their operator training programs.

"These include a leading copper miner in northern Queensland and large nickel producer in Western Australia. Globally, Immersive has a number of additional UG360 simulator deals underway."

Immersive Technologies was appointed Barminto's preferred supplier for simulation technology following a rigorous international tender.

"Barminto demonstrated a commitment to partnering with their suppliers to develop and commercialise new technologies," Salfinger said.

Immersive Technologies' simulation expertise and track record in successfully integrating and supporting its technology to meet customers' long-term business objectives were noted as key success factors, together with Immersive's strong exclusive OEM alliances, provided Barminto the confidence of a 'future-proofed' simulation platform.

In development for three years, the UG360 simulator is specifically designed for training in underground mining conditions.

It is said to deliver the highest level of fidelity through advanced display, feedback

and measurement systems intended to provide a trainee with maximum skills transfer in a completely safe learning environment.

The first conversion kits to be made available for the UG360 are a range of Caterpillar underground trucks and Load Haul Dumps units.

The accuracy of these kits was made possible through Immersive Technologies' exclusive technical information alliance with Caterpillar Inc. This sees CAT provide Immersive with access to its engineers and confidential technical information to develop the simulators.

"Given that Barminto has the largest underground fleet of Caterpillar loaders in the world, partnering with Immersive was very compelling," Warburton told *Australian Mining*.

In addition to Caterpillar, Immersive Technologies has exclusive licensing and technical information alliances with leading Original Equipment Manufacturers including Hitachi, Komatsu, Liebherr and P&H MinePro. These alliances provide Immersive Technologies with exclusive access to confidential technical information that is required to properly simulate the OEM's machines.

Warburton said the company's investment was expected to pay off for Barminto and its clients.

"As many of our clients are paying a fixed sum for our equipment and senior staff to be onsite, they're expecting the equipment to have a certain availability and performance. I believe that having better trained operators will result in more efficient vehicle usage and, therefore, greater productivity - the financial benefits of which will go straight to the client's bottom line," he stated.

Barminto's simulator will be commissioned in March this year.



The simulators provide a safe learning environment.