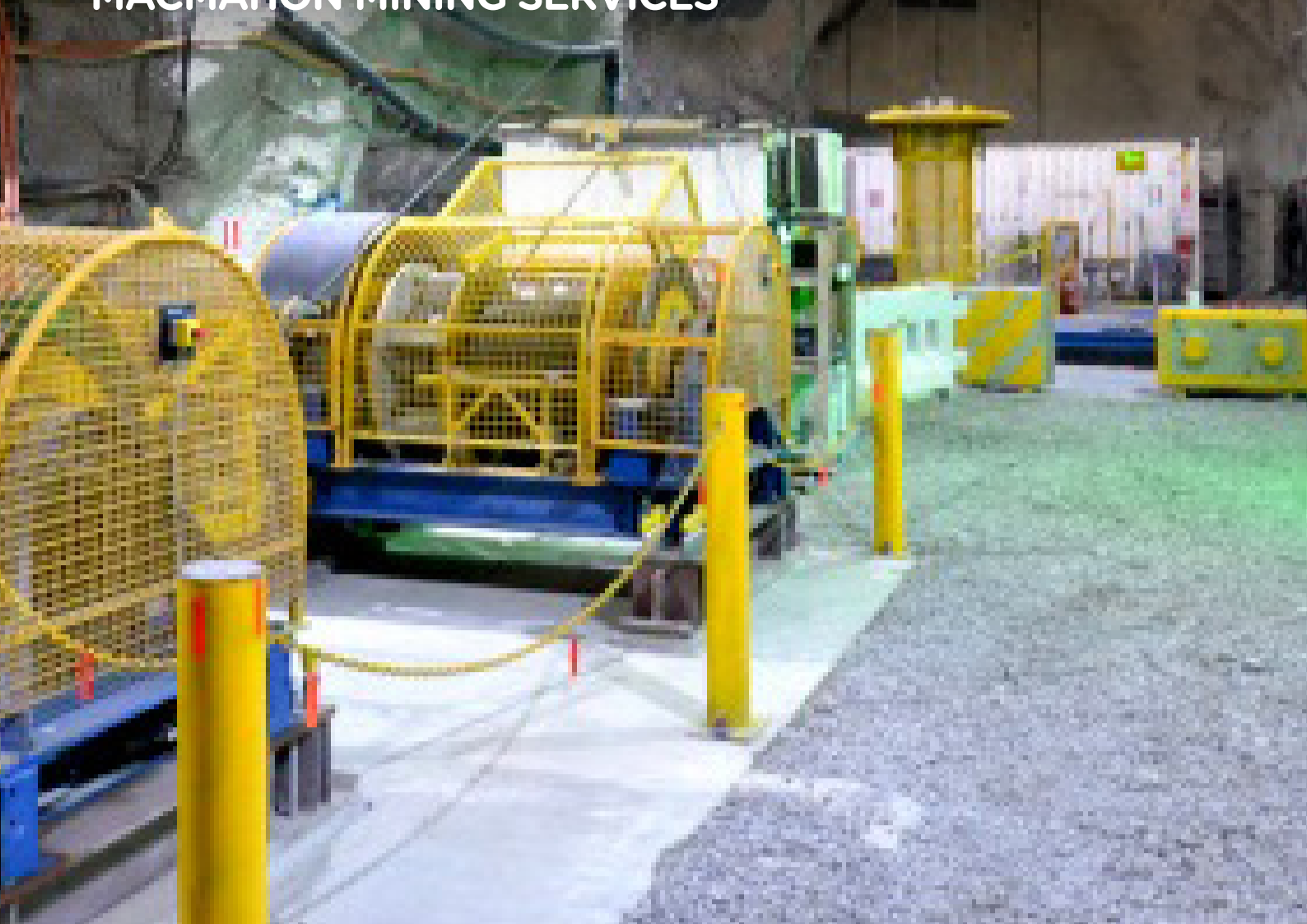




MACMAHON

ORE PASS REPLACEMENT AND REHABILITATION

MACMAHON MINING SERVICES



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Macmahon Engineering is an operating division of Macmahon Mining Services, and part of the Macmahon Group. It is an engineering design, manufacture, construction and project management organisation which specialises in mining and industrial projects including material handling systems, process plants, pumping systems, haulage shafts, escape ways, and underground materials handling systems.

With a practical understanding of the types of conditions and issues encountered in the underground and surface environments, Macmahon not only reduces the risks associated with logistical and practical challenges, but also hands over a more practical asset that can be easily maintained with the lowest operating costs. We have over the years gained practical experience on installation of steel lining and other means of repairing ore passes and bins typically used in underground mines.

Macmahon employs experienced, practical engineers and draftspersons to design customised solutions with a 'made to order' approach for each project. With complete 3D modelling capability, our drawing uses latest versions of Inventor, Solid Edge, AutoCad and Microstation drafting software for all our drawing requirements. Our design engineers use SpaceGass for structural analysis and ANSYS for Finite Element Analysis (FEA). Our design office operates with quality management system that complies with the requirements of AS/NZS ISO 9001:2008.

Our experienced construction teams are totally supported by the Macmahon Safety Management System, which has seen the Company's safety record remain at the forefront at the construction sector.

As part of the Macmahon Group, we are able to extend our capability to include Raise Drilling, Shaft Sinking and Specialised Underground Ground Support Services to any projects or initiatives in the Resources Sector.

Past and present projects include:

CANNINGTON MINE (QLD) BHP
Eastern Ore Pass Tipple and Lining – design, supply and install 3.5m diameter x 60m long Hardox 500 ore pass lining.

Western Ore Pass Lining – design, supply and install 4.4m diameter x 14m long Hardox 500 ore pass lining. The feed into the pass lining was designed with replacement wear fingers providing an extended life to the wear liner.

LEINSTER NICKEL OPERATIONS (WA) BHP

Waste ore feed grizzly and transfer pass – design, supply, raiseboring and installation of a grizzly and steel lined ore transfer pass – 2.9m diameter x 30m long.

Fine ore bins – supply of person riding equipment and installation rail and concrete lining of two 6.0m diameter x 10m long fine ore bins.

ROM Bin repairs – design, supply and relining of the ROM feed bin. A new wear liner was installed and grouted into the 4.0m diameter x 10m long ROM bin.

ARGYLE DIAMONDS MINE (WA)

Argyle Diamonds Pty Ltd
(subsidiary of Rio Tinto)

Design, raise boring and installation of the crusher ore bin steel liner and conveyor load-out chute – 2.0m diameter x 10m long Hardox steel lined.

WOODCUTTERS MINE (NT)

Stage 1 and 2 – installation of grizzlies, ore passes and feeders.

BOUNTY MINE (WA)

Installation of grizzlies, ore passes, surge chamber, control chute and feeder.

MOUNT ISA MINES (QLD)

Enterprise

Design, supply and install ore pass grizzlies – this design was adopted as the standard for the mine.

WESTCLIFF COAL MINE (NSW)

Manufacture and installation of a 1,000 tonne underground coal storage bin discharge hopper.

TAHMOOR (NSW)

Design of a 900 tonne underground coal storage bin bottom structure.

OLYMPIC DAM (SA)

Western Mining Corporation

Fabrication and supply of rail loading chutes supporting steelwork.

Manufacture, installation and commissioning of the underground loading station for Robinson shaft.