

# Ore Pass Replacement and Rehabilitation



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.



**MACMAHON**

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# Ore Pass Replacement and Rehabilitation continued

## Past and Present Projects include:

### BHP Billiton Cannington Mine

Eastern Ore Pass Tipple and Lining – design, supply and install Ø3.5 x 60m long Hardox 500 Ore Pass lining.

Western Ore Pass Lining - Design, supply and install Ø4.4 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.

### BHP Billiton – Leinster Nickel Operations

Waste ore feed grizzly and transfer pass - design, supply, raiseboring and installation of a grizzly and steel lined ore transfer pass – Ø2.9 x 30m long.

Fine ore bins – supply of person riding equipment and installation rail and concrete lining of 2 x Ø6.0 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 Ø4.0 x 10m long ROM bin.

### Rio Tinto's Argyle Diamonds Mine

Design, raise boring and installation of the crusher ore bin steel liner and conveyor load- out chute - Ø2.0 x 10m long Hardox steel lined.

### Other Relevant Projects

Installation of grizzlies, ore passes and feeders - Woodcutters Mine Stage 1 and 2.

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

Design, supply and install ore pass grizzlies – Mount Isa Mines (Enterprise). This design was adopted as the standard for the mine.

Manufacture and installation of a 1000 tonne underground coal storage bin discharge hopper at the Westcliff Coal Mine.

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

Fabrication and supply of rail loading chutes supporting steelwork for WMC Olympic Dam.

Manufacture, installation and commissioning of the underground loading station for Robinson shaft at Olympic Dam, Western Mining Corporation

## For further information please contact:

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