

Strengthen Rail Index Machine Slab

INDUSTRY

Mining

STRUCTURE

Index machine rail track

PROBLEM

Ground subsidence

LOCATION

Western Australia, Australia

DURATION / YEAR

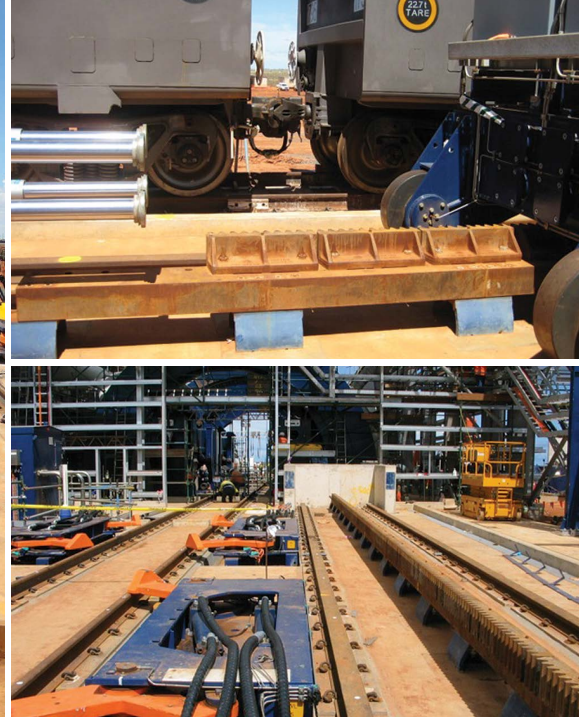
10 days / 2008

TECHNOLOGY

Uretek Slab Lifting &
Uretek Deep Injection

BUSINESS UNIT

Mainmark Australia



Summary

At a remote mine in Western Australia, we strengthened the ground at up to 6m deep and lifted a 1500mm thick concrete rail index machine slab that was servicing 2km long iron ore trains carrying over 200-tonnes per wagon.

Objectives

To deep raise and re-level the slab and to ensure proper engagement between the index machine gearing and the spline.

Solution

The extremely heavy forces put onto the rail index machine slab area were creating safety and serviceability issues for the mine operations management.

The mine's senior engineer accepted the methodology proposed, namely the Deep-Injection of proprietary engineered structural resins beneath the machine slabs to strengthen the sub-base soils and Uretek Slab-Lifting to re-level the slabs.

The work was successfully completed using the self contained Operations Rig and experienced personnel.

The index machine slab was given strengthened support and restored to level so that the iron ore trains could travel safely and efficiently on the rail.

We were required to ensure appropriate Occupational Health and Safety standards, and provide quality assurance method statements to the client.