



Karara Water Operations

Client:
Karara Mining Limited

Location: Three Springs,
Mingenew and Morawa

Construction Period:
Jul 10 – Dec 11

Project overview

The Karara mine is the first large scale magnetite iron ore project located in the mid-west, approximately 285km east of Geraldton. The iron ore would be mined, processed and then shipped via a new rail line to the Geraldton port where export facilities were also being constructed. Unlike the iron ore operations in the Pilbara, the magnetite ore is of superior quality, however requires extensive processing and importantly water to extract.

We were contracted by Karara Mining Limited (KML) to construct a 136km DN560 Ductile Iron Cement Lined (DACL) raw water pipeline to the mine from a borefield located half way between Mingenev and Three Springs, providing the necessary water for the ore extraction process.

Our responsibilities included the transport and stringing of DACL pipe along the entire length of the main, excavation, supply and installation of bedding and support material, backfill, installation of the pipework, bends, section valves and air and scour valves along the alignment. We also completed filling and hydrostatic testing and rehabilitation of farmers wheat paddocks and natural bushland.

We used our Tesmec trenching machines on this project, which not only allowed efficient excavation of hard rock but also provided the excavated material to be used for backfill. This considerably reduced excess material.

Significant achievements and benefits

DM Civil was awarded this project based on our vast experience with pipeline construction in remote locations. We were able to demonstrate efficient construction practices to meet the timeframes stipulated by the client.



The majority of excavation along the alignment was completed using both of our Tesmec TRS 1475 and TRS 1300 Super trenching machines. The ground conditions in the area were mainly clay overlaying igneous and fractured rock. The trenching machines reduced the need for costly drill and blast operations and allowed the excavated material to be used for backfill along the alignment, significantly reducing the cost for the client.

The pipe alignment was from the borefield located half way between Mingenew and Three Springs, traversed close to Morawa and then went due east to the mine site. We engaged local subcontractors and businesses from all three towns. Services provided ranged from accommodation through to material supplies.

The pipeline was constructed under strict environmental requirements. One example was the provision of fauna ramps every 50m within the trench. Checks had to be completed twice daily to ensure no fauna was trapped or impacted by the works. Any fauna found was relocated by our trained fauna and reptile handler.

The entire project was completed without a lost time injury or environmental incident.

DM Civil was able to deliver this major pipeline within our client's timeframes to meet their programme for commissioning. Our installation practices allowed for the most cost effective methodologies, providing value for money and an exceptional quality product.

Contact DM Civil to discuss your mining infrastructure projects.

GUARANTEED PERFORMANCE

T: (08) 9492 1800
dmc@dmcivil.com.au