

## Borefield Transfer Pipeline

Oz Minerals Prominent Hill,  
South Australia

In late 2007 Vinidex was awarded the opportunity to provide pipeline materials for the PROMINENT HILL Borefield Transfer Pipeline. The pipeline is an essential piece of infrastructure that provides water for many communities from processing the raw materials, to potable consumption via on site reverse osmosis plant. Initially specified in PE, detailed cost benefit analysis revealed Supermain® PVC-O to be a more viable material option. Supermain® PVC-O pipes were seen to bring considerable advantages including operational and installation. This was an unprecedented project in Australia as PVC-O had not been used for a mining application of this nature. This project is likely to set a precedent for the future as mining companies nation wide seek to maintain the efficiency of water supply to their operations using the very best materials available.

Vinidex successfully supplied over 90 kilometres of Supermain® PVC-O pipe and fittings ranging in size from PN16 DN150 to PN16 DN300. In a demonstration of the flexibility of Vinidex's manufacturing capability, the pipes were manufactured at state of the art facilities in Brisbane and Sydney. Furthermore, the project requirements were met well within the six months timetable required. Vinidex Supermain® PVC-O pipe is manufactured in accordance with AS4441 "Oriented PVC pipes for pressure applications" under the strictest quality control guidelines. Vinidex Supermain® PVC-O represents the pinnacle of PVC pipeline material technology bringing significant performance and operating benefits. This is especially critical in severe operating environments such as that encountered at Prominent Hill South Australia.

Operational performance advantages include:

- Exceptional resistance to fatigue and cyclic loading
- Superior hydraulic performance and reduced pumping cost
- 100 year service life
- Reduced OHS risk through light weight

Environmental Benefits include:

- Low environmental impact through the efficient use of materials
- Reduces pumping energy requirements

Commercial benefits include:

- Rapid and cost effective installation
- Long service life with low maintenance requirement
- Reduced pumping cost and energy savings

**BJ JARRADS PTY LTD**

### Ian King Project Manager

The project from the start present challenges to our construction team. Such issues where firstly the remoteness of the project 110klms south east of Coober Pedy, the project was approx 75klms from the Base Village which present delivery problems because of temporary access tracks constructed.

The Vinidex despatch team in South Australia organised the transport and delivered all loads as per our agreed delivery program. At times it did rain in the desert but the trucks in most cases were able to track on through.

The ease of laying the PVC-O in the harsh conditions was an extreme advantage.

At times we were able to lay up to 1800 metres in a full shift. We worked two crews on laying, one during the day and a night time crew.

Backfilling for the trenches was generated by our Vermeer Rock saws that produced a suitable material for bedding and haunching.

PVC-O is a tough pipe and will be tested in the harsh conditions of the South Australian desert and we have no doubt that this pipe was the correct decision for this project.

