

# CASE STUDY



## PROJECT PROCESS AND POTABLE WATER FOR GOLD MINE

**PRODUCT** Sea Water Reverse Osmosis Plant  
**INDUSTRY** Mining  
**LOCATION** Laverton, Western Australia

### BACKGROUND

A large South African gold miner, with operations in Western Australia, required high quality water for its process plant. The Processing Manager had used MAK Water previously on another mine site, and understood MAK Water's quality products and high level of after sales support.

Fresh water was needed for the elution process, and for potable water for the site offices. The site had a number of bores with varying water quality and therefore the plant was designed to operate across a wide feed water salinity range (TDS 2,580~30,000 mg/L) and was built using the client's preferred Programmable Logic Controller (PLC), motors and switch gear. The plant was supplied on a three year Lease-to-Own commercial arrangement, with monthly servicing by MAK Water.

### SOLUTION

Containerised Sea Water Reverse Osmosis (SWRO) Plant to produce 240 m<sup>3</sup>/day of desalinated water, supplied under a three year Lease-to-Own agreement and supported with monthly site service visits.

### DESIGN FEATURES

- Operates with feed water TDS 2,580~30,000 mg/L
- Client preferred PLC, motors, Variable Speed Drive (VSD) and switch gear
- Premium efficiency design saving 25% on standard Energy Recovery System installation
- Premium instrumentation package

### 40' CONTAINERISED PLANT

- Easily transported and installed onsite
- Non-slip, chemically resistant floor coverings
- Ease of site installation and commissioning

### TURNKEY SOLUTION

- 100% designed, constructed and tested off-site
- Serviced monthly and monitored by MAK Water

### RESULTS AND BENEFITS

- Innovative, customised solution.** Wide operating range, incorporating client preferred equipment.
- Fully automated, reliable plant.** Low level of operator intervention reduces client's operating costs.
- Commercially flexible.** MAK Water was able to meet the client's commercial objectives.



*Sea Water Reverse Osmosis Plant undergoes factory acceptance testing*



*Sea Water Reverse Osmosis Plant on site in Laverton*