CASE STUDY

PROJECT POTABLE WATER FOR IRON ORE MINE

PRODUCT Brackish Water Reverse Osmosis Plant

INDUSTRY Mining

LOCATION Pilbara, Western Australia

BACKGROUND

Roy Hill is an integrated iron ore mining, rail and port operation. The mine is located in the Pilbara region of Western Australia and the ore is exported through a purpose built iron ore port facility at Port Hedland.

MAK Water was engaged by the Engineering, Procurement, Construction (EPC) contractor to design and construct the potable water treatment plant for the mine site's non-process infrastructure area.

The plant was constructed to project engineering and design specifications, using the project preferred electrical equipment, and supplied with a site specific vendor drawing and data package. MAK Water provided site installation supervision and commissioning of the plant.

SOLUTION

Containerised Brackish Water Reverse Osmosis Plant (BWRO) to produce 100 m^3/day of potable water.

DESIGN FEATURES

- Calcite filter for permeate pH correction
- Sterilisation for compliance with Australian Drinking Water Guidelines (ADWG)
- Project preferred electrical equipment

40' CONTAINERISED PLANT

- Easily transported and installed onsite
- Non-slip, chemically resistant floor coverings
- Wall and ceiling insulation (refrigeration panels)

HASSLE FREE, TURN KEY SOLUTION

- 100% designed, constructed and tested off-site
- Plug and play site installation and commissioning
- On-board safety shower and eyewash station

The Brackish Water Reverse Osmosis Plant undergoes Factory Acceptance Testing

All plants are custom designed and manufactured in our workshop in Perth

RESULTS AND BENEFITS

- **Safe, potable water.** Programme Logic Control (PLC) controlled sterilisation, with tank circulation and online free chlorine monitoring.
- **Fully automated, reliable plant.** Low level of operator intervention reduces client's operating costs.
- **Project compliance.** MAK Water met the project specifications and vendor data requirements.