

CASE STUDY



PROJECT	MT PLEASANT COAL MINE
PRODUCT	Membrane Bioreactor
INDUSTRY	Mining
LOCATION	New South Wales

BACKGROUND

A coal miner in NSW was developing its flagship asset to meet the high demand for quality coal.

MAK Water was engaged by the Engineering, Construction, and Project Management Company (EPCM) contractor to design and construct the sewage treatment plant for the mine infrastructure area (MIA).

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

SOLUTION

MAK Water provided a Membrane Bioreactor (MBR) Sewage Treatment Plant which produces treated effluent complying with Class A+ effluent in NSW.

MAK WATER KEY SOLUTIONS

- HAZOP, safety in design, operability and constructability studies
- Compliance to client specific specifications including preferred equipment, drawings & data package
- Corrosion resistant fibre-reinforced plastic (FRP) bioreactor with internal plant room providing 20+ year plant design life
- Duty/standby arrangement for all process essential equipment

RESULTS AND BENEFITS

- **Turnkey solution.** Complete design, manufacture and installation package.
- **Pre-tested, modular design.** Plant was fully assembled and factory tested, and supplied with prefabricated interconnecting piping and cabling for easy site installation.
- **Safe, Compliant Effluent.** Designed around the site specific influent quality to meet the required Class A+ treated effluent quality
- **Reliability.** After installation the site engaged MAK Water to support the ongoing operation via a service agreement to ensure reliability and minimise local site operator involvement.



Membrane Bioreactor (MBR) Sewage Treatment Plant onsite in NSW



Designed around the site specific influent quality