CASE STUDY

PROJECT	CLASS A+ SEWAGE TREATMENT FOR MINE SITE
PRODUCT	Membrane Bioreactor (MBR)
INDUSTRY	Mining
LOCATION	Queensland

mak water
water | wastewater | sewage

BACKGROUND

A coal miner in Queensland needed to replace a sewage treatment plant as the existing asset had come to the end of its life.

MAK Water was engaged directly by the miner to design and construct the sewage treatment plant for the existing site.

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 QLD.

Inside MAK Water containerised MBR+ pump & control station

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 rotating equipment

RESULTS AND BENEFITS

- Coal mine specification compliance. A fit-for-purpose solution that complies with client specifications in a commercially sensible manner.
- 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
- Lowest operating cost. Plants were designed to minimise operator intervention, and fitted with remote monitoring and control capabilities.

Site photo showing scale of installation with storage tanks, MBR+ reactor, pump & control container and elevated work platform