

CASE STUDY

PROJECT PROCESS WATER FOR COAL MINE

PRODUCT Ultrafiltration (UF)

INDUSTRY Mining

LOCATION Queensland



BACKGROUND

A coal mining operation required a new water treatment solution to replace an ageing plant used for process water. The system needed to comply with stringent coal mining specifications, including HAZOP standards. The project included two sites with requirements of 30m³/day and 300m³/day.

SOLUTION

MAK Water supplied two containerised ultrafiltration (UF) plants to effectively remove particulate matter, total organic carbon (TOC), bacteria, and pathogens. These were designed to handle variable feed water pH (ranging from 5 to 9) with an option of pH correction using acid and caustic. Hypochlorite dosing was implemented for water disinfection via a recirculation tank already available on-site.

A preventative maintenance plan was put in place to ensure the plant's reliability, with detailed reports provided to the client. To support ongoing daily operations client specific training manual was developed. The plant was equipped with premium instrumentation and remote monitoring via the ClearAccess™ platform.

MAK WATER KEY SOLUTIONS

- Ultrafiltration (UF) system to remove particulate matter, TOC, bacteria, and pathogens
- Custom training manual prepared for the client for ease of daily operations
- Fire indicating panel and coal specification control panel for enhanced site safety and compliance
- ClearAccess™ Remote Access enabling remote support from MAK Water's technicians

RESULTS AND BENEFITS

- **Reliable Water Quality:** UF systems ensure consistent, high-quality process water meeting client specifications
- **Minimised Downtime:** Proactive maintenance and real-time monitoring via ClearAccess™
- **Safety & Compliance:** Custom designed fire indicating panel and coal spec control panel enhance workplace safety and regulatory adherence
- **Simplified Operations:** Client specific detailed training manual supports site personnel in daily operation and troubleshooting



MAK Water containerised UF plant installed onsite



Internal view of the 300m³/day containerised UF plant