

CASE STUDY



PROJECT	FACILITIES MANAGEMENT FOR LITHIUM MINE
PRODUCT	Brackish Water Reverse Osmosis (BWRO), Multimedia Filtration (MMF), Wastewater Treatment (WWTP)
INDUSTRY	Mining
LOCATION	Western Australia

BACKGROUND

The Lithium Project, located in Western Australia's Remote Pilbara region, commenced production in 2018 and has a production capacity of 220,000 tpa of quality spodumene concentrate.

Due to large demand for high quality processing water, MAK Water were engaged to put a team in place to manage the mine site water infrastructure, enabling the client's personnel to focus on their core business.

The Operations Agreement is for the provision of plant operation, technical support, onsite maintenance (both planned and emergency), and the supply of consumables required for normal plant operation.

SOLUTION

OPERATORS

Site based Plant Operators to take responsibility for daily plant operation and maintenance.

Services include:

- Set process and discharge monitoring & analyses warning and action levels
- Assist client in the preparation of annual capital and operational cost estimates
- Assist client facilities and utilities staff in emergency situations and shutdowns
- Propose process design changes to improve performance, reliability and operating cost
- Review process design to ascertain KPI performance indicators
- Implement operating, training and development procedures
- Routine Plant Maintenance

SITE MANAGEMENT & PERFORMANCE REPORTING

- Management of spare parts and consumables
- Process and technical support for WTP and STP operations, collection, collation, assessment and reporting of plant performance data
- Development and implementation of detailed Drinking Water Management Plan (DWMP) along with Asset Management Plan (AMP)
- Quarterly operational audit reviews and produce audit reports with proposed corrective and preventive actions
- Capital expenditure budget preparation for the water infrastructure
- Support the client in interacting with the environmental agencies on water matters related to the WTP and STP including permits, and collaborate with the client on overall environmental liability management.

OPERATIONAL EQUIPMENT

Additional equipment provided by MAK Water to support facilities management includes:

- Office and laboratory
- Laboratory equipment and instrumentation
- Spare parts storage container
- Chemical Storage Containers



MAK containerised water treatment plants on site



Arial view of MAK Water installation on site