

CASE STUDY

| | |
|----------|---|
| PROJECT | POTABLE WATER DISINFECTION |
| PRODUCT | Chlorine Gas Disinfection Recirculation |
| INDUSTRY | Mining |
| LOCATION | Northern Territory |



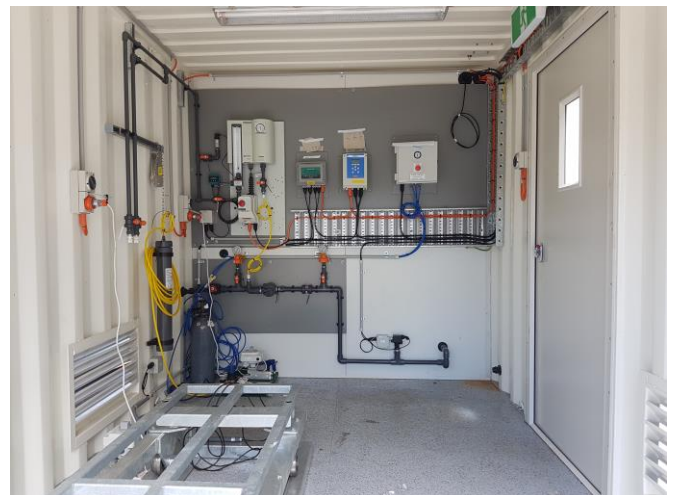
BACKGROUND

One of the highest grade Manganese mines in the world wanted to upgrade their aging water treatment infrastructure. The site was based in an area that is susceptible to extreme heat year round and is logistically difficult to reach. As such, achieving disinfection using sodium hypochlorite would have been problematic as the cost of transporting the liquid along with the fast thermal degradation of sodium hypochlorite would have made it an unviable solution.

Considering the remote nature of the site and the extreme heat environment MAK Water proposed a containerised modular chlorine gas disinfection plant to recirculate the contents of the sites treated water tank ensuring the correct free chlorine residual is maintained at all times.

KEY SOLUTION 1

- Client specific engineering standards in the plant design and manufacture of containerised Chlorine Gas Disinfection Recirculation (CGDR) plant
- Continuous recirculation of the contents of the potable water tank with online monitoring of free chlorine and automated dosing to maintain compliance with ADWG.
- Duty standby dosing and recirculation pumps for improved plant reliability.
- Containerised plants with insulation and air conditioning for temperature control.
- Online gas detection alarms for client interface.
- Auto plant restart on power outages.
- On site commissioning and training of local operators



Internal view of CGDR plant room

RESULTS AND BENEFITS

- **Turnkey solution.** Custom "fit for purpose" design in a durable prefabricated containerised system.
- **Lowest total operating cost.** Utilising chlorine gas saves in liquid transport and eliminates of wastage from heat affected sodium hypochlorite
- **Plant Reliability.** The high quality equipment and robust design provides reliable operation with minimal maintenance



External view of CGDR plant with custom paint job and roller door