CASE STUDY

PROJECT	WASHBAY WASTEWATER FOR LITHIUM MINE
PRODUCT	Sodium Hypochlorite Disinfection - Recirculated (SHDR)
INDUSTRY	Mining
LOCATION	Pilbara Region, Western Australia

mak water
water | wastewater | sewage

BACKGROUND

The owner of a lithium mine undergoing expansion near Port Hedland in Western Australia required assistance with the treatment of wastewater from a new heavy vehicle (HV) washbay. The requirement was for initial Total Petroleum Hydrocarbons (TPH) reduction via a MAK Water Oil Water Separator (OWS), prior to additional treatment to a level suitable for either reuse in the HV washbay or discharge to environment.

MAK Water designed and manufactured a custom SHDR plant to provide both disinfection and pH adjustment of pre-treated wastewater. MAK Water worked closely with the owner's engineering consultant to review the HV washbay design, specific site requirements and provide the best possible solution.

SOLUTION

Containerised Sodium Hypochlorite Disinfection - Recirculated (SHDR) plant to treat up to 800 m^3/day of wastewater for reuse.

Containerised SHDR plant installed onsite

MAK WATER KEY SOLUTIONS

- Containerised (1 x 10') with air conditioning to minimise stored chlorine heat degradation.
- Recirculation of clients' wastewater tank, treating up to 800 m^3/day
- Dual chemical dosing of chlorine for disinfection and acid for pH adjustment
- Continuous online monitoring of free chlorine and pH levels with automated chemical dosing
- Onsite plant commissioning and operator training

Custom SHDR plant with dual chemical dosing

RESULTS AND BENEFITS

- **Technical Support.** Expert advice and consultation with all parties throughout the selection process
- **Water Recycling.** Treated wastewater is reused in the HV washbay.
- **Easy Installation.** Containerised plant for easy transport and onsite installation.
- **Plant Reliability.** Custom design and quality equipment will provide reliable operation with minimal maintenance.