

BHP - Mining Area C Water Treatment Plant Commissioning

Client:

BHP on behalf of Hydramet (Now Trility)

Keywords:

Project Management, Procurement, Drafting, Engineering Documentation, Engineering Design, Hydraulic Modelling, Pipeline Design, Materials Selection, Controls and Instrumentation.

Background:

Hydramet (now Trility) is a wastewater and environmental services firm based in Australia and New Zealand.

BHP is one of the largest mining firms in the world with multiple mine sites across WA.

Hydramet designed and installed the WTP at Mining Area C (MAC) approximately 300 km south of Port Hedland and contacted Engineered Efficiency to commission and handover the asset to BHP.

Challenge

Hydramet completed the design of a water treatment plant in the BHP Mining Area C (MAC). The MAC water treatment plant was designed to produce 1.5 ML/day (expanded to 2.2 ML/day) and consisted of a multistage treatment train to produce potable water. Engineered Efficiency were tasked with commissioning the facility.

What we did

The commissioning procedure we developed followed an organised schedule and systematic steps to ensure a smooth and clear program. It was developed in conjunction with the stakeholder schedule with preparation of check sheets and hand over forms to BHP in their documentation style.

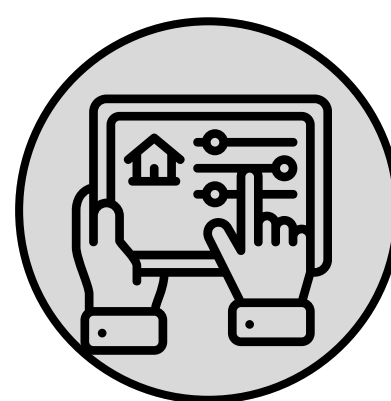
Qualitative sampling was undertaken throughout a seven (7) day performance test and thirty (30) day reliability trial. Sampling required both in-situ field testing, onsite laboratory testing and sample collection for analysis by a NATA accredited laboratory. Results were compared to applicable statutory bodies (Australian Drinking Water Guidelines and Department of Water and Environmental Regulation).

The commissioning procedures and training material were developed in conjunction with the sampling schedule to ensure efficient transition of the asset to BHP.

This work was duplicated for the phase 2 expansion and at other BHP sites such as BHP Yarri WTP and the BHP Newman upgrade on behalf of Hydramet/ Trility.



Systematic
Commissioning Schedule
at a Busy Mine Site



Clear Procedures for
Commissioning



Training of
Operators and
Technical Support

Results

Hydramet successfully commissioned all the WTP sites in a systematic and organised manner ensuring a smooth handover of the system to the client. All BHP operators were trained and had support throughout the process.

