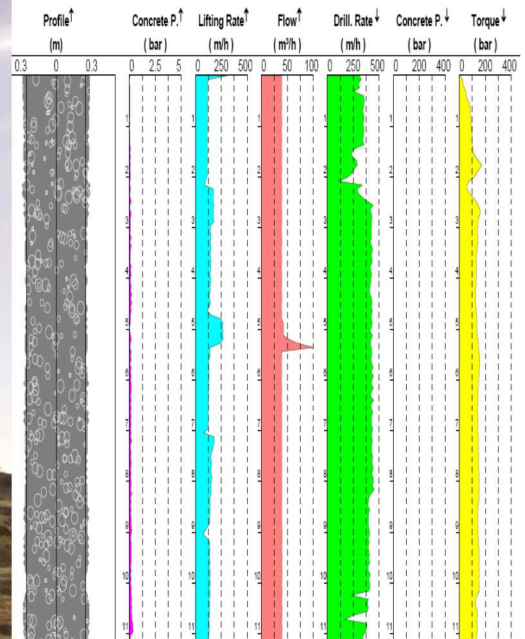


BINNINGUP DESALINATION PLANT

CFA Piles



Owner: Water Corporation
Main Contractor: Southern Seawater Alliance

Design: Worley Parsons
Specialist Contractor: GFWA

THE PROJECT

Binningup Desalination Plant is north of the township of Binningup and about 150 km south of Perth, WA. This plant will have an initial capacity to deliver 50 million litres of potable water per year which is equivalent to 20% of Perth's requirement. Capacity may be increased to 100 giga litres at a future date.

The corridor accommodates a range of pipes including seawater intake pipes, brine pipes and a drain pipe. The total length of the main corridor is approximately 900m.

The geotechnical investigation report indicated that the upper 2 to 5 m of ground was composed of weak cemented sand underlain by up to 2 m of lagoonal deposit. The next sand layer was highly variable in thickness from 1 to 9 m followed by limestone bedrock.

Engineering calculations indicated that pipeline thrust blocks were required at selected intervals along the pipeline alignment.

THE ROLE OF GFWA

As part of the construction of the pipeline thrust blocks, GFWA was awarded the contract for installing 46 CFA piles, 600 mm and 750 mm in diameter, and 11 m in length on average.

These piles were installed using the advanced and high tech Casagrande B250 rig that is capable of producing digital and graphical output of the installation operation, including start and end times, torque, drill rate, flow rate, lifting rate, concrete pressure and pile profile.