

Crib Point Jetty Dolphins



Dampier Salt Dolphins are located near to Mistaken Island which is approximately 5 kilometres south east of Albany, Western Australia. Dampier is the world’s largest exporter of high quality solar salt. Dolphins are used to facilitate the docking of large ships offshore.



Location
Melbourne, Australia

Client
Port of Hastings Development Authority

Completed
April 2014

Structure
Dampier Salt Dolphins



The Problem Identified

The Dolphins were suffering from steel reinforcement corrosion due to exposure to high concentrations of chloride and moisture at elevated temperatures. Access was difficult due to the offshore location of the structure.



The Solution Developed

CPT designed a DuoGuard™ hybrid anode system to halt ongoing corrosion and prevent further damage to the Crib Point Jetty Dolphins. Over 1700 DuoGuard 500 anodes were supplied over the course of the two month installation project. Using an external power source, an impressed current was applied to stop active corrosion and render the steel passive. The DuoGuard anodes were then disconnected from the power source to self-generate a galvanic current, sufficient to maintain steel passivity and control corrosion.

DuoGuard was selected over a permanent impressed current corrosion control system because it was able to provide an affordable alternative to obtaining and operating a permanent power supply on site. A barge with a crane was used to ferry the scaffolding and heavy equipment to the work site. The barge also carried the sprayed concrete machine during the works.



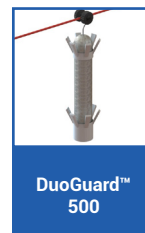
The Benefits Provided

Corrosion related deterioration of the Crib Point Jetty Dolphins has been halted. After the initial power up period using an external power source the DuoGuard system is self-powered thus minimising future maintenance requirements and associated life costs.



Steel reinforcement corrosion found at the Dolphins

CPT Products Used



DuoGuard™ 500



DuoCrete SD Mortar



MN15 Reference Electrode



ISO 9001
Cert No. 10159