



KURNELL, NSW

CALTEX WHARF CONCRETE REPAIR

CONCRETE REPAIRS - MARINE

PROJECT

Concrete Repairs to Structural Elements of Caltex Refinery Wharf

CLIENT

Caltex Refineries NSW

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DURATEC CONTACT

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DESCRIPTION

Caltex Refinery Wharf is located in Kurnell NSW, close to Botany Bay, Sydney, and has suffered extensive chloride-induced concrete deterioration over many years. For the past few years, Caltex has undertaken regular maintenance and repairs of the structure.

The refinery is classified as an explosive risk zone, requiring strict work procedures and controls. In addition, Botany Bay is an environmentally sensitive area with local fisheries and beaches.

Duratec was awarded a maintenance contract to repair various elements of the wharf including piles, beams and soffits.

All deteriorated concrete broken out had to be collected and removed off site and work had to be scheduled around tide levels and shipping operations.

The project produced excellent quality of repair works while sustaining a high standard of safety for personnel and environmental care.

HIGHLIGHTS

- ▶ Hydro demolition method was used to break out concrete on most of the areas on the breasting island. Monoflex sheeting encapsulation and geo-fabric was used to contain rubble.
- ▶ Form and pour method and wet spray method was used to repair piles, beams and soffits.
- ▶ Pre-bagged low shrinkage concrete repair mortar designed to meet stringent specification criteria was utilised.



IMAGES (FROM TOP TO BOTTOM)

- ▶ Breasting island of Caltex Wharf.
- ▶ Steel cleaned and primed on slab beam.
- ▶ Duratec employee working on form work.