



Water Truck Filling Station

Customer: BORAL Construction Materials

Location: Whiteside, QLD

Case Study ID: CS-55

Date: October 2015

Overview

BORAL Construction Materials engaged Dowdens Pumping & Water Treatment [Brisbane branch] to design, manufacture, install and commission a Water Truck Filling Station at their Petrie Greenstone Quarry.

BORAL's Petrie Greenstone Quarry is located approximately 30kms northwest of Brisbane and 13kms northwest of Petrie on Dayboro Road in the Pine Rivers Shire. The quarry is situated on a 134-hectare freehold property, of which only around 35 hectares has been disturbed for quarry pit and infrastructure development.

The quarried Greenstone, mined on the site, produces strong, durable products suitable for use as concrete and asphalt aggregate, as well as road base.

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The Problem

The need for a new Water Truck Filling Station arose when BORAL added a new water truck to their existing fleet. This new truck has a 36,000 L capacity. To fill both the new truck and remaining fleet utilising the current truck fill point would have meant an increase in downtime while trucks waited to be filled.



Our Solution

Dowdens Pumping & Water Treatment Brisbane branch set out to design and deliver an effective Water Truck Filling Station capable of reducing downtime onsite via a more robust and reliable pumping and storage tank arrangement.

This new system has considerably improved BORAL's turnaround time for filling trucks onsite. The existing Water Truck Filling Station took approximately 15 mins to fill each of the smaller trucks. The Dowdens system now fills the largest truck in Boral's fleet (with a 36,000 L capacity) in under 2 minutes, pumping water at 220 L/second.

The driver operates the Water Truck Filling Station remotely from within the truck cabin. Dowdens Brisbane fabricated all of the steel in-house, poly welded all pipework onsite and commissioned the system. The existing infrastructure was utilised in the new system to keep project costs down as per the client's request.

Key Components

- 46,800 Litre poly tank (fed from the 11 ML onsite dam)
- Macquarrie Flood Pump
- 22 kW Electric Motor pumping 220 L/second

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Brands used in this project



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