



PROJECT SNAPSHOT

TOXFREE CLEAN UNDERWATER WELL PIPES WITH
HIGH PRESSURE WATER

The issue

Unmanned platforms that were once oil wells still stand five hours off Lakes Entrance in the Bass Strait. The 'Perch' and 'Dolphin' platforms are required to be maintained to ensure they remain safe and do not cause a hazard in the ocean.

Part of the maintenance process involves checking the pipes that reach the ocean floor for wear and tear, specifically around their welding joints. In the past, divers have been sent down with high pressure water blasting equipment to blast away all the build-up on the pipes by hand. When the build-up has been blasted off, weak areas can be found and repaired to avoid any hazards.

The solution

Toxfree worked with Dive Work Solutions to provide high pressure water blasting on the pipes with the use of a robot. Dive Work Solutions provided a Sea Eye Leopard ROV and a Sonomatic Mag-Rov, these were combined with the Toxfree high pressure water blasting equipment to complete the work. The robot removed the need to send down divers and by using a camera the entire process, which occurred 15 metres under the water, could be safely monitored and controlled from dry land.



Dive Work Solutions equipment to be used with Toxfree water blasting equipment.

During the process, a 2 metre section of pipe was found to be covered in calcium build-up, which is particularly difficult to remove. To overcome the issue, Toxfree combined the high pressure water blasting water with garnet, this created an abrasive solution that could cut into the calcium. The abrasive water was used on the pipe in a crisscrossing motion to break up the calcium, after that the normal high pressure process was used to remove the chunks of calcium, revealing the smooth pipe underneath.

harmfree


toxfree

The outcome

Together, Toxfree and Dive Work Solutions provided a safer and cheaper option to maintaining the dry wells compared to methods used in the past.

The client was very happy with the outcome and that it was completed in a safe and well organised manner. The success of this project has led to further projects that are currently going ahead offshore.



Boat used to carry equipment to site.



Toxfree equipment being loaded on the boat.



Dive Works robot and Toxfree water blasting to remove build-up from pipes underwater.