

GREEN APPROACH TO REPAIR FOR AUSTRALIA'S WEST COAST

CASE STUDY

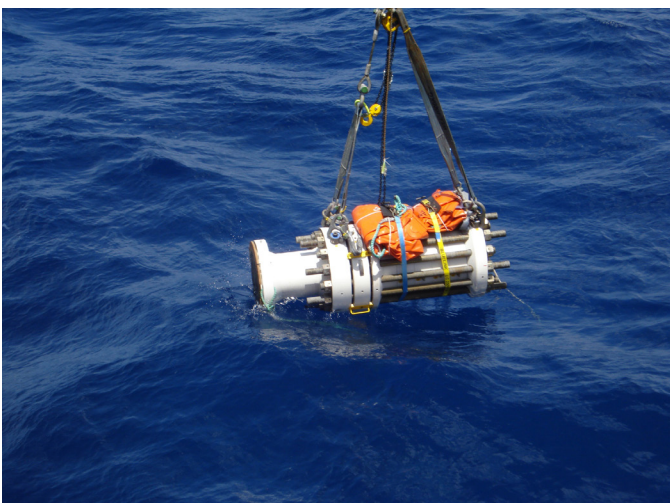
AUSTRALIA'S WEST COAST IS AN AREA OF OUTSTANDING NATURAL BEAUTY, BRINGING ENVIRONMENTAL FACTORS TO THE FORE WHEN MORGRIP® WAS COMMISSIONED TO CARRY OUT A REPAIR TO A SECTION OF A SUBSEA PIPELINE ON BEHALF OF AN AUSTRALIAN ENERGY FIRM.

THE CHALLENGE

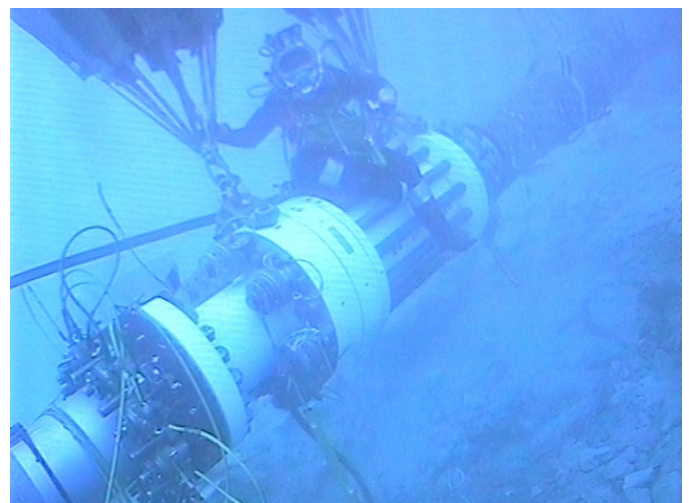
The project involved modifying and replacing a section of an export pipeline which had to be repaired due to top of the line corrosion. The area in which the repair was to be carried out was in an area of outstanding natural beauty which meant strict government interventions and requirements were in place. This included adhering to strict rules on forging, manufacturing and the use of a biodegradable mineral oil for activating the tensioners, hydraulic activation tooling and analysis seal test. All tooling had to be flushed and cleansed in this oil and MORGRIP® had to ensure no other oils were used in the project.

THE SOLUTION

The proposed solution was to construct a replacement section of the pipeline which would be internally clad with Corrosion Resistant Alloys (CRA) to limit further degradation. The section would be externally coated with Thermally Sprayed Aluminum (TSA) to provide additional cooling capacity. The replacement section comprised of short flanged spools. The upstream ends of the new pipeline tied in at the subsea isolation valve and the downstream connection with the existing pipeline was via a mechanical connector. The replacement pipeline section would lower operating temperatures to reduce top of line corrosion in the downstream carbon steel section of the pipeline.



01 // Offshore lift & deployment of connector



02 // Successful completion of Seal Verification Test

“This was an exciting project to be part of due to strict safety and environmental expectations in place.”

MORGRIP®

Field Service Technician

THE PROJECT

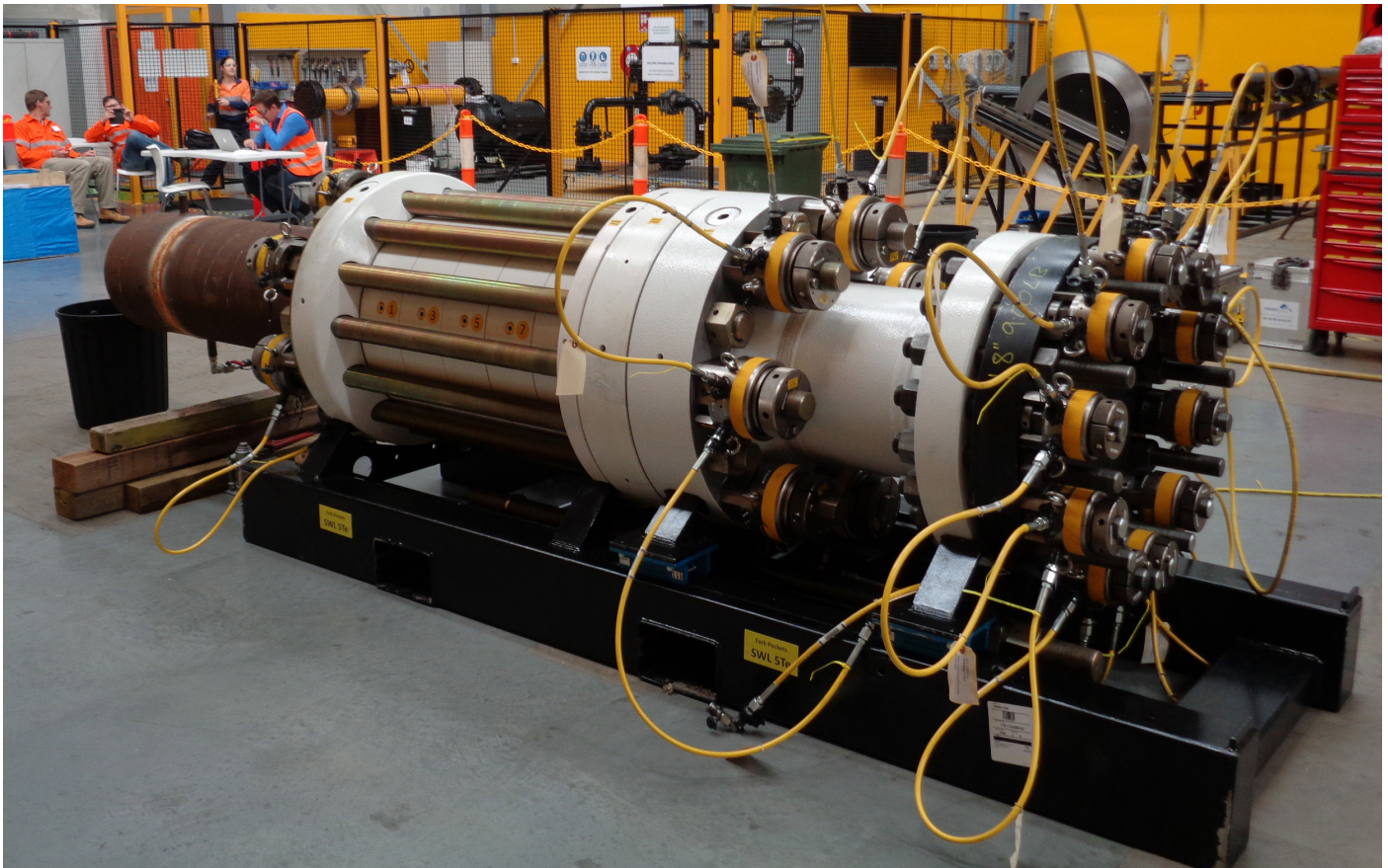
A Subsea Flange Adaptor was commissioned from MORGRIP® for the project. Following strict DNV assessment, the connector was shipped, where it underwent additional testing and diver training. Two experienced MORGRIP® engineers were on-site to ensure the testing went smoothly and to offer extra support for the client. Furthermore, to maintain the integrity of this area of natural beauty, a DNV inspector was brought in from Singapore to witness all aspects of the repair and to carry out an independent review of MORGRIP® manufacturing procedures.

The permanent repair system was successfully installed at a depth of 100m, using two divers and was completed in eight hours with no issues.

The MORGRIP® series of connectors is known for its leak-free record since they were first installed in the 1980s as an alternative to welding. Less manpower and fewer hours are required to carry out repairs. MORGRIP® technology provides a permanent solution but the connector can also be detached and reused.

The client had entrusted MORGRIP® with this sensitive project due to their long standing track record and world class engineering solutions. They also needed to ensure the repair was permanent with no margin for leaks; they had full confidence that this would be the case with MORGRIP®.

For more information, visit www.connectorsubsea.com.



03 // Factory Acceptance Test