

## Case Study

23 April 2013

**Project:** Deep water ROV Inspection on pipeline with internal degradation

**Problem:** Assessment of a deepwater pipeline identified a reasonably high likelihood of internal degradation. The operator determined that inspection was necessary to establish the depths and characteristics of any degradation present. Inspection using ILI techniques was not possible due to the configuration of the pipeline, hence an external inspection solution was required. The pipeline was at a depth of 500 m, this precluded the use of divers and an ROV deployed inspection solution was required.

### Solution:

The inspection was required to provide accurate wall thickness measurements and a detailed definition of the profile of any degradation present. Sonomatic used high resolution 0 degree corrosion mapping for inspection over pipe material and TOFD over the welds in order to meet the inspection requirement.

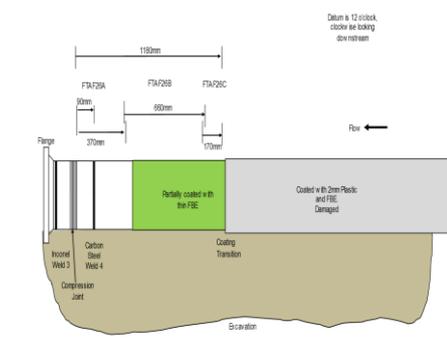
The inspection was carried out using Sonomatic's ROV-iT, subsea ROV deployed scanner. This allowed full coverage of the regions of pipe having the highest susceptibility to degradation.

The inspection provided detailed information to enable an integrity assessment to be performed, this demonstrated that the pipeline remains fit for service.

### Benefits:

- Sonomatic's ROV-iT tools allowed external inspection of the deepwater pipeline
- The inspection was cost-effective, with no need for hire of a Dive Support Vessel
- The use of ROV deployed tools reduces personnel risk
- The inspection provided detailed accurate information using Sonomatic's Corrosion Mapping and TOFD techniques
- The high quality of the data obtained enabled decisions on the integrity of the pipeline to be made with confidence

**Figure 1: Inspection area**



**Figure 1: ROV-iT at 500 m depth conducting ToFD and Corrosion Mapping**



**Figure 3: Example of corrosion mapping results**

