

**CLIENT
SECTOR
ASSET
DURATION
OBJECTIVE
SERVICES**

**GLOBAL OPERATOR
UPSTREAM OIL & GAS, UKCS
LATE LIFE FPSO
6 WEEKS
IMPROVE CONFIDENCE IN INTEGRITY DATA AND REDUCE OPEX
SOFTWARE AS A SERVICE (EXACT) FOR IMPROVED ASSET
MANAGEMENT**



Removed 35% of planned inspection deploying EXACT

PROJECT OVERVIEW

Imrandd was engaged to apply our expertise in data analytics to help regain confidence in the condition of a North Sea asset. The FPSO in question had been on station for several years and was in the latter stages of its life.

The integrity management process and inspection routines had not been optimised in some time and there was an inherent unease regarding the coverage and quality of new and legacy data.

Imrandd's objectives:

- ▶ Provide a cost-effective, tech-enabled solution
- ▶ Optimise inspection program
- ▶ Enhance client's reputation and maintain strong safety record
- ▶ Develop a more efficient Asset Integrity (AI) process
- ▶ Address typical resource constraints
- ▶ Reduce cost by creating value

THE CHALLENGE

There was a lack of faith in available historical data so mapping and predicting engineering, inspection and maintenance activities was a challenge, impacting business and safety-critical decisions. The client's goals were defined as 'accurate, long-term analysis and insight generation to improve safety and reduce OPEX.'

THE SOLUTION

Imrandd's in-house analytics software EXACT allows historical data to be converted into useful analytics and actionable insights. In this example, 79 corrosion circuits and 103,000 test-point readings were reviewed and processed. EXACT offered a customised visualisation, used to illustrate trends in degradation by corrosion circuit and feature type. This included a distribution of corrosion rates at circuit, line, and test point levels across the asset. EXACT revealed several areas where lack of inspection coverage presented blind spots as well as areas of over-inspection no longer required, further compromising the operator's ability to effectively manage inspection coverage, failures and system risks.

BENEFITS

- ▶ Project delivered in six weeks
- ▶ Digitalisation of large complex data sets
- ▶ Accurately cleansed, corrected and interpreted legacy data sets
- ▶ Mapped and predicted degradation, failure patterns and hot spots
- ▶ Predicted corrosion rates and trending
- ▶ Outputs provided an auditable trail used to extend inspection frequency
- ▶ Delivered actionable insights to significantly reduce OPEX
- ▶ Resulted in a 35% reduction in inspection enactment

CONCLUSION

The smart deployment of EXACT regained confidence and insights to drive precise inspection and maintenance planning and enactment. EXACT also identified immediate actionable improvements to mitigate at-risk integrity threats as well as significantly reducing OPEX.