



  
**ConocoPhillips**

Protecting Pipework Field Joints Offshore  
**Case Study**

**OXIFREE**<sup>®</sup>  
METAL PROTECTION

## Eliminating unplanned downtime by protecting pipeline weld anomalies whilst in service

Location	Britannia Platform
Local Environment	Offshore Platform
Date	February 2016
Condition	Cold, Dry
Total Coatings	9
Substrate Type	Pipework Anomalies
Duration	2 Days

### Summary

Oxifree TM198 was used to protect 9 anomalies on live pipework on Britannia Platform. The anomalies had suffered extensive corrosion and a shutdown was not an option, Oxifree TM198 provided the perfect solution being applied with minimal preparation to the live pipework, halting further corrosion.

### Introduction

The Britannia Platform is operated by Conoco Phillips within the Britannia Gas Field located offshore 130 miles North East of Aberdeen, Scotland. The field is one of the largest gas and condensate fields in the North Sea. The field has two manned platforms, the original Britannia Platform and a smaller Bridge Linked platform added later.

### Objective

Oxifree were commissioned by Conoco Phillips to provide vital asset life extension to a number of pipework anomalies on the Britannia platform in the North Sea. The anomalies included corroding welds and were located on live pipework which needed urgent attention. Since Conoco Phillips needed to complete the work without shutting down any part of the facility, the normal routine of blasting and painting could not be performed.

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*Condensate pipeline weld anomaly corroded prior to application of Oxifree TM198*



After



Before



After



# Case Study

Oxifree TM198 was selected as the solution as it required no surface preparation. Oxifree TM198 was applied to the anomalies to halt corrosion and maintain the integrity of the pipework until it could be replaced during a convenient shutdown, avoiding an unnecessary shutdown.

## Process

An Oxifree team consisting of a supervisor and an application technician completed the project. The Oxifree TM198 was applied directly onto each of the anomalies as prescribed by the fabric maintenance project engineer. 9 anomalies were coated in total using the ATEX Zone 2 rated unit and a 15 metre hose in order to reach locations that could otherwise be difficult to access.

## Solution

Following the minimal surface preparation (brushing loose corrosion away with a wire brush), a 3mm coating band was applied around the pipework completely covering the corrosion anomaly. Once cured a cable tie was attached on top of the Oxifree TM198 material at the ends with a second 3mm coat being applied on top. This extra protection to the ends of the TM198 material ensures long-term protection in the harsh offshore environment and stops the ingress of water and other contaminants.

Despite being used as an interim solution to avoid a shutdown, Conoco Phillips is considering leaving the TM198 in place as a longer term solution.

## Conclusion

Conoco Phillips were able to maintain productivity whilst extending the life of their equipment in a hazardous and harsh salt environment. 9 weld anomalies were protected from further corrosion without the cost of shutdown allowing capital resources to be allocated elsewhere. The anomalies can be inspected at any time by simply cutting the material which can then be refilled.

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