A major North Sea Operator required sand erosion monitoring due to expected sand produced in the line with a high risk of erosion to pipelines.

A new wireless transmitter design (see image below) which is utilised to accurately record metal loss and sand rate was recommended by Stork and Emerson as a cost effective alternative solution to help extend equipment life and increase production from reserves. The innovative wireless approach was ideal due to limited space available in cable trays, which is typical on mature assets.

The new wireless device provided flexible, cost-effective and highly accurate online monitoring of sand erosion from the field. The system enabled additional temperature and pressure sensors to be added to the wireless mesh network for a more complete monitoring package as well as proactively preparing the asset for further development of innovative wireless technologies in the future.

The collaboration with Emerson marked the first installation of the SandLog wireless monitors in the UKCS. The system delivered a range of significant benefits for the Client:

- Data accessible from onshore for data reporting
- Continual monitoring real time to provide instant and accurate data used to optimise process and risk-based inspections
- More detailed data recovered for rigorous analysis
- Reduced manpower as reports downloaded online
- Reduced installation costs compared to wired systems
- Enable monitoring in previously inaccessible locations

**PROJECT FAST-FACTS**

- **Project**: Sand erosion monitoring
- **Client**: Major North Sea operator
- **Location**: North Sea installation
- **Service**: Wireless sand erosion monitoring
- **Date**: 2015