

APM Project Management Awards



WINNER'S

CASE STUDY



Category **Young Project Professional of the Year 2015**

Winner **Sarah De Boer, Centrica**

Sponsor



Overview

Imagine having to clear a blocked well in the deep waters of the North Sea in winter safely and with huge amounts of money at stake.

That was the challenge facing Sarah De Boer from operator Centrica when the flow of oil from a well in the Chestnut Field declined steeply. A build-up of scale had slowed the flow to the floating production, storage and offloading (FPSO) vessel, Hummingbird.

The well had to be shut in to prevent further scaling, losing nearly 2,000 barrels of the field's daily production. The only other oil-producing well on the field was also shut in awaiting treatment to prevent scaling, leaving Hummingbird with no incoming production but very high running costs.

Sarah, 26, was asked to lead a team on a project to remove the scale build-up, restore the flow and prevent any further scaling issues.

Through tight management, innovation and negotiation, Sarah and the team saved some 25% of the costs in what was the first project of its kind for Centrica, proving that the technology and techniques worked and could be used in future similar situations. The methods used worked so successfully that once the well was back in business it was producing more than double the number of barrels of oil than before the shut-in.

Objective

The objective was straightforward – to restore production using dissolver chemicals and treating the well with preventative chemicals to stop any further scaling issues, carrying out the work safely and keeping costs down.

Challenges

This was a first for Centrica in the North Sea. Sarah and her team of 10 onshore and 30 offshore people needed to develop a plan, prepare accurate costings and appoint specialist companies and resources.

The small and circular Hummingbird had too small a deck to store and mix the volume of chemicals required. A second, more suitable vessel had to be found and modified especially for the job.

Timing was not ideal, as the work would have to be done during a North Sea winter in order to get the well back to full flow as quickly as possible. A study was needed to gauge the risks, including the potential for excessive non-production time.

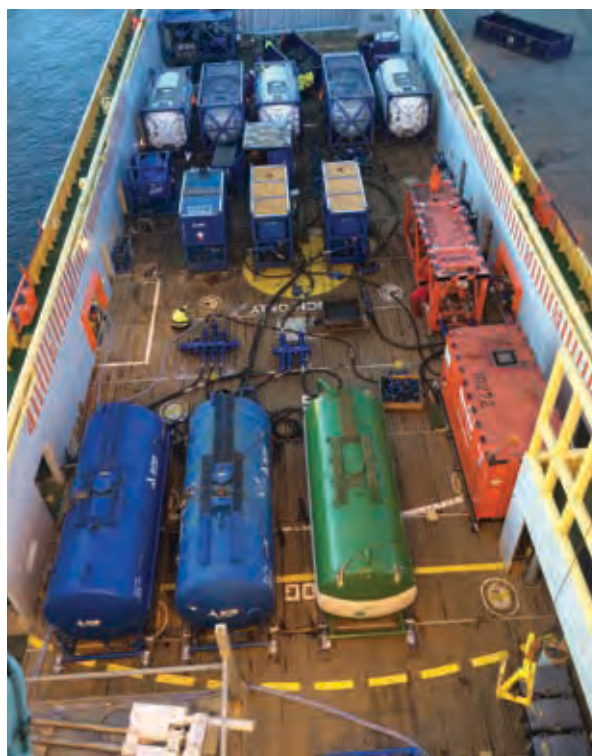
Vessel operations would have to be carefully coordinated and effective collaboration with all involved was required so that they would work together seamlessly.

Even then, the initial probability of the chemical treatment effectively removing the scale was only 50 per cent.

Planning

Sarah had to come up with a workable plan that would take into account the complexity and potential hazards of the operation, along with the risk of bad weather which could hamper and delay the operation.

She drafted an initial programme to allow the team to review and optimise the treatment design and application. Once the plan was completed it was reviewed at both a hazard identification (HAZID) study and hazard and operability (HAZOP) study to allow for any health, safety and environmental risks to be engineered to as low as reasonably practicable.



It then went through a peer review session, a full risk assessment was completed and key requirements for the support vessel were agreed before the tendering process began.

The project plan and tracker were distributed to the wider team and reviewed on a weekly basis. It proved a key document and eased communication with stakeholders by giving clear visibility of the current status.



Communication and coordination

Communication and relationships were important to successful delivery. The Hummingbird operators, supply vessel owners, pumping equipment providers and sub-contracted equipment providers formed a complex interface for delivering the necessary equipment and services.

Weekly meetings with key contributors during the planning phase and daily meetings and phone calls once work began ensured a robust relationship with everyone involved and helped to identify any issues as they arose. Working closely with all team members nurtured an open and honest dialogue between all parties.

Coordinating and managing the onshore and offshore aspects was crucial, especially as communications could often be compromised due to weather. Sarah and her team managed any issues and worked to common goals to maintain safe operations.

Success

The result was an all-round success with all the programme objectives achieved. The treatment cleared the wellbore for the scale prevention treatment to be applied, the well returned to production with its flow rate increased to over double its pre-treatment rate.

The use of innovative technology reduced the daily cost of the project by around 60 per cent and an unwavering commitment from the team to reduce costs in unconventional ways helped to deliver this project under the forecast cost.



The APM Project Management Awards have been celebrating project management excellence since 1993 and the broad range of categories is designed to make entry possible for projects and companies of all sizes and complexity.

The awards reflect the invaluable contribution project managers make in all sectors of society and the event provides an opportunity for industry professionals to meet with colleagues and entertain guests as well as celebrate at one of the year's most exciting events.

Highly regarded in the project management industry, the awards reflect the dedication and talent that helps to shape the project management community and the world around us. The finalists, winners and sponsors of the awards attract national publicity for their achievement and involvement. Winning an award provides invaluable recognition and kudos to the careers of winners.

For more details on the awards and how to enter or attend, visit apm.org.uk/awards or email awards@apm.org.uk

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