Template Installations on Aasta Hansteen Field for Statoil - The Deepest Oil and Gas Field Developed on the Norwegian Continental Shelf

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EMAS CHIYODA Subsea
EMAS CHIYODA Subsea’s business will remain the same as EMAS AMC’s pre-JV business, including:

- Provision of EPCIC and T&I services;
- Provision of decommissioning services;
- Provision of life of field services;

for offshore oil & gas projects and offshore renewable energy projects.
Introduction

- Aasta Hansteen Field WD - 1280m
- Deepest subsea templates installed in the North Sea
- 3 Templates installed by EMAS AMC
- Project awarded 2013 – executed 2015
Template Design Development

Challenge
Template Design Development

- Risk related to installation of the original design too high, Waiting On Weather (WOW) to be reduced
- In cooperation with Statoil and AkerSolutions, the process of changing the design & concept initiated
  - studies and WOW analysis of 4 different concepts

WOW Results - Original Concept

Examples of Alternative Concepts
Conclusion - Split Design
Installation Scope – 4 trips

- Suction Anchors

- 4-slot Toastrack Template Structure (TTS), 23x20x12m, 180Te – 2 off

- 1-slot TTS, 16x19x12m, 112Te
Preparations

• Installed survey equipment
• Pre-installed rigging
• Prepacked all small items in Half Height (HH) containers
• Dropped object sweep
• Familiarization and time-out for safety
Installation of Suction Anchors

- High focus on Working at Heights
  - Use of Rope Access Technicians (RAT) team for connection of rigging
Video & Animation - Suction Anchor installation

Courtesy of Aker Solutions
Mobilization & Loadout TTS

- Adjustment of TTS leveling system
- Familiarization using 3D models
- Test lift at site
Installation of the TTS

- Weldless seafastening solution
- No use of deck tuggers
Video & Animation - Deployment and Installation of TTS

Courtesy of Aker Solutions
Success Criteria

- Managed to minimize WOW by early involvement
- Rope Access Technicians (RAT) for hook-up
- Utilization of 2 suction pumps for Suction Anchors (~ 6hrs suction time)
- Optimized seafastening and grillage design
- Simplified design. No tugger-lines
- Preparations for next mob done in parallel time offshore
- Offshore personnel with the «right» qualifications and experience.
- Thorough familiarizations before every new task
- Open and good working relationship between Statoil/AkerSolutions/Vessel/Construction crew
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