

## Total-Frigg-Conductor stub removal

### Summary

NCA was contacted by Total end of November and asked if we could help out to remove a conductor stub that was sticking up above mud line, the stub was discovered during a survey with ROV and Total was required to cut and remove the stub as soon as possible.

1<sup>st</sup> December NCA got the go for mobilization, The vessel Aker Wayfarer left the dock in Eigersund 8<sup>th</sup> of December with all NCA cutting equipment onboard and ready for operation. The stub was cut and removed and the Aker Wayfarer was back in dock 13<sup>th</sup> of December.

### Project Facts and Location: Frigg DP2

Timing: December 2010  
Water depth 100meter  
Client: Aker  
End client: Total

### Conductor Configuration

30", 20" and 13 3/8"

### Scope of work

NCA's scope of work was to deliver personnel and equipment for cutting the conductor stub 5 feet below mudline and to cut lifting holes in the conductor. Aker Wayfarer then retrieved the conductor stub to deck.

The equipment spread included:

- ✓ AWJC (Abrasive Waterjet Cutting Spread)
- ✓ IMCT (Internal Multistring Cutting Tool)
- ✓ HCT (ROV operated Hole Cutting Tool)

### Project Execution

NCA used Abrasive Water Jet Cutting (AWJC) with the Internal Multistring Cutting Tool (IMCT) for severance of the conductor stub. The conductor casings were cut from inside out in one operation. This is proven technology with a track record of more than 300 conductors cut, ranging from conductors on 30 metres water depth to 5 string conductors on 370 metres water depth.



Conductor Stub



HCT hole cutting tool



Deployment of IMCT

## The project involved the following tasks

- ✓ Project planning and Procedures
- ✓ Engineering support
- ✓ Subsea operations
- ✓ Rigging
- ✓ Cutting holes for lifting
- ✓ Cut conductor stub
- ✓ Recover cut stump back to vessel deck



Connecting the crane hook to the stub

## Achievements

- ✓ Conductor stub was recovered less than 2 weeks after the initial request
- ✓ Within a time period of 5 days Aker Wayfarer left the Dock, went out and performed the hole cutting, cut the conductor stub and retrieved same and returned to dock despite 2 days waiting on weather.
- ✓ Efficient cutting time 4 hours
- ✓ Safe operation with no LTI's or LTA
- ✓ Excellent teamwork between NCA , the main contractor, and the end client Total



Cut and retrieved Conductor stub

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The vessel

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