

PROJECT SHEET

SEALINE COEFR PROJECT IRAQ
DREDGING IN REMOTE AREA UNDER STRICT SECURITY REGULATIONS

INTRODUCTION

The Crude Oil Export Facility Reconstruction Project aims to stabilize and expand Iraq's crude oil export capacity, a lifeline of the Iraqi economy, by constructing a pipeline connecting crude oil storage facilities to the offshore crude oil export terminal in Fao, Basrah in Southern Iraq.

The Project involves the development of two offshore valve station platforms, a 75 kilometer 48" oil pipeline and a Single Point Mooring system.

Permanent works under the contract which are required to be designed, procured, installed, tested and commissioned include both onshore and offshore block items, along with a range of temporary works e.g. buildings, utilities, roads.

The project requires interfacing with the existing systems and other ongoing pipeline projects in the area.

Leighton Offshore is responsible for integrating, testing, commissioning and staff training of the ongoing project's operational personnel and to put the entire pipeline system into service.

FEATURES

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|----------------------------------|----------------------------|
| Client | South Oil Company of Iraq |
| Location | Offshore Iraq |
| Period | December 2012- August 2013 |
| Main contractor | Leighton Offshore Ltd |
| Contractor | Atlantique Dragage |
| Long-term driver of the project: | Growth energy consumption |



A Location map
B TSHD Oranje dredging close to ABOT terminal





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PROJECT DESCRIPTION

Atlantique Dragage started on the project in December 2012 with dredging of the three trenches by TSHD Oranje. The three trenches have a total length of 21 km and were dredged to a maximum depth of 3.5 m. A total volume of 2 M m³ of soil material was removed from the trenches. This material consisted mostly of silt, clay and sandy material but also cap rock and calcarenite material was encountered in one area of the trench running between the KAOOT and ABOT terminals. This material was pre-treated by having it crushed with the CSD Phoenix. The crushed material was then removed by the Oranje. The trenches were completed within a tight schedule enabling the installation of the pipelines without delays.

Another part of the scope was dredging of a turning circle of the SPM. This circle has a radius of 1200 m and was dredged to a depth of 26 m. The inner circle with a radius of 100 m was dredged to create minimum depth of 30 m to allow for the installation of the PLEM (pipeline end manifold) of the SPM. TSHD Oranje dredged 10 M m³ material from the turning circle. The material was disposed in designated disposal area. Dredging of the turning circle was completed in August 2013.

CHALLENGES

- **Logistics:** The project is located in a remote part of the Northern Gulf region in Iraqi offshore waters. This created a challenge in logistics. For security reasons all crew movements and logistics went through Shuwaik port in Kuwait which was 60 NM away from site.
- **Security:** The export facilities are of vital importance for the economy of Iraq. Strict security regulations were to be adhered to by all vessels involved for the project and the area was subject to continuous patrolling by the Iraqi Navy.

SAFETY AND ENVIRONMENT

As with all Boskalis' projects safety is an essential part, especially in remote locations. The project was executed with a good safety performance well within both Boskalis' and Leighton's safety requirements. Special attention was given to introduce Boskalis' safety behavioral program NINA to third party vessel crews.

Part of the scope of work was turbidity monitoring. No sensitive environmental receptors which could be impacted by the works were identified and therefore no limits of turbidity during the works were set. Turbidity monitoring was implemented to detect the possible changes of the environment under construction activity.



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- C CSD Phoenix crushing with TSHD Oranje dredging nearby
- D TSHD Oranje

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