

# **74 ILK CONSTRUCTION TURKMENISTAN BRANCH (PETRONAS PROJECT)**

## **GARAGOL DENIZ WEST OIL DEVELOPMENT PROJECT – 14" GAS PIPELINE (TURKMENISTAN)**

## **74 ILK CONSTRUCTION TURKMENISTAN BRANCH (PETRONAS Project)- GARAGOL DENIZ WEST OIL DEVELOPMENT PROJECT – 14"gas pipeline (TURKMENISTAN)**

### **1 General project Overview and Reference**

The project is "TRANSPORTATION AND INSTALLATION OF OFFSHORE FACILITIES FOR GARAGOL DENIZ WEST OIL DEVELOPMENT PROJECT" under patronage of Malaysian PETRONAS CARIGALI TURKMENISTAN SDN BHD and awarded to Malaysian Pipe Laying Company SIGUR ROS SDN BHD as the Main Contractor. The shore approach section is subcontracted to the Turkish ILK CONSTRUCTION.

The original construction design was based on dredging a navigation channel for the access of a pipe-layer and logistic barges to shallow water. However, ILK CONSTRUCTION proposed to bottom-tow/surface-tow the complete landfall string and PETRONAS CARIGALI TURKMENISTAN SDN BHD approved this proposal providing that the required trench depths and pipe burial criteria are achieved based on existing seabed levels. The purpose of this approach was mainly to eliminate the dredging scope required for vessel access and to change the trenching scope to a relatively simple and quick method.

The pipeline was requested to be trenched to an approximate depth of 1m TOP, and SEA S.R.L. was contracted by ILK Construction to perform the Post-Trenching activities of the 14" pipeline from the shore line to approx. 12 m water depth.

The approximate landfall location is N40d 09.3' / E52d 45.8' and is close to the PETRONAS Port (within 3 Nautical miles).



Figure 1: Overview of project area

## 2 Scope of work

SEA's scope of work included the post-trenching of a 14" subsea pipeline from GDWP-A to OGT.

The 14" subsea pipeline had the following characteristics:

Pipeline details:	
Pipe:	n.1 x 14in pipeline (OD 355,6mm)
Wall thickness:	12.7mm
Material:	API 5L X52
Protective coating:	3.5mm 3LPP
Concrete Weight Coating:	95mm
Total OD:	545,6mm
Anodes:	Circular anodes are hidden in concrete coating at app. 50 metres spacing
Joints:	Covered by polyurethane for the entire thickness of the concrete coating.

The pipeline was flooded and unpressurized when post-trenching operations were performed.

The following table summarizes the Post-Trenching SOW:

TRENCHING OPERATIONS from GDWP-A to OGT									
PRODUCT	Concrete Coating	Zone	Operations	KP Start	KP End	Length (approx Km)	Burial Depth (m) TOP	From Water Depth (approx m)	To Water Depth (approx m)
14" subsea pipeline	95mm	Landfall point towards offshore	Post-trenching	72,700	70,466	2,234	1	1,5	-7

### 3 Soil condition encountered

- Sandstone rock, having UCS hardness value of 38MPa;
- High density silty sand and sand.



**İLK İNŞAAT**  
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## COMPLETION CERTIFICATE

M/s ILK CONSTRUCTION hereby confirms that:

SEA Srl, registered address Via Mariani 44/46, 48121 – Ravenna (RA), Italy, P/IVA 1206570390, awarded the subcontract for the GARAGOL DENIZ WEST OIL DEVELOPMENT PROJECT (TUKMENISTAN), for the provision of the trenching spreads and the execution of the Post-Lay Trenching works of 1,984 km of 14” gas pipeline to a minimum of 1m TOP.

The works have been performed and completed in full compliance with the final provision of the Subcontract Scope of Work and to the complete satisfaction of ILK CONSTRUCTION.

Yours sincerely,

  
**Branch director**  
**Ali Emre Tumkaya**

