



Gas Pipelines



Sines - Setúbal Natural Gas Pipeline

Sines – Setúbal (Portugal)

Work Description

Natural Gas Pipeline (87 km) between Sines and Setúbal including the longest Horizontal Direction Drilling (HDD) in Europe, 4500 m across the Sado River Estuary.

Pipework: steel pipe, API 5L CL. Gr. X-70 (Ø 800 mm) with polyethylene exterior coating. HDD installation of 800 mm / 17,5 mm pipeline at the following crossings: Santo André, Salinas do Sado, Sado Estuary (4 HDD), Várzea do Sado, and Rio do Sado (8 HDD altogether).

Engineering: Eng. Luís Colen + Seth, SA.



Work Summary

Client	TRANSGÁS Sociedade Portuguesa de Gás Natural, SA
Contract Type	Unit Price
Construction Period	2023
Cost	€ 21 667 182,00



Gas Pipelines



Complete Conventional Buoy Mooring (CBM) system for the CLCM Caniçal Marine Terminal

Caniçal – Madeira (Portugal)

Work Description

Seth has completed a contract for the design and supply of a complete Conventional Buoy Mooring (CBM) system for the CLCM.

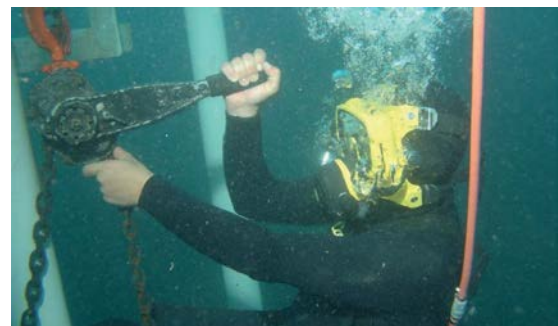
The CLCM terminal is a Joint Venture including GALP Energia (Petrogal) providing the main import facility for LPG, black and white products (gasoline, diesel, fuel oil and kerosene) for the energy and power consumption for the island. Scope of supply consists of four CBM buoys, complete with mooring system and quick release hooks, three combined pipeline end manifolds (PLEMs) and hoses, and the complete control and instrumentation via umbilical towards the shore terminal control room.

Seth used as technological partner the Dutch company Bluewater Energy Services B.V..



Work Summary

Client	CLCM Companhia Logística de Combustíveis da Madeira, Lda.
Contract Type	Turn-Key
Construction Period	2023 - 2024
Cost	€ 11 831 295,34





Gas Pipelines



Socorridos Multipurpose Terminal

Câmara de Lobos – Madeira Island (Portugal)

Trabalhos efectuados

Esta Seth, SA, carried out the remodelling of the Socorridos Multipurpose Terminal on the island of Madeira, in front of the Socorridos Stream at Câmara de Lobos.

This job involved the construction of a marine terminal to supply fuel to the Vitória Power Station on the island of Madeira.

This infrastructure, which supplies fuel from tankers moored about 560 m from the shore, comprises three buoys used to moor the ship, about 75 m of Ø10" fuel hose and 560 m of Ø12" steel pipeline.

The following work was carried out in accordance with the initial contract.

Removal of 4 buoys and respective chains and accessories, concrete blocks and anchors.

The steel buoys weigh about 5 tonnes each and have a diameter of 4 m at the water line and a total height of 4 m. (These four sets of buoys were removed from the sea in front of the Formosa breach, where the Shell discharging facility used to be).

Laying just three of these sets (buoys + accessories + plus blocks and anchors) in front of the Cimentos Madeira Marine Terminal near the mouth of the Socorridos Stream.

Construction of a 560 m sea-line of Ø12", 12 mm wall, steel pipes welded together. The pipe ends at a PLEM (Pipe-Line End Manifold) built of reinforced concrete. On shore, the pipe is connected to another pipeline (the construction of which was not a part of our contract) that delivers the fuel to the storage tanks.

The PLEM includes steel piping and a set of seven Ø10" hoses totalling about 75 m. A shut-off valve was installed between the two pipelines.

A Breakaway Coupling valve was fitted between the 1st and 2nd hoses.

The steel piping of the sea-line is protected with Reno mattresses (wire mesh baskets 4.0 x 2.0 x 0.3 m filled with 5-10 cm crushed stone).

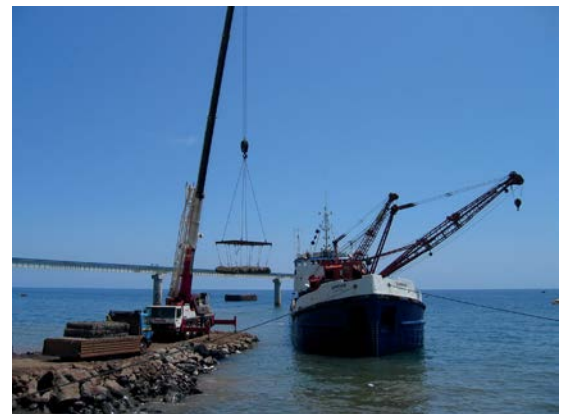
As an addendum to the initial contract, Seth was awarded the overhaul of the 4 buoys (shot-blasting, sundry repairs, painting and fitting of lanterns fed by solar panels).

The 4 buoy. Th buoy is located at the Vitória Power Station and will act as a spare A Sea Mark Plan was prepared by the Portuguese Hydrographic Institute.

The Employer in this contract was EDM– Electricidade da Madeira, which acted in close co-operation with CLCM– Central Logística de Combustíveis da Madeira.

Work Summary

Client	EDM - Electricidade da Madeira
Contract Type	Turn-Key
Construction Period	2006
Cost	€ 1 800 000,00





Gas Pipelines



Jet Fuel Pipeline from Off-base Depot and Additional On-Base Storage

Porto Santo Island, Madeira Archipelago (Portugal)

Work description

This work involved remodelling the Military Fuel Supply and Storage System at the Porto Santo Island Aerodrome.

The contract (Project NATO 99/7PL40601), included work in several areas: civil construction, foundations and structures, mechanical works, electricity, roadways, waters and drains.

Main quantities

- Distribution manifold building
- Two underground steel tanks (500 m3 each), covered with reinforced concrete
- Waste Tank and Fuel Tank, complete with ladders and walkways providing access to respective covers
- Two fuel pits at the Fuelling Bay and another two at the Apron
- Construction of earth retaining embankments and walls
- 3200 metres of 6" diameter carbon steel connecting pipeline
- Related DWV, landscape and electrical works



Work Summary

Client	Portuguese Ministry of Defense (MDN)
Contract Type	Turn-Key
Construction Period	2003 - 2004
Cost	€ 4 982 652,00

