

Bouri Subsea Wells Project

PROJECT DETAILS:

Location:	Bouri Field, Libya
Contract Value:	A\$20 million (1998)
Contract Period:	March 1998 - January 1999
Safety Statistics:	Manhours: 56,086 LTIFR: 0



CLIENT: Saipem SpA / AGIP Libya

Scope of Work:

The Bouri field consists of three installations lying approximately 120 kilometres off the Libyan coast in water depths between 145 metres and 179 metres.

The SaiClo* scope of work involved the tie-in of three satellite wells at distances of 11 kilometres, 6 kilometres, and 7 kilometres to one of the B3 platform facilities using flexible flowlines and umbilicals. Retrofitted I-tubes, through which the flowlines and umbilicals were pulled, were also installed on the platform.

The dynamically positioned offshore construction vessel, *MSV Maxita* was used to load, transport and install all the permanent materials. Due to the large available deck area on the vessel all the permanent materials (which included eight flowline / umbilical reels, 21 x 55 metre long 12 inch I-tube sections and associated clamp assemblies and the Subsea Isolation Valve assembly) were carried on board and no reload activities were required. This was extremely important given the remote location and the logistical difficulties involved.

In addition to the permanent materials the vessel carried all the project equipment. This included a portable saturation diving system and sufficient gas to support diving operations, in water depths up to 160 metres, over the anticipated project duration of 40 days.

A rigid I-tube system to house the flowlines and umbilicals was installed on the platform. Two topside hang-off clamps and 14 subsea clamps were fitted on the platform and into these were installed seven 12 inch outside diameter (OD) I-tubes each approximately 160 metres long. The flowlines and umbilicals were fitted into the I-tubes which protect and lead the flexibles from the seabed to the surface.

Each tie back system between the wellhead and the platform consisted of a 102 millimetre OD electrohydraulic control umbilical and a 4 inch nominal bore (NB) flexible flowline. Each of these lines were laid from the platform along the seabed using the *MSV Maxita* reel drive system.

www.clough.com.au



Scope of work:

A subsea safety valve skid was also installed 130 metres from the platform and each flowline was connected through it. An additional control umbilical was laid to connect the platform to the safety valve skid.

All tie-ins, clamp and I-tubes works were carried out using saturation divers deployed from the vessel, which was at times working as close as 10 metres from the platform. The platform continued production whilst the installation program was carried out.

SaiClo carried out testing activities for the flowlines and umbilicals from the platform.

The installation activities were carried out to schedule with the vessel spending a total of 48 days on site. First oil was achieved by AGIP to schedule.

** SaiClo is equally owned by Saipem S.p.A. of Italy and Clough.*

