

## ROC OIL LTD CLIFF HEAD PROJECT

### Wellhead Platform Installation and Commissioning, Dongara, Western Australia

Cliff Head oil field is located off the Western Australian coast, approximately 350km north of Perth. The field was developed by Roc Oil on behalf of the Cliff Head Joint Venture.

ICON Engineering was commissioned to install, hookup and commission the wellhead platform and topsides.

Unique conditions at the Cliff Head location included a rocky seabed covered with a thin layer of sand and a location that was fully exposed to long period south westerly swell from the Southern Ocean.



The jacket and topsides were fabricated in Lumut Malaysia and transported to site on a dedicated barge. The jacket was installed in December 2005, approximately two months before the topsides.



The jacket was loaded out and transported vertically. ICON was responsible for sea-fastening design, naval architecture and preparation of the tow plan.

The rig was positioned over an existing exploration well that was to be reused for production. This required particular attention to be paid to the positioning system and the placement of the rig.

The jacket was lifted and placed on the seabed. Piles were then drilled through the legs and grouted to the seabed.

After the jacket was installed, drilling of the production wells commenced. It then became possible to deliver the topsides as schedule permitted as this was not critical. In addition, weather delays could be minimised by continuing to drill

until a satisfactory weather window for topsides installation was available.

The topsides weight at lift was 500 tonnes. At the time this was the heaviest topsides lift undertaken using a jackup rig and is still the heaviest lift for a rig without project specific modifications.

The lift was undertaken with precision and minimal dynamic loads were applied to the lifting system.

On completion of topsides installation, the ICON team under-took platform hookup and commissioning in conjunction with the remainder of the drilling programme. ICON worked closely with the Roc Oil project team to assist in scheduling, presentations to partners and in liaison with government agencies.



#### Platform Data

Water depth	18 m
Jacket Lift Weight	250 t
Topsides Weight	500 t
Legs	4 vertical
Piles	4 x 762mm diam. vertical
Production rate	25kbfpd

9 Well Slots (production and water injection)

Artificial lift system using CT retrievable ESPs.

Production test facilities

Helideck

Craneage to handle CT system