



24 November 2006

Mr Bill Tinapple
Director – Petroleum and Royalties Division
Department of Industry and Resources
100 Plain Street
East Perth WA 6004

Attention: Kim Anderson – General Manager Petroleum

RE: 2TL to IFL Tie-In Stabilisation Project Environment Plan Summary

Please find attached the 2TL to IFL Tie-In Stabilisation Project Environment Plan Summary to meet the requirements of Regulation 11(7) of the *Petroleum (Submerged Lands) Management of Environment Regulations 1999*.

If you require additional information in relation to this Summary, please do not hesitate to contact Cara Price on 08 9348 6562.

Yours sincerely,
WOODSIDE ENERGY LTD.

A handwritten signature in black ink, appearing to read 'C. Price'.

Cara Price
Operations Environmental Advisor

2TL to IFL Tie-In Stabilisation Project Summary

This summary of the 2TL to IFL Tie-In Stabilisation Project has been submitted to comply with Regulation 11(7)(8) of the Petroleum (Submerged Lands) (Management of Environment) Regulations 1999.

Introduction

During an ROV inspection survey of the Second Trunkline (2TL) pipeline in August 2006 significant scouring was observed at the tie-in location to the Interfield Pipeline (IFL). Engineering assessment of the unsupported pipeline has identified that rectification works are required on the 2TL to IFL Tie-in Spool location adjacent to the NRA Platform.

Activity Description

Woodside Energy Ltd will carry out grout bag installation and rock dumping activities on the 2TL to IFL Tie-in location. The campaign will be supported by the work class ROV onboard the Lady Christine. This work is expected to take approximately 12 days and will be performed in two phases. During the first phase 7 grout bags will be installed, rock dumping activities will be performed in the second phase. The first phase is scheduled for mid November 2006, the second phase is scheduled for January 2007.

The grout bags will be deployed using Woodside Energy Ltd's surface deployment system (SDS) with the ROV assisting subsea. Grout bags will be lowered using the SDS and pulled into place with the ROV. Once in place the grout bags will be inflated via a hose connected to a grouting spread located on the deck of the vessel.

Coordinates of Activity

The activity is being conducted on the 2TL to IFL Tie-in Spool location adjacent to the NRA Platform. The coordinates of the NRA Platform are:

- Latitude: 19° 35' 08.02" south
- Longitude: 116° 08' 12.28" east

Description of Receiving Environment

The NWS exists in an arid (mainly summer rain) subtropical environment with tropical cyclone activity from November to April. Average air temperatures in Karratha (closest regional townsite) range from 15°C to 25°C in winter, and 26°C to 40°C in summer. Rainfall is variable from year to year, with a mean of 310 mm per annum. The seabed in the vicinity of NRA is typical of deeper offshore areas (>150 m water depth) on the NWS, being characterised by deep (>5 m) soft, silty sediments derived primarily from calcium carbonate, which become deeper, softer and finer with increasing depth. Sampling of the benthos has consistently shown that the soft sediments of the NWS support a low abundance, high diversity invertebrate fauna population, largely comprising burrowing polychaete worms (Phylum Annelida) and crustaceans (Phylum Crustacea). Echinoderms, bivalves and molluscs also contribute significantly to the faunal composition of the area.

A range of whale and dolphin species occur in the waters surrounding NRA, some being seasonal visitors while others occur at low densities all year round. The most common species include the humpback whale, false killer whale, southern bottle-nosed whale, bottle-nosed dolphin, Indo-pacific humpbacked dolphin and Risso's dolphin. Four species of marine turtles nest on shore sites within the Pilbara region. In order of abundance these are the green turtle (*Chelonia mydas*), flatback turtle (*Natator depressor*), hawksbill turtle (*Eretmochelys imbricata*) and loggerhead turtle (*Caretta caretta*). The leatherback turtle (*Dermochelys coriacea*) may also visit the open waters. The across-shelf distribution of these species is not well understood, but is thought to vary among the species. In general, the NWS hosts a diverse assemblage of fish. This is particularly so in the shallow water environments around the oceanic island groups and the mainland coastline. Much of the area in the vicinity of the NRA facility comprises bare, flat sandy seafloor and consequently the natural fish fauna is not believed to be abundant or diverse. However, due to the presence of the platform and other underwater structures around NRA, fish species richness and abundance is probably much higher than in the relatively bare surroundings.

Environmental Hazards

During the installation of the grout bags there will be a residue of approximately 10% of the total amount batched and pumped (which equates to approx. 150 litres) that will be discharged to the environment. There will also be the residue from the hose (approximately 181 litres) that cannot be captured and will therefore also be lost to the environment.

As there will be a total of 7 grout filling operations (2 of the grout bags have 2 compartments which may be filled in stages) an overall total of approximately 2,300 litres of grout/water mixture will be discharged during the activity. The ratio of grout to water will be approximately 0.75 kg of grout per litre of water.

Given that the discharge location of the grout/water mixture will be at approximately 130m water depth, any potential environmental impacts of such a discharge are expected to be minimal, but may include some short-term turbidity in the immediate vicinity of the discharge and some isolated smothering as the cement settles on the sea floor. However, given the relatively small volumes to be discharged and the low toxicity of the cement the overall environmental impact of the activity is expected to be negligible.

Summary of Management Approach

The work will be conducted using the Lady Christine which is operated by Farstad Shipping. All operations on board are governed by the vessel's own Management System and associated procedures, including compliance with IMO requirements such as MARPOL. A review of the vessel's Management System and a vessel inspection has been conducted by Woodside Marine to ensure that the vessel meets Woodside's HSE standards. A HSE induction for the vessel crew will be conducted prior to the commencement of operations and a Woodside Representative will be onboard the vessel at all times ensuring that Woodside management requirements are complied with. Specific environmental management issues for this activity will include the recording and reporting of all spills >1 litre, and reporting to DoIR within 2 hrs, any spills to the ocean >80 litres. Further information regarding Woodside's overall HSE Management System is detailed in the approved NRA HSE Case.