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# Consents given under the Petroleum Act 1998 and Reviews under the Assessment of Environmental Effects Regulations 1999

#### Premier

# BLOCK 29/2A-P

Pursuant to Regulation 5(8) of the above Regulations, the Secretary of State for Trade and Industry gives notice that, being content that the requirements of the above Regulations have been satisfied, he has, pursuant to Licence P224, granted a consent to Premier Oil Plc to the getting of petroleum and the drilling of an exploration well in Block 29/2a-P (hereafter referred to as "the project") subject to Premier Oil Plc conducting operations in respect of the project in accordance with the relevant environmental statement. Consent for the well was given on 18 December 2000.

#### **Background**

Tie-backs to the Alba and Andrew Fields were considered; however, lack of gas compression capacity negated the Andrew option and Alba would have had incompatibility problems as it produces hydrogen sulphide with its oil/gas. It was therefore decided to compare a fixed platform, semi-sub. and FPSO vessel options. The FPSO vessel was chosen on economic and technical grounds.

Drilling		
Hole Section	Mud type	Cuttings weight (tonnes)
36"	WBM	130.51
26"	WBM	240.18
17.5"	WBM	325.85
12.25"	ОВМ	257.66
8.5"	WBM	68.66
TOTAL		1,022,86

## **Drilling and Well Completion**

Oil contaminated cuttings will be skipped and shipped to shore.

# Well Testing

The well will be tested for a period of 16 hours over a 45 hour period. A maximum of 1,590 m<sup>3</sup> of oil and 165,186 m<sup>3</sup> of gas will be flared during the well clean-up process.

#### **EWT Flaring**

Either the Crystal Sea or Crystal Ocean will be used to contain liquid hydrocarbon products from the EWT. Whichever vessel is used, it will be kept on station using DP rather than tethering by anchors.

**OIL:** An average daily test production rate of 1,590 m<sup>3</sup> of oil is anticipated during the EWT with a total production of between 119,240 m<sup>3</sup> and 198,735 m<sup>3</sup> of oil.

**GAS:** An average test production rate for associated gas during the EWT is 165,186 m<sup>3</sup> gas per day with a total test production of between 12.3 and 20.5 million m<sup>3</sup> over the EWT period.

## **Produced Water**

Minimal produced water is anticipated in the initial stages of production. A maximum water cut of 10% is predicted towards the end of the EWT. This translates to a nominal average of 160 m<sup>3</sup> per day. Total predicted water production is predicted to be between 6000 and 10,000 m<sup>3</sup> over the EWT period. Oily water will be discharged at 30ppm oil in water.

#### Decommissioning

On completion of the EWT, all flowlines will be cleaned and back flushed to the FPSO vessel/tanker. The wellhead riser base, subsea flowlines, concrete mattresses and cuttings pile will remain on the seabed at the end of Phase 1.

# **Oil Spill Contingency Plan**

No information is given on the predicted time for an oil or diesel spill to reach the UK/Norwegian Median Line. Data is presented for potential spills to reach the coast of Scotland. A 2000 oil spill is predicted to reach the coast of Cape Wrath after 79 hours (with a 30 knot onshore wind from ENE direction). The beached volume, for a 2000 m<sup>3</sup> spill is predicted to be 615 m<sup>3</sup>).

# **Environmental Sensitivities and Impacts**

### **Trans-boundary Effects**

The intended development is 36 Km from the UK/Norwegian Median Line; although modelling of spills for the region is included (showing potential beaching in the Norwegian coast) no discussion is included for possible spills impacting this Median Line. Further information was requested from Premier in order to assess the effect of potential spills impacting in Norwegian waters. Premier responded on 26<sup>th</sup> October 2000 and, although this additional information was not comprehensive, it does address potential transboundary impacts.

# **Atmospheric Emissions**

Emission concentrations predicted for the well clean-up have been presented. These show negligible effects at 15 Km from the source (compared to ambient [rural] conditions). Concentrations predicted during the EWT also show negligible concentrations 15 Km from the source. In the case of the EWT predictions, data for VOC's is also given. The model used is not rigorous, however it is adequate for relatively straightforward assessments such as this EWT.

### **Recommendation**

Overall the ES is satisfactory and adequately assesses the potential environmental impacts of the proposed development. Recommend that consent be given.