

Environmental Statement (ES) Summary and Sign-Off

Title:	West Rochelle Environmental Statement
Operator:	Endeavour Energy UK Limited
Report No:	D/4116/2011
Submission Date:	July 2011
Block No:	15/26b and 15/26c
Development Type:	Field Development
Reviewer:	Saravanan Marappan
Date:	November 2011

A) Project Description:

Endeavour is planning to develop the West Rochelle Field as a subsea tieback to East Rochelle production manifold. West Rochelle and East Rochelle reservoir fluids will be comingled at the East Rochelle production manifold and produced at the Scott Platform, situated 30 km from East Rochelle over the Scott Field. The West Rochelle Field Development will consist of the drilling of up to two production wells and the installation of subsea infrastructure, including a production manifold, a 8 km production flowline to transport reservoir fluids to East Rochelle production manifold and a control and chemical umbilical.

Situated within Block 15/26b and 15/26c, the West Rochelle Field lies approximately 110 km east of the nearest UK coastline and 72 km west of the UK / Norway median line, in a water depth of 130 metres. The West Rochelle Field has a maximum estimated recovery of 76 billion scf of gas and 2.5 million barrels of condensate.

The wells will be drilled using a conventional semi-submersible drilling rig anchored over the well location, with the top hole sections being drilled riserless with seawater and high viscosity sweeps. The lower sections will be drilled with low toxicity oil based mud (LTOBM). Each well will generate approximately 710 tonnes of water based mud and cuttings which will be discharged at the seabed, and 305 tonnes of LTOBM cuttings which will be skipped and shipped ashore for treatment and disposal. No extended well test will be carried out, but there will be limited flaring during well clean-up over approximately 96 hours.

Pipelay operations will be conducted using a dynamically positioned (DP) reel-lay vessel. The production flowline and the umbilical will be trenched using a conventional subsea pipeline plough. The trench left by ploughing would be mechanically backfilled. An estimated 38,000 tonnes of rock and concrete mattresses will be required along the length of 8 km production flowline to mitigate against upheaval buckling and to protect pipeline crossings and the manifold structure.

Drilling is scheduled for Q2 - Q3 2012, subsea installation scheduled for Q3 – Q4 2012 and commissioning scheduled for Q4 2012. First production is expected in Q4 2012. All activities will be the subject of an approved Oil Pollution Emergency Plan (OPEP).

B) Key Environmental Impacts:

The EIA identified and discussed the following key activities as having the potential to cause an environmental impact:

- Drilling – combustion emissions, well clean-up emissions, discharge of drill cuttings with WBM, drill rig anchors, rig and vessel noise, accidental hydrocarbon spills.
- Sub-sea installation – combustion emissions, subsea infrastructure and pipelines installation, rock dumping, pipelay vessel noise, hydrotest discharges, accidental spills.
- Production – atmospheric emissions, accidental hydrocarbon spills.
- Wider concerns – noise impacts, accidental events, transboundary issues, cumulative effects.

C) Key Environmental Sensitivities:

The EIA identified the following environmental sensitivities:

- Fish: The area is recognised as a spawning area for Norway pout and Nephrops and nursery area for Norway pout, Nephrops, Blue whiting and Sprat. The spawning and nursery areas are extensive and the area of impact would be localised and temporary. Therefore the drilling of wells and pipelay is unlikely to impact these species.
- Seabirds: Seabird vulnerability is high between July – November and moderate to low throughout the remainder of the year. It has been assessed that there are sufficient mitigation measures in place to prevent accidental spills that could have a significant impact on seabirds and this will also be covered by the OPEP.
- Protected habitats: A number of pockmarks have been identified in the area during various surveys, but subsequent investigations did not identify any methane derived authigenic carbonate (MDAC) structures or chemo-synthetic activity within the pockmarks. Therefore these pockmarks would not qualify as an Annex 1 Habitat.
- Protected species: Minke whale, Killer whale, White-beaked dolphin, White-sided dolphin, Risso's dolphin and Harbour porpoise have been recorded in this general area. Harbour porpoise has been recorded frequently in the vicinity of the proposed development in low numbers. Grey and Common Seals inhabit the coastal waters and although common seals have occasionally been observed to travel long distances when foraging, both species are unlikely to be present in the area of the proposed development. Any disturbance of marine mammals is expected to be limited to the drilling period, and the short duration and localised disturbance is considered unlikely to have any significant impact.
- Other users of the sea: The proposed development is situated within ICES rectangle 45F0 and a total of 3,469 days fishing effort was recorded in 2010. Shipping density in the vicinity of the proposed development is moderate.

D) Consultation:

Comments were received from the Joint Nature Conservation Committee (JNCC), Marine Scotland (MS), Maritime and Coastguard Agency (MCA), Ministry of Defence (MoD) and Northern Lighthouse Board (NLB). The ES was also subject to public notice.

JNCC: JNCC requested additional information on the seabed features and habitat investigation. Following the provision of additional information, JNCC confirmed that they

were content for the ES to be accepted. JNCC confirmed that the proposals were unlikely to have a significant environmental impact on the nature conservation value of the marine environment.

MS: MS confirmed that they were content for the ES to be accepted.

MCA: MCA confirmed that they have no objections.

MoD: MoD confirmed that they have no objections.

NLB: NLB advised that the permanent infrastructure on the seabed must be communicated to UK Hydrographic Office to ensure updating of all relevant admiralty charts.

Public Notice: No comments were received in response to the public notice.

E) Further Information:

Further information was requested from Endeavour which addressed the issues raised by JNCC and the internal DECC review, which included clarification in relation to the seabed features, habitat investigation, rock-dump protection and atmospheric emissions. Additional information was provided by Endeavour on 18 November 2011, which adequately addressed the issues raised.

F) Conclusion:

Following consultation and the provision of further information, DECC OED is satisfied that this project will not have a significant adverse impact on the receiving environment or the living resources it supports, or on any protected sites or species or other users of the sea.

G) Recommendation:

On the basis of the information presented within the ES and advice received from consultees, DECC OED is content that there are no environmental or navigational objections to approval of the proposals, and has advised DECC LED that there are objections to the grant of the relevant consents.

Approved : Sarah Pritchard - Head of Environmental Operations Unit

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Date:29/11/2011.....