

EOG Resources United Kingdom Limited
LEAD LS & LEAD K WITH PROSPECT 'C' EXPLORATION WELL BLOCKS 110/12 & 110/7B
Environmental Statement + Addendum Summary

To: Sarah Pritchard

From: Evelyn Pizzolla

Date: March 2009

ES Title:	Lead LS & Lead K, & Prospect 'C' (Addendum) Exploration Well(s)
	Blocks 110/12 & 110/7b
Operator:	EOG Resources United Kingdom Limited
Consultants:	Rudall Blanchard Associates Ltd
Field Group (DECC):	London (H. Hitchens)
ES Report No:	W/4024/2008
ES Date:	13 October 2008 (Addendum February 2009)
Block Nos:	110/12 & 110/7b
Development Type:	Exploration Well

Project Description

An 'umbrella' Environmental Statement (ES) proposed the drilling of an oil exploration well at either Lead LS in Block 110/12 and/or Lead K in Block 110/7b in the East Irish Sea (Liverpool Bay). An addendum was submitted to include Prospect 'C', also in Block 110/12. All locations are within an 8 kilometer radius and surveys undertaken at all sites indicate a similar environment and drilling proposals were identical.

Nearest landfall is at Formby approximately 37 kilometers to the east. It is anticipated that drilling activity will be undertaken for a total of 21 - 27 days towards the end of Q1 or early Q2 2009, depending on rig availability.

A jack-up rig will be used to drill a vertical standard casing well with Water Based Mud (WBM). The use of Low toxicity Oil Based Mud (LTOBM) is not anticipated. No well testing will be undertaken at this time. Following drilling, irrespective of whether or not the well is successful, the well will be plugged and abandoned in line with current guidelines. Completion of the well will be undertaken at some time in the future if a technical evaluation determines the economic viability of the field and will be the subject of a development ES.

Key Environmental Sensitivities

The EIA identified the following environmental sensitivities:

- Highest seabird vulnerability occurs between December and March
- Cetacean numbers are low in the area
- Fish spawning area for cod, whiting, sole, sprat and plaice
- Demersal fishing effort is moderate
- The proposed well lies in an area of high shipping activity

Key Potential Environmental Impacts

The EIA identified the following potential environmental impacts:

- Physical presence causing disturbance to seabird colonies and other sea users
- Seabed disturbance
- Marine discharges
- Accidental hydrocarbon spills

Physical presence

As the proposed well is in a high density shipping area it is expected that the movement and physical presence of the rig and support vessels will not significantly impact on seabirds in the area.

The rig could pose a collision risk to shipping; however, the rig will carry an AIS transponder while on location, will be within Liverpool Port Radar coverage and notices to mariners will be posted. A collision management plan will include a 500 meter safety zone enforced by a guard vessel.

Fishing will only be impacted for the duration of the well drilling, anticipated at a maximum of 27 days therefore, the impacts are considered negligible.

Seabed disturbance

Sea bed disturbance will be caused by the jack-up drilling rig spud cans resting on and/or penetrating the seabed, however, the overall areas should be small and only slightly larger than the area of the spud cans (295m²). Due to the short drilling period, scour protection is not anticipated. If protection is needed, this will increase the impacted area around the spud cans, however, the operator undertakes to use the minimum quantity of rock necessary to ensure the safety of the rig.

The deposition of drill cutting around the rig will also cause disturbance and the immediate impact will be to smother the benthic communities in the area. However, the vertical slimline design of the well is expected to generate a maximum total of between 179 - 269 tonnes of cuttings (depending on the well drilled) and tidal activity and seabed currents should disperse the cuttings over time allowing re-colonisation to occur.

Marine discharges

As well as cuttings discharges the drilling mud, cement and associated chemicals will be discharged. Only WBM will be used and the chemicals have been chosen with the lowest environmental risk category where possible. Any impacts will be close to the well and the low toxicity values of the chemicals should allow rapid recovery and re-colonisation of the area.

Accidental hydrocarbon spills

High seabird vulnerability during the late winter months makes them particularly susceptible to accidental oil spills. However, reservoir characteristics (low pressure) are such that it is not expected that oil will flow to the surface without artificial lift. The well is not anticipated to encounter any zones of abnormal pressure and the Blow Out Preventor (BOP) will be rated well in excess of expected pressures and, therefore, the discharge of reservoir fluids constitutes a low risk.

Transfers of diesel between the drilling rig and supply vessels are identified as moderate risk. The proposed control measures include bunkering operations only during daylight hours and good weather; planned inspection and maintenance of all hoses; the use of non-return valves on all hoses. The only other potential spill could occur due to collision. All possible steps will be taken to ensure all other sea-users are aware of the rig's position. Should an accident occur it was estimated that a worst case scenario of 920 tonnes of diesel could enter the marine environment.

No well test will be undertaken so there is no potential for drop-out from flaring.

Modeling results for a worst case scenario of 920 tonnes of diesel demonstrate that it would be rapidly dispersed within 9 hours and would not reach the shore. BOP failure was also considered and a worst case estimate of 136 tonnes of low density API 44° crude oil was modeled demonstrating that, extreme

conditions with a constant 30 knot onshore wind would be required for the oil to reach the shore in a minimum of 11 hours. The operator has ensured that an adequate Oil Pollution Emergency Plan is in place and would be rapidly deployed to reduce the risk in the unlikely event of an oil spill.

Public Consultation: No comments were received as a result of the public consultation. The Addendum for Prospect 'C' was not considered to provide significant additional information and was not put forward for public consultation.

Consultee(s):

The statutory consultees for this project were JNCC and CEFAS. Both were requested to comment on the ES and the Addendum. The following comments were made:

JNCC: On the basis of the information provided in the original ES and the Addendum JNCC were content that the proposed drilling operations were unlikely to have a significant environmental impact.

CEFAS: Cefas noted there are no fisheries restrictions on drilling operations during the proposed period.

CEFAS: Cefas noted that drilling operations would be carried out entirely with WBM's comprising brine, barite and bentonite clay and that the majority of chemicals were PLONOR or of low environmental concern. They noted that some of the representative chemical information was out of date but Cefas were content that the definitive choice of chemicals would be detailed and assessed in the appropriate PON15B.

Further Information: DECC had no comments.

Conclusion(s):

Following consultation, DECC and its consultees are satisfied that this project is not likely to have a significant impact on the receiving environment, including any sites or species protected under the Habitats Regulations.

Recommendation(s):

On the basis of the information presented within the ES and advice from consultees it is recommended that the ES should be approved.

Sarah Pritchard

17. 03.2009

Sarah Pritchard

Date