# Challenger Minerals (North Sea) Ltd CROSBY EXPLORATION WELL BLOCK 110/14d Environmental Statement Summary

**To:** Sarah Pritchard

From: Evelyn Pizzolla Date: 07 April 2009

ES Title: Crosby Exploration Well Block 110/14d

**Operator:** Challenger Minerals (North Sea) Ltd

**Consultants:** ERT (Scotland) Ltd **Field Group (DECC):** London (H. Hitchens)

**ES Report No:** W/4034/2008 **ES Date:** 19 December 2008

**Block Nos:** 110/14d

**Development Type:** Exploration Well

# **Project Description**

The project comprises of a single dry gas exploration well in Block 110/14d, in the East Irish Sea (Liverpool Bay) in water depths of around 13 meters. Nearest landfall is at Southport approximately 16 kilometers to the west. It is anticipated that drilling activity will be undertaken for a maximum total of 39 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. The well evaluation will include logging and potentially reservoir fluid sampling. A VSP or check-shot survey may also be undertaken. If the well is suspended a lightweight protective structure ill be installed over the wellhead to minimize the snagging hazard to trawl fishing. If the well is unsuccessful the well will be plugged and abandoned in line with current guidelines.

## **Key Environmental Sensitivities**

The EIA identified the following environmental sensitivities:

- The well is within the current boundary of the Liverpool Bay pSPA
- Highest seabird vulnerability occurs between December and March
- Cetacean numbers are low in the area
- Fish spawning area for herring, whiting, 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 39 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 (overall c 463m<sup>2</sup>). Previous experience in this part of Liverpool Bay indicates there will be no requirement for scour protection.

The vertical slimeline design of the well is expected to generate a maximum total of 413 tonnes of cuttings. The deposition of the drill cuttings around the rig will cause disturbance and the immediate impact will be to smother the benthic communities in the area. However, tidal activity and seabed currents will disperse the cuttings over time allowing re-colonisation of the area to occur.

#### Marine discharges

As well as cuttings discharges the drilling mud, cement and associated chemicals will be discharged. Any impacts will be close to the well. Only WBM will be used and the chemicals have been chosen with the lowest environmental risk category where possible. The low toxicity values of the chemicals will affect a limited number of organisms before dilution and dispersion of the chemicals takes place.

## Accidental hydrocarbon spills

High seabird vulnerability during the winter months makes them particularly susceptible to accidental oil spills. As this is a potential dry natural gas well and crude oil is not expected. 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 307 tonnes of diesel could enter the marine environment. Modeling indicated that the spill would quickly disperse and evaporate with very little potential for beaching. The operator has ensured that an adequate Oil Pollution Emergency Plan is in place to ensure immediate and appropriate action in the event of an oil spill.

**Public Consultation:** No comments were received as a result of the public consultation.

# **Statutory Consultee(s):**

The statutory consultees for this project were Natural England (NE), the Countryside council for Wales (CCW), the Joint Nature Conservation Committee (JNCC) and the Centre for Environment, Fisheries and Aquaculture Science (Cefas). The following comments were made:

NE, CCW & JNCC: NE, CCW & JNCC made a joint response to the effect that they were content that the ES and the mitigation proposed addressed all their concerns. It was noted that the Liverpool Bay area has been identified as a potential Special Protection Area (pSPA) primarily for the protection and conservation of black scoters and red-throated divers. The proposed well is within the current draft site boundary, and although the conservation objectives for the pSPA have yet to be fully defined, a Screening for an Appropriate Assessment (AA) was requested.

<u>Cefas</u>: Cefas noted there are no restrictions on drilling operations during the proposed period.

<u>Cefas</u>: Cefas noted only water based mud would be used, however, chemical selection was not discussed in the ES but will be provided in the PON15B with detailed information.

## **Non-statutory Consultees:**

CMNSL provided copies of the ES to various stakeholders within the Liverpool Bay area and comments were received by DECC from the Ministry of Defense (MOD) and the Merseyside Environmental Advisory Service (MEAS).

MOD: The MOD has no safeguarding concerns within Block 110/14d.

MEAS: They believed that the ES provided a robust appreciation of the environmental issues presented at an appropriate level of detail. On the basis of the information provided, and from their own knowledge of the area, it was their conclusion that the proposals for temporary exploratory drilling would not give rise to unacceptable environmental impacts, provided that mitigation proposals are put in place and that provision in respect of accidental hazards are rigourously enforced. It ws noted that the well was within the boundaries of the Liverpool Bay pSPA and a Screening for an AA was requested. MEAS also asked to included in consultation activities relating to any future commercial development of the proposal.

**Further Information:** No further information was requested.

Screening for an Appropriate Assessment: DECC undertook a Screening for an AA as requested by NE/JNCC/CCW and MEAS. A copy of the assessment was sent to NE/JNCC/CCW and MEAS, (19 March 2009). A response to the Screening was received from NE/JNCC/CCW 02 April 2009 stating they were content to support DECC on the conclusions reached in the Screening document in that the Crosby exploration well is unlikely to have a significant effect alone or in combination with other projects on the integrity of the potential Natura 2000 site, the Liverpool Bay pSPA and that a full Appropriate Assessment was not required.

No further comment was received from MEAS.

Conclusion(s):	
Following consultation and the undertaking of a Screening for an Appropriate Assessment, 19 March 2009, 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:	
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	09 Apríl 2009
Sarah Pritchard	Date