

## Environmental Statement (ES) Summary and Sign-Off

<b>Title:</b>	Columbus Environmental Statement
<b>Operator:</b>	Serica Energy UK Limited
<b>Report No:</b>	D/4085/2010
<b>Submission Date:</b>	January 2011
<b>Block No:</b>	23/16f & 23/21
<b>Development Type:</b>	Field Development
<b>Reviewer:</b>	Saravanan Marappan
<b>Date:</b>	August 2011

### A) Project Description:

Serica is planning to develop the Columbus Field as a subsea tieback to the proposed Lomond Bridge Link Platform (BLP) where production fluids will be separated prior to transfer to the existing Lomond Platform, situated over the Lomond Field. The field development will consist of the drilling of up to two production wells and the installation of subsea infrastructure, including a tie-in manifold, a 8.8 km production flowline to transport production fluids to the Lomond BLP and a control and chemical umbilical.

Situated within Block 23/16f and 23/21, the Columbus Field lies approximately 250 km east of the nearest UK coastline and 8 km west of the UK / Norway median line, in a water depth of 85 metres. The Columbus Field has a maximum estimated recovery of 130.9 billion scf of gas and 4.9 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 451 tonnes of water based mud and cuttings which will be discharged at the seabed, and 583 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 trenching and burial will be undertaken using a conventional subsea pipeline plough. An estimated 28,953 tonnes of rock and 104 concrete mattresses will be required along the length of 8.8 km production flowline to mitigate against upheaval buckling and to protect pipeline crossings and the manifold structure.

Drilling is scheduled for Q2 - Q3 2013, subsea installation scheduled for Q3 2013 and commissioning scheduled for Q2 – Q3 2014. First production is expected in Q3 2014. 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, 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, produced water discharge, 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 Mackerel, Lemon Sole, Norway pout and Haddock and nursery area for Norway pout and Haddock. 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 in January, August and November and moderate to low in various months 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: There are no designated protected habitats in the vicinity of the proposed development. The closest identified Annex I habitat is the Scanner Pockmark candidate Special Area of Conservation (cSAC), located 120 km to the northwest of the proposed Columbus development. The Columbus development proposals are not expected to have any significant impact on the protected habitat.
- Protected species: Minke whale, common dolphin, white-beaked dolphin, white-sided 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 43F2 and a total of 105 days seasonal fishing effort was recorded in 2007. Shipping density in the vicinity of the proposed development is low.

### **D) Consultees:**

The Joint Nature Conservation Committee (JNCC), Marine Scotland (MS), Maritime and Coastguard Agency (MCA), Ministry of Defence (MoD) and Northern Lighthouse Board (NLB) made the following comments:

**JNCC:** JNCC confirmed that they are content for the Columbus ES to be accepted.

**MS:** Marine Scotland had a number of mainly editorial comments on the ES and have confirmed that they are content for the Columbus 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. A more detailed assessment will be provided at the Coastal Protection Act (CPA) application stage.

**The Climate and Pollution Agency (KILF), Norway:** In view of the proximity of the proposed well to the UK / Norway median line, KILF were notified. KILF expressed an interest in having sight of the ES, and a copy was sent to them on 27 January 2011. No comments were received.

**E) Public Consultation:**

No comments were received following the public notice.

**F) Further Information:**

Further information was requested from Endeavour which addressed the issues raised by MS and the internal DECC review, which included clarification in relation to the pipeline and umbilical installation, the seabed communities, the drilling discharges and the atmospheric emissions. Additional information was provided by Serica on 6 June 2011 and 18 July 2011, which adequately addressed the issues raised.

**G) Conclusion:**

Following consultation and the provision of further information, DECC OED is satisfied that this project is unlikely to have a significant environmental impact, and content that it will not have a significant adverse effect on the marine environment in general or on any protected sites or species.

**H) Recommendation:**

DECC OED recommends that the Columbus Development is given consent to proceed.

*Sarah Pritchard*

**Approved : Sarah Pritchard** - Head of Environmental Operations Unit

**Date: 1 August 2011**