

## Environmental Statement (ES) Web Comments

### A) Project Description:

The Donan field is located in UKCS Blocks 15/20a & 15/20b, some 220Km North east of Aberdeen and approximately 40Km west of the UK/Norway median line, in water depths of 140 metres.

Maersk Oil North Sea Limited (Maersk) propose to further develop this field by implementing the Donan Phase II Development, which comprises drilling four production wells and one produced water disposal well and installing new subsea infrastructure to tie back to the existing FPSO Global Producer III (GPIII).

A new drill centre DCII will be used to connect up to 4 of these wells, which will be tied back to a new 8 slot manifold. Maersk intend to install a 100m of rigid spool gas lift between the original DCC manifold and DCII, a new 2.5Km 14" rigid production pipeline will be installed between the FPSO and the DCII manifold, with a 3Km umbilical/chemical line. There will also be a 2.6Km 8" rigid production pipeline from the offset E well and the new manifold and a 2.6Km 3" gas lift line. The water disposal well will be daisy chained off one of the existing produced water re-injection wells.

Drilling of the E well and the two top hole sections of the 3 production wells will commence in July 2008, with the lower sections of the 3 production wells and the produced water re-injection well being undertaken in late 2008/early 2009. The wells will be drilled using a semi submersible rig which will be anchored, with the top hole sections being drilled riser less with seawater viscous spud mud. The lower sections will be drilled with low toxicity oil based mud (LTOBM). Each well will generate 392 tonnes of water based mud & cuttings which will be discharged at the seabed and 569 tonnes of LTOBM which will be skipped and shipped. A short drill stem test will be carried out on each of the 4 production wells which will result in 20,910 tonnes of CO<sub>2</sub>.

The 4 production wells will be tied back to the new DCII manifold, with a 2.6Km 8" production pipeline and a 3" gas lift pipeline to tie the E well back to the new manifold. A new 14" rigid pipeline and umbilical will connect the DCII manifold to the GPIII FPSO, with a 90m gas lift line joining the DCII manifold to the DCC manifold to provide gas lift to the new wells. All pipelines will be buried by ploughing and backfilling, with the umbilical being jetted.

There will be no significant topsides changes to GPIII to accommodate Donan Phase II fluids and existing power generation facilities are sufficient to meet the incremental power demand arising from the Phase II development.

The Phase II project will produce approximately 73 mmstb of oil (11 million m<sup>3</sup>) and 25.2 bcf of gas (0.71 billion m<sup>3</sup>), with peak production during the first year with 19,011 stbpd of oil (3,023 m<sup>3</sup>) & 6.7mmscf/day of gas (188,420 m<sup>3</sup>). Produced water will be re-injected – the produced water re-injection system (PWRI) on GPIII is currently not operation due to problems when laying the original PWRI line. However this system is expected to be operational by October 2008, prior to the subsea installation being undertaken in Q2 2009

and commissioning in Q3 2009. First oil is expected Q3/4 2009.

## **B) Key Potential Environmental Impacts:**

The EIA identified the following activities as having the potential to cause an environmental impact and were discussed further within the ES:

- **Drilling** – Exhaust & well clean up/testing emissions, discharge of drill cuttings with WBM, rig anchors, rig & vessel noise, accidental hydrocarbon spills
- **Subsea Installation** – Discharge from pipeline pressure testing, physical presence, rock dumping, noise from pipelay vessels
- **Production** – atmospheric emissions, produced water discharge, accidental hydrocarbon/chemical spill
- **Wider Concerns** – Noise impacts, accidental events, Transboundary impacts, cumulative effects

## **C) Key Environmental Sensitivities:**

The EIA identified the following environmental sensitivities:

- **Fish:** The drilling period will coincide with the spawning of nephrops and the subsea installation with peak spawning. The area is also a nursery area for haddock, norway pout, nephrops and blue whiting. The spawning and nursery areas are however extensive and the proposed development is unlikely to impact these species.
- **Seabirds:** Seabird vulnerability is high during July and August when drilling is to commence and rises to very high in November which will coincide with the second phase of drilling. Subsea installation will take place at a period of high to low seabird vulnerability. However it has been assessed that there are sufficient mitigation measures in place.
- **Protected Habitats:** Annex 1 Habitats - Submarine structures made by leaking gases are present in block 15/20 within subdivision C and the block is heavily pockmarked. The Scanner pockmark which is a potential Special Area of Conservation (pSAC) is 7.9Km from the proposed development and the Braemar Pockmark (pSAC) is approximately 76Km away. Therefore it is unlikely that the proposed development will impact these sites. Site survey work undertaken during the Phase I of the development confirmed that whilst there is an abundance of pockmarks in the area, photographic investigations did not identify any methane derived authogenic carbonate structures or chemo-synthetic activity within the pockmarks. Therefore these pockmarks would not fit the Annex 1 Habitat definition.

Protected Species: Harbour Porpoise have been recorded in block 15/20 during July, August and January & February, but in low numbers. Therefore it is considered unlikely that the proposed development will disturb a significant group of animals of this species and therefore is unlikely to have a significant impact.

## **D) Consultees:**

The statutory consultees for this project were the Joint Nature Conservation Committee (JNCC) and the Fisheries Research Service (FRS). They made the following comments:

**(i) JNCC:** JNCC requested further information with regard to the baseline data, rock dumping, pipeline burial, anchors, transboundary and cumulative impacts. Following the provision of additional information by Maersk on the 25 July 2008, JNCC confirmed that they are content for the development to receive consent.

**(ii) FRS:** Overall FRS are content that the ES is accepted. However they did request a copy

of the sea bed survey report and that any post operations seabed surveys (debris surveys) confirm that no anchor mounds that might present a hazard to fishing operations remain.

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

**F) Further Information:** Further information was requested from Maersk which incorporated those issues raised by JNCC and the internal BERR review. Additional information was provided by Maersk 25 July 2008, which adequately addressed the issues raised.

**G) Conclusion:**

Following consultation and the provision of further information on 25 July 2008, we are satisfied that this project is unlikely to have a significant environmental impact. In particular, we are content that it will not have a significant adverse effect on the marine environment in general or on any protected sites or species covered by the 'Habitats Regulations.'

**H) Recommendation:**

It is therefore recommend that the Phase II Donan Development is given consent to proceed. It is also recommended that as a condition of the consent that Maersk must ensure that the PWRI system is operational prior to production from Phase II commencing.