

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

<b>Title:</b>	Devenick Field Development Environmental Statement
<b>Operator:</b>	BP Exploration Operating Company Ltd (BP)
<b>Report No:</b>	D/4075/2010
<b>Submission Date:</b>	22 March 2010
<b>Block No:</b>	UKCS 9/24a, 9/24b and 9/29a
<b>Development Type:</b>	Development of Devenick Field
<b>Reviewer:</b>	Derek Seward
<b>Date:</b>	20 September 2010

### A) Project Description:

BP requested approval to develop the Devenick gas condensate field in Blocks 9/24a, 9/24b and 9/29a, located approximately 187 kilometres (km) southeast of Fair Isle and approximately 3 km west of the UK / Norway median line, in a water depth of approximately 114 metres (m). The field will initially be developed via two producing wells tied-back to a four-slot subsea manifold, which will in turn be tied-back to the East Brae platform, located to the south of the Devenick field in Block 16/03a, via a 33.5 km pipeline system. The proposed development will necessitate modification of the existing East Brae platform to accommodate the Devenick production, including the addition of a new riser, a new production separator, installation of new hydrocyclone liners for produced water processing and the addition of new chemical injection packages.

The existing suspended appraisal well, Devenick S1, will be converted to one of the production wells, which will involve changing out the Xmas tree and unplugging the well. BP is also considering installing an insert safety valve in the wellhead, as the Down-hole Safety Valve (DHSV) was damaged during testing of the appraisal well and was locked open, and is now inoperable. A new well, Devenick S2, will be drilled as the second producer. The intervention and drilling operations at Devenick will be undertaken using a semi-submersible Mobile Drilling Unit (MoDU), and are scheduled to be completed mid-2011. Both wells will be completed using fishing-friendly wellheads and Xmas trees. Installation of the Devenick subsea infrastructure is scheduled to be completed during Q3 2011, with commissioning and tie-in taking place during Q3 or Q4 2011. The pipeline system will consist of a production pipeline with a piggy-backed methanol injection line, and a separate

electro-hydraulic control umbilical. Both will be trenched and buried, with supplementary rock dumping or concrete mattress deposits where burial is not possible or burial depth is inadequate to protect the lines. As the Devenick field is a high temperature and marginally high pressure development, both the infield and main production flowlines will be insulated Pipe-in-Pipe (PiP) systems, and the main production flowline connecting the manifold to the East Brae platform will be protected by a High Integrity Pressure Protection System (HIPPS). The manifold will be piled and designed to allow recovery of any snagged fishing gear. Modifications to the East Brae platform will continue until 2012, with completion programmed to coincide with first Devenick production in Q2 2012.

## **B) Key Environmental Impacts**

The Environmental Statement (ES) identified and discussed the following key areas of potential environmental impact:

- Physical disturbance of the seabed
- Discharges to the sea
- Atmospheric emissions
- Noise
- Interaction with other sea users
- Wider concerns – waste, accidental events, transboundary issues, cumulative effects

## **C) Key Environmental Sensitivities**

The ES identified the following environmental sensitivities:

- **Benthic Species:** The seabed sediments and benthic species identified in the area of the proposed development were typical of the general area, and the proposals were considered unlikely to have any significant impact on the benthic fauna.
- **Fish Stocks:** The area of the proposed development is within spawning areas for haddock, saithe and Norway pout. It also forms part of nursery grounds for mackerel and blue whiting. However, none of the proposed activities were considered likely to have any significant impact on fish stocks.
- **Seabirds:** The area of the proposed development is important for a number of seabird species, with species such as fulmar, kittiwake and guillemot present throughout the year, and other species such as gannet, razorbill, common gull, black-backed gull, Icelandic gull, Arctic skua and Arctic tern present at different times of the year. Appropriate mitigation is proposed to prevent hydrocarbon spills, to protect the seabird populations.
- **Protected Habitats:** Whilst there are no pockmarks in the immediate vicinity of the Devenick field, there are a number in the area between the field and the East Brae platform. Two areas of pockmarks were identified to the east of the proposed pipeline route that probably contained Methane Derived Authigenic Carbonate (MDAC) structures, and a number of other pockmarks were noted that contained bacterial mats or appeared to contain greater numbers of visible fauna and burrowing infauna. The pipeline route was therefore

amended to avoid impacting these areas, and only a few comparatively small and “inert” depressions remain in close proximity to the proposed route.

- **Protected Species:** Minke whale, killer whale, white-beaked dolphin, white-sided dolphin and harbour porpoise have been recorded in this general area, with harbour porpoise being the most commonly-sighted cetacean. Grey and common seals are also occasionally sighted in the area. However, the proposed activities would only result in limited, localised disturbance, and are considered unlikely to have any significant impact on cetaceans or seals.
- **Other Users of The Sea:** Fishing effort in the area of the proposed development is comparatively low, and shipping intensity is low to moderate. Both are unlikely to be significantly affected by the proposed development, and potential impacts on fishing operations have been taken into consideration in the design and proposed installation of the subsea infrastructure. There is a transatlantic telecommunications cable, and two other communications cables in close proximity, that will be crossed by the pipeline system. Further surveys will be undertaken in the vicinity of the proposed crossings, to finalise the trenching and protection proposals. There is one wreck in the vicinity of the East Brae platform that is not considered to be of archaeological importance, but it will not be impacted by the proposals.

#### **D) Consultees**

The Environmental Statement was copied to a number of consultees designated by DECC:

**Joint Nature Conservation Committee (JNCC):** JNCC considered that BP had taken adequate steps to minimise the potential impact of the proposed operations, but recommended that additional information should be requested in relation to the proposed pipeline system, particularly in relation to the trenching, rock dumping and concrete mattress deposits. Their comments were included in a requirement that further information should be included in the subsequent request for a Direction for the pipeline system. JNCC also provided guidance in relation to the ‘disturbance offence’, noise assessments and noise mitigation, which was passed on to BP for consideration during the preparation of future environmental submissions. It was considered that the proposed developments were unlikely to result in any significant impact on the nature conservation value of the marine environment.

**Marine Scotland (MS):** MS confirmed that they were content that the ES should be accepted, but recommended that additional information should be requested in relation to the proposed Devenick S1 intervention operations, the proposed pipeline system and chemical use and discharge. Their comments were included in requirements that further information should be provided in the subsequent requests for Directions / Chemical Permits for the intervention and drilling operations, the pipeline system and the platform operations. MS also made a number of observations relating to the general quality of the ES, which were passed on to BP for consideration during the preparation of future environmental submissions. MS also requested copies of a number of documents referenced in the ES, and BP was requested to provide copies.

**Maritime and Coastguard Agency (MCA):** MCA had no objections on the grounds

of safety of navigation, subject to the Coast Protection Act consents being subject to the standard navigational conditions.

**Ministry of Defence (MOD):** MOD had no objections to the proposals.

**Norwegian Authorities:** No response was received (adjacent States only respond if they wish to make a representation about the proposals).

#### **E) Public Notice**

No comments were received in response to the Public Notice, which was published in *The Independent* and the *Aberdeen Press and Journal*.

#### **F) Further Information**

Further information was requested from BP following completion of the DECC review of the ES, which included details of the intervention and drilling operations; details of the additional requirements relating to the proposed pipeline system; details of potential chemical use and discharge; and details of the additional requirements relating to the Oil Pollution Emergency Plan (OPEP). An undertaking to address specific issues in supplementary requests for Directions for individual elements of the proposals (a PON15F for the intervention operations, a PON15B for the drilling operations, a PON15C for a pipeline system and a PON15D for the East Brae host platform), and in the OPEP(s) for operations relating to Devenick development, were provided by BP, and there are no outstanding issues that would preclude approval.

#### **G) Conclusion**

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

#### **H) Recommendation**

DECC OED is satisfied that the Devenick field development should be granted consent to proceed.

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

**Name:** *Sarah Pritchard*

**Date:** 06/10/2010