

Environmental Statement (ES) Summary and Sign-Off

Title:	Environmental Statement, Cambo 4 Appraisal Well (Well 204/10a-D)
Operator:	Hess Limited
Report No:	W/4103/2010
Submission Date:	13 January 2011
Block No:	204/10a
Development Type:	Appraisal well
Reviewers:	Carol Newbigging Saravanan Marappan
Date:	23 May 2011

A) Project Description:

Hess Ltd (Hess) is planning to drill an appraisal well in Block 204/10a, to target and appraise the Cambo prospect. The proposed well is located approximately 142 kilometres (km) to the west of Shetland Islands and approximately 7 km from the UK / Faroe Islands median line.

The well will be drilled in a water depth of approximately 1,080 metres (m) using the drill ship *Stena Carron*. Drilling is expected to last for 120 days, and is now scheduled to commence in June 2011. The well will consist of a pilot hole to test the structure, followed by the main bore that will be a horizontal section through the Cambo reservoir. The well will comprise the following sections: 42", 26", 17½", 12¼" (pilot hole), and 12¼" and 8½" (main bore), and will be drilled with Water-Based Mud (WBM). Contingency proposals have been included for all the well sections in the event that problems are encountered and these well sections need to be re-drilled.

Open-hole logging will be undertaken on the pilot hole, and Vertical Seismic Profiles (VSPs) and an Extended Well Test (EWT) will be undertaken during or following completion of the drilling operations. Following completion, subject to the necessary consent from DECC LED, the well will be plugged and abandoned.

B) Key Environmental Impacts:

The Environmental Impact Assessment (EIA) identified the following key activities as having the potential to cause an environmental impact:

- Discharge of water-based mud and cuttings
- Noise
- Atmospheric emissions

- Wider concerns, e.g. hydrocarbon spills, other accidental events and trans-boundary issues

C) Key Environmental Sensitivities:

The EIA identified the following environmental sensitivities:

- **Fish species:** The area is a recognised spawning and nursery ground for Blue Whiting and Norway Pout. However, the spawning and nursery areas are extensive and it is unlikely that the drilling of the proposed well will impact these species.
- **Seabirds:** The most abundant seabird species recorded in the area around the proposed well are fulmar, kittiwake, gannet, guillemot and puffin. Other species, particularly gulls and skuas, also occur in lower densities at certain time of the year. Offshore seabird vulnerability is high during March, May and September and moderate during January, April, June – August, October – November. It has been assessed that there are sufficient mitigation measures in place to prevent a significant impact on seabirds.
- **Offshore protected habitats:** The proposed well is located outwith the designated ‘area of search’ for potential Annex I reef habitat. The closest identified Annex I habitats are the Wyville Thompson Ridge candidate Special Area of Conservation (cSAC), located 140 km to the southwest, and the Darwin Mounds Site of Community Importance (SCI) and cSAC, located 185 km to the southwest of the proposed well. The drilling operations are not expected to have any significant impact on these protected habitats..
- **Protected species:** Minke whale, pilot whale, white-beaked dolphin, white-sided dolphin and harbour porpoise have been recorded in this general area, with highest numbers recorded during the period May to October. Grey and Common Seals inhabit the coastal waters of the Shetland and Orkney Islands and, although common seals have occasionally been observed to travel long distances when foraging, both species are unlikely to be present in the area. Any disturbance of marine mammals is expected to be limited to the drilling period, and the localised disturbance is considered unlikely to have any significant impact.
- **Coastal sensitivities:** The ES identified that there were significant coastal sensitivities on the Shetland Islands, Orkney Islands, North Rona and the north coast of the Scottish mainland, including Annex I habitat sites (reefs, submerged or partially submerged sea caves, coastal lagoons, subtidal sandbanks and intertidal sediment flats); and Annex II species sites (grey and common seals, and otters). In addition to internationally recognised SACs and Special Protected Areas (SPAs), there are other sites of national and international importance designated throughout the Orkney Islands and Shetland Island and along the north coast of Scotland. Whilst these coastal sensitivities would not be affected by the drilling operation, it was recognised that they could potentially be impacted by a significant oil spill. However, suitable mitigation measures would be in place to prevent such a spill, and to

respond to any accidental event to minimise any potential environmental impact.

- Other users of the sea: The proposed well is situated within ICES rectangle 50E5. Commercial fishery landings from the area around the proposed well are low in comparison to the shallower waters of the continental slope and shelf, with the exception of mackerel which is a pelagic species and unlikely to be affected by the drilling operations. Shipping density in the vicinity of the proposed well is relatively low. Appropriate navigational controls will be put in place, and it is not anticipated that there will be any significant impact on other users of the sea.

D) Consultees:

The Joint Nature Conservation Committee (JNCC), Marine Scotland (MS), the Maritime and Coastguard Agency (MCA), the Ministry of Defence (MoD) and the Northern Lighthouse Board (NLB) responded to the request for comments on the proposals.

JNCC: JNCC requested additional information on the Extended Well Test, benthic disturbance and oil spill modelling. Following the provision of additional information, JNCC confirmed that they were content for the ES to be approved. JNCC confirmed that the appraisal well was unlikely to have a significant impact on the nature conservation value of the marine environment.

Marine Scotland: Marine Scotland confirmed that they were content for the ES to be approved.

MCA: MCA confirmed that they had no objections.

MoD: MoD confirmed that they had no objections.

NLB: NLB confirmed that the standard marking requirements for offshore installations should apply. (A more detailed assessment of the requirements would be provided in response to the Energy Act Part 4A application for the consent to locate the drill ship).

Faroe Island Government: In view of the proximity of the proposed well to the UK / Faroe Islands median line, Jarðfeingi (Faroese Earth and Energy Directorate) were notified. Jarðfeingi expressed an interest in having sight of the ES, and a copy was sent to them on 27 January 2011. No comments were received.

Public Consultation: Public consultation of the ES resulted in the Department receiving over 13,000 e-mails from Greenpeace supporters. The Department issued a single response to Greenpeace on 14 April 2011. The main thrust of the e-mails was to object to the principle of deepwater drilling in the light of the *Deepwater Horizon* incident in the Gulf of Mexico, and there were no sustainable environmental objections to the proposed drilling operation.

E) Further Information:

Further information was requested from Hess to address the issues raised by JNCC and issues raised during the internal DECC review, which included clarification in relation to the Extended Well Test proposals, benthic disturbance and oil spill modelling. Additional information was provided by Hess on 27 April 2011, which adequately addressed the issues raised.

F) Conclusion:

Following consultation and the provision of additional information, DECC OED is satisfied that the 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.

G) Recommendation:

DECC OED recommends that, subject to a positive determination of supplementary applications submitted to LED, OED and the Health and Safety Executive, the Cambo 4 Appraisal Well should be given consent to proceed.

Approved : Wendy Kennedy, Director, DECC OED

Wendy J Kennedy

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Date: 23 May 2011