Apache North Sea Limited
Aviat Field Appraisal.
Environmental Statement Summary

Title:	Aviat Field Appraisal.
Operator:	Apache North Sea Limited.
Consultants:	Hartley Anderson Limited.
Report No:	W/4131/2011
Submission Date:	December 2011
Quad/Block No:	22/7a
Project Type:	Field Appraisal
Reviewer:	Sam Coupland
Date:	06 March 2012

A) Project Description

The Aviat Field lies in the central North Sea, approximately 190 kilometres (km) northeast of Peterhead and 40 km from the UK / Norway median line. The proposed activities include; the drilling of two gas appraisal wells via a single surface hole using a jack-up Mobile Drilling Unit (MoDU), the acquisition of geological information by logging while drilling and an extended flow well test on one of the wells. This appraisal is designed to assess whether Aviat can provide a viable long-term fuel gas source to augment native fuel gas use in the nearby Forties Field, to offset diesel import or the investigation of other fuel gas import options. Drilling is due to commence on the Aviat wells in April 2012 and operations, including any contingencies, are due to last for a maximum of 99 days.

B) Key Environmental Sensitivities

The EIA identified the following environmental sensitivities:

Fish stocks: The area is within spawning grounds for Lemon Sole (April to September), Norway Pout (January to April), Sandeel (November to February) and Mackerel (May to July).

Seabirds: Seabird vulnerability is very high in September and November, high in July and October and moderate to low for the rest of the year.

Annex I Habitats: There are no designated Annex I habitats within the area, although seabed mapping surveys over the last 10 years have confirmed the presence of a number of pockmarks in the nearby Forties area, particularly in the deeper water areas.

Annex II Species: Harbour porpoise and grey seals (infrequently and in small numbers) are found in the area;

Other users of the sea: Fishing effort in the Aviat area is low and shipping traffic in the area is moderate.

C) Key Environmental Impacts

The EIA identified the following potential impacts and related mitigation measures:

Physical interference: Appropriate mitigation measures will be put in place, e.g. 500 metre (m) safety zone around the MoDU, Kingfisher Bulletins, Notices to Mariners etc., to notify other users of the sea, and any impact is considered to be extremely limited because of the relatively low levels of shipping and fishing activity in the area.

Seabed disturbance*:* A number of activities will impact the seabed, the most significant being the footprint of the MoDU spud can depressions and the deposit of cuttings during the drilling of the wells. The discharge of surface hole cuttings at the seabed is likely to produce a discrete and very localised pile of cuttings surrounding the top-hole section, and a small pile is likely to remain following well abandonment or suspension. The predicted settlement of drill cuttings discharged from the MoDU outwith the immediate vicinity of the drilling operations is anticipated to be comparable with levels resulting from natural erosion and deposition, and unlikely to have any significant smothering effect. The species composition and inferred life history characteristics of the faunal community present in the sediments in the Aviat area indicate that the habitat and fauna are likely to be relatively resilient to the effects of sediment mobilisation and would recover rapidly from the physical disturbance.

Noise: There are no significant noise sources (e.g. vertical seismic profile or piling operations) associated with the appraisal programme, and it is concluded that noise associated with the proposed drilling programme will not result in adverse behavioural or other effects on the marine mammals or other acoustically sensitive animals present in the area.

Atmospheric emissions: The principal source of emissions will be the extended well test, which will result in the flaring of the produced gas. Additional sources of emissions include that from energy generation during the drilling operations, and any associated emissions generated from standby and support vessels and helicopter traffic. The scale of these emissions is considered unlikely to have any significant impact on local, regional or global air quality.

Marine discharges: Chemicals used and discharged during the appraisal drilling programme will be selected on the basis of those that are least harmful but are consistent with the required technical function. A more detailed risk assessment of all proposed chemical use and discharge relating to the proposals will be included in the subsequent applications for chemical permits. Liquid hydrocarbons are not anticipated in the reservoir, and diesel support will not be required for the flaring during the well test. Flare drop-out and associated sheens are therefore unlikely. Nevertheless, Apache have confirmed that visual monitoring of the flare and sea surface will be undertaken during the operations.

Accidental events: A number of control measures will be in place to minimise the risk of accidental events, and Apache will develop an Oil Pollution Emergency Plan (OPEP). Modelling of a blow-out and diesel spill has been undertaken and included in the Environmental Statement (ES).

Cumulative Impacts: The area of the proposed development includes a range of oil and gas operations, in addition to shipping and commercial fishing operations. However, it is considered unlikely that the development will have a significant effect in combination with other projects.

Transboundary Impacts: Although the drill site is located relatively close to the UK/Norway median line (40km to the east), the noise sources, marine discharges and atmospheric emissions associated with the operations are unlikely to be detectable or to significantly affect Norwegian waters or air quality.

D) Consultation

Comments were received from the Joint Nature Conservation Committee (JNCC) and Marine Scotland (MS). The ES was also subject to public notice.

JNCC: JNCC were content that the proposed development would not have a significant impact on the marine environment, providing Apache maintain their commitments in the ES to comply with standard good practice during the extended well test.

MS: MS were content that the ES should be approved, but requested copies of the survey reports cited in the ES.

Public Notice: No comments were received in response to the public notice.

E) Additional Information

Further information was requested to clarify a number of minor issues identified during the DECC OED review of the ES. Apache provided the requested information on 22nd February 2012. All the issues were satisfactorily addressed and, where appropriate, Apache committed to take account of the comments in future submissions.

F) Conclusion

Following consultation and the provision of the additional information, DECC OED is satisfied that the project will not have a significant adverse impact on the receiving environment or the living resources it supports, or on any protected sites or species or other users of the sea.

G) Recommendation

On the basis of the information presented within the ES and advice received from consultees, DECC OED is content that there are no environmental or navigational objections to approval of the proposals, and has advised DECC LED that there are objections to the grant of the relevant consents.

Approved: Sarah Pritchard – Acting Director, DECC Offshore Environment and Decommissioning

Sarah Pritchard

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Date: 07/03/2012