



Offshore Petroleum Regulator  
for Environment & Decommissioning

BP Exploration Operating Company Limited

**Environmental Statement Summary**  
Alligin Development

To: Jonathan Ward  
From: Nienke Mayo  
Date: 18 October 2018

<b>ES Title:</b>	Alligin Environmental Statement
<b>Developer:</b>	BP Exploration Operating Company Limited
<b>OGA Field Group:</b>	Northern North Sea and West of Shetland
<b>ES Report No:</b>	D/4211/2018
<b>ES Submission Date:</b>	5 June 2018.
<b>Block Nos:</b>	204/19a and 204/20a
<b>Development Type:</b>	Field Development

**Project Description**

BP Exploration Operating Company Limited (BP) propose to develop the Alligin field as a subsea tieback to the Glen Lyon Floating Production Storage and Offloading (FPSO) vessel. The field development will consist of drilling one production well and one water injection well along with installation of subsea infrastructure, including a 9 km production pipeline to the FPSO, a control umbilical and additional pipelines to provide gas lift and water injection.

The Alligin field is located in Blocks 204/19a and 204/20a in the West of Shetland region, approximately 140 kilometres (km) west of the Shetland Isles and approximately 20 km from the UK/Faroes median line. Water depths in the area range from approximately 460 – 480 metres (m). Reserves at Alligin are estimated to be 20 million barrels of oil equivalent.

The wells will be drilled using a semi-submersible drilling rig capable of operating in harsh environments, with the top hole sections and the reservoir section being drilled using water based mud (WBM). The 12¼" intermediate section will be drilled using low toxicity oil based mud (LTOBM). Each well will generate approximately 810 tonnes of WBM and cuttings which will be discharged to sea, and approximately 180 tonnes of LTOBM cuttings which will be skipped and shipped ashore for treatment and disposal.

Pipelay operations to install the pipelines and umbilical will be conducted using a dynamically positioned construction support vessel. The pipelines will be surface laid. An estimated 20,000 tonnes of rock, and concrete mattresses and grout bags will be required to mitigate against free spans, and to protect pipeline crossings and subsea infrastructure. No modifications are required to the Glen Lyon FPSO to accommodate the production from Alligin.

Drilling is scheduled to take place in Q2/Q3 2019; subsea installation and commissioning is scheduled for Q3/Q4 2019 and first oil is expected in Q1 2020. All activities will be subject of an Oil Pollution Emergency Plan (OPEP) that will need to be approved prior to commencement of operations.

### **Key Environmental Impacts**

The Environmental Statement (ES) identified and discussed the following as having the potential to cause an environmental impact:

- Physical presence of the drilling rig and subsea infrastructure;
- Disturbance to the seabed;
- Discharges to sea;
- Atmospheric emissions;
- Underwater noise;
- Interaction with other users of the sea; and
- Accidental events.

### **Key Environmental Sensitivities**

The ES identified the following environmental sensitivities:

- **Fish:** The Alligin field is located within spawning grounds for mackerel, sandeels, blue whiting and Norway pout; and within nursery areas for mackerel, sandeels, blue whiting and Norway pout. However, spawning and nursery areas are extensive and the proposed development is unlikely to have any impact on these species.
- **Seabirds:** Seabird sensitivity is low to medium throughout the year with the exception of November when seabird sensitivity is considered to be very high. It is considered that sufficient mitigation measures are in place to prevent accidental spills that could impact seabirds, and BP will have an approved OPEP in place for the Alligin field before operations commence.
- **Protected habitats:** The Alligin field lies within the Faroe-Shetland Sponge Belt Nature Conservation Marine Protected Area (NCMPA). There are no other protected areas within 50 km of the Alligin field. The proposed development is not expected to have any significant impact on the NCMPA or any other protected habitat.
- **Protected species:** Harbour porpoise, white-beaked dolphin, Atlantic white-sided dolphin, pilot whale, fin whale, killer whale, Risso's dolphin and minke whale have all been recorded in the area. Grey and common seals inhabit coastal and inshore waters adjacent to Scotland and have occasionally been observed to travel long distances when foraging. However, both species are unlikely to be present in large numbers in

the Alligin field. No disturbance of marine mammals, or any other adverse impacts on marine mammals, are anticipated in relation to the proposed development.

- Other users of the sea: The Alligin field is located within ICES rectangle 49E5 and fishing effort in the area is considered to be relatively low. Shipping density in the vicinity of Blocks 204/19a and 204/20a is also 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 as a result of the proposed development.
- In-combination, cumulative and transboundary effects: No significant in-combination, cumulative or transboundary effects are anticipated as a result of the Alligin development.

#### **Key Mitigation Measures (including environmental or monitoring conditions)**

No significant adverse impacts are anticipated that would warrant specific mitigation measures or monitoring conditions. All activities will be undertaken in line with commitments detailed in the ES and best industry practice.

#### **Consultation**

The Joint Nature Conservation Committee (JNCC), Marine Scotland (MS), the Maritime and Coastguard Agency (MCA), the Northern Lighthouse Board (NLB) and the Ministry of Defence (MoD) were consulted on the project. The ES was also subject to public notice.

**JNCC:** JNCC confirmed that they had no objections.

**MS:** MS confirmed that they had no objections.

**MCA:** MCA confirmed that they had no objections.

**NLB:** NLB confirmed that they had no objections.

**MoD:** MoD confirmed that they had no objections.

No comments were received in response to the public notice.

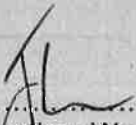
#### **Further Information**

Further information was requested from BP to address issues raised during the internal BEIS OPRED review. The information requested mainly related to clarification on the production profiles, results of the environmental survey and installation method for the pipelines. The additional information received from BP on 12 September 2018 addressed all of the issues that were raised.

#### **Determination**

Following review of the ES, the responses received from consultees and the additional information provided by BP, BEIS OPRED is satisfied that this project will not have a significant adverse impact on the receiving environment or the living resources it supports, or on any protected habitats or species or other users of the sea.

On the basis of the information presented in the ES, the advice received from consultees and the additional information provided by BP, BEIS OPRED is content that there are no objections, and agrees to the Oil & Gas Authority issuing the necessary consent for the proposals.

  
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Jonathan Ward  
Director, Environmental Operations  
BEIS/OPRED

19/10/18  
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Date