

**Gaz de France E&P UK Ltd  
Juliet Field Development.  
Environmental Statement Summary**

<b>Title:</b>	Juliet Field Development.
<b>Operator:</b>	Gaz de France E&P UK Ltd (GdF)
<b>Consultants:</b>	RPS Energy.
<b>Report No:</b>	D/4136/2012
<b>Submission Date:</b>	February 2012
<b>Quad/Block No:</b>	47/14 and 47/15
<b>Project Type:</b>	New Field Development.
<b>Reviewer:</b>	Sam Coupland
<b>Date:</b>	01 May 2012

**A) Project Description**

GdF intend to develop the Juliet Field as a subsea tie-back, by drilling two horizontal gas production wells that will be tied-back to the Perenco operated Pickerill A Platform via a new 22 kilometre (km), 12 inch diameter export pipeline and control umbilical. Existing infrastructure will then be used to transport Juliet gas from Pickerill A to the Theddlethorpe onshore terminal. Drilling is planned to commence in June 2013 with first gas expected in October 2013.

**B) Key Environmental Sensitivities**

The Environmental Impact Assessment (EIA) identified the following environmental sensitivities:

**Fish stocks:** The area is within spawning grounds for Herring (August to November), Lemon Sole (April to September), Sole (March to May), Sandeels (November to February) and Sprat (May to August).

**Seabirds:** Seabird vulnerability to surface pollution is very high in August, November and December, high in September and April and moderate to low for the rest of the year.

**Annex I Habitats:** There are no designated Annex I habitats within the area.

**Annex II Species:** Common and grey seals, harbour porpoise and bottlenose dolphins (infrequent with no confirmed sightings) may be found in the development area.

**Other users of the sea:** Fishing activity occurs year round in the area and effort is high. Shipping traffic in the development area is classed as medium to high. The development area also overlaps the northern part of the Triton Knoll windfarm lease area, and GdF has discussed potential interaction with the windfarm developer. As the pipeline route is approximately 2 km from the nearest planned turbine location, pipeline installation and maintenance should not interact with windfarm activities. Nevertheless, consultation between both parties will continue throughout the Juliet development project.

### 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 zones around the platforms and drilling rig; and Kingfisher Bulletins and Notices to Mariners etc. to notify the construction activities to other users of the sea. Despite the high shipping traffic in this area, the majority of activities during both the construction and production phases have been assessed as having minimal impact on shipping and navigation.

**Seabed disturbance:** A number of the proposed activities will impact the seabed, the most significant being the footprint of the new gas pipeline, the subsea wellheads and manifold; the spud can depressions of the jack-up mobile drilling unit (MoDU); and the deposit of cuttings during the drilling of the 2 gas wells. The relatively limited scale of the disturbance, and the inferred general resilience of the seabed habitat and associated species, leads to the conclusion that there will be no significant adverse effects. A dynamically-positioned (DP) pipelay vessel will also be used to install the pipeline, which will significantly reduce anchoring impacts.

**Noise:** The majority of noise associated with the Juliet development will be generated during the drilling and installation phases of the project. Noise generated by drilling operations and vessel thrusters, particularly during DP pipe-lay operations are likely to initially produce a startle response as the noise commences. Both activities, however, produce constant noise levels and frequencies for the duration of the activities, and it is considered that any impacts are likely to be localised and temporary. Cetacean sensitivity in the area is also low, and it is concluded that any impact on cetaceans will be negligible. There is also evidence that fish will soon habituate to this type of sound and return to normal behaviour.

**Atmospheric emissions:** The main atmospheric emissions associated with the development and operation of the field are the combustion products from power generation and engine use on the Pickerill A platform, the MoDU, the pipe-lay vessel, other associated vessels and helicopters. The scale of these emissions is considered unlikely to have any significant impact on local, regional or global air quality.

**Marine discharges:** It is anticipated that the Juliet development will not encounter produced water for the first 3.5 years and, beyond this point, the peak volume of produced water is very low and anticipated to decrease with time. The discharge will be treated to comply with international standards, and any entrained condensate will rapidly disperse and biodegrade in the surrounding water column. Historic research has shown that, due to the rapid dilution, and the low concentrations and toxicities of the contaminants in the produced water, there is a low potential for biological impact. It is therefore anticipated that there will be little or no residual hydrocarbon contamination relating to the project, or cumulative impacts. Drilling discharges will be risk assessed, and impacts will be negligible and confirmed to the immediate vicinity of the proposed wells.

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

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

**Transboundary Impacts:** The UK / Netherlands median line is approximately 148 km from the development area. Transboundary impacts are therefore unlikely, even in the case of a worst-case release scenario as any spilt hydrocarbons would disperse or evaporate before reaching the closest international boundary.

#### **D) Consultation**

Comments were received from the Joint Nature Conservation Committee (JNCC), the Ministry of Defence (MOD), the Maritime and Coastguard Agency (MCA) and the Centre for Environment, Fisheries and Aquaculture Science (CEFAS). The ES was also subject to public notice.

**JNCC:** JNCC commented that GdF proposed adequate steps to minimise the potential impacts of their activities on the marine environment. Where there may be increased risks to receptors; mitigation measures are proposed and discussed in the ES, and JNCC is content that this would reduce the residual impact to acceptable levels.

**CEFAS:** CEFAS advised that there are currently fisheries-related restrictions to protect spawning herring in the development area from August to October. However a herring spawning ground survey was undertaken in 2009 to characterise the potential of the sediments for herring spawning. This survey showed no potential for spawning and as such CEFAS had no concerns.

**MOD and MCA:** Both organisations were content that the ES should be approved.

**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. GdF provided the requested information on 26th April 2012. All the issues were satisfactorily addressed and, where appropriate, GdF 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* .....

**Date: 01/05/2012**