

**Gaupe Development (formerly Pi Development)**  
**Comments On Environmental Statement**

To: Sarah Pritchard

Signature: *S Pritchard*

From: Carol Newbigging

Date: 13 May 2010

Date: 12 May 2010

<b>ES Title:</b>	<b>Gaupe Development ( formerly Pi Development)</b>
<b>Operator:</b>	<b>BG group</b>
<b>Consultants:</b>	<b>BMT Cordah</b>
<b>ES Report Nos:</b>	<b>D/4047/2009</b>
<b>ES Date:</b>	<b>December 2009</b>
<b>Block Nos:</b>	<b>22/5</b>
<b>Development Type:</b>	<b>Installation of pipelines and umbilicals connecting the Gaupe development (formerly Pi development) wells in the Norwegian sector to the Armada platform in UKCS Block 22/5.</b>

**Synopsis:**

**BG are proposing to develop the Gaupe Field (formerly Pi field), located in Blocks 15/12 and 6/3 of the Norwegian sector of the central North Sea, via a two well subsea tieback to the Armada platform in the UKCS. DECC are responsible for granting consent in the UKCS so only those works to be carried out in the UKCS have been assessed.**

**Pipelines from the two wells will cross through the UK/Norwegian median line into UKCS Block 22/5 where they will comingle in a new central sub-sea manifold and approximately 4km of installed pipelines will connect the manifold to the platform. Approximately 10km of production pipeline and umbilical could be laid within the UKCS. The pipelines will be trenched and buried from the well locations to the edge of the NW Seymour 500m exclusion zone.**

**The results of the pipeline route survey were not available at the time of writing the ES, so the results will be included in the PON15C application prior to sub-sea operations commencing.**

**Rock dumping may be required along a 2km length (from the NW Seymour 500m exclusion zone to the Pi manifold). BG anticipates that approximately 40,000 tonnes of rock dump will be required along this section. In addition, contingency rock-dumping (approximately 20,000 tonnes) may be required at various locations along the length of the pipelines to prevent upheaval buckling.**

**It is planned that the umbilicals will be laid in a separate trench to the production pipelines, with the trenches at least 30 m apart (centre of trench to centre of trench).**

**The pipelines will be installed using a reel installation method from a dynamically positioned (DP) pipe-lay vessel and will be trenched and buried to a depth of 1 – 1.5m. It is anticipated that pipeline installation operations will take approximately 7.5 days and a further 13 days for trenching operations.**

The Pi manifold (which will incorporate the subsea isolation valve (SSIV)) will be installed on the seabed within the Armada platform 500m exclusion zone. The manifold will be installed by DSV and will be secured to the seabed by concrete piles. The duration of the piling activities would be approximately 24 hours and the piling operations would not be continuous. Marine mammals could be impacted by noise during these operations and they may take avoidance action if they are disturbed, but evidence indicates that they would return once activities had ceased. Densities of cetaceans in the area are low compared to other areas of the North Sea. Noise levels from these activities are predicted to be equivalent to noise emanating from shipping and seismic activities, and are unlikely to cause anything more than a temporary local disturbance to marine mammals.

BG, has committed, where appropriate, to apply JNCC's protocol for minimising the risk of disturbance and injury to marine mammals from piling noise.

Work is planned to commence in April 2011 with first oil expected to be produced in October 2011.

There will be no significant change to the Armada Pollution Prevention and Control (PPC) Permit under the Offshore Combustion Installation (Prevention & Control of Pollution) Regulations 2001 as a result of Pi operations.

As a result of an environmental risk assessment there were the following potentially significant impacts identified and addressed within the ES:

- The local disturbance to the seabed caused by the initial installation of the subsea structures and pipeline protection
- Noise arising from installation operations at the Gaupe Development (formerly Pi Development)
- Atmospheric emissions from installation operations of the Gaupe Development (formerly Pi Development)
- Marine Discharges during subsea installation and commissioning operations
- Physical presence of the Pi manifold and concrete mattresses and contingency rock dumping
- Accidental hydrocarbon or chemical release

Mitigation measures are in place to ensure that impacts are kept to a minimum.

**Recommendation:** Based on the information in the Environmental Statement, it is recommended that project consent be given.

**Consultees:**

<b><u>JNCC &amp; Natural England:</u></b>	No objections subject to the following conditions being placed on the project:  BG to follow the JNCC Piling Guidelines where relevant to the piling operations.
<b><u>Marine Scotland:</u></b>	No objections. BG has agreed to send MS copies of the Pipeline Route and Environmental Survey, and the Environmental

## Baseline Reports.