

Our Ref: 01.01.01.01-5330U
UKOP Doc Ref:1235442



Offshore Petroleum Regulator
for Environment & Decommissioning

NEPTUNE E&P UK LIMITED
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Registered No.: 01483021

Date: 4th November 2022

Department for Business, Energy
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Crimon Place
Aberdeen
AB10 1BJ

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bst@beis.gov.uk

Dear Sir / Madam

**THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING
AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS
2020
CYGNUS, BORR PROSPECTOR 1 DRILLING PRODUCER WELL 44/12a-AAG
(AG) PLANNED WELL**

A screening direction for the project detailed in your application, reference DR/2307/0 (Version 4), dated 2nd November 2022 has been issued under regulation 6 of the above Regulations. The screening direction notice, and any relevant conditions and comments are attached. A copy of this screening direction will be forwarded to the application consultees, the Oil and Gas Authority and published on the gov.uk website.

If you have any queries in relation to this screening direction or the attachments, please do not hesitate to contact [REDACTED] on [REDACTED] or email the Environmental Management Team at bst@beis.gov.uk.

Yours faithfully



**THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING
AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS
2020**

**SCREENING DIRECTION CONFIRMING THAT AN ENVIRONMENTAL IMPACT
ASSESSMENT IS NOT REQUIRED**

**CYGNUS, BORR PROSPECTOR 1 DRILLING PRODUCER WELL 44/12a-AAG
(AG) PLANNED WELL**

DR/2307/0 (Version 4)

Whereas NEPTUNE E&P UK LIMITED has made an application dated 2nd November 2022, under The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020, and whereas the Secretary of State has considered the application and is satisfied that the project is not likely to have a significant effect on the environment; in exercise of the powers available under regulation 6, the Secretary of State hereby directs that the application for consent in respect of the project need not be accompanied by an Environmental Impact Assessment, provided that the project is carried out as described in the application for the screening direction and in accordance with the conditions specified in the attached schedule.

In giving a screening direction under regulation 6 of the above Regulations, the Secretary of State accordingly gives agreement to the Oil and Gas Authority to the grant of consent for the project as detailed in the application, WONS/14634/0/IDA/1 Version 1, WONS/14634/0/IDA/1 Version 1, WONS/14686/0/WT/1 Version 1 and WONS/14686/0/WT/1 Version 2.

Effective Date: 4th November 2022



THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2020

SCHEDULE OF SCREENING DIRECTION CONDITIONS

The grant of this screening direction is conditional upon the screening direction holder complying with the following conditions.

1 Screening direction validity

The screening direction shall be valid from 4 November 2022 until 31 December 2023.

2 Commencement and completion of the project

The holder of the screening direction must notify the Department for Business, Energy & Industrial Strategy (hereinafter called the 'Department') of commencement and completion of the project within two days:

- a) of commencement of the project and
- b) of completion of the project.

Notification should be sent by email to the Environmental Management Team
Mailbox: bst@beis.gov.uk

3 Prevention of pollution

The holder of the screening direction must ensure that appropriate measures are taken to minimise discharges, emissions and waste, in particular through the appropriate use of technology; and to ensure that necessary measures are taken to prevent incidents affecting the environment or, where they occur, to limit their consequences in relation to the environment.

4 Inspections

Should the Department consider it necessary or expedient for an inspector appointed by the Secretary of State to investigate whether the conditions of the screening direction are being complied with, the holder of the screening direction shall afford the inspector with such facilities and assistance as the inspector considers necessary to exercise the powers conferred by the regulations. The holder of the screening direction shall additionally ensure that copies (electronic or paper) of the screening direction and any other relevant documents are available for inspection by the inspector at:

- a) the premises of the holder of the screening direction; and



b) the facilities undertaking the project covered by the screening direction.

5 Check monitoring

Should the Department consider it necessary or expedient to undertake an independent monitoring programme to assess the impact of the project covered by the screening direction, the screening direction holder shall afford the Department with such facilities and assistance as the Department considers necessary to undertake the work.

6 Atmospheric emissions returns

Following completion of the project covered by the screening direction, the holder of the screening direction shall report all relevant atmospheric emissions, such as combustion emissions, extended well test emissions or flaring and venting emissions relating to a well test, using the appropriate Environmental Emissions Monitoring System (EEMS) reporting forms. In the case of atmospheric emissions relating to drilling projects undertaken from a fixed installation, they should be included in the annual EEMS reporting forms for the fixed installation.

7 Unauthorised deposits

Following completion of the project covered by the screening direction, the holder of the screening direction shall recover any materials accidentally or temporarily deposited on the seabed, such as debris, temporary containers, structures or deposits, or scientific instruments, and shall return the materials to land. If it is not possible to recover any of these deposits, full details of the materials remaining on the seabed must be reported to the Department in accordance with the requirements of Petroleum Operations Notice No.2 (PON2).

8 Screening direction variation

In the event that the holder of the screening direction proposes changes to any of the particulars detailed in the application for a screening direction, the holder must notify the Department immediately and submit an application for a post screening direction amendment. The post screening direction must be in place prior to the amended proposals taking effect.

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COMMENTS ON THE APPLICATION FOR SCREENING DIRECTION

Section 1

The attention of screening direction holders is drawn to the following provisions regarding The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Assessment) Regulations 2020.

1) You are deemed to have satisfied yourself that there are no barriers, legal or otherwise, to the carrying out of the project covered by the screening direction. The issue of a screening direction does not absolve the screening direction holder from obtaining such authorisations, consents etc that may be required under any other legislation.

2) The Department would draw your attention to the following comments:

The Department has no comments.

3) All communications relating to the screening direction should be addressed to:

bst@beis.gov.uk

or

Offshore Petroleum Regulator for Environment & Decommissioning
Department for Business, Energy & Industrial Strategy
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Tel [REDACTED]



SCHEDULE OF SCREENING DIRECTION DECISION REASONS

1) Decision reasons

The following provides a summary of the assessments undertaken by OPRED to determine whether an Environmental Impact Assessment is required for this project. This document summarises the information considered, the potential impacts and sets out the main reasons for the decision made.

In considering whether an Environmental Impact Assessment is required or not, the following have been taken into account:

- a) the information provided by the developer;
- b) the matters listed in Schedule 5 of The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Regulations 2020) (the Regulations);
- c) the results of any preliminary verifications or assessments of the effects on the environment of the project; and
- d) any conditions that the Secretary of State may attach to the agreement to the grant of consent.

Characteristics of the Project

Having regard, in particular, to the matters identified at paragraphs 1(a) to (g) of Schedule 5 to the Regulations, the characteristics of the project include the following:

Summary of the Project

- Drilling of 26" section with seawater/Hi-Vis sweeps,
- Drilling of 17.5" section with Low Toxicity Oil Based Mud (LTOBM)
- Drilling of 12.25" section with LTOBM
- Drilling of 8.5" section using LTOBM
- Drilling of 6" reservoir section using LTOBM
- Drilling a contingency mechanical side-track (worst case 17.5" section assessed)
- Completion
- Expected 40 to 60 hour Well Clean up and well test, with a maximum of 96 hours and a maximum of 1,993 tonnes of hydrocarbons to be flared.



Description of project

This project covers the drilling of the 26", 17.5", 12.25", 8.5" and 6" sections of the Cygnus 44/12a-AAG (AG) development well using the jack-up drilling rig the Borr Prospector 1, adjacent to the Cygnus Alpha Wellhead Platform (AWHP) (Cygnus A platform). This will be the 11th well to be drilled from the Cygnus Alpha Platform.

The 30" conductor for this well was piled in September 2014 and remains in place. Drilling will recommence with the 26" section, which will be drilled to 817.2 m (2,681 ft) MDBRT with seawater/Hi-Vis sweeps. Once the 26" section is drilled a 20" casing will be cemented into position and a 20.75" Blowout preventer (BOP) will be installed. The remaining sections will be drilled with low toxicity oil-based mud (LTOBM), with the 17.5" section to be drilled to a depth of 2,676 m (8,780 ft), the 12.25" section to be drilled to a depth of 5,098 m (16,727 ft), 8.5" section will then be drilled to a depth of 5,007 m (16,427 ft) and the 6" section will be drilled to a well Target Depth (TD) of 6,548 m (21,482 ft) MDBRT. As a contingency, in the case of an unplanned event resulting in an issue down the wellbore, a mechanical side-track may be required and since it is unknown which section may require to be side-tracked, the 17.5" section has been assessed as a worst case.

Discharges from the 26" section will be discharged to sea and all cuttings and LTOBMs associated with drilling the lower sections will be skipped and shipped to shore for processing and disposal. Steel casing will be installed in the 26", 17", 12", and the 8" sections to provide structural integrity and to isolate unstable formations and differing formation fluids. On completion of the drilling operations, the bottom hole assembly will be installed. The well will then be flowed for clean-up using a temporary well test package with the rig in place, with the objective to remove residual drilling fluids ensuring that the clean-up criteria and platform requirements are met. To reduce the environmental impacts, Pressure Build ups (PBUs)/multi-rate tests can be performed after tie in to the Cygnus Platform.

The Cygnus AG well will be produced via the Cygnus Alpha platform. Drilling operations are expected to take 124 days to completion. The original scope of the Cygnus Field Development Environmental Statement (ES), reference D/4119/2011, submitted October 2011 covered the drilling of up to 10 wells at the Cygnus A platform and the 11th well was not included in the assessment.

No cumulative impacts are expected to occur between this project and other existing projects due to the distance between them and the localised nature of any potential impacts.

It is not considered to be likely that the project will be affected by natural disasters.

The risk of a major accident such as a well blowout has been assessed. The Developer has control measures in place to reduce the risk of a major accident occurring and the probability of such an event occurring is very low.



Other than the matters considered further below, there is not likely to be any significant impact of the project on population and human health.

Location of the Project

Having regard; in particular; to the matters identified at paragraphs 2(a) to (c) of Schedule 5 to the Regulations, the environmental sensitivity of geographical areas likely to be affected by the project has been considered as follows.

The Cygnus gas field is located approximately 162 kilometres (km) northeast from the English coastline and 36km west from the UK/Netherlands boundary line. The operations are part of the development of the existing Cygnus field in UKCS blocks 44/11 and 44/12 and an ES D/4119/2011 was submitted to cover the development of up to ten wells. The AG Well will be the eleventh well to be drilled and has not previously been assessed.

The project is in an area characterised by a predominantly sandy seabed and shallow well mixed waters with a water depth of 22 metres (m) Lowest Astronomical Tide (LAT). Wave heights within the Cygnus area ranges from 1.51 - 2.1m and the annual mean wave power is between 12.1 - 18kW/m. The Cygnus Field is located within the Dogger Bank Special Area of Conservation (SAC) and the Southern North Sea SAC. The Dogger Bank SAC is designated due to the presence of the Annex I habitat 'Sandbanks which are slightly covered by seawater all the time'. The Dogger Bank covers 12,331 km² and is an extensive sublittoral sandbank in the SNS formed by glacial processes and submergence through sea-level rise. Across the Cygnus field, 73 recorded taxa in Block 44/11, 32 were polychaeta annelids (bristle worms) accounting for 63% of recorded individuals and 44% of the taxa. There were also 19 arthropod taxa (crustaceans, crabs, shrimps etc; 22% of individuals and 26% of taxa); 16 mollusc taxa (bivalves and snails; 11% individuals and 22% of taxa). Additionally, four echinoderm taxa were recorded, accounting for 1% of individuals and 5% of the taxa. Visible epifauna were sparse, consistent with mobile sandy sediments. Although seabed burrows were observed, densities were insufficient to constitute a 'sea pen and burrowing megafauna community' as listed under OSPAR (2008) list of threatened and/or declining species and habitats. There was no further evidence from geophysical data or seabed imagery of any other sensitive species or habitats within Block 44/12. Overall, the results of the species ranking and fidelity scores suggested a homogenous stable faunal community representative of the sandy sediments within the wider area.

As mentioned, the project is also within the Southern North Sea SAC which is designated as an area of importance for harbour porpoise. Harbour porpoise has been spotted in moderate densities in July, August and November and in low densities in April, May and June. Minke whale, long-finned pilot whale *Globicephala melas* and white-beaked dolphin have also been recorded in the vicinity of the Cygnus field. Minke whale have been recorded at low densities in May, July and August and long finned pilot whales in low densities in August. The Grey and Harbour seal density maps published by the Sea Mammal Research Unit (SMRU), reports the presence of grey and harbour seals in the Cygnus field as between 0-1



per 25km² confirming a sparse population.

Seabird sensitivity during the operational period (July to November) ranges from low to extremely high in November.

Fishing intensity in the vicinity of the Cygnus field is recorded as low on the Marine Management Organisation (MMO) interactive tool. The proposed operations will coincide with fish spawning and/or nursery activity for a number of species.

The nearest cable to the proposed operation is the MCCS Active TAMPNET cable located approximately 0.27km away. The nearest wind lease area to the proposed operations is the Dogger Bank A Offshore Wind Farm Project located approximately 14 km to the northwest, with the Viking link offshore cable operations located approximately 50Km distant. The Tranche A cable and corridor boundary (completed) is located approximately 24 km northwest of the proposed operation.

The nearest area of optimal aggregate resource is located approximately 90 km southwest from the proposed operations. The nearest protected wreck is the Filey Bay wreck, located 170 km southwest from the proposed operations and there are two un-named dangerous wrecks located within 20 km (approximately 15.8 km WNW and 17.1 km WSW) from the proposed operations.

Given the location of the project, it is not likely that the areas identified at paragraphs 2(c)(i), (iii), (iv), (vi), (vii) of Schedule 5 to the Regulations will be affected by the project.

Type and characteristics of the potential impact

In accordance with paragraph 3 of Schedule 5 to the Regulations, the likely significant effects of the project on the environment have been considered. Potential effects on the environment from the activities associated with the project were assessed, including impacts arising from atmospheric emissions, seabed disturbance, physical presence, planned discharges and accidental spills.

Other than the matters considered further below, there is not likely to be any significant impact of the project on population and human health.

There is an existing 500 m radius safety zone around the Cygnus Alpha Platform, excluding unauthorised access of vessels, and prohibiting access to fishing vessels. No additional impacts to other marine users are identified as part of the operations at the AG Well and the area is considered to be within an area of low traffic density.

There will be no additional seabed disturbance and mortality of benthic fauna as a result of the drilling the AG well as the Borr Prospector 1 has already been located adjacent to the Cygnus Platform to drill the Cygnus A1 (AC) Well and does not require to be moved to drill the AG Well. The total area of impact as a result of siting the rig at Cygnus Platform has been assessed under the screening direction DRA/897 for the AC Well. Once the operations at the Cygnus AG well are complete,



the rig will be jacked down and floated away from the platform, with the seabed recovery anticipated once the spud cans are removed. No cumulative impacts are expected to occur with any other existing or approved projects.

Discharge of offshore chemicals associated with the drilling of the well, cementing and completion operations have been assessed as not likely to have a significant effect on the environment. Offshore chemicals associated with LTOBM will be skipped and shipped.

The emissions associated with the project result from power demand of the mobile drilling unit, the associated well clean up and test and supply vessels. These emissions were assessed as having a localised impact in the immediate area and it is expected the emissions will be rapidly dispersed and are not likely to have a significant impact.

There are no expected transboundary effects from the drilling, completion and well testing of the Cygnus AG Well. The nearest boundary line (UK/Netherlands) is located approximately 36 km north-west of the operations. It is not considered likely that any planned operational discharges will be detectable with the environmental conditions and at this distance from the AG well.

Although not a planned activity, a worst-case major accident scenario resulting from a potential well blow-out was modelled and assessed. The probability of a large oil spill from the proposed operations is low. Therefore, it is considered that the control measures in place to prevent loss of well control minimise the risk of an oil spill that could have a significant impact and the proposed operations carried out as planned are not likely to have a significant effect on the environment.

The drilling operations do not contradict any of the East Offshore Marine plan objectives and policies.

2) Mitigation of significant effects

The following are features of the project or measures envisaged that the developer has proposed to avoid or prevent what might otherwise have been significant adverse effects on the environment:

Not applicable.