

Our Ref: 01.01.01.01-4757U  
UKOP Doc Ref:1160300



Offshore Petroleum Regulator  
for Environment & Decommissioning

CHRYSAOR PETROLEUM COMPANY U.K. LIMITED  
BRETENHAM HOUSE  
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LONDON  
WC2E 7EN

Registered No.: 00792712

Date: 17th September 2021

Department for Business, Energy  
& Industrial Strategy

AB1 Building  
Crimon Place  
Aberdeen  
AB10 1BJ

Tel [REDACTED]  
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[www.gov.uk/beis](http://www.gov.uk/beis)  
[bst@beis.gov.uk](mailto:bst@beis.gov.uk)

Dear Sir / Madam

**THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING  
AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS  
2020  
DUNNOTTAR, 30/08- D Exploration well**

A screening direction for the project detailed in your application, reference DR/2147/0 (Version 4), dated 15th September 2021 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](mailto: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**

**DUNNOTTAR, 30/08- D Exploration well**

**DR/2147/0 (Version 4)**

Whereas CHRYSOOR PETROLEUM COMPANY U.K. LIMITED has made an application dated 15th September 2021, 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 his agreement to the Oil and Gas Authority to the grant of consent for the project as detailed in the application.

Effective Date: 17th September 2021



## **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 17 September 2021 until 30 September 2022.

#### **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](mailto:bst@beis.gov.uk)

#### **3 Nature of stabilisation or protection materials**

Rock deposits

3000 tonnes of clean, inert rock material, containing minimal fines, (The quantity of rock deposited should be the minimum required to provide the necessary stabilisation or protection, and any surplus rock must be returned to land).

#### **4 Location of stabilisation or protection materials**

MoDU

At the locations specified in the SAT.

#### **5 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.

## **6 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.

## **7 Monitoring**

The results of any pre or post-placement surveys carried out to confirm the necessity for the deposits covered by the screening direction and/or to confirm the accurate positioning of the stabilisation or protection materials, should be forwarded to the Department following completion of the surveys

## **8 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.

## **9 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.

## **10 Deposit returns**

The holder of the screening direction shall submit a report to the Department following completion of the deposit covered by the screening direction, confirming the quantity of materials deposited and the estimated area of impact, using the appropriate Environmental Emissions Monitoring System (EEMS) reporting form. Where no deposits are made, a 'nil' return is required.



## **11 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).

## **12 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:

#### **Out-of-hours emergency screening direction variations:**

Telephone Met Office out-of-hours service (0330 135 0010) and ask to be connected to the Department's On-call Response Officer (Offshore Environmental Inspectorate).

#### **Routine communications**

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]  
Fax



## **SCHEDULE OF SCREENING DIRECTION DECISION REASONS**

The Secretary of State has decided that, based on the information provided, the project is not likely to have a significant effect on the environment. The main reasons for this decision are:

### **1) Decision reasons**

This document 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 the 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 36" & 26" sections with seawater and sweeps and water based mud (WBM).  
Drilling of 17 ", 12 " and 8 " sections using Low Toxicity Oil Based Mud (LTOBM)  
Drilling of contingency 12 " and 8 " sidetrack sections using LTOBM.  
Contingency to re-drill all five sections again.  
Wellbore Clean up, drill stem test of main bore and contingency sidetrack sections.  
Check shot survey (CSS) to characterise the well.  
Abandonment of the well

#### **Description of the Project**





The Dunnottar exploration/appraisal well will be drilled from the heavy duty jack up rig Valaris-121 (MoDU), with operations expected to take, in the dry hole case 115 days (contingency 142 days including rig mobilisation) or if successful 342 days.

The 36" section will be drilled riserless with WBM cuttings discharged at the seabed. The 26" section will be drilled with WBM cuttings routed to the topsides and discharged overboard. The 17 ", 12 " and 8 " sections will be drilled with LTOBM, with the cuttings thermally treated by a Hellenes Thermal Treatment Unit (HTTU) prior to discharge to sea, with a contingency for the cuttings to be skipped and shipped onshore for treatment and disposal. In the event that hydrocarbon water contact is not seen in the main-bore, there is a contingency to drill 12 " and 8 " sidetrack sections. There is also contingency to repeat the above drilling sections if there are hole conditions or equipment failure where there may be a requirement to re-spud and/or re-do a section. Once the well sections have been drilled, casings will be run, and cement will be used to provide integrity of the drilled well. The well will then be cleaned up and in the successful case a series of drill stem tests will be carried out. A Check Shot Survey (CSS) will also be conducted to characterise the well.

On completion of the exploration and appraisal scope the Dunnottar well will be plugged and phase 3 abandoned as per the Oil and Gas UK Well Decommissioning Guidelines.

There are no other oil and gas, renewable, or aggregate extraction projects either in existence or approved within 10 km of the Dunnottar location. Cumulative interactions are therefore not expected. The Dunnottar exploration well is being drilled in an offshore oil and gas licensed area. Further information on the land use and baseline environment can be found below. Waste fluids created after displacement of oil-based mud from the well will be sampled and discharged to sea if it meets acceptability criteria, if not then it will be shipped to shore for treatment and disposal. No pollution or nuisances are foreseen from the drilling of the well. 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. It is not considered likely that the project will be affected by natural disasters. 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 project is in an offshore oil and gas licenced area, located in the Central North Sea (CNS) approximately 267 kilometres (km) east of the Scottish coastline and 8 km from the United Kingdom-Norwegian median line in a licenced field development area in a depth of 74 metres (m). The wave heights for the area ranges between 2.11 m and 2.4 m with prevailing winds from the southwest and north north east.



The site is situated in a wider Priority Marine Feature habitat of 'offshore subtidal sands and gravels'. Site specific surveys confirmed deep circalittoral sand sediment with a subset of deep circalittoral mixed sediment due to patches of cobbles and boulders at three sample stations. Rig site survey results at the well location confirmed silty sand with shell fragments and some isolated boulders with depressions of less than 0.3m but no gravel at the rig site location which is consistent with the British Geological Survey map showing sand around Dunnottar. Total and polycyclic aromatic hydrocarbon sediment content was typical of background CNS level. Metals were within OSPAR background assessment concentration (BAC) limits apart from raised lead at all survey locations.

Polychaetes predominated samples with crustacea, mollusca, echnodermata and other taxa including Cnidaria, Merertea, Phoronida, Platyhelminthes and Sipuncula. Minor depressions were found but no methane derived authigenic carbonates characteristic of this Annex I feature were identified.

Samples were reviewed for the potential OSPAR threatened and or declining habitat 'seapen and burrowing megafauna communities' (which may also qualify as the Scottish Priority Marine Feature (PMF) 'burrowed mud' and Scottish Biodiversity List Habitat 'mud habitats in deep water' and 'burrowed mud' which qualify as a Scottish Priority Marine Feature. Burrows were below the 2 burrows per 10m<sup>2</sup> 'Superabundant, Abundant, Common, Frequent, Occasional, Rare (SACFOR) threshold, with no burrowing megafauna and/ or seapens present therefore this habitat is unlikely. Annex I habitat 'biogenic reef' was also investigated with the presence of horse mussel noted with 306 individuals identified at six stations which may meet the criteria but abundance and densities confirmed no reef.

Ocean quahog, an OSPAR listed threatened and/ or declining species was found at four of the seven sample locations with an average density of 0.015 individuals/ m<sup>2</sup>. As such, the survey area was not considered to be of particular importance for this species. The Dunnottar well is located 14km from the Fulmar Marine Conservation Zone designated for this species as well as three habitats, subtidal sand, subtidal mud and subtidal mixed sediment. East of Gannet and Montrose Fields Nature Conservation Marine Protection Area (NCMPA) is 53km northwest of the well.

The project will take place during spawning periods for cod, lemon sole, mackerel, Norway pout, plaice and sandeel. The project location is also within an area of peak spawning for cod, mackerel and Norway pout and Marine Scotland have identified a period of concern for block 30/08 in May and August for seismic activities. Sightings of cetaceans have been recorded during the period for which the project works are planned, and most abundantly during the month of July. Grey seals may be encountered from time to time but in very small numbers. Seabird density is described as low for the majority of the year with extremely high sensitivity in May and June, which JNCC have identified as a period of concern for drilling. The project area is described as a low intensity fishing area and fishing effort is predominantly focussed on demersal species. The project is located at its nearest 6km southwest of Judy platform (Chrysaor - Harbour Energy) and shipping density is generally low. The TAMPNET telecoms cable is 7km southwest of the well with the closest wreck,



Devotion, 6km northeast of the well. No aggregate dredging or renewable development is found this far offshore, the nearest wind farm is 179km southeast.

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, noise, 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 the environment, population, and human health.

Once on site, there will be a temporary 500 m exclusion zone around the Valaris-121 MODU excluding unauthorised access of vessels and prohibiting access to fishing vessels. A guard/ emergency response vessel will be on site for the duration. The presence of the MODU is therefore not considered to have a likely significant effect on other users of the sea.

Atmospheric emissions will be generated from the Valaris-121 MODU and associated operational vessels during the drilling operations, including well testing. It is expected that the locally elevated concentrations will be short lived and will not be detectable within a short distance of the rig due to the dispersive nature of the exposed offshore environment.

There will be a temporary seabed disturbance from the drill rig spud cans which will be in contact with the seabed for the duration of the drilling activities. In addition, a permanent deposit of 1000 tonnes of graded rock may be required at each spudcan location (up to a maximum of 3000 tonnes) to ensure rig stability. This results in a total disturbance of the seabed of 0.00118 km<sup>2</sup>. The proposed operations will be located 14 km from the nearest protected area (the Fulmar MCZ which is designated for subtidal sands, mud, mixed sediment and ocean quahog). Live individuals of Ocean Quahog were observed during the site survey but indicated a low density across the survey area. In addition to this, horse mussel and seapens were also observed in the area. however assessment of the data confirmed this did not constitute the Annex I habitat 'Biogenic reef' or the OSPAR habitat 'Sea pens and burrowing megafauna communities'. Changes to sediment and water quality may cause impacts, however, as these sensitive features are not observed at high densities, it can be concluded that impacts may effect individuals, but this is not likely to cause any significant impacts to overall populations. The benthic environment in the area is dynamic and subject to natural disturbance from wave and tidal and there is good potential for rapid recovery. The Developer plans to minimise the impact of positioning the rig by planning the exact location of the spudcans and ensuring their



correct placement on the seabed. The rock deposits will comprise gravel berms centred underneath each spudcan. The effect on the benthos will be to permanently make a small area of natural sandy seabed unavailable for use, while introducing a novel hard substrate. The result is likely to be the colonisation of the novel hard substrate by a faunal community that is distinct from the previous community in the area, comprising species that were either previously absent or only sporadically present on the occasional cobbles and boulders that occur in the area. While the expected changes are permanent, given the small area affected and the widespread availability of similar natural habitat in the region, the effects on the benthos are considered not likely to be significant.

Any Transboundary effects as a result of the drilling operation of this well are only expected to be associated with a worst case well blowout. The nearest boundary (UK/Norwegian median) is located approximately 8 km from the proposed well location. In the event of a hydrocarbon release, the NORBRIT agreement would be implemented, which agrees a command-and-control procedure for pollution incidents. It is noted that the expected hydrocarbons from this well are gas and condensate, and in a pollution event, the condensate is expected to evaporate and dissolve into the water column. Modelling indicated that a worst case well blow out could result in contamination on the coastlines of several neighbouring countries.

In addition, JNCC have identified May and June as a period of concern in block 30/08 where seabird sensitivity is recorded as extremely high. However, the Developer has a number of mitigation and control measures in place to reduce the risk of a major accident occurring and the likelihood of a major release of hydrocarbons occurring during the proposed drilling operations is considered to be extremely low. Therefore, it is considered that the control measures in place to prevent loss of well control minimise the risk of an oil spill which could have a significant impact and the proposed operations carried out as planned are not likely to have a significant effect on the environment.

WBM cuttings will be discharged during the proposed operations. However, in consideration to the low toxicity of the WBM chemical package and that the cuttings are expected to be localised and disperse quickly in the water column, WBM cuttings discharges are not considered likely to have a significant impact.

LTOBM cuttings will be generated during the proposed drilling operations. The LTOBM cuttings generated will be thermally treated and the resultant fine powder mixed with water and discharged to sea with <1% oil on cuttings. These are likely to remain in suspension in the water column and be widely dispersed and would be readily assimilated into the natural sediments and therefore not likely to cause any significant impacts.

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 returned to shore for treatment and disposal.



The LTOBM treated cuttings, slops and wellbore clean-up operations may result in the discharge of wastewater containing residual base oil from the LTOBM. This discharge has been assessed and is not considered to have a likely significant effect on the environment.

The noise generated from the CSS operations has been assessed and due to the small zones of potential injury and disturbance and the low to moderate numbers of marine mammals that are likely to occur in the area, the disturbance and potential effects by any noise emitted from the CSS activities is considered to be negligible and not likely to have a significant effect.

The operations will coincide with the peak spawning periods for cod, mackerel and Norway pout and Marine Scotland have identified a period of concern for seismic activities in May and August for block 30/08. The CSS operations will take place between 1st April 2022 and 30th September 2021, therefore the seismic operations will only coincide with the peak spawning period for mackerel. However, the CSS activities have been assessed and as they are short term and localised in nature the effects are considered negligible and not likely to have a significant impact.

The drilling operations are in accordance with the National Marine Plan area for Scotland objectives and policies. It is considered that the drilling of the Dunnottar well is not likely to have a significant impact on other offshore activities or other users of the sea and no cumulative impacts are expected to occur.

## **Decision**

Taking the above considerations into account, the Secretary of State has concluded that the project is not likely to have a significant impact on the environment and that an environmental impact assessment is not required.

## **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:

N/A