Our Ref: 01.01.01.01-6327U
UKOP Doc Ref:1385576

Offshore Petroleum Regulator
for Environment & Decommissioning

CHRYSAOR PRODUCTION (U.K.) LIMITED
151 BUCKINGHAM PALACE ROAD
LONDON
SW1W 9SZ

Registered No.: 00524868

Date: 5th March 2025

Department for Energy Security &
Net Zero

AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Tel [redacted]
Fax

www.gov.uk/desnz
opred@energysecurity.gov.uk

Dear Sir / Madam

THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2020
BRODGAR, Paul B. Loyd Jnr DRILLING

I refer to your amended application dated 3rd March 2025, reference DR/2491/2 (Version 1).

It has been determined that the proposed changes to the project is not likely to result in a significant effect on the environment, and therefore an environmental impact assessment is not required.

A screening direction is therefore issued for the changes to the project. An amended schedule of conditions, comments, and main reasons for the decision on the amended application, 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 opred@energysecurity.gov.uk.

Yours faithfully

Signature Not Verified

Digitally signed by Department for Energy Security and Net Zero
Date: 2025.03.05 11:44:12 GMT
Reason: On behalf of the Secretary of State
Location: Offshore Petroleum Regulator for Environment and Decommissioning

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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

BRODGAR, Paul B. Loyd Jnr DRILLING

DR/2491/2 (Version 1)

Whereas CHRYSAOR PRODUCTION (U.K.) LIMITED has made an application dated 3rd March 2025, 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/16766/1/IDA/1 v1, WONS/16766/0/GS/1 v1, WONS/16766/0/GS/2 v1, WONS/16766/0/GS/3 v1 and WONS/16900/0/EWT/1 v2.

Effective Date: 5th March 2025

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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 1 October 2024 until 31 May 2025.

2 Commencement and completion of the project

The holder of the screening direction must notify the Department for Energy Security & Net Zero (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: opred@energysecurity.gov.uk

3 Extended well tests

a) Production levels

The holder of the screening direction shall ensure that the production of hydrocarbons during the well test does not exceed the level(s) detailed in the application for the screening direction.

b) Associated flaring and venting

The holder of the screening direction shall, ensure that any associated flaring of hydrocarbons during the well test does not exceed the level(s) detailed in the application for the screening direction and/or that any associated venting of gas during the well test does not exceed the level(s) detailed in the application for the screening direction.

4 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.

5 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.

6 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.

7 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.

8 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).

9 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:

N/A

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

opred@energysecurity.gov.uk

or

Offshore Petroleum Regulator for Environment & Decommissioning
Department for Energy Security & Net Zero
AB1 Building
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AB10 1BJ

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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

The following provides a summary of the assessment undertaken to determine whether an Environmental Impact Assessment is required for this project, 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:

the information provided by the developer;
the matters listed in Schedule 5 of The Offshore Oil and Gas Exploration, Production, Unloading and Storage (Environmental Impact Regulations 2020) (the Regulations);
The results of any preliminary verifications or assessments of the effects on the environment of the project; and
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 new development well 21/03a-HE (Brodgar H5 well) from the Paul B. Loyd Jnr. semi-submersible rig (PBLJ). The Brodgar East pilot well (H5z) and Brodgar East development well (H5y) will also be drilled.
Drilling of 36" section from the rotary table with water-based mud (WBM)
Drilling of 20" section using a motor driven Bottom Hole Assembly (BHA) with WBM
Drilling of the Brodgar H5 appraisal well 12.25" section using low toxicity oil-based mud. Logging while drilling and wireline acquisition programmes will be undertaken.
Drilling of the Brodgar East H5z pilot well 12.25" section using low toxicity oil-based mud. Logging while drilling and wireline acquisition programmes will be undertaken. A decision will then be taken on whether to place the development well in the East or North Location.
Drilling of the Brodgar North or East development well 13.5" section using low toxicity oil-based mud.
Drilling of Brodgar North or East development well 9.5" section using WBM.
The Brodgar North or East well will be completed, cleaned-up and an extended well test undertaken.

The Brodgar North or East well will be suspended and flowed directly back to the Britannia platform once tie-in activities are complete.

Summary of the Change to the Project

A change to the project was requested under application PL/2491/2 (Version 1) to extend the end date to accomodate operational delays. This results in a minor increase to atmospheric emissions as a consequence of extended vessel presence. This has been assessed and text amended below.

Description of the project

The project consists of drilling the Brodgar H5 well, which is the fifth development well in the Brodgar field. The well programme sequence consists of drilling an initial appraisal well to the prospect identified within the pinch out to the North of the main field to assess the reservoir quality. This well will be abandoned and plugged back prior to a sidetrack being drilled as well as a pilot hole within the Brodgar East location. Once the Brodgar East pilot well has been drilled, it will also be abandoned and plugged back and a development well drilled and completed to the east of the field. If the Brodgar East reservoir proves to be uneconomical then a development well to the Brodgar North location will be considered.

The Brodgar field is located in the central North Sea (CNS) and the existing Brodgar wells are tied back to the Britannia Bridge Linked Platform (BLP) via the Brodgar subsea manifold. The target of the well is the Britannia reservoir, located in the CNS. Drilling operations at the H5 well are expected to last 118 days.

The rig will anchored in a two phase approach. Phase 1 will involve the pre-laying of the anchors and the lower section of the mooring in advance of the PBLJ arriving on location. All eight anchors will be positioned and a guard vessel will be present. The rig will be connected to the pre-laid mooring system in phase 2.

The top-hole section will be drilled from the Rotary table with returns to the seabed. The fluid system will be mainly seawater with the use of viscous sweeps. The section will be swept clean before displacing to WBM. The following 20" section will be drilled using a motor driven BHA with returns to the seabed and the same fluid system again displaced to WBM.

The 12.25" section of the Brodgar H5 deviated appraisal well will commence from beneath the 16" casing shoe and will be drilled using LTOBM. Logging while drilling and wireline acquisition programmes will be undertaken. The Brodgar H5 appraisal well will then be abandoned and plugged back inside the 16" casing shoe.

The Brodgar H5 appraisal well will then be sidetracked and a 12.25" pilot hole to the east (H5z) will be drilled. The Brodgar East H5z pilot hole will kick-off from vertical beneath the 16" shoe and will touchdown in the Valhall Formation mudstone once there is sufficient rathole to facilitate all LWD and wireline tools to log the base of the reservoir. Once the logging programme has been completed, the Brodgar East pilot

wellbore (H5z) will be abandoned.

Once the pilot hole has been drilled and assessed a decision will be made on whther to continue to drill the East developemtn well or to adjust to the North.

A kick off plug will be drilled and the Brodgar East/North development well 13.5" section will be drilled using LTOBM. The 9.5" section will be drilled using WBM with a GeoSteering tool. The mud and cuttings from the 9.5" section will be discharged into the water column from the drilling rig. The well will be flowed back to the drilling rig during the well clean up and extended well test phase and will be suspended, prior to final hook-up to produce via the Britannia platform.

For all LTOBM sections, the cuttings and mud returns will be skipped and shipped to shore for disposal.

No cumulative impacts are expected to occur with any other existing or approved projects.

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.

There is not likely to be any significant impact of the project on population and human health. It is not considered likely that the project will be affected by natural disasters.

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 Brodgar H5 well is located in Block 21/03 in the Central North Sea (CNS) approximately 143 kilometres (km) northeast of Scotland and 77 km southwest of the UK/Norway median line, in an approximate water depth of 134 metres (m). The Brodgar H5 well will be connected to the Brodgar subsea manifold which produces back to Britannia via the Britannia Bridge Linked Platform located approximately 40km to the north-east in Block 16/26.

The influx of Atlantic water via the Fair Isle channel and north of Shetland results in seabed currents moving southeast, with the mean residual current surrounding the Brodgar field approximately 0.1m/s. Within the region, the annual mean significant wave height is between 2.11-2.40 m.

Sediments in the Brodgar field are categorised as 'deep circalittoral mud' with the National Marine Plan interactive indicating the Priority Marine Feature (PMF) habitat 'burrowed mud' is present within the Brodgar area. Surveys in the area have shown local sediments to consist of, poorly to very poorly sorted, sandy mud. Numerous pockmarks were identified across the Brodgar area but none had evidence of Annex I

methane derived authigenic carbonate (MDAC) structures.

The benthic assemblage identified from surveys undertaken in the Brodgar field indicates a community typical of the sediments identified. Observed macrofauna included polychaete annelids (bristle worms), molluscs (including bivalves), and echinoderms (including brittlestars). Seapens were observed at multiple sample stations and transects, and using the SACFOR scale, total seapen densities were classed as 'frequent' at all but one station. Burrows were also recorded at all stations and were classified from 'rare' to 'frequent'. It was concluded that the Scottish Priority Marine Feature (PMF) 'burrowed mud' habitat was potentially present. Ocean quahog is on OSPAR's (2008) list of threatened and/or declining species and habitats and is listed as a low or limited mobility species PMF. This juvenile species were recorded at most sample stations, however no adult ocean quahog were observed.

There are no conservation areas within 40km of the Brodgar H5 well. The closest protected site is the Scanner Pockmark Special Area of Conservation located approximately 48 km to the northeast of Brodgar H5, which is designated for the presence of submarine structures made by leaking gases. The Scanner Pockmark is a singular large depression which contains MDAC blocks made by leaking gases, which support a fauna typical of rocky reefs, including anemones Urticinafelina and Metridium senile and squat lobsters.

Seabird oil sensitivity in the vicinity of the Brodgar H5 well is very high in December and January, medium in September and October, and low for the remaining months. There is no data for November. There is a period of concern for drilling activities within the block for December and January as identified by JNCC. Drilling activities may occur within this period of seabird oil sensitivity.

Atlantic white-sided dolphin, Bottlenose dolphin, Harbour porpoise, Minke whale, Risso's dolphin and White beaked dolphin have been observed in the area between the months of February and October. White-beaked dolphin and Harbour porpoise have been observed in high densities in the area whereas the other species identified have been observed in moderate densities.

Brodgar is located in International Council of the Sea (ICES) rectangle 44F0 and fishing effort is dominated by shellfish and demersal species. The ICES rectangle 44F0 catch was below average for total landings but above average for total value in 2022 when compared to the overall UKCS. Fish spawning for a number of species occurs in ICES rectangle 44F0, and it is also a nursery area for a number of fish species throughout the year. Several species are Scottish Priority Marine Features. It is not anticipated that the drilling of the Brodgar H5 well will have a significant impact on the fishing industry in the area.

The Brodgar H5 well is not located within a Ministry of Defence (MoD) training range.

The closest submarine cable is the Tampnet Telecom cable, located approximately 24 km southeast of the Brodgar H5 well.

There are 37 wrecks located within 40 km of the proposed Brodgar H5 well; all wrecks within 40 km are classed as non-dangerous.

There are no shellfish water protected areas or active aquaculture sites in the vicinity of the Brodgar H5 well.

Given the location of the project, the areas identified at paragraphs 2(c)(i), (iii), (iv), (vi), (vii) and (viii) of Schedule 5 are not likely to 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.

Atmospheric emissions are expected to be temporary in nature, to be emitted from combustion plant on the drilling rig and supporting vessels used on the project. Drilling activities are expected to be 118 days however a full assessment of the included in the initial application period of 242 days has been carried out in order to represent the worst-case drilling activities for the H5 well. Well testing is being carried out as part of these operations. The proposed operations will contribute to 0.165% of the total atmospheric emissions associated with the UK offshore activities in a year. Atmospheric emissions are expected to be rapidly dispersed in the open offshore environment in the direction of the prevailing wind. The impact has not been assessed as significant.

Seabed disturbance will result from locating the PBLJ rig via the eight anchors required to secure on location. The potential area of seabed affected by placement of the anchors, anchor chain contacts will be small. Once the anchors and mooring arrangement have been removed, the natural physical process of sediment transportation and biological settlement will be expected to restore the seabed to its original condition over time. The permanent footprint of the wellhead and wellhead protection are located within the 500m safety zone with a minimal footprint. The impact has not been assessed as significant.

The 36", 20" and 9 " sections will be drilled using WBM. All mud and cuttings from these sections will be discharged to the marine environment. This will cause initial physical smothering of the benthos within the immediate area, but re-colonisation is expected to be relatively rapid. Sediment movement and effects of the currents in the area (residual current of 0.1 m/s, wave height ranging from 2.11 - 2.40 m and annual mean wave power ranging from 24.1 - 30 kW/m) would cause the cuttings to naturally migrate and disperse along the seabed. The discharge is not expected to cause an impact to spawning fish species at a population level.

It is anticipated that as the cement slurry falls through the water column it will be naturally dispersed and diluted. Discharge of this nature is not expected to have any significant effect on deterioration in water quality or any significant impact on benthos or fish populations. It is not anticipated to have any negative implications for future decommissioning operations. Any cement slurry discharged to sea will comprise of inert materials and low toxicity additives.

The discharge of chemicals used to drill the well, including cementing, wellbore clean up, and completion chemicals have been assessed and are not considered likely to have a significant impact on the marine environment.

A 500 m default safety exclusion zone will exist around the rig once it is on location. The zone is there for the safety of the rig and vessel traffic. Once in place no unauthorised vessels will be allowed to enter meaning that vessel routes and fishing will have to avoid the area. Commercial fishing intensity is above average and vessel traffic is regarded as low. These receptors are not at risk of being significantly impacted by the project.

The planned discharge of the oil contaminated wellbore clean up fluids and slops will be at a sufficiently low concentration and quantity that it is not expected to result in a significant impact.

Accidental spill modelling has been undertaken for the project application. The worst-case scenario would result in a spill of crude that may beach on the UK coastline. The applicant has outlined multiple response measures available to them which would be enacted in the unlikely unplanned event of a spill. Such measures would be used to reduce the potential impact as far as possible and as quickly as possible.

There are no expected transboundary impacts as a result of the project. While cumulative, and no cumulative impacts have been identified given the other known existing and approved projects in the wider area.

It is considered that the drilling of the Brodgar H5 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

Not applicable.