Our Ref: 01.01.01.01-6022U
UKOP Doc Ref:1351684

Offshore Petroleum Regulator
for Environment & Decommissioning

EQUINOR UK LIMITED
1 KINGDOM STREET
LONDON
W2 6BD

Registered No.: 01285743

Date: 10th July 2024

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
MARINER, Mariner PDQ Platform, DRILLING INJECTOR WELL 9/11a- AHIB planned well

A screening direction for the project detailed in your application, reference DR/2451/0 (Version 3), dated 2nd July 2024 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 OPRED@energysecurity.gov.uk.

Yours faithfully

Signature Not Verified
Digitally signed by Department for Energy Security and Net Zero
Date: 2024.07.10 11:17:11 BST
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

MARINER, Mariner PDQ Platform, DRILLING INJECTOR WELL 9/11a- AHIB planned well

DR/2451/0 (Version 3)

Whereas EQUINOR UK LIMITED has made an application dated 2nd July 2024, 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/15932/0/PIDA/1, WONS/15983/0/IDA/1 and WONS/16405/0/C/1.

Effective Date: 10th July 2024

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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 10 July 2024 until 31 December 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 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:

OPRED@energysecurity.gov.uk

or

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

Tel [redacted]

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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:

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 9/11a-AHIB injector well that is located on the Mariner A PDQ platform. This operation involves the following steps;

Drilling of the top-hole, riserless 34" section with Water Based Mud (WBM) with the conductor string cemented to the seabed and the start head installed on the top of the conductor. The conductor section is to be batch drilled alongside AOIA (DRA/1055) and AHPD (DRA/1039)
Drilling of a 24" section with WBM, with a 20" casing set in the formation
The upper completion will then be run in place to approximately 12 m TVD below the top of the reservoir. On the bottom of the upper completion string

will be a non-sealing, self-aligning guide shoe which will locate and enter the top of the lower completion string. A packer will be set inside the 9 " liner and pressure tested.
Drilling of 17 1/2 " section using Low Toxicity Oil Based Mud (LTOBM) with a 13 3/8" casing cemented in place
Drilling of 12 1/4 " section using Low Toxicity Oil Based Mud (LTOBM) with a 9 5/8" casing cemented in place
Drilling of a final 8 1/2 " section will be drilled to target depth with WBM of 3,955m Measured Depth (MD) into the Heimdal Reservoir
Prior to completion, the well will be evaluated against a minimum net sand criteria. If the well meets the criteria for the required net sand, the well will be completed. If it does not meet the required net sand criteria, there is a potential contingency option to carry out at re-drill sidetrack of the well to target.
Once the well is drilled to TD, the lower completion is installed, a wellbore clean-up will be performed to displace the wellbore to completion brine.
The well will then be temporarily suspended using a mechanical plug set at approximately 300m MD BRT to allow removal of the Blow Out Preventer (BOP), installation of the xmas tree and re-installation of the BOP.

Description of the project

The project involves the drilling of the injector well 9/11a-AHIB . This project includes the drilling of the well to Target depth, the running of the completion and the installation of the Xmas tree. The project falls under the Environmental Statement for the Mariner project (D/4145/2012).

The 34" section has a length of 109m and will be drilled with WBM and sea water sweeps which will be discharged directly to the seabed. The 34" section will be batch drilled alongside AOIA (DRA/1055) and AHPD (DRA/1039). The 24" section has a length of 419m and will be drilled with WBM with the mud and cuttings returned to the rig and passed over a mudcube shaker system. Where possible WBM is reused and the remaining cuttings and entrained WBM passed over the shakers and discharged overboard. The 17 1/2 " section has a length of 1103m and will be drilled with LTOBM. The cuttings and mud will be returned to the rig and undergo Thermo-mechanical cuttings cleaning and discharged overboard with the contingency option to skip and ship all LTOBM entrained cuttings. The 12 section has a length of 1204m and will be drilled under the same conditions as the 17 section. The well will then be displaced to WBM and the final 8 1/2 " section drilled with WBM with a section length of 659m. The cuttings will be managed as with the 24" section. The contingency for a 8 1/2 " sidetrack has been included within this application with a section length of 659m drilled under WBM. The conductor will be cemented in place with cement returns occurring at the seabed. Xmas tree installation and upper completion is planned to be executed from either the DES or the Intervention and Completion Unit (ICU) on the Mariner PDQ installation.

The AHIB well completion consists of a 6 " Stand-Alone Screen (SAS) lower completion string, set above the 9 " liner shoe and a 6 " tubing upper completion

string.

The lower completion packer will be set approximately 50 m above the 9 " shoe and will contain a formation isolation valve. This valve will be closed once the lower completion is landed and chemical breaker spotted across the reservoir interval. Once the lower completion is installed, a wellbore clean-up will be performed to displace the wellbore to completion brine.

The well will then be temporarily suspended using a mechanical plug set at approximately 300m MD BRT to allow removal of the Blow Out Preventer (BOP), installation of the xmas tree and re-installation of the BOP.

The upper completion will then be run in place to approximately 12 m TVD below the top of the reservoir. On the bottom of the upper completion string will be a non-sealing, self-aligning guide shoe which will locate and enter the top of the lower completion string. A packer will be set inside the 9 " liner and pressure tested.

There is no well test planned during these operations.

The potential for cumulative impacts to occur from any other existing or approved projects is considered to be low.

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 proposed project is located in block 9/11a. It is located 134 km to the southwest of UK shorelines and 45 km from the UK/Norway median line. The depth at the proposed project location is approximately 110 m.

The seabed at the proposed project location comprises mainly sandy sediment (92.5-95.0%) with fines (4.88-7.48%) and limited gravel (0.01-0.16%). The EUNIS classification of the benthos is deep circalittoral sand. There are no Annex I habitats identified in the proposed project area. Sea pen (*Funiculina quadrangularis*) were identified in a survey, however, the species was not spotted at an abundance sufficient to constitute the OSPAR habitat 'Sea pens and burrowing megafauna communities'. No OSPAR habitats have been identified in the proposed project area. Ocean quahog (*Arctica islandica*), a Priority Marine Features (PMF), has been

identified in the proposed project area.

Benthic survey samples were dominated by newly settled juveniles of sea urchins (Echionidea/Spatangoida). Other benthic species identified in surveys of the area include polychaete *Spiophanes bombyx* , brittle star *Ophiocten affinis* , horseshoe worm *Phoronis spp* and tube dwelling anemone *Cerianthus lloydii* . Fish species identified in surveys of the area include cod *Gadus morhua* , pollock *Pollachius pollachius* , turbot *Scophthalmus maximus* and hagfish *Myxine glutinosa* .

The following PMF fish species have been identified in the proposed project area: angler fish, blue whiting, cod, European Hake, Haddock, herring, ling, mackerel, Norway Lobster, Norway pout, Saith, Sandeel and Whiting. The probability of aggregations of these species being present within the Mariner field is low for all species.

The following cetacean species have been identified in the proposed project area: Atlantic white-sided dolphin, Harbour porpoise, Killer whale, Minke whale, White-beaked dolphin. The highest densities have been recorded in the summer months with both harbour porpoise and white-beaked dolphin have been sighted in most months of the year. All cetacean species recorded in the area are listed as European Protected species (EPS) under Annex IV of the Habitats Directive. Drilling operations have been ongoing at Mariner for a number of years. Noise would cause the greatest disturbance to the cetaceans. The noise associated with the drilling is minimal and localised and therefore not likely to cause any significant disturbance.

Seal species have been identified in the proposed project area. Harbour seal and Grey seal have been found to be present in the proposed project area at low densities, between 0-1 per 25 km2.

The proposed project is not located within a designated site. The Braemar pockmarks SAC is closest located approximately 69km southeast of Mariner A PDQ. Its designated features are Annex I habitat of 'Submarine structures made by leaking gases' as designated under the EC Habitats Directive. The next closest protected area to the proposed project is the Central Fladen NCMPA, 79 km away. It is designated features are burrowed mud (characterised by sea pens and burrowing megafauna), as well as the presence of sub-glacial tunnel valley representative of the Fladen Deeps Key Geodiversity area.

Seabird oil sensitivity in block 9/11 is low throughout the year, except in May when it is medium. There is no data on seabird oil sensitivity for April, October, November or December.

The proposed project is located in Scottish waters and therefore the Scotland's National Marine Plan applies.

The proposed project area is located in International Council for the Exploration of the Sea (ICES) rectangle 48F1. The fishing effort in the rectangle is considered to be low, comprising approximately 0.66% of the UK for both total landings and value in

2021 (Scottish Government, 2022a).

Shipping density in the proposed project area is considered to be very low.

The following oil and gas installations are within 40 km of the proposed project area: Mariner B, Beryl B, Beryl A, Beryl SPM2/3, Gryphon Alpha, Bruce and Kraken.

The proposed project is not located within military training areas.

The closest cable to the proposed project area is the TAMPNET 4 Bu4 which is connected to the Mariner A PDQ. The other closest cable is the TAMPNET 4 trunk which is located 1.5 km southwest.

The proposed project is within the Innovation and Targeted Oil and Gas (INTOG) NE-c area.

There are no wrecks in the vicinity of the proposed project.

There are no aquaculture sites within 40 km of the proposed project area.

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.

WBM and TCC cuttings from the drilling of AHIB will be discharged to the seabed in the immediate vicinity of the well. However, the impacts of this are not considered to be significant given the low toxicity and high water-solubility of the treated cuttings. WBM will dissolve and disperse in the water column. Smothering by drill cuttings will, locally, change median grain size, and affect local benthic communities. Given the limited findings of protected species and features in the vicinity of the well it is not expected this will cause a significant impact. AHIB is well 29 to be drilled at Mariner within the 500m exclusion zone. The impacts have been assessed under two main factors, Rate of Oil lost to water column and the Persistence of the area of seabed contaminated. According to studies, the drill cuttings generated from the intensive drilling at Mariner fall well below the OSPAR thresholds for these categories. It is also evidenced that wells with treated cuttings such as those at Mariner will have lower persistence and rates of oil lost to the water column. Therefore the potential cumulative impacts due to drilling discharges around Mariner is expected to be low.

The cementing operations are limited to the cementing of the casing at the formation interface. There will be no cement returns to the seabed with all cement returned to the platform and disposed of via the Drilling Equipment set. There will be small volumes of cement discharged overboard during the cleaning of the cementing equipment. The cement fines will disperse quickly through the water column and are unlikely to cause a significant effect. Impacts on protected species and fish species are not expected given the localised nature of the operation and the low sensitivity of the area.

The impacts of the chemicals that will be used have been considered to not pose a risk to the marine environment as detailed in the chemical risk assessment submitted for this operation.

Drilling operations will be undertaken from the Mariner A PDQ and no additional equipment will be required for the drilling activities. Atmospheric emissions associated with the project will result from power demand for the proposed operations. Therefore, significantly increased emissions resulting from drilling operations are not expected. Consequently, the impacts arising from these emissions on climate change and local air quality are not expected to be significant.

No impulsive noise sources are being used and the proposes project is not located in area where marine mammals have been identified as designated features. Therefore, no significant impacts on marine mammals as a result of noise from the proposed operations are expected.

Past discharge of WBM and drill cuttings were considered and given the benthic features of the area and the size of discharges. The impacts resulting from these were not considered to be significant.

The main risk associated with the drilling of the proposed Mariner well are from diesel during bunkering operations or as a worst-case scenario a large spill of Mariner crude oil could occur to loss of well control.

The MEI assessment indicates that a worst case (uncontrolled and unmitigated) well blowout scenario from Mariner PDQ has the potential to cause significant damage, as defined by the Environmental Liability Directive, to protected species or habitats (listed under the Annex I of the Birds Directive and/or Annex I, II and IV species listed under the Habitats Directive) and coastal economies and could constitute an MEI as defined in the Offshore Safety Directive. The spill prevention and mitigation measures detailed in the application and in supporting documentation including the OPEP makes such an event extremely unlikely.

In the case of an accidental diesel release from the Mariner A PDQ, it is expected to evaporate quickly due to its very high level of light ends. The low asphaltene content prevents emulsification, therefore reducing its persistence in the marine environment. As such, a diesel release is not expected to present a significant risk. There is no potential for Mayor Environmental Incident resulting from a Major Accidental Hazard associated with this project.

The closest international boundary is 45 km away and therefore the risk of transboundary impacts as a result of the proposed operations is low.

Drilling operations will be conducted from the existing Mariner A PDQ Installation such that there is no increase in the infrastructure footprint. The drilling operations are in accordance with the National Marine Plan for Scotland's objectives and policies. It is considered that the drilling of the 9/11a-AHIB Mariner well is not likely to have a significant impact on other offshore activities or other users of the sea and limited 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:

Not applicable.