

Our Ref: 01.01.01.01-5171U
UKOP Doc Ref:1208357



Offshore Petroleum Regulator
for Environment & Decommissioning

REPSOL SINOPEC RESOURCES UK LIMITED
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LONDON
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Registered No.: 00825828

Date: 6th June 2022

Department for Business, Energy
& Industrial Strategy

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Dear Sir / Madam

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

BLAKE, Stena Don DRILLING PRODUCER WELL 13/24a-B8Z

A screening direction for the project detailed in your application, reference DR/2260/0 (Version 3), dated 1st June 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**

BLAKE, Stena Don DRILLING PRODUCER WELL 13/24a-B8Z

DR/2260/0 (Version 3)

Whereas REPSOL SINOPEC RESOURCES UK LIMITED has made an application dated 1st June 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 14015_GS_1.

Effective Date: 6th June 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 6 June 2022 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

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.

ree text]]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]

Fax [REDACTED]



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 by OPRED 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 has 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

Re-entry to 13/24a-B8z appraisal well to drill 13/24a-B8y development well
Re-entry to B8z casing shoe 13-3/8" to drill cement at well kick off point.
Deviated drilling of 12-1/4" section with latter part logged while drilling.
Hole cleaned and cement casing run.
Drilling of 8- " section by geo-steering.
Displace to conditioned drill fluid.
Screens run, well cleaned and isolated to suspend well.
Subsea production tree run in between recovery and rerun of BOP
Cased well cleaned to filtered inhibited brine.
Upper completion run.
Production packer set and pressure test completion.
Well shut in then flowed to rig for test and clean up.
Well and tree barriers tested.
Well B8y left suspended for later tie in to Blake manifold.



Description of the Project

History of project

The original project submitted under DRA/900 by Repsol Sinopec Resources UK Limited (Repsol) was the drilling of a new subsea production well, Blake 13/24a B2z (B8) attic well using the COSL Pioneer semi-submersible rig which was positioned using 8 anchors. Drilled as a single horizontal well with 36", 26", 17- ", 12- " and 8- " sections, this targeted attic oil. The 8- " section was not fully drilled as the well was dry hole with no commercially viable hydrocarbons and therefore it was not cleaned-up to flow, not completed and no well test carried out as described in OGA well consent application reference WONS/13532/0/IDA/1), superseded by WONS/13974/0. The programme foreshortened. The project was changed to enable the drilling of a geological side-track 8-1/2" section pilot hole from the cement barrier at the 13 3/8" casing shoe which was logged while drilling to assess attic hydrocarbons in another area of the same reservoir. The 13/24a B8z pilot (appraisal) well had a packer set but was not fully completed and was abandoned as per OGA well application reference WONS/13974/0/GS/1 Version 1.

A further change to the project was made as per OGA application reference: WONS/14015/0/GS/1 Version 1. The proposal being to drill the 13/24a-B8y development well as a side track from the 13-3/8" casing shoe previously abandoned to target attic oil. The drill rig COSL Pioneer left the field on 17th March 2022 before undertaking this work. Therefore, this development project is the re-entry to B8z pilot (appraisal) well to drill the 13/24a-B8y development well from the 13-3/8" casing shoe targeting attic hydrocarbons in the North East of Blake field using another drill rig.

The well will be drilled using the Stena Don semi-submersible drilling rig which will utilise 7 of the 8 anchors pre-laid for the COSL Pioneer. The remaining anchor and four gravity-based BOP tethering structures will be pre-laid (remotely operated vehicle used for tethering structures) on 6th June 2022. The drill rig will hook up to the well on 15th June 2022. The well will be initiated from the abandonment plug of the 13/24a-B8z 13-3/8" casing shoe. It will start by drilling the previously placed cement plug from the B8 13-3/8" casing shoe, directionally drilling a 12-1/4" section to target 1. The 12-1/4" section will then be logging while drilling and geo-steered to target 2 and cased with a 10-3/4"x 9-5/8" casing cemented in hole. The final section will be an 8-1/2" hole section geo-steered to the oil-bearing final target T3.

Cuttings and WBM will be discharged from the rig, WBM recirculated to the rig and re-used where possible prior to discharge. Cuttings will contain minimal reservoir hydrocarbon (well being drilled overbalanced) which will be treated and analysed prior to discharge. Completion screens will be run and the well cleaned using chemical enzyme breaker, the well suspended to run the subsea production tree and the suspension plug recovered. The well will then be cleaned to inhibited brine before running the upper completion, the production packer set and well shut in for a period before flowing to the rig for a maximum of 24 hours to clean it up. The well will be left shut in for later tie in to the Blake manifold, hydrocarbons produced to Bleo Holm



Floating Production Storage and Offloading vessel (FPSO) approximately 8km to the south. Wellbore clean up fluid and produced fluids during well testing on the rig will contain minimal reservoir hydrocarbon and will be treated and analysed prior to discharge. The application for consent is OGA application reference WONS/14015/0/GS/1 Version 1 (parent wellbore 13/24a-B8z) well 13/24aB8y. The rig will depart, and anchors and gravity-based BOP tethers will be recovered.

There is not likely to be any significant impact from the project on population or human health. It is not considered to be likely that the project will be affected by natural disasters. No pollution or nuisances are foreseen from the project. Drill cuttings from the hydrocarbon bearing zone of B8y hole will contain minimal hydrocarbons. Cuttings will be treated and analysed prior to discharge and drill fluids recirculated to the rig and re-used.

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.

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:

Well 13/24a-B8y is located in UK Continental Shelf (UKCS) Block 13/24a, approximately 65 m from the Blake manifold (Blake Field), approximately 64 km east of the Scottish coastline and 170 km west of the UK/ Norwegian median line. Water depth at the drilling location is 101 metres. Tidal currents in the vicinity of Block 13/24 are typical of the offshore central North Sea, with relatively weak surface current speeds for mean spring tides of ca. 0.39 m/s. The annual mean significant wave height around the Blake field ranges from 2.03 to 2.11 m, with a mean spring tidal range of 2.07 to 2.25 m. The prevailing wind direction at Blake field is south-west and south (in the central North Sea south-west and north-north-east) with speeds more than 8m/s in winter and more variable in spring and summer.

The closest Special Area of Conservation (SAC) is the Moray Firth SAC 124 km west of the well designated for bottlenose dolphins. The closest Marine Nature Conservation Marine Protected Area is the Southern Trench 42 km south west of the well protected for burrowed mud, minke whale, shelf deeps, fronts, and morphological features.

Surveys of the area indicated a homogenous seabed where sediments generally consisted of medium to fine sands with shell fragments, with coarse sediment (sandy gravel with cobbles) in some areas. The area was predicted to be classified as deep circalittoral sand. Results from Blake surveys confirmed the biotopes of offshore circalittoral sand and offshore circalittoral mixed sediment, dominated by sand but with some fines (silt and clay). No Priority Marine Feature (PMF) habitats were



present.

Environmental baseline surveys of the area found that the benthic community of the area was polychaete-dominated which is typical of this region of the North Sea. Faunal analysis found the *Annelida* (polychaeta) group dominate by number of individuals, with molluscs and crustaceans the second and third largest contributors respectively. Epifauna was found to be scarce, which mostly consisted of mobile echinoderms (*Asteroidea* and *Ophiuroidea*). Benthic infauna observed mainly consisted of polychaete tubes, notably of serpulid polychaetes and of *Lanice conchilega* . There was no evidence of any Annex I habitats, or UK Biodiversity Action Plan (BAP) priority marine species and habitats. Although the sea pen *P. phosphorea* was abundant in some areas, only a few burrows were noted and mobile epifauna were sparse. It was therefore considered that there was little evidence of the potential 'sea pen and burrowing megafauna communities', which is a threatened and / or declining habitat under OSPAR (2008) though 'burrowed mud' is found in the wider area (NMPi) and a qualifying feature of the Southern Trench 42km south west of the well.

The proposed operations will coincide with the spawning periods of whiting, sprat (peak spawning June), lemon sole, Nephrops (peak spawning June) and herring. Herring spawning occurs in the wider ICES rectangle after August but is less likely at the well site itself given the sand/ shell substrate found on surveys. Nephrops prefer fine mud and muddy sands and the higher sand content at Blake well may result in less Nephrop spawning. The area has sixteen nursery species including cod, Norway pout, sprat, Lemon sole, Nephrops, sandeel, blue whiting, mackerel, herring, ling, European hake, spotted ray and spurdog with high intensity nursery areas for haddock, whiting and anglerfish. There is a low-medium probability of blue whiting, hake, sole, sprat and whiting aggregations and a high probability of anglerfish, Norway pout aggregations, whiting and haddock. Anglerfish, blue whiting, cod, herring, ling, mackerel, Norway pout, sandeel, spurdog and whiting are listed as PMF and cod and spurdog are OSPAR listed as threatened and or declining.

The period of operations will coincide with periods of low seabird sensitivity for Block 13/24, with most months coinciding with periods of low vulnerability except for December and January where vulnerability is high. Species sighted in Blake area include northern fulmar, Manx shearwater, European storm-petrel, northern gannet, Arctic and great skua, black legged kittiwake, great black backed/ common/ lesser black backed, and herring gull, Arctic tern, common guillemot, razorbill, little auk and Atlantic puffin and it is noted there have been long term declines in some species.

During the proposed period of operations low to very high numbers of cetaceans have been sighted in the area of the project, especially white-beaked dolphin, and harbour porpoise, sighted specifically in Block 13. However, based on available data Block 13/24a is not considered to be significant for feeding, breeding, juvenile or migrating marine mammals. There are no Offshore Marine Protected Area's in the vicinity of the project, the nearest one, designated for Minke whale is 42 km from the well. Grey and harbour seals may infrequently visit the Blake area but are more likely within 60km of shore. Seals and harbour porpoise are Annex II listed species



(species of national importance) along with bottlenose dolphin, the qualifying species of the Moray Firth SAC. Seals and many cetacean's species are also PMF.

The project is in the National Marine Plan Area for Scotland. Data indicates that fishing effort in ICES rectangle 45F8 was concentrated in November in 2020 with effort falling between 2016 and 2020. Landings were highest in March in 2020 with the total catch quantity and value declining over the same period, being predominantly demersal. The maximum tonnage was recorded in 2016 and 2019.

Shipping, mostly comprising fishing and oil and gas support vessels is moderate. A vessel traffic survey was undertaken which concluded that 33 routes with an estimated 2,024 vessels per annum were identified within 10nm radius of the project location, which equates to 5-6 vessels per day, where offshore support vessels dominate. A collision risk assessment has been undertaken which concluded a below historical average vessel collision frequency. There is no military activity in the vicinity of the well, no marine aggregates and the closest offshore wind areas are The BayWa, Falck and Scottish Power Renewables at 10.5, 16 and 30km from the project location. The Crown Estates has awarded lease areas for carbon capture utilisation and storage with two areas (NE6 and NE8) around 10km from the development. The closest oil and gas installation is the FPSO 8.3 km to the south of the manifold with the nearest after that, 26km north west. There are no wrecks or submarine cables. The project is within an existing 500m safety zone and further risk management measures will be put in place.

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.

The discharge of chemicals used to drill the B8y well, including drill fluids (water-based mud - WBM), cementing (spacer, cement, and additives), completion and well clean-up operations (WBM, chemical clean up pill and chemically treated brine) have been assessed and are not considered to have a likely significant environmental impact. Clean-up/ completion fluids will be produced at the rig when the well is flowed for testing which will contain reservoir hydrocarbon. Fluids will be collected and separated, filtered, and analysed prior to discharge and re-filtered to achieve less than 30mg/l reservoir hydrocarbon content. There will be no significant effect on the environment.

A total of 426.4 tonnes of cuttings will be discharged while drilling the 12-1/4" and 8-1/2" sections. Cuttings will form a pile around the wellbore. Larger particles will



settle quickly within proximity to the well. A minor proportion of cuttings will remain suspended but will dilute rapidly. This discharge was assessed and is not considered to have a likely significant effect on the environment. The hydrocarbon content of the cuttings will be low as the well is being drilled overbalanced. Any contaminated cuttings will be treated and analysed prior to discharge with no significant effect on the marine environment.

Discharge of WBM and cuttings is anticipated to smother the seabed and associated benthic fauna within a few hundred metres of the well. Recovery over a short period of time is expected due to dispersion, dilution of the cuttings and through bioturbation and therefore the impacts of the drill cuttings are not considered to have a significant effect on the environment. Cement discharges in liquid form arise from cleaning mixing tanks and pits, smothering impacts are minimal. The proposed operations coincide with benthic spawning for Nephrops and herring. Surveys indicate a lack of burrows indicative of Nephrops and the high sand content may preclude this species. Herring spawning is unlikely near the well but is noted in the wider area after August however the impact would be insignificant. Neither sandeel or cod spawn during the project period. There is likely to be minimal impact on those species that spawn in the water column. It can be concluded that the project will not have a significant effect on fish populations.

Operations covered by this permit will coincide with periods of low to high seabird sensitivity for Block 13/24. There are no marine protected areas in the vicinity of the project. Mitigation is in place to ensure that the risk of any release or discharge that could be harmful to seabirds is minimised. The project is not considered to have a significant impact on seabirds.

Fin whale, humpback whale, common dolphin, harbour porpoise, killer whale, minke whale, white-beaked dolphin, white-sided dolphin, bottlenose dolphin and pilot whale have been sighted during the proposed period of operations within the project area. Given the natural avoidance behaviour of cetaceans, it is not expected that these species would be significantly impacted by the project.

The COSL Pioneer semi-submersible drill rig departed Blake field on 17th March 2022 so drilling will be undertaken by the Stena Don using seven of the eight previously laid anchors, one additional line will be pre-laid with four gravity-based BOP tethering structures. The maximum disturbance area of the eight anchors is calculated as 230m² with the depth of penetration being 1m. The mooring chains have a worse case disturbance area of 48,280m². The area of impact of the BOP tethering structures is 103m³. An over trawlable structure will be placed on the xmas tree attached to the wellhead impacting 27m² of seabed. The anchoring of Stena Don slightly increases the area of seabed impacted by the COSL Pioneer and marginally increases the previously assessed area of disturbance to the seabed and marine communities, including direct loss of habitat and sessile seabed organisms but there are no habitats of conservation importance. The anchors will remain submerged in the sediment during operations with disturbance being greatest during the laying and retrieval of the anchors and less so for the gravity based tethering structures which are smaller structures. Seabed disturbance impacts are temporary



and not considered to be significant.

There is a 500 m radius safety zone around the location of the project, excluding unauthorised access by vessels and prohibiting access to fishing vessels. The anchors and chains will extend outside this zone, a guard vessel will be deployed. The probability of collision risk is exceptionally low and a range of measures including communications with other sea users will be in place. Effects on shipping navigation are considered not to be significant.

There are no expected transboundary effects from the drilling operations at the project location. The nearest boundary (UK/Norway Median Line) is located approximately 170 km away. It is not considered likely that any planned operational discharge (chemicals, hydrocarbon) will be detectable at this distance from the drilling site.

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 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.

The largest component related to atmospheric emissions is expected to be from the power supplied by the drilling rig, its support vessels and well clean-up to flow and flare lasting a maximum of 24 hours. Rig emissions were previously assessed under DRA/ 900 based on a fixed rig time however the rig departed early and no well test was undertaken. Several control and mitigation measures will be in place to minimise impacts including use of downhole gauges to optimise the rig flow period and optimised vessel planning. The emissions generated will be a minimal proportion of emission arising from oil and gas production and shipping. It can therefore be concluded that impacts arising from emissions are not considered to be significant.

The drilling operations do not contradict any of the Scottish Marine Plan objectives and policies. It is considered that the drilling of the well is not likely to have a significant impact with 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:

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There are no significant adverse effects on the environment.