TotalEnergies E&P North Sea UK Limited

Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes

August 2025

Final Version

Approvals

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OPRED	Offshore Petroleum Regulator for Environment and Decommissioning (OPRED)	Electronic
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Rockrose	Rockrose (UKCS3) Limited	Electronic

CONTENTS

Terms and Abbreviations

Abbreviation	Explanation
AHV	Anchor Handling Vessel
AIS	Automatic Identification Systems
CA	Comparative Assessment
CO_2e	Carbon Dioxide Equivalent
COP	Cessation of Production
CFR	Carbon Footprint Reduction
DP	Decommissioning Programme
EA	Environmental Appraisal
EHC	Electrohydraulic Controls
ENVID	Environmental aspects Identification
EoFL	End of Field Life
EPS	European Protected Species
ERRV	Emergency Response and Rescue Vessel
FPSO	Floating Production Storage and Offloading unit
FSU	Floating Storage Unit
HES	Historic Environment Scotland
HSE	Health and Safety Executive
ICES	International Council for the Exploration of the Seas
IHM	Inventory of Hazardous Materials
IMO	International Maritime Organisation
INTOG	Innovation and Targeted Oil and Gas Scheme
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
km	Kilometre
L x W x H	Length x Width x Height
LAT	Lowest Astronomical Tide
LSA	Low Specific Activity scale
m	Metres
MATs	Master Application Template
MCAA	Marine and Coastal Access Act
MDAC	Methane-Derived Authigenic Carbonate
MWA	Mid Water Arch
NLB	Northern Lighthouse Board
NMPi	National Marine Plan interactive
NNS	Northern North Sea
NORM	Naturally Occurring Radioactive Materials
NSTA	North Sea Transition Authority

Abbreviation	Explanation
OCR	Offshore Chemicals Regulations
OEUK	Offshore Energies UK
OPPC	Offshore Combustion Installations (Pollution Prevention and Control) Regulations
OPRED	Offshore Petroleum Regulator for Environment & Decommissioning
OSPAR	The Convention for the Protection of the Marine Environment of the North-East Atlantic
OWF	Offshore Wind Farm
PDQ	Production Drilling & living Quarters
PMF	Priority Marine Feature
PWA	Pipeline Works Authorisation
SAC	Special Area of Conservation
SAGE	Scottish Area Gas Evacuation
SAT	Supplementary Application Template
SCAP	Supply Chain Action Plan
SEPA	Scottish Environmental Protection Agency
SMRU	Sea Mammal Research Unit
SPM	Single Point Mooring
Te	Tonne
TEPNSUK	TotalEnergies E&P North Sea UK Limited
TFSW	Trans Frontier Shipment of Waste
THC	Total Hydrocarbon Concentration
UK	United Kingdom
UKBAP	UK Biodiversity Action Plan
UKCS	United Kingdom Continental Shelf
UKHO	UK Hydrographic Office
WGS84	World Geodetic System 1984

Figures and Tables

1 EXECUTIVE SUMMARY

1.1 Combined Decommissioning Programmes

This document contains three combined decommissioning programmes (DPs) for each set of Section 29 notices covering the removal of the Gryphon Alpha Floating Production Storage and Offloading (FPSO) vessel including mooring system and for the disconnection and recovery of the associated flexible risers and dynamic umbilicals. The items included in the combined Gryphon DPs are:

1. *Gryphon Section 29 Notice – Offshore Installations*
    - *The Gryphon "A" Floating Production Storage and Offloading Vessel (FPSO)*
2. *Gryphon Section 29 Notices – Submarine Pipelines*
    - *PL2944 (Flexible Riser Only)*
    - *PL2948 (Flexible Riser Only)*
    - *PL2951 (Flexible Riser Only)*
    - *PL2952 (Flexible Riser Only*
    - *PL2953 (Flexible Riser Only)*
    - *PL2954 (Flexible Riser Only)*
    - *PL2955 (Flexible Riser Only)*
    - *PL2956 (Flexible Risers Only)*
    - *PL2957 (Flexible Riser Only)*
    - *PL2961 (Flexible Riser Only)*
    - *PL1900 (Flexible Riser Only)*
    - *PL1901 (Flexible Riser Only)*
    - *PLU2996 (Dynamic Umbilical Only)*
    - *PLU1899 (Dynamic Umbilical Only)*
3. *Gryphon Section 29 Notices – Submarine Pipelines*
    - *PL1896 (Flexible Riser Only)*

These DPs include the full removal of the FPSO, flexible risers, dynamic umbilicals and associated mid-water arches (MWAs) (buoyant elements only), mooring lines, and anchors (please refer to Figure 1-2). The remaining field infrastructure, which is listed on the Section 29 Notices, will be subject to separate decommissioning programmes and will be submitted separately to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED). It is intended that the removal of the items identified within these DPs shall be performed in such a way as to not prejudice any further decommissioning work in the field.

1.2 Requirement for Decommissioning Programmes

Installations:

In accordance with the Petroleum Act 1998, the Section 29 notice holders of the Gryphon installations (see Table 1.2) are applying to OPRED to obtain approval for decommissioning the installations detailed in Section 2.1 and 2.2 of these DPs. (See also Section 7 – Section 29 Notice Holders' Letters of Support).

Pipelines:

In accordance with the Petroleum Act 1998, the Section 29 notice holders of the Gryphon pipelines (see Table 1.4) are applying to OPRED to obtain approval for decommissioning the pipelines detailed in Section 2.3 of these DPs. (See also Section 7 – Section 29 Notice Holders' Letters of Support).

In conjunction with public, stakeholder and regulatory consultation, these DPs are submitted in compliance with national and international regulations and OPRED guidelines. The schedule outlined in this document is for a 2-year decommissioning project plan beginning in 2025. See Section 6.3 for more detail.

1.3 Introduction

These DPs have been prepared to support the decommissioning of the Gryphon Alpha FPSO and associated risers and mooring system.

The Gryphon Alpha FPSO vessel (FPSO) is the host installation for the Gryphon, Tullich, Ballindalloch and Maclure fields and is operated by TotalEnergies E&P North Sea UK Limited (TEPNSUK). The FPSO is located in the United Kingdom Continental Shelf (UKCS) Block 9/18b in the Northern North Sea (NNS) approximately 169 km southeast of Shetland and approximately 11 km from the United Kingdom (UK) / Norwegian transboundary line. Figure 1-1 provides a map of the field location in the UKCS. The water depth in the area is approximately 112 m below Lowest Astronomical Tide (LAT). The overall area layout is provided schematically in Figure 1-2:

- The Maclure field is in Block 9/19 of the UKCS, 2.3km to the east of the FPSO.
- The Tullich field is in Block 9/23a of the UKCS, 5.5km to the southwest of the FPSO.
- The North Gryphon field is in Block 9/18b of the UKCS, 1.6km to the northwest of the FPSO.
- The South Gryphon field is in Block 9/18b of the UKCS, 1.5km to the southwest of the FPSO.
- The Ballindalloch field is in Blocks 9/18b, 9/19a, 9/23d and 9/24e, 3.5km to the southeast of the FPSO

The FPSO is an Isle of Man flagged, DNV Class +1A ship shaped oil production unit with Tentech 850C hull design and drag chain type turret and thruster turning system to rotate the vessel about the turret to maintain optimum heading with respect to the prevailing weather conditions.

At the FPSO location, the flowlines and umbilicals from the Gryphon, Tullich, Ballindalloch and Maclure fields are connected to riser bases on the seabed, which serve as anchor points for the risers. The flexible risers and umbilicals are routed from the riser bases to the turret over three mid water arches or supported in a steep wave riser configuration.

The mooring system comprises 10 lines of studless chain (including 100m triple chain section connected using a tri-plate arrangement) connected to a rotating turret through which the risers and umbilicals run. Each mooring line is equipped with a 35 tonne Stevpris anchor.

The Gryphon Owners have evaluated the remaining production life of the asset, considering safety, integrity management, environmental performance, costs and economics, and are currently planning for a FPSO sail-away in Q3/Q4 2025. This planning has been shared with the FPSO user fields. The planning has also been shared with the North Sea Transition Authority (NSTA).

The FPSO is not required to perform any further decommissioning related activities on the subsea infrastructure after completion of the decommissioning activities detailed in Section 1.1, and it is proposed that the FPSO is removed thereafter from its current location.

The removal of the FPSO is part of the wider Gryphon field decommissioning which will be carried out in three distinct project phases:

- Phase 1 - Removal of the FPSO from the field
- Phase 2 - Well plug and abandonment.
- Phase 3 - Decommissioning of subsea installations and pipelines

These DPs address Phase 1 only, that are scheduled for 2025 to 2027. Phase 2 and Phase 3 projects will be addressed under separate decommissioning programme(s). The first draft of the decommissioning programme(s) for

Phases 2 and 3 is expected to be ready for OPRED review in Q4 2025. The earliest project execution start to the Phase 2 well P&A multi-year campaign is 2026-2027.

The boundary of these DPs for Phase 1 includes the full removal of the FPSO, flexible risers, dynamic umbilicals and associated MWA's (buoyant elements only), mooring lines and anchors. In preparation to disconnect and remove these elements the FPSO and all the Gryphon, Tullich, Ballindalloch and Maclure fields' infrastructure connected to the FPSO will be made safe. All wells have been shut in prior to the making safe activities of draining, flushing, purging, and venting the FPSO; and flushing all subsea flowlines, risers, spools, jumpers, and structures.

In total there are 26 production wells; 1 gas injection well; and 5 water injection wells across all the connected fields. A risk assessment has been carried out of the integrity status of each well for leaving in a shut-in state after FPSO sail-away. The frequency of subsea inspections to monitor the wells status will be defined based on the outcome of visual inspections in 2025. Once this has been determined this will be discussed and agreed with OPRED.

Subsea pipework has been flushed of hydrocarbons. No wax is anticipated to be present in the pipelines as the seabed temperature is above the wax appearance temperature reported from crude analysis. Combined with the isolation of the wells, flushing will mitigate the risk of hydrocarbon release from the subsea pipework following the removal of the FPSO. The gas export pipeline has also been made safe and isolated.

After the facilities have been made safe the FPSO will be disconnected from its mooring system and risers and then towed to shore for re-deployment or sale, or recycling and disposal in compliance with the applicable laws and regulations. Mooring lines and anchors will be recovered for re-use or recycling; risers and distributed buoyancy will be recovered and transported to shore for re-use, recycling and disposal; and MWA buoyancy elements will be disconnected beneath their bridle delta plates and towed to shore utilising a suitable Anchor Handling Vessel (AHV).

Once the FPSO has been removed, the riser bases (previously falling under the protection of the FPSO 500m zone) and other pipelines related infrastructure (out with FPSO 500m zone) will be monitored by a guard vessel or ERRV vessel to mitigate hazards for other users of the sea

Following public, stakeholder and regulatory consultation, these DPs are submitted without derogation and in full compliance with OPRED guidelines.

Environmental impacts associated with the work in these DPs have been assessed and detailed in Section 4 of this document.

1.4 Overview of Installations/Pipelines Being Decommissioned

1.4.1 Installations

Table 1-1: Installations Being Decommissioned			
Fields	Gryphon	**Production Type**	Oil & Gas
Water Depth (m)	112	**UKCS block**	9/18b
Distance to median (UKCS/NCS) (km)	11	**Distance from nearest UK coastline (SE Shetland) (km)**	169

Surface Installation		
Number	**Type**	**FPSO/Vessel Weight (Te)**
1	FPSO	38,165 (Lightweight, Gross Dry Weight)

Subsea Installations		
Number	**Type**	**weight (Te)**
10 (5 groups of 2 lines)	Mooring Lines (connected to FPSO rotating turret)	329.4 Te per mooring line
10	Anchors	35 Te per Anchor
3	Mid-Water Arch (MWA)	**Buoyancy element** MWA-A & MWA-B 94.7 Te MWA-G 96.2 Te Tether Assembly MWA-A, MWA-B & MWA-G 6.7 Te

Table 1-2: Installations Section 29 Notice Holders Details		
Section 29 Notice Holders	**Registration Number**	**Equity Interest (%)**
TotalEnergies E&P North Sea UK Limited	03682299	86.5%
Sojitz Energy Development Limited	10596616	13.5%
Rockrose (UKCS3) Limited	04620801	0% (Exited)

1.4.2 Pipelines

Table 1-3: Pipelines Being Decommissioned	
Number and total length (km) of Pipelines Full details given in Table 2.3	17 pipelines with 5.412 km total length

Table 1-4: Pipelines Section 29 Notice Holders Details		
NORTH GRYPHON (NGRY)		
Pipelines: (GRY): PL1900, PL1901, PL2944, PL2948, PLU1899, PL2952, PL2953, PL2954, PL2955, PL2956A, PL2956B, PL2956C, PL2957, PLU2996 and (NGR) PL2961		
Section 29 Notice Holders	**Registration Number**	**Equity Interest (%)**
TotalEnergies E&P North Sea UK Limited	03682299	86.5%
Sojitz Energy Development Limited	10596616	13.5%
Rockrose (UKCS3) Limited	04620801	0% (Exited)
SOUTH GRYPHON (SGRY)		
Pipelines: PL2951		
Section 29 Notice Holders	**Registration Number**	**Equity Interest (%)**
TotalEnergies E&P North Sea UK Limited	03682299	89.88%
Sojitz Energy Development Limited	10596616	10.12%
Rockrose (UKCS3) Limited	04620801	0% (Exited)
GRYPHON (PL1896 riser)		
Section 29 Notice Holders	**Registration Number**	**Equity Interest (%)**
Pipelines: PL1896		
TotalEnergies E&P North Sea UK Limited	03682299	86.5%
Sojitz Energy Development Limited	10596616	13.5%

1.5 Summary of Proposed Decommissioning Programmes

Table 1-5: Summary of Decommissioning Programmes	
Proposed Decommissioning Solution	**Reason for Selection**
1. Surface Installation (FPSO)	
Full Removal– The FPSO will be disconnected from its mooring system and risers. Topsides equipment will be drained, flushed, purged and vented offshore prior to preparation for removal. Following disconnection, the FPSO will be towed to be redeployed or recycled / disposed of in compliance with the applicable laws and regulations. The FPSO is anticipated to be towed from field utilising suitable bollard pull AHV tow vessels, with one vessel connected by towline to the FPSO, and a trailing AHV tow vessel as back up and to support in the event of an emergency. OPRED will be informed once a redeployment opportunity or disposal yard has been confirmed. Any applications and permits required for work associated with removal of the FPSO will be submitted.	No further re-use opportunity has been identified for the FPSO to date. Redeployment or sale opportunities will continue to be explored in parallel with preparing for onshore recycling or disposal.

2. Mooring System	
Full Removal – Mooring lines and Stevpris anchors will be disconnected from the FPSO drag chain type turret using an Anchor Handler Vessel (AHV) and recovered for re-use or recycling, in compliance with regulatory requirements - The upper studless chain sections of FPSO mooring lines up to and including the upper H-links will be recovered to the FPSO prior to FPSO sail away, the lower studless chain sections connecting to the Stevpris anchors will be temporarily laid on the seabed for recovery by AHV immediately post sail away. Any applications and permits required for work associated with disconnection and removal of the mooring lines will be submitted. There is no drill cuttings impact from recovery of mooring lines/anchors	Removes a potential obstruction to fishing operations and maximises re-use and recycling of materials. Sale opportunities for parts of the mooring system will continue to be explored in parallel with preparing for onshore recycling or disposal.
3. Mid-Water Arches	
Full Removal – Following FPSO sail away and riser/umbilical recovery the MWA buoyancy elements will be disconnected beneath their bridle delta plates and towed to shore utilising a suitable AHV. Where necessary (e.g., adverse weather), the MWA buoyancy elements may be punctured, sunk and temporarily wet stored adjacent to their respective gravity bases aiding their subsequent recovery later during the 2025 execution window. In the instance that recovery is not feasible immediately following FPSO sail away a guard vessel or ERRV vessel will remain on location after FPSO sail away to mitigate hazards for other users of the sea until these can be removed. There is no drill cuttings impact from the recovery of riser/umbilical recovery or the MWA buoyancy elements.	To remove all seabed structures and leave a clear seabed
4. Risers & Umbilicals	
Full Removal – Prior to FPSO sail away the flexible risers will be made safe by flushing the pipelines, manifolds, and risers to the FPSO topsides. The risers and dynamic umbilicals will then be disconnected from the FPSO with their upper ends temporarily laid on the seabed under the turret centre, with the hog bends staying supported over the three mid water arches A, B & G and by the distributed buoyancy for the Gryphon umbilical, Water Injection and 4" Gas lift risers. The risers will remain connected at the subsea ends. Following FPSO sail away, during the 2025 execution window, the risers and distributed buoyancy will be recovered and transported to shore for re-use, recycling or disposal. If recovery is not feasible immediately following FPSO sail away a guard vessel or ERRV vessel will remain on location after FPSO sail away to mitigate hazards for other users of the sea until these can be removed.	Leaves clear seabed and water column and to satisfy the regulatory requirement.

5. Wells

The 26 production wells; 1 gas injection well; and 5 water injection wells were shut in at CoP. There are a further 3 wells currently AB1 abandoned awaiting AB3 abandonment, and 14 wells shut in awaiting abandonment. The wells will not be decommissioned at this time and will be subject to a separate decommissioning programme(s). Currently, the earliest estimated start for a field wide P&A campaign is 2026, subject to ongoing studies, market tenders, and rig/vessel availability.

The TEPNSUK well integrity management procedure and Gryphon Area well integrity strategy defines the process, procedures and responsibilities for managing the well integrity of the Gryphon wells. The management of well integrity throughout the entire well life cycle is an integral part of the Asset Integrity Strategy, and an Operational Integrity Assurance and Verification Scheme (OIAVS) is in place for Gryphon to demonstrate compliance with the regulations and define the performance standards for all Safety and Environmental-Critical Elements (SECEs).

A risk assessment has been carried out of the integrity status of each well for leaving in a shut-in state after FPSO sail-away. The barrier status on the majority of the wells complies with company rules and standards. The wells with integrity concerns have been fully risk assessed, and a programme developed to manage this including the completion of a well intervention campaign in 2025 to set deep-set plugs in 3 wells to fully isolate. A copy of the well examiners report is available on request.

The frequency of subsea inspections to monitor the wells status will be defined based on the outcome of general visual inspection (GVI) carried out in 2025. Once this has been determined this will be discussed and agreed with OPRED. GVI strategy is based on company rules and guidelines for monitoring all subsea wells, disconnected or otherwise.

6. Interdependencies

There is a direct impact for the subsea user fields of Tullich, Maclure and Ballindalloch, for which the decommissioning of Gryphon FPSO removes their current production route. Equity holders have been engaged to ensure the impact has been acknowledged for the activities described by these DPs.

Gryphon area gas is exported to Beryl A and commingled, without processing, and is subsequently exported to St Fergus via the SAGE system. Activities within these DPs will, where necessary, be discussed with the operators of these systems.

1.6 Field Location Including Field Layout and Adjacent Facilities

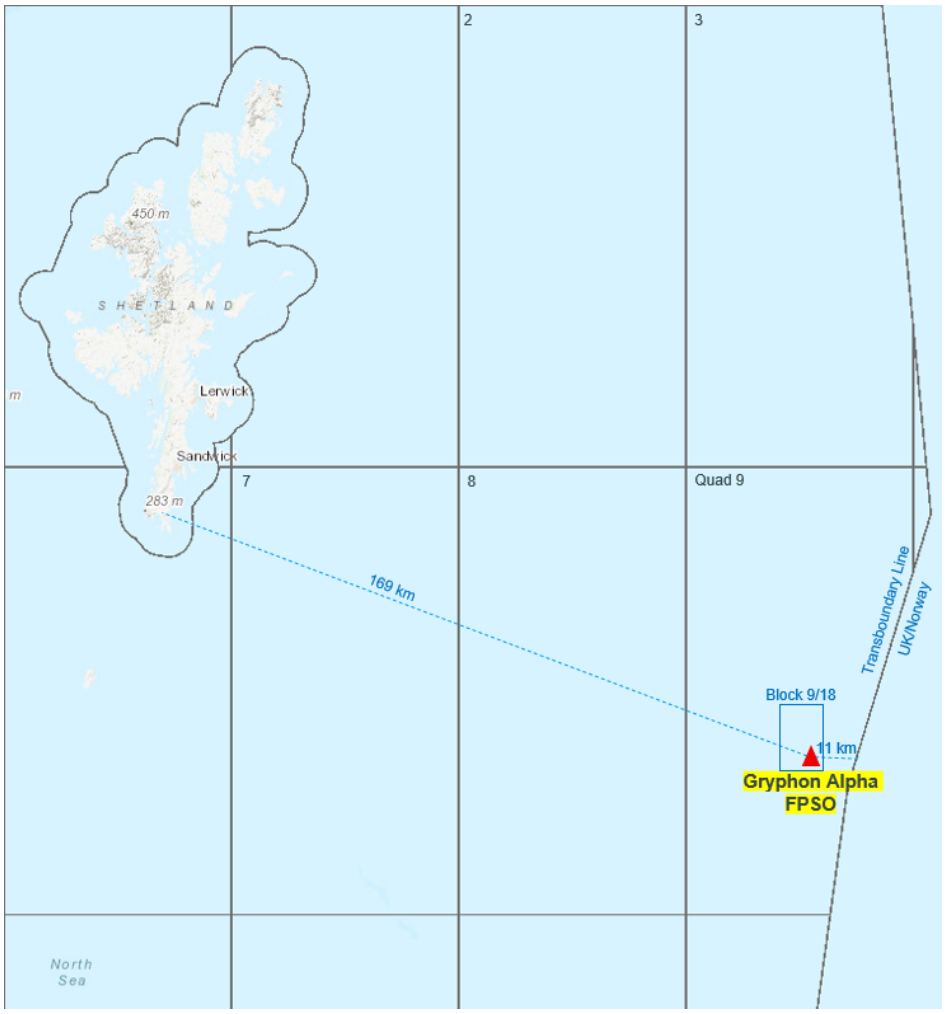

Figure 1-1: Field Location in UKCS[1]

[1] *For location of adjacent facilities please refer to Figure 1-3 and Table 1-6.*

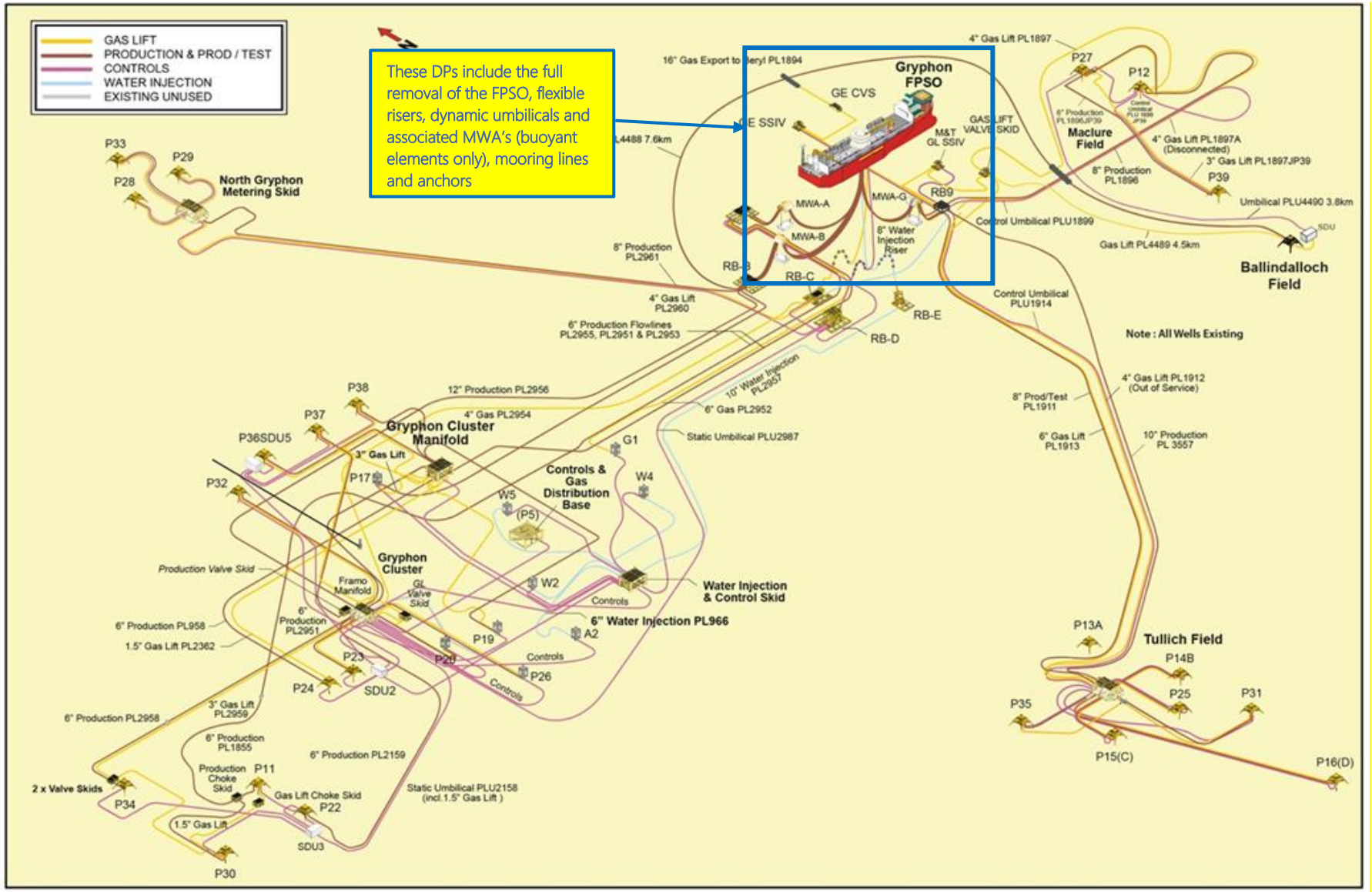

Figure 1-2: Field Layout

Table 1-6: Adjacent Facilities					
Operator	**Name**	**Type**	**Distance/Direction**	**Information**	**Status**
TotalEnergies E&P North Sea UK Ltd	Maclure	Subsea field	2.2 km / ENE	Operating Asset	*Shut in*
TotalEnergies E&P North Sea UK Ltd	Ballindalloch	Subsea field	3.8 km / SE	Operating Asset	*Shut in*
TotalEnergies E&P North Sea UK Ltd	Tullich	Subsea field	5.0 km / S	Operating Asset	*Cessation of Production 2024*
TAQA EUROPA B.V.	Harding	Platform	8.3 km / SSW	Third Party Asset	*Operational*
TAQA EUROPA B.V.	Harding Submerged Turret Loading Buoy	Buoy	8.3 km / SSE	Third Party Asset	*Operational*
APACHE CORPORATION	Beryl SPM-3	Single Point Mooring	20.4 km / NNW	Third Party Asset	*Operational*
APACHE CORPORATION	Beryl A	Platform	21.6 km / NNW	Third Party Asset	*Operational*
APACHE CORPORATION	Beryl SPM-	Single Point Mooring	22.7 km / NNW	Third Party Asset	*Non-Operational*
APACHE CORPORATION	Beryl B	Platform	29.0 km / NNW	Third Party Asset	*Operational*
EQUINOR ASA	Mariner Seawater (UKCS)	Buoy	32.7 km / NNW	Third Party Asset	*Non-Operational*
Aker BP	Alvheim	FPSO	34.9 km / NNE	Third Party Asset	*Operational*
EQUINOR ASA	Mariner PDQ	Platform	38.6 km / WNW	Third Party Asset	*Operational*
EQUINOR ASA	Mariner B	FSU	39.4 km / WNW	Third Party Asset	*Operational*
ANCALA	SAGE Pipeline	Pipeline	13.0 km / W	Third Party Asset	*Operational*
Impacts of Decommissioning Proposals					
There is a direct impact for the subsea user fields of Maclure, Ballindalloch, and Tullich, for which the decommissioning of Gryphon FPSO removes their current production route. There are no other direct impacts on adjacent facilities from the work associated with the Gryphon FPSO sail away. Any decommissioning activities associated with the export line to Beryl will be dealt with within a separate subsea decommissioning programme.					

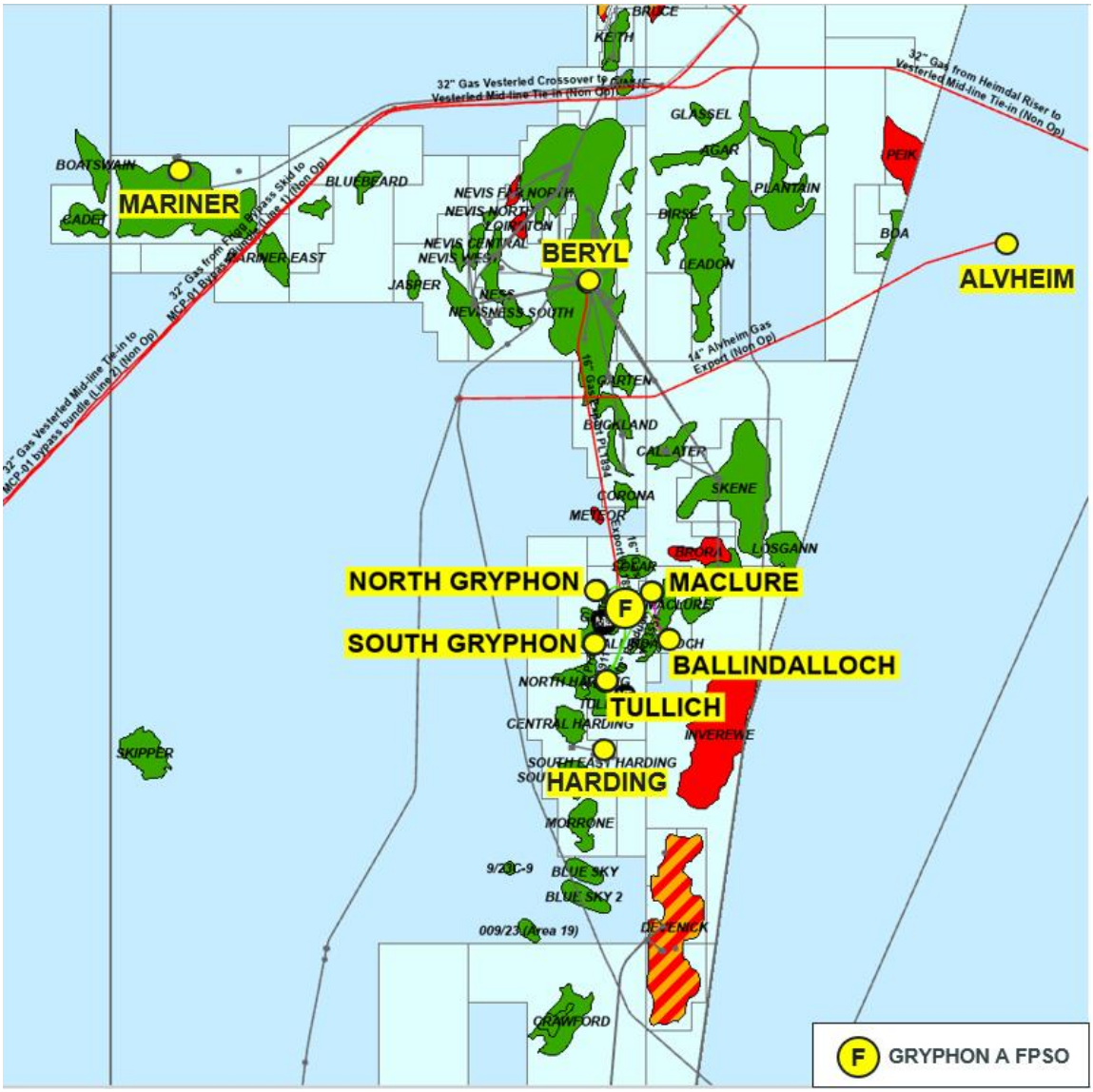

Figure 1-3: Adjacent Facilities

1.7 Industrial Implications

The FPSO decommissioning activities will be managed by TEPNSUK. All decommissioning activities will be planned to realise synergies and efficiencies in offshore execution. A Supply Chain Action Plan (SCAP) has been produced for these DPs in accordance with NSTA guidance. The SCAP has been submitted to the NSTA.

A competitive tendering exercise has been completed following an extensive market investigation. Suppliers' offers have been assessed using several criteria, including the capability and capacity to execute the work safely; and the commercial offer and experience of carrying out this type of operation in the UKCS.

TotalEnergies has committed to Net Zero across all its production and energy products used by its customers in Europe by 2050 or sooner (Scope 1, 2 & 3). TEPNSUK has an Energy Transition roadmap.

Supported by accreditation to ISO50001, this roadmap provides a logical and systematic process to embed emission reduction activities and energy transition strategies throughout TEPNSUK to meet the company's Net Zero ambition.

TEPNSUK also has an environmental management system accredited to ISO14001. By integrating these two systems, the requirements are efficiently embedded into day-to-day operations and performance monitored.

2 DESCRIPTION OF ITEMS TO BE DECOMMISSIONED

2.1 Installations: Surface Facilities - FPSO

Table 2-1: Surface Facilities Information					
Name	**Facility Type**	**Location**	**Topsides/Facilities**	**Mooring System**	
			Weight (Te)	**Weight (Te)**	**Number of mooring lines**
Gryphon	FPSO Tentech 850C hull design and drag chain type turret and thruster turning system	Latitude 59°21'04.1N Longitude 01°33'09.9E	38,165 (Lightweight, Gross Dry Weight)	Total weight is 3,644Te • 329.4 Te per mooring line • 35 Te per Anchor	10 (5 groups of 2 lines) 10 anchors

2.2 Installations: Subsea

Table 2-2: Subsea Installations					
Description	**No.**	**Size/Weight (Te)**	**Location**		**Comments/Status**
MWA-A	1	Buoyancy Element 17.8 x 8.9 x 4.4m (L x W x H) 94.7 Te (In Air) Tether assembly (Upper) 6.7 Te total comprising: 2 x D-shackle towards MWA pad eye. 2 x Twin Trunnion Plate with 1 x Anchor shackle for pull down attachment 2 x Bridle Tethers 1 x Delta Plate	WGS84 Decimal	59.36175 N 1.57108 E	Each MWA Buoyancy element is secured to its respective tether base by two individual synthetic tether assemblies weighing ~ 8000 kg each. The upper portion of the assembly from delta plate up shall be recovered along with the buoyancy elements as part of these decommissioning works. The lower tether sections shall be recovered along with the tether bases and associated ballast as part of a separate decommissioning programme to be submitted separately to OPRED.
			WGS84 Decimal Minute	59° 21' 42.30" N 01° 34' 15.88" E	
MWA-B	1	Buoyancy Element 17.8 x 8.9 x 4.4m (L x W x H) 94.7 Te (In Air) Tether assembly (Upper) 6.7 Te total comprising: 2 x D-shackle towards MWA pad eye.	WGS84 Decimal	59.36136 N 1.56956 E	As above
			WGS84 Decimal Minute	59° 21' 40.88" N 01° 34' 10.40" E	

		2 x Twin Trunnion Plate with 1 x Anchor shackle for pull down attachment 2 x Bridle Tethers 1 x Delta Plate			
MWA-G	1	<u>Buoyancy Element</u> 17.9 x 8.9 x 6.5m (L x W x H) 96.2 Te (In Air) <u>Tether assembly (Upper)</u> 6.7 Te total comprising: 2 x D-shackle towards MWA pad eye. 2x Twin Trunnion Plate with 1 x Anchor shackle for pull down attachment 2 x Bridle Tethers 1 x Delta Plate	WGS84 Decimal	59.36104 N 1.57268 E	As above
			WGS84 Decimal Minute	59° 21' 39.75" N 01° 34' 21.63" E	

2.3 Pipelines

Table 2-3: Pipeline/Flowline/Umbilical Information									
Description	Pipeline Number (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts	Product Conveyed	From – To End Points	Burial Status	Pipeline Status	Current Content
Gas Export Riser	PL2944	6	0.319	Flexible	Gas	Gryphon FPSO – Riser Base 9	Initially surface laid then in suspension over MWA to FPSO	Operational	Nitrogen
Gas Lift Riser	PL2948	4	0.314	Flexible	Gas	Gryphon FPSO to Riser Base 9	Initially surface laid then in suspension over MWA to FPSO	Operational	Treated Seawater
Production Riser	PL2951	6	0.325	Flexible	Oil	Gryphon FPSO to Riser Base A	Initially surface laid then in suspension over MWA to FPSO	Operational	Treated Seawater
Gas Cap Riser	PL2952	6	0.325	Flexible	Gas	Gryphon FPSO to Riser Base A	Initially surface laid then in suspension over MWA to FPSO	Operational	Treated Seawater
Production Riser	PL2953	6	0.325	Flexible	Oil	Gryphon FPSO to Riser Base A	Initially surface laid then in suspension over MWA to FPSO	Operational	Treated Seawater
Gas Lift Riser	PL2954	4	0.314	Flexible	Gas	Gryphon FPSO to Riser Base C	Initially surface laid then in suspension with distributed buoyancy to FPSO	Operational	Treated Seawater
Production Riser	PL2955	6	0.325	Flexible	Oil	Gryphon FPSO to Riser Base B	Initially surface laid then in suspension over MWA to FPSO	Operational	Treated Seawater

Production Riser	PL2956.5A	6	0.325	Flexible	Oil	Gryphon FPSO to Riser Base B	Initially surface laid then in suspension over MWA to FPSO	Operational	Treated Seawater
Production Riser	PL2956.5B	6	0.325	Flexible	Oil	Gryphon FPSO to Riser Base B	Initially surface laid then in suspension over MWA to FPSO	Operational	Treated Seawater
Production Riser	PL2956.5C	6	0.325	Flexible	Oil	Gryphon FPSO to Riser Base B	Initially surface laid then in suspension over MWA to FPSO	Operational	Treated Seawater
Water Injection Riser	PL2957	8	0.319	Flexible	Produced / Injection Water	Gryphon FPSO to Riser Base E	Initially surface laid then in suspension with distributed buoyancy to FPSO	Operational	Treated Seawater
Production Riser	PL2961	6	0.325	Flexible	Oil	Gryphon FPSO to Riser Base B	Initially surface laid then in suspension over MWA to FPSO	Operational	Treated Seawater
Production Riser	PL1896	6	0.330	Flexible	Oil	Gryphon FPSO to flange face at the base of the riser	Initially surface laid then in suspension over MWA to FPSO	Operational	Treated Seawater
Production Riser	PL1900	8	0.319	Flexible	OIl	Gryphon FPSO to Riser Base 9	Initially surface laid then in suspension over MWA to FPSO	Operational	Treated Seawater
Production/Test Riser	PL1901	6	0.319	Flexible	Oil	Gryphon FPSO to Riser Base 9	Initially surface laid then in suspension over MWA to FPSO	Operational	Treated Seawater
Electro-Hyd-Chem Umbilical	PLU2996	9	0.259	Dynamic	Chemical Injection & Hydraulic Fluid	Gryphon FPSO to Riser Base D	Initially surface laid then in suspension with distributed buoyancy to FPSO	Operational	Chemical Injection & Hydraulic Fluid

EHC Umbilical	PLU1899	9	0.319	Dynamic	Chemical Injection & Hydraulic Fluid	Gryphon FPSO to Riser Base 9	Initially surface laid then in suspension over MWA to FPSO	Operational	Chemical Injection & Hydraulic Fluid

2.4 Inventory Estimates

The approximate quantity of key materials used in the make-up of the FPSO, mooring system, risers, umbilicals and associated MWA buoyancy elements and upper tethers have been evaluated. Further review of the inventories of materials will be conducted during the detailed engineering phase of decommissioning. Summaries of the material inventories are shown in Table 2-4 and Table 2-5 below. An inventory will be shared with SEPA as part of the Active Waste Management Plan for decommissioning activities.

Table 2-4 Gryphon FPSO Estimated Inventory (Inc. Mooring System & MWAs)

Item	Weight (Te)
Ferrous Metal	36,994
Non-Ferrous Metal	1,102
Plastic	766
Hazardous	1,135
NORM	Not Expected[2]
Other	2,119
Total (Te)	**42,116**

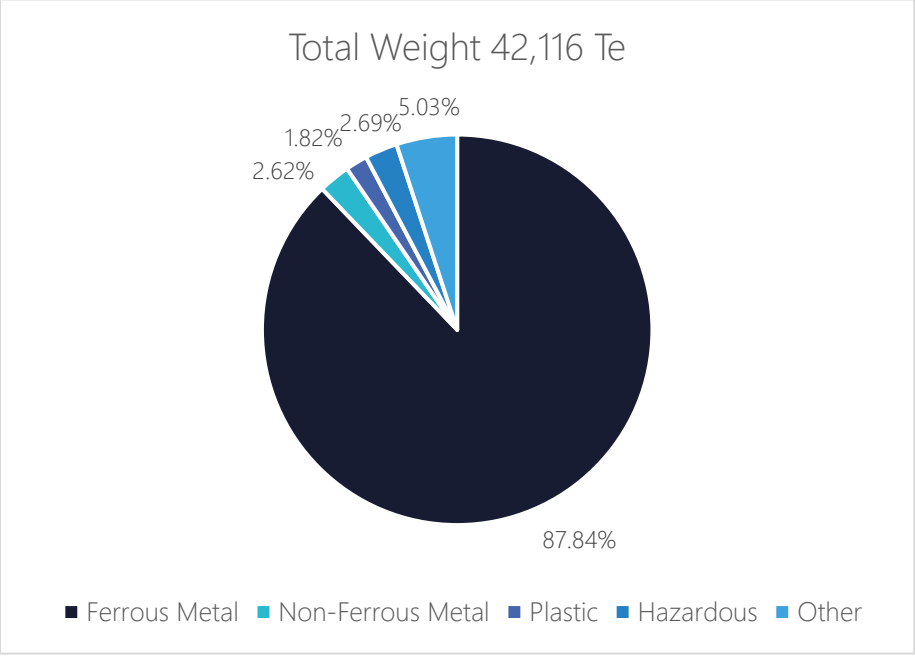

Figure 2-1: Pie Chart of Estimated Inventories (FPSO inc. Mooring System & MWAs)

[2] *All previous measurements of NORM demonstrated to be out-of-scope of the regulations i.e. not regarded as radioactive under the EASR18.*

Table 2-5 Gryphon Risers and Umbilicals Estimated Inventory	
Item	**Weight (Te)**
Ferrous Metal	433
Non-Ferrous Metal	1
Plastic	81
Hazardous	0
NORM	0
Other	0
Total (Te)	**515**

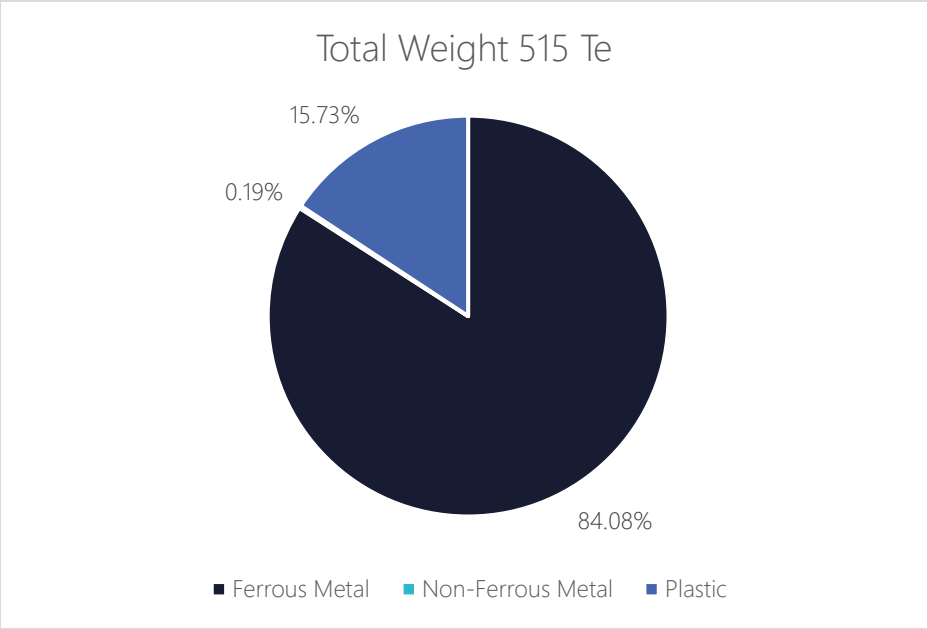

Figure 2-2 Pie Chart of Estimated Inventory (Risers and Umbilicals)

3 REMOVAL AND DISPOSAL METHODS

Decommissioning of the FPSO, flexible risers, dynamic umbilicals and mooring system and MWAs will generate a quantity of waste. TEPNSUK is committed to establishing and maintaining environmentally acceptable methods for managing wastes in line with the Waste Framework Directive and principles of the waste hierarchy.

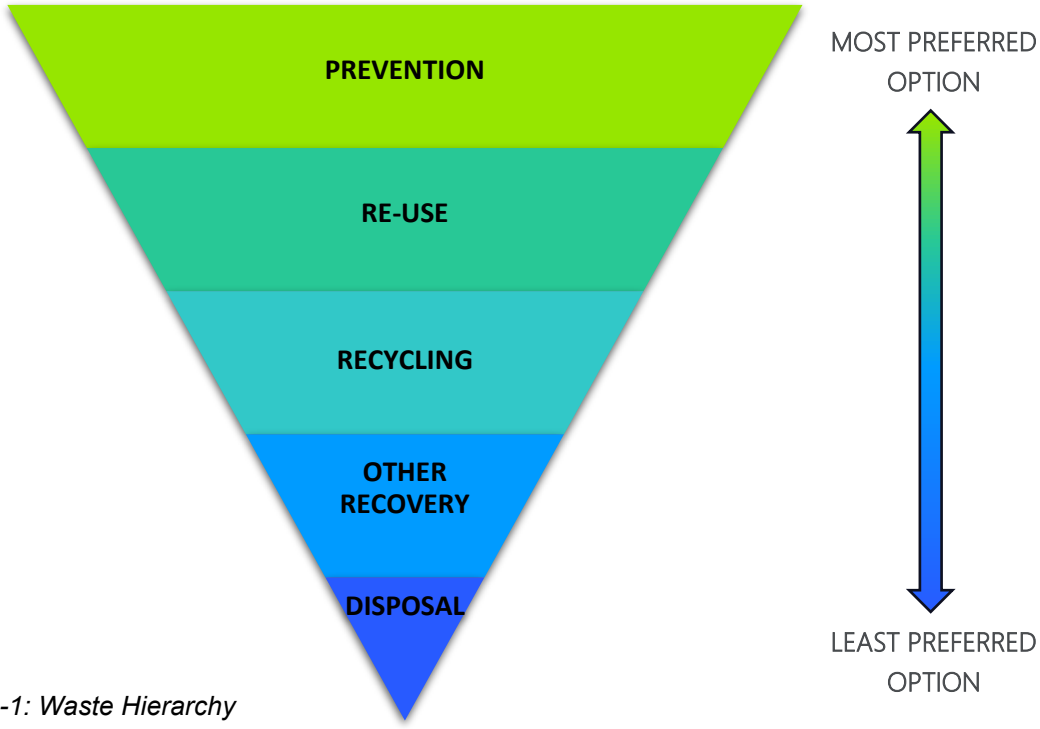

Figure 3-1: Waste Hierarchy

The FPSO has reached the end of its operations in field. In line with the waste hierarchy, potential reuse options have been considered by TEPNSUK, including redeployment or sale. None have yielded viable opportunities to date; however, redeployment or sale opportunities will continue to be explored in parallel with preparing for onshore recycling.

The decommissioned waste and FPSO will be returned to shore and transferred to a suitably licenced waste treatment facility. It is expected that the recovered infrastructure will be cleaned before being largely recycled. If there are no redeployment or sale opportunities identified the FPSO will be recycled at an approved shipyard in compliance with UK and EU ship recycling laws and regulations.

Engagement with the regulatory authorities is ongoing to ensure that any issues with Trans Frontier Shipment of Waste (TFSW), including hazardous materials, are addressed.

3.1 Surface Facilities - FPSO

3.1.1 FPSO Description

The Gryphon ‘A’ installation consists of an FPSO facility connected to subsea well clusters. The FPSO is equipped with topsides production facilities which perform conventional separation of gas/oil/water mixtures and compression of gas for use as fuel and lift gas. Crude oil is stored on board and offloaded to shuttle tankers for transportation to shore. In addition, there is a gas export pipeline from Gryphon ‘A’ to the Beryl A installation.

The FPSO is a Tentech 850C vessel and was purchased by Kerr-McGee in early 1993 and subsequently fitted out with the topsides production facilities. The vessel was originally moved to its offshore location in September 1993, and production commenced in October 1993. The original facility was upgraded in 2003 to include provisions for processing fluids from the Maclure and Tullich reservoirs, as well as a gas export

line to Beryl A. Ownership was transferred to Maersk Oil North Sea UK Limited in 2005 and then to TEPNSUK in 2018. The main dimensions of the FPSO are set out in Table 3-1.

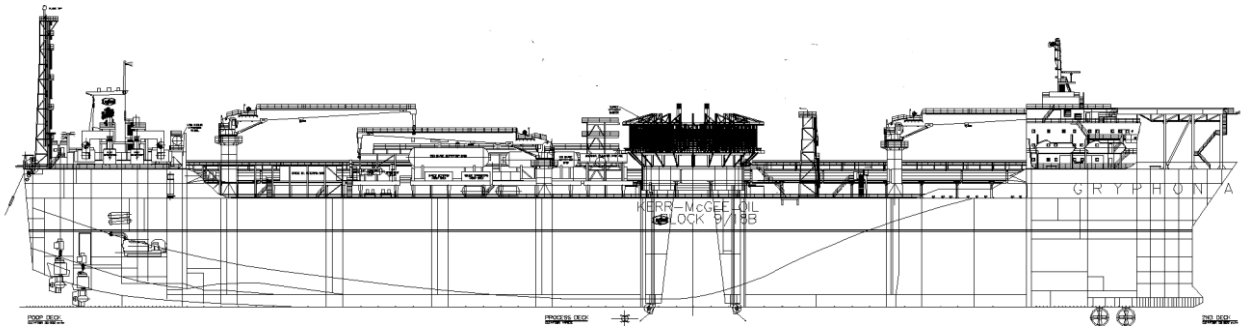

Figure 3-2: Diagram of FPSO

Table 3-1: FPSO Dimensions	
Dimensions	**Metres**
Length overall	259.512
Breadth moulded	41.000
Depth moulded	23.600

3.1.2 Preparation/Cleaning

Table 3-2: Cleaning of FPSO for Removal		
Waste Type	**Composition of Waste**	**Disposal Route**
Onboard Hydrocarbons	Process fluids, fuels and lubricants	Crude inventory will be offloaded to a shuttle tanker for sale. Any production chemical stock inventory will be sent onshore for disposal. Flushing fluids will be disposed via produced water re-injection wells. Fuels and lubricants will remain in their dedicated storage tanks for the FPSO transit and then disposed of onshore using an approved hazardous waste contractor using appropriate methods and under the appropriate permits.
Other hazardous materials	NORM, LSA Scale, any radioactive material, instruments containing heavy metals, batteries	Transported to shore for disposal by an approved hazardous waste contractor using appropriate methods and under the appropriate permits.

3.1.3 Removal Methods

Table 3-3: FPSO Removal Methods	
Method	**Description**
Reverse Install / Sail away	Following the flushing, cleaning and disconnection of all risers and putting in place appropriate barriers for retention of hydrocarbons, the FPSO shall be towed to be redeployed or recycled / disposed. The decommissioned FPSO recycling or disposal will be in compliance with the applicable UK and EU laws and regulations. Monitoring arrangements for the wells are being discussed with OPRED and HSE.

3.2 Mooring System

The mooring system comprises 10 lines (5 groups of 2 lines) of studless chain (including 100m triple chain section connected using a tri-plate arrangement) connected to a drag chain type turret and thruster turning system to rotate the vessel about the turret to maintain optimum heading with respect to the prevailing weather conditions. The risers and umbilicals run through the rotating turret. Each mooring line is equipped with a 35 tonne Stevpris anchor.

3.2.1 Mooring System Decommissioning Overview

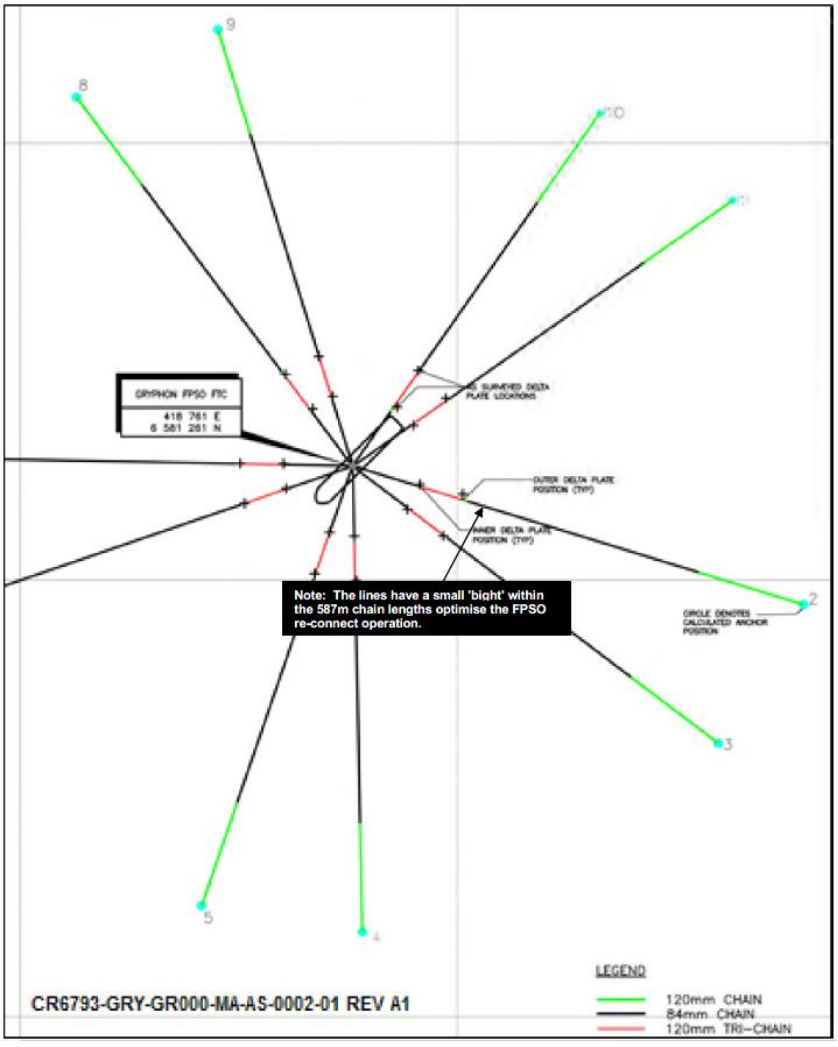

Figure 3-3 As-Laid Mooring Positions

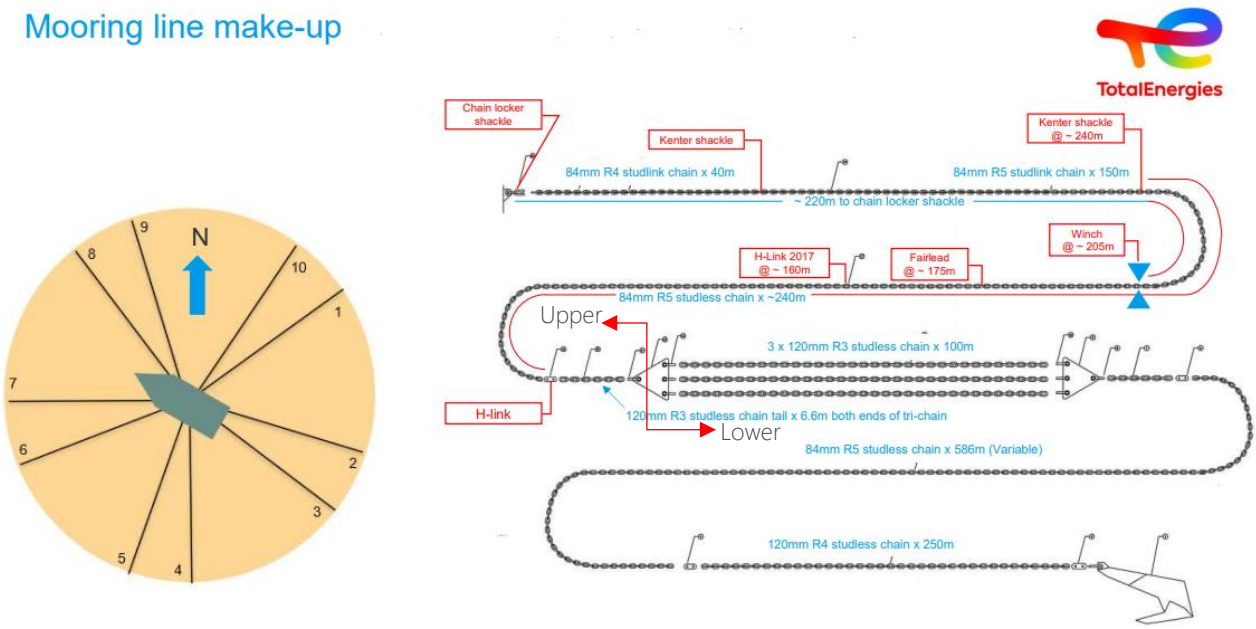

Figure 3-4: Mooring Layout & Line make-up

Table 3-4: Mooring System Removal Methods			
Mooring System	**Number**	**Option**	**Disposal route**
FPSO Mooring lines	10	Mooring lines and anchors will be recovered for re-use, recycling or disposal, in compliance with regulatory requirements - The upper sections of FPSO mooring lines up to and including the upper H-links will be recovered prior to FPSO sail away, the lower sections of the chain connecting to the anchors will be temporarily wet stored for recovery post sail away. On completion of these DPs the entire mooring line shall be recovered.	Transported to shore for re-use, recycling, or disposal

3.3 Subsea Installation

Table 3-5: Subsea Installations and Stabilisation Features Decommissioning Options			
Subsea installations and stabilisation features	**Number**	**Option**	**Disposal Route (if applicable)**
MWA (Buoyancy Elements & Upper Tether)	3	Full Removal	Transported to shore for recycling or disposal.

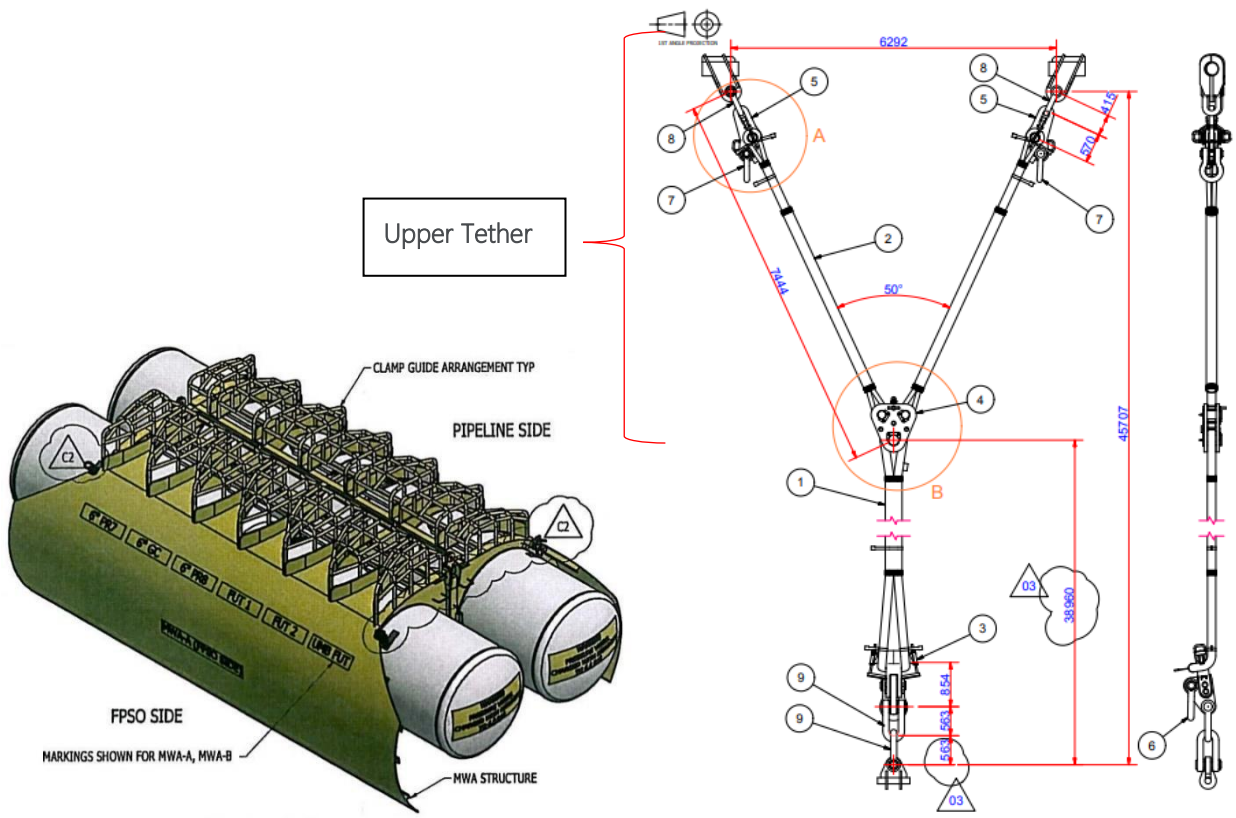

Figure 3-5: Typical MWA (Buoyancy Element & Tether)

3.4 Risers and Umbilicals

Table 3-6: Risers and Umbilicals Removal Methods			
System	**Number**	**Option**	**Disposal route**
Production	10	Subsea pipework will be flushed of hydrocarbons prior to riser disconnection. The flexible risers and dynamic umbilicals shall be disconnected at the FPSO via cut and drop method and disconnected subsea and recovered for transport to shore. If recovery is not feasible at time of FPSO sail away the risers and dynamic umbilicals may be temporarily wet stored for recovery later during the 2025 execution window. In this instance a guard vessel or ERRV vessel will remain on location after FPSO sail away to mitigate hazards for other users of the sea.	Transported to shore for reuse, recycling, or disposal
WI Riser	1		
Gas Lift	2		
Gas Cap	1		
Gas Export	1		
Dynamic Umbilicals	2		

3.4.1 Comparative Assessment

A Comparative Assessment (CA) has not been carried out for the risers and dynamic umbilicals covered by these DPs as the lines are being fully removed. Only the upper ends are to be laid down temporarily on the seabed to facilitate FPSO sail away. As the risers and dynamic umbilicals will subsequently be recovered and returned to shore for recycle and disposal, it is considered that a CA is not required.

A CA will be carried out for remaining field infrastructure, which is listed on the Section 29 Notices and in support of the relevant decommissioning programmes which will be submitted separately to OPRED. The CA will be carried out in line with the recommendations of OPRED Guidance Notes.

3.5 Waste Streams

Table 3-7: Waste Stream Management Methods	
Waste Stream	**Removal and Disposal method**
Bulk liquids	Bulk liquid waste will be produced during the flushing of the production systems and during the cleaning of the FPSO process equipment and storage tanks. Bulk liquids will be processed and re-injected into a reservoir via the produced water reinjection system (PWRI) or will be offloaded and transported to shore for treatment and disposal.
Marine growth	Any marine growth on the FPSO hull will be removed and disposed of onshore at the ship recycling facility in accordance with guidelines. Any marine growth on the risers will be removed during riser recovery operations. Any marine growth on mid-water arches and moorings will be removed onshore in accordance with guidelines.
NORM/LSA Scale	Tests for NORM will be undertaken offshore and work will be carried out in full compliance with all relevant regulations. NORM contaminated material may be removed and discharged offshore under the appropriate authorisation. Some material or contaminated equipment may be recovered to shore for disposal or decontamination; selected waste management contractor will have appropriate authorisation for the disposal/decontamination of NORM contaminated waste.
Asbestos	Will be recovered to shore and in full compliance with all relevant regulations and disposed of under an appropriate permit by the selected waste management contractor.
Other hazardous wastes	Will be recovered to shore and in full compliance with all relevant regulations and disposed of under an appropriate permit by the selected waste management contractor.
Onshore Dismantling sites	Appropriate licenced sites will be selected. Facility must demonstrate proven disposal track record and waste stream management throughout the deconstruction process and demonstrate their ability to deliver innovative recycling options.

Table 3-8: Inventory Disposition			
	Total Inventory Tonnage	Planned tonnage to shore	Planned left *in situ*
Installations	42,104	42,104	0
Risers and Dynamic Umbilicals	515	515	0

4 ENVIRONMENTAL APPRAISAL OVERVIEW

Proposed decommissioning activities have the potential to impact the environment. TEPNSUK has undertaken an ENVID in line with the Decommissioning Guidance Notes regarding the activities described within these DPs.

Long term environmental impacts from the decommissioning operations are expected to be low. Incremental cumulative impacts and trans-boundary effects associated with the planned decommissioning operations are also expected to be low.

TEPNSUK understands the importance of minimising the potential for environmental impact during decommissioning, in parallel with safety and technical feasibility requirements. To this end, environmental impacts have been fully considered in the design of arrangements for the disconnection and sail away of the FPSO. Where necessary, additional measures will be developed to limit the extent of any potential impact.

All operations described in these DPs will be subject to all the relevant environmental permits and approvals. All permit applications and reporting will be managed through a Permits, Licences, Authorisations, Notifications and Consents (PLANC) register.

The ENVID did not identify any activities required to undertake the removal of the FPSO that would be considered to have a significant environmental impact. As a result, a standalone EA has not been considered necessary to support these decommissioning activities. Decommissioning activities will be subject to permitting application via the Portal Environmental Tracking System (‘PETS’).

4.1 Environmental Sensitivities

Table 4-1: Environmental Sensitivities

Environmental Receptor	Main Features
Conservation interests	The FPSO is located approximately 38 km from the nearest conservation site – the Braemar Pockmarks Special Area of Conservation (SAC). The SAC is designated for the presence of Annex I habitat submarine structures made by leaking gases. In this location, large blocks, pavement slabs and smaller fragments of Methane-Derived Authigenic Carbonate (MDAC) have been deposited through a process of precipitation during the oxidation of methane gas. These carbonate structures provide a habitat for marine fauna usually associated with rocky reef, and very specific chemosynthetic organisms which feed off both methane (seeping from beneath the seafloor) and its by-products, hydrogen, and sulphide (Judd, 2001). All other conservations sites are located over 90 km from the project area. The FPSO is located approximately 169 km from the east coast of Sumburgh on Shetland, Due to this distance, no impacts to onshore conservation sites are expected from the proposed operations. Seabed survey imagery in the vicinity of the FPSO (or wider field area) has thus far failed to identify any Annex I habitats or communities of conservation value (e.g. Fugro, 2009; Gardline, 2009). There has been no evidence of OSPAR threatened and/or declining species or any UK Biodiversity Action Plan (UKBAP) species in the project area.
Seabed	Site-specific seabed survey data indicates that the majority of sediments proximate to the FPSO comprised silty fine sands with shell fragments (Fugro, 2009; Gardline, 2009). Sediments were considered very well to moderately well sorted very fine sand under the Wentworth classification (Fugro, 2009; Gardline, 2009). Mean total hydrocarbon concentrations (THC) were typical of background levels in areas where oil and gas exploration occurs, with concentrations considerably lower than background levels for the region (Gardline, 2009). The majority of heavy and trace metals were recorded at levels either below the limits of detection or lower than typically expected background levels for the northern North Sea (NNS) (Fugro, 2009), with concentrations unlikely to be of ecological consequence (Gardline, 2009). Gardline (2009) describes fauna as largely uniform, species-rich and taxonomically diverse, albeit with a slight dominance structure, and consisting of fauna typical of muddy, sandy habitats. Of the 77 taxa recorded (47.0%) were annelid, 44 (26.8%) were crustacean, 26 (15.9%) were molluscan and six (3.7%) were echinoderm. Representatives of the Cnidaria, Nemertea, Sipuncula, Phoronida, Brachiopoda and Tunicata made up the 11 taxa (6.7% of the total) belonging to other phyla (Fugro, 2009).
Fish	The FPSO is located in an area of nursery grounds for anglerfish (*Lophius piscatorius*), blue whiting (*Micromesistius poutassou*), European hake (*Merluccius merluccius*), haddock (*Melanogrammus aeglefinus*), herring (*Clupea harengus*), ling (*Molva molva)*, mackerel (*Scomber scombrus*), Norway lobster (*Nephros norvegicus*), Norway pout (*Trisopterus esmarkii*) and whiting (*Merlangius merlangus*) (Coull *et al.*, 1998; Ellis *et al.*, 2012). Cod (*Gadus morhua*), haddock, mackerel, Norway lobster, Norway pout and saithe (*Pollachius virens*) use the area as grounds for spawning throughout the year with peak spawning occurring between January and July. Of the species which are known to use the area in some capacity, a number are species of conservation concern. Anglerfish, cod, herring, ling, mackerel, Norway pout, saithe and whiting are all Scottish Priority Marine Features (PMFs).

Fisheries	The FPSO sits within ICES rectangle 47F1. According the Scottish Government (2022) landings data for 2021, Rectangle 47F1 is targeted primarily for demersal species. In 2021, demersal catch live weight was 1,474 Te with a corresponding value of £2,348,402. This accounts for approximately 81% of the landings by weight (1,812 Te) and approximately 86% of the total landings by value (£2,716,396) in Rectangle 47F1 for that year. To put these figures into context, a total of 538,469 tonnes with a value of £686,410,368 was landed in the UK in 2021 (Scottish Government, 2022). Fisheries in Rectangle 47F1 therefore contribute approximately 0.34% of landings and 0.40% of value when compared to overall UKCS values (Scottish Government, 2022). 2021 saw 377 fishing days with effort most concentrated in August (83 days). This compares to 505 days in 2020, 328 in 2019 and 338 in 2018. From 2018 to 2021, fishing took place in all months, with the exception of December 2021. Overall, fishing effort remains relatively low as there are <100 days of fishing in each month (Scottish Government, 2022).
Marine Mammals	Harbour porpoise (*Phocoena phocoena*) are frequently found throughout UK waters. They typically occur in groups of one to three individuals in shallow waters, although they have been sighted in larger groups and in deep waters. They are present in UK waters throughout the year and are most likely to be observed in the Gryphon field in the summer months (Reid *et al.,* 2003). The density of harbour porpoise in the project area is estimated to be 0.3210 animals/km^2 (Hammond *et al.,* 2021). Minke whales (*Balaenoptera acutorostrata*) occur in water depths of 200 m or less throughout the NNS. They are usually sighted in pairs or in solitude; however, groups of up to 15 individuals can be sighted feeding. It appears that animals return to the same seasonal feeding grounds (Reid *et al*., 2003). Minke whales are most likely to be observed in the project area in the summer months and in low numbers. Their density is predicted to be 0.0150 animals/km^2 which is the highest across all areas surveyed (Hammond *et al*., 2021). Atlantic white-sided dolphin (*Lagenorhynchus acutus*) are usually sighted in large groups of up to 1,000 individuals in UK waters. They are present in UK waters throughout the year and are most likely to be observed in the project area in March, June and July (Reid *et al.,* 2003). The relative density of Atlantic white-sided dolphin is estimated at 0.0030 animals/km^2 in the project area (Hammond *et al*., 2021). Killer whales (*Orcinus orca*) are the largest member of the oceanic dolphin family. Most sightings in UK waters are of singles or groups of less than eight individuals (mean = 4.6), although groups of up to one hundred have been observed (Reid *et al.,* 2003). Killer whales are most likely to be observed in the project area in the summer months and in low numbers. Harbour porpoise, minke whale, Atlantic white-sided dolphin and killer whales are Priority Marine Features (PMFs), European Protected Species (EPS) and are covered by OSPAR and the UKBAP. In addition, harbour porpoise, minke whale, Atlantic white-sided dolphin are also listed on the IUCN Global Red List as species of lower risk. No other cetacean species are likely to be present in the project area. Two species of seal are resident in UK waters: the grey seal *Halichoerus grypus* and the harbour or common seal *Phoca vitulina*, both occurring regularly over large parts of the North Sea. Since the FPSO is located approximately 169 km offshore, grey and harbour seals may be encountered from time to time but it is not likely that they use the area with any regularity or in great numbers. This is confirmed by the grey and harbour seal density maps published by the Sea Mammal Research Unit (SMRU), which are provided in the NMPi (2020). The maps report the presence of grey and harbour seals in the Gryphon area as between 0 and 1 per 25 km^2.

Birds	The area surrounding the FPSO is utilised by the following species at various times of the year: northern fulmar (*Fulmarus glacialis*), manx sheawater (*Puffinus puffinus*), European storm-petrel (*Hydrobates pelagicus),* northern gannet (*Morus bassanus*), pomarine skua (*Stercorarius pomarinus*), Artic skua (*Stercorarius parasiticus*), great skua (*Stercorarius skua*), black-legged kittiwake (*Rissa tridactyla*), great black-backed gull (*Larus marinus*), common gull (*Larus canus*), lesser black-backed gull (*Larus fuscus*), herring gull (*Larus argentatus*), common guillemot (*Uria aalge*), razorbill (*Alca torda*), little auk (*Alle alle*), Atlantic puffin (*Fratercula arctica*) (Kober *et al*., 2010).
Other Users of the Sea	Shipping activity within Block 9/18 is considered to be very low (Oil and Gas Authority, 2016). There are no operational offshore wind farms (OWFs) in the vicinity of the FPSO. There are no other renewables developments, proposed or active, near the project area. The Innovation and Targeted Oil and Gas (INTOG) scheme identifies areas within which projects targeting oil and gas decarbonisation, or which will generate >100 MW of energy, will be considered for approval (Marine Scotland, 2021). The FPSO lies within the INTOG NE-c area. There are three active telecommunication cables within 40 km of the FPSO. The Havfrue/AEC-2 is located approximately 23 km south-southwest; the Tampnet 4 is located approximately 30 km north-northwest; and the Atlantic Crossing 1 is located approximately 33 km south-southwest (KIS-ORCA, 2019). The TAT 14 cable, located approximately 27 km south-southwest of the FPSO is now out of service. Block 9/18 is not considered a block of concern to the Ministry of Defence (Oil and Gas Authority, 2019). There are four non-dangerous wrecks, as identified by Historic Environment Scotland (HES) in November 2018, located within 20 km of the Gryphon FPSO: an unknown wreck (7.3 km north-north-east; Rosemount (7.9 km west-south-west); Morning Dawn (9.6 km north-north-west) and Grampian Glen (13 km south-south-east) (NMPi, 2020). Oil and gas surface installations located within 40 km of the FPSO are presented in **Table 1-6**.
Atmosphere	Emissions to atmosphere will arise from activities associated with FPSO Decommissioning. An emission forecast of 26,371Te (CO2e) for this phase of the FPSO decommissioning project has been estimated for offshore activities that are directly associated with Scope 1 and 3 emissions, namely: post-CoP operations; power generation; flaring/venting; offshore transport (comprising logistics and vessels); and project vessel support.

4.2 Potential Environmental Impacts and their Management

4.2.1 Environmental Impact Assessment Summary

Table 4-2: Environmental Impact Management		
Activity	**Main Impacts**	**Management**
FPSO Sail away	Fuel use / atmospheric emissions	• Minimal number of vessels deployed • Use of low sulphur diesel • TEPNSUK Vessel Assurance process / procedure • TEPNSUK-commissioned Energy and Emissions Assessment
	Hazard to navigation	• UKHO standard communication channels including Kingfisher, Notice to Mariners and radio navigation warnings • Use of Automatic Identification Systems (AIS) and other navigational controls • TEPNSUK Stakeholder Engagement Management Plan / Process
	Disturbance of nesting seabird habitat	• Adherence with "Undertaking of Seabird Survey Methods for Offshores Installations: Black-legged kittwakes", JNCC (2021) • No known history of nesting seabirds on the installation • Implementation of a Nesting Seabird Monitoring Plan in the lead up to execution phase • Non-lethal deterrent methods if required • Ornithologist support if required • Disturbance licence in consultation with OPRED if required
Disconnection, dropping, wet store and recovery of dynamic flexible risers and dynamic umbilicals	Fuel use / atmospheric emissions	• Minimal number of vessels deployed • Use of low sulphur diesel • TEPNSUK Vessel Assurance process / procedure • Vessel & equipment maintained according to manufacturer's recommendations • TEPNSUK-commissioned Energy and Emissions Assessment

	Hazard to Navigation	• Deployment of dedicated Guard Vessel or ERRV vessel • Safety zones (when applicable and being mindful that arrangements will change upon FPSO sail away) • Appropriate level of stakeholder engagement • UKHO standard communication channels including Kingfisher, Notice to Mariners and radio navigation warnings • Use of Automatic Identification Systems (AIS) and other navigational controls • TEPNSUK Stakeholder Engagement Management Plan / Process
	Chemical / oil discharge to sea	• Appropriate Risk Assessment through the MATs / SATs (OCR / OPPC) system • Flushing and cleaning of dynamic flexible risers completed as part of the wider subsea system cleaning operations • Selection of flushing chemicals with lesser potential for environmental impact • Send flushing chemicals back to FPSO for processing and re-injection into PWRI wells.
	Seabed disturbance	• Appropriate Risk Assessment through the MATs / SATs (MCAA) system
	Onshore waste management	• Use of appropriately authorised waste management contractors and facilities • Compliance with Waste Hierarchy. • Detailed inventories (including IHM) • Active Waste Management Plan • Compliance with Gryphon Decommissioning Waste Management Plan • Project Waste Management Targets
Sinking, wet store and recovery of mid-water arches NOTE: Sinking of MWA is considered only as a contingency measure. Base case is full removal as planned without need for wet storage	Fuel use / atmospheric emissions	• Minimal number of vessels deployed. • Use of low sulphur diesel • TEPNSUK Vessel Assurance process / procedure • Vessel & equipment maintained according to manufacturer's recommendations • TEPNSUK-commissioned Energy and Emissions Assessment

	Hazard to Navigation	• Deployment of dedicated Guard Vessel or ERRV vessel • Safety zones (when applicable and being mindful that arrangements will change upon FPSO sail away) • Appropriate level of stakeholder engagement • UKHO standard communication channels including Kingfisher, Notice to Mariners and radio navigation warnings • Use of Automatic Identification Systems (AIS) and other navigational controls • TEPNSUK Stakeholder Engagement Management Plan / Process
	Seabed disturbance	• Appropriate Risk Assessment through the MATs / SATs (MCAA) system
	Onshore waste management	• Use of appropriately authorised waste management contractors and facilities • Compliance with Waste Hierarchy. • Detailed inventories (including IHM) • Active Waste Management Plan • Compliance with Gryphon Decommissioning Waste Management Plan • Project Waste Management Targets
Laydown, wet store and recovery of lower mooring system chains	Fuel use / atmospheric emissions	• Minimal number of vessels deployed • Use of low sulphur diesel • TEPNSUK Vessel Assurance process / procedure • Vessel & equipment maintained according to manufacturer's recommendations • TEPNSUK-commissioned Energy and Emissions Assessment
	Hazard to Navigation	• Deployment of dedicated Guard Vessel or ERRV vessel • Safety zones (when applicable and being mindful that arrangements will change upon FPSO sail away) • Appropriate level of stakeholder engagement • UKHO standard communication channels including Kingfisher, Notice to Mariners and radio navigation warnings • Use of Automatic Identification Systems (AIS) and other navigational controls

		• TEPNSUK Stakeholder Engagement Management Plan / Process
	Seabed disturbance	• Appropriate Risk Assessment through the MATs / SATs (MCAA) system • There is no drill cuttings impact from recovery of mooring lines/anchors
	Onshore waste management	• Use of appropriately authorised waste management contractors and facilities • Compliance with Waste Hierarchy. • Detailed inventories (including IHM) • Active Waste Management Plan • Compliance with Gryphon Decommissioning Waste Management Plan • Project Waste Management Targets
Vessels	Hazard to Navigation	• Safety zones (when applicable and being mindful that arrangements will change upon FPSO sail away) • UKHO standard communication channels including Kingfisher, Notice to Mariners and radio navigation warnings • Use of Automatic Identification Systems (AIS) and other navigational controls • TEPNSUK Stakeholder Engagement Management Plan / Process
	Discharges to sea	• Treatment and maceration to IMO standards • Bilge management procedures • Good operating practices • Vessel equipment maintained according to manufacturer's recommendations • TEPNSUK Vessel Assurance process / procedure
	Noise	• Vessel noise unlikely to be far above ambient noise levels. • No use of explosives
	Fuel use / atmospheric emissions	• Minimal number of vessels deployed • Use of low sulphur diesel • Vessel equipment maintained according to manufacturer's recommendations • TEPNSUK Vessel Assurance process / procedure

		• Third Party Contractor Assurance process / procedure • TEPNSUK-commissioned Energy and Emissions Assessment
Waste	Onshore Waste Management	• Use of appropriately authorised waste management contractors and facilities • Compliance with Waste Hierarchy. • Detailed inventories (including IHM) • Active Waste Management Plan • Compliance with Gryphon Decommissioning Waste Management Plan • Project Waste Management Targets • SCAP
	Use of landfill	
	Radioactive waste NORM	

5 INTERESTED PARTY CONSULTATIONS

5.1 Consultations Summary

Table 5-1: Summary of Stakeholder Comments		
Who	**Comment**	**Response**
Statutory Consultations		
National Federation of Fishermen's Organisations	No comments	
Scottish Fishermen's Federation	Letter from SFF included in Appendix 2	DP updated to confirm that a guard vessel or ERRV will be used for field monitoring after FPSO sail away. Trawl verification included as part of the post full decommissioning site survey
Northern Ireland Fish Producers Organisation	No comments	
Global Marine Systems Limited	Confirmed that as the closest telecommunications cable is over 20km away from planned operations, and given the distance there are no anticipated impacts. Also advised that TAT 14 is now Out of Service (OOS).	Table 4-1 updated to reflect TAT 14 as out of service.
North Sea Transition Authority	Confirmed that the methodology of preparation, disconnection and FPSO removal presented in the DP are in line with industry practice. Noted that the Operator engaged with the NSTA in accordance with section 29(2A) of the Petroleum Act 1998. Confirmed that no viable alternatives to decommissioning have been identified. Confirmed that the NSTA considers that the Operator has framed the DP so as to ensure that the cost of carrying it out is kept to the minimum that is reasonably practicable in the circumstances.	Noted
OPRED Consultations		
HSE	Additional wells information was requested to be included in the DP (status; monitoring; planning)	Section 1-5 updated to include further details on the wells. No wax is anticipated to be present in the pipelines as the seabed temperature

	Clarification requested on the consideration and quantification of wax in the pipelines, removal, and the environmental impact of residual wax	is above the wax appearance temperature reported from crude analysis.
Northern Lighthouse Board	NLB provided guidance on requirements for monitoring post FPSO sailaway	Guidance noted
Marine & Coastguard Agency	Expect that all maritime safety legislation to be always adhered to and the Standard Marking Schedule for Offshore Installations, along with the standard conditions for Consent to Locate. Clarification requested as to how it is intended to sail the FPSO away, and if any elements of the structure are to be surface towed.	The FPSO is anticipated to be towed from field utilising suitable bollard pull AHV tow vessels, with one vessel connected by towline to the FPSO, and a trailing AHV tow vessel as back up and to support in the event of an emergency. The MWA buoyancy elements will be towed to shore utilising a suitable Anchor Handling Vessel (AHV).
SEPA	Guidance provided on ship recycling and waste management regulations and expectations	Discussions held with SEPA and other relevant environmental agencies on the ship recycling plans and waste management plans, including Transfrontier Shipment of Waste consent.
Historic Environment Scotland	Note and welcome the inclusion of historic environment information in Table 4-1. Also note that while an Environmental Appraisal was not deemed necessary to support this programme, an Environmental Impact Assessment will be included as part of any relevant Marine Licence Application.	Noted
UKHO	UKHO provided guidance on notifications required at key stages of the decommissioning activities.	Guidance noted
Public Consultations		
	Letter received challenging the timing of the Gryphon FPSO decommissioning and if the economic recovery of the field had been maximised. The letter also challenges the regulatory process that had been followed in the COP timing decision and Decommissioning Programme preparations.	The COP timing was determined by the Gryphon Owners following a detailed evaluation of the remaining production life of the asset, considering safety, integrity management, environmental performance, costs and economics. NSTA have confirmed that TEPNSUK have engaged with the NSTA in accordance with section 29(2A) of the Petroleum Act 1998.

6 PROGRAMME MANAGEMENT

6.1 Project Management and Verification

A Project Management team has been appointed to manage suitable contractors for the decommissioning in these DPs. Standard procedures for operational control and hazard identification and management will be used. The Project Management team will monitor and track the process of consents and the consultations required as part of this process. Any changes in detail to the offshore decommissioning programme will be controlled by TEPNSUK Management of Change processes and discussed and agreed with OPRED.

6.2 Post-Decommissioning Debris Clearance and Verification

On completion of all works captured by these DPs an as-left survey of associated seabed and subsea infrastructure affected by these works will be carried out.

A full post decommissioning site survey including trawl verification will be carried out following completion of all decommissioning works captured under the separate further decommissioning programme(s) covering the P&A and subsea infrastructure phases. Any seabed debris related to offshore oil and gas activities will be recovered for onshore disposal or recycling in line with existing disposal methods. Upon verification of a clear seabed a statement of clearance to all relevant governmental departments and non-governmental organisations will be issued. It is proposed the verification work for the scope of these DPs be completed in conjunction with the subsea decommissioning programme(s).

Once the FPSO has been removed, the riser bases (previously falling under the protection of the FPSO 500m zone) and other pipelines related infrastructure (out with FPSO 500m zone) will be monitored by a guard vessel or ERRV vessel to mitigate hazards for other users of the sea.

6.3 Schedule

A proposed schedule for the decommissioning of Gryphon is provided in Figure 6-1.

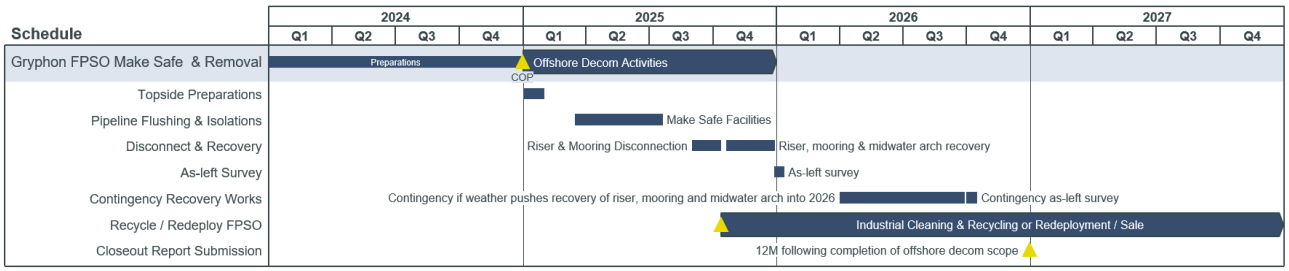

Figure 6-1: Gantt Chart of Project Plan

6.4 Costs

The decommissioning programme costs will be provided directly to OPRED.

6.5 Close Out

In accordance with OPRED guidelines, a close out report will be submitted to OPRED within 12 months of the completion of the offshore decommissioning scope covered by these programmes. The report will detail the scope performed and explain any variances from the programmes.

6.6 Post-Decommissioning Monitoring and Evaluation

On completion of all works captured by these DPs, only the FPSO, mooring lines, flexible risers and dynamic umbilicals and associated MWA buoyancy elements will have been decommissioned. As such post decommissioning surveys will be limited to “as-left” surveys of associated seabed and subsea infrastructure affected by these works.

Following FPSO decommissioning a guard vessel or ERRV vessel will remain on site to monitor and mitigate hazards for other users of the sea.

Until all wells have been plugged and abandoned, an inspection routine will be implemented to monitor the wells status. The frequency of subsea inspections to monitor the wells status will be defined based on the outcome of general visual inspection performed in 2025. Once this has been determined this will be discussed and agreed with OPRED.

Until all subsea infrastructure has been removed, an inspection routine will be implemented to monitor the subsea pipelines and infrastructure. The gas export pipeline will be inspected on no longer than a 3-yearly frequency for free spans and any snagging hazards. All other subsea infrastructure will be inspected on a no longer than 6-yearly frequency, recognising that decommissioning may take place within that period.

7 SECTION 29 NOTICE HOLDERS' LETTERS OF SUPPORT

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Section 29 Notice Holder Letter of Support

Offshore Petroleum Regulator for Environment and Decommissioning
Department for Energy Security & Net Zero
2nd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

29th August, 2025

Dear Sir or Madam

GRYPHON ALPHA FLOATING PRODUCTION STORAGE & OFFLOADING (FPSO) AND RISER DISCONNECTION DECOMMISSIONING PROGRAMMES
PETROLEUM ACT 1998

We acknowledge receipt of your letter dated 26th August 2025.

We, Sojitz Energy Development Limited, confirm that we authorise TotalEnergies E&P North Sea UK Limited to submit on our behalf an abandonment programme relating to the decommissioning of the Gryphon Alpha FPSO facility including mooring system, and for the disconnection and recovery of the associated flexible risers and dynamic umbilicals, as directed by the Secretary of State on 26th August 2025.

We confirm that we support the proposals detailed in the Gryphon Alpha Floating Production Storage & Offloading (FPSO) and Riser Disconnection Decommissioning Programme dated 28th August 2025 which is to be submitted by TotalEnergies E&P North Sea UK Limited in so far as they relate to those facilities in respect of which we

sojitz
New way, New value

are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

黒田昌平

Shohei Kuroda
Managing Director
For and on behalf of Sojitz Energy Development Limited

ROCKROSE ENERGY
Part of viaro GROUP

RockRose Energy Ltd
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+44 203 826 4800
info@rockroseenergy.com

rockroseenergy.com

Offshore Petroleum Regulator for Environment and Decommissioning
Department for Energy Security & Net Zero
2nd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

29th August 2025

Dear Sir or Madam

SECTION 29 NOTICE HOLDER LETTER OF SUPPORT

GRYPHON ALPHA FLOATING PRODUCTION STORAGE & OFFLOADING (FPSO) AND RISER DISCONNECTION DECOMMISSIONING PROGRAMMES
PETROLEUM ACT 1998

We acknowledge receipt of your letter dated 26th August 2025.

We, RockRose UKCS3 Limited, confirm that we authorise TotalEnergies E&P North Sea UK Limited to submit on our behalf an abandonment programme relating to the decommissioning of the Gryphon Alpha FPSO facility including mooring system, and for the disconnection and recovery of the associated flexible risers and dynamic umbilicals, as directed by the Secretary of State on 26th August 2025.

We confirm that we support the proposals detailed in the Gryphon Alpha Floating Production Storage & Offloading (FPSO) and Riser Disconnection Decommissioning Programme dated 28th August 2025 which is to be submitted by TotalEnergies E&P North Sea UK Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

Signed by:
Jillian Owen
E695558076C946E...
Jillian Owen
COO
For and on behalf of RockRose UKCS3 Limited

APPENDIX 1 – PUBLIC NOTICES

The Times, 30 Aug 2024

The Petroleum Act 1998
GRYPHON ALPHA FPSO AND RISER DISCONNECTION DECOMMISSIONING PROGRAMMES

TotalEnergies E&P North Sea UK Limited has submitted, for the consideration of the Secretary of State for the Department for Energy Security & Net Zero, a draft Gryphon Alpha Floating Production Storage & Offloading (FPSO) and Riser Disconnection Decommissioning Programme in accordance with the provisions of the Petroleum Act 1998. It is a requirement of the Act that interested parties be consulted on such decommissioning proposals.

The items/facilities covered by the Decommissioning Programme are the Gryphon Alpha FPSO facility including mooring system, and for the disconnection and recovery of the associated flexible risers and dynamic umbilicals. The FPSO is located in the United Kingdom Continental Shelf (UKCS) Block 9/18b, approximately 169km southeast of Shetland.

TotalEnergies E&P North Sea UK Limited hereby gives notice that a summary of the Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes can be viewed at the internet address: https://totalenergies.co.uk/public-notices

Alternatively, a hard copy of the Decommissioning Programme can be inspected at the following location during office hours:
TotalEnergies E&P North Sea UK Limited
TotalEnergies House, Tarland Road, Westhill, Aberdeenshire, AB32 6JZ
Contacts: Malcolm Watt / Kenneth Watt

Representations regarding the Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes should be submitted in writing to Malcolm Watt at TotalEnergies House, Tarland Road, Westhill, Aberdeenshire, AB32 6JZ where they should be received by 30th September 2024 and should state the grounds upon which any representations are being made.

Date: 30th August 2024
Malcolm Watt
Senior Development Lead
TotalEnergies E&P North Sea UK Limited
TotalEnergies House,
Tarland Road,
Westhill,
Aberdeenshire, AB32 6JZ

The Edinburgh Gazette, 02 Sept 2024

PUBLIC NOTICE
THE PETROLEUM ACT 1998
GRYPHON ALPHA FPSO AND RISER DISCONNECTION DECOMMISSIONING PROGRAMMES

TotalEnergies E&P North Sea UK Limited has submitted, for the consideration of the Secretary of State for the Department for Energy Security & Net Zero, a draft Gryphon Alpha Floating Production Storage & Offloading (FPSO) and Riser Disconnection Decommissioning Programme in accordance with the provisions of the Petroleum Act 1998. It is a requirement of the Act that interested parties be consulted on such decommissioning proposals.

The items/facilities covered by the Decommissioning Programme are the Gryphon Alpha FPSO facility including mooring system, and for the disconnection and recovery of the associated flexible risers and dynamic umbilicals. The FPSO is located in the United Kingdom Continental Shelf (UKCS) Block 9/18b, approximately 169 km southeast of Shetland.

TotalEnergies E&P North Sea UK Limited hereby gives notice that a summary of the Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes can be viewed at the internet address: https://totalenergies.co.uk/public-notices

Alternatively, a hard copy of the Decommissioning Programme can be inspected at the following location during office hours:
TotalEnergies E&P North Sea UK Limited
TotalEnergies House, Tarland Road, Westhill, Aberdeenshire, AB32 6JZ
Contacts: Malcolm Watt / Kenneth Watt

Representations regarding the Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes should be submitted in writing to Malcolm Watt at TotalEnergies House, Tarland Road, Westhill, Aberdeenshire, AB32 6JZ where they should be received by 30th September 2024 and should state the grounds upon which any representations are being made.

Date: 30th August 2024
Malcolm Watt
Senior Development Lead
TotalEnergies E&P North Sea UK Limited
TotalEnergies House,
Tarland Road,
Westhill,
Aberdeenshire, AB32 6JZ (4693273)

APPENDIX 2 – CONSULTEES RESPONSES TO GRYPHON ALPHA FPSO DP

- SFF Correspondence
- NFFO Correspondence
- NIFPO Correspondence
- Global Marine Correspondence
- NSTA Correspondence
- Nobel Upstream letter of response
- TEPNSUK responses to Nobel Upstream comments

Malcolm WATT

From: Mohammad Fahim Hashimi [redacted]
Sent: 03 October 2024 15:26
To: Malcolm WATT
Subject: RE: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes
Attachments: SFF response to Gryphon Alpha FPSO DP_final 300924.pdf

Hi Malcolm,

You are most welcome.

Thanks for highlighting the typo and please find attached the revised one for your reference.

Best wishes

Fahim Mohammad Hashimi
Offshore Energy Policy Manager

Scottish Fishermen's Federation (SFF)
24 Rubislaw Terrace | Aberdeen | AB10 1XE
[redacted] | sff.co.uk
Follow us: Facebook | Twitter

From: Malcolm WATT [redacted]
Sent: Thursday, October 3, 2024 11:01 AM
To: Mohammad Fahim Hashimi [redacted]
Subject: RE: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes

Hello Fahim,

Many thanks for formalising your comments, and for confirming that it is ok to share them with other fisheries organisations.

I noticed a small typo in the attached and wondered if you don't mind correcting and sending back to me. The last paragraph looks like it has come across from a previous letter you sent to NEO Energy - *The Federation having stated the above position, would reaffirm its appreciation of the ES provided and its wish to work closely and positively with the NEO Energy Team, as you work through the challenges before you*.

Otherwise the letter is very clear and a record of what we discussed last week. We will amend our programme to ensure the points you have raised are addressed.

Thanks again for your time to review our programme, and your input and guidance to ensure SFF's constituent member associations interests are protected.

Kind regards
Malcolm

Malcolm Watt
Senior Development Lead
TotalEnergies E&P UK – Strategy & Business

TotalEnergies E&P UK Limited
TotalEnergies House, Tarland Road, Westhill,
Aberdeenshire, AB32 6JZ

[redacted]

From: Mohammad Fahim Hashimi [redacted]
Sent: Monday, September 30, 2024 5:51 PM
To: Malcolm WATT [redacted]
Cc: Kenneth WATT [redacted]; Steven Alexander [redacted]; Elspeth Macdonald [redacted]
Subject: RE: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes

Dear Malcolm,

I refer to the Consultation on Draft Decommissioning Programme provided in your email of 30 August 2024.

The Scottish Fishermen's Federation (SFF) appreciates the clearly laid out and detailed explanation of TotalEnergies E&P UK Limited decommissioning proposals for the Gryphon Alpha FPSO & Riser Disconnection Decommissioning Programme and place on record our appreciation of the information provided.

Please find attached SFF's response to the abovementioned DP for your reference.

Should you have any question about our response, feel free to reach me out.

Best wishes

Fahim Mohammad Hashimi
Offshore Energy Policy Manager

Scottish Fishermen's Federation (SFF)
24 Rubislaw Terrace | Aberdeen | AB10 1XE
[redacted] | sff.co.uk
Follow us: Facebook | Twitter

From: Malcolm WATT [redacted]
Sent: 30 August 2024 06:44
To: Mohammad Fahim Hashimi [redacted]
Cc: Kenneth WATT [redacted]
Subject: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes

GRYPHON ALPHA FPSO AND RISER DISCONNECTION DECOMMISSIONING PROGRAMMES

The draft Decommissioning Programmes for TotalEnergies E&P North Sea Limited's Gryphon Alpha Floating Production Storage & Offloading (FPSO) facility and risers have been approved for consultation by the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED). Public Notices were issued on 30 August 2024.

The items/facilities covered by the Decommissioning Programme are the Gryphon Alpha FPSO facility including mooring system, and for the disconnection and recovery of the associated flexible risers and dynamic umbilicals. The FPSO is located in the United Kingdom Continental Shelf (UKCS) Block 9/18b, approximately 169 km southeast of Shetland.

The Programmes are attached for your review as Statutory Consultee.

Should you have any questions or comments on the documentation, please address these to myself and Kenneth Watt (Development & Planning Leader) as cc'd above, on or before 30th September 2024.

Kind regards
Malcolm Watt

Malcolm Watt
Senior Development Lead
TotalEnergies E&P UK – Strategy & Business

TotalEnergies E&P UK Limited
TotalEnergies House, Tarland Road, Westhill,
Aberdeenshire, AB32 6JZ

[redacted]

Our Ref: FH-TotalEnergy/001/0024

Your Ref: Email dated 30/08/2024

30 September 2024

Scottish Fishermen's Federation
24 Rubislaw Terrace
Aberdeen, AB10 1XE
Scotland UK
T: +44 (0) 1224 646944
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E: sff@sff.co.uk

www.sff.co.uk

Malcolm Watt
TotalEnergies E&P UK Limited
TotalEnergies House,
Tarland Road,
Westhill,
Aberdeenshire,
AB32 6JZ

Dear Malcolm,

Draft Decommissioning Programme for the Gryphon Alpha FPSO & Riser Disconnection

I refer to the Consultation on Draft Decommissioning Programme provided in your email of 30 August 2024.

The Scottish Fishermen's Federation (SFF) appreciates the clearly laid out and detailed explanation of TotalEnergies E&P UK Limited (TEPNSUK) decommissioning proposals for the Gryphon Alpha FPSO & Riser Disconnection Decommissioning Programme and place on record our appreciation of the information provided.

For your information, I can advise that the SFF's Oil and Gas Decommissioning Policy and accompanying Key Principles document can be viewed via the SFF's website using the following link: https://s3.eu-west-2.amazonaws.com/assets.sff.co.uk/publications/DecomPolicy_Final_0808_lowres.pdf and https://s3.eu-west-2.amazonaws.com/assets.sff.co.uk/publications/DecomPolicy_KeyPrinciples_0808_lowres.pdf .

As highlighted in the SFF's Oil and Gas Decommissioning Policy documentation, the concerns of fishermen are primarily that of safety and the physical impact on the fishing grounds of the long-term presence of oil industry infrastructure on the seabed. With this in mind, the SFF's preferred position with regard to the decommissioning of oil and gas infrastructure is one of total removal.

The SFF notes from the DP that the items/facilities covered by the Decommissioning Programme (DP1) are the Gryphon Alpha FPSO facility including mooring system, and for the disconnection and

recovery of the associated flexible risers and dynamic umbilicals. We appreciate that there are follow up DPs (2 & 3) for the remaining subsea structures of the project. Therefore, this response is concerned with the DP1 and focused on the following points.

Safety concerns from wet stored items

The SFF notes from Table 4.2 of the DP that there is a chance for part of the mooring lines, flexible risers, dynamic umbilicals and associated MWA (mid-water arch) buoyancy elements to be wet stored post FPSO sail-away; however, guard vessels or **alternative navigational aid** will be used to inform the users of the sea about the subsea hazard.

As the 500m safety zone will be no longer in force once the FPSO sails away, the presence of a guard vessel would be paramount to safeguard against fishing interactions with the items left on seabed. SFF objects to buoys being utilised as navigational aid due to the recent buoys failure and the safety risks they create to fishing vessels and operations.

Mooring scars/craters

We will require survey data/as built report once the 35t anchors are removed to identify any trench scars that may cause concern to the fishing industry. SFF suggests that any scars or craters to be mechanically back filled to avoid the potential for subsea hazard and safety risks to fishermen.

Safety Zone & FishSAFE update

As surface safety zone perishes upon FPSO sail-away, in case of any new subsea safety zone is in place, it should be noted that the new safety zone will not automatically be updated on the FishSAFE, a safety tool that our fishermen use for getting notification of subsea hazards. The FishSAFE is updated twice a year, around February/March and July/August times. Any new safety zones will take time to appear on FishSAFE even though approved. Therefore, in case any subsea hazard is left behind, we propose a guard vessel to be used to warn fishermen of the subsea hazard until the safety zone is update on FishSAFE.

Verification of clear seabed

SFF note from section 6.2 of the DP 'Post-Decommissioning Debris Clearance and Verification' that a full post decommissioning site survey will be carried out following completion of all decommissioning works captured under the separate further decommissioning programme(s) covering the P&A and subsea infrastructure phases. Given past experiences of both abandoned wellhead and oil and gas field decommissioning works, the SFF would take the opportunity to reaffirm that it has serious reservations regarding the use of survey data to verify that an area is safe for fishing activity to resume following decommissioning activity. It is our view that the undertaking of trawl verification sweeps under controlled conditions, which replicated the fishing operations that will be permitted in the area following the decommissioning work, is the best method of establishing that it is safe for fishing to resume in said area.

In conclusion, SFF's main objective is to protect and promote its constituent member associations interest. Therefore, we propose that the safety of our members is ensured, and their operations are not disrupted throughout any offshore oil and gas developments.

The Federation having stated the above position, would reaffirm its appreciation of the DP provided and its wish to work closely and positively with the TEPNSUK Team, as you work through the challenges before you.

Yours sincerely,

Fahim Mohammad Hashimi
Offshore Energy Policy Manager
Scottish Fishermen's Federation
[redacted]
[redacted]

Malcolm WATT

From: Ian Rowe [redacted]
Sent: 04 October 2024 20:02
To: Malcolm WATT
Subject: RE: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes

Good evening Malcolm
Thanks for forwarding the SFF response , I can confirm the NFFO have no further comments to make on the Gryphon Alpha FPSO & Riser decommissioning program.

Best regards
Ian.

Ian Rowe
General Manager
NFFO Services Limited
30 Monkgate
York
YO31 7PF
Switchboard 01904 635 430
[redacted]
Website:www.nffoservices.com

From: Malcolm WATT [redacted]
Sent: Friday, October 4, 2024 2:23 PM
To: Ian Rowe [redacted]
Subject: RE: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes

Hello Ian,

For your information, please find attached response from SFF as a record of our consultation with them on the Gryphon Alpha FPSO & riser disconnection Decommissioning Programme (DP) to ensure their constituent member associations interests are protected and their safety ensured.

SFF confirmed that it was ok for me to share their response with NFFO so you have a record of the consultation we have had with fishery organisations, and so you have the opportunity to provide further comments if needed.

If you do have any further comments you would like us to consider before we finalise the DP for OPRED approval, please let me know no later than the end of next week, Friday 11th October.

Kind regards
Malcolm

Malcolm Watt
Senior Development Lead
TotalEnergies E&P UK – Strategy & Business

TotalEnergies E&P UK Limited
TotalEnergies House, Tarland Road, Westhill,
Aberdeenshire, AB32 6JZ
[redacted]

From: Malcolm WATT
Sent: Friday, August 30, 2024 6:42 AM
To: [redacted]
Cc: Kenneth WATT [redacted]
Subject: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes

GRYPHON ALPHA FPSO AND RISER DISCONNECTION DECOMMISSIONING PROGRAMMES

The draft Decommissioning Programmes for TotalEnergies E&P North Sea Limited's Gryphon Alpha Floating Production Storage & Offloading (FPSO) facility and risers have been approved for consultation by the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED). Public Notices were issued on 30 August 2024.

The items/facilities covered by the Decommissioning Programme are the Gryphon Alpha FPSO facility including mooring system, and for the disconnection and recovery of the associated flexible risers and dynamic umbilicals. The FPSO is located in the United Kingdom Continental Shelf (UKCS) Block 9/18b, approximately 169 km southeast of Shetland.

The Programmes are attached for your review as Statutory Consultee.

Should you have any questions or comments on the documentation, please address these to myself and Kenneth Watt (Development & Planning Leader) as cc'd above, on or before 30th September 2024.

Kind regards
Malcolm Watt

Malcolm Watt
Senior Development Lead
TotalEnergies E&P UK – Strategy & Business

TotalEnergies E&P UK Limited
TotalEnergies House, Tarland Road, Westhill,
Aberdeenshire, AB32 6JZ
[redacted]

Malcolm WATT

From: Malcolm WATT
Sent: 04 October 2024 14:22
To: [redacted]
Subject: RE: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes
Attachments: A-400351-S00-K-REPT-003_Rev6.pdf; SFF response to Gryphon Alpha FPSO DP_final 300924.pdf

Hello Harry,

For your information, please find attached response from SFF as a record of our consultation with them on the Gryphon Alpha FPSO & riser disconnection Decommissioning Programme (DP) to ensure their constituent member associations interests are protected and their safety ensured.

SFF confirmed that it was ok for me to share their response with NIFPO so you have a record of the consultation we have had with fishery organisations, and so you have the opportunity to provide further comments if needed.

If you do have any further comments you would like us to consider before we finalise the DP for OPRED approval, please let me know no later than the end of next week, Friday 11th October.

Kind regards
Malcolm

Malcolm Watt
Senior Development Lead
TotalEnergies E&P UK – Strategy & Business

TotalEnergies E&P UK Limited
TotalEnergies House, Tarland Road, Westhill,
Aberdeenshire, AB32 6JZ

[redacted]

From: Malcolm WATT
Sent: Friday, August 30, 2024 6:41 AM
To: [redacted]
Cc: Kenneth WATT [redacted]
Subject: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes

GRYPHON ALPHA FPSO AND RISER DISCONNECTION DECOMMISSIONING PROGRAMMES

The draft Decommissioning Programmes for TotalEnergies E&P North Sea Limited's Gryphon Alpha Floating Production Storage & Offloading (FPSO) facility and risers have been approved for consultation by the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED). Public Notices were issued on 30 August 2024.

The items/facilities covered by the Decommissioning Programme are the Gryphon Alpha FPSO facility including mooring system, and for the disconnection and recovery of the associated flexible risers and dynamic umbilicals. The FPSO is located in the United Kingdom Continental Shelf (UKCS) Block 9/18b, approximately 169 km southeast of Shetland.

The Programmes are attached for your review as Statutory Consultee.

Should you have any questions or comments on the documentation, please address these to myself and Kenneth Watt (Development & Planning Leader) as cc'd above, on or before 30th September 2024.

Kind regards
Malcolm Watt

Malcolm Watt
Senior Development Lead
TotalEnergies E&P UK – Strategy & Business

TotalEnergies E&P UK Limited
TotalEnergies House, Tarland Road, Westhill,
Aberdeenshire, AB32 6JZ

[redacted]

Malcolm WATT

From: Malcolm WATT
Sent: 04 September 2024 08:42
To: Morris, Chloe (OceanIQ)
Subject: RE: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes

Good Morning Chloe,

Thank you for the quick review and reply to confirm you see no anticipated impacts from our FPSO decommissioning scope on active telecommunication cables. Noted that TAT 14 is now out of service, we will update the Decom Programme.

Kind regards
Malcolm

Malcolm Watt
Senior Development Lead
TotalEnergies E&P UK – Strategy & Business

TotalEnergies E&P UK Limited
TotalEnergies House, Tarland Road, Westhill,
Aberdeenshire, AB32 6JZ
[redacted]

From: Morris, Chloe (OceanIQ) [redacted]
Sent: Tuesday, September 3, 2024 11:16 AM
To: Malcolm WATT [redacted]
Cc: Kenneth WATT [redacted]; Reeve, Daniella (Global Marine Group) [redacted]
Subject: Re: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes

Hi Malcolm,

Many thanks for providing the information associated with the decommissioning of the Gryphon Alpha FPSO and risers.

When reviewing the consultation documentation, I note that there is mention in the DP of active telecommunications cables. The closest is over 20km away from planned operations, given the distance there are no anticipated impacts. One thing to note is that TAT 14 is now Out of Service (OOS).

In the event that the decom program changes, and seabed invasive operations are to occur near existing telecom infrastructure, it will be important to notify any nearby cable owners of any upcoming operations.

Contact details of the cable owners can be sourced from: https://kis-orca.org/map/

Kind regards,
Chloe

_____
From: Malcolm WATT [redacted]
Sent: 30 August 2024 06:41
To: Morris, Chloe (OceanIQ) [redacted]
Cc: Kenneth WATT [redacted]
Subject: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes

GRYPHON ALPHA FPSO AND RISER DISCONNECTION DECOMMISSIONING PROGRAMMES

The draft Decommissioning Programmes for TotalEnergies E&P North Sea Limited's Gryphon Alpha Floating Production Storage & Offloading (FPSO) facility and risers have been approved for consultation by the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED). Public Notices were issued on 30 August 2024.

The items/facilities covered by the Decommissioning Programme are the Gryphon Alpha FPSO facility including mooring system, and for the disconnection and recovery of the associated flexible risers and dynamic umbilicals. The FPSO is located in the United Kingdom Continental Shelf (UKCS) Block 9/18b, approximately 169 km southeast of Shetland.

The Programmes are attached for your review as Statutory Consultee.

Should you have any questions or comments on the documentation, please address these to myself and Kenneth Watt (Development & Planning Leader) as cc'd above, on or before 30th September 2024.

Kind regards

Malcolm Watt

[redacted]

Malcolm Watt

Senior Development Lead

TotalEnergies E&P UK – Strategy & Business

TotalEnergies E&P UK Limited

TotalEnergies House, Tarland Road, Westhill, Aberdeenshire, AB32 6JZ

[redacted]

[redacted]

Chloe Morris
Permitting Manager
Global Marine Group

Malcolm WATT

From: Claire Hepworth (North Sea Transition Authority) [redacted]
Sent: 02 September 2024 06:57
To: Malcolm WATT
Cc: Kenneth WATT; Alasdair Thomas (North Sea Transition Authority)
Subject: RE: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes

Good Morning Malcolm

Thank you for sending though. The NSTA will receive a formal copy through OPRED for consultation and any comments to the DP will be issued through them.

Kind regards
Claire

North Sea Transition Authority

Claire Hepworth
Decommissioning Stewardship Engineer
NSTA
3rd Floor, 1 Marischal Square, Broad Street, Aberdeen, AB10 1BL
[redacted]
www.nstauthority.co.uk Follow us on Twitter @NSTAuthority

From: Malcolm WATT [redacted]
Sent: Friday, August 30, 2024 6:39 AM
To: Claire Hepworth (North Sea Transition Authority) [redacted]
Cc: Kenneth WATT [redacted]
Subject: Statutory Consultation - Gryphon Alpha FPSO and Riser Disconnection Decommissioning Programmes

GRYPHON ALPHA FPSO AND RISER DISCONNECTION DECOMMISSIONING PROGRAMMES

The draft Decommissioning Programmes for TotalEnergies E&P North Sea Limited's Gryphon Alpha Floating Production Storage & Offloading (FPSO) facility and risers have been approved for consultation by the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED). Public Notices were issued on 30 August 2024.

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The Programmes are attached for your review as Statutory Consultee.

Should you have any questions or comments on the documentation, please address these to myself and Kenneth Watt (Development & Planning Leader) as cc'd above, on or before 30th September 2024.

Kind regards

Malcolm Watt
Senior Development Lead
TotalEnergies E&P UK – Strategy & Business

TotalEnergies E&P UK Limited
TotalEnergies House, Tarland Road, Westhill,
Aberdeenshire, AB32 6JZ
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Nobel Upstream

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18th October 2024

By email only to: [redacted]
Copied to: [redacted]

Dear Claire,

Re: Gryphon Alpha FPSO and Riser Disconnection and Decommissioning Programmes (the "Gryphon DP")

I am writing in response to TotalEnergies' Public Notice of 30th August 2024 concerning the draft Gryphon DP.

Nobel's interest in the Gryphon DP

As you are aware, Nobel Oil E&P North Sea Limited ("**Nobel**") is an owner of the Maclure and Ballindalloch fields, both of which are tied-back to, and receive production and operational services provided by, the Gryphon Alpha FPSO (the "**FPSO**").

From 5th December 2016 until 19th December 2023, Nobel was a Section 29 holder in relation to pipelines PL1896JP39 and PLU1899JP39, which are included in the Gryphon DP. Nobel received a revised Section 29 Notice from OPRED on 19th December 2023 which treated each of these two pipelines as separate sections based on ownership (rather than considering each of them as an integrated pipeline system, which is the operational reality), and thus removed Section 29 status from Nobel in relation to the sections of these pipelines which have subsequently been included in the Gryphon DP.

This change was prompted by a variation (dated October 2023) to the Pipeline Works Authorisation dated 27th March 2002 (the "PWA") which we assume was submitted by TotalEnergies. No consultation took place with Nobel prior to their removal from the Section 29 Notices. It is also noted that TotalEnergies shared their first draft of the Gryphon DP with the Offshore Decommissioning Unit on 8th August 2023, two months prior to the submission of the variation to the PWA, at a time when Nobel was a Section 29 holder. TotalEnergies did not share the draft Gryphon DP with Nobel, nor discuss it with them nor consult with them on it prior to its submission in draft to OPRED, despite Nobel being a Section 29 holder at the time.

In correspondence of 11th October to our lawyers concerning our ongoing judicial review proceedings against NSTA and our request that this consultation exercise be paused, the Government Legal Department stated that:-

"*Nobel incorrectly had s 29 liability for the risers on pipeline PL1896 until December 2023.*

Nobel should never have been a s29 holder for the risers because Nobel (and other Maclure parties) never owned the riser."

However, as you are no doubt aware, Section 29 liability can fall on persons other than simply those who own infrastructure, including those who have an economic interest in it. By removing the Section 29 Notice from Nobel (and the other Maclure joint venture parties) in relation to specific sections of the pipeline (notably those now included in the Gryphon DP), OPRED have effectively denied Nobel the opportunity to participate fully in the development of the Gryphon DP.

Furthermore, Nobel remains a Section 29 notice holder in respect of connected pipeline infrastructure (being those sections of pipelines PL1896JP39 and PLU1899JP39 which are "owned" by Nobel and its joint venture partners) which requires, in accordance with and in order to carry out the Gryphon DP, to be "flushed" and "made safe". All Maclure, Ballindalloch and Tullich wells will have to be shut in. TotalEnergies states in the draft Gryphon DP that:-

"*In total there are 26 production wells; 1 gas injection well; and 5 water injection wells across all the connected fields. A risk assessment has been carried out of the integrity status of each well for leaving in a shut-in state after FPSO sail away. The frequency of subsea inspections to monitor the wells status will be defined based on the outcome of initial inspections in 2024 and 2025. Once this has been determined this will be discussed and agreed with OPRED."*

In relation to those wells in connected fields where Nobel is a joint venture partner, TotalEnergies as operator has not sought, and Nobel has not provided, any authorisation or approval to carry out any such risk assessments, or to share any confidential information in relation to these wells with any third party, including OPRED.

As a consequence of the Gryphon DP, physical intervention will be required in relation to infrastructure owned by Nobel and its joint venture partners and yet OPRED appear to have taken the view that it is acceptable that the Maclure owners are not participants in the DP process.

In the same letter of 11th October mentioned above OPRED has sought to minimise Nobel's status as a Section 29 notice holder. It has done so by reference to the contention that the only parts of the pipeline infrastructure contained within the Gryphon DP are risers, and that the remaining pipeline infrastructure will be subject to a separate decommissioning programme.

This approach is disingenuous and ignores operational and commercial reality. In respect of Maclure, Ballindalloch and Tullich, decomissioning of these risers (as is stated expressly in the Consultation Draft of the Gryphon DP) "*removes their current production route*". Removal of the Gryphon infrastructure means that the Maclure, Ballindalloch and Tullich owners will have no other choice but to decommission Maclure, Ballindalloch and Tullich - this choice will have been made for them by TotalEnergies and the Gryphon joint venture partners with no opportunity for the Maclure, Ballindalloch and Tullich owners to participate

direclty and fully in the decommissioning process. Decommissioning of these assets would leave significant amounts of stranded hydrocarbons and is not MER compliant: see further below.

Nobel will be directly and substantially adversely affected by the Gryphon DP. These direct and substantial impacts will put Nobel (and the other users of the Gryphon FPSO) in a significantly different position from other consultees who are not so impacted. OPRED should have particular regard to these impacts when considering and giving weight to this response. These impacts also support the disclosure in relation to the costs of decommissioning that Nobel has sought from OPRED, by correspondence dated 6th, 13th and 27th September 2024, and continues to seek.

Nobel's involvement in the preparation of the Gryphon DP

Notwithstanding Nobel's interests described above, Nobel has had no direct involvement in the preparation of the draft Gryphon DP. The consultation draft refers to the Gryphon Owners' "planning" having been shared with the FPSO user fields (page 8). The Gryphon Owners have not shared their evaluation of *"the remaining production life of the asset, considering safety, integrity management, environmental performance, costs and economics"*. Their failure to do so makes it even more essential that (as set out below) OPRED takes the necessary steps to ensure that this material - particularly costs and economics - are made available for the purposes of this consultation.

The adequacy of the Consultation Draft

As we and our representatives have explained repeatedly in separate correspondence with OPRED, Nobel considers that the Consultation Draft of the Gryphon DP is incomplete and therefore does not comply with the requirements of a lawful consultation. Specifically, no information is given about the costs of the proposed decommissioning work or about the economics underpinning the proposed DP.

The consultation exercise is intended to inform OPRED's consideration of the question of whether to approve the Gryphon DP under and in terms of section 32 of the Petroleum Act 1998 (the "**1998 Act**").

In making its decision under section 32, OPRED must take into account the cost of carrying out the programme that has been submitted and whether it is possible to reduce that cost by modifying the programme or making it subject to conditions (s32(6)(b) of the 1998 Act). The costs of the DP are therefore central to OPRED's decision-making and are equally central to any consultee's understanding of the merits of the proposed decommissioning and their ability to comment meaningfully on the question of whether the programme costs are appropriate. The costs of the decommissioning programme are also directly relevant to the adequacy or otherwise of any advice given by NSTA under s29(2B) or indeed under s32(7) of the 1998 Act.

The costs of the decommissioning programme, together with economic analysis of the Gryphon FPSO and the potential production from associated user fields, are also central

to an assessment of the compatibility of the decommissioning programme with the principal objective in terms of section 9BA of the 1998 Act. This requires the Secretary of State to act in accordance with the OGA Strategy when exercising its functions under Part 4 of the 1998 Act to the extent that they concern reduction of the costs of abandonment of offshore installations.

In all the circumstances, and for the reasons set out in detail in Nobel's earlier correspondence with OPRED, Nobel considers that the consultation fails to meet the second Sedley criterion. Without access to detailed cost and economics information, Nobel is not in a position to provide a properly informed response.

Nobel repeats its previous request that OPRED halts the consultation - and any consideration of responses received to the consultation exercise - until that information has been made available.

MER UK

As noted above, the Secretary of State is required by section 9BA of the 1998 Act to act in accordance with the OGA Strategy when exercising its functions under Part 4 of the 1998 Act to the extent that they concern reduction of the costs of abandonment of offshore installations. In particular, the Secretary of State is bound to act in a manner that supports the principal objective set out in section 9A of the 1998 Act being met.

More specifically, it must act consisently with paragraph 16 of the OGA Strategy that requires relevant persons (including TotalEnergies) to decommission in the most cost-effective way that does not prejudice the maximising of economically recoverable petroleum. That includes not prejudicing options for continued use, re-use and repurposing.

It must also act consisently with paragraphs 26 to 30 of the OGA Strategy where, as is the case with TotalEnergies, a relevant person has decided not to ensure that they Maximise Economic Recovery. The Secretary of State's approach should support the Strategy's requirement that such a person must allow others to seek to Maximise Economic Recovery by, among other things, divesting themselves of infrastructure to other financially and technically competent persons who are able to recover economically recoverable petroleum.

In all the circumstances, and for the reasons set out herein, compliance with Section 9BA of the 1998 Act requires the Secretary of State to reject the Gryphon DP.

The proposed timing of the programme described in the Gryphon DP is premature. It is evident that at current hydrocarbon production rates of up to 14,500 boe/d, there is no economic justification for ceasing production from Gryphon and the satellite fields, Maclure, Tullich and Ballindalloch, at end-2024. Even if the Gryphon field owners have demonstrated to the NSTA that its native production is uneconomic by end-2024, the FPSO should remain online to allow the satellite fields to deliver their MER obligations. Alternatively, should the Gryphon field owners not wish to continue to operate the FPSO

for this purpose, the OGA Strategy mandates that they must allow others to continue to produce by divesting themselves of their interests in Gryphon. Nobel, Apache and TAQA all wish to continue economic hydrocarbon production in accordance with their MER obligations, and Nobel estimates the cash flow from continued hydrocarbon production beyond end-2024 to be at least $300 million on a pre-tax basis, with a significant proportion of this amount due to the UK exchequer in tax.

So far as paragraph 26 of the OGA Strategy is concerned, Nobel has made a viable proposal to TotalEnergies to continue producing from Gryphon and the satellite fields to deliver MER as follows:

1. To allow continued economic oil production, TotalEnergies will transfer its interests in the oil phase of the Gryphon, Tullich, Maclure and Ballindalloch fields (the "Gryphon Area Fields") to Nobel to continue oil production.
2. The effective date for the transfer will be 31st December 2024 for the consideration of one pound sterling (£1).
3. Upon economic cessation of oil production from the Gryphon Area Fields, Nobel will transfer back to TotalEnergies, should TotalEnergies so desire, these interests acquired in the Gryphon Area Fields to allow for future development of natural gas from the Q9 area.
4. Each party's share of decommissioning liability for the oil phase will remain at its current level but will obviously be deferred until economic oil production has been completed.
5. Nobel will contract with Petrofac to be the duty holder to operate the Gryphon Area Fields, including the Gryphon FPSO, an operating model with which Petrofac has many years of experience in the UK North Sea (see attached submission from Petrofac).
6. Utilising Petrofac's expertise Nobel will also assume management of the decommissioning work scope described in the Gryphon DP and will cap TotalEnergie's share of the cost for executing the work at the level budgeted in the Gryphon DP, once this cost is properly disclosed and reviewed.

Status of the FPSO

The Consultation Draft Gryphon DP contains no information on which consultees may comment in relation to the integrity of the FPSO. To that extent the Consultation Draft is deficient because that issue is directly relevant to the question of whether the FPSO is capable of continued use, reuse or repurposing in a way that supports MER.

On 11th January 2023 the Maclure joint venture parties approve the proposed Annual Stewardship Survey submission to the NSTA for the Maclure field which included an estimated CoP date of 30th June 2027. Nobel also approved the proposed submission for the Ballindalloch field with the same estimated CoP date. This date was consistent with the Long Term Plans for the Gryphon area presented each year previously to the Maclure joint venture parties and continued production to at least 2027 was the basis upon which the Gryphon FPSO Life Extension capital was invested to deliver marine class

certification of the vessel to November 2027. Class renewal until November 2027 was granted on 15th February 2023, and less than a month later, TotalEnergies announced its intention to cease production citing vulnerability concerns with respect to the FPSO.

In May 2024 TotalEnergies, in a letter to the NSTA, explained that a capital investment of up to £10 million may be required to address integrity threats to the FPSO in order for it to be able to operate to end-2027. It is clear that the remaining pre-tax cash flow can easily fund such work. Therefore, there is no logic in ceasing production due to supposed operational vulnerability of the FPSO when any threats can be addressed by a small investment relative to the remaining value. Indeed, the Gryphon DP describes the continuing process of marketing the FPSO for sale as an alternative to decommissioning, which is inconsisent with a position that the FPSO is either vulnerable or indeed obsolete.

Wider economic consequences of decommissioning

Premature cessation of production will also have a significant impact in terms of job losses offshore and onshore, as well as on UK energy security. Ceasing economic production several years earlier than necessary will inevitably lead to redundancies and a commensurate impact on the local and national economy. Although the oil production is offshore loaded and much of it is delivered to continental European refineries, the loss of that oil supply will tighten UK and other European supply/demand balances and likely impact the UK economy through increased cost. The Gryphon FPSO gas production is supplied directly into the UK National Grid, and its unnecessary loss will contribute to weakened UK energy security since it will need to be replaced with imports of either pipeline natural gas from continental Europe or LNG from the US or the Middle East at increased cost and increased environmental emissions.

Timing of the proposed decommissioning

TotalEnergies has accepted the risk of keeping the FPSO “on station” for a winter period. That being so, and consistent with MER, it would be logical to maintain production throughout a given winter period and carry out decommissioning activity in the spring/summer. Doing so would generate additional revenue that would meet (and exceed) the enhanced costs for the support vessels charged during the spring/summer period, particularly when the spring/summer period also experiences less weather downtime. This approach would also result in the FPSO burning less marine fuel than in winter and is thus lower cost and better for the environment.

The risk associated with a 31st December CoP date is compounded by CoP removing redundancy in power generation on the FPSO as fuel gas will no longer be available. In the event that the installation lost either all or a significant portion of its diesel generation from either mechanical failure or contamination of the liquid fuel, without access to fuel gas to provide power for thrusters, the FPSO’s station keeping ability would be lost. The prospect of planning for the risk of this loss of redundancy in January, February or March fails an ALARP (“as low as reasonably possible”) test. In summary, it is difficult to understand how scheduling decommissioning during the winter months can be justified

as the lowest cost or least risk option.

Clearly all of the above matters can be successfully addressed by withdrawing the Gryphon DP and continuing hydrocarbon production on the FPSO. However, should the Gryphon owners still decide that they do not wish to maximise economic recovery, the OGA Strategy mandates that they must allow others to do so. Other owners in the area do wish to continue hydrocarbon production to maximise economic recovery and are eager to engage with the Gryphon owners in order to deliver that outcome, not only for the UK's economic benefit, but also for UK energy security and to ensure continued employment for the affected employees on the FPSO and onshore.

Yours sincerely,

Nick Pogson

Head of Commercial

cc:

Malcolm Watt, Senior Development Engineer, TotalEnergies

Nobel Comment	TEPNSUK Response
Nobel's interest in the Gryphon DP As you are aware, Nobel Oil E&P North Sea Limited (“Nobel”) is an owner of the Maclure and Ballindalloch fields, both of which are tied-back to, and receive production and operational services provided by, the Gryphon Alpha FPSO (the “FPSO”). From 5th December 2016 until 19th December 2023, Nobel was a Section 29 holder in relation to pipelines PL1896JP39 and PLU1899JP39, which are included in the Gryphon DP. Nobel received a revised Section 29 Notice from OPRED on 19th December 2023 which treated each of these two pipelines as separate sections based on ownership (rather than considering each of them as an integrated pipeline system, which is the operational reality), and thus removed Section 29 status from Nobel in relation to the sections of these pipelines which have subsequently been included in the Gryphon DP. This change was prompted by a variation (dated October 2023) to the Pipeline Works Authorisation dated 27th March 2002 (the "PWA") which we assume was submitted by TotalEnergies. No consultation took place with Nobel prior to their removal from the Section 29 Notices. It is also noted that TotalEnergies shared their first draft of the Gryphon DP with the Offshore Decommissioning Unit on 8th August 2023, two months prior to the submission of the variation to the PWA, at a time when Nobel was a Section 29 holder. TotalEnergies did not share the draft Gryphon DP with Nobel, nor discuss it with them nor consult with them on it prior to its submission in draft to OPRED, despite Nobel being a Section 29 holder at the time. In correspondence of 11th October to our lawyers concerning our ongoing judicial review proceedings against NSTA and our request that this consultation exercise be paused, the Government Legal Department stated that:- "Nobel incorrectly had s 29 liability for the risers on pipeline PL1896 until December 2023. Nobel should never have been a s29 holder for the risers because Nobel (and other Maclure parties) never owned the riser." However, as you are no doubt aware, Section 29 liability can fall on persons other than simply those who own infrastructure, including those who have an economic interest in it. By removing the Section 29 Notice from Nobel (and the other Maclure joint venture parties) in relation to specific sections of the pipeline (notably those now included in the Gryphon DP), OPRED have effectively	Nobel were listed as S29 holder in error, which was simply corrected to match the ownership. Nobel are not an owner or Section 29 holder of any infrastructure being removed under the DP and so there was no need to discuss early drafts of the DP with them (as a Ballindalloch or Maclure Owner) or other Maclure owners. The Gryphon Operator made the Ballindalloch and Maclure Owners aware of the DP going to consultation and Nobel have had the opportunity to provide comments as evidenced by their comments. The Gryphon Owners provided early indication (March 2023) to the Maclure and Ballindalloch Owners of their intention to terminate the services to the Maclure and Ballindalloch fields (in line with the termination provisions contained in the relevant agreements) and have engaged with those JVs in accordance with the relevant Agreements. Gryphon Owners have stopped providing the current services (in accordance with the terms of the relevant Agreements) but it remains a decision for the Maclure and Ballindalloch owners whether they wish to decommission their facilities or seek alternative host arrangements. Gryphon Owners cannot comment on this.

denied Nobel the opportunity to participate fully in the development of the Gryphon DP. Furthermore, Nobel remains a Section 29 notice holder in respect of connected pipeline infrastructure (being those sections of pipelines PL1896JP39 and PLU1899JP39 which are "owned" by Nobel and its joint venture partners) which requires, in accordance with and in order to carry out the Gryphon DP, to be "flushed" and "made safe". All Maclure, Ballindalloch and Tullich wells will have to be shut in. TotalEnergies states in the draft Gryphon DP that:- "In total there are 26 production wells; 1 gas injection well; and 5 water injection wells across all the connected fields. A risk assessment has been carried out of the integrity status of each well for leaving in a shut-in state after FPSO sail away. The frequency of subsea inspections to monitor the wells status will be defined based on the outcome of initial inspections in 2024 and 2025. Once this has been determined this will be discussed and agreed with OPRED." In relation to those wells in connected fields where Nobel is a joint venture partner, TotalEnergies as operator has not sought, and Nobel has not provided, any authorisation or approval to carry out any such risk assessments, or to share any confidential information in relation to these wells with any third party, including OPRED. As a consequence of the Gryphon DP, physical intervention will be required in relation to infrastructure owned by Nobel and its joint venture partners and yet OPRED appear to have taken the view that it is acceptable that the Maclure owners are not participants in the DP process. In the same letter of 11th October mentioned above OPRED has sought to minimise Nobel's status as a Section 29 notice holder. It has done so by reference to the contention that the only parts of the pipeline infrastructure contained within the Gryphon DP are risers, and that the remaining pipeline infrastructure will be subject to a separate decommissioning programme. This approach is disingenuous and ignores operational and commercial reality. In respect of Maclure, Ballindalloch and Tullich, decomissioning of these risers (as is stated expressly in the Consultation Draft of the Gryphon DP) "removes their current production route". Removal of the Gryphon infrastructure means that the Maclure, Ballindalloch and Tullich owners will have no other choice but to decommission Maclure, Ballindalloch and Tullich - this choice will have been made for them by	

TotalEnergies and the Gryphon joint venture partners with no opportunity for the Maclure, Ballindalloch and Tullich owners to participate direclty and fully in the decommissioning process. Decommissioning of these assets would leave significant amounts of stranded hydrocarbons and is not MER compliant: see further below. Nobel will be directly and substantially adversely affected by the Gryphon DP. These direct and substantial impacts will put Nobel (and the other users of the Gryphon FPSO) in a significantly different position from other consultees who are not so impacted. OPRED should have particular regard to these impacts when considering and giving weight to this response. These impacts also support the disclosure in relation to the costs of decommissioning that Nobel has sought from OPRED, by correspondence dated 6th, 13th and 27th September 2024, and continues to seek.	
Nobels involvement in the preparation of the Gryphon DP *The consultation draft refers to the Gryphon Owners' "planning" having been shared with the FPSO user fields (page 8). The Gryphon Owners have not shared their evaluation of "the remaining production life of the asset, considering safety, integrity management, environmental performance, costs and economics". Their failure to do so makes it even more essential that (as set out below) OPRED takes the necessary steps to ensure that this material - particularly costs and economics - are made available for the purposes of this consultation*	The Gryphon Operator have shared the decommissioning planning with the Ballindalloch and Maclure Owners, from as early as March 2023, where the Gryphon Owners provided early indication of their intention to terminate the services to the Maclure and Ballindalloch fields (in line with the termination provisions contained in the relevant agreements) and have engaged with those JVs in accordance with the relevant Agreements.
The adequacy of the Consultataion Draft *Nobel considers that the Consultation Draft of the Gryphon DP is incomplete and therefore does not comply with the requirements of a lawful consultation. Specifically, no information is given about the costs of the proposed decommissioning work or about the economics underpinning the proposed DP. The consultation exercise is intended to inform OPRED's consideration of the question of whether to approve the Gryphon DP under and in terms of section 32 of the Petroleum Act 1998 (the "1998 Act").* *In making its decision under section 32, OPRED must take into account the cost of carrying out the programme that has been submitted and whether it is possible to reduce that cost by modifying the programme or making it subject to conditions*	The cost estimate for the decommissioning has been shared with OPRED. Details on costs are kept confidential and not normally shared in the open publication of the decommissioning programme. NSTA have provided their response to Consultation by the Secretary of State for Energy Security and Net Zero ('DESNZ') on Decommissioning Programmes pursuant to Petroleum Act 1998 s.32(6)(a). As part of that response NSTA confirmed that under c32(7) Petroleum Act 1998 it *considers that the Operator has framed the DP so as to ensure that the cost of carrying it out is kept to the minimum that is reasonably practicable in the circumstances*. NSTA considered the costs of the decommissioning programme, together with economic analysis

(s32(6)(b) of the 1998 Act). The costs of the DP are therefore central to OPRED's decision-making and are equally central to any consultee's understanding of the merits of the proposed decommissioning and their ability to comment meaningfully on the question of whether the programme costs are appropriate. The costs of the decommissioning programme are also directly relevant to the adequacy or otherwise of any advice given by NSTA under s29(2B) or indeed under s32(7) of the 1998 Act. *The costs of the decommissioning programme, together with economic analysis of the Gryphon FPSO and the potential production from associated user fields, are also centralto an assessment of the compatibility of the decommissioning programme with the principal objective in terms of section 9BA of the 1998 Act. This requires the Secretary of State to act in accordance with the OGA Strategy when exercising its functions under Part 4 of the 1998 Act to the extent that they concern reduction of the costs of abandonment of offshore installations.* *In all the circumstances, and for the reasons set out in detail in Nobel's earlier correspondence with OPRED, Nobel considers that the consultation fails to meet the second Sedley criterion. Without access to detailed cost and economics information, Nobel is not in a position to provide a properly informed response.* *Nobel repeats its previous request that OPRED halts the consultation - and any consideration of responses received to the consultation exercise - until that information has been made available.*	of the Gryphon FPSO and the potential production from associated user fields, and has shared this information with Nobel as part of the consultation ahead of issuing their response.
MER UK *The Secretary of State is required by section 9BA of the 1998 Act to act in accordance with the OGA Strategy when exercising its functions under Part 4 of the 1998 Act to the extent that they concern reduction of the costs of abandonment of offshore installations. In particular, the Secretary of State is bound to act in a manner that supports the principal objective set out in section 9A of the 1998 Act being met. More specifically, it must act consisently with paragraph 16 of the OGA Strategy that requires relevant persons (including TotalEnergies) to decommission in the most cost effective way that does not prejudice the maximising of economically recoverable petroleum. That includes not prejudicing options for continued use, re-use and repurposing.* *It must also act consisently with paragraphs 26 to 30 of the OGA Strategy where, as*	NSTA have provided their response to Consultation by the Secretary of State for Energy Security and Net Zero ('DESNZ') on Decommissioning Programmes pursuant to Petroleum Act 1998 s.32(6)(a). As part of that response NSTA confirmed that no viable alternatives to decommissioning have been identified (including repurpose / reuse / alternatives to decommissioning, continued operations) Nobel, Apache and TAQA have no MER obligations in respect of Gryphon. Gryphon Owners have engaged with NSTA with respect to the reasons for Gryphon FPSO CoP. The decision as to whether to CoP Maclure and Ballindalloch or whether to seek alternative host arrangements is a matter for the Maclure and Ballindalloch Owners.

is the case with TotalEnergies, a relevant person has decided not to ensure that they Maximise Economic Recovery. The Secretary of State's approach should support the Strategy's requirement that such a person must allow others to seek to Maximise Economic Recovery by, among other things, divesting themselves of infrastructure to other financially and technically competent persons who are able to recover economically recoverable petroleum. *In all the circumstances, and for the reasons set out herein, compliance with Section 9BA of the 1998 Act requires the Secretary of State to reject the Gryphon DP.* *The proposed timing of the programme described in the Gryphon DP is premature. It is evident that at current hydrocarbon production rates of up to 14,500 boe/d, there is no economic justification for ceasing production from Gryphon and the satellite fields, Maclure, Tullich and Ballindalloch, at end-2024. Even if the Gryphon field owners have demonstrated to the NSTA that its native production is uneconomic by end-2024, the FPSO should remain online to allow the satellite fields to deliver their MER obligations. Alternatively, should the Gryphon field owners not wish to continue to operate the FPSOfor this purpose, the OGA Strategy mandates that they must allow others to continue to* *produce by divesting themselves of their interests in Gryphon. Nobel, Apache and TAQA all wish to continue economic hydrocarbon production in accordance with their MER obligations, and Nobel estimates the cash flow from continued hydrocarbon production beyond end-2024 to be at least $300 million on a pre-tax basis, with a significant* *proportion of this amount due to the UK exchequer in tax.* *So far as paragraph 26 of the OGA Strategy is concerned, Nobel has made a viable proposal to TotalEnergies to continue producing from Gryphon and the satellite fields to deliver MER as follows:* *1. To allow continued economic oil production, TotalEnergies will transfer its interests in the oil phase of the Gryphon, Tullich, Maclure and Ballindalloch fields (the "Gryphon Area Fields") to Nobel to continue oil production.* *2. The effective date for the transfer will be 31st December 2024 for the consideration of one pound sterling (£1).* *3. Upon economic cessation of oil production from the Gryphon Area Fields, Nobel will transfer back to TotalEnergies, should TotalEnergies so desire, these interests*	The offer from Nobel is not viable as it does not provide an acceptable situation to the Gryphon Owners and this has been explained to Nobel on several occasions.

acquired in the Gryphon Area Fields to allow for future development of natural gas from the Q9 area. *4. Each party's share of decommissioning liability for the oil phase will remain at its current level but will obviously be deferred until economic oil production has been completed.* *5. Nobel will contract with Petrofac to be the duty holder to operate the Gryphon Area Fields, including the Gryphon FPSO, an operating model with which Petrofac has many years of experience in the UK North Sea (see attached submission from Petrofac).* *6. Utilising Petrofac's expertise Nobel will also assume management of the decommissioning work scope described in the Gryphon DP and will cap TotalEnergie's share of the cost for executing the work at the level budgeted in the Gryphon DP, once this cost is properly disclosed and reviewed.*	
Status of the FPSO *The Consultation Draft Gryphon DP contains no information on which consultees may comment in relation to the integrity of the FPSO. To that extent the Consultation Draft is deficient because that issue is directly relevant to the question of whether the FPSO is capable of continued use, reuse or repurposing in a way that supports MER.* *On 11th January 2023 the Maclure joint venture parties approve the proposed Annual Stewardship Survey submission to the NSTA for the Maclure field which included an estimated CoP date of 30th June 2027. Nobel also approved the proposed submission for the Ballindalloch field with the same estimated CoP date. This date was consistent with the Long Term Plans for the Gryphon area presented each year previously to the Maclure joint venture parties and continued production to at least 2027 was the basis upon which the Gryphon FPSO Life Extension capital was invested to deliver marine class certification of the vessel to November 2027. Class renewal until November 2027 was granted on 15th February 2023, and less than a month later, TotalEnergies announced its intention to cease production citing vulnerability concerns with respect to the FPSO.* *In May 2024 TotalEnergies, in a letter to the NSTA, explained that a capital investment of up to £10 million may be required to address integrity threats to the FPSO in order for it to be able to operate to end-2027. It is clear that the remaining pre-tax cash*	The Life Extension work referred to was a programme of work over several years, decided by the Gryphon Owners - not a single investment. It does not follow that the FPSO can simply continue operation to 2027. Life Extension and Class renewal are not directly linked. Class approval is not a one-off approval for 5 years with no ongoing work. Validity is subject to satisfactory ongoing inspection activities. Nobel do not mention operational vulnerabilities such as the Maclure and Tullich static flexible brittle failure risk (loss of production, environmental pollution) and low Insulation Resistance (IR) issues in the subsea umbilicals, plus other vulnerabilities of equipment not linked to Class requirements. The statement that a potential sale of the FPSO is inconsistent with it having integrity risks for continued operation in the same location is incorrect as a potential buyer would refurbish /renew as necessary to suit their development location and requirements.

flow can easily fund such work. Therefore, there is no logic in ceasing production due to supposed operational vulnerability of the FPSO when any threats can be addressed by a small investment relative to the remaining value. Indeed, the Gryphon DP describes the continuing process of marketing the FPSO for sale as an alternative to decommissioning, which is inconsisent with a position that the FPSO is either vulnerable or indeed obsolete.	
Wider economic consequences of decommissioning Premature cessation of production will also have a significant impact in terms of job losses offshore and onshore, as well as on UK energy security. Ceasing economic production several years earlier than necessary will inevitably lead to redundancies and a commensurate impact on the local and national economy. Although the oil production is offshore loaded and much of it is delivered to continental European refineries, the loss of that oil supply will tighten UK and other European supply/demand balances and likely impact the UK economy through increased cost. The Gryphon FPSO gas production is supplied directly into the UK National Grid, and its unnecessary loss will contribute to weakened UK energy security since it will need to be replaced with imports of either pipeline natural gas from continental Europe or LNG from the US or the Middle East at increased cost and increased environmental emissions.	The reasons for the decision to CoP Gryphon FPSO have been well communicated to stakeholders including the relevant regulators.
Timing of the proposed decommissioning *TotalEnergies has accepted the risk of keeping the FPSO "on station" for a winter period. That being so, and consistent with MER, it would be logical to maintain production throughout a given winter period and carry out decommissioning activity in the spring/summer. Doing so would generate additional revenue that would meet (and exceed) the enhanced costs for the support vessels charged during the spring/summer period, particularly when the spring/summer period also experiences less weather downtime. This approach would also result in the FPSO burning less marine fuel than in winter and is thus lower cost and better for the environment.* *The risk associated with a 31st December CoP date is compounded by CoP removing redundancy in power generation on the FPSO as fuel gas will no longer be available. In the event that the installation lost either all or a significant portion of its diesel generation from either mechanical failure or contamination of the liquid fuel,*	The risk to station-keeping claimed from losing redundancy in power generation is incorrect. The FPSO station-keeping capability is primarily provided from the static mooring lines and this is assisted by the thrusters powered by the Diesel Generators (DGs). Unavailability of the Gas Turbines (GTs) would not lead to a downgraded situation. The mooring analysis for the vessel station keeping capability without thruster assistance indicates that the vessel would not suffer a cascade failure of the moorings up to and including Force 10 conditions. If the weather were forecasted to reach this threshold (Force 10) under normal production operations the process plant would be shutdown such that there would not be a fuel gas supply to the GT's in any case. This is currently done to remove one of the primary threats to marine power generation (DG's) which would be gas ingress to the engine room intakes. This would constitute a Major Accident Hazard (MAH) risk and would result in an immediate shutdown of the Engine Room(s) and loss of associated essential marine power generation and

without access to fuel gas to provide power for thrusters, the FPSO's station keeping ability would be lost. The prospect of planning for the risk of this loss of redundancy in January, February or March fails an ALARP ("as low as reasonably possible") test. In summary, it is difficult to understand how scheduling decommissioning during the winter months can be justifiedas the lowest cost or least risk option. *Clearly all of the above matters can be successfully addressed by withdrawing the Gryphon DP and continuing hydrocarbon production on the FPSO. However, should the Gryphon owners still decide that they do not wish to maximise economic recovery, the OGA Strategy mandates that they must allow others to do so. Other owners in the area do wish to continue hydrocarbon production to maximise economic recovery and are eager to engage with the Gryphon owners in order to deliver that outcome, not only for the UK's economic benefit, but also for UK energy security and to ensure continued employment for the affected employees on the FPSO and onshore*	station keeping equipment. The 5 x 3MW DGs are Class approved to provide sufficient redundancy and have switchboard segregation capability. The FPSO operating procedure for weather conditions above Force 8 are such that the switchboard would be operated in manner that always ensures that a minimum of 2 thrusters would be available should one power group fail. This will continue to be the case post CoP. As part of the DNV class notation POSMOOR ATA it has been demonstrated that using specific environmental data the FPSO meets requirements of consequence Class 2. All of the diesel which is delivered to the asset is fully tested on multiple occasions and it is stored in separate tanks to mitigate against the risk of a single contaminated tank affecting the power generation equipment. All diesel is then further treated onboard from the storage tanks to the associated service tanks to further mitigate against any contamination risk. On that basis, the risk of diesel contamination affecting the availability of sufficient DG's occurring concurrently with weather conditions that would be above a storm Force 10 where a black out event would lead to a cascade failure of moorings is extremely remote.