PELICAN
SUBSEA FACILITIES
DECOMMISSIONING PROGRAMMES

April 2026 – Final

77IFS-188149-H99-0001-000

DOCUMENT CONTROL

Approvals

	Name	Date
Prepared by	Sonia Daniel Xodus Group	April 2026
Reviewed by	Louisa Dunn Decommissioning Stakeholder & Compliance Lead	April 2026
Approved by	Alastair Maclean Decommissioning Manager	April 2026

Revision Control

Revision No	Reference	Changes/Comments	Issue Date
06	Final	Including Letters of Support	20th April 2026
05	Post - Consultation Draft	OPRED comments incorporated	April 2026
04	Post - Consultation Draft	Statutory Consultee comments incorporated	March 2026
03	Consultation Draft	OPRED comments incorporated	October 2025
02	Pre-Consultation Draft	OPRED comments incorporated	September 2025
01	First Draft		May 2025

Distribution List

Name	Company
Robert Willison	Offshore Petroleum Regulator for Environment and Decommissioning (OPRED)

TABLE OF CONTENTS

FIGURES

TABLES

ABBREVIATIONS

Abbreviation	Explanation
AWMP	Active Waste Management Plan
BUTA	Bullhead Umbilical Termination Assembly
CA	Comparative Assessment
CGBS	Concrete Gravity Base Structure
CO_2	Carbon dioxide
CoP	Cessation of Production
DP	Decommissioning Programme
EA	Environmental Appraisal
EUNIS	European Nature Information System
GMS	Global Marine Systems Limited
HSE	Health and Safety Executive
JNCC	Joint Nature Conservation Committee
LAT	Lowest Astronomical Tide
ML	Marine License
MODU	Mobile Offshore Drilling Unit
NFFO	National Federation of Fishermen's Organisations
NIFPO	Northern Ireland Fish Producers' Organisation
NNS	Northern North Sea
NORM	Naturally Occurring Radioactive Material
NSTA	North Sea Transition Authority
OEUK	Offshore Energies UK
OPEX	Operational Expenditure
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning
OSPAR	Oslo Paris Convention for the Protection of the Marine Environment of the North-East Atlantic
P&A	Plug and Abandon
PL	Pipeline (as in pipeline number)
PLU	Umbilical (as in umbilical number)
PMF	Priority Marine Feature
SAC	Special Area of Conservation
SDU	Subsea Distribution Unit
SSVS	Subsea Valve Skid
TAQA	TAQA Bratani Limited
THC	Total Hydrocarbon Content
UK	United Kingdom
UKCS	United Kingdom Continental Shelf
UKOOA	United Kingdom Offshore Operators Association
UTA	Umbilical Termination Assembly
WBS	Work Breakdown Structure

1 Executive Summary

1.1 Combined Decommissioning Programmes

This document contains three Decommissioning Programmes (DPs) for the Pelican subsea installations and pipelines and the associated facilities at the Cormorant Alpha platform.

There is a separate Decommissioning Programme for each set of associated notices served under Section 29 of the Petroleum Act 1998. The Decommissioning Programmes are for:

1. The four Pelican Field pipelines and four umbilicals linking the Pelican manifold and the Cormorant Alpha platform (Table 2-2).
2. The three umbilicals linking the Pelican manifold and the Pelican wells and the umbilical linking the Cormorant Alpha platform to the Subsea Distribution Unit 2 (SDU) (Table 2-2).
3. The twelve Pelican Field subsea installations (Table 1-1).

1.2 Requirement for Decommissioning Programmes

1.2.1 Installations

In accordance with the Petroleum Act 1998, as amended, TAQA, as operator of the Pelican subsea installations, and on behalf of the Section 29 Notice Holders (see Table 1-2) is applying to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) to obtain approval for decommissioning the Pelican subsea installations as detailed in Section 2.1 of this document. (See also Section 8 – Section 29 Holders' Letters of Support).

1.2.2 Pipelines

In accordance with the Petroleum Act 1998, as amended, TAQA, as operator of the Pelican subsea pipelines, and on behalf of the Section 29 Notice Holders (see Table 1-4) is applying to OPRED to obtain approval for decommissioning the Pelican pipelines as detailed in Section 2.2 of this document. (See also Section 8 – Section 29 Holders' Letters of Support).

In conjunction with public, stakeholder and regulatory consultation the Decommissioning Programmes are submitted in compliance with national and international regulations, and OPRED guidance [1].

The estimated schedule outlined for the decommissioning project spans a twelve-year period that commenced in 2023.

1.3 Introduction

The Pelican Field is in the Northern North Sea (NNS) in Block 211/26 of the United Kingdom Continental Shelf (UKCS), in a water depth of approximately 154 m. The Pelican Field was produced via the Cormorant Alpha platform, which is located in UKCS Block 211/26, 8.3 km north northeast of Pelican. The Pelican Field is located approximately 105 km northeast of Shetland and 39 km west of the UK/Norway median line. Hydrocarbons were exported from the Pelican Field via the Cormorant Alpha platform onwards through the Brent pipeline system to the Sullom Voe Terminal in Shetland.

The Pelican facilities comprise:

- Twelve production wells and four water injection wells. Seven of the Pelican production wells have been Phase 2 abandoned (Table 2-4). Water injection well W23 has an over-trawlable Xmas tree;
- The Pelican manifold, an extension manifold, two SDUs, a subsea valve skid (SSVS) and two acid skids;
- Pipelines and umbilicals between the Cormorant Alpha Platform and the Pelican Manifold and adjacent structures;
    - Two production pipelines (PL1084 and PL1085);
    - Gas lift pipeline (PL1086);
    - Water injection pipeline (PL1087);
    - Control and chemical injection umbilicals (PL1088, PL1089, PL1090, PLU1944 and PLU3136);

  These lines are trenched and backfilled over most of their length with spot rock placement where required. These pipelines and umbilicals run via Block 211/26. Umbilicals PL1088/89/90 run from Cormorant Alpha to a point on the seabed adjacent to the Pelican manifold Umbilical Termination Assembly (UTA), PLU1944 from Cormorant Alpha to the Pelican manifold UTA and PLU3136 from Cormorant Alpha to the Pelican SDU via the Bullhead Umbilical Termination Assembly (BUTA);
- Production jumpers, gas lift jumpers, water injection jumpers, control umbilical jumpers and hoses between the Pelican manifold and structures and the Pelican wells as listed in Table 2-2;
- The Cormorant Alpha platform Riser Caisson containing the Pelican risers: PL1084 and PL1085 8” oil risers, PL1086 6” gas lift riser, and PL1087 8” water injection riser. The Riser Caisson is in three sections. The Cell Wall Caisson runs from the seabed to the top of the storage cells. The Cell Top Caisson runs across the top of the storage cells to the bottom of the Guide Caisson, which runs vertically in Slot 32 of the conductor guides to the platform topsides;
- Umbilical risers PL1088, PL1089, PL1090 and PLU3136 installed in a J tube in Cormorant Alpha platform Concrete Gravity Base Structure (CGBS) leg C3; and
- Umbilical riser PLU1944 installed in a J tube in Cormorant Alpha platform CGBS leg C4.

The Pelican Field was discovered in 1970 and started production in 1996. The Pelican Field cannot produce after Cessation of Production (CoP) at the Cormorant Alpha platform, since it relies on the Cormorant Alpha platform as its export route. The Cormorant Alpha platform and therefore the Pelican Field ceased production in Q3 2024.

The Cormorant Alpha platform includes the CGBS. If derogation to leave the CGBS in place is granted, the Pelican pipelines and umbilicals will be removed to a point in close proximity (within approximately 75 m) of the base of the CGBS. This represents a reasonable balance between the level of risk associated with removing the facilities, the degree of disturbance of the seabed, the use of resources during decommissioning, and the loss of amenity for other sea users following decommissioning.

Notwithstanding, final decommissioning solutions for the Pelican pipelines and umbilicals at the Cormorant Alpha platform will be discussed and agreed with OPRED to align with decommissioning arrangements for the platform and associated infrastructure. Pelican decommissioning activities may be integrated with the overall Cormorant Alpha area and wider NNS decommissioning projects to maximise synergies, optimise the use of resources, and minimise disturbance to the environment.

Following public, stakeholder and regulatory consultation, these Decommissioning Programmes are submitted without derogation and in full compliance with OPRED [1] and Offshore Energies UK (OEUK) Guidelines [2]. The Decommissioning Programmes explain the principles of the decommissioning activities and are supported by a Comparative Assessment (CA) [3] of decommissioning options and an Environmental Appraisal (EA) [4].

1.4 Overview of Facilities Being Decommissioned

1.4.1 Installations

Table 1-1: Installations Being Decommissioned			
Field(s)	Pelican	**Production Type**	Oil
Water Depth	154 m	**UKCS Block**	211/26
Distance to Median	39 km	**Distance to UK Coastline**	105 km
Subsea Installations			
Number		**Type**	
1		Manifold (including roof panels)	
1		Extension Manifold	
1		Pelican W23 Integrated Structure[1]	
1		SSVS	
2		SDU[2]	
1		P10B Acid Skid[2]	
1		P19 Acid Skid[2]	
4		Concrete Deflectors	
Subsea Wells			
Number		**Type**	
12		Oil production	
4		Water injection[1]	
Drill Cuttings Pile (s)			
Number of Piles	2	**Total Estimated Volume (m^3)**	20,161

Note:

1. Well W23 incorporates an over trawlable Xmas tree.
2. The removal of these structures is covered under Marine License (ML) ML/1183.

Table 1-2: Installations Section 29 Notice Holders		
Company	**Registration Number**	**Equity Interest (%)**
S29 Notice: 01.08.07.06/139C for Pelican Installations		
TAQA Bratani Limited	05975475	100
ESSO Exploration and Production UK Limited	00207426	0
Shell U.K. Limited	00140141	0

1.4.2 Pipelines

Table 1-3: Pipelines Being Decommissioned	
Number of pipelines (Details given in Table 2-2)	64

Table 1-4: Pipelines Section 29 Notice Holders		
S29 Notice: 12.04.06.05/149C for PL1084, PL1085, PL1086, PL1087, PL1088, PL1089, PL1090 and PLU1944		
Company	**Reg Number**	**Equity Interest (%)**
TAQA Bratani Limited	05975475	100
ESSO Exploration and Production UK Limited	00207426	0
Shell U.K. Limited	00140141	0
S29 Notice: 12.04.06.05/431C PL1085JP20, PL1085JP21, PL1085JP22, PL1086JP10, PL1086JP18, PL1086JP20, PL1086JP21, PL1086JP22, PL1087JW23, PLU1944JPU-P10, PLU1944JPU-P11, PLU1944JPU-P12, PLU1944JPU-P13, PLU1944JPU-P14, PLU1944JPU-P15, PLU1944JPU-P16, PLU1944JPU-P18, PLU1944JPU-P19, PLU1944JPU-P20, PLU1944JPU-P19A, PLU1944JPU-SDU, PLU1944JPU-W11, PLU1944JPU-W12, PLU1944JPU-W17, PLU1944JPUW23, PLU1944JPU-P21, PLU1944JP22, PLU2756, PLU2980JW11, PLU2980JW12, PLU3136, PL4026, PL4027, PL4392, PL4396, PLU4447, PLU4448, PLU4449, PL6317, PL6318, PL6319, PL6320, PL6321, PL6322, PL6324, PL6327, PL6328, PL6329, PL6330,PL6331, PL6332, PL6333, PL6334, PL6335, PL6336, PL6337		
Company	**Reg Number**	**Equity Interest (%)**
TAQA Bratani Limited	05975475	100

1.5 Summary of Proposed Decommissioning Programmes

The selected decommissioning options for the Pelican infrastructure are shown in Table 1-5 below.

Table 1-5: Summary of Decommissioning Programme

Proposed Decommissioning Solution	Reason For Selection
1. Subsea Installations	
Full Removal: All materials, structures and equipment will be removed at end of field life. All recovered materials will be transported to shore for re-use, recycling, or disposal.	To leave a safe, clear seabed and in compliance with regulatory requirements.
2. Pipelines, Flowlines and Umbilicals	
All pipelines and umbilicals were flushed to an appropriate standard. TAQA has assessed the likelihood of wax being present in the Pelican production pipelines. The presence of wax in the majority of these lines is considered unlikely taking into account the fluid composition, operational history, process conditions and pipeline design. Environmental assessment considering the chemical composition and properties of the wax concluded that there is no significant risk to the marine environment in the unlikely event that wax is present. In addition, lines which met the criteria for possibly having wax present were tested and showed no evidence of wax. Further information on this assessment can be found in section 3.1.3 of the Pelican EA [4].	
Flexible Flowlines and Umbilicals, Surface Laid Surface laid portions of pipelines and umbilicals that are not in close proximity to the Cormorant Alpha platform CGBS will be removed together with protection features. The recovered items will be transported to shore for re-use, recycling, or disposal. Limited sections of surface laid pipelines and umbilicals in close proximity to the Cormorant Alpha CGBS may be left in place, subject to derogation to leave the CGBS in place, and agreement with OPRED. Note: "Close proximity" is considered within approximately 75 m of the CGBS. Logical break points between portions left *in situ* and portions removed will be selected, e.g., pipeline crossings, etc. This option represents a reasonable balance between the level of risk associated with removing the facilities, the degree of disturbance of the seabed, the use of resources during decommissioning, and the loss of amenity for other sea users following decommissioning. If derogation to leave the CGBS in place is not granted, all surface laid pipelines and umbilicals will be recovered and taken to shore for appropriate re-use, recycling, or disposal unless they are rock covered. The precise limit of "close proximity" will be agreed with OPRED on a case by case basis for each pipeline and umbilical.	This is the lowest risk, least seabed disturbance option.

Table 1-5: Summary of Decommissioning Programme	
Proposed Decommissioning Solution	**Reason For Selection**
Flexible Flowlines and Umbilicals, Trenched and Buried *Leave in situ (minimal intervention):* Remove line ends and remediate snag risk. Rock placement to remediate snag risk from cut ends. Recovered ends returned to shore for reuse, recycling or appropriate treatment and disposal.	Comparatively assessed as preferred option. The flowlines and umbilicals are considered to be sufficiently trenched and buried with no areas of spans, exposure, or shallow burial, posing risk to marine users. If following pre-decommissioning surveys, fishing critical spans are identified, the full length of the span would be remediated. Minimal seabed disturbance, lower energy use, reduced risk to personnel engaged in the activity.
Rigid Pipelines, Trenched and Buried *Remove Areas of Spans / Exposure / Shallow Burial:* Remove line ends and remediate snag risk. Recovery of surface laid sections outside existing trench (including transitions), removal to shore for reuse, recycling or appropriate treatment and disposal. Rock placement to remediate snag risk from cut ends, removal of areas of spans, exposure, and shallow burial depth (<0.6 m) using cut and lift techniques.	Comparatively assessed as preferred option. There are limited areas of spans / exposure or shallow burial hence removal of these areas is justified. If following pre- decommissioning surveys fishing critical spans are identified, the full length of the span would be remediated. Minimal seabed disturbance, lower energy use, reduced risk to personnel engaged in the activity. Degradation will occur over a long period within seabed sediment, with no anticipated hazard to other users of the sea.

Table 1-5: Summary of Decommissioning Programme	
Proposed Decommissioning Solution	**Reason For Selection**
Flexible Risers and Riser Umbilicals, Rigid Risers, Spools and Jumpers, Protection and Stabilisation *Full Removal:* The Pelican Riser Caisson, spools and jumpers and the associated protection features will be returned to shore for reuse, recycling, or appropriate disposal. Removal and recovery of the Pelican Riser Caisson will be undertaken in two phases, the Guide Caisson will be removed and recovered directly to shore as part of the Cormorant Alpha topsides removal preparations; the Cell Wall and Cell Top Caissons may be temporarily wet stored prior to their subsequent recovery to shore within a two year window. The Pelican umbilical risers contained in J tubes in legs C3, and C4 of the Cormorant Alpha CGBS will be addressed in the future Cormorant Alpha CGBS decommissioning programme. Sections of surface laid spools in close proximity to the Cormorant Alpha CGBS may be left in place, subject to derogation to leave the CGBS in place, and agreement with OPRED. Note: "Close proximity" is considered within approximately 75 m of the CGBS. Logical break points between portions left *in situ* and portions removed will be selected, e.g., pipeline crossings, etc. This option represents a reasonable balance between the level of risk associated with removing the facilities, the degree of disturbance of the seabed, the use of resources during decommissioning, and the loss of amenity for other sea users following decommissioning. If derogation to leave the CGBS in place is not granted, all surface laid pipelines and umbilicals will be recovered and taken to shore for appropriate re-use, recycling, or disposal unless they are rock covered.	To leave a safe, clear seabed and in compliance with regulatory requirements.
Rock Cover *Leave in situ:* Rock cover will remain *in situ.* Additional rock cover may be placed during decommissioning to mitigate snagging risk at the cut ends of pipelines, and pipeline sections where critical spans and exposures are present.	To remediate snag risk from cut ends, and critical spans, exposures, and areas of shallow burial. An estimate of 30,876 Te of rock cover will remain in situ. An estimate of 750Te of rock cover is proposed for pipelines cut ends and spans. Rock placement to remediate fishing critical spans and exposures is estimated to be 1,100 Te.

Table 1-5: Summary of Decommissioning Programme	
Proposed Decommissioning Solution	**Reason For Selection**
Pipeline Crossings *Full Removal:* The Pelican umbilicals cross over PL17, PL118, PL1084, PL1085, PL1086 and PL1087 at eight locations. These crossings will be removed.	To leave a safe, clear seabed and in compliance with regulatory requirements.
3. Wells	
Pelican wells will be Plugged and Abandoned (P&A'd) using a Mobile Offshore Drilling Unit (MODU) or Well Servicing Vessel (WSV) in alignment with the TAQA 'Well Barrier Standard TUK-11-B-009', and with reference to OEUK Well Decommissioning Guidelines [2] and other governing standards at the time of abandonment. If compliance with standards cannot be achieved, TAQA will adopt a risk-based approach in consultation with the relevant authorities. Xmas trees, flowbases, wellheads and the top section of the well conductors to a depth of at least 3m below seabed will be removed to shore for appropriate reuse, recycling, or disposal. Following removal of the wells, the seabed will be surveyed for debris and depressions, etc., and any necessary remediation will be performed.	Meets TAQA standards and North Sea Transition Authority (NSTA) and Health and Safety Executive (HSE) regulatory requirements.
4. Drill Cuttings	
There are two discreet cuttings deposits associated with the Pelican infrastructure. One located at the Pelican manifold and the other on top of the Cormorant Alpha CGBS storage cells, and, to a limited extent, the seabed at the south side of the platform. The decommissioning strategy for both cuttings deposits is to "Leave in place to degrade naturally." The cuttings associated with the Pelican manifold will be disturbed, however, efforts will be made to minimise the degree of disturbance during removal. Cuttings that are disturbed in the area around the Pelican manifold are likely to resettle within the area already contaminated by cuttings. Decommissioning activities will likely disturb the Cormorant Alpha cuttings piles and, as with the Pelican cuttings pile, any disturbed cuttings would resettle over the already contaminated sediments. Further information on drill cuttings disturbance can be found in the Pelican Field Subsea EA [4].	Compliance with Oslo Paris Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) Recommendation 2006/5 requirements.

Table 1-5: Summary of Decommissioning Programme	
Proposed Decommissioning Solution	**Reason For Selection**
5. Interdependencies	
Pelican pipeline and umbilical risers terminate at the Cormorant Alpha platform. Decommissioning of these risers, and the pipelines and umbilicals on the seabed in close proximity to the platform, will be managed in conjunction with overall TAQA NNS decommissioning. This will minimise risk, impacts on the environment and use of resources. If derogation to leave the Cormorant Alpha CGBS in place is granted, and the sections of surface laid pipelines in close proximity to the CGBS are left in place, disturbance of the Cormorant Alpha platform cuttings pile caused by Pelican decommissioning operations will be minimal. In this instance, the Cormorant Alpha cuttings pile disturbance will be solely due to the removal of the caisson containing PL1084, PL1085, PL1086 and PL1087 risers. Cuttings that are disturbed on top of the Cormorant Alpha CGBS, or in the surrounding area, are likely to resettle within the area already contaminated by cuttings. If derogation is not granted, the disturbance would be as described in line item '4. Drill Cuttings' above. The Cormorant Alpha platform CGBS and cuttings pile will be subject to a future separate DP. This future DP will address the impacts of Cormorant Alpha CGBS decommissioning activities on the Cormorant Alpha cuttings pile. TAQA has communicated with NSTA concerning alternatives to decommissioning, such as re-use and repurposing, in accordance with Section 29 (2A) of the Petroleum Act 1998 (as amended). There are no viable alternatives to decommissioning.	

1.6 Field Locations Including Field Layout and Adjacent Facilities

The locations of the Pelican Field and the adjacent facilities are shown in Figure 1-1 and Figure 1-2. Figure 1-3 shows the Pelican facilities layout in more detail. The Pelican Field is located in UKCS Block 211/26 in a water depth of 154 m. The Pelican manifold is approximately 105 km northeast of Shetland, and 39 km west of UK/Norway median line.

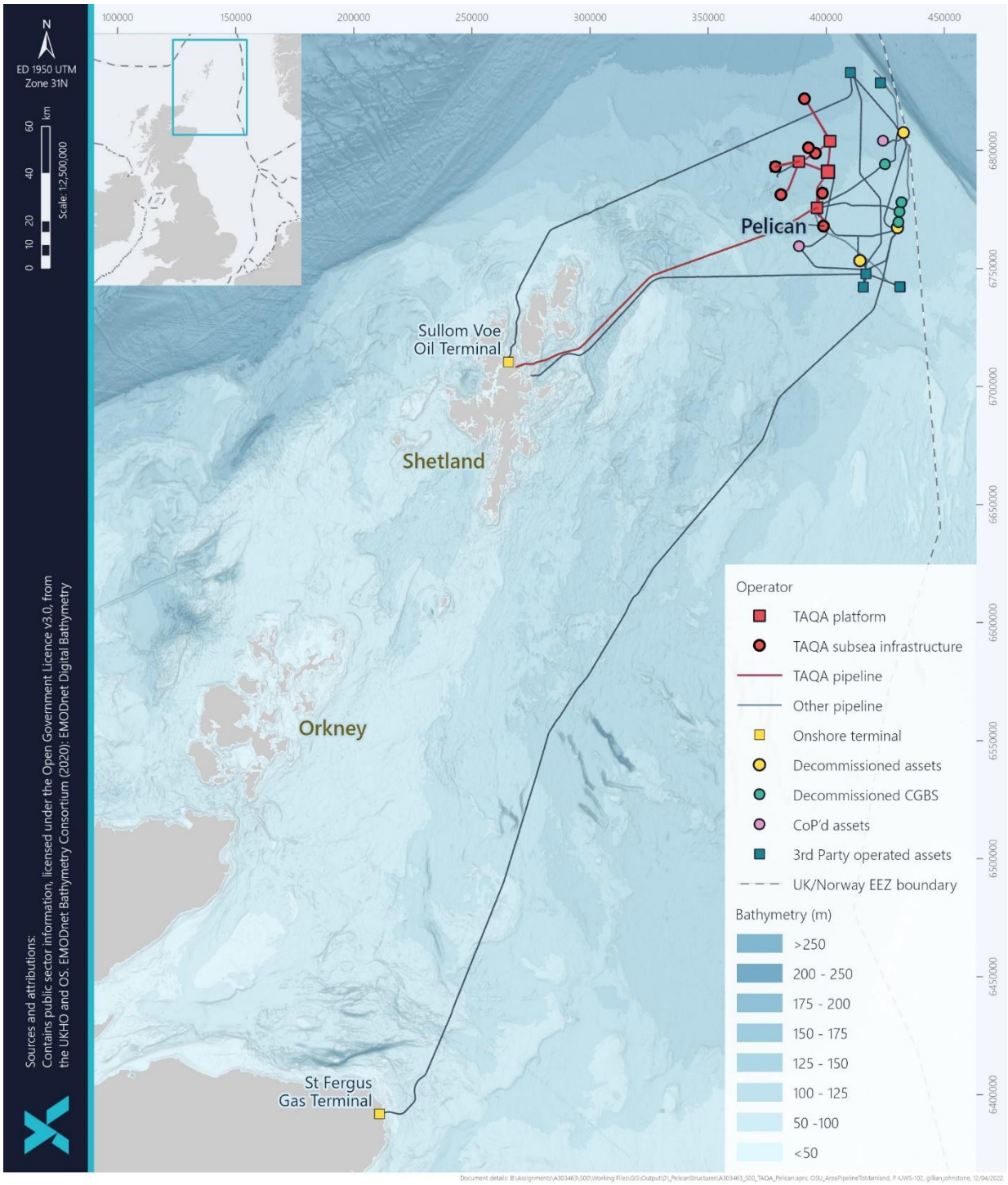

Figure 1-1: Pelican Field Location

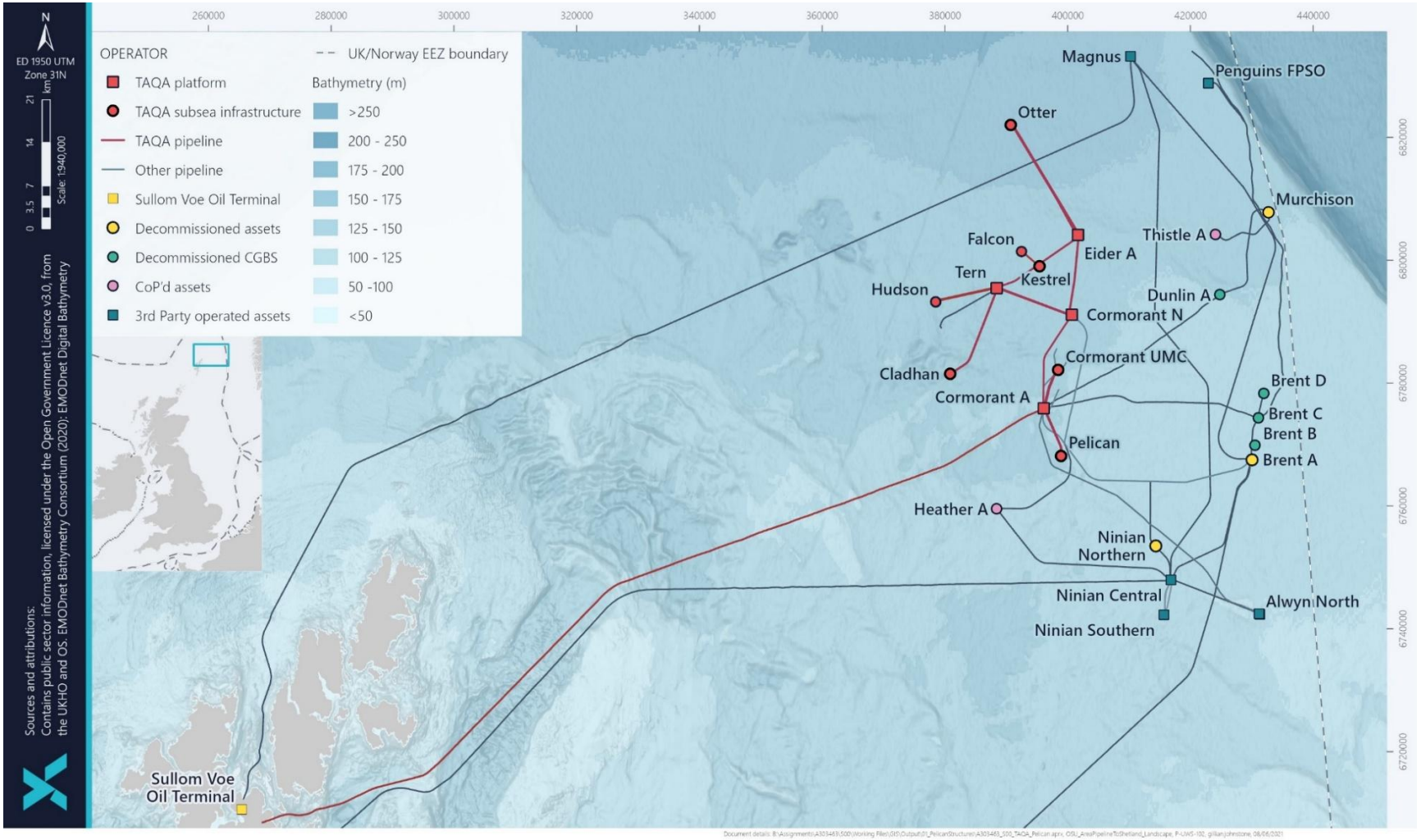

Figure 1-2: Pelican Adjacent Facilities

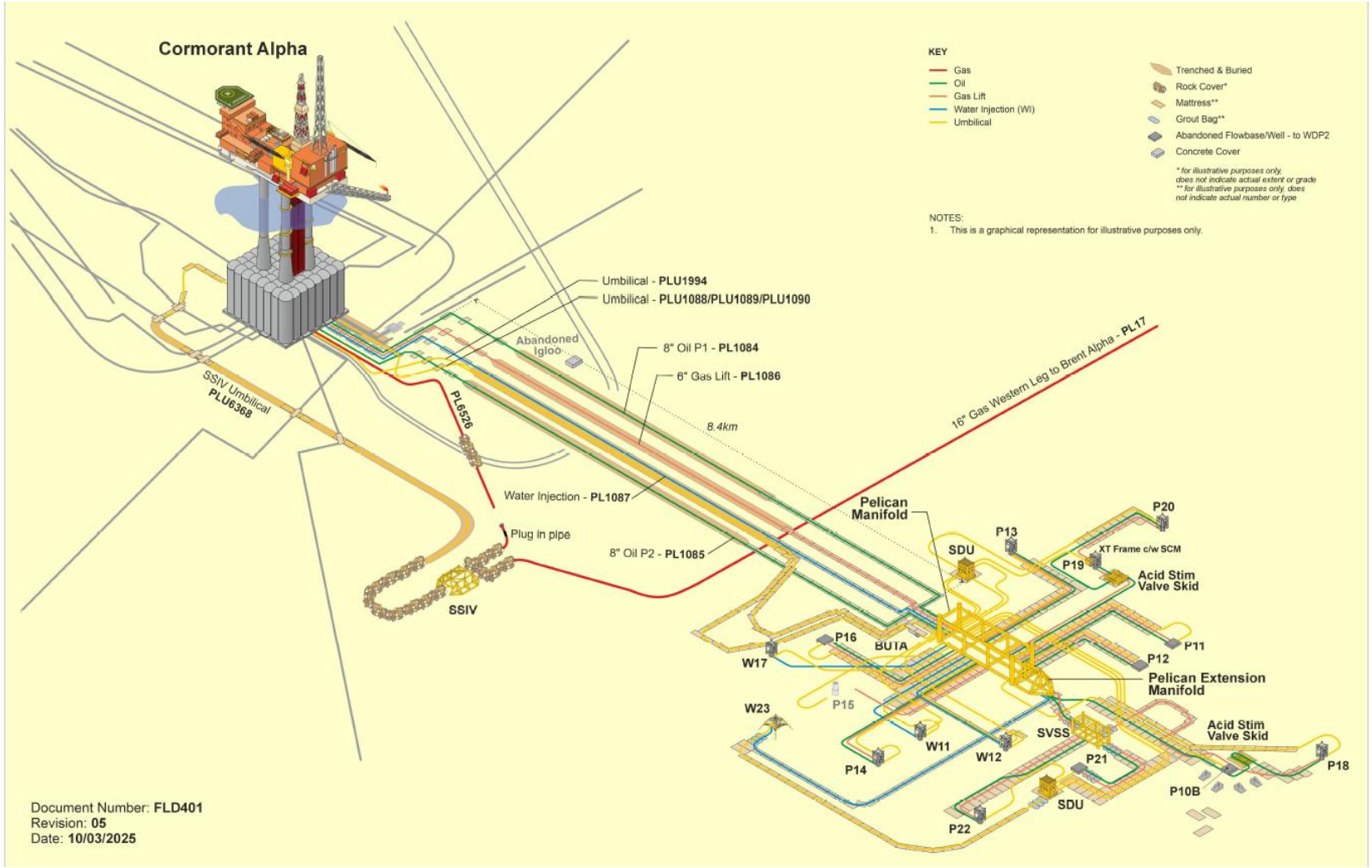

Figure 1-3: Pelican Facilities Layout

Table 1-6: Adjacent Facilities					
Operator	**Name**	**Type**	**Distance/ Direction from Pelican**	**Information**	**Status**
TAQA	Cormorant Alpha	Platform	8.2 km North northwest	Oil and Gas Development	Non-Operational
TAQA	PL118	Pipeline crossing	7.5 km North northwest	Pelican pipelines crossing over	Operational
Shell	Cormorant Alpha to Brent A (Western Leg) PL17	Pipeline crossing	3.8 km North northwest	Pelican pipelines crossing over	Non-Operational
TAQA	PL04	Pipeline	8.2 km	Adjacent pipeline	Non-Operational
Total Energies UK	North Alwyn Oil Export PL1526	Pipeline	2.1 km West	Adjacent Pipeline	Non-Operational
Impacts of Decommissioning Proposals					
TAQA has been, and will continue to be, in contact with operators and owners of adjacent facilities. There are no known interactions between the adjacent facilities and the proposed Pelican Decommissioning Programmes, other than the Cormorant Alpha platform and the Pelican pipelines crossing over PL17 and PL118. Decommissioning of Pelican and the Cormorant Alpha platform are inextricably linked as the Cormorant Alpha platform provides the only export route for Pelican production. A number of the Pelican pipelines cross over PL118, or cross pipelines in close proximity to the Cormorant Alpha platform. The removal of these crossings will be managed in the NNS decommissioning as part of the execution of Cormorant Alpha platform decommissioning.					

1.7 Industrial Implications

TAQA is developing the decommissioning contract and procurement strategy, on behalf of the Section 29 Notice Holders. TAQA envisages that this strategy may include using incumbent contractors for items and services covered by TAQA's existing Master Services Agreements.

Notwithstanding, TAQA has, and will continue to

- Publish Pelican decommissioning project information, including the project schedule, on the TAQA decommissioning website.
- Publish project information and contact details on the NSTA Pathfinder website: Energy Pathfinder.
- Engage with the NSTA and the decommissioning supply chain on any relevant issues relating to the Pelican decommissioning programme and schedule.
- Where appropriate use the First Point Assessment Limited (FPAL) / SEQual database for establishing tender lists.

2 Description of Items to be Decommissioned

2.1 Subsea Installations

Key information regarding the Pelican subsea facilities is presented in Table 2-1 and Table 2-2.

Table 2-1: Subsea Installations

Item	No.	Size (m) [LxWxH]	Weight (Te)	Location		Comments / Status
Pelican Manifold	1	19.2 x 7.6 x 4.2	127.5	WGS84 Decimal	61.0354° N 01.1292° E	Manifold structure is secured to the seabed by four steel piles. Piles to be cut to 3 m below seabed. Weight includes weight of roof panels and piles
				WGS84 Decimal Minute	61°02.12' N 01°07.75' E	
Extension Manifold	1	5.8 x 5.8 x 4.2	22	WGS84 Decimal	61.0353° N 01.1291° E	Suction anchor foundation system
				WGS84 Decimal Minute	61°02.12' N 01°07.75' E	
Pelican W23 Integrated Structure	1	4.4 x 4.1 x 3.1	52.9	WGS84 Decimal	61.0339° N 01.1295° E	Weight includes over-trawlable Xmas Tree, flow base and wellhead
				WGS84 Decimal Minute	61°02.03' N 01°07.77' E	
SSVS	1	6 x 4.5 x 3	32	WGS84 Decimal	61.0348° N 01.1291° E	Gravity based
				WGS84 Decimal Minute	61°02.09' N 01°07.75' E	
SDU 1[1]	1	1.8 x 1.5 x 1.3	1.2	WGS84 Decimal	61.0354° N 01.1293° E	Gravity based
				WGS84 Decimal Minute	61°02.13' N 01°07.75' E	
SDU 2[1]	1	1.8 x 1.5 x 1.3	1.2	WGS84 Decimal	61.0327° N 01.1268° E	Gravity based
				WGS84 Decimal Minute	61°01.97' N 01°07.61' E	
P10B Acid Skid[1]	1	2 x 1.2 x 1.7	4	WGS84 Decimal	61.0345° N 01.1292° E	Gravity based
				WGS84 Decimal Minute	61°02'07' N 01°07.75' E	

Table 2-1: Subsea Installations						
Item	**No.**	**Size (m) [LxWxH]**	**Weight (Te)**	**Location**		**Comments / Status**
P19 Acid Skid[1]	1	4.3 x 2.2 x 2.2	5.5	WGS84 Decimal	61.0353° N 01.1296° E	Gravity based
				WGS84 Decimal Minute	61°02.12' N 01°07.78' E	
Concrete Deflector 1	1	2 x 2 x 2	10	WGS84 Decimal	61.0324° N 01.1272° E	Concrete deflector on the seabed surrounding Well PU-P10B
				WGS84 Decimal Minute	61°01.95' N 01°07.64 E	
Concrete Deflector 2	1	2 x 2 x 2	10	WGS84 Decimal	61.0324° N 01.1271° E	Concrete deflector on the seabed surrounding Well PU-P10B
				WGS84 Decimal Minute	61°01.95' N 01°07.63' E	
Concrete Deflector 3	1	2 x 2 x 2	10	WGS84 Decimal	61.0325° N 01.1271° E	Concrete deflector on the seabed surrounding Well PU-P10B
				WGS84 Decimal Minute	61°01.95' N 01°07.63' E	
Concrete Deflector 4	1	2 x 2 x 2	10	WGS84 Decimal	61.0325° N 01.1271° E	Concrete deflector on the seabed surrounding Well PU-P10B
				WGS84 Decimal Minute	61°01.95' N 01°07.63' E	

Note:

1. The removal of these structures is covered under ML/1183.

2.2 Pipelines including Stabilisation Features

Table 2-2: Pipeline / Flowline / Umbilical Information

Description	Pipeline Number	Diameter	Length (km)	Description of Component Parts	Product Conveyed	From – To	Burial Status	Pipeline Status	Current Contents
Production Flowline	PL1084	8”	8.601	Steel	Hydrocarbons	Pelican Manifold – pig trap on Cormorant Alpha Platform Topsides	Trenched and buried	Out of use	Treated sea water
Production Riser[2]	PL1084	8”	0.204	Steel	Hydrocarbons	El + 18.500 - EL-93.960	N/A	Out of use	Treated sea water
Production Flowline	PL1085	8”	8.489	Steel	Hydrocarbons	Pelican Manifold – Cormorant Alpha Platform	Trenched and buried	Out of use	Treated sea water
Production Riser[2]	PL1085	8”	0.204	Steel	Hydrocarbons	El + 18.500 - EL-93.960	N/A	Out of use	Treated sea water
Production Jumper	PL1085JP20	6”	0.039	Steel	Hydrocarbons	Well PU-P20 – Well PU-P19[1]	Surface laid	Out of use	Treated sea water
Production Jumper	PL1085JP21	6” & 8”	0.077	Steel	Hydrocarbons	Well P21 – SSVS SSVS – Pelican Ext Manifold[1]	Surface laid	Out of use	Treated sea water
Production Jumper	PL1085JP22	8”	0.081	Flexible	Hydrocarbons	Well PU-P22 – SSVS[1]	Surface laid	Out of use	Treated sea water
Gas Lift Flowline	PL1086	6”	8.538	Steel	Hydrocarbons	Cormorant Alpha Platform– Pelican Manifold	Trenched and buried	Out of use	Treated sea water
Gas Lift Riser[2]	PL1086	6”	0.202	Steel	Hydrocarbons	El + 18.500 - EL-93.960	N/A	Out of use	Treated sea water

Table 2-2: Pipeline / Flowline / Umbilical Information

Description	Pipeline Number	Diameter	Length (km)	Description of Component Parts	Product Conveyed	From – To	Burial Status	Pipeline Status	Current Contents
Gas Lift Jumper	PL1086JP10	6”	0.083	Flexible	Hydrocarbons	SSVS – 6”x4” Tee Piece - Well P10[1]	Surface laid	Out of use	Treated sea water
Gas Lift Jumper	PL1086JP18	4”	0.040	Flexible	Hydrocarbon	Well PU-P10 – PU-P18[1]	Surface laid	Out of use	Treated sea water
Gas Lift Jumper	PL1086JP20	2”	0.038	Flexible	Hydrocarbon	Pelican PU-P19 -PU-P20[1]	Surface laid	Out of use	Treated sea water
Gas Lift Jumper	PL1086JP21	6”	0.082	Steel	Hydrocarbons	Well PU-P21 – Manifold Ext. Isolation Module[1]	Surface laid	Out of use	Treated sea water
Gas Lift Jumper	PL1086JP22	3”	0.071	Flexible	Hydrocarbons	SSVS – Pelican Well PU-P22[1]	Surface laid	Out of use	Treated sea water
Water Injection Flowline	PL1087	6”	8.495	Steel	Water	Cormorant Alpha Platform – Pelican Manifold	Trenched and buried	Out of use	Treated sea water
Water Injection Riser[2]	PL1087	6”	0.202	Steel	Water	El + 18.500 - EL-93.960	N/A	Out of use	Treated sea water
Riser Caisson[2]	N/A	N/A	0.212	Steel	N/A	N/A	N/A	N/A	N/A
Water Injection Jumper	PL1087JW23	6”	0.114	Flexible	Water	Manifold Ext. Isolation Module – Well W23	Surface laid	Out of use	Treated sea water
Chemical Injection Umbilical	PL1088	3/8”	8.597	Umbilical	Chemicals	Cormorant Alpha Platform – Pelican Manifold[1]	Trenched and buried	Out of use	Treated sea water

Table 2-2: Pipeline / Flowline / Umbilical Information

Description	Pipeline Number	Diameter	Length (km)	Description of Component Parts	Product Conveyed	From – To	Burial Status	Pipeline Status	Current Contents
Chemical Injection Umbilical	PL1089	3/8”	8.597	Umbilical	Chemicals	Cormorant Alpha Platform – Pelican Manifold[1]	Trenched and buried	Out of use	Treated sea water
Chemical Injection Umbilical	PL1090	3/4”	8.597	Umbilical	Chemicals	Cormorant Alpha Platform – Pelican Manifold[1]	Trenched and buried	Out of use	Treated sea water
Chemical Injection Umbilical	PLU1944	4”	8.625	Umbilical	Chemicals	Cormorant Alpha Platform – Pelican BUTA	Trenched and buried	Out of use	Treated sea water
Control/ Chemical Injection Umbilical Jumper	PLU1944JP U-SDU	3/8”	0.020	Umbilical	Control/ Chemicals	Disconnected adjacent to Pelican Manifold – Pelican SDU1	Surface laid	Out of use	Treated sea water
Chemical Injection Umbilical Jumper	PLU1944JP U-P10	3/8”	0.112	Umbilical	Chemicals	Pelican Manifold - Production Well PU-P10[1]	Surface laid	Out of use	Treated sea water
Chemical Injection Umbilical Jumper	PLU1944JP U-P11	3/8”	0.057	Umbilical	Chemicals	Pelican Manifold – Production Well PU-P11[1]	Surface laid	Out of use	Treated sea water
Control/ Chemical Injection Umbilical Jumper	PLU1944 JPU-W11	2.9”	0.057	Umbilical	Chemicals	Pelican Manifold UTA – Well PU- W11[1]	Surface laid	Out of use	Treated sea water

Table 2-2: Pipeline / Flowline / Umbilical Information

Description	Pipeline Number	Diameter	Length (km)	Description of Component Parts	Product Conveyed	From – To	Burial Status	Pipeline Status	Current Contents
Chemical Injection Umbilical Jumper	PLU1944JPU-P12	3/8”	0.057	Umbilical	Chemicals	Pelican Manifold UTA – Production Well PU-P12[1]	Surface laid	Out of use	Treated sea water
Chemical Injection Umbilical Jumper	PLU1944 JPU-W12	2.9”	0.057	Umbilical	Chemicals	Pelican Manifold UTA – Production Wellhead PU-W12[1]	Surface laid	Out of use	Treated sea water
Chemical Injection Umbilical Jumper	PLU1944JPU-P13	3/8”	0.057	Umbilical	Chemicals	Pelican Manifold UTA – Production Well PU-P13[1]	Surface laid	Out of use	Treated sea water
Hydraulic Control Umbilical Jumper	PLU1944JPU-P14	3/8”	0.057	Umbilical	Chemicals	Pelican Manifold – Production Well PU-P14[1]	Surface laid	Out of use	Treated sea water
Chemical Injection Umbilical Jumper	PLU1944JPU-P15	3/8”	0.057	Umbilical	Chemicals	Pelican Manifold – Production Well PU-P15[1]	Surface laid	Out of use	Sea water
Chemical Injection Umbilical Jumper	PLU1944JPU-P16	3/8”	0.057	Umbilical	Chemicals	Pelican Manifold – Production Well PU-P16[1]	Surface laid	Out of use	Sea water
Control Injection Umbilical Jumper	PLU1944 JPU-W17	3/8”	0.057	Umbilical	Chemicals	Pelican Manifold – Well PU-W17[1]	Surface laid	Out of use	Sea water

Table 2-2: Pipeline / Flowline / Umbilical Information

Description	Pipeline Number	Diameter	Length (km)	Description of Component Parts	Product Conveyed	From – To	Burial Status	Pipeline Status	Current Contents
Chemical Injection Umbilical Jumper	PLU1944JP U-P18	3/8”	0.155	Umbilical	Chemicals	Pelican Manifold UTA – Production Well PU-P18[1]	Surface laid	Out of use	Sea water
Control / Chemical Umbilical Jumper	PLU1944JP U-P19	0.5”	0.05	Umbilical	Replacement Control/ Chemicals	Pelican SDU1 – Disc. Flange adjacent to Pelican Well 19	Surface laid	Out of use	Sea water
Control / Chemical Umbilical Jumper	PLU1944JP U-P19A	1.3”, 0.97”, 1.15”	0.06	Umbilical	Chemicals	Pelican Manifold UTA – Pelican Well P19[1]	Surface laid	Out of use	Sea water
Control / Chemical Injection Umbilical Jumper	PLU1944JP U-P20	1.3”, 1.6”, 0.97”	0.08	Umbilical	Control/ Chemicals	Pelican SDU1 – Disconnected flange adjacent to Well P20	Surface laid	Out of use	Sea water
Hydraulic/ Chemical/ Electrical Control Jumper	PLU1944 JPU-P21	2.9”	0.020	Umbilical	Hydraulic/ Chemical/ Electrical Control Jumper	SDU2 – Disconnected flange adjacent to Well P21	Surface laid	Out of use	Sea water
Hydraulic/ Chemical/ Electrical Control Jumper	PLU1944 JP22	2.9”	0.04	Umbilical	Chemicals, Power	SDU2 – Well PU-P22[1]	Surface laid	Out of use	Sea water

Table 2-2: Pipeline / Flowline / Umbilical Information

Description	Pipeline Number	Diameter	Length (km)	Description of Component Parts	Product Conveyed	From – To	Burial Status	Pipeline Status	Current Contents
Control Umbilical Jumper	PLU1944 JPU-W23	2.9”	0.120	Umbilical	Control Umbilical	SDU 2 – W23 Water Injection Tree[1]	Surface laid	Out of use	Sea water
Electric/ Signal Jumper	PLU2756	1.97”	0.115	Flexible	Power/signal	Pelican Manifold UTA – Production Wellhead PU-P10[1]	Surface laid	Out of use	Power, Signal
Replacement Control/ Chemical Umbilical Jumper	PLU2980JW 11	2.9”	0.1	Umbilical	Chemicals	Pelican SDU1 – Water Injection Well W11[1]	Surface laid	Out of use	Sea water
Replacement Control/ Chemical Umbilical Jumper	PLU2980JW 12	2.9”	0.1	Umbilical	Chemicals	Pelican SDU1 – Pelican Well W12[1]	Surface laid	Out of use	Sea water
Control Umbilical	PLU3136	5”	8.539	Umbilical	Power	Cormorant Alpha Platform Topside Umbilical Termination Unit (TUTU) – SDU 2	Trenched and buried	Out of use	Power
Chemical Hose	PL4026	1.3”	0.060	Umbilical	Chemicals	BUTA –Disconnected flange adjacent to Pelican Manifold	Surface laid	Out of use	Treated sea water
Chemical Hose	PL4027	1.3”	0.060	Flexible	Chemicals	BUTA - Disconnected flange adjacent to Pelican Manifold	Surface laid	Out of use	Treated sea water
Chemical Hose	PL4392	1”	0.015	Chemical Hose	Methanol	Pelican Umbilical BUTA – Pelican Manifold UTA	Surface laid	Out of use	Treated sea water

Table 2-2: Pipeline / Flowline / Umbilical Information

Description	Pipeline Number	Diameter	Length (km)	Description of Component Parts	Product Conveyed	From – To	Burial Status	Pipeline Status	Current Contents
Gas Lift Jumper	PL4396	2.374”	0.041	Flexible	Hydrocarbons	Pelican Manifold –Well P16[1]	Surface laid	Out of use	Treated sea water
Hydraulic Control Umbilical	PLU4447	3.9”	0.115	Umbilical	Hydraulic Fluid	Pelican Manifold –Well PU-P14[1]	Surface laid	Out of use	Treated sea water
Electrical Umbilical	PLU4448	2”	0.155	Umbilical	N/A	Pelican Manifold –Well PU-P14[1]	Surface laid	Out of use	N/A
Electrical umbilical	PLU4449	0.8”	0.115	Umbilical	N/A	PU-P14 – Well PU-P19[1]	Surface laid	Out of use	N/A
Gas Lift Jumper	PL6317	2”	0.040	Steel	Hydrocarbons	Pelican Manifold – Well P11[1]	Surface laid	Out of use	Treated sea water
Gas Lift Jumper	PL6318	2”	0.041	Steel	Hydrocarbons	Pelican Manifold – Pelican Well P16[1]	Surface laid	Out of use	Treated sea water
Gas Lift Jumper	PL6319	2”	0.031	Steel	Hydrocarbons	Pelican Manifold – Pelican Well P15[1]	Surface laid	Out of use	Treated sea water
Production Jumper	PL6320	6”	0.029	Steel	Hydrocarbons	Well PU-P11 – Pelican Manifold[1]	Surface laid	Out of use	Treated sea water
Gas Jumper	PL6321	6”	0.038	Steel	Hydrocarbons	Well PU-P13 – Pelican Manifold[1]	Surface laid	Out of use	Treated sea water
Production Jumper	PL6322	6”	0.038	Steel	Hydrocarbons	Well PU-P12 – Pelican Manifold[1]	Surface laid	Out of use	Treated sea water
Production Jumper	PL6324	8”	0.110	Flexible	Hydrocarbons	Well PU-P18 – Pelican Ext. Manifold[1]	Surface laid	Out of use	Treated sea water

Table 2-2: Pipeline / Flowline / Umbilical Information

Description	Pipeline Number	Diameter	Length (km)	Description of Component Parts	Product Conveyed	From – To	Burial Status	Pipeline Status	Current Contents
Water Injection Jumper	PL6327	6”	0.030	Steel	Water	Pelican Manifold – Well PU-W12[1]	Surface laid	Out of use	Treated sea water
Production Jumper	PL6328	6”	0.027	Flexible	Hydrocarbons	Well PU-P19 – Pelican Manifold[1]	Surface laid	Out of use	Treated sea water
Gas Jumper	PL6329	2.5”	0.027	Flexible	Hydrocarbon	Pelican Manifold – Well P19[1]	Surface laid	Out of use	Treated sea water
Gas Jumper	PL6330	2”	0.031	Steel	Hydrocarbons	Pelican Manifold – Well P12[1]	Surface laid	Out of use	Treated sea water
Gas Jumper	PL6331	2”	0.041	Steel	Hydrocarbons	Pelican Manifold – Well P13[1]	Surface laid	Out of use	Treated sea water
Production Jumper	PL6332	6”	0.033	Steel	Hydrocarbons	Well P16 – Pelican Manifold[1]	Surface laid	Out of use	Treated sea water
Gas Lift Jumper	PL6333	2”	0.040	Steel	Hydrocarbons	Pelican Manifold – Well P14[1]	Surface laid	Out of use	Treated sea water
Water Injection Jumper	PL6334	6”	0.038	Steel	Water	Pelican Manifold – Well W11[1]	Surface laid	Out of use	Treated sea water
Water Injection Jumper	PL6335	6”	0.050	Steel	Water	Pelican Manifold – Well W17[1]	Surface laid	Out of use	Treated sea water
Production Jumper	PL6336	6”	0.050	Steel	Hydrocarbons	Well PU-P14 – Pelican Manifold[1]	Surface laid	Out of use	Treated sea water
Production Jumper	PL6337	6”	0.023	Steel	Hydrocarbons	Manifold-Manifold[1]	Surface laid	Out of use	Treated sea water

Note:

1. Pipelines have been disconnected at both ends and left on the seabed, adjacent to each tie-in point.
2. The Pelican Riser Caisson contains PL1084, PL1085, PL1086, and PL1087 risers.

Table 2-3: Pipeline / Flowline / Umbilical Stabilisation Features				
Stabilisation Feature	**Total Number**	**Weight (Te)**	**Locations**	**Exposed/Buried/Condition**
Concrete Mattresses	49	480	PL1084	Partially covered in sediment
Concrete Mattresses	30	294	PL1085	Partially covered in sediment
Concrete Mattresses	28	274	PL1086	Partially covered in sediment
Concrete Mattresses	35	343	PL1087	Partially covered in sediment
Concrete Mattresses	31	146	PL1088,89,90	Partially covered in sediment
Concrete Mattresses	42	198	PLU1944	Partially covered in sediment
Concrete Mattresses	12	118	PL1084, PL1085, PL1086, PL1087 Shared	Partially covered in sediment
Concrete Mattresses	5	24	On PL1085J-P21a, PL1086J-P21b, PLU1944JPU-2 from Well P21 to SSVS	Partially covered in sediment
Concrete Mattresses	10	47	On PL1085J-P21b, PL1086J-P21a from SSVS to Ext Manifold	Partially covered in sediment
Concrete Mattresses	8	38	On PL1086-JP10 from SSVS & Well PU-P10	Partially covered in sediment
Concrete Mattresses	20	94	On PL1085J-P22, PL1086J-P22 between SSVS & PU-P22	Partially covered in sediment
Concrete Mattresses	4	19	On PL1085J-P21 from SSVS & Ext Manifold	Partially covered in sediment
Concrete Mattresses	25	118	On PL1087J-W23 from Ext Manifold to W23 Tree	Partially covered in sediment
Concrete Mattresses	10	47	On PLU1944JPU-W23 from SDU 2 to PU-W23	Partially covered in sediment
Concrete Mattresses	5	24	On PL1085J-P20, PL1086J-P20 P20 to P9 Acid skid	Partially covered in sediment
Concrete Mattresses	6	28	From Well PU-P10 to Ext. Manifold	Partially covered in sediment

Table 2-3: Pipeline / Flowline / Umbilical Stabilisation Features				
Stabilisation Feature	**Total Number**	**Weight (Te)**	**Locations**	**Exposed/Buried/Condition**
Concrete Mattresses	7	33	From Well PU-P11 to Ext. Manifold	Partially covered in sediment
Concrete Mattresses	8	38	From Well PU-P12 to Ext. Manifold	Partially covered in sediment
Concrete Mattresses	9	43	From Well PU-P13 to Ext. Manifold	Partially covered in sediment
Concrete Mattresses	5	24	From Well PU-P14 to Ext. Manifold	Partially covered in sediment
Concrete Mattresses	9	43	From Well PU-P16 to Ext. Manifold	Partially covered in sediment
Concrete Mattresses	5	24	From Well PU-P18 to Ext. Manifold	Partially covered in sediment
Concrete Mattresses	4	19	From Well PU-W17 to Ext. Manifold	Partially covered in sediment
Concrete Mattresses	4	19	Ext. Manifold	Partially covered in sediment
Concrete Mattresses	16	76	Wet Stored	Partially covered in sediment
Concrete Mattresses	2	9.4	At P16 Well site	Partially covered in sediment
Rock Cover	N/A	12,662	PL1084 - Spot rock dump at 8 locations along pipeline between Pelican manifold and Cormorant Alpha Platform	Likely exposed within trench. Status would be confirmed by a pre-decommissioning survey.
Rock Cover	N/A	12,737	PL1085 - Spot rock dump at 9 locations along pipeline between Pelican manifold and Cormorant Alpha Platform	
Rock Cover	N/A	2,439	PL1086 - Spot rock dump at one pipeline section between Pelican manifold and Cormorant Alpha Platform	
Rock Cover	N/A	3,038	PL1087 - Spot rock dump at 2 locations along pipeline between Pelican manifold and Cormorant Alpha Platform	

Table 2-3: Pipeline / Flowline / Umbilical Stabilisation Features				
Stabilisation Feature	**Total Number**	**Weight (Te)**	**Locations**	**Exposed/Buried/Condition**
Grout Bags	40	1.0	On PL4026, PL4027 from Ext Manifold to BUTA	Partially covered in sediment
Grout Bags	300	7.5	On PL1085J-P22, PL1086J-PU-22 at SSVS	Partially covered in sediment
Grout Bags	800	20	On PL1085J-P22, PL1086J-PU-22 at Well PU-P22	Partially covered in sediment
Grout Bags	200	5.0	On PL1087J from Ext Manifold to PU-W23	Partially covered in sediment
Grout Bags	600	15	On PL1087J-W23 from PU-W23 to Ext Manifold	Partially covered in sediment
Grout Bags	40	1.0	On PL4396 at P16 Well Site	Partially covered in sediment
Grout Bags	6	0.2	On PLU1944JPU-SDU from Pelican Manifold to SDU	Partially covered in sediment
Grout Bags	24	0.6	From Well P20 to P19 Acid Skid	Partially covered in sediment
Grout Bags	6	0.2	On PLU1944JPU-P20 from Well P20 to SDU	Partially covered in sediment
Grout Bags	2	0.1	On PLU1944J-P19 from Well P19 to SDU	Partially covered in sediment
Grout Bags	100	2.5	On PLU2980J-PU-W11 from Well W11 to SDU 1	Partially covered in sediment
Grout Bags	100	2.5	On PLU2980J-PU-W12 from Well W12 to SDU 1	Partially covered in sediment
Grout Bags	93	2.3	PL1085	Partially covered in sediment
Grout Bags	363	9.1	PL1086	Partially covered in sediment
Grout Bags	80	2.0	PL1087	Partially covered in sediment
Grout Bags	300	7.5	PL1088-89-90	Partially covered in sediment
Grout Bags	350	8.8	PL1084	Partially covered in sediment
Grout Bags	677	17	PLU1944	Partially covered in sediment

Table 2-3: Pipeline / Flowline / Umbilical Stabilisation Features				
Stabilisation Feature	**Total Number**	**Weight (Te)**	**Locations**	**Exposed/Buried/Condition**
Grout Bags	200	5.0	On PL1086JP21 from Ext Manifold To SSVS	Partially covered in sediment
Sandbags	400	10	On PL1087JPU-W23 from Ext Manifold to W23	Partially covered in sediment
Grout Bags	300	7.5	On PL1085J-P22 from SSVS to Ext. Manifold	Partially covered in sediment
Grout Bags	100	2.5	At SSVS Tie-in Location	Partially covered in sediment
Grout Bags	600	15	On PLU1944J-PUW23 from SDU 2 to W23 Tree	Partially covered in sediment
The total quantities of pipeline stabilisation features are: Concrete Mattresses: Total number = 389; Total weight = 2,620 Te Grout Bags: Total number = 5,281; Total weight is approx. 132 Te Sandbags: Total number = 400; Total weight 10 Te Rock cover: Total weight = 30,876 Te				

2.2.1 Pipeline and Umbilical Risers

The pipelines and umbilicals in the scope of the DPs in this document that terminate at the Cormorant Alpha platform are:

- PL1084 8" Pelican Oil Production Pipeline
- PL1085 8" Pelican Oil Production Pipeline
- PL1086 6" Pelican Gas Lift Pipeline
- PL1087 8" Pelican Water Injection Pipeline
- PL1088/89/90 Pelican Chemical Injection Umbilical
- PLU1944 Pelican Chemical Injection Umbilical
- PLU3136 Pelican Control Umbilical

The Pelican pipelines PL1084, PL1085, PL1086 and PL1087 run in a common riser caisson at Cormorant Alpha. This consists of three components. These are;

- the Guide Caisson in Slot 32 in the conductor guide frames between Cormorant Alpha CGBS legs C3 and C4.
- the Cell Top Caisson which connects to the base of the Guide Caisson and runs horizontally across the top of the cells; and
- The Cell Wall Caisson which runs vertically down the outside of the cells to the seabed.

Removal and recovery of the Pelican Riser Caisson, and the risers it contains, will be undertaken in two phases. The Guide Caisson will be removed and recovered directly to shore as part of the Cormorant Alpha topsides removal preparations; the Cell Wall and Cell Top Caissons may be temporarily wet stored prior to their subsequent recovery to shore within a two year window. The potential storage locations of the Cell Wall and Cell Top Caissons will be outside of the cuttings pile contamination threshold boundary, within the Cormorant Alpha 500 m zone and avoiding existing infrastructure.

The Pelican umbilicals, PL1088, PL1089, PL1090, PL1944 and PL3136 run in J-tubes in Cormorant Alpha CGBS legs C3 and C4. Decommissioning of these risers will be addressed by the future DP for the Cormorant Alpha CGBS.

2.3 Wells

Table 2-4 lists the well information pertinent to the sixteen wells covered by this decommissioning programme evaluated in accordance with the OEUK Well Decommissioning Guidelines [2].

Table 2-4: Well Information

Subsea Wells	Designation	Status	OEUK Well Category
211/26a-P15 (PU-P10B)	Oil Producer	Abandoned (Phase 2)	SS 0-0-1
211/26a-P02 (PU-P11)	Oil Producer	Abandoned (Phase 2)	SS 0-0-1
211/26a-P06Z (PU-W11)	Water Injector	Shut in	SS 3-0-1
211/26a-P12 (PU-P12)	Oil Producer	Abandoned (Phase 2)	SS 0-0-1
211/26a-19 (PU-W12)	Water Injector	Shut in	SS 3-0-1

Table 2-4: Well Information			
Subsea Wells	**Designation**	**Status**	**OEUK Well Category**
211/26a-P03 (PU-P13)	Oil Producer	Shut in	SS 3-4-1
211/26a-P22Y (PU-P14)	Oil Producer	Shut in	SS 3-4-1
211/26a-P09Z (PU-P15)	Oil Producer	Abandoned (Phase 2)	SS 0-0-1
211/26a-P10 (PU-P16)	Oil Producer	Abandoned (Phase 2)	SS 0-0-1
211/26a-P07 (PU-W17)	Water Injector	Shut in	SS 3-0-1
211/26a-P17 (PU-P18)	Oil Producer	Shut in	SS 3-0-1
211/26a-P14 (PU-P19)	Oil Producer	Abandoned (Phase 2)	SS 0-0-1
211/26a-P16 (PU-P20)	Oil Producer	Shut in	SS 3-4-1
211/26a-P18 (PU-P21)	Oil Producer	Abandoned (Phase 2)	SS 0-0-1
211/26a-P20Z (PU-P22)	Oil Producer	Shut in	SS 3-4-1
211/26a-P21Z (PU-W23)	Water Injector	Shut in	SS 3-0-1

2.4 Drill Cuttings Piles

Table 2-5 presents the Pelican and Cormorant Alpha cuttings piles locations and area. Figure 2-1 shows the cuttings pile extent and volume and the bathymetry of the Pelican cuttings pile and the surrounding seabed and Figure 2-2 shows the cuttings pile at the Cormorant A platform respectively. See Section 3.5 for further information.

Table 2-5 Drill Cuttings Pile Information		
Location of Pile Centre (Latitude/Longitude)	**Seabed Area (m^2)**	**Estimated Volume of Cuttings (m^3)**
Pelican Manifold 61°02'07.34" N 01°07'44.95" E	25,450	10,883
Cormorant Alpha platform 61°06'09.41" N 01°04'22.27" E	12,210	9,278

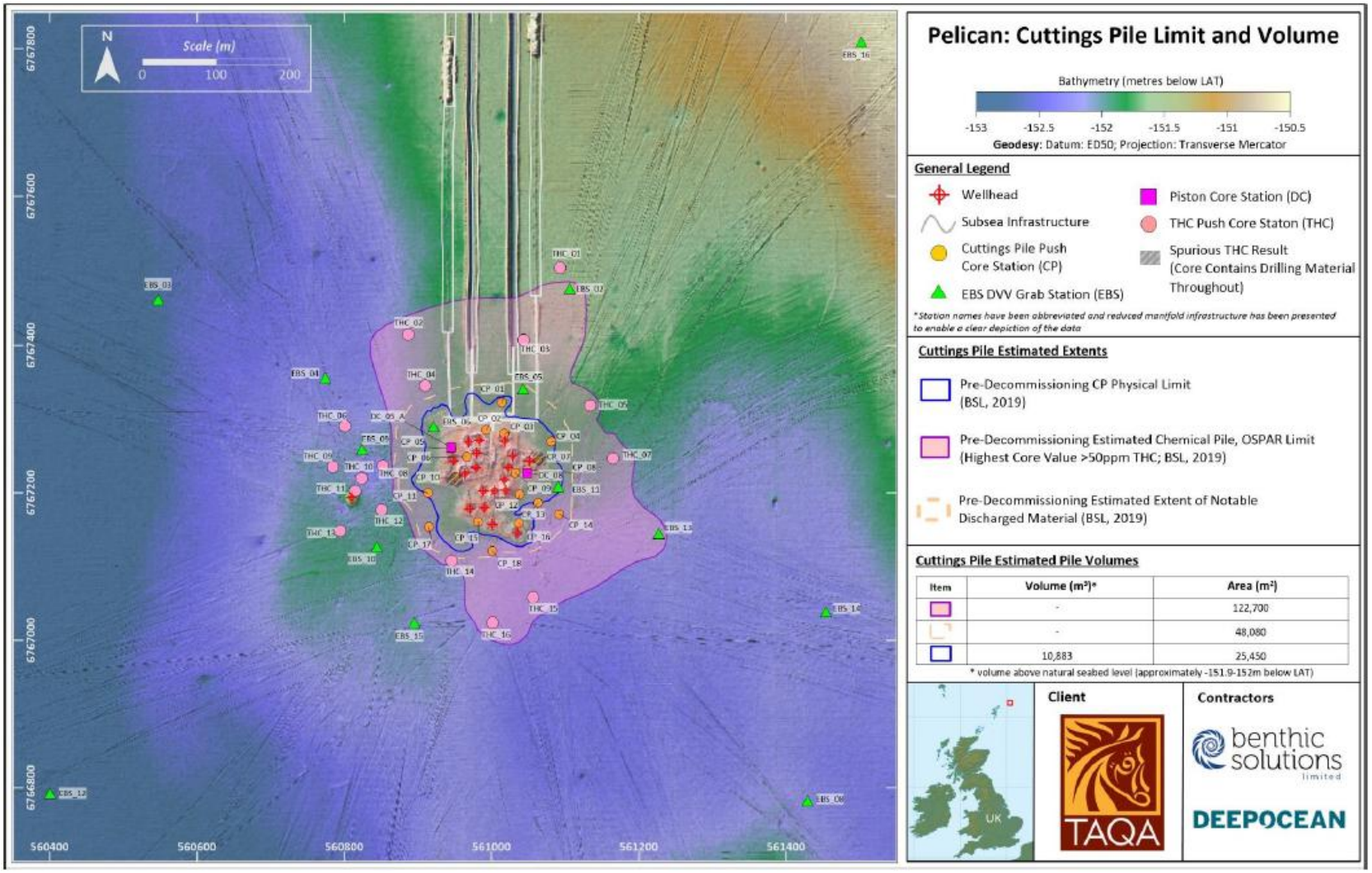

Figure 2-1: Pelican Cuttings Pile Limits and Volume

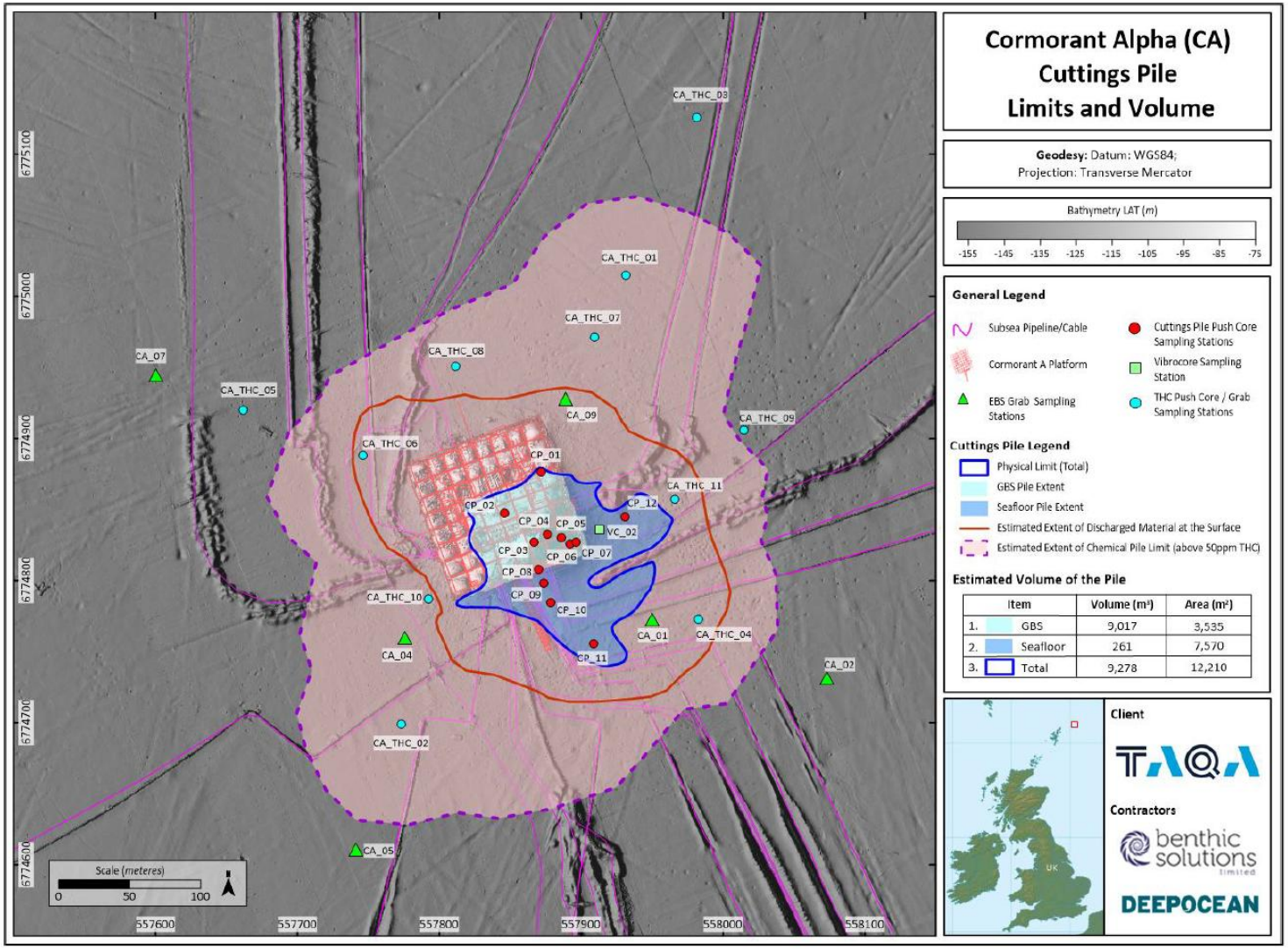

Figure 2-2: Cormorant Alpha Cuttings Pile Limits and Volume

2.5 Inventory Estimates

An estimate of the material inventories for Pelican and the adjacent pipelines within these decommissioning programmes is presented in Table 2-6, Table 2-7, Figure 2-3 and Figure 2-4. The inventories are described in section 3.3.9 of the Pelican EA [4].

Table 2-6 Subsea Installations Inventory Including Stabilisation Materials

Material	Weight (Te)	% of Total
Ferrous metals (all grades)	244	85
Non-ferrous metals (aluminium alloys)	3	1
Concrete	40	14
Total	287	100

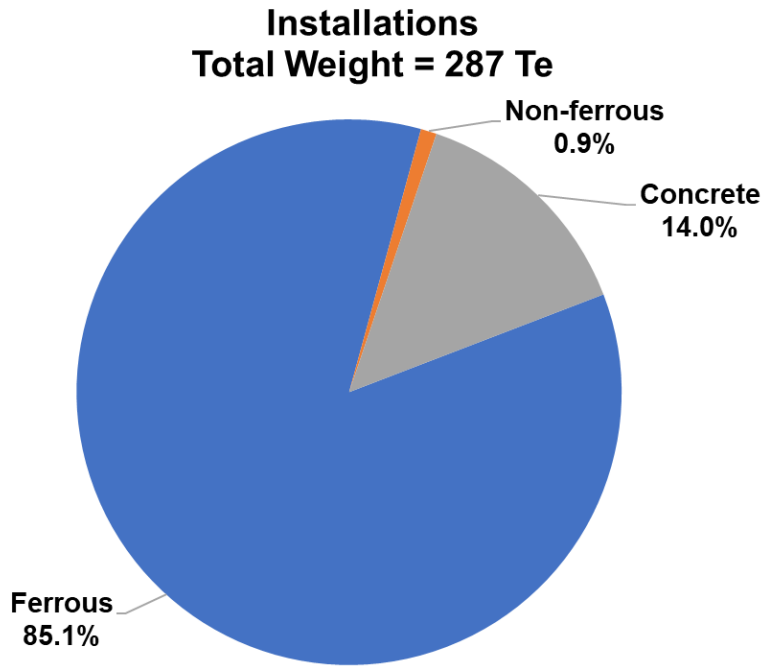

Figure 2-3: Subsea Installations Inventory

Table 2.7: Pipelines and Stabilisation Materials Inventory		
Material	**Weight (Te)**	**% of Total**
Ferrous metals (all grades)	3,099	47
Non-ferrous metals (copper, aluminium alloys)	70	1
Plastics	623	10
Concrete (mattresses, grout bags, grouted support)	2,750	42
Hazardous Residues/ Naturally Occurring Radioactive Material (NORM)	22	<1
Other (Sandbags)	10	<1
Total	6,574	100

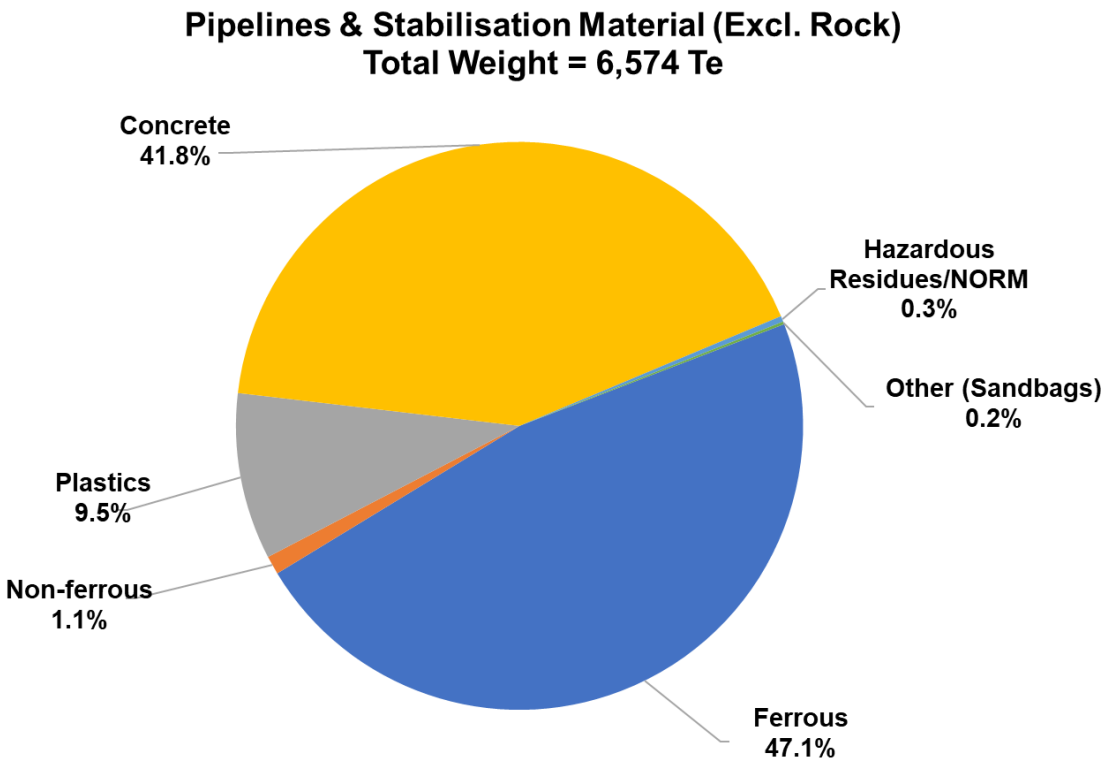

Figure 2-4: Pipelines and Stabilisation Materials Inventory

3 Removal and Disposal Methods

TAQA will implement an Active Waste Management Plan to identify and quantify available disposal options for waste materials resulting from Pelican decommissioning. The plan will detail the disposal route for recovered structures and equipment, and their materials and contents.

Recovered infrastructure will be returned to shore for dismantling and sorting before being transferred to suitably licenced waste facilities. It is the intent that, where possible, materials and equipment will be re-used or recycled. Materials management options will take account of the waste hierarchy, with reduction in volume of waste being the preferred option. OPRED will be advised once waste contractors have been selected.

3.1 Subsea Installations and Stabilisation Features

The options considered for the disposal of the subsea installations and the selected disposal route are listed in Table 3-1.

Table 3-1: Subsea Installations

Installation / Feature	No.	Option	Disposal Route
Manifold and associated foundation piles	1	Full recovery The foundation piles will be recovered to 3 m below the seabed	Return to shore for reuse or recycling or other waste treatment as appropriate.
Extension Manifold	1	Full recovery	Return to shore for reuse or recycling or other waste treatment as appropriate.
Pelican W23 Integrated Structure	1	Full recovery	Return to shore for reuse or recycling or other waste treatment as appropriate.
SSVS	1	Full recovery	Return to shore for reuse or recycling or other waste treatment as appropriate.
SDU	2	Full recovery	Return to shore for reuse or recycling or other waste treatment as appropriate.
P10B Acid Skid	1	Full recovery	Return to shore for reuse or recycling or other waste treatment as appropriate.
P19 Acid Skid	1	Full recovery	Return to shore for reuse or recycling or other waste treatment as appropriate.
Concrete Deflectors	4	Full recovery	Return to shore for reuse or recycling or other waste treatment as appropriate.

3.2 Pipelines

Table 3-2: Pipeline Decommissioning Options		
Key to Options		
1 – Re-use	2A – Cut and Lift with De-burial	2B – Reverse Installation (S-lay or Reel) without De-burial
2C – Reverse Installation (S-lay or Reel) with De-burial	2D – Reverse Installation (Buoyancy)	2E – Cut, Float & Transport
3A – Rock Placement over entire line	3B – Retrench and Bury entire line	4A – Rock Placement over areas of Spans / Exposure / Shallow Burial
4B – Trench & Bury areas of Spans / Exposure / Shallow Burial	4C – Remove areas of Spans / Exposure / Shallow Burial	4D – Accelerated Decomposition
5 – Remove Ends & Remediate Snag Risk	6 – Leave As-is	

Table 3-3: Pipeline or Pipeline Group Decommissioning Options Considered			
Pipeline or Group	**Condition of Line / Group**	**Whole or Part of Pipeline / Group**	**Decommissioning Options Considered**
Group 3: PL1088/89/90, PLU1944, PLU3136.	Flexible flowlines and umbilicals, trenched and buried.	Whole group	2A, 4A, 4B, 4C, 5
Group 9 PL1084, PL1085, PL1086, PL1087.	Rigid pipelines, trenched and buried.	Whole group	2C, 4A, 4B, 4C, 5
Group 10: PL1088/89/90, PLU1944, PLU3136.	Flexible risers and riser umbilicals.	Whole group	Full removal
Group 11: PL1084, PL1085, PL1086, PL1087, Riser Caisson.	Rigid risers.	Whole group	Full removal

Table 3-3: Pipeline or Pipeline Group Decommissioning Options Considered			
Pipeline or Group	**Condition of Line / Group**	**Whole or Part of Pipeline / Group**	**Decommissioning Options Considered**
Group 12: All spools and jumpers PL1085JP20, PL1085JP21, PL1085JP22, PL1086JP10, PL1086JP18, PL1086JP20, PL1086JP21, PL1086JP22, PL1087J-W23, PLU1944JPU-SDU, PLU1944JPU-P10, PLU1944JPU-P11, PLU1944JPU-P12, PLU1944JPU-P13, PLU1944JPU-P14, PLU1944JPU-P15, PLU1944JPU-P16, PLU1944JPU-P18, PLU1944JPU-P19, PLU1944JPU-P19A, PLU1944JPUP-20, PLU1944JPU-W11, PLU1944JPU-W12, PLU1944JPU-W17, PLU1944JPU-P21, PLU1944JPU-P22, PLU1944JPU-W23, PLU2756, PLU2980JW11, PLU2980JW12, PL4026, PL4027, PL4392, PL4396, PL6317, PL6318, PL6319, PL6320, PL6321, PL6322, PL6324, PL6327, PL6328, PL6329, PL6330, PL6331, PL6332, PL6333, , PL6334, PL6335, PL6336, PL6337.	Spools and jumpers, surface laid.	Whole group	Full removal

Note:

1. PLU3136 was added to the DP after the completion of the CA.
2. TAQA are committed to undertaking a pre-decommissioning survey along the Pelican pipelines to inform the requirement for remediation activities.

3.2.1 Comparative Assessment Method

TAQA conducted a Comparative Assessment (CA) of the decommissioning options for the Pelican facilities [3]. TAQA's strategy for the CA process is aligned with the OEUK Guidelines for Comparative Assessment in Decommissioning Programmes and OPRED Guidance Notes for the Decommissioning of Offshore Oil & Gas Installations and Pipelines [1].

All the infrastructure has been scoped into logical groupings. All feasible decommissioning options for each of the infrastructure groups have been identified, assessed, ranked, and screened, using five assessment criteria: Safety, Environment, Technical, Societal and Economic (to compare the relative merits of each credible decommissioning option for each group of infrastructure).

Table 3-4: Outcome of Comparative Assessment		
Pipeline or Group	**Recommended Option**	**Justification**
Group 3	5 - Remove Line Ends and Remediate Snag Risk	The CA outcome is a significant preference for Option 5. Option 5 is preferred over other options against the Safety, Environment and Technical criteria. It is less preferred against the Societal criterion, however this does not offset the preference against the other criteria. If the Economic criterion is included, the preference for Option 5 remains and hence Option 5 is the recommended decommissioning option for Group 3.
Group 9	4C – Remove areas of Spans / Exposure / Shallow Burial	The CA outcome shows that the preference for Option 4C (remove problem areas) is small. Option 4C is preferred over the other options against the Technical criterion. Option 4C is marginally less preferred to other options against the Safety, Environmental and Societal criteria however, there remains a preference for Option 4C overall. Once the Economics criteria is included, the preference for Option 4C remains and hence Option 4C is the recommended decommissioning option for Group 9.

Note:

1. Following completion of the comparative assessment, further work was undertaken that identified additional remediation may be required on these lines. As such, TAQA propose the following approach to assess the worst-case environmental impact for these pipelines: rock placement to remediate spans, exposures, and shallow burial < 20 m long and removal of spans, exposures, and shallow burial > 20 m long by cut and lift.

3.3 Pipeline Stabilisation Features

Table 3-5: Pipeline Stabilisation Features Disposal Route			
Stabilisation Features	**Number**	**Option**	**Disposal Route**
Concrete Mattresses	389	Full recovery. (If practical difficulties are encountered, TAQA will consult with OPRED to agree an alternative approach).	Returned to shore for recycling or disposal to landfill.
Grout Bags	5,281	Full recovery. (If practical difficulties are encountered, TAQA will consult with OPRED to agree an alternative approach).	Returned to shore for recycling or disposal to landfill.
Sandbags	400	Full recovery (If practical difficulties are encountered, TAQA will consult with OPRED to agree an alternative approach).	Returned to shore for recycling or disposal to landfill.
Rock Cover	30,876 Te	Ensure over-trawlability and decommission *in situ*.	Decommission *in situ*.

3.4 Wells

Table 3-6: Wells Decommissioning Options
The Pelican wells PU-P10B, PU-P11, PU-P12, PU-P15, PU-P16, PU-P19 and PU-P21 will be plugged and abandoned to Phase 3 in alignment with and reference to OEUK Well Decommissioning Guidelines [2]. Operations will be supported by appropriate regulatory applications and submissions.

3.5 Drill Cuttings

The survey data indicate a number of discrete cuttings piles at the seventeen satellite wells around the Pelican manifold [4]. Due to the complexity of the site, the small piles have been analysed and interpreted as one larger cuttings pile, which is categorised as a "medium cuttings pile" (5,000-20,000 m^3) [5]. The pile covers an area of 25,450 m^2 with an approximate volume of 10,900 m^3. However, this volume may be slightly overestimated due to the difficulty in accurately quantifying and accounting for the volume of subsea infrastructure, including the manifold and debris within the pile area, as well as minor natural variation in the seabed elevation across the Pelican site.

Additionally, at the Cormorant Alpha platform there is a cuttings pile on the CGBS cell top at the southeast corner of the CGBS. The maximum depth of this pile is approximately 10 m above the cell top. The pile spills over to the seabed in the area where the Pelican Riser Caisson reaches the seabed at the base of the CGBS [4]. In this area, on the seabed, the pile is relatively shallow. The Cormorant Alpha cuttings pile is estimated to cover an area of 12,210 m^2 with a pile volume of approximately 9,278 m^3 which is also categorised as a "medium cuttings pile" [5].

Further information regarding the cuttings piles is provided in the Pelican Field Subsea EA [4].

Table 3-7: Drill Cuttings Decommissioning Options		
How many drill cuttings piles are present?		2
Tick options examined:		
Remove and re-inject	Leave in place ✓	Cover
Relocate on seabed	Remove and treat onshore	Remove and treat offshore
Other		
Review of Pile characteristics		Pelican / Cormorant Alpha
How has the cuttings pile been screened? (Actual samples taken)		Y
Dates of sampling (if applicable)		2019 / 2018
Sampling to be included in pre-decommissioning survey?		N
Does it fall below both OSPAR thresholds?		Y
Will the drill cuttings pile have to be displaced in order to remove the installations?[1]		N
What quantity (m^3) would have to be displaced/removed?		n/a

Table 3-7: Drill Cuttings Decommissioning Options	
Will the drill cuttings pile have to be displaced in order to remove any pipelines?	N
What quantity (m^3) would have to be displaced/removed?	n/a
Have you carried out a Comparative Assessment of options for the Cuttings Pile?	N

Note:

1. The drill cuttings piles will not be actively displaced but may be disturbed during the decommissioning activities.

3.5.1 Cuttings Pile Assessment Summary

Overall, the environmental data obtained from the Pelican manifold and the Cormorant Alpha CGBS cuttings piles indicated that the sediments are modified compared to the wider field but could be described as typical for cuttings piles at oil and gas installations. The characteristics of both piles fall below the OSPAR 2006/5 [6] thresholds. As a result, based on the criteria for environmental significance produced by the United Kingdom Offshore Operators Association (UKOOA; 2001) [7] and OSPAR (2006) [6] the potential environmental impact from the cuttings piles of the proposed decommissioning operations would be considered 'insignificant' with 'natural degradation' suggested as the best environmental strategy. Therefore, comparative assessment is not required.

3.6 Waste Streams

Table 3-8: Materials and Waste Streams	
Material	**Removal and Disposal Method**
Bulk Liquids	Pipelines and umbilicals have been flushed to facilitate decommissioning scopes using the Cormorant Alpha topsides facilities. Any discharges offshore were managed, and risk assessed under the existing permitting regime. Any effluent shipped to shore was treated and disposed of according to relevant regulations and guidance.
Marine Growth	Marine growth is anticipated on the Pelican manifolds and risers at the Cormorant Alpha platform. Marine growth is not anticipated on any of the other Pelican equipment. If marine growth is present, it will be disposed of in accordance with relevant regulations and guidance, either offshore under marine licence, or onshore.
NORM	NORM is assumed to be present. Monitoring and sampling will be carried out to verify the presence of NORM. If it is identified, it will be contained and treated in accordance with relevant regulations and circumstances.
Asbestos	No asbestos materials are anticipated. However, if asbestos containing materials are found they will be recovered to shore and disposed of appropriately.
Wax	Wax is not anticipated. In the unlikely event that wax is present, it will be disposed of in accordance with relevant regulations and guidance, either offshore under marine licence or permit, or onshore.

Table 3-8: Materials and Waste Streams	
Material	**Removal and Disposal Method**
Other Hazardous Materials	Any other hazardous materials will be disposed of in accordance with relevant regulations and guidance.
Onshore Dismantling Sites	The removal contractor will use appropriately licenced dismantling, treatment, recycling, and disposal sites. TAQA will ensure that the removal contractor and selected sites have proven abilities to manage waste streams throughout the deconstruction process. An Active Waste Management Plan (AWMP) will follow the "reduce, reuse, recycle" paradigm. OPRED will be informed once a suitable site(s) has been selected. TAQA will conduct assurance activities of the site(s) to confirm that they are compliant with applicable legislation.

Table 3-9: Inventory Disposition			
	Total Inventory Tonnage (Te)	**Planned Tonnage to Shore (Te)**	**Planned Tonnage Left *in situ* (Te)**
Subsea Installations	287	279	8
Pipelines / Umbilicals	6,574	4,046	2,528
Rock dump	30,876	0	30,876

Total inventory weights noted are approximate and include the weights of pipelines, umbilicals, structures, and all stabilisation features, excluding rock cover materials. It is TAQA's intention to maximise re-use or recycling of recovered inventory.

4 Environmental Appraisal Overview

4.1 Environmental Sensitivities

The environmental sensitivities in the Pelican Area are summarised in Table 4-1. The impacts of decommissioning operations on these sensitivities are listed in Table 4-2. Data from the Cormorant Alpha survey area is included to provide coverage at the Cormorant Alpha end of the pipelines and to account for any environmental sensitivities near the Cormorant Alpha cuttings pile. Further details can be found in the supporting Pelican Field Subsea EA [4].

Table 4-1: Environmental Sensitivities

Environmental Receptor	Main Features
	There are no Nature Conservation Marine Protected Areas (NCMPAs), Special Areas of Conservation (SACs) or Special Protection Areas (SPAs) within 40 km of the Pelican Area. The closest protected site is the Pobie Bank Reef SAC, approximately 63 km southwest of the Pelican manifold. The seabed in the Pelican Area is located within a wider area of 'subtidal sand and gravels', a seabed type designated as a Priority Marine Features (PMF) in Scottish waters, which supports fish populations. The following fish species are listed as PMFs and are present around the Pelican Area: blue whiting, cod, herring, ling, mackerel, Norway pout, saithe, spurdog and whiting. Cod are also listed on the OSPAR list of threatened and/or declining species.
Conservation Interests	Numerous pockmarks which may be classified as ‘Submarine structures made by leaking gases’ (Annex I Habitat) were identified across the Pelican Area. However, absence of Methane-Derived Authigenic Carbonate (MDAC) in these pockmarks indicates that Annex I Habitat ‘Submarine structures caused by leaking gases’ is not present. Ocean quahog is listed on the OSPAR list of threatened and/or declining species and ocean quahog habitats and are designated as a PMF. Thirteen individuals were identified during the Cormorant Alpha and Pelican surveys but not in aggregations. The habitat 'Seapen and burrowing megafauna communities' is on the OSPAR list of threatened and/or declining habitats and species and is a PMF. Surveys identified one station in the Pelican Area that could be considered as ‘Seapen and Burrowing Megafauna Communities’ habitat.

Table 4-1: Environmental Sensitivities	
Environmental Receptor	**Main Features**
Seabed	The overall water depth ranges from approximately 142 to 156 m Lowest Astronomical Tide (mLAT) across the Pelican Area. The bathymetry across the Pelican Area shows an undulating seabed. The physical seabed characteristics recorded from the surveys indicate medium reflectivity across most of the Pelican survey area relating to the ambient muddy sand sediment. Areas of higher reflectively are associated with anchor scars radiating out from the Pelican manifold. The sediment closer to the manifold consists of finer material intermixed with small amounts of coarse sediment. Areas of high reflectivity in the Cormorant Alpha survey area were associated to rock cover. Occasional depressions resembling pockmarks have been recorded throughout the Pelican and Cormorant Alpha survey area. Under the European Nature Information System (EUNIS) habitat classification, the most widespread seabed types in the Pelican Area are predicted to be MD52: "Atlantic offshore circalittoral sand" which represents offshore (deep) circalittoral habitats with fine sands or non-cohesive muddy sands. This habitat type falls within the broad habitat PMF "offshore sands and gravels". In addition, localised areas of EUNIS habitat complex MD32: "Atlantic offshore circalittoral coarse sediment" are predicted to occur. Hydrocarbon concentrations in the Pelican Area were above the UKOOA 95th percentile for the NNS (20.3 mg kg^{-1}) at 90% of the survey stations. Higher levels were found at stations close to the Pelican manifold and close to the Cormorant Alpha platform where most of the stations within 190 m exceeded the OSPAR (2006) 50 mg kg^{-1} threshold. At three stations adjacent to the Cormorant Alpha platform, concentration of several metals exceeded UKOOA (2001a) 95th percentile including chromium, copper, lead, and zinc. Near the Pelican manifold and P11a wellhead, concentrations of barium, chromium, copper, nickel, lead, and zinc were elevated. Cuttings piles have been identified at the Pelican manifold and on top of the Cormorant Alpha CGBS. The physical extent of Pelican manifold cuttings pile was estimated to cover an area of 25,450 m^2 and an approximate volume of 10,883 m^3. The physical extent of the Cormorant Alpha cuttings pile 12,210 m^2 with a pile volume of approximately 9,278 m^3. Both cuttings piles are categorised as "medium cuttings piles" (5,000-20,000 m^3). Total Hydrocarbon Content (THC) levels in seabed sediments decreased with distance from the Pelican manifold suggesting a point source of hydrocarbons related to drilling discharges, with some of the cuttings pile samples exceeding the OSPAR 'ecological effect' threshold. Sampling stations on top of the Cormorant Alpha CGBS, closest to the pile centre (<25 m), recorded high levels of THC, and all core sections recorded over 1,000 times the OSPAR (2014) 50 mg kg^{-1} threshold.
Fish	In the Pelican Area, spawning for cod, saithe and Norway pout occurs between January and April, whiting between February and June and haddock between February and May. Cod is the only species with a high intensity spawning ground in the Pelican Area while other species have a lower spawning intensity. The Pelican Area is a potential nursery ground for blue whiting, European hake, haddock, herring, ling, mackerel, Norway pout, spurdog and whiting. Blue whiting is the only species with a high intensity nursery ground in the Pelican Area while other species have a lower nursery intensity.

Table 4-1: Environmental Sensitivities	
Environmental Receptor	**Main Features**
Fisheries	The Pelican Area is located in International Council for the Exploration of the Sea (ICES) rectangle 51F1. This region is primarily targeted for demersal species with a negligible contribution from pelagic and shell fisheries. Fishing effort is dominated by trawl fishing gears. Annual fishery landings by weight and value in ICES rectangle 51F1 is broadly comparable to other high-performing ICES rectangles in the UKCS.
Marine Mammals	Harbour porpoise, Atlantic white-sided dolphin, minke whale and white beaked dolphin are the most abundant species recorded in the Pelican Area. The harbour porpoise is the most frequently recorded cetacean in the Pelican Area, which is reflective of these being the most abundant and widely distributed cetaceans in the North Sea. Both grey and harbour seal densities are known to be low in the Pelican Area, densities are predicted to be between 0 and 1 seal per 25 km^2 for both species.
Birds	In the NNS the most numerous species present are likely to be northern fulmar, black-legged kittiwake, and common guillemot. The Pelican Area is located in, or in the vicinity of, a wider area of aggregation for northern fulmar, sooty shearwater, European storm petrel, northern gannet, long-tail skua, great skua, blacked-legged kittiwake, great black-backed gull, lesser black-backed gull, herring gull, glaucous gull, common guillemot, razorbill, little auk, and Atlantic puffin. Seabird sensitivity to oil pollution in Block 211/26 containing the Pelican infrastructure, is low throughout the year.
Onshore Communities	Waste generated during decommissioning will be brought to shore and will be managed under the project AWMP using approved waste contractors and in liaison with the relevant Regulators, in line with TAQA's Waste Management Strategy and the Waste Hierarchy. Preventing waste is ultimately the best option, achieved through reducing consumption and using resources more efficiently. However, this is followed by re-use and recycling of goods. If all re-use opportunities have been taken by TAQA, the next preferable option is for recycling of materials. Should NORM be encountered associated with the materials brought to shore, TAQA will ensure the disposal site is suitably licenced to accept the waste arising from the decommissioning of the subsea infrastructure. All waste will be managed in compliance with relevant waste legislation by a licenced and/or permitted waste management contractor. The selected contractor will be assessed for competence through due diligence and duty of care assurance activities.

Table 4-1: Environmental Sensitivities	
Environmental Receptor	**Main Features**
Other Users of the Sea	The proposed decommissioning operations will be located in a well-developed area for oil and gas extraction. The closest surface infrastructures include the Cormorant Alpha and Heather Alpha platforms located 8 km north northwest and 13 km west southwest of the Pelican Area, respectively. Shipping density in the Pelican Area is low, with a localised increase in vessel activity around surface installations including the Cormorant Alpha and Heather A platforms, due to the presence of operational and maintenance vessels. The are no known interactions between the adjacent facilities and the proposed Pelican decommissioning programmes, other than the Cormorant Alpha platform and the Pelican pipelines crossing over PL17 and PL118. There are no protected wrecks nearby, the closest wrecks are an unidentified non dangerous wrecks, located approximately 7 km southeast of the Pelican manifold. There are no planned or operational renewable energy sites, cables or pipelines or designated military practice and exercise areas within 40 km of the Pelican Area.
Atmosphere	The cumulative emissions generated by the activities associated with the decommissioning of the Pelican facilities are small relative to lifetime emissions. Estimated CO_2 emissions from the selected decommissioning options are 34,844 Te, equating to approximately 0.17% of total UKCS emissions (2023). Most of these emissions are related to vessel use (26,582 Te CO_2) and onshore recycling of materials (4,160 Te CO_2).

4.2 Potential Environmental Impacts and Management

The EA [4] process has considered the potential for significant environmental effects resulting from decommissioning activities described in this DP. The EA has not identified any significant physical, biological, or socio-economic impacts during or after the decommissioning activities and any impacts will be short term and negligible.

Notwithstanding, Table 4-2 details the potential environmental impacts and the management and mitigation measures that will be put in place to further reduce potential environmental impacts.

Table 4-2: Environmental Impacts and Management		
Activity	**Main Impacts**	**Management**
Vessel activities and removal to shore	Contribution to local air quality, UK cumulative emissions and global warming. Estimated carbon dioxide equivalent (CO_2e) emissions from the selected decommissioning options are **34,844 Te** CO_2e equating to approximately 0.17% of total UKCS emissions (2023). Vessel activity associated with the decommissioning activities represents the largest CO_2e contribution (**26,582 Te**). A significant proportion also originates from onshore recycling of materials (**4,160 Te**).	The following mitigation measures are proposed to further minimise impacts from vessel activities: • Minimisation of emissions from vessels and waste management as part of the contractor selection process. • Shipboard Energy Efficiency Management Plan (SEEMP) containing information regarding minimising fuel consumption e.g., economical speeds when operationally appropriate and engine maintenance. • Green dynamic positioning or economical speeds when appropriate. • Limiting the number of mobilisations or demobilisations. • Exploiting opportunities to incorporate post-decommissioning surveys as part of the wider NNS campaign. • Streamlining activities through planning to reduce the time that vessels will be required for decommissioning operations.

Table 4-2: Environmental Impacts and Management		
Activity	**Main Impacts**	**Management**
Subsea installation removal (including stabilisation materials) and removal of pipeline midline sections and ends	Seabed disturbance impacts from excavation and removal of subsea installations, stabilisation materials and pipeline sections (midline and ends). Potential temporary wet storage of Pelican Riser Caisson. Disturbance of cuttings piles. Temporary impacts of removal activities: Total direct impact: **0.042 km^2** Total indirect impact*: **0.087 km^2** *Note that the footprint indirect impact from sediment mobilisation represents double the direct impact area.	The following mitigation measures are proposed to further minimise impacts from decommissioning subsea installations, pipelines, and stabilisation materials: • It is envisaged that all vessels undertaking the decommissioning and removal works will be dynamically positioned vessels. As a result, there will be no impact to the seabed due to anchoring. • All activities which may lead to seabed disturbance will be planned, managed, and implemented in such a way that disturbance is minimised. • If wet storage is required, the storage location will be positioned outside of the cuttings pile contamination threshold boundary, within the Cormorant Alpha 500 m zone and avoiding existing infrastructure. • Activities will be appropriately assessed and permitted under a Marine Licence. • A debris survey will be undertaken at the completion of the decommissioning activities. Any debris identified as a result of oil and gas activities will be recovered from the seabed where possible. • Clear seabed verification will ensure there is no residual risk to other sea users. Non-intrusive verification techniques will be considered in the first instance and in agreement with OPRED and fishing bodies. • Minimal disturbance of cuttings pile through the choice of decommissioning technology to avoid unnecessary spread of contamination.

Table 4-2: Environmental Impacts and Management		
Activity	**Main Impacts**	**Management**
Decommissioning of buried Pipelines and Umbilicals *in situ* (including remediation at pipeline ends)	Seabed disturbance impacts from excavation and removal of subsea installations and associated stabilisation materials. Potential remediation of future formation of mid-line spans/exposures. Degradation of the materials decommissioned *in situ* over time. Snagging risk to commercial fisheries associated with pipelines decommissioned *in situ*. There will be a **0.0006 km²** area of direct permanent disturbance because of new rock placement (on pipeline ends). This increases to **0.0014 km²** when the potential remediation of future formation of mid-line spans/exposures is considered. Total indirect impact is **0.0028 km²**.	The following mitigation measures are proposed to minimise impacts: • Pre-decommissioning status surveys will be carried out to enable planning for the decommissioning activities and to inform the requirement for remediation activities. • All activities which may lead to seabed disturbance will be planned, managed, and implemented in such a way that disturbance is minimised. • All vessels undertaking the decommissioning and removal works will be dynamically positioned vessels. As a result, there will be no impact to the seabed due to anchoring. • Activities will be risk assessed and permitted under a Marine Licence. • Any exposures or cut pipeline ends will undergo rock placement to ensure they are over-trawlable to active fishing gears. • Any remedial rock armour will be placed to reduce unnecessary spreading of the rock footprint and ensure the minimum safe quantity of rock is used. • Clear seabed verification will ensure there is no residual risk to other sea users. Non-intrusive verification techniques will be considered in the first instance and in agreement with OPRED and fishing bodies. • TAQA will monitor and remediate where debris, seabed depressions or clay berms present a snag risk. Any debris identified as a result of oil and gas activities will be recovered from the seabed where possible. • Post-decommissioning monitoring will be undertaken at a frequency agreed with OPRED. • TAQA will make information available to the Hydrographic office and the U.K Fisheries Offshore Oil & Gas Legacy Trust Fund Limited (FLTC) to update Admiralty charts and the FishSAFE system. • Ongoing consultation with fisheries representatives.

5 Interested Party Consultations

TAQA consulted a wide range of interested parties during the planning and preparation stages of the Northern North Sea fields subsea comparative assessment process. Workshops and individual consultations with stakeholders were held to describe the CA process, to invite feedback and to understand stakeholders' particular interests and concerns regarding the impacts of decommissioning. Following this a CA report [3] was published documenting the findings from the CA process.

The consultees included:

- Scottish Fishermen's Federation (SFF)
- Department for Business, Energy, and Industrial Strategy (BEIS)
- Health and Safety Executive (HSE)
- Joint Nature Conservation Committee (JNCC)
- Oil and Gas Authority (OGA)
- Fairfield
- BP
- CNRI
- North Sea Transition Authority (NSTA)
- Scottish Environment Protection Authority (SEPA)
- TAQA Bratani LNS Limited
- Shell
- OPRED Offshore Decommissioning Unit (ODU) as an Observer

Furthermore, CA workshop invites were issued to Dana Petroleum, ExxonMobil, Neo Energy, ConocoPhillips, Norske Shell, Chrysaor, MOL Energy UK, ONE-Dyas, NFFO, NIFPO, Global Marine Systems and the Marine Directorate, but these organisations did not attend.

Given that Pelican is an NNS subsea field, the recommendations from the CA have been applied to Pelican [3].

This Decommissioning Programme was subject to public consultation in the fourth quarter of 2025. Table 5-1 presents a summary of the comments received flowing consultation and TAQA's response to those comments. The SFF provided the most detailed comments. These are tabulated in full in Appendix A – SFF Comments together with the associated TAQA's response.

Table 5-1: Summary of Stakeholder Comments

UK Stakeholder	Comment	Response
1. Informal Stakeholder Consultations		
Maritime and Coastguard Agency (MCA)	No comments received.	
Scottish Government Marine Directorate (SGMD)	No comments received.	
Scottish Environment Protection Authority (SEPA)	No comments received.	
United Kingdom Hydrographic Office (UKHO)	No comments received.	

Table 5-1: Summary of Stakeholder Comments		
UK Stakeholder	**Comment**	**Response**
2. Public		
No comments received.		
3. Statutory Consultations		
National Federation of Fishermen's Organisations (NFFO)	No comments received.	
Scottish Fishermen's Federation (SFF) comments cover two main areas of concern	**Fishing Safety & Snagging Hazards**: SFF sought clarification on remediation of pipeline cut ends to prevent snag risk and expressed their preference for full removal of drill cuttings as they pose snagging risk to fishing gears. SFF expressed their preference for full removal of stabilisation features and advised to be consulted if any practical difficulties are encountered during decommissioning.	Pipeline cut ends will be remediated with rock in consultation with OPRED and in accordance with environmental controls. Any snagging hazards resulting from decommissioning will be mitigated. TAQA will approach UKHO to determine if cuttings piles can be marked on charts as obstruction following decommissioning. TAQA will also coordinate with the UKHO and Kingfisher to facilitate chart updates and revisions to FishSAFE to show any remaining hazards following decommissioning.
	Verification & Monitoring: SFF recommend trawl verification sweeps rather than verification by survey. SFF recommends establishing a long-term monitoring plan with perpetual obligation to remediate any snagging hazards and to be consulted should any snagging risks arise requiring remediation work.	TAQA shall assess hazards (and remediate) using non-intrusive methods first. If non-intrusive methods prove ineffective, TAQA may use overtrawling after consulting OPRED. TAQA are committed to establishing a monitoring regime post-decommissioning which will be agreed with OPRED. Further measures to remediate any items will be controlled by a Marine Licence.
Northern Ireland Fish Producers' Organisation (NIFPO)	No comments received.	
Global Marine Systems Limited (GMS)	No comments received.	
North Sea Transition Authority (NSTA)	No comments received.	

6 Programme Management

6.1 Project Management and Verification

TAQA, on behalf of the Section 29 Notice Holders, has appointed a project management team to manage the planning and execution of this decommissioning programme. The team will ensure that decommissioning is conducted in accordance with TAQA health, environmental and safety management principles, and relevant legislation. TAQA's management principles will govern operational controls, hazard identification and risk management. The work will be coordinated with due regard to interfaces with other operators' oil and gas assets and with other users of the sea.

TAQA will control and manage the progress of all permits, licences, authorisations, notices, consents, and consultations required. Any significant changes to the decommissioning programmes will be discussed and agreed with OPRED.

6.2 Post-decommissioning Debris Clearance and Verification

A post-decommissioning site survey will be carried out within a 500m radius of the Pelican subsea installations sites and along corridors defined as 50 m either side of each pipeline route. Any oilfield-related seabed debris that is found will be recovered and returned to shore for recycling or appropriate disposal.

Independent clear seabed verification will be carried out after decommissioning to ensure there is no residual risk to other sea users. Non-intrusive verification techniques will be considered in the first instance in agreement with OPRED and fishing bodies. If clear seabed cannot be verified using non-intrusive techniques, trawl sweeps or other intrusive means may be used, following consultation with OPRED, and in discussion with fishing representative bodies.

Following verification, TAQA will issue a statement of clearance to all relevant governmental departments and non-governmental organisations.

The post-decommissioning survey results will be notified to the UK Fisheries Offshore Oil and Gas Legacy Trust Fund Ltd to allow appropriate modification to the FishSAFE system, and to the United Kingdom Hydrographic Office to allow appropriate modification of Admiralty charts and notices to mariners.

6.3 Schedule

The main milestones in the Pelican decommissioning process were, or are anticipated to be:

- Cessation of production: Q3 2024
- Well plug and abandon window: 2025 – 2030
- Subsea installation & pipeline removal: 2026– 2032[1,2]
- Post removal survey: 2032 – 2033

Note:

1. Although the wider Pelican subsea removals scope is not planned to commence until circa 2030, the upper section of Pelican Riser Caisson will be removed in 2026 as part of the Cormorant Alpha topsides removal preparations.
2. The Pelican Riser Cell Wall and Cell Top Caissons may be temporarily wet stored for up to a maximum of two years following their removal in 2027.

The envisaged Pelican decommissioning programme is illustrated in Figure 6-1.

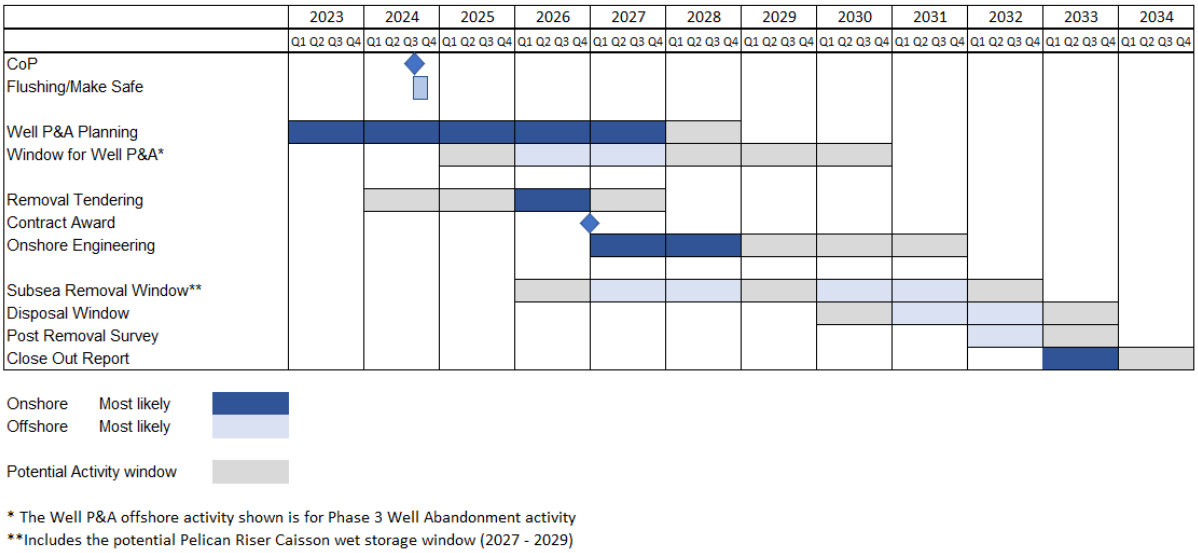

Figure 6-1: Decommissioning Schedule

6.4 Costs

An overall cost estimate following Oil and Gas UK (OGUK) Guidelines on Decommissioning Cost Estimation (Issue 3, September 2013) [8] will be provided to OPRED in confidence.

Table 6-1: Provisional Decommissioning Costs

Item	Estimated Cost (£MM)
WBS 1 – Operator Project Management	Provided to OPRED in confidence
WBS 2 – Post CoP OPEX	
WBS 3 – Well Abandonment	
WBS 4 – Facilities & Pipelines Permanent Isolation & Cleaning	
WBS 5 – Topsides Preparation	
WBS 6 – Topsides Removal	
WBS 7 – Substructure Removal	
WBS 8 – Onshore Recycling	
WBS 9 – Subsea Infrastructure	
WBS 10 – Site Remediation	
WBS 11 – Monitoring	

6.5 Close Out

A close out report will be submitted to OPRED and posted on the TAQA decommissioning website detailing any variations from the Decommissioning Programme within twelve months of the completion of the offshore decommissioning scopes and disposal, including debris removal, verification of seabed clearance (where applicable) and the first post-decommissioning environmental survey.

6.6 Post-Decommissioning Monitoring and Evaluations

TAQA will carry out a post-decommissioning environmental seabed survey, centred around the sites of the Pelican facilities.

All Pelican sites and pipeline routes will be the subject of surveys when decommissioning activity has concluded. The facilities that are proposed to be left in place, e.g., buried pipelines will be subject to a monitoring programme to be agreed between TAQA and OPRED.

A copy of the survey results will be forwarded to OPRED. After the survey results have been sent to OPRED and reviewed, a post decommissioning survey regime will be agreed between TAQA and OPRED taking account of the findings of previous surveys, and a risk-based approach to the frequency and scope of subsequent surveys.

6.7 Management of Residual Liability

Any equipment that is left in place will remain the responsibility of the Pelican S29 notice holders.

TAQA recognises that the parties to the decommissioning programmes covered by this document will continue to retain residual liability for any infrastructure left in place after decommissioning.

TAQA will engage with OPRED on all future legacy and liability matters and requirements relating to the infrastructure left in place.

7 Supporting Documents

[1] Guidance Notes Decommissioning of Offshore Oil and Gas Installations and Pipelines, BEIS, November 2018.

[2] Well Decommissioning Guidelines, OEUK, 2022.

[3] Comparative Assessment Northern North Sea Subsea Assets 77IFS-154925-L99-0006-02, Revision A04, Xodus Group, July 2024.

[4] Pelican Field Subsea Environmental Appraisal, 77IFS-175422-H99-0002-000, Revision R04, Xodus Group, May 2025.

[5] Guidance document for characterization of offshore drill cuttings piles, NorOG (NORSK olje & gass), 2016.

[6] Implementation report on Recommendation 2006/5 on a management regime for offshore cutting piles, OSPAR, 2006.

[7] An Analysis of U.K. Offshore Oil and Gas Environmental Surveys 1975-95, UKOOA, 2001.

[8] OGUK 2013. Oil and Gas UK Guidelines on Decommissioning Cost Estimation (Issue 3, September 2013).

8 Section 29 Holders' Letters of Support

Docusign Envelope ID: 2A138772-1828-8FC3-83FE-8A0251DD9E32

Shell U.K. Limited
The Silver Fin Building
455 Union Street
Aberdeen
AB11 6DB
United Kingdom
Tel +44 122488 2000
Internet http://www.shell.co.uk

Offshore Petroleum Regulator for Environment and Decommissioning
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

11 May, 2026

PELICAN SUBSEA FACILITIES
DECOMMISSIONING PROGRAMMES
PETROLEUM ACT 1998

Dear Sir/Madam,

We acknowledge receipt of your letter dated 17th April 2026.

We, Shell U.K. Limited, confirm that we authorise TAQA Bratani Limited to submit on our behalf abandonment programmes relating to the Pelican Subsea Facilities as directed by the Secretary of State on 17th April 2026.

We confirm that we support the proposals detailed in the Pelican Subsea Facilities Decommissioning Programmes dated 20th April 2026 which is to be submitted by TAQA Bratani 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,

DocuSigned by:
Jan Muhl
FAC53E424FA847F...
Jan Muhl
Commercial Manager
For and on behalf of Shell U.K. Limited

Shell U.K. Limited,
Registered in England number 140141,
Registered office Shell Centre London SE1 7NA,
VAT reg number GB 235 7632 55

Fbf31af5-9c47-4ac2-959a-f2e48da2396e

Esso Exploration and Production UK Limited
Fawley Administration Building
Fawley Refinery
Marsh Lane
Fawley
Southampton
SO45 1TX

ExxonMobil

Offshore Petroleum Regulator for Environment and Decommissioning
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

6th May 2026

Dear Sir or Madam,

DECOMMISSIONING OF THE PELICAN FIELD INSTALLATIONS: Petroleum Act 1998

We acknowledge receipt of your letter dated 17 April 2026.

On behalf of Esso Exploration and Production UK Limited (Registered Number 00207426), I can confirm that we authorise TAQA Bratani Limited to submit on our behalf an abandonment programme relating to the Pelican Subsea Facilities Decommissioning Programmes as directed by the Secretary of State on 17th April 2026.

I hereby confirm our support for the proposals detailed in the Pelican Subsea Facilities Decommissioning Programmes Decommissioning Programme dated 20th April 2026 which is to be submitted by TAQA Bratani 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

DocuSigned by:
Mr Colin Mair
[illegible]

Colin Mair
Commercial Advisor
For and on behalf of Esso Exploration and Production UK Limited (Registered Number 00207426)

Appendix A – SFF Comments

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
1	DP	Page 13, Table1-5	The SFF note from Table 1-5 'Flexible Flowlines and Umbilicals, Surface Laid' that "Limited sections of surface laid pipelines and umbilicals in close proximity to the Cormorant Alpha CGBS may be left in place, subject to derogation to leave the CGBS in place, and agreement with OPRED." We seek clarification how the cut-ends of pipeline are remediated to prevent snagging risk to fishing gears in case the 500m SZ is removed.	The cut ends shall be remediated with rock. Where rock is placed to mitigate risk this will be designed with an over-trawlable profile and involve consultation with OPRED and the associated environmental controls. TAQA will produce an updated Platform Close Approach drawing following decommissioning. This drawing will be supplied to the UK Hydrographic Office and Kingfisher to facilitate chart and FishSAFE updates, etc.	**SFF comment:** We propose overtrawl sweep to be undertaken to ensure it is safe for fishing to resume. **TAQA response**: Rock protection when designed and installed appropriately (as confirmed by post-install survey) is widely accepted across industry as a solution for pipeline protection and snag hazard mitigation. When utilised on new projects or for mitigation of snag hazards identified during operation, rock berms would not usually be subject to overtrawl trials. It is therefore suggested that any rock protection installed as decommissioning mitigation will also be designed and installed following industry guidance, best practice and adhering to pipeline safety regulations negating any requirement for overtrawl trials. **SFF comment:** What is the expected timeframe for providing the updated PCA drawing post decommission? **TAQA response**: TAQA will prepare Platform Close Approach drawing(s) prior

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
					to relinquishment of the 500m safety zone. These can be provided directly to SFF as necessary for onward distribution.
2	DP	Page 43, Table 3-5	The SFF notes from Table 3-5 (p43) that concrete mattresses, grout bags, and sandbags will be fully recovered; however, if practical difficulties are encountered, TAQA will consult with OPRED to agree an alternative approach. The SFF fully support the full recovery of afore-mentioned stabilisation features; however, if any practical difficulties are encountered SFF should also be consulted.	As noted in the DP TAQA will consult OPRED on treatment of stabilisation features that prove problematic to remove. Further measures to remove these items, or consent to leave them in situ will be controlled by Marine Licence. SFF will be formally notified of the Marine Licence application by OPRED. In the event that the identified mitigation measures propose a novel solution TAQA will endeavour to engage with SFF ahead of the Marine Licence application where possible.	SFF comment: Noted
3	DP	Page 44, Section 3.5	The SFF note from section 3.5 (p44) that both identified drill cutting piles: - Pelican manifold covers an area of 25,450 m2 with an approximate volume of 10,900 m3, and - The Cormorant Alpha cuttings pile is estimated to cover an area of 12,210 m2 with a pile volume of approximately 9,278 m3will be left in place. The drill cuttings piles will not be actively displaced but may be disturbed during the decommissioning activities (fall below the OSPAR 2006/5).	As described in the DP, TAQA will treat cuttings piles in accordance with relevant OPRED and OSPAR guidance. Specifically, both the Pelican manifold and Cormorant Alpha CGBS cuttings piles meet the OSPAR criteria for decommissioning in situ [OSPAR Recommendation 2006/5]. TAQA will approach the UK Hydrographic Office to determine if cuttings piles can be marked on charts as obstructions following decommissioning.	**SFF comment:** We appreciate the OSPAR's threshold however due to snagging and contamination risks to fishing our position remain unchanged. We also propose the drill cuttings should be charted as 'drill cutting' than 'foul ground'. **TAQA response**; TAQA's proposal remains to decommission the cuttings piles in situ following current guidance. TAQA recommends SFF discuss this matter further with OPRED should they wish.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			Given the snagging and contamination risks that drill cuttings pose to fishing gear, the SFF policy position is that drill cutting piles should be completely removed.		The reference "Foul Ground" aligns with the terminology used within BEIS Guidance (2018, para 16.3) when referring to cuttings piles. It is therefore proposed this will be adopted for consistency.
4	DP	Page 56, Section 6.2	The SFF note from subsection 6.2 that independent clear seabed verification will be carried out after decommissioning to ensure there is no residual risk to other sea users. Non-intrusive verification techniques will be considered in the first instance in agreement with OPRED and fishing bodies. If clear seabed cannot be verified using nonintrusive techniques, trawl sweeps or other intrusive means may be used, following consultation with OPRED, and fishing representative bodies. 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	In line with OPRED guidance, non-intrusive verification methods will be used in the first instance. If these prove ineffective, or detect snagging hazards, then more intrusive verification and remediation methods, potentially including over-trawling, may be used following consultation with OPRED.	**SFF comment:** We are of the view that TAQA's latest comments may reflect the fact that, at the time the DP was prepared, OPRED's guidance prioritised non-intrusive methods in the first instance. However, updated guidance has been in place since August 2024 (attached) that allows overtrawl. Therefore, the SFF position remains unchanged: based on our past experience, overtrawling is the only reliable method to provide fishers with assurance that it is safe to return to the area. Additionally, we would be interested to understand how non-intrusive methods are able to verify what does or does not constitute a snagging hazard to fishing operations. **TAQA response:** In alignment with the 2024 guidance and OPRED's requirements, TAQA's proposed approach is first to use non-intrusive seabed survey methods to identify any debris or seabed obstructions. It is TAQA's intention that these would then be recovered/removed

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			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.		ensuring no debris or any other obstructions remain that could interfere with future fishing operations. If the above cannot be achieved and potential debris or obstructions remain then potential mitigations would be discussed with OPRED and the SFF. The use of overtrawl could in this instance be deployed to provide seabed clearance verification.
5	DP	Page 58, Section 6.6	The SFF note from subsection '6.6' that TAQA will carry out a post-decommissioning environmental seabed survey, centred around the sites of the Pelican facilities. All Pelican sites and pipeline routes will be the subject of surveys when decommissioning activity has concluded. The facilities that are proposed to be left in place, e.g., buried pipelines will be subject to a monitoring programme to be agreed between TAQA and OPRED. The SFF welcomes this commitment and recommends establishing a long-term monitoring programme, with a perpetual obligation to remediate any snagging hazards. This will ensure that decommissioned Pelican subsea facilities pose no risk to fisheries.	TAQA are committed to establishing a monitoring regime post-decommissioning which will be agreed with OPRED.	No further comments.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
6	DP	Page 58, Section 6.7	The SFF note from subsection '6.7' that any equipment that is left in place will remain the responsibility of the Pelican S29 notice holders. TAQA recognises that the parties to the decommissioning programmes covered by this document will continue to retain residual liability for any infrastructure left in place after decommissioning. TAQA will engage with OPRED on all future legacy and liability matters and requirements relating to the infrastructure left in place. The SFF welcomes this commitment and recommend SFF to be consulted should any snagging risks arise requiring remediation work.	As noted in the DP, TAQA will engage with OPRED on all future legacy and liability matters and requirements relating to the infrastructure left in place. Further measures to remediate any items will be controlled by Marine Licence. SFF will be formally notified of the Marine Licence application by OPRED. In the event that the identified mitigation measures propose a novel solution TAQA will endeavour to engage with SFF ahead of the Marine Licence application where possible.	**SFF comment**: Noted.
7	DP	N/A	As you will be aware, any pipelines and associated materials left on the seabed represent a legacy issue and will require on going monitoring. Where rock cover is deployed, we would look for the size and profile of the rock to follow normal industry standards and would recommend that such rock dump berms are incorporated into the post decommissioning debris clearance trawl sweeps to verify that, at the time	Where rock placement is the selected as the most appropriate mitigation measure the Rock berms will be designed with an over-trawlable profile. Following installation, the as-laid rock will be surveyed to ensure it matches the design profile. As per previous comment 4 response, in line with OPRED guidance, non-intrusive verification methods will be used in the first	**SFF comment:** See our response to Comment No 4. Therefore, SFF position remain unchanged as based on our past experience, overtrawl is the only reliable mean to assure fishers it is safe to return to the area. **TAQA response:** Please also see responses to Comment 1 and 4.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			of deposit, they did not pose a risk to fishing.	instance. If these prove ineffective, or detect snagging hazards, then more intrusive verification and remediation methods, potentially including over-trawling, may be used following consultation with OPRED.	
8	EA	Page 50, Section 3.2.3	The SFF note in subsection '3.2.3' that any piles used to secure subsea installations should be cut at least 3 meters below the natural seabed level to ensure that any remaining sections are unlikely to become exposed over time. However, table 3-10 in the 'selected decommissioning option' column states that only the top 3 meters of each well conductor will be removed. We seek clarification whether this approach leave any part of the conductor protruding above the seabed, potentially creating a hazard?	TAQA confirm there is no intention to leave any part of the conductor protruding above seabed level. The wording in the EA will be amended to make it clear that the planned cut point is 3 metres below the seabed.	**SFF comment:** Noted.
9	EA	Page 53, Section 3.3.5	The SFF notes from subsection 3.3.5 that, for remediation works, rock will be placed precisely using a fall pipe vessel or rock bags. Additionally, the removal of foundation piles associated with subsea structures may create depressions in the seabed. Therefore, TAQA will monitor the seabed to identify any depressions and ensure they are overtrawlable. Where natural backfill	Proposed remediation measures will be dependent on the size of any identified depressions and measures to remediate any depressions will be controlled by Marine Licence. SFF will be formally notified of the Marine Licence application by OPRED. In the event that the identified mitigation measure proposes a	**SFF comment:** Provided that SFF is consulted before any mitigation measures are adopted, and that rock placement is used for remediation followed by an overall review, we have no adverse comments. **TAQA response:** As per previous response where novel solutions are being proposed TAQA will endeavour to engage with the SFF prior to the formal Marine Licence application where data is

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			is not possible, rock may be used as localized remediation to fill these depressions. The SFF appreciates the use of industry standard rock size (2"-5") for remediation works as an alternative to concrete mattresses, grout bags, or rock bags, which pose a snagging risk for demersal gears. We propose that SFF be consulted on remediation plans and provided with relevant data to allow us to comment on the selection of appropriate remediation methods.	novel solution TAQA will endeavour to engage with SFF ahead of the Marine Licence application where possible.	available. In addition, TAQA have committed to engage with SFF at regular update sessions to keep them appraised of all decommissioning work fronts.
10	EA	Page 53 / 63, Section 3.3.5 / Figure 4-2	Additionally, we note from Figures 4-1 and 4-2, 'Seabed Imagery from the Pelican Area,' that there has been minimal change over an 11-year period on the seabed. Based on this observation, we believe that natural backfill would take an extremely long time and should not be considered a viable option given the local seabed sediment condition. We therefore propose any depressions or trenches be mechanically backfilled. Our preference is to avoid rock dumping in soft sediment benthic as they introduce non-native species to the area. Where other method of	Sediment characterisation within the survey area indicates a predominantly sand rich seabed, supporting the the potential for natural backfilling across much of the site. The 2020 Benthic Solutions survey shows that over 50% of stations comprise muddy sand, which is widely recognised as having good potential for natural infilling due to the dominance of the sand fraction. A further 20% of sediments are classified as gravelly muddy sand, which retains some capacity for partial natural backfill, albeit at a slower rate. Although 25% of stations were identified as	**SFF comment:** SFF concern still remain unresolved as the natural backing over the 11 yrs has been minimal. Therefore, we prose mechanical back fill of deppression is ideal solution to eliminate snagging risk in timely manner. **TAQA response:** Where post decommissioning surveys identify depressions requiring mitigation TAQA will keep SFF informed during update sessions and will provide information on mitigation measures ahead of formal Marine Licence submission where novel solutions are being proposed and data is available.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			mechanical back fill is not feasible rock cover should be the last resort. The SFF seek to be consulted on any remediation work to ensure that proposed plans are appropriate for fisheries and do not create additional issues, including snagging risks to fishing gear and vessels.	gravelly muddy sand, these largely correspond to historic cuttings pile sampling locations and are not expected to experience significant disturbance as part of the proposed works. While seabed imagery indicates limited large scale change over an 11 year period, this reflects overall seabed stability rather than an absence of localised sediment mobility following disturbance. In sand dominated sediments, small scale infilling and sidewall collapse can occur without producing discernible long term morphological change at the resolution of seabed imagery. The proposed approach therefore supports natural backfill where sediment conditions allow, supplemented by targeted mechanical backfilling only where recovery would otherwise be limited or unduly prolonged. This proportionate strategy minimises unnecessary seabed intervention and aligns with the preference to avoid rock placement in soft sediment habitats, reserving such measures as a last resort.	**SFF comment:** See SFF response to Comment No 9. **TAQA response:** As per above and response to comment 9.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
				Further measures to remediate any depressions will be controlled by Marine Licence. SFF will be formally notified of the Marine Licence application by OPRED. In the event that the identified mitigation measure proposes a novel solution TAQA will endeavour to engage with SFF ahead of the Marine Licence application where possible. TAQA plan to engage with SFF on a regular basis to keep SFF informed of the subsea removals activities.	
11	EA	Page 54, Section 3.3.7	The SFF notes from subsection '3.3.7' that, where materials are decommissioned in situ, the Operator is responsible for monitoring and mitigating any impacts from these materials. As buried pipelines and associated rock remediation are likely to be decommissioned in situ, they will be subject to ongoing inspections once the Pelican Area decommissioning activities are completed. Following submission and review of the initial post-decommissioning site survey reports to OPRED, TAQA will agree a post-decommissioning inspection regime with OPRED.	As noted in the DP, TAQA will engage with OPRED on all future legacy and liability matters and requirements relating to the infrastructure left in place. Should legacy surveys identify a potential snag risk or these are reported through other channels then the requirement for mitiagation would be determined at the time, using a case by case risk based assessment. The deployment of a guard vessel and the issuing of Notices to Mariners are mitigation measures which may be considered.	**SFF comment:** Point noted. However, to ensure fishermen's safety, we propose that a guard vessel be deployed at the remediation site until the snagging risk has been fully removed and a seabed clearance certificate has been issued. This will provide assurance to fishers that it is safe to resume operations in the area of concern. **TAQA response:** On identification of a potential hazard, TAQA will immediately report this via Notices to Mariners and FishSAFE channels and will deploy a guard vessel if appropriate.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			We propose that, if reports of fishing gear snagging occur, a formal commitment should be in place to conduct a survey, with the potential deployment of a guard vessel and issuance of a Kingfisher Bulletin until rectification is completed.		
12	EA	Page 69, Section 4.1.5.2.2	The SFF notes from subsection '4.1.5.2.2 Pelican Area' that most core profiles (95%) displayed THC levels exceeding the OSPAR (2006) threshold, with the highest concentrations recorded in the north and northwest of the cutting pile (Figure 4-5). At least one core sub-layer exceeded 2,000 mg/kg, and THC peaked at 63,523 mg/kg. This demonstrates that drill cuttings contain levels significantly above OSPAR thresholds and reinforces SFF's position advocating for the complete removal of drill cutting piles to ensure a clear seabed, in alignment with UK Government policy on seabed clearance post-decommissioning.	Individual samples showing THC levels above OSPAR thresholds are anticipated in a cuttings pile of this age and originating from a well stock of this scale. However, the pile as a whole does not exceed OSPAR thresholds for persistence or rate of oil loss. As described in the DP, TAQA will treat cuttings piles in accordance with relevant OPRED and OSPAR guidance [OSPAR Recommendation 2006/5]. Specifically, both the Pelican manifold and Cormorant Alpha CGBS cuttings piles meet the OSPAR criteria for decommissioning in situ. TAQA will approach the UK Hydrographic Office to determine if cuttings piles can be marked on charts as obstructions following decommissioning.	**SFF comment:** Meeting OSPAR criteria does not equate to OPRED approval, nor does it address fisheries concerns relating to seabed hazards, potential contamination of catch, or associated operational risks. Therefore, our position remains unchanged: we continue to advocate for the removal of drill cuttings at the outset, alongside appropriate compensation for fishers in the event of contaminated catch and/or damaged gear. **TAQA response:** TAQA's proposal remains to decommission the cuttings piles in situ following current guidance. *TAQA recommends SFF discuss this matter further with OPRED should they wish.*

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
13	EA	Page 77, Table 4-2	The SFF notes from subsection 4.2.5, (Table 4-2), that cod spawning is classified as high sensitivity from January to April. In light of this and the ICES recommendation of a 0% total allowable catch (TAC) for cod due to critically low stock levels, we strongly propose that disturbance during this period must be avoided.	The spawning data presented in the document provides an overview of cod spawning across the entire rectangle but does not indicate whether spawning occurs directly adjacent to the infrastructure being decommissioned. The decommissioning works will be targeted and localised and the conservative seabed disturbance footprint (temporary, indirect) is estimated to be 0.085 km2. This seabed disturbance footprint amount to less than 0.003% of the total area for ICES rectangle 51F1. Available data and site specific evidence will be collected to inform the likelihood of cod spawning in the proximity of the infrastructure being decommissioned.	**SFF comment:** Noted. However, while this represents only 0.003% of 51F1, the cumulative impact of all projects across the North Sea is a concern. Therefore, we seek a firm commitment that the cod spawning period will be avoided in order to minimise impacts on this vulnerable species. **TAQA response:** Given the majority of this period falls in winter months it is likely that decommissioning activities will be limited however, any works will be detailed on a Marine Licence and the potential impact on cod spawning will be further assessed at this time.
14a	EA	Page 77, Table 4-2 Page 79-80, 92-93, Tables 4-5 and 4-5, Figures 4-10 and 4-11	The SFF note a discrepancy between the datasets used: Tables 4-5 and 4-6 use landing data from 2019–2023, whereas Figures 4-10 and 4-11 use data from 2017–2020. We seek clarification on why different timeframes were used to represent fishing activity in ICES rectangle 51F1 and the vicinity of the Pelican Area subsea infrastructure.	Figures 4-10 and 4-11 use Vessel Monitoring System data matched to the logbook info from fishers. These figures contain the most up to date VMS data available. TAQA acknowledge that the data used in these figures is from a different source and is presented differently than the data in Tables 4-5 and 4-6. Therefore figures 4-10	**SFF comment:** Noted. It is important that consistent data to be used in order to show real fishing activiity figures in the area.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
				and 4-11 will be replaced to align to the data in the tables.	
14b	EA	Page 90-91, Section 4.4.1	Additionally, we note that catches amounting to 545,648 tonnes with a value of £800 million were landed across the UKCS in 2023. Specifically, demersal fishing accounted for 46,135 tonnes and £180 million. ICES rectangle 51F1 contributed 3.4% of the total landed weight and 1.6% of the total commercial value of UK demersal fishing in 2023 which was moderate to low (pp99).	The current assessment compares demersal catch within ICES Rectangle 51F1 to the total demersal catch aggregated across all UKCS rectangles. When the demersal catch from 51F1 is instead compared directly with catches from other individual rectangles, the landings (both value and weight) for demersal species in 51F1 are broadly comparable to those observed in other high performing rectangles. This indicates that Rectangle 51F1 supports similarly elevated levels of demersal activity relative to the wider UKCS. Please note that the fisheries data reflects activity across the whole ICES rectangle. In comparison, the footprint of the Pelican decommissioning area covers only a very small proportion of this much larger area. Based on this revised comparative context, it would be appropriate to describe demersal activity in 51F1 as moderate to high relative to other UKCS rectangles.	**SFF comment:** Noted with thanks.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
				The EA has been amended to reflect this.	
15	EA	Page 133, Section 6.3.5	The SFF note from subsection '6.3.5' that clear seabed verification will ensure there is no residual risk to other sea users and will be agreed with OPRED. Non-intrusive verification techniques will be considered in the first instance and in agreement with fishing bodies. Post-decom survey specifications will be agreed in advance with OPRED to ensure that any protected species or areas of conservational importance are not inadvertently compromised in any way by any clear seabed trawling activities or other obtrusive methods. We would like to note that bottom trawling is fully permitted in the localized area, with the nearest restriction located over 37 nautical miles away. Therefore, we propose this area should be subject to overtrawl.	In line with OPRED guidance, non-intrusive verification methods will be used in the first instance. If these prove ineffective, or detect snagging hazards, then more intrusive verification and remediation methods, potentially including over-trawling, may be used following consultation with OPRED.	**SFF comment:** See our response to Comment No 4. SFF concern and position remain unchanged. Only overtrawl can assure fishers to confidently resume fishing in the area. We propose overtrawl should be the only mean to verify area is safe for fishing. It should be noted that SFF will only issue a clear seabed verification certificate once an overtrawl has been conducted. **TAQA response:** Please see our response to Comment 4.
16	EA	Page 134, Section 6.3.6	The SFF note from subsection '6.3.6' that given the area of permanent direct and temporary indirect impact of rock placement predicted to be generated by the proposed decommissioning activity in the wider area and along the pipeline corridor,	As set out by OPRED, it is recognised that a clear seabed may not always be possible or appropriate, and that, in some cases, installations and pipelines may be decommissioned in situ, remaining within the marine	No further comments.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			the vulnerability of the seabed receptors is considered to be medium. However, the placement of rock within an existing trench and the potential for the recolonisation of such areas of hard substrate should also be considered. The SFF is of the view that introducing hard substrate into an area of soft sediment has the potential to create habitat and species changes that did not historically exist. The operator has an obligation to restore a clean seabed and should avoid introducing non-native species.	environment where this represents the most proportionate and environmentally sound outcome. Clean, inert rock will be used for remediation activities therefore the risk of invasive species is highly unlikely.	
17	EA	Page 139, Section 6.4.4	The SFF note from subsection '6.4.4' that disturbance of drill cuttings during the proposed decommissioning operations is expected to occur during the removal of infrastructure, but also from future commercial fishing activity. Commercial fishing may begin immediately after decommissioning activities have finished and could therefore qualify as a sequential transient event. Thus, it is reasonable to expect that Pelican decommissioning operations and commercial fishing could produce cumulative impacts. However, the impacts on drill cuttings resulting from	The Marine Directorate fisheries statistics are the industry-accepted source of data used to inform environmental and societal baselines within EIA / ES / EA documentation and the subsequent impact assessments therein. Notwithstanding, it is acknowledged that there are limitations in their use in cases where the publication of ICES rectangle specific fisheries data did not occur prior to field installation and safety zone implementation, such as Pelican. The use of regional data pre-commissioning is available but is too	**SFF comment:** SFF is informed that records only became digitalised in 2007 , so TAQA can request a copy under a FOI request to MMO. However, SFF's plotter data shows fishing track over teh project area prior to development. [We have provided a screenshot of the plotter (attached) for TAQA's review only as the data is confidential and cannot be shared externally or made available at public domains.] This will not be included in response included in DP. **TAQA response** Thank you for sharing this additional information. Whilst this is noted and understood TAQA wishes to

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			the proposed operations will be transient and limited both spatially and temporally. Fishing events are expected to be intermittent (the Pelican area is not considered to be of high commercial importance relative to the surrounding area, as described in Section 4.4.1). The SFF do not agree with the reasoning that the Pelican area is not considered to be of high commercial importance relative to the surrounding area. This is not a valid justification, as historical data will demonstrate fishing activity in the area prior to construction, and current data shows fishing occurring on the periphery of safety zones. With other uses of the sea—such as offshore renewable energy developments, MPAs…etc—expanding exponentially, the need to reclaim as much fishing ground as possible is critical. Therefore, we reiterate our position that a clear seabed should be restored, in alignment with UK Government policy in this area.	general and spatially broad to derive precise data for this EA. If the SFF are in possession of ICES rectangle specific fisheries data for the 5 years prior to field commissioning (1991-1995) and 5 years subsequent to field commissioning (1996-2000) we would welcome this data to help better inform our assessment. As outlined in comment 14b, it will be included in the EA that the landings weight and values in ICES rectangle 51F1 are broadly comparable to other high-performing rectangles in the UKCS.	express that current decommissioning plans are to open up as much of the seabed as reasonably practical by removing infrastructure from areas which have had safety zone restrictions throughout the operation of this field.
18	EA		The SFF note from subsection '6.4.5' that disturbance of the cuttings pile	As described in the DP, TAQA will treat cuttings piles in accordance	**SFF comment:** As above.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			during decommissioning operations is expected to occur during the removal of infrastructure but also from future fishing activity. TAQA will ensure that data is made available to enable the cuttings pile to be marked on Kingfisher charts and FishSAFE plotter files. This will highlight the presence of the cuttings pile to fishermen and assist in reducing the frequency of trawling occurrences (over which time the cuttings pile efficacy will continue to naturally degrade). The SFF cannot agree with the proposed mitigation, as this process could take up to 100 years, excluding many generations of fishers from accessing the location of the piles. In line with SFF Decommissioning Policy, we reiterate the need for the removal of drill cutting piles to ensure that fishing grounds are returned to fishermen as soon as possible.	with relevant OPRED and OSPAR guidance. Both the Pelican manifold and Cormorant Alpha CGBS cuttings piles are below the OSPAR threshold and meet the OSPAR criteria for decommissioning in situ (OSPAR Recommendation 2006/5). TAQA will approach the Hydrographic Office to determine if cuttings piles can be marked on charts as obstructions following decommissioning.	SFF concern and position still remain unresolved. due to the potential snagging and catch contamination which is confirmed by OSPAR Paper (2019).. Therefore we propose total removal of drill cuttings and paying compensation for fishermen who;s catch are contaminated by drill cuttings left in situ. **TAQA response:** Please see response to Comment 3.
19a	EA	Page 141, Section 6.5.3	The SFF note from subsection '6.5.3' that although demersal landings are moderate, fishing effort is low across ICES rectangle 51F1. The moderate level of demersal fishing is concentrated in specific areas of ICES rectangle 51F1, which are located	Demersal fishing activity within ICES rectangle 51F1 has been assessed using standardised and widely accepted fisheries datasets that are routinely applied in Environmental Assessments. These data represent recorded fishing	**SFF comment:** This is exactly the point that we are making here. We are of the view that the reason for fishing activity being away from the decommissioning area is fisher cannot fish within Pelican infrastructure due to the snagging risk caused by the project.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			away from the Pelican decommissioning area. We cannot agree with this statement, as the reason for its location being away is due to the presence of the Pelican area. Additionally, it should be noted that international vessels have not been accounted for, which further increases the significance of this issue.	effort and landings, providing the most robust evidence base for characterising current activity. Figure 4-11 identifies that overall demersal fishing effort in 51F1 is concentrated in discrete areas of the wider ICES rectangle that are spatially separated from the decommissioning area. While it is acknowledged that the presence of offshore infrastructure can influence fishing patterns, it is not possible to reliably quantify or predict how fishing activity might be distributed in the absence of that infrastructure. Accordingly, the assessment is appropriately based on observed activity and data in line with established regulatory practice. With regard to international vessels, the datasets applied are those commonly accepted by regulators and are used consistently across all ICES rectangles; any associated limitations therefore do not affect the relative interpretation of fishing activity within 51F1. Additionally, international vessels are expected to use official Admiralty Charts when navigating in UK waters.	SFF plotter data shows fishing activity occurring approximately 1 nm either side of the Pelican manifold. We have attached a screenshot of a single vessel's track to illustrate how fishing vessels avoid the area due to the presence of the infrastructure. Please note that this data is confidential and is shared solely for TAQA's review. It must not be used in any consultation documents. **TAQA response:** Thank you for sharing this additional information. Whilst this is noted and understood TAQA wishes to express that current decommissioning plans are to open up as much of the seabed as reasonably practical by removing infrastructure from areas which have had safety zone restrictions throughout the operation of this field.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
19b	EA	Page 142, Section 6.5.3	We also note that the preferred decommissioning option for the rigid pipelines is to remove areas of spans, exposures and shallow burial. All rock associated with midline sections which are within a trench will be placed within the footprint of the existing trench and at pipeline ends and will be designed to be fully overtrawlable to minimise any residual risk to commercial fishers. Should any clay berms be apparent following infrastructure removal these will be remediated in an appropriate manner. We seek clarification that what methods would be utilised should any clay berms be apparent?	Any snagging risks identified as a result of post decommissioning surveys will be evaluated to determine the most appropriate remediation solution. Clay berm remediation, if required, would be evaluated by a Subsea Contractor, and is not available at this time. The proposed remediation will be controlled by Marine Licence. SFF will be formally notified of the Marine Licence application by OPRED. In the event that the identified mitigation measures propose a novel solution TAQA will endeavour to engage with SFF ahead of the Marine Licence application where possible.	No further comments.
19c	EA	Page 142, Section 6.5.3	It is also noted that considering the mitigation strategies to be put in place and the low fishing effort observed within the Pelican Area, the risks to the fishing industry associated are considered to be low. The SFF do not agree with this conclusion, as the project area is a prime fishing ground with strong potential for fishing activity to return and increase post-decommissioning. Furthermore, mitigation measures such as issuing Kingfisher Bulletins to	Section 16.3 of the BEIS Guidance provides the UK Government policy on marking drill cuttings that may pose a hazard to trawling. TAQA's approach is consistent with UK Government policy and expectations. As outlined in previous comments, it will be included in the EA that the landings weight and values in ICES rectangle 51F1 are broadly comparable to other high-performing rectangles in the UKCS.	**SFF comment:** See our earlier response to Drill Cutting piles. **TAQA response:** Please see our response to Comment 3. **SFF comment:** See above regards cumulative effects **TAQA response**: TAQA's decommissioning plans are to open up as much of the seabed as reasonably practical by removing infrastructure from

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			inform fishers of drill cutting pile hazards until they naturally degrade are neither sufficient nor acceptable. Therefore, we propose that the risks to the fishing industry be considered high, and all efforts should be made to ensure a clear seabed post-decommissioning.	However, please note that the fisheries data reflects activity across the whole ICES rectangle. In comparison, the footprint of the Pelican decommissioning area covers only a very small proportion of this much larger area. Regarding the high risk to the fishing industry, as per the EA methodology, the receptor would need to obtain the majority of its income from the Pelican Area in order to be classified as 'high value' (see Table 5-9). As this is not the case, and after implementing the appropriate mitigation measures, the residual risk has been assessed as low.	areas which have had safety zone restrictions throughout the operation of this field. **SFF comment:** SFF position remains unchanged as mitigation measures such as issuing Kingfisher Bulletin is neither sufficient nor acceptable. Any notice of hazard make fishermen to change their fishing plan which result in losing catch and incurring additional cost due to extra steaming time and gear conflict if displaced to another fishing ground. **TAQA response:** Please see response above with regards intentions to open up as much of the seabed as reasonably practical. With regards to drill cuttings, please see our response to Comment 3
20a	EA	Page 144, Section 6.5.5	The SFF note from subsection 6.5.5. that the Pelican Area pipelines are currently shown on Admiralty Charts, the FishSafe system and the NSTA Infrastructure data systems (NSTA Open Data). Once decommissioning activities are complete, updated information (i.e. which infrastructure remains in situ and which has been removed) will be made available to allow Admiralty charts and the FishSafe system to be updated.	TAQA propose to discuss with the HSE, the retention of subsea safety zones until final verification surveys are complete. Relinquishment of the safety zone will be communicated to fisherman. In the event that retention of safety zone is not possible, regular Notices to Mariners will be issued following completion of the decommissioning operations and will detail any potential hazards for the period	**SFF comment:** We are of the view that issuing notice to mariner to alert fishers of snagging hazard is not a safe practice as their is a chance for fishers to miss any NtM. Therefore, we propose utilising a guard vessel between the time that the safety zone is recinded and FishSAFE update reaches fishermen. A confirmation of agreement to deploy a guard vessel would be appreciated.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			We are concerned that FishSAFE updates are issued only twice yearly, creating the potential for long periods without updated information. We therefore request clarification on what alternative mitigation measures—such as the use of a guard vessel—would be implemented to ensure fishermen are adequately informed until the final update is communicated. We also note the commitment that cut pipeline ends and fishing-critical spans will be rock-covered to ensure they are overtrawlable by fishing vessels. However, unless the rock cover is physically overtrawled, it cannot be confirmed as safe for fishing operations. Therefore, we propose that any rock-covered sections of the pipeline be overtrawled to provide assurance to fishermen that the area is safe for fishing to resume. The SFF appreciate the operator's commitment that any clay berms identified during post decommissioning surveys will be remediated to ensure there are no potential snagging hazards. We would like to ask how the rock berms would be remediated? We would like to note	between the completion of decommissioning activities and subsequent FishSAFE update. UKHO will be notified upon completion of the works with details of the end state provided. The requirement for additional mitigation measures such as the deployment of a guard vessel will be determined at the time using a case by case risk based assessment. TAQA plan to engage with the SFF on a regular basis to keep SFF informed of the subsea removals activities.	**TAQA response:** In line with the HSE Operations Notice 54, Establishment of safety zones for sub-sea installations, TAQA will not relinquish the safety zone until seabed clearance verification has been obtained.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			that overtrawling does not remediate berms; therefore, appropriate measures should be implemented to address and remediate berms effectively.		
20b	EA	Page 144, Section 6.5.5	We also note the commitment that cut pipeline ends and fishing-critical spans will be rock-covered to ensure they are overtrawlable by fishing vessels. However, unless the rock cover is physically overtrawled, it cannot be confirmed as safe for fishing operations. Therefore, we propose that any rock-covered sections of the pipeline be overtrawled to provide assurance to fishermen that the area is safe for fishing to resume. The SFF appreciate the operator's commitment that any clay berms identified during post decommissioning surveys will be remediated to ensure there are no potential snagging hazards. We would like to ask how the rock berms would be remediated? We would like to note that overtrawling does not remediate berms; therefore, appropriate measures should be implemented to address and remediate berms effectively.	Where rock placement is the selected as the most appropriate mitigation measure the rock berms will be designed with an over-trawlable profile. Following installation, the as-laid rock will be surveyed to ensure it matches the design profile. Any snagging risks identified as a result of post decommissioning surveys will be evaluated to determine the most appropriate remediation solution, this would include remediation of clay berms if present. The proposed remediation will be controlled by Marine Licence. SFF will be formally notified of the Marine Licence application by OPRED. In the event that the identified mitigation measures propose a novel solution TAQA will endeavour to engage with SFF ahead of the Marine Licence application where possible.	**SFF comment:** Noted; however, survey data cannot verify overtrawlibility of the rock protection. The only way to ensure rock protection is overtrawlable is through conducting overtrawl sweep. SFF would appreciate be sighted on the as-laid rock survey result to suggest which area of rock cover has anomility and require overtrawl sweep. Additionally, operators are duty bound to lay rock profiles 1:3 and 1-5" rock so a commitment to review the as laid data would also be appreciated. **TAQA response:** Please see response to Comment 1.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
20c	EA	Page 145, Section 6.5.5	We also note that TAQA recognises its obligation to monitor any infrastructure decommissioned in situ and therefore intends to set up arrangements to undertake post-decommissioning monitoring. The frequency of the monitoring that will be required will be agreed with OPRED and future monitoring will be determined through a risk-based approach established from the findings of each survey in turn. During the period over which monitoring is required, the burial status of the infrastructure decommissioned in situ would be reviewed and any necessary remedial action undertaken to ensure it does not pose a risk to other sea users. The SFF appreciates the above-mentioned commitment from TAQA and requests a further commitment to allow SFF to review the data and provide comments and potential suggestions for achieving optimal solutions where any snagging issues identified.	As noted in DP Section 6.7 TAQA will engage with OPRED on all future legacy and liability matters and requirements relating to the infrastructure left in place. Further measures to remediate any items will be controlled by Marine Licence. SFF will be formally notified of the Marine Licence application by OPRED. In the event that the identified mitigation measures propose a novel solution TAQA will endeavour to engage with SFF ahead of the Marine Licence application where possible.	**SFF comment:** Noted; however, we propose that SFF be engaged as early as possible, pre-formal Marine License consultation process, in order for us to provide comment on the suitability of the proposed mitigation for commercial fisheries. **TAQA response:** TAQA will keep SFF informed during update sessions and will provide information on novel mitigation measures ahead of formal Marine Licence submission where data is available.
21a	EA	Page 145, Section 6.5.6	The SFF note from subsection '6.5.6' that while the impact magnitude may be considered major owing to the potential severity of a snagging	The impact magnitude categories applied in the assessment do not include a classification of 'high'. Following 'moderate', the next	No further comments.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			events, the frequency of such an event is relatively unlikely and is therefore considered to be moderate. We are of the view that the ever-increasing number of oil and gas decommissioning projects raises the potential for snagging incidents. Therefore, we propose that the magnitude of this risk should be increased from moderate to high/major.	category is 'major'. A major impact is defined as one occurring over a large spatial extent and/or being long term or permanent in nature, and/or arising at high frequency or intensity. This definition is not applicable in this case, as the predicted impact is localised, temporary, and does not occur at a high frequency or intensity. It is therefore proposed that the impact magnitude remains as 'moderate'.	
21b	EA	Section 6.5.6	We also note that the decommissioned in-situ, rock covered pipeline ends and clay berms impacts of the project will be restricted to commercial fisheries that make active contact with the seabed, such as bottom trawls and dredging gears. Commercial fisheries as a receptor are considered to be of low sensitivity as the industry is able to accommodate change. We cannot agree with this conclusion and strongly question: Why should fishers accommodate change? Any alteration to fishing activity imposes costs on fishermen that should be avoided. Furthermore, as this Environmental Appraisal confirms	The fisheries data reflects activity across the whole ICES rectangle, however, the footprint of the Pelican decommissioning area covers only a very small proportion of this much larger area. Therefore, the presented data is not specific to the immediate area surrounding the Pelican infrastructure and such detailed information is not publicly available. In light of the SFF's comment regarding the receptor's low capacity to accommodate change and limited ability to recover, we propose amending the sensitivity ranking from 'low' to 'moderate'. This recommendation aligns with	**SFF comment:** Noted with thanks.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
			pelagic activity in the Pelican area (16% of landings and 3% of value from ICES rectangle 51F1 in 2021—species not specified), we emphasize that pelagic fishers can interact with the seabed, as herring shoals often occur close to the seabed. This possibility cannot be discounted and should warrant increasing the sensitivity rating from low to high.	the stated EA methodology which defines a 'moderate' sensitivity receptor as, Receptor with low capacity to accommodate a particular effect with low ability to recover or adapt.	
21c	EA	Section 6.5.6	The SFF cannot agree with the statement that the value of commercial fisheries in the Pelican Area is also considered moderate to low financial value when taken in the context of the wider regional area and effort within the ICES Rectangle is focussed in areas away from the project area. As subsection 4.4.1 states ICES rectangle 51F1 contributed 3.4% of the total landed weight and 1.6% of the total commercial value of UK demersal fishing in 2023. Considering these figures, we disagree with the conclusion that the value of fishing in Pelican Area is low and propose that it be revised to moderate to high.	The relevant value definitions as per the EA methodology (Section 5) are as follows: **High** - Receptor obtains the majority of income from the Pelican Area. **Medium -** Receptor which is active in the Pelican Area and utilises it for up to half of its annual income / activities. **Low -** Receptor which is active in the Pelican Area and reliant upon it for some income / activities. The value of commercial fisheries within the Pelican Area has been assessed in accordance with the definitions set out in the assessment methodology. Under this framework, a 'low' value receptor is defined as one that is active in the area and reliant upon it for some income or activity. This definition is considered	**SFF comment:** SFF data shows activities that support our position. See above. **TAQA response:** Thank you for sharing the additional data, however, based on publicly available data and the methodology set out in the EA, the value remains as low.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
				appropriate for the Pelican Area where fishing activity is present. In particular, it does not approach the threshold at which the receptor value would be elevated to 'medium', which would require the area to account for *up to half of annual income or activity*.	
22a	EA	Appendix B	We note that no spans have any details other than the Northing and Easting coordinates in the Appendix B. While exposures show lengths, spans do not. Additionally, as these spans are not identified on FishSAFE, we request clarification on whether they are below the reportable length threshold.	TAQA confirms that the spans identified in Appendix B with no lengths are all significantly below the reportable lengths/heights hence this detail had intentionally been omitted. The occurences had been retained to ensure their presence was not omitted in its entirity. With hindsight this has caused confusion. Since not of the spans have been identified as FishSAFE spans, this table will be deleted.	**SFF comment:** We propose this be elaborated in the document text to eliminate any misunderstanding. **TAQA response:** Noted. The table will be retained and a footnote added to clarify that these "spans" are all below the FishSAFE limit and that any future requirement for remediation and or notification will be determined as a result of Post Decommissioning Surveys conducted in agreement with OPRED requirements.
22b	EA	Appendix B	Furthermore, we suggest a possible review of what constitutes a span, as the current formula may need to be amended to reflect the reduction in trawl door sizes.	At present spans over 10m long and 0.8m above the seabed are considered by FLTC/SFIA to be "Significant" pipeline spans and as such are deemed to be "reportable", enabling there presence to be identified on the FishSAFE database. At the time of writing this is considered as current guidance/requirement and as such only these spans will be considered	**SFF comment:** The SFF is aware of the current requirement for reportable spans (10 m long and 0.8 above the ground). However, due to decreasing trawl door size than the time the current standard was adopted, we are of the view that the current formula (10m long & 0.8 above the ground) need to be revisited as present small trawl doors can easily slide under the smaller spans that are below reportable category. We require regulator's attention to this important topic.

Comment Number	DP/EA	Page / Section / Table	SFF Comment (19/12/25)	TAQA Response (13/02/26)	Additional Comments (09/03/26)
				for remediation if identified by final decommissioning surveys. Should guidance change in the future then TAQA will adhere to any new requirements.	**TAQA response:** TAQA's proposed plans are prepared on the basis of existing guidance therefore propose no change. As per previous response, should guidance change in in the future in terms of span definition then TAQA will adhere to any new requirements. *TAQA suggests that SFF correspond directly with OPRED on this matter should they wish.*
22c	EA	Appendix B	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 and post any offshore oil and gas developments.	TAQA acknowledge SFF's objectives and understand the priorities outlined. TAQA plan to engage with the SFF on a regular basis to keep SFF informed of the subsea removals activities.	**SFF comment**: Noted.

CONTACT

TAQA Bratani Limited
Brimmond House,
Prime Four Business Park,
Kingswells,
Aberdeen,
AB15 8PU
United Kingdom

Tel: +44 (0)1224 275275

www.taqa.com