Offshore Petroleum Regulator
for Environment & Decommissioning

Replace with operator logo and picture of asset

Standard Decommissioning Programme(s) Template

(Derogation)

Insert date
Consultaion/pre-draft

Document Control

Insert Tables of Document Revisions as per example below

Approvals

	Name	Signature	Date
Prepared by			
Reviewed by			
Approved by			

Revision Control

Revision No	Reference	Changes/Comments	Issue Date
0	Develop outline programme		
1	First draft		
	…		
	…		
5.5	Final Issued Version		

Distribution List

Name	Company	No of Copies

Contents

Terms and Abbreviations

Include a table of the terms and abbreviations used in the document (examples in blue below).

Abbreviation	Explanation
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning
EA	Environmental Appraisal
CA	Comparative Assessment

Figures and Tables

Include a table of Figures and Tables used in the document.

Appendices

Include a table of the Appendices which are to be included as part of this document (example in blue below).

Appendix	Description	Page
1	Copy of Public Notice	

Note: The Environmental Appraisal (EA) and any Comparative Assessment (CA) for installation(s) and/or pipelines are separate, referenced documents in support of the decommissioning programme(s). They should not be included as an Appendix but listed in Section 7 (Supporting Documents).

A copy of the Public Notice should be attached as an appendix to the final version of the programme.

1 EXECUTIVE SUMMARY

1.1 Decommissioning Programme/Combined Decommissioning Programmes

This document contains _____ decommissioning programme(s) for _____installation(s) and _____ pipeline(s).

Combined Decommissioning Programmes: Please provide a clear statement confirming that there is a separate programme for each set of associated notices served under Section 29 of the Petroleum Act 1998.

2.1 Requirement for Decommissioning Programme(s)

Delete appropriate paragraph below if only one decommissioning programme.

Installation(s):
In accordance with the Petroleum Act 1998, the Section 29 notice holders of the _____ installation(s)/field (see Table 1.2) are applying to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) to obtain approval for decommissioning the installations detailed in Section 2.1 and 2.2 of this programme. (See also Section 8 - Partner Letter(s) of Support).

Pipeline(s):
In accordance with the Petroleum Act 1998, the Section 29 notice holders of the _____ pipelines (see Table 1.4) are applying to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) to obtain approval for decommissioning the pipelines detailed in Section 2.3 of this programme. (See also Section 8 – Partner Letter(s) of Support).

In conjunction with public, stakeholder and regulatory consultation, the decommissioning programme(s) is/are submitted in compliance with national and international regulations and OPRED guidelines. The schedule outlined in this document is for a _____ year decommissioning project plan due to begin in _____.

1.3 Introduction

Insert introductory paragraphs outlining the background of the decommissioning proposal with information on topsides, jacket and pipelines (where applicable). Freeform text as per example paragraphs below. ***(Suggested maximum of 300 words)***

The Murchison Field lies within UK Block 211/19 and extends into Norwegian Block 33/9 in the Northern North Sea. Murchison was discovered in 1975 and received development approval in 1978 for a single drilling, production and accommodation facility. The platform was installed, and production started in 1980, initially from three subsea wells tied back to the main platform.

The Murchison Platform comprises topsides weighing 24,584te supported by an eight leg steel jacket weighing 24,654te (excluding piles). Subsea tie-backs to three remote wells were used to support early production until the platform wells were brought on stream. Oil is exported to the Dunlin platform and then onto Cormorant A and finally to Sullom Voe Terminal. Fuel gas is imported from a tie in into the NLGP network.

Following public, stakeholder and regulatory consultation, the decommissioning programmes are submitted in full compliance with OPRED guidelines. A comparative assessment (CA) has been carried out which indicates that derogation from OSPAR Decision 98/3 for the Murchison jacket footings is appropriate. The decommissioning programme(s) explains the principles of the removal activities and is supported by an environmental appraisal (EA).

1.4 Overview of Installation(s)/Pipeline(s) Being Decommissioned

1.4.1 Installation(s)

Table 1.1: Installation(s) Being Decommissioned			
Field(s)		**Production Type (Oil/Gas/Condensate)**	
Water Depth (m)		**UKCS block**	
Distance to median (km)		**Distance from nearest UK coastline (km)**	
Surface Installation(s)			
Number	Type*	Topsides Weight (Te)	Jacket Weight (Te)
Subsea Installation(s)		**Number of Wells**	
Number	Type**	Platform	Subsea
Drill Cuttings pile(s)			
Number of Piles		Total Estimated volume (m^3)	

* fixed large steel jacket/fixed small steel jacket/concrete gravity based structure/floating facility etc.
** template/manifold/WHPS etc.

Table 1.2: Installation(s) Section 29 Notice Holders Details		
Section 29 Notice Holder(s)*	**Registration Number**	**Equity Interest (%)** *If zero show 0%*

Any companies which are Exited companies on the Section 29 Notice should also be listed here. Do not include withdrawn companies.
*Please use full registered company names as recorded on Companies House.

1.4.2 Pipeline(s)

Table 1.3: Pipeline(s) Being Decommissioned	
Number of Pipeline(s) Details given in Table 2.3	

Table 1.4: Pipeline(s) Section 29 Notice Holders Details		
Section 29 Notice Holder(s)*	**Registration Number**	**Equity Interest (%)** *If zero show 0%*

Any companies which are Exited companies on the Section 29 Notice should also be listed here. Do not include withdrawn companies.
*Please use full registered company names as recorded on Companies House.

1.5 Summary of Proposed Decommissioning Programme(s)

Complete Table 1.5 below, as per examples in blue below. In section 2 add new line for each surface installation.

Table 1.5: Summary of Decommissioning Programme(s)		
Selected Option	**Reason for Selection**	**Proposed Decommissioning Solution**
1. Topsides		
North, South and East Platforms: complete removal of topsides for re-use	Meets regulatory requirements.	Cleaned equipment refurbished for re-use where possible. Equipment which cannot be re-used will be recycled or other disposal routes as appropriate.
2. Substructures (fixed large steel jacket/fixed small steel jacket/concrete gravity base/floating facility etc.)		
South Platform fixed large steel jacket: removed to top of footings	Comparative assessment indicates that removal to top of footings provides the best option on safety and technical grounds.	Jacket will be removed down to 112m below LAT. Height remaining in situ is 48ft from seabed. Removed section will be transported ashore for recycling.
East Platform concrete gravity base: disposal in situ	Comparative assessment indicates that the disposal in situ provides the best option on safety and technical grounds	Disposal in-situ of the concrete substructure
North Platform fixed steel jacket: complete removal and recycling	Leaves clear seabed, removes a potential obstruction to fishing operations and maximises recycling of materials	May need to be cut at the -11m level (26m above sea-bed) to allow re-use at proposed new location. Legs will be removed with piles and cut on vessel/ barge decks or at an onshore location. Lower 26M of the jacket and piles will be transported ashore for recycling.
3. Subsea Installation(s)		
Wellhead Protection Structure will be removed by HLV or crane vessel	To remove all seabed structures and leave a	Wellhead Protection Structure will be removed for recycling. The piles holding structure to

with crane. *(or N/A if none present)*	clear seabed to meet regulatory requirements.	seabed will be removed to -3 metres.
4. Pipelines, Flowlines & Umbilicals		
Production Pipelines PLX, PLXX, PLXXX + PLXXXX: Tie in spools will be removed and remainder of line will be left in situ. All other lines fully recovered. *(or N/A if an installation(s) only programme)*	Lines are trenched and buried and leaving in situ will cause minimal seabed disturbance, have lower energy usage and reduce risk to personnel.	16 inch production pipelines PLX, PLXX, PLXXX + PLXXXX are trenched and buried and will be left in situ after removal of spoolpieces. Pipelines ends to be trenched and buried to 0.6 metres.
5. Wells		
Abandoned in accordance with Oil & Gas UK Guidelines for the Suspension and abandonment of Wells.	Meets OGA and HSE regulatory requirements.	A PON5/ Portal Environmental Tracking System (PETS)/Marine Licence application under the relevant regulations will be submitted in support of works carried out.
6. Drill Cuttings		
Leave in place to degrade naturally.	Cuttings pile is associated with the South Platform only. Pile is small, thin and falls below both of OSPAR Recommendation 2006/5 thresholds.	Pile located within the South Platform footings and will be undisturbed on seabed.
7. Interdependencies *Provide (as appropriate) a comment on any interactions between the different elements of the decommissioning programme e.g. drill cuttings/drilling templates etc.*		
Partial removal of the South Platform jacket down to top of footings will permit the drill cuttings to be left in situ to degrade naturally. The drilling template associated with the South Platform will remain in place as part of the footings.		

1.6 Field Location Including Field Layout and Adjacent Facilities

Figure 1.1: Field Location in UKCS

Include a figure which shows the field location in UKCS (see example)

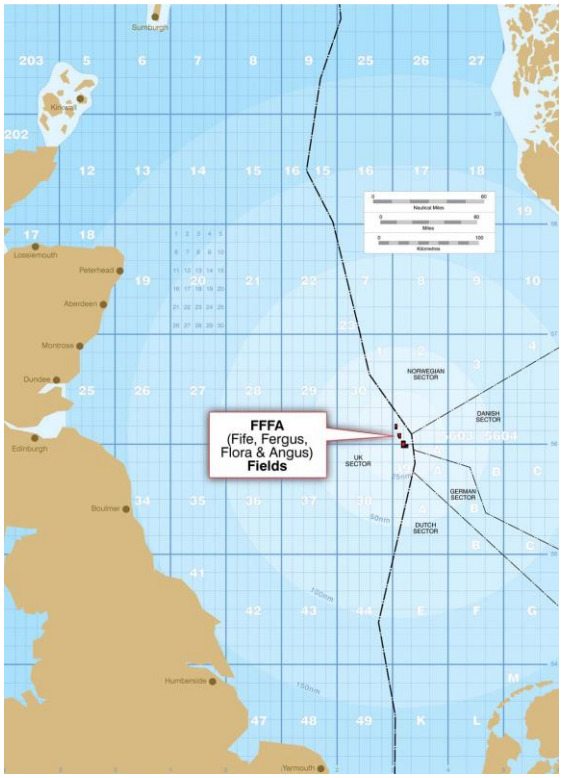
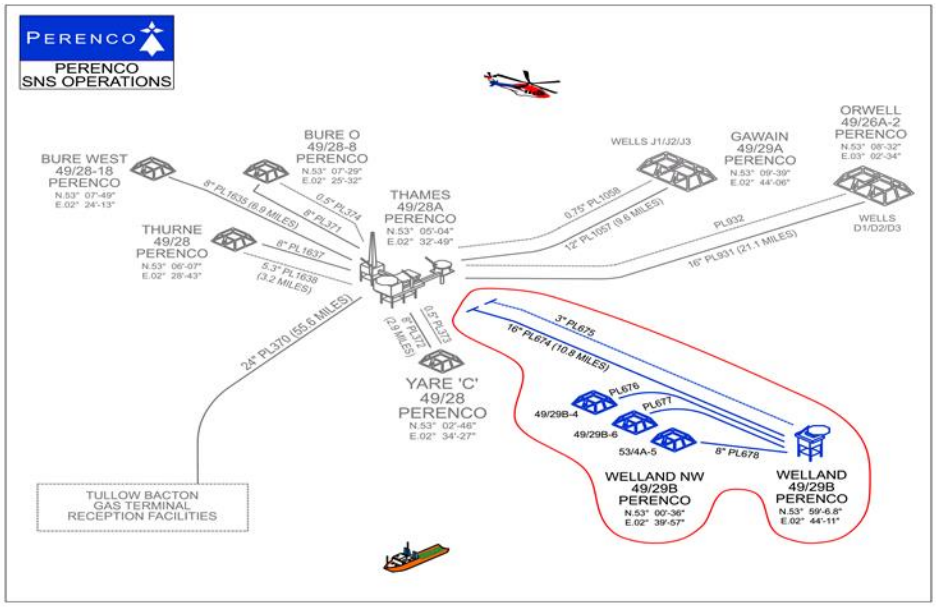


Figure 1.2: Field Layout

Insert a diagram to show the layout of the field, including subsea installation(s) (see example)



Note: Adjacent facilities refer to those potentially impacted by this programme.

Complete Table 1.6 (examples in blue below) listing any adjacent facilities (e.g. platforms, pipelines, pipeline crossings and telephone cables). Please use full company names and pipeline numbers as per OGA PWA Consent.

Table 1.6: Adjacent Facilities					
Owner	**Name**	**Type**	**Distance/Direction**	**Information**	**Status**
Perenco	Thames	Platform	17km North West	Gas/liquids processing, MEG and control system links for Welland, onward export to Bacton	*e.g. Operational; Out-of-use; Suspended*
Perenco	PL674	16" Pipeline	From Welland to Thames (17km NW)	Crosses 2 disused cables and Sean 30" gas pipeline to Bacton	
Perenco	Gawain	Subsea Well umbilical	500m	From Gawain to Thames, crosses over Welland/Thames pipeline	
Impacts of Decommissioning Proposals					
If appropriate describe any impacts the adjacent facilites may have on the decommisisoning proposals. **(Suggested maximum of 50 words)** Include details in this section of decommissioning arrangements for any pipeline crossings that are impacted by the decommissioning activity.					

Figure 1.3: Adjacent Facilities

Insert a diagram to show the specified adjacent facilities (see example)

1.7 Industrial Implications

Provide a summary describing how the contract/procurement strategy is to be undertaken. **(Suggested maximum of 250 words)**

2 DESCRIPTION OF ITEMS TO BE DECOMMISSIONED

2.1 Installation(s): Surface Facilities (Topsides/Jacket(s)/FPSO etc.)

Complete Table 2.1 (example in blue below). **Repeat for each installation in the programme**. Insert N/A (not applicable) or N/D (no data) as appropriate.

Table 2.1: Surface Facilities Information

Name	Facility Type*	Location**		Topsides/Facilities		Jacket (if applicable)			
				Weight (Te)	Number of Modules	Weight (Te)	Number of Legs	Number of Piles	Weight of Piles (Te)
South Platform	Large fixed steel	WGS84 Decimal	61.106667 1.309167	24,584	26	24,640	8	32	3,007
		WGS84 Decimal minute	61° 6.400'N 1°.18.550'E						
East Platform	Concrete gravity base	WGS84 Decimal	61.106667 1.309167	20,000	22	320,000	4	n/a	n/a
		WGS84 Decimal minute	61° 6.400'N 1°.18.550'E						
North Platform	Small fixed steel	WGS84 Decimal	61.106667 1.309167	942	1	570	3	3	300
		WGS84 Decimal minute	61° 6.400'N 1°.18.550'E						

*Fixed large steel jacket/fixed small steel jacket/concrete gravity based structure/floating facility/FPSO etc.
**Location to be given in both WGS84 decimal and WGS84 decimal of a minute (3 decimal places) formats

2.2 Installation(s): Subsea including Stabilisation Features

Complete Table 2.2 below. Insert n/a if not applicable. See example in blue below.

Table 2.2: Subsea Installations and Stabilisation Features					
Subsea installations* including Stabilisation Features	**Number**	**Size/Weight (Te)**	**Location****		**Comments/Status*****
Wellhead(s)	2	1 x 31.96 tonnes 1 x 4.5 tonnes	WGS84 Decimal	61.106667 1.309167	Both wells are suspended and will undergo plug and abandonment. Neither structure is piled to seabed.
			WGS84 Decimal minute	61° 6.400'N 1°.18.550'E	
Manifold(s)	1	15m x 6m x 5m 105 tonnes	WGS84 Decimal	61.106667 1.309167	Structure is secured to the seabed by four steel piles.
			WGS84 Decimal minute	61° 6.400'N 1°.18.550'E	
Template(s)	n/a				
Protection Frame(s)	n/a				
Concrete mattresses	n/a				
Grout bags	n/a				
Formwork	n/a				
Frond Mats	n/a				
Rock Dump	n/a				
Other (*describe briefly*)	n/a				

*Template/manifold / WHPS etc
** Location to be given in both WGS84 decimal and WGS84 decimal of a minute (3 decimal places) formats.
***Indicate in comments/status if piled to seabed.

2.3 Pipeline(s) Including Stabilisation Features

Complete Tables 2.3 and 2.4 with details of pipelines, flowlines and umbilicals. Please provide pipeline information as per OGA PWA Consent document.

Note – Structures including SSIV's, SDU'S and other similar subsea structures which have been captured in the relevant PWA documentation as components of the pipeline system should be listed in the relevant pipelines sections and tables of the decommissioning programme. As these are substantial structures full removal is required. For such structures please include a brief sentence or footnote to the Subsea Installation section of the DP i.e. Section 3.3 to note that X subsea structure associated with the X pipeline system will be fully removed to shore.

Table 2.3: Pipeline/Flowline/Umbilical Information

Description	Pipeline No. (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts[1]	Product Conveyed[2]	From – To End Points	Burial Status[3]	Pipeline Status[4]	Current Content[5]
Export line	PLX	16	199.00	Concrete coated steel	Oil	South Platform to St Fergus Terminal	Trenched with 7m section exposed	Operational	Hydrocarbon
Production Flowline	PLXX	16	0.75	Bundle	Water	North Platform to South Platform	Trenched and fully buried to 0.6m	Operational	Hydrocarbon
Production Flowline	PLXXX	16	0.5	Bundle	Oil	East Platform to North Platform	Trenched and fully buried to 0.6m	Operational	Flushed
Production Flowline	PLXXXX	16	1.23	Bundle	Gas	Well 211/19-4 to South Platform	Trenched and fully buried to 0.6m	Operational	Flushed
Well 2 Subsea Control Umbilical & MEG line	PLXXXXX	4	4.2	Composite Flexible	Chemicals	South Platform to Well 211/19-4	Surface laid with no freespans	Operational	Chemicals

[1] e.g. Concrete; Steel; Umbilical; Flexible; Bundle
[2] e.g. Oil; Gas; Water; Chemicals
[3] e.g. Laid on seabed; Trenched; Trenched and Buried; Spanning
[4] e.g. Operational; Out-of-use; Interim pipeline Regime (IPR)
[5] e.g. Cleaned; Flushed; Hydrocarbons and/or Chemicals in line

Table 2.4: Subsea Pipeline Stabilisation Features				
Stabilisation Feature	**Total Number**	**Weight (Te)**	**Location(s)**	**Exposed/Buried/Condition**
Concrete mattresses	4	6 tonnes each	PLXX: on pipeline crossing points , partly buried	Can only be recovered when cross over lines are decommissioned
Concrete mattresses	3	3 x 4 tonnes	PLXXX	Exposed
Grout bags	n/a			
Formwork	n/a			
Frond Mats	4	ND	At KP0.698, 0.985, 1.012 & 1.150	Partially buried
Rock Dump	13 locations of variable length	63,000	Intermittent along 55% of PLXXXX	
Other (*describe briefly)*				

2.4 Wells

Complete Table 2.5 (Examples in blue below)

Table 2.5: Well Information			
Platform Wells	**Designation[1]**	**Status**	**Category of Well**
16/03a-E18 (East)	Gas Condensate Producer	Suspended	PL 4-3-3
49/9b-W1	Gas Production	Shut-in	PL 2-1-1
211/19a-M56	Water Injection	Producing	PL 2-1-3
211/23-A34	Oil Producer	Phase 1 Abandoned	PL-0-4-3
Subsea Wells			
16/03b-08y (Braemar)	Gas Condensate Producer	Producing	SS 3-3-3
11/30a-C1	Water Injection	Abandoned	SS 3-4-3

[1] e.g. Production; Injection; Oil; Gas

For details of well categorisation see OGUK Guidelines for the Suspension or Abandonment of Wells. Issue 5, July 2015.

2.5 Drill Cuttings

(See Section 3.7 for further information)

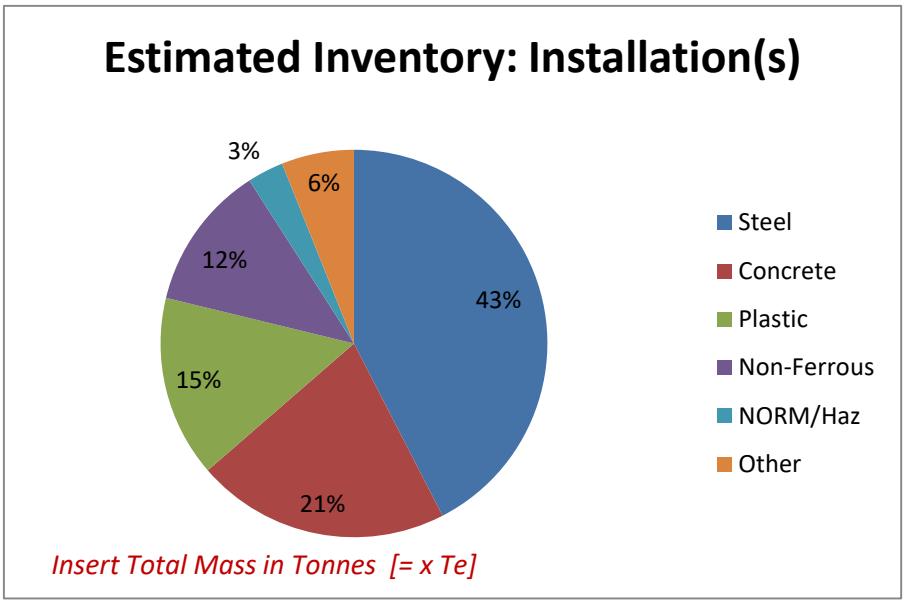
Complete Table 2.6 below for each cuttings pile (Examples in blue below)

Table 2.6: Drill Cuttings Pile(s) Information		
Location of Pile Centre (Latitude/Longitude)	**Seabed Area (m^2)**	**Estimated volume of cuttings (m^3)**
Beneath south west edge of the South platform	8,371	11,352

2.6 Inventory Estimates

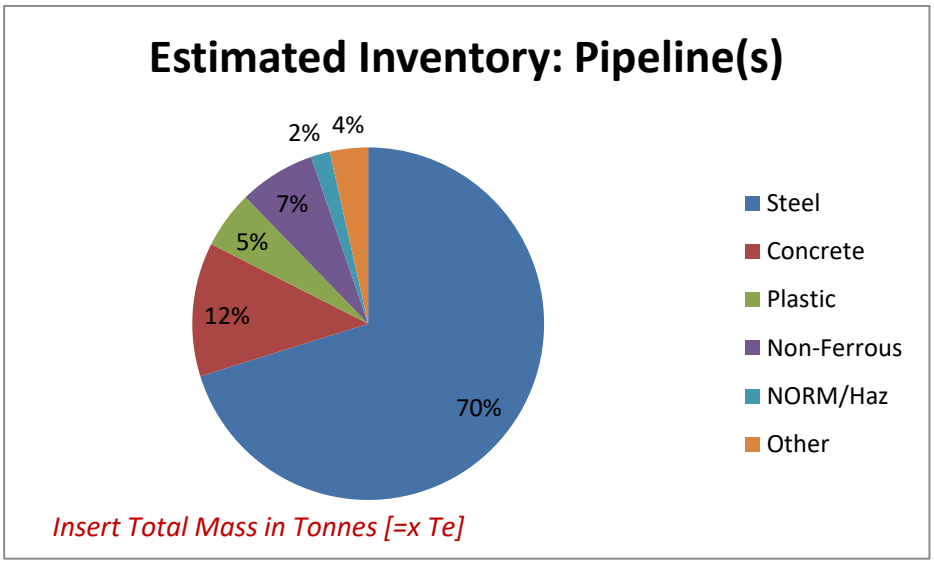
Provide a table or graph (see pie chart example shown) giving the inventory estimates for the decommissioning programme(s) contained in this document. Refer to tables or data in the supporting Environmental Appraisal. Please list the inventories in both tonnage as percentage.

Figure 2.1: Pie Chart of Estimated Inventories (Installations)



Reference the Environmental Appraisal for detailed data.
NORM/Hazardous Waste - reference the supporting evidence in EA.

Figure 2.2: Pie Chart of Estimated Inventory (Pipelines)



Reference the Environmental Appraisal for detailed data
NORM/Hazardous Waste – reference the supporting evidence in EA.

3. REMOVAL AND DISPOSAL METHODS

In line with the waste hierarchy, the re-use of an installation (or parts thereof) is first in the order of preferred decommissioning options. OPRED is keen to encourage the re-use of facilities wherever this is practical and will expect the decommissioning programme(s) to demonstrate that the potential for re-use has been examined fully.

The programme(s) should therefore include a statement of how the principles of the waste hierarchy will be met, including the extent to which the installation(s) (or parts thereof) will be reused, recycled or scrapped. (Suggested maximum 250 words)

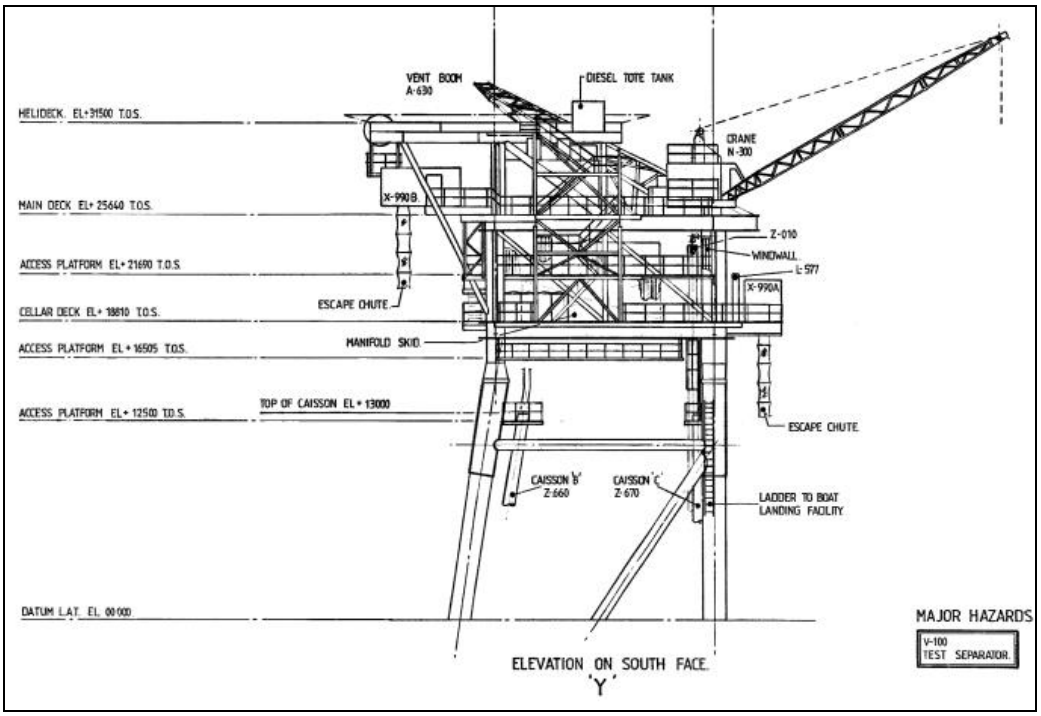
3.1 Topsides

3.1.1 Topsides Decommissioning Overview

Indicate N/A if no topsides. Briefly describe the proposed topsides and decommissioning methodology (see example in blue below). Insert a diagram to illustrate. **Repeat for each platform in the programme(s)**. Note: For Floating Facilities, provide a brief description of the decommissioning method. **(Suggested maximum 150 words)**

Topsides Description: The North Platform Topside Structure comprises three levels and weighs 942 Te. The lower level is the cellar deck with process, hydraulic pressure equipment and wells. The 20m x 14m main deck supports the control room, generation and temporary accommodation facilities with a pedestal crane and vent boom. The main deck is 25.6m above sea level. A helideck is located at the upper level.

Figure 3.1: Diagram of Topsides



Preparation/Cleaning: *Outline in Table 3.1 the methods that will be used to flush, purge or clean the topsides offshore, **prior to removal to shore**, (see examples in blue below).*

Table 3.1: Cleaning of Topsides for Removal		
Waste Type	**Composition of Waste**	**Disposal Route**
Onboard hydrocarbons	Process fluids, fuels and lubricants	Drained and transported ashore for re-use/disposal
Other hazardous materials	NORM, LSA Scale, any radioactive material, instruments containing heavy metals, batteries	Transported ashore for re-use/disposal by appropriate methods
Original paint coating	Lead-based paint	May give off toxic fumes/dust if flame-cutting or grinding/blasting is used so appropriate safety measures will be taken
Asbestos and Ceramic Fibre		Appropriate control and management will be enforced

Removal Methods: *Topsides must be completely removed and returned to shore. Possible methods should be outlined in Table 3.2 (see examples in blue below). Tick which methods you are considering for topsides decommissioning. Then briefly describe those applicable to your project.*

Table 3.2: Topsides Removal Methods	
1) HLV (semi-submersible crane vessel) ☐ 2) SLV ☐ 3) Piece small ☐ 4) Other (*describe briefly)* ☐	
Method	**Description**
Single lift removal by SLV/HLV	Removal of topsides as complete units and transportation to shore for re-use of selected equipment, recycling, break up, and/or disposal
Modular removal and re-use/recycle by HLV	Removal of parts/modules of Topsides for transportation and reuse in alternate location(s) and/or recycling/disposal
Offshore removal 'piece small' for onshore reuse/disposal	Removal of topsides by breaking up offshore and transporting to shore using work barge. Items will then be sorted for re-use, recycling or disposal
Proposed removal method and disposal route (Make sure this section appears in BOLD font)	**State the method you propose for removing and disposing of the topsides, recognising any potential issues regarding trans-frontier shipment of waste. Highlight if more than one option is being carried forward into competitive tendering. If applicable add the phrase – "A final decision on decommissioning method will be made following a commercial tendering process." (Suggested maximum of 50 words).**

3.2 Jacket(s)/Substructure(s)

3.2.1 Jacket(s)/Substructure(s) Decommissioning Overview

Table 3.3: Jacket(s)/Substructure(s)			
Name of Jacket(s)/Substructure(s)	**Substructure weight (Te)**	**Date Installed**	**Seeking Derogation from OSPAR Decision 98/3 (Yes/No)**
South Platform	24,584	1975	Yes
East Platform	320,000	1980	Yes
North Platform	9,010	2001	No

Produce a table similar to example in Table 3.4 below for each jacket(s)/substructure(s), summarising the outcome of the Comparative Assessment. Identify the recommended option, and briefly present your justification for this recommendation. Cross reference supporting Comparative Assessment document.

Table 3.4: Outcome of Comparative Assessment		
Name of Jacket(s)/Substructure(s)	**Recommended Option**	**Justification**
South Platform	Jacket will be removed down to 112m below LAT.	There is a significant increase in operational safety risk, technical complexity and cost associated with the full jacket removal compared to partial jacket removal. (see CA section 2.1)
East Platform	Disposal in situ	Leaving the concrete substructure in place is considered the best option. (See CA section 2.1)
North Platform	Full removal	Jacket does not meet the criteria for derogation from OSPAR Decision 98/3.

Provide an overview of the jacket(s)/substructure(s) Decommissioning methods. See example in blue below. Outline any special considerations affecting the options. Indicate whether any part(s) of the jacket have been used for oil storage. Insert a diagram to illustrate each jacket(s)/substructure(s). ***Repeat for each jacket(s)/substructure(s) in the programme(s).*** ***(Suggested maximum 300 words)***

OSPAR Decision 98/3 prohibits the dumping and leaving jackets wholly or partly in place, but it recognizes the difficulties in removing concrete structures and the footings of large steel jackets weighing over 10,000te and installed prior to 9th February 1999.

The South Platform jacket will be removed down to 112m below LAT. Recovered sections will be returned to shore for recycling. Proposed height of South Platform jacket footings remaining in situ is 48ft from seabed.

The concrete substructure of the East platform makes removal not achievable. The jacket substructure is exposed 20m above LAT. Navigation aids will be located on the structure above the sea surface.

The North Platform jacket legs may need to be cut at the -11m level (26m above sea-bed) to allow re-use of the topsides at a proposed new location. Although the full engineering process is not yet finalized, it is envisaged the legs will be removed and piles will be cut at a depth of 6m below seabed. The North platform jacket and 6m of piling will be fully removed and transported ashore for recycling.

Figure 3.2: Jacket Elevation – South Platform

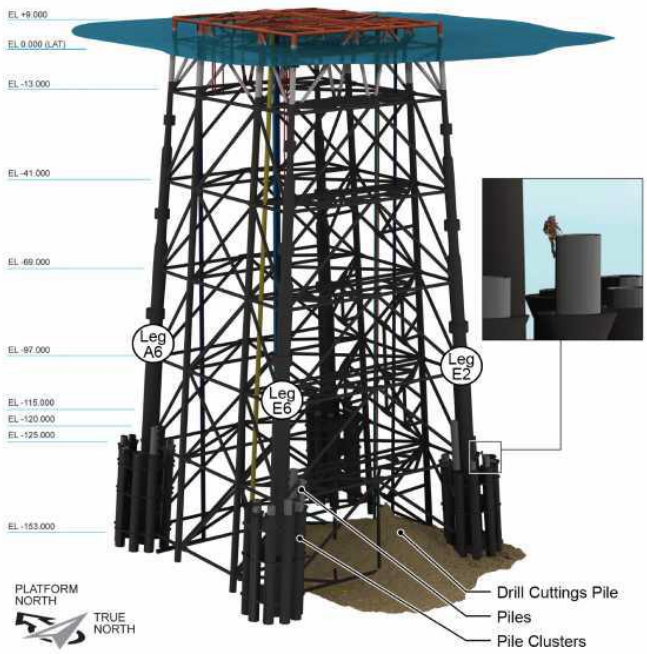


Figure 3.3: Jacket Elevation – East Platform

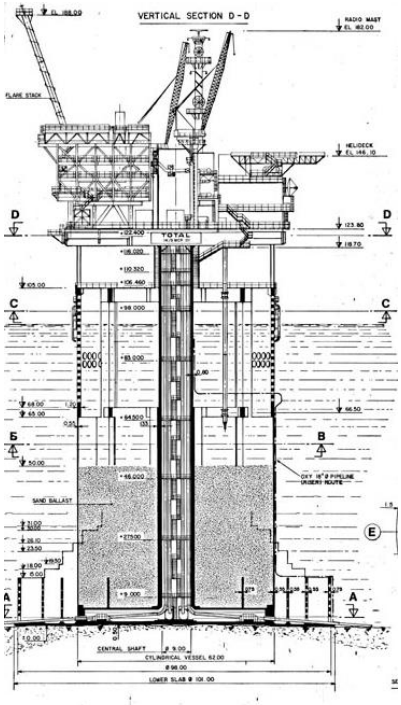
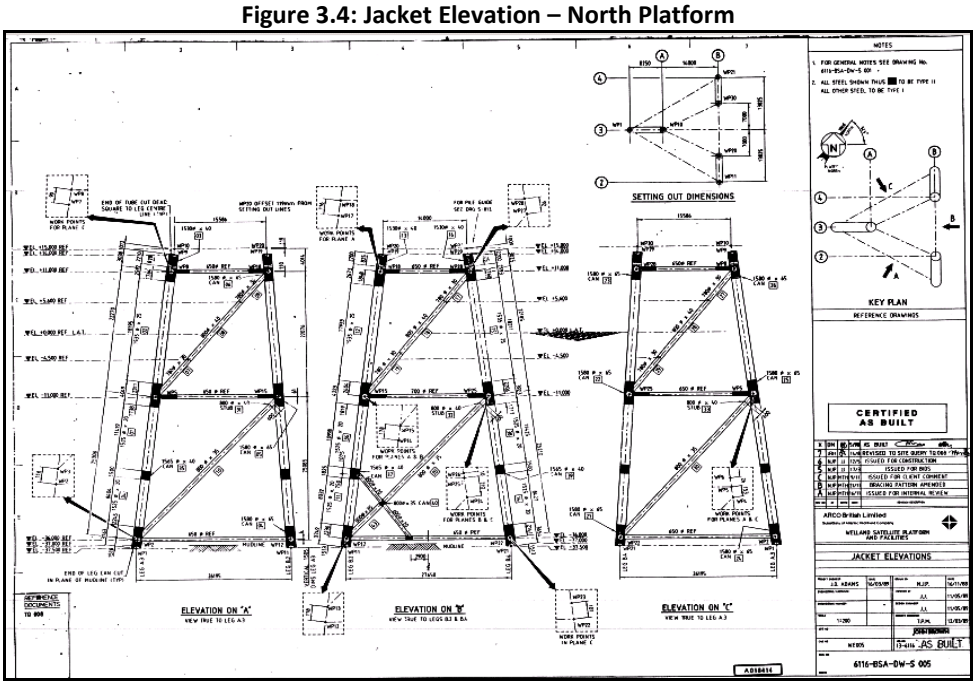


Figure 3.4: Jacket Elevation – North Platform



3.2.2 Jacket(s)/Substructure(s) Removal Methods

Tick the different methods that you are considering for the removal and disposal of the jacket(s)/substructure(s). Complete Table 3.5 (examples in blue below) to describe how the jacket would be removed completely and returned to shore or decommissioned in situ. For non-derogation jacket(s)/substructures(s), any piles should be severed below the natural seabed level at such a depth to ensure that any remains are unlikely to become uncovered. Operators should aim to achieve a cut depth of 3m below the natural seabed level, however consideration will be given to the prevailing seabed conditions which should be detailed below.

Table 3.5: Jacket(s)/Substructure(s) Decommissioning Methods	
1) HLV (semi-submersible crane vessel) ☐ 2) SLV ☐ 3) Piece small ☐ 4) Other (*describe briefly)* ☐	
Method	**Description**
East Platform Jacket (Concrete)	
Removal of jacket	Comparative assessment indicates that the disposal in situ provides the best option on safety and technical grounds.
South Platform Jacket (Large Steel)	
Total removal of jacket to clear seabed	None of the decommissioning methods assessed could remove jacket in a single piece. All methods would remove jacket down to top of footings in large sections and then only SSCV is able to remove the remaining footings in smaller sections.
Remove to top of footings using SSCV	Removal of jacket down to top of footings at 112m below LAT, in three large sections for transportation to onshore site for recycling and disposal.
Removal to top of footings using HLV	Removal of jacket down to top of footings at 112m below LAT, in three small sections for transportation to onshore site for recycling and disposal.
Removal to top of footings using SLV	Removal of jacket down to 102m below LAT, in a single large section for transportation to onshore site for recycling and disposal and then using a construction support vessel to remove jacket in small sections down to top of footings at 112m below LAT.
North Platform Jacket (Small Steel)	
Removal and re-use	Removal of jacket for transportation to alternate site. Removal and disposal/recycling onshore of the lower 26m and piles to -10ft below sea-bed.
Onshore Disposal using HLV	Removal of the jacket as complete unit and transport ashore for break up, recycling and/ or disposal. Re-use of selected equipment would take place where practicable.
Onshore disposal using 'piece small'	Remove jacket in several pieces using attendant work barge and transport to shore yard.
Proposed removal method and disposal route (this section should appear in BOLD font)	***State the method you propose for removing and disposing of the jacket(s)/substructure(s) recognising any potential issues regarding the trans-frontier shipment of waste. Highlight if more than one option is being carried forward into competitive tendering. If applicable add a phrase similar to – "A final decision on decommissioning method will be made following a commercial tendering process". (Suggested maximum of 100 words)***

3.3 Subsea Installation(s) and Stabilisation Feature(s)

Outline in Table 3.6 how the items will be decommissioned (examples in blue below). If mattresses are buried to a minimum depth of 0.6m below the seabed, OPRED would consider a proposal in the form of a comparative assessment to leave the mattresses in situ (robust evidence of the mattress burial status should be detailed in the comparative assessment). It is expected that mattresses buried to less than 0.6m below the seabed are recovered to shore.

Table 3.6: Subsea Installation(s) and Stabilisation Feature(s) Decommissioning Options

Subsea installation(s) and stabilisation feature(s)	Number	Option	Disposal Route (if applicable)
Wellhead(s)	2	Full recovery as part of MODU campaign to P&A wells	Return to shore for reuse or recycling
Manifold(s)	1	Full recovery	Return to shore for reuse or recycling
Template(s)			
Protection Frame(s)			
Concrete mattresses	200 20	Full recovery It is intended that the mattresses will be recovered to shore, however in the event of practical difficulties during the execution OPRED will be consulted and an alternative method of decommissioning will be examined through a comparative assessment.	Recover to shore Transport ashore for disposal
Grout bags			
Formwork			
Frond Mats			
Rock Dump			
Other (*describe briefly)*			

3.4 Pipelines

Decommissioning Options: *In Table 3.7 summarise the pipeline(s) or pipeline groups that fall within the decommissioning programme. (See examples in blue below). Include a cross reference to Table 2.3. Remedial rock-dump is not OPRED's preferred decommissioning solution and should only be selected following discussion with OPRED and if a comparative assessment shows this is the best outcome and other options are not feasible.*

*Key to Options:

1) Remove – reverse reeling	2) Remove – Reverse S lay	3) Trench and bury
4) Rock dump	5) Partial Removal	6) Leave in place
7) Remedial trenching	8) Remedial removal	9) Remedial rock-dump
10) Other *(describe briefly)*		

Table 3.7: Pipeline or Pipeline Groups Decommissioning Options			
Pipeline or Group (as per PWA)	**Condition of line/group** (Surface laid/Trenched/ Buried/Spanning)	**Whole or part of pipeline/group**	**Decommissioning Options* considered**
PLX	Untrenched	Part. Section within 500m zone of the Thames AW Platform will be decommissioned at a later date.	*Show which options are being considered by inserting relevant number(s) from the list above i.e.* 1, 3, 7
PLXX, PLXXX, PLXXXX	Trenched, buried	Whole of pipelines	2, 8, 9

Comparative Assessment Method: *Briefly outline the method used to undertake a Comparative Assessment in line with the requirements of OPRED Guidelines. Cross reference to Comparative Assessment document.* ***(Suggested maximum of 100 words)***

Outcome of Comparative Assessment: *Produce a table similar to example in Table 3.8 below for each pipeline or pipeline group, summarising the outcome of the Comparative Assessment. Identify the recommended option, and briefly present your justification for this recommendation. Cross-reference any separate Comparative Assessment document.* ***Repeat for each pipeline/pipeline group.***

Table 3.8: Outcomes of Comparative Assessment		
Pipeline or Group	**Recommended Option***	**Justification**
PLX	Option 3	Line condition made lifting impractical; burial will remove snagging risk for fishermen.
PLXX, PLXXX, PLXXXX	Option 9	Already trenched and buried to 0.7m, stable, no snagging hazards

3.5 Pipeline Stabilisation Feature(s)

Outline in Table 3.9 how the items will be decommissioned (Examples in blue below). If mattresses are buried to a minimum depth of 0.6m below the seabed, OPRED would consider a proposal in the form of a comparative assessment to leave the mattresses in situ (robust evidence of the mattress burial status should be submitted with the comparative assessment). It is expected that mattresses buried to less than 0.6m below the seabed are recovered to shore.

Table 3.9: Pipeline Stabilisation Feature(s)			
Stabilisation feature(s)	**Number**	**Option**	**Disposal Route**
Concrete mattresses	200 5 20	Full recovery To remain in situ until pipeline crossings decommissioned It is intended that the mattresses will be recovered to shore, however in the event of practical difficulties during the execution OPRED will be consulted and an alternative method of decommissioning will be examined through a comparative assessment.	Recover to shore n/a Transport ashore for disposal
Grout bags	80	Full recovery	To shore for disposal in landfill
Formwork			
Frond Mats			
Rock Dump	2000te	To remain in place	n/a

3.6 Wells

Provide a short statement, similar to the example in blue below, to indicate your approach to well plug and abandonment. ***(Suggested maximum of 150 words)***

Table 3.10: Well Plug and Abandonment
The wells which remain to be abandoned, as listed in Section 2.4 (Table 2.5) will be plugged and abandoned in accordance with Oil and Gas UK Guidelines for the suspension and abandonment of wells. A PON5/ Portal Environmental Tracking System (PETS)/Marine Licence application will be submitted in support of any such work that is to be carried out.

3.7 Drill Cuttings

Drill Cuttings Decommissioning Options: *OSPAR Recommendation 2006/5 has indicated that if the oil release rate from a cuttings pile is less than 10Te/yr and the area persistence is less than 500 km^2 years then the best environmental option for the management of the pile is to leave it in place undisturbed to degrade naturally. Complete Table 3.11 below to give details of each of the drill cuttings pile(s). Repeat for each pile and delete or add extra columns as appropriate. Note any interactions between the cuttings pile(s) and jacket removal if applicable.*

Table 3.11: Drill Cuttings Decommissioning Options				
How many drill cuttings piles are present?				
Tick options examined: ☐Remove and re-inject ☐Leave in place ☐Cover ☐Relocate on seabed ☐Remove and treat onshore ☐Remove and treat offshore ☐Other *(describe briefly)*				
Review of Pile characteristics	**Pile 1**	**Pile 2**	**Pile 3**	**Pile 4**
How has the cuttings pile been screened? (desktop exercise/actual samples taken) – *delete as necessary*	Y/N	Y/N	Y/N	Y/N
Dates of sampling (if applicable)				
Sampling to be included in pre-decommissioning survey?	Y/N	Y/N	Y/N	Y/N
Does it fall below both OSPAR thresholds?	Y/N	Y/N	Y/N	Y/N
Will the drill cuttings pile have to be displaced in order to remove the jacket?	Y/N	Y/N	Y/N	Y/N
What quantity (m^3) would have to be displaced/removed?				
Will the drill cuttings pile have to be displaced in order to remove any pipelines?	Y/N	Y/N	Y/N	Y/N
What quantity (m^3) would have to be displaced/removed?				
Have you carried out a Comparative Assessment of options for the Cuttings Pile?	Y/N	Y/N	Y/N	Y/N

Comparative Assessment Method: *Briefly outline the method used to undertake a Comparative Assessment in line with requirements of OSPAR Recommendation 2006/5 (if applicable). Cross reference to the Comparative Assessment document.* ***(Suggested maximum of 100 words)***

Outcome of Comparative Assessment: *Provide a brief summary of the outcome of the Comparative Assessment for each cuttings pile and of the proposed action to deal with the pile.* ***(Suggested maximum of 100 words for each pile)***

3.8 Waste Streams

Provide a summary in Table 3.12 (similar to the example in blue below) describing how the main waste streams arising from the proposed programme(s) would be managed. If applicable, recognise any potential issues regarding the trans-frontier shipment of waste. Also, complete Table 3.13 detailing the planned final disposition of the inventories from the installation(s) and pipeline(s).

Table 3.12: Waste Stream Management Methods	
Waste Stream	**Removal and Disposal method**
Bulk liquids	Removed from vessels and transported to shore. Vessels, pipework and sumps will be drained prior to removal to shore and shipped in accordance with maritime transportation guidelines. Further cleaning and decontamination will take place onshore prior to recycling/re-use.
Marine growth	Removed onshore. Disposed of according to guidelines.
NORM/LSA Scale	NORM may be partially removed offshore under appropriate permit.
Asbestos	Will be contained and taken onshore for disposal.
Other hazardous wastes	Will be recovered to shore and disposed of under appropriate permit.
Onshore Dismantling sites	Appropriate licenced sites will be selected. Facility chosen by removal contractor must demonstrate proven disposal track record and waste stream management throughout the deconstruction process and demonstrate their ability to deliver innovative recycling options.

Table 3.13: Inventory Disposition			
	Total Inventory Tonnage	Planned tonnage to shore	Planned left *in situ*
Installations			
Pipelines			

Include a statement/graph/table giving your aspirations for the percentages of materials recovered to shore that will be reused, recycled or disposed of to landfill. Refer to the appropriate sections of the EA to provide additional detail. ***(Suggested maximum of 100 words)***

4 ENVIRONMENTAL APPRAISAL OVERVIEW

4.1 Environmental Sensitivities (Summary)

Complete Table 4.1 to describe the important/sensitive features of the receiving environment(s) in the area(s) in which the decommissioning activities will take place. Reference details in the EA, which should be cited as a supporting document. (Discuss with OPRED whether an area- or a field-specific EA is required). ***Suggested maximum of 100 words for each section)***

Table 4.1: Environmental Sensitivities	
Environmental Receptor	**Main Features**
Conservation interests	
Seabed	
Fish	
Fisheries	
Marine Mammals	
Birds	
Onshore Communities	
Other Users of the Sea	
Atmosphere	

4.2 Potential Environmental Impacts and their Management

Environmental Impact Assessment Summary:
Provide a summary of the main impacts identified in the EA, bearing in mind feedback from consultees – see example in blue below. ***(Suggested maximum of 250 words)***

Overview: Although there is expected to be some environmental impact during the decommissioning of the platforms, long term environmental impacts from the decommissioning operations are expected to be negligible. In addition, incremental cumulative impacts and trans-boundary effects associated with the planned decommissioning operations are expected to be negligible. There will be no planned use of explosives during these activities. We acknowledge that there will be a requirement for an environmental protection plan to be produced and submitted to OPRED should this plan change.

Complete Table 4.2 identifying the main environmental impacts associated with decommissioning each of the facilities and summarising how these impacts will be managed. ***Suggested maximum of 100 words for each section)***

Table 4.2: Environmental Impact Management		
Activity	**Main Impacts**	**Management**
Topsides Removal		
Jacket(s)/Floating Facility Removal		
Concrete Gravity Based Structure *(delete row if not applicable)*		
Subsea Installation(s) Removal		

Decommissioning Pipelines		
Decommissioning Stabilisation Features		
Decommissioning Drill Cuttings		

5 INTERESTED PARTY CONSULTATIONS

Consultations Summary: ***(This section should be updated when the UK statutory consultation and the OSPAR consultation phases are completed, details will be included in the final version of the programme).***

1) Summarise key comments received from UK statutory consultees (similar to the example in blue below).
2) Provide copies of the public notice and correspondence from statutory consultees as an Appendix.
3) Summarise key comments received from OSPAR Contracting Parties.
4) Include brief summaries of other consultations you have undertaken and reference any supporting documents. Under "Response" indicate how stakeholder concerns have been addressed and/or influenced your decision-making process. Updates should be provided to OPRED as consultations progress.

Table 5.1: Summary of Stakeholder Comments		
UK Statutory Consultation		
Stakeholder	**Comment**	**Response**
National Federation of Fishermen's Organisations	"Dismantling process … presents an ongoing danger to fishermen … operator must ensure arrangement in place … which updates risk assessment"	Regular risk assessments to be agreed and discussed with NFFO
Scottish Fishermen's Federation		
Northern Ireland Fish Producers Organisation		
Global Marine Systems Limited		
Public		
OSPAR Consultation		
Contracting Party	**Comment**	**Response**

6 PROGRAMME MANAGEMENT

6.1 Project Management and Verification

Provide a summary of the project management/verification which will be undertaken, similar to the example below in blue below. ***(Suggested maximum of 100 words)***

A Project Management team will be appointed to manage suitable sub-contractors for the removal of the installation. Standard procedures for operational control and hazard identification and management will be used. Where possible the work will be coordinated with other decommissioning operations in the SNS. The Management team will monitor and track the process of consents and the consultations required as part of this process. Any changes in detail to the offshore removal programme will be discussed and agreed with OPRED.

6.2 Post-Decommissioning Debris Clearance and Verification

This should detail proposals for identification and removal of oil and gas debris following decommissioning works. Include a statement similar to the example in blue below. See OPRED Guidance Notes for further details on post-decommissioning requirements. ***(Suggested maximum of 100 words)***

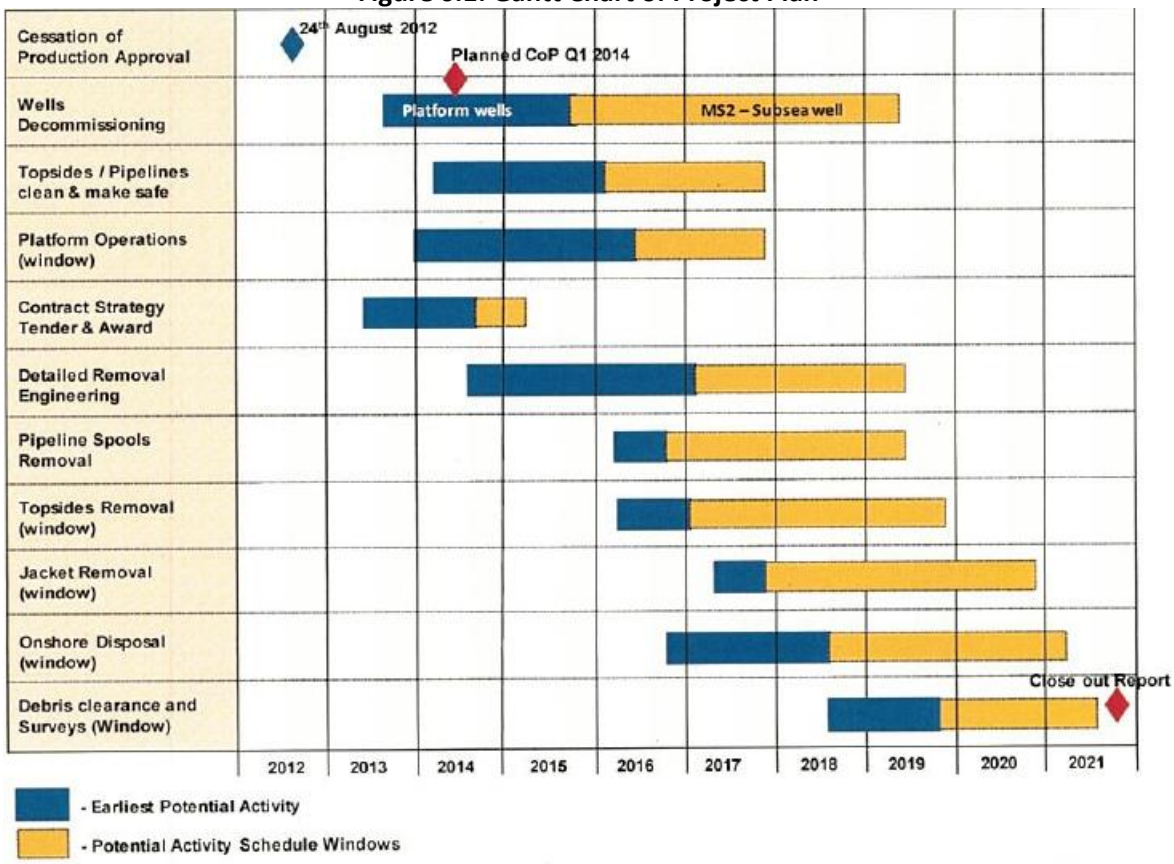
A post decommissioning site survey will be carried out around a 500m radius of installation sites and a 100m corridor (50m either side) along each existing pipeline route to identify any debris. Any seabed debris related to offshore oil and gas activities will be recovered for onshore disposal or recycling in line with existing disposal methods. Independent verification of seabed state will be obtained by trawling the installation sites and pipeline corridors. This will be followed by a statement of clearance to all relevant governmental departments and non-governmental organisations.

Please make reference to any existing PON2 submissions if applicable.

6.3 Schedule

Project Plan: *Insert a Gantt chart version of the simplified project plan, with key dates and defined milestones, as per example below.*

Figure 6.1: Gantt Chart of Project Plan



6.4 Costs

This should include an overall cost estimate in GBP sterling of the preferred decommissioning option. The estimate should be broken down to reflect the different activities, preferably in accordance with the 'Element Level' of the Oil & Gas UK Decommissioning Cost Estimating Guidelines, work breakdown structure. Cost detail will be kept confidential with a separate programme including costs provide to OPRED.

Table 6.1 – Provisional Decommissioning Programme(s) costs	
Item	**Estimated Cost (£m)**
Platform(s)/Jacket(s)/CGBS-Preparation/Removal & Disposal *(if applicable)*	Provided to OPRED
Pipeline(s) and Umbilical(s) Infrastructure Decommissioning	Provided to OPRED
Subsea Installation(s) and Stabilisation Feature(s)	Provided to OPRED
Well Abandonment	Provided to OPRED
Continuing Liability – Future Pipeline, Environmental Survey Requirements and on-going monitoring of remains	Provided to OPRED
TOTAL	Provided to OPRED

6.5 Close Out

Include a statement similar to the example in blue below. Details of the content of close out reports are included in the OPRED guidance notes.

In accordance with the OPRED Guidelines, a close out report will be submitted to OPRED within 1 year of the completion of the offshore decommissioning scope including debris clearance, verification of seabed clearance and the first post-decommissioning environmental survey. The report will detail the outcomes of surveys as well as explain any major variances from the programme.

6.6 Post-Decommissioning Monitoring and Evaluation

Provide a statement, similar to the example in blue below, which details your proposed monitoring and evaluation programme. See OPRED Guidance Notes for further details on monitoring requirements.
(Suggested maximum of 200 words)

A post decommissioning environmental seabed survey, centred on sites of the Murchison platform and the subsea wellheads will be carried out. The survey will focus on chemical and physical disturbances of the completed decommissioning operations and compared with the pre-decommissioning survey.

All pipeline routes and subsea structure sites, including the jacket footings, will be the subject of surveys when decommissioning activity has concluded. Fishing over-trawl trials will be undertaken on completion of the remedial rock placement work along the PL115 pipeline route to verify that the final rock profile can be over-trawled. A survey of the condition of the footings and the adjacent seabed will also be undertaken at the end of the removal activities. The footings will be subject to a regular monitoring programme, with survey frequency discussed and agreed with OPRED. Survey results will be available once the work is complete, with a copy forwarded to OPRED.

After the surveys have been sent to OPRED and reviewed, a post monitoring survey regime will be agreed by both parties. Typically, a minimum of two post decommissioning environmental surveys and structural pipeline surveys are expected.

7 SUPPORTING DOCUMENTS

Provide a list of supporting documents (and supporting diagrams, graphics or other material) that you have referenced in the programme(s) which are not presented in the Appendices. See example in blue below.

Table 7.1: Supporting Documents	
Document Number	*Title*
1	*Environmental Appraisal*
2	*Comparative Assessment*

For latest document versions provide a web link for all stakeholder/interested parties (or access to other document control mechanism).

8 PARTNER LETTER(S) OF SUPPORT

Copies of letter(s) of support from current equity holders in the field should be provided here. The original letters should be submitted with the final version of the Programme(s).