

## BEAULIEU DECOMMISSIONING PROGRAMME

**Consultation Draft**

**March 2023**

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## Document Control

### Approvals

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### Revision Control

<b>Revision No</b>	<b>Reference</b>	<b>Changes/Comments</b>	<b>Issue Date</b>
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1	1 <sup>st</sup> pre-draft / outline programme	Initial comments from RSRUK incorporated	04-Mar-22
2	2 <sup>nd</sup> pre-draft programme	First Issue CA results incorporated	09-Jun-22
3	2 <sup>nd</sup> pre-draft programme	Initial comments from OPRED addressed	08-Jul-22
4	3 <sup>rd</sup> pre-draft programme	Updated with EA and (partial) Stakeholder engagement output	11-Aug-22
5	Consultation draft programme	3 <sup>rd</sup> pre-draft comments from OPRED addressed	21-Oct-22
6	Consultation draft programme	Minor comment correction	31-Oct-22
7	Consultation draft programme	Update to schedule in Section 6.3 (Figure 6-1)	28-March-23

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HOLD	SECTION	DESCRIPTION
1	1.2 & 8	Partner Letters will be issued with final version of DP (post public consultation).
2	Table 5.1	Statutory Consultation comments will be addressed in the final version of DP (post public consultation).

## Terms and Abbreviations

Abbreviation	Explanation
BAT/BEP	Best Available Technique/Best Environmental Practice
BEIS	Department for Business, Energy & Industrial Strategy
CA	Comparative Assessment
C&P	Contracting and Procurement
CoP	Cessation of Production
DP	Decommissioning Programme
DCR	Design & Construction
DOL	Depth of Lowering
EA	Environmental Appraisal
ENE	East Northeast
ESE	East Southeast
FPSO	Floating Platform, Storage & Offloading (vessel)
FPV	Floating Production Vessel
HSE	Health & Safety Executive
HLV	Heavy Lift Vessel
ICES	International Council for the Exploration of the Sea
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
Km	Kilometre
LAT	Lowest Astronomical Tide
M	Metre
m <sup>3</sup>	Cubic Metres
MARPOL	The International Convention for the Prevention of Pollution from Ships
MAT	Master Application Template
MCA	Maritime & Coastguard Agency
mg/l	Milligrams per litre
MSS	Marine Scotland Science
NORM	Naturally Occurring Radioactive Material
N/A	Not Applicable
NSTA	North Sea Transition Authority (formerly OGA)
OEUK	Offshore Energies UK (formerly OGUK)
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning

Abbreviation	Explanation
OSPAR	from Oslo/Paris, the Convention for the Protection of the Marine Environment of the North East Atlantic
PL	Pipeline (number)
PLU	Umbilical (number)
PMF	Priority Marine Feature
PON5	Petroleum Operations Notice 5
PWA	Pipeline Works Authorisations
RSRUK	Repsol Sinopec UK Limited
S	South
S29	Section 29
SAT	Subsidiary Application Template
SCAP	Supply Chain Action Plan
SEPA	Scottish Environment Protection Agency
SFF	Scottish Fishermen's Federation
SIMOPS	Simultaneous Operations
SLV	Single Lift Vessel
SSE	South Southeast
SUTU	Subsea Umbilical Termination Unit
SW	Southwest
Te/ te	tonnes
TFSW	Trans Frontier Shipment of Waste
UK	United Kingdom
UKCS	United Kingdom Continental Shelf
UKHO	The United Kingdom Hydrographic Office
W	West
WGS84	World Geodetic System 1984
WHPS	Wellhead Protection Structure
WSW	West Southwest

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## 1 EXECUTIVE SUMMARY

### 1.1 Combined Decommissioning Programmes

This document contains the Decommissioning Programmes (DPs) associated with the Beaulieu field only, including the pipelines and umbilicals and associated stabilisation features, and the wellhead protection structure (WHPS), all operated by Repsol Sinopec Resources UK Limited.

As a result of the decommissioning of the Greater Balmoral Area, including the subsequent removal of the Balmoral Floating Production Vessel (FPV), Repsol Sinopec Resources UK Limited has planned for the decommissioning of its Beaulieu and Burghley fields, both of which were tied back to the Balmoral FPV. The wider Balmoral field DPs have already been prepared by Premier Oil including for the FPV, its associated risers, riser bases and pipelines, and the Balmoral template. The Balmoral DP was approved and issued for use in January 2021.

The FPV, already removed, its associated risers, now laid down on the seabed, the riser bases and the Balmoral template are outside the scope of these DPs.

The Beaulieu field is in the decommissioning phase, cessation of production (CoP) has been formally approved by the North Sea Transition Authority (NSTA), as of the 28 November 2020, and consists of subsea infrastructure only.

A summary of the pipelines and umbilicals to be decommissioned are detailed in the Tables in Sections 1.4.1.

### 1.2 Requirement for Decommissioning Programmes

#### Installation(s)

There are no surface installations covered by this DP, there is, however, a single subsea installation as reflected in Tables 1.1 and 2.2 and detailed below in Pipeline(s)/Structure(s). The decommissioning of the FPV was completed by Premier Oil such that the area now comprises the separate field pipelines and subsea infrastructure.

#### Pipeline(s)/ Structures(s)

In accordance with the Petroleum Act 1998, the Section 29 (S29) Notice holders of the Beaulieu field subsea infrastructure (see Table 1.2) are applying to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) to obtain approval for decommissioning of the WHPS as detailed in Section 2.2 of this programme. As the WHPS is integrated with the wellhead, it will be removed as part of a separate Well Plug & Abandonment (P&A) programme.

In addition, and in accordance with the Petroleum Act 1998, the S29 notice holders of the two Beaulieu field pipelines and three umbilical's (bundled as one umbilical), see Table 1.4 are applying to OPRED to obtain approval for the decommissioning of the pipelines and umbilical's detailed in Section 2.3.

Partner letters of support including any exited third party, as applicable, are included in Section 8. **[HOLD 01]**

In conjunction with public, stakeholder and regulatory consultation, this DP is submitted in compliance with national and international regulations and OPRED guidelines. The schedule outlined in this document is for the decommissioning project to commence and will cover the selection and definition of options and execution.

### 1.3 Introduction

The Beaulieu field is located in Block 16/21c, approximately 220km to the Northeast of Aberdeen in a water depth of around 143 meters. The field consisted of a single well tie back to the Balmoral FPV (now off-station).

The Beaulieu well is approximately 5.3km from the Balmoral FPV location and was connected by a 6" Production pipeline with a piggybacked 2" gas lift pipeline. Subsea controls and chemicals were provided by an umbilical from the Balmoral FPV.

The subsea infrastructure boundaries comprise:

- Both 6" Production pipeline (PL1792) and 2" Gas Lift pipeline (PL1793), including tie-in spools, between the tie-ins at the Beaulieu Well 16/21c and the tie-ins to the Balmoral (B Block) Template (but excluding the template);
- Umbilical (PL1794/ PL1795/ PL1796), 102mm diameter, including jumpers between the tie-ins to the Balmoral (B Block) Template (but excluding the template) and the tie-ins at the Beaulieu Well 16/21c, including the Subsea Umbilical Termination Unit (SUTU)<sup>1</sup>;
- Excluding the Beaulieu Wellhead 16/21c;
- Including the wellhead protection structure (WHPS).

<sup>Note 1</sup> The SUTU is a small inline termination which is not deemed a structure and will be decommissioned along with the umbilical.

A representative schematic of the original Balmoral field and the Beaulieu subsea pipelines, umbilicals and wellhead can be found in Figure 1-1. The greyed out infrastructure is out with the scope of this DP, and is shown for reference purposes only, including the FPV, which is now removed off-station.

Following public, stakeholder engagement, and regulatory consultation, detailed in Section 5 of this document **[HOLD 02]**, this DP is being submitted in full compliance with OPRED guidelines. Whilst both the Beaulieu and the Burghley fields are in the same area and are being decommissioned at the same time, this DP explains the principles of the proposed activities for the Beaulieu field only. The Burghley field is captured in a separate DP.

Both fields are, however, supported by a single Comparative Assessment (CA), for the decommissioning options of the pipelines and umbilicals, and a single Environmental Appraisal (EA).

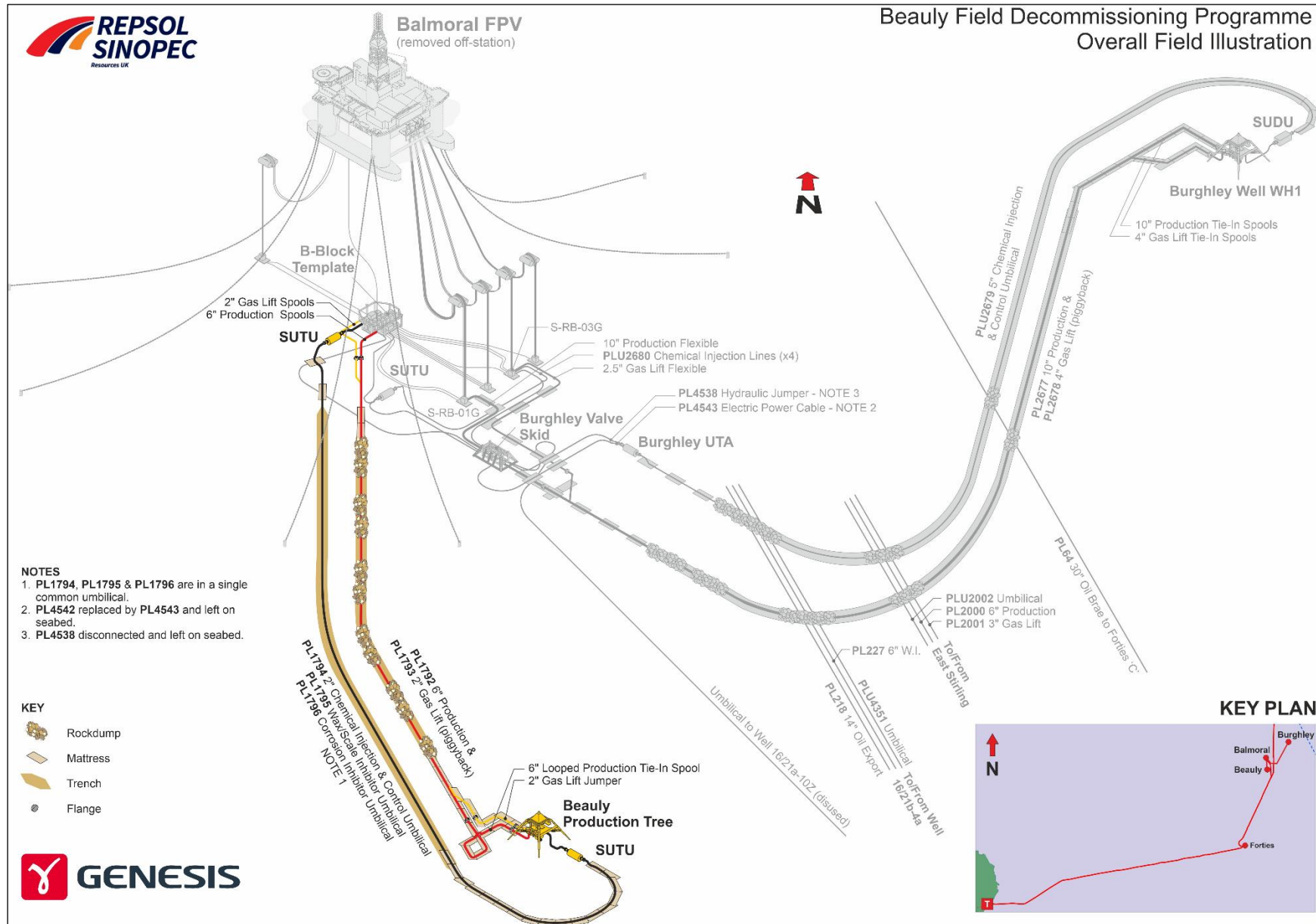


Figure 1-1: Beaulieu Field showing pipelines and WHPS captured in this DP

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

### 1.4.1 Installation(s)

Table 1-1: Installation(s) Being Decommissioned			
Field(s)	Beaully	Production Type (Oil/Gas/Condensate)	Oil / Gas
Water Depth (m)	143.00 ±0.1m LAT	UKCS block	16/21
Distance to median (km)	Median line UK/Norway is 19km East	Distance from nearest UK coastline (km)	220km Northeast (Aberdeen, Scotland)
Surface Installation(s)			
Number	Type	Topsides Weight (Te)	Jacket Weight (Te)
N/A	N/A	N/A	N/A
The Balmoral FPV was documented in the Balmoral DP, approved in January 2021.			
Subsea Installation(s)		Number of Wells	
Number	Type	Platform	Subsea
1	Beaully Wellhead & integrated WHPS	N/A	1
The integrated Beaully Wellhead and WHPS will be removed as part of the well P&A scope.			
Drill Cuttings pile(s)			
Number of Piles	0	Total Estimated Volume (m <sup>3</sup> )	N/A

Table 1-2: Installation(s) Section 29 Notice Holders Details		
Section 29 Notice Holder(s)	Registration Number	Equity Interest (%)
<i>Section 29 Notices Holders who are owners</i>		
Repsol Sinopec North Sea Limited	01061863	60.0%
Rockrose UKCS4 Limited	02552901	40.0%
<i>Section 29 Notices Holders who are not owners</i>		
Idemitsu Kosan Co., Ltd. <sup>Note 1</sup>	JP000032593JPN	0.0%
Repsol Sinopec Resources UK Limited <sup>Note 1</sup>	00825828	0.0%

## 1.4.2 Pipeline(s)

Table 1-3: Pipeline(s) Being Decommissioned	
Number of Pipeline(s) Details given in Table 2.3	2
Number of Umbilical(s) Details given in Table 2.3	3 (bundled as one umbilical)

Table 1-4: Pipeline(s) Section 29 Notice Holders Details		
Section 29 Notice Holder(s)	Registration Number	Equity Interest (%)
<i>Section 29 Notices Holders who are owners</i>		
Repsol Sinopec North Sea Limited	01061863	60.0%
Rockrose UKCS4 Limited	02552901	40.0%
<i>Section 29 Notices Holders who are not owners</i>		
Idemitsu Kosan Co., Ltd. <sup>Note 1</sup>	JP000032593JPN	0.0%
Repsol Sinopec Resources UK Limited <sup>Note 1</sup>	00825828	0.0%

<sup>Note 1</sup> These Section 29 holders are included here as they are documented in Part A of the current Section 29 Notice dated 13-December-2016, however they have no equity interest and are subsequently not owners.

## 1.5 Summary of Proposed Decommissioning Programmes

Table 1-5: Summary of Decommissioning Programmes		
Selected Option	Reason for Selection	Proposed Decommissioning Solution
<b>1. Topsides</b>		
N/A		
<b>2. Substructures (Jackets/FPSO etc)</b>		
N/A		
<b>3. Subsea Installation(s)</b>		
Complete removal and recycled onshore.	To comply with OSPAR requirements leaving unobstructed seabed. Removes a potential obstruction to fishing operations and maximises recycling of materials.	Full Removal. Returned to shore for recycling or appropriate treatment and disposal  The integrated Beaulieu Wellhead and WHPS will be removed as part of the well P&A scope.
<b>4. Pipelines, Flowlines &amp; Umbilical's</b>		
Trenched and buried pipelines and umbilicals will be decommissioned in situ, with remediation of any exposed sections. (See Table 3-6 notes 1 and 2)	Those lines to be decommissioned in situ are trenched and buried for most of their lengths and will not affect other users of the sea.	The trenched and buried pipelines and umbilicals will be decommissioned in situ. The exposed sections at each line end will be remediated either by cutting and removing to shore: by trenching and burying; or by covering with rock. (See Table 3-6 notes 1 and 2)  The recovered sections of the lines will be transferred to shore for treatment in accordance with the waste management hierarchy.  All surface laid spools/jumpers will be recovered to shore for treatment in accordance with the waste management hierarchy.  The concrete mattresses will be recovered either by grab or dependent on their condition with the use of baskets (filled either by ROV or divers).

Table 1-5: Summary of Decommissioning Programmes		
Selected Option	Reason for Selection	Proposed Decommissioning Solution
		In the event that a group or series of mattresses are identified that cannot be recovered using a grab, Repsol Sinopec Resources UK Limited will consult with OPRED regarding an alternative approach.
<b>5. Wells</b>		
The single well will be plugged and abandoned to Repsol Sinopec Resources UK Limited standards which comply with “Offshore Installations and Wells (Design and Construction, etc.) Regulations 1996” and align with Offshore Energies UK (OEUK) Guidelines for the Suspension and Abandonment of Wells (Issue 6, June 2018).	Meets HSE regulatory requirements in accordance with OEUK and NSTA guidelines.	A Master Application Template (MAT) and the supporting Subsidiary Application Template (SAT) will be submitted in support of activities carried out. A PON5 will also be submitted to NSTA for application to abandon the wells.  Additionally, planned work will be reviewed by a well examiner to Repsol Sinopec Resources UK Limited standards, then submitted to the HSE for review.
<b>6. Drill Cuttings</b>		
N/A	N/A	N/A
<b>7. Interdependencies</b>		
Subsea infrastructure has been flushed and cleaned with filtered seawater prior to removal of the Balmoral FPV, and prior to commencement of subsea decommissioning operations.  Decommissioning activities to be coordinated to minimise simultaneous operations (SIMOPS).		



## 1.6 Field Location Including Field Layout and Adjacent Facilities

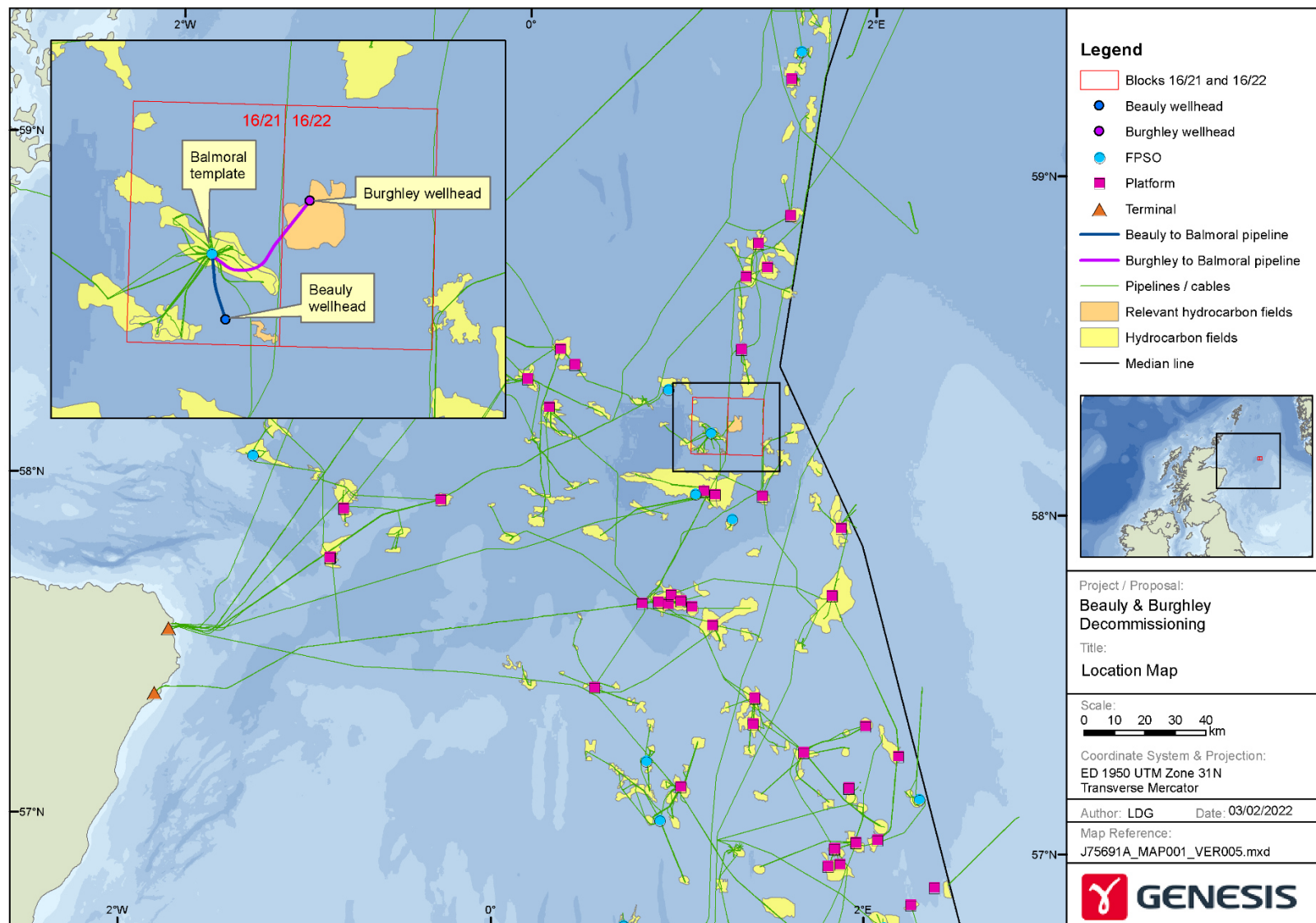


Figure 1-2: Field Location in UKCS (incl. inset showing relation to the Balmoral field)



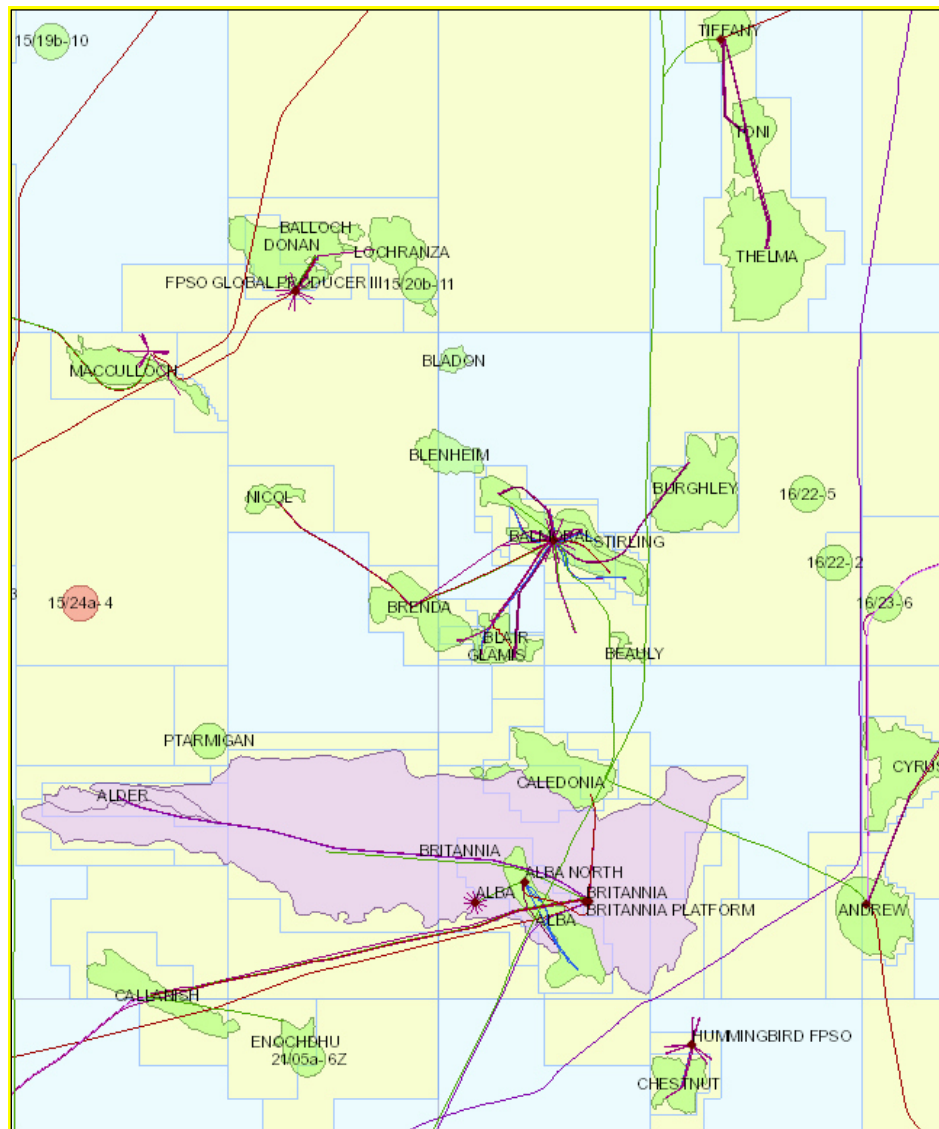
**Table 1-6: Adjacent Facilities**

Owner	Name	Type	Distance/ Direction	Information	Status
Harbour Energy	Stirling	Subsea field	2.8 km, ESE 108°	Oil & gas production tied back to Balmoral FPV	Inactive - field under CoP
Repsol Sinopec North Sea Limited	Burghley	Subsea field	8.6 km, ENE 62°	Oil & gas production tied back to Balmoral FPV	Inactive - field under CoP
Harbour Energy	Glamis	Subsea field	7.5 km, SW 214°	Oil & gas production tied back to Balmoral FPV	Inactive – Shut-in
Harbour Energy	Brenda	Subsea field	8.8 km, WSW 247°	Oil & gas production tied back to Balmoral FPV	Inactive - field under CoP
Harbour Energy	Caledonia	Subsea field	14.3 km, S 173°	Oil & gas production tied back to Balmoral FPV	Inactive - field under CoP
Harbour Energy	Nicol	Subsea field	15.5 km, W 280°	Oil & gas production tied back to Balmoral FPV	Inactive - field under CoP
Harbour Energy	Tap Valve 3 (Forties Pipeline System)	Subsea	13.8 km, SSE 179°	Oil export pipeline from the Forties Charlie platform to Cruden Bay	Operational
Harbour Energy	Umbilical to Well 16/21a-10z	Umbilical	PL1792/93 (KP0.083)	Crosses Under PL1792/PL1793	Disused
Harbour Energy	Umbilical to Well 16/21a-10z	Umbilical	PL1794/95/96 (KP0.083)	Crosses Under PL1794/95/96	Disused

#### Impacts of Decommissioning Proposals

The Beaulieu field is planned to be decommissioned in a programme of activities comprising both the Beaulieu and Burghley fields. None of the other adjacent facilities listed above are understood to be affected by these DPs, however, the operators will be contacted to investigate any benefits and cost savings available through co-operation and alignment of decommissioning activities.

Discussion has been held with adjacent facility operators with regards the crossings identified above; timing of decommissioning specifically at these crossings may be affected. As these crossings are overlaid with rock, no further work is expected at these locations.



**Figure 1-3: Beaulieu Field showing Adjacent Facilities**

## 1.7 Industrial Implications

It is Repsol Sinopec Resources UK Limited intention to develop a contract strategy that will result in an efficient and cost-effective execution of the decommissioning works. Repsol Sinopec Resources UK Limited will also try to combine Beaulieu decommissioning activities with other developments or decommissioning activities, such as the Repsol Sinopec Resources UK Limited operated Burghley field (also part of the Balmoral area) to reduce mobilisation and demobilisation costs should the opportunity arise. The decommissioning schedule is intended to allow flexibility for when decommissioning operations are carried out and completed.

Repsol Sinopec Resources UK Limited will demonstrate this intention by:

- Publishing information on the decommissioning project and timelines on its decommissioning website;
- Working closely with NSTA and other industry bodies in engagement sessions with the decommissioning supply chain on issues relating to the DP and timelines, including engaging directly with disposal yards, where applicable, that serve the North Sea;
- Utilising the Achilles/SEQual databases, along with known industry companies, as a source for establishing tender lists for contracts/purchases;
- Competitively tendering all removal scopes, including the onshore disposal scope;
- Aligning supply chain and decommissioning activity, wherever possible, with Operators of adjacent infrastructure to optimise efficiencies and cost reduction;
- Development and submission of the Supply Chain Action Plan (SCAP) to the NSTA.

## 2 DESCRIPTION OF ITEMS TO BE DECOMMISSIONED

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

Table 2-1: Surface Facilities Information									
Name	Facility Type	Location		Topsides/Facilities		Jacket (if applicable)			
				Weight (Te)	No of modules	Weight (Te)	Number of legs	Number of piles	Weight of piles (Te)
	N/A								
The Balmoral FPV was documented in the Balmoral DP, approved in January 2021.									

### 2.2 Installation(s): Subsea including Stabilisation Features

Table 2-2: Subsea Installations and Stabilisation Features					
Subsea installations including Stabilisation Features	Number	Size(m)/Weight (Te)	Location		Comments/Status
Beaulieu Wellhead and integrated WHPS	1	5.6m (L) x 5.6m (W) x 4.12m (H) 32.9te	WGS84 Decimal	58.1852291 1.128674	Structure is gravity based and partially decommissioned
			WGS84 Degrees Minute	58° 11' 06.83" N 01° 07' 43.23" E	

## 2.3 Pipelines Including Stabilisation Features

Table 2-3: Pipeline/Flowline/Umbilical Information									
Description	Pipeline Number	Diameter (mm)	Length Note 1 (km)	Description of Component Parts	Product Conveyed	From – To End Points	Burial Status	Pipeline Status	Current Content
6" Main Production Pipeline	PL1792	168.3	5.264	Carbon steel/ plastics/ misc. coatings (3LLP) & aluminium alloy	Oil	Beaulieu wellhead to Balmoral (B Block) Template	Trenched and buried to an average depth of burial of 1.37m, with rock dump on 4.3Km of length, across 36 locations	Out of Use	Filtered seawater
2" Gas Lift Pipeline (piggy-backed onto PL1792)	PL1793	60.3	5.275	Carbon steel/ plastics/ misc. coatings (3LLP) & aluminium alloy	Lift Gas	Balmoral (B Block) Template to Beaulieu Wellhead	Trenched and buried to an average depth of burial of 1.37m, with rock dump on 4.3Km of length, across 36 locations	Out of Use	Filtered seawater
Control/ Spare Chemical Injection Umbilical <sup>Note 2</sup>	PL1794	102.0	5.392	Stainless steel/ plastics & misc. coatings	Hydraulic Fluid/ Chemicals	SUTU at Balmoral to SUTU at Beaulieu Wellhead	Trenched and buried to an average depth of burial of 0.64m	Out of Use	Aqualink 300/ Filtered seawater
Wax/ Scale Inhibitor Umbilical <sup>Note 2</sup>	PL1795	102.0	5.392	Stainless steel/ plastics & misc. coatings	Chemicals	SUTU at Balmoral to SUTU at Beaulieu Wellhead	Trenched and buried to an average depth of burial of 0.64m	Out of Use	Filtered seawater
Corrosion Inhibitor Umbilical <sup>Note 2</sup>	PL1796	102.0	5.392	Stainless steel/ plastics & misc. coatings	Chemicals	SUTU at Balmoral to SUTU at Beaulieu Wellhead	Trenched and buried to an average depth of burial of 0.64m	Out of Use	Filtered seawater

<sup>Note 1</sup> All pipeline lengths are as quoted in Pipeline Works Authorisation (PWA) documents and include jumper spool lengths.

<sup>Note 2</sup> Although the umbilical cores have been allocated separate pipeline numbers in the PWA notification, all cores associated with the three (3) PL numbers are within a single common umbilical.

**Table 2-4: Subsea Pipeline Stabilisation Features**

Stabilisation Feature	Total Number	Weight (Te)	Location(s)	Exposed/Buried/Condition
Concrete Mattresses	78	306.5	Balmoral 500m zone	Exposed, partially covered in sediment, condition varies
Grout Bags	486	12.1	Beaulieu Wellhead approaches	Exposed, often covered in sediment, condition varies
Concrete Mattresses	59	236.1	Beaulieu Wellhead approaches	Exposed, partially covered in sediment, condition varies
Concrete Mattresses	15	59.0	Umbilical 16/21a-10z at Balmoral (crosses under Beaulieu pipeline)	Exposed, partially covered in sediment, condition varies
Rock Cover	1	9,767.0	Installed over 4.3Km of PL1792 & PL1793	Exposed

## 2.4 Wells

Table 2-5: Well Information			
Platform Wells	Designation	Status	Category of Well
N/A			
Subsea Wells			
Beaulieu 16/21c-32y	Producer	Completed (Shut In and partially decommissioned)	SS 3/4/3

## 2.5 Drill Cuttings

Table 2-6: Drill Cuttings Pile(s) Information		
Location of Pile Centre (Latitude/Longitude)	Seabed Area (m <sup>2</sup> )	Estimated volume of cuttings (m <sup>3</sup> )
N/A		

## 2.6 Inventory Estimates

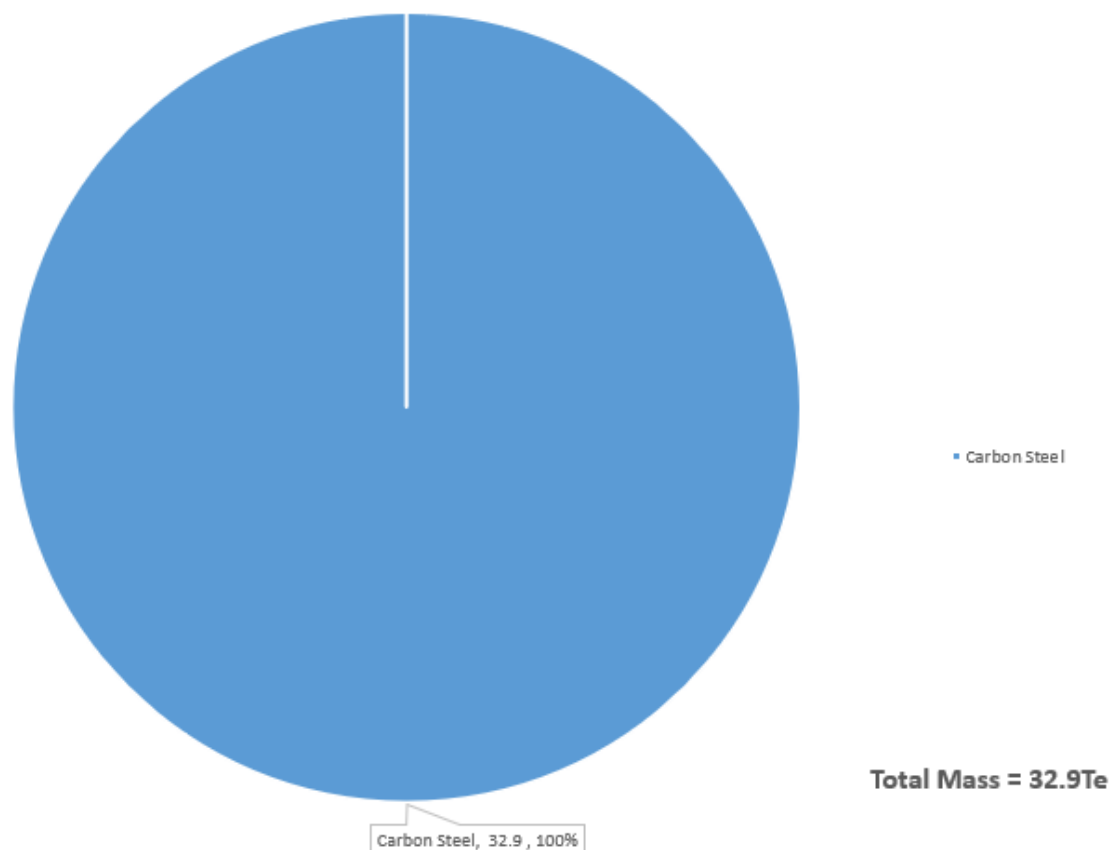
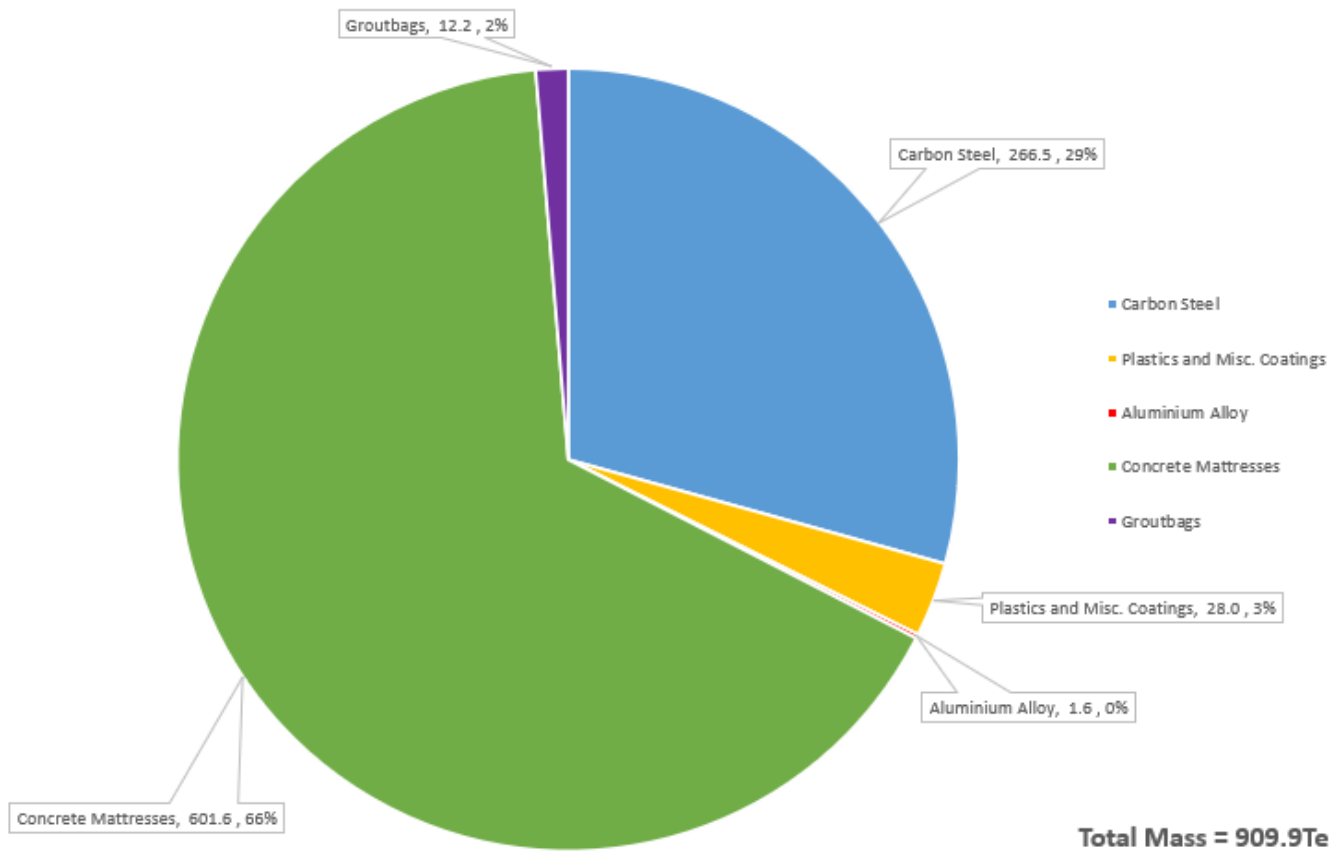


Figure 2-1: Estimated Inventory - Structures



**Figure 2-2: Estimated Inventory - Pipelines, Umbilicals, Jumpers & Spools**

### 3 REMOVAL AND DISPOSAL METHODS

In line with the waste management hierarchy, the re-use of an installation (or parts thereof) is first in the order of decommissioning options. Repsol Sinopec Resources UK Limited considered other potential reuse options, however, none yielded a viable commercial opportunity.

On removal and where practicable, Repsol Sinopec Resources UK Limited will ensure the principles of the waste management hierarchy will be met in the handling of materials from the Beaulieu decommissioning to maximise the amount of material which can be reused or recovered/ recycled.

Repsol Sinopec Resources UK Limited and the selected contractor(s) will monitor and review the disposal route of all materials and waste to the point of final reuse, recycling or disposal. As the decommissioning is not scheduled to be completed imminently, Repsol Sinopec Resources UK Limited propose to take advantage of any future advances in technology to aid waste management, including the further reuse, recycle or scrapping of parts of the pipelines as appropriate.

More details of the Beaulieu waste strategy are reported in the EA.

#### 3.1 Topsides

##### Topsides Decommissioning Overview:

N/A

##### Preparation/Cleaning:

Table 3-1: Cleaning of Topsides for Removal		
Waste Type	Composition of Waste	Disposal Route
N/A		

##### Removal Methods:

Table 3-2: Topsides Removal Methods	
1) HLV (semi-submersible crane vessel) <input type="checkbox"/> 2) SLV <input type="checkbox"/> 3) Piece small <input type="checkbox"/> 4) Other <input type="checkbox"/>	
Method	Description
N/A	

#### 3.2 Jacket(s)

##### 3.2.1 Jacket Decommissioning Overview:

N/A

##### 3.2.2 Jacket Removal Methods

Table 3-3: Jacket Removal Methods	
1) HLV (semi-submersible crane vessel) <input type="checkbox"/> 2) SLV <input type="checkbox"/> 3) Piece small <input type="checkbox"/> 4) Other <input type="checkbox"/>	
Method	Description
N/A	



### 3.3 Subsea Installations and Stabilisation Features

Table 3-4: Subsea Installation(s) and Stabilisation Feature(s) Decommissioning Options			
Subsea installation(s) and stabilisation feature(s)	Number	Option	Disposal Route (if applicable)
Beaulieu Well 16/21c and integrated WHPS	1	Full Removal	Return to shore for reuse/ recycling/ disposal
The integrated Beaulieu Wellhead and WHPS will be removed as part of the well P&A scope.			

### 3.4 Pipelines

#### Decommissioning Options:

\*Key to Options:

- |                                                        |                                                               |                                                        |
|--------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------|
| 1) Total removal - by reverse reeling                  | 2) Total removal – by reverse S-lay                           | 3) Total removal – cut and lift                        |
| 4) Remediation in-situ – exposed sections rock covered | 5) Remediation in-situ – exposed sections trenched and buried | 6) Remediation in-situ – exposed sections cut and lift |

Table 3-5: 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
<b>Group A</b> PL1792/ PL1793	Rigid Pipelines, Piggy-backed, Trenched and Buried	All	1, 4, 5 & 6
<b>Group B</b> PL1794/ PL1795/ PL1796	Umbilicals, Trenched and Buried	All	1, 4, 5 & 6

#### Comparative Assessment Method:

A CA was carried out for all pipelines in line with the recommendations of the OPRED Guidance Notes in The Department for Business, Energy and Industrial Strategy (BEIS). The CA considered Technical, Safety and Environmental Risks and Societal and Economic Impacts. The assessments closely followed the Guidelines on CA's in DPs published by Offshore Energies UK (OEUK).

A combined CA Workshop covering all pipelines and umbilicals in the Beaulieu and Burghley fields was held by Repsol Sinopec Resources UK Limited (representatives from the safety, environmental and subsea teams present) using established terms of reference, detailed data on field facilities, results were recorded and approved by participants.

The results specific to the pipelines and umbilicals associated with the Beaulieu field only are described in this DP.

## Outcome of Comparative Assessment:

Table 3-6: Outcome of Comparative Assessment		
Pipeline or Group (as per PWA)	Recommended Option	Justification
<b>Group A</b> PL1792/ PL1793	Decommission by leaving the trenched and buried sections in-situ and remediation of the non-trenched end- sections by cutting and lifting the exposed sections. <sup>Note 1</sup> (Option 6 in Table 3-5)	<p>The pipelines are fully trenched and buried to significantly greater than 0.6m depth of cover along their entire route with exposures at the pipeline ends and the trench transitions only. This group of pipelines have also been substantially rock covered to mitigate upheaval buckling during operation and as protection for crossings. There is no evidence of spans or exposures along the route and there is no evidence of snagging on the line over its history.</p> <p>Based on the review of the historical inspection data available, all lines are expected to remain fully trenched and buried over time.</p> <p>Total removal options were discounted for the trenched and buried section of these pipelines as full removal of the line would be technically challenging compared to the remediate in-situ options, whilst the increased safety risk exposure time to project personnel both offshore and onshore in having to handle greater pipeline lengths was a concern. In addition, recovery of the pipeline would result in excessive seabed disturbance compared to the remediate in-situ options.</p> <p>There will be minimum legacy risk, to other users of the sea in leaving the pipelines in-situ as historical inspection surveys have demonstrated that the trenched and buried sections of the pipeline will remain so whilst the area is actively fished with no incidents having been reported.</p> <p>The three remediate in-situ decommissioning options considered by CA will be taken forward. <sup>Note 1</sup></p>
<b>Group B</b> PL1794/ PL1795/ PL1796	Decommission by leaving the trenched section in-situ and remediation of the non- trenched end-sections by cutting and lifting the exposed sections. <sup>Note 2</sup> (Option 6 in Table 3-5)	<p>The umbilicals are trenched and buried to an average depth of burial of 0.64m depth of cover along their entire route with exposures at the pipeline ends and the trench transitions only. There is no evidence of exposures along the route and there is no evidence of snagging on the line over its history.</p> <p>Based on the review of the historical inspection data available, all lines are expected to remain fully trenched and buried over time.</p> <p>The total removal option was not discounted during the CA as it is considered that the umbilical could be withdrawn through the seabed cover without excavation during reverse reeling and therefore:</p> <ul style="list-style-type: none"> <li>– Seabed disturbance would be significantly less than that considered for rigid pipeline Group A;</li> <li>– Much less material is recovered than in rigid pipeline Group A and the umbilical is a flexible</li> </ul>

**Table 3-6: Outcome of Comparative Assessment**

Pipeline or Group (as per PWA)	Recommended Option	Justification
		<p>line which is much easier to handle on both the vessel deck and onshore in the yard than Group A and hence there is less safety concerns.</p> <p>All four decommissioning options considered by CA will be taken forward. <sup>Note 2</sup></p>
<p><b>Note 1</b> The conclusion of the CA was that there is no significant differentiator on each of the remediation options for the exposed sections of pipelines. However, the slight differences have resulted in the remediate in situ options being prioritised for Group A as follows:</p> <ul style="list-style-type: none"> <li>• Priority 1 - Cut and lift (Option 6 in Table 3-5 above)</li> <li>• Priority 2 (equal) - Trenched and buried (Option 5 in Table 3-5 above)</li> <li>• Priority 2 (equal) - Rock covered (Option 4 in Table 3-5 above)</li> </ul> <p>Given that there is no significant differentiator Repsol Sinopec Resources UK Limited intend to carry out a Contracting and Procurement (C&amp;P) engagement exercise and tendering process on all three options and will consult with OPRED should this exercise result in a change in preference of the remediation option.</p> <p><b>Note 2</b> The conclusion of the CA was that there is no significant differentiator on each of the four decommissioning options considered for the umbilicals. However, the slight differences have resulted in the decommissioning options being prioritised for Group B as follows:</p> <ul style="list-style-type: none"> <li>• Priority 1 (equal) - Remediate in-situ by cut and lift (Option 6 in Table 3-5 above)</li> <li>• Priority 1 (equal) - Total removal by reverse reeling (Option 1 in Table 3-5 above)</li> <li>• Priority 3 (equal) - Remediate in-situ by trenched and buried (Option 5 in Table 3-5 above)</li> <li>• Priority 3 (equal) - Remediate in-situ by rock cover placement (Option 4 in Table 3-5 above)</li> </ul> <p>Given that there is no significant differentiator Repsol Sinopec Resources UK Limited intend to carry out a C&amp;P engagement exercise and tendering process on all four options and will consult with OPRED should this exercise result in a change in preference of the remediation option.</p>		

### 3.5 Pipeline Stabilisation Feature(s)

It is not proposed, at this stage, to carry out a CA on any pipeline stabilisation features, as in accordance with the recommendations of the OPRED Guidance Notes, all exposed mattresses will be recovered on shore for treatment, recycle and/or disposal, and any pipeline stabilisation features that are rock covered will remain in place. If it is found that the exposed stabilisation features cannot be safely and/or efficiently recovered Repsol Sinopec Resources UK Limited will revert to OPRED and discuss further potential remediation options.

**Table 3-7: Pipeline Stabilisation Feature(s)**

Stabilisation feature(s)	Number	Option	Disposal Route (if applicable)
Concrete Mattresses	152	Rock covered mattresses will remain in place.  It is intended that the exposed mattresses will be recovered to shore, however in the event of practical difficulties during the removal execution, OPRED will be consulted, and an alternative method of decommissioning will be examined through a new comparative assessment.	Where mattresses are recovered, they will be returned onshore for reuse/ recycle/ disposal.
Grout bags	486	Full Recovery planned.	Where grout bags are recovered, they will be returned onshore for treatment and recycle/ disposal.
Rock cover (Te)	9,767	To remain in place.	N/A

### 3.6 Wells

**Table 3-8: Well Plug and Abandonment**

The single well in the Beaulieu field (listed in Table 2.5), will be plugged in compliance with the requirements of the Offshore Installations and Wells (Design and Construction, etc.) Regulations 1996 (DCR) and abandoned in accordance with the latest OEUK Guidelines; Well Decommissioning Guidelines (Issue 6, June 2018).

### 3.7 Drill Cuttings

N/A

Table 3-9: Drill Cuttings Decommissioning Options	
How many drill cuttings piles are present?	N/A
Tick options examined: <input type="checkbox"/> Remove and re-inject <input type="checkbox"/> Leave in place <input type="checkbox"/> Cover <input type="checkbox"/> Relocate on seabed <input type="checkbox"/> Remove and treat onshore <input type="checkbox"/> Remove and treat offshore <input type="checkbox"/> Other	
<b>Review of Pile characteristics</b>	<b>Pile 1</b>
How has the cuttings pile been screened? (desktop exercise/actual samples taken)	
Dates of sampling (if applicable)	
Sampling to be included in pre-decommissioning survey?	
Does it fall below both OSPAR thresholds?	
Will the drill cuttings pile have to be displaced in order to remove the jacket?	
What quantity (m <sup>3</sup> ) would have to be displaced/removed?	
Will the drill cuttings pile have to be displaced in order to remove any pipelines?	
What quantity (m <sup>3</sup> ) would have to be displaced/removed?	
Have you carried out a Comparative Assessment of options for the Cuttings Pile?	

**Comparative Assessment Method:**

N/A

**Outcome of Comparative Assessment:**

N/A

### 3.8 Waste Streams

Table 3-10: Waste Stream Management Methods	
Waste Stream	Removal and Disposal method
Bulk liquids	<p>All pipelines have been flushed with filtered seawater, with returns to a sampling point confirmed as &lt;30mg/l oil in water.</p> <p>The chemical cores within the umbilicals have either been flushed with seawater or contain a water based hydraulic fluids.</p> <p>Pipework will be shipped in accordance with maritime transportation guidelines. Further cleaning and decontamination will take place onshore prior to recycling/re-use.</p>
Marine growth	Where necessary and practicable to allow access, some marine growth will be removed offshore in full compliance with all relevant regulations and applicable marine licenses. The remainder will be brought ashore and disposed of in accordance with health, safety, and environmental legislation.
NORM	Tests for NORM will be undertaken offshore, and work will be carried out in full compliance with all relevant regulations.
Asbestos	N/A
Other hazardous wastes	Will be recovered to shore and disposed of in full compliance with all relevant regulations.
Onshore Dismantling sites	Appropriate licensed sites will be selected. Dismantling sites must demonstrate waste stream management throughout the deconstruction process and the ability to deliver innovative reuse and recycling options. Existing sites would need a proven track record.

As part of the Contracting Strategy, Repsol Sinopec Resources UK Limited will ensure the selection of waste competent Contractor(s), experienced in the handling of all wastes associated with the Decommissioning of Oil and Gas infrastructure.

The waste management provider's/disposal yards shall follow the waste management hierarchy in the handling of materials from the Beaulieu field decommissioning project to maximize the amount of material from the project which is reused or recovered/recycled.

Repsol Sinopec Resources UK Limited and the selected removal contractor(s) will, monitor and review the disposal route of all materials and waste to the point of final reuse, recycling or disposal and reserves the right to audit to fulfil any Duty of Care responsibilities. Geographic locations of potential disposal yard options may require the consideration of Trans Frontier Shipment of Waste (TFSW), including hazardous materials. Early engagement with the relevant waste regulatory authorities will ensure that any issues with TFSW are addressed.

Table 3-11: Inventory Disposition			
	Total Inventory Tonnage	Planned tonnage to shore	Planned left <i>in situ</i>
Installations	32.9	32.9	0.0
Pipelines <sup>Note 1</sup>	909.9	567.7 <sup>Note 2</sup>	342.2

<sup>Note 1</sup> Includes umbilicals, jumpers, spools, concrete mattresses and grout bags.

<sup>Note 2</sup> Based on recommendation to remediate in-situ with exposed sections cut and removed, total planned return also includes concrete mattresses and grout bags.

## 4 ENVIRONMENTAL APPRAISAL OVERVIEW

### 4.1 Environmental Sensitivities (Summary)

Table 4-1: Environmental Sensitivities	
Environmental Receptor	Main Features
Conservation interests	The nearest protected areas to the Beaulieu field are the Scanner Pockmark Special Area of Conservation and the Norwegian Boundary Sediment Plain Nature Conservation Marine Protected Area, located c. 12 km north-west and c. 23 km to the south-east respectively.
Seabed	<p>Repsol Sinopec Resources UK Limited commissioned a pre-decommissioning environmental survey which was completed in August 2017. As part of the survey, video and still photography and seabed samples were collected to assess the existing environmental conditions.</p> <p>The sediments across the area comprise mud and sandy mud. They are classed as European Nature Information System habitat types 'circalittoral fine mud' (A5.36) and 'circalittoral sandy mud' (A5.35). Habitat type 'industrial waste' (J6.5) occurs at one station located 25 m from the Beaulieu wellhead.</p> <p>Benthic fauna were sparse with the most frequently occurring species being sea pens, sea urchins, starfish, shrimp and hermit crabs. Burrows were common, including mounds with conspicuous burrows therefore the OSPAR listed threatened and/ or declining habitat 'sea pens and burrowing megafauna communities' may occur in the area.</p> <p>Juvenile specimens of <i>Arctica islandica</i> which is an OSPAR listed threatened and/ or declining species and a Scottish priority marine feature (PMF) occurred in about half the samples in the Beaulieu survey area. No adult specimens were identified either in grab samples or in seabed video/ photography.</p> <p>There is a drill cuttings pile which occurs beneath and immediately adjacent to the Balmoral template, however sediment contamination spreads beyond the template. The Beaulieu pipelines and surface laid items extend into the area of contamination in the vicinity of the Balmoral template.</p>
Fish	<p>A number of fish species use the area as spawning and nursery grounds. Of these species, anglerfish, blue whiting, cod, herring, ling, mackerel, sandeels, spurdog and whiting are Scottish PMFs.</p> <p>Cod and haddock are listed as Vulnerable on the International Union for Conservation of Nature (IUCN) Red List. The population of spurdog is decreasing and this species is listed as Vulnerable on a global scale but is Endangered in Europe.</p> <p>Cod, spotted ray and spurdog are on the OSPAR list of threatened and/or declining species.</p>
Fisheries	The Beaulieu field occurs in International Council for the Exploration of the Sea (ICES) rectangle 45F1. The shellfish and demersal species are the most important in this rectangle, with anglerfish, cod, haddock, herring, mackerel, <i>Nephrops</i> saithe and whiting being targeted. The area is considered moderately important for the UK fishing industry.

**Table 4-1: Environmental Sensitivities**

Environmental Receptor	Main Features
Marine Mammals	Due to the distance offshore, seals are very unlikely to occur. Minke whale, harbour porpoise, killer whale, Atlantic white-sided dolphin and white-beaked dolphin have been observed in the area. Of these species, all except killer whale are Scottish PMFs. Harbour porpoise are on the OSPAR list of threatened and/ or declining species.
Birds	The European Seabirds at Sea data indicate the presence of a range of seabirds. Of the birds known to occur in the area, northern fulmar, black-legged kittiwake and Atlantic puffin are classed as Vulnerable on the IUCN red list. Arctic skua are Endangered and decreasing in Europe. Common guillemot and European storm-petrel are listed on Annex I of the Birds Directive and black-legged kittiwake are on the OSPAR list of threatened and/ or declining species.
Onshore Communities	At this stage of the project, the onshore dismantling and disposal yards are not yet chosen and therefore it is not possible to describe the specific locations where activities will take place.  Repsol Sinopec Resources UK Limited intends to engage approved dismantling contractors to handle the recovered materials. In addition, approved waste management contractors will be selected to handle, store and dispose of any materials that cannot be recycled or reused.
Other Users of the Sea	Based on available data, shipping activity in the area is low. The nearest wreck site is 2.2 km east of the Beaulieu wellhead.  The field is located in a well-developed oil and gas area with a number of surface installations in the vicinity. The closest of these is the Britannia platform, 13 km south of the Beaulieu wellhead. There are no offshore wind farm developments, telecommunications cables or military exercise/ practice areas in the vicinity.
Atmosphere	Offshore, emissions to the atmosphere will arise from the vessels used to decommission the Beaulieu infrastructure. Onshore emissions will result from the yard activities including recycling of the steel associated with the material returned to shore. Repsol Sinopec Resources UK Limited acknowledge that these emissions will contribute to the cumulative effect of emissions on climate change, though the impact will be minimised via the application of the mitigation measures identified in Table 4-2.



## 4.2 Potential Environmental Impacts and their Management

### Environmental Impact Assessment Summary:

Table 4-2: Environmental Impact Management		
Activity	Main Impacts	Management
Topsides Removal	N/A	N/A
Jacket(s)/Floating Facility Removal	N/A	N/A
Subsea Installation(s) Removal	<p>When assessing the impacts associated with recovery of the subsea installations identified in Table 3-4 the aspects considered as part of the EA process included:</p> <ul style="list-style-type: none"> <li>• The physical presence of vessels;</li> <li>• Energy use and atmospheric emissions;</li> <li>• Underwater noise from vessels;</li> <li>• Discharges to sea from vessels;</li> <li>• Temporary disturbance to the seabed, including contaminated sediments, from activities, including cutting and recovery;</li> <li>• Production of waste materials.</li> </ul>	<p>During decommissioning of the subsea installations, a number of mitigation measures will be adhered to, in order to minimise the marine environmental and socio-economic impacts. These are identified in the EA Report and summarised here:</p> <ul style="list-style-type: none"> <li>• Repsol Sinopec Resources UK Limited will carry out a detailed assurance process on all vessels prior to contract award and all contractors will originate from countries signed up to the International Maritime Organisation and will adhere to their guidelines.</li> <li>• Vessel use will be optimised.</li> <li>• Flushing and cleaning have been completed in line with BAT/BEP (Best Available Technique/Best Environmental Practice) requirements.</li> <li>• Work procedures will be in place to minimise duration of activities and minimise likelihood of dropped objects.</li> <li>• Any potential SIMOPS (simultaneous operations) will be managed through bridging documents and communications.</li> <li>• Cutting/dredging/jetting work plans will be in place.</li> <li>• A clear seabed will be confirmed by an independent third party using either non-intrusive survey techniques or over trawl trials. This decision will be taken in liaison with OPRED.</li> <li>• Post decommissioning survey strategy.</li> <li>• Repsol Sinopec Resources UK Limited will ensure their Duty of Care obligations are fulfilled. Assurance processes will be in</li> </ul>

Table 4-2: Environmental Impact Management

Activity	Main Impacts	Management
		place, for example pre-contract review of the vessels' Waste Management Plans; adherence to the Waste Duty of Care Code of Practice; vessels' compliance with MARPOL; selection of dismantling, treatment and disposal sites with appropriate Pollution Prevention and Control permits/ environmental permits.
Decommissioning Pipelines	<p>Trenched and buried pipelines and umbilicals where DOL is &gt; 0.6 m will be decommissioned <i>in situ</i> with remediation of the exposed ends. Surface laid lines and trenched and buried lines where DOL is &lt; 0.6 m will be recovered. All surface laid items e.g., spools and umbilical jumpers will be recovered.</p> <p>Aspects considered for the decommissioning of the pipelines and umbilical include those considered for 'Subsea Installation Removal'. In addition, they include:</p> <ul style="list-style-type: none"> <li>• Legacy impacts.</li> </ul>	<p>During decommissioning of the pipelines and umbilicals the relevant mitigation measures identified for 'Subsea Installation Removal' (see above) will be applied. In addition:</p> <ul style="list-style-type: none"> <li>• With respect to remediating the exposed sections of those lines to be decommissioned <i>in situ</i>, trench and bury or cut and recover will be prioritised over the use of rockdump.</li> <li>• If rockdump is used it will be minimised and will be laid in profiles aligned with industry standards.</li> <li>• A clear seabed will be confirmed by an independent third party using either non-intrusive survey techniques or over trawl trials. This decision will be taken in liaison with OPRED.</li> <li>• A post decommissioning survey strategy be agreed with OPRED for monitoring any pipelines decommissioned <i>in situ</i>.</li> </ul>
Decommissioning Stabilisation Features	<p>The base case is to decommission the existing rockdump <i>in situ</i> and recover the exposed mattresses and grout bags. Aspects considered for the decommissioning of the stabilisation materials include those considered for 'Subsea Installation Removal'.</p> <p>In addition, as for 'Decommissioning of Pipelines' legacy impacts were also considered.</p>	<p>During decommissioning of the 'Stabilisation Features' the relevant mitigation measures identified for 'Subsea Installation Removal' (see above) will be applied. In addition:</p> <ul style="list-style-type: none"> <li>• In the event that any exposed mattresses or grout bags cannot be recovered Repsol Sinopec Resources UK Limited will consult with OPRED to discuss alternative approaches.</li> <li>• A survey strategy will be agreed with OPRED for monitoring any stabilisation features that will be decommissioned <i>in situ</i>.</li> </ul>
Decommissioning Drill Cuttings	N/A	N/A

## 5 INTERESTED PARTY CONSULTATIONS

### Consultations Summary:

As part of the decommissioning programmes development, an informal stakeholder engagement process will be followed and views sought from stakeholders, these will be documented below in Table 5-1.

Repsol Sinopec Resources UK Limited issued a Scoping Report to a number of stakeholders, which provided an overview of the Beaulieu field, the proposed decommissioning activities and an overview of the impacts to be assessed in the EA. Recipients of the Scoping Report were invited to comment on the Scoping Report with respect to any concerns they may have.

Table 5.1 summarises the main concerns that the stakeholders have identified following receipt of the Scoping Report and after review of the Consultation Draft **[HOLD 02]**. Full details of comments received are/will be provided in Chapter 2 of the EA.

Table 5-1: Summary of Stakeholder Comments		
Who	Comment	Response
Informal Stakeholder Consultations		
OPRED	In response to the Scoping Report, OPRED provided guidance to be included in the EA.	OPRED's guidance with respect to the EA has been noted and applied where relevant.
Marine & Coastguard Agency (MCA)	In response to the Scoping Report, MCA provided guidance to be included in the EA and advised on reporting requirements on the commencement of works.	MCA's guidance with respect to the EA has been noted and applied where relevant.
Joint Nature Conservation Committee (JNCC)	The JNCC acknowledged receipt of the Scoping Report but did not have any comments.	N/A
Marine Scotland Science (MSS)	MSS acknowledged receipt of the Scoping Report but did not have any comments.	N/A
United Kingdom Hydrographic Office (UKHO)	The UKHO acknowledged receipt of the Scoping Report but did not have any comments.	N/A
Health & Safety Executive (HSE)	No response was received from the HSE on the Scoping Report.	N/A
North Sea Transition Authority (NSTA)	No response was received from the NSTA on the Scoping Report.	N/A
Scottish Environment Protection Agency (SEPA)	No response was received from SEPA on the Scoping Report.	N/A
Scottish Fishermen's Federation (SFF)	No response was received from SFF on the Scoping Report.	N/A

Statutory Consultations <b>[HOLD 02]</b>		
National Federation of Fishermen's Organisations		
Scottish Fishermen's Federation		
Northern Irish Fish Producers Organisation		
Global Marine Systems Limited		
Public		

**[HOLD 02]** Statutory Consultation comments will be addressed in the final version of DP.

## 6 PROGRAMME MANAGEMENT

### 6.1 Project Management and Verification

Repsol Sinopec Resources UK Limited has established a multi-disciplinary team lead by a Project Manager responsible for the implementation of activities and co-ordination of all services. An execution plan has been put in place which will align with established Repsol Sinopec Resources UK Limited Health, Safety and Environment policies and meet all relevant legislative requirements.

The contracting strategy will be based on Repsol Sinopec Resources UK Limited procurement and contracts policies, including competitive tendering for all contractor services. Where possible, activities will be co-ordinated with other decommissioning operations and take account of any initiatives promoted by the NSTA.

Repsol Sinopec Resources UK Limited will report regularly on the execution of the DP to OPRED and discuss any changes in plans as they advance.

### 6.2 Post-Decommissioning Debris Clearance and Verification

A pre-decommissioning survey will be completed to identify debris within the 100m pipeline corridors. Any seabed debris related to offshore oil and gas activities will be recovered for onshore recycling or disposal in line with existing waste management policies.

The clear seabed will either be validated by an independent verification trawl over or by the post decommissioning survey.

The main risk from infrastructure remaining in situ is the potential for interaction with other users of the sea, specifically from fishing related activities. Where the infrastructure is trenched below seabed level or trenched & buried below, the effect of interaction with other users of the sea is considered to be negligible.

The infrastructure is currently shown on Admiralty Charts and the FishSafe system. When decommissioning activity has been completed, updated information will be made available to update Admiralty Charts and FishSafe system. When decommissioning activities have been completed, and where applicable, the safety zones around offshore infrastructure will be removed. Post decommissioning it is anticipated that fishing activity will not be disrupted by the presence of pipelines.

The licence holders also recognise their commitment to undertake post-decommissioning monitoring of infrastructure left in situ. After the post-decommissioning survey reports have been sent to OPRED and reviewed, a post-decommissioning monitoring survey regime, scope and frequency, will be agreed with OPRED.

### 6.3 Schedule

The high level schedule for the Beaulieu DP is outlined in Figure 6.1.

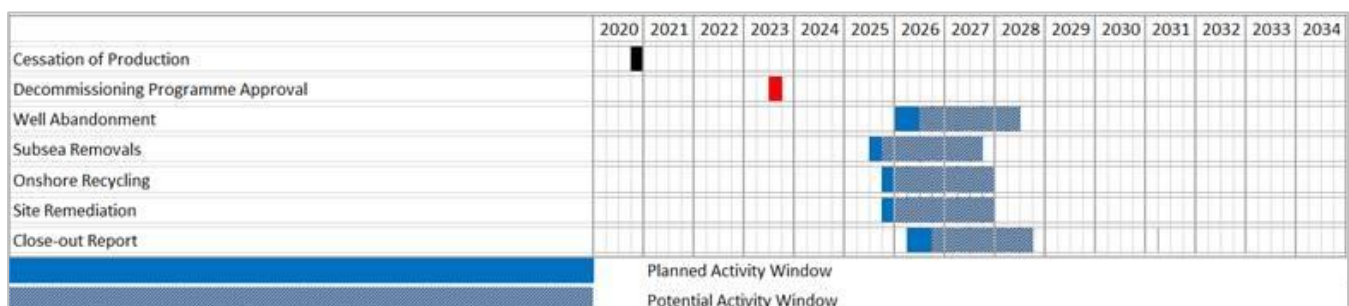


Figure 6-1: Gantt Chart of Project Plan

## **6.4 Costs**

Repsol Sinopec UK Limited has used the OEUK Work Breakdown Structure (WBS) to develop cost estimates for the Beaulieu DP. The provisional cost estimate will be provided separately to OPRED, in confidence.

## **6.5 Close Out**

A close out report will be submitted to OPRED within 12 months of the completion of decommissioning, including debris clearance and post-decommissioning surveys. The close out report will notify OPRED of any variances to outcomes that have been detailed in this DP.

## **6.6 Post-Decommissioning Monitoring and Evaluation**

A post decommissioning environmental seabed survey, covering pipeline routes and sites of the wellhead will be carried out when all decommissioning activity has been concluded. The survey will focus on chemical and physical disturbances due to the decommissioning and be compared with the pre-decommissioning survey.

Results of the survey will be forwarded to OPRED to enable a post monitoring survey regime to be agreed by both parties.

## 7 SUPPORTING DOCUMENTS

Table 7-1: Supporting Documents	
Document Number	Title
RP-DTABAB001-GE-0015	Beaully & Burghley Comparative Assessment Report Genesis Document No. <a href="#">203271C-000-RT-0800</a>
RP-DTABAB001-GE-0018	Beaully & Burghley Decommissioning Environmental Appraisal Genesis Document No. <a href="#">203271C-000-RT-6200-0001</a>

Web link for all stakeholder / interested parties –

<https://www.repsolsinopecuk.com/decommissioning/beaully-burghley>

## 8 PARTNER LETTER(S) OF SUPPORT

**[HOLD 01]** Partner Letters will be issued with final version of DP (post public consultation).