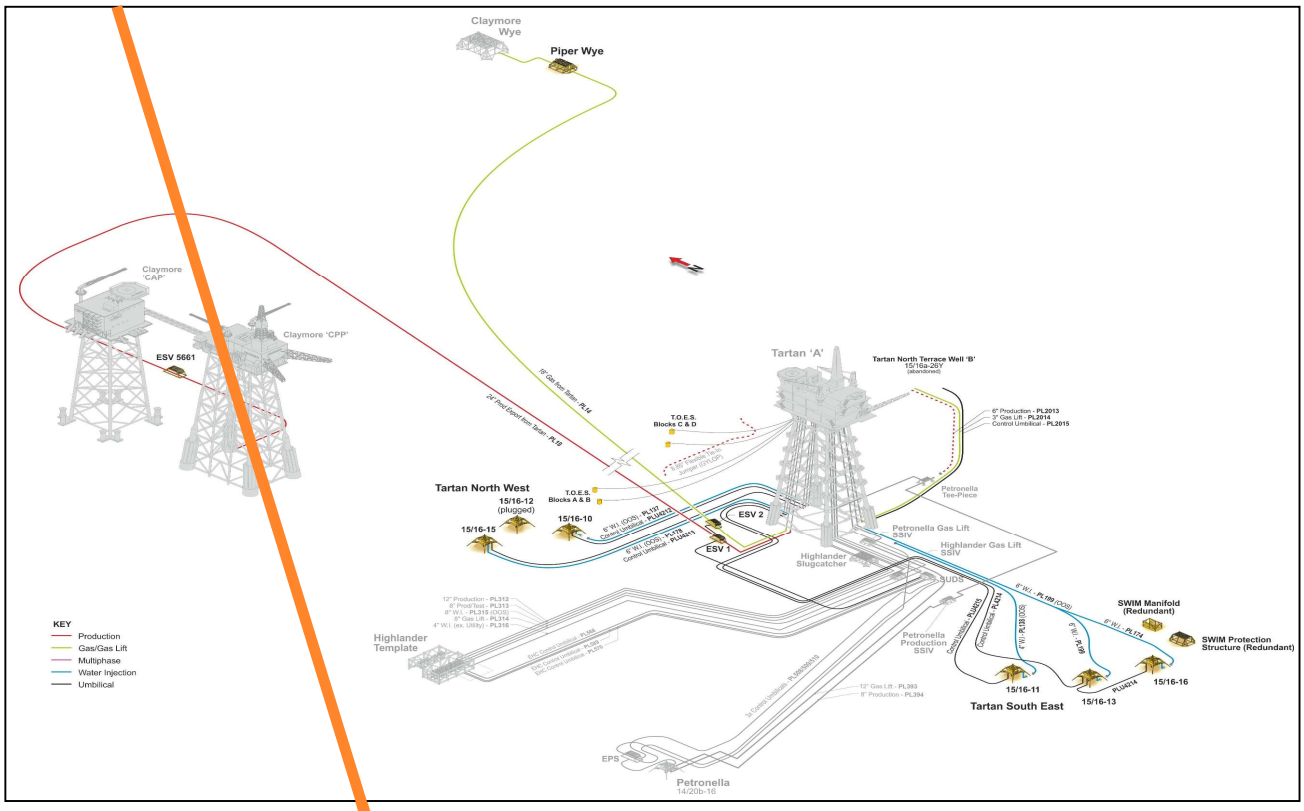

Tartan Subsea – Tartan North Terrace (TNT) & Tartan Satellite (TS) DECOMMISSIONING PROGRAMMES

FINAL

October 2022

Repsol Sinopec Resources UK Limited
163 Holburn Street,
Aberdeen AB10 6BZ, UK
Tel: +44 (0) 1224 352500
www.repsolsinopecuk.com

Document Control

Approvals

	Name	Signature	Date
Prepared by	Colin Hopkins		October 2022
Checked by	Robbie Dunbar-Smith		October 2022
Reviewed by	Teresa Munro		October 2022
Approved by	Adam Sheikh		October 2022

Revision Control

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0.9	Final Version	Letters of support incorporated	October 2022

Distribution List

Name	Company	No of Copies
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning	1

Contents

Terms and Abbreviations

Abbreviation	Explanation
°	Degrees
“	Inches
%	Percentage
<	Less than
>	More than
BAT	Best Available Technique
c.	circa
c/w	complete with
C&P	Contracting & Procurement
CA	Comparative Assessment
DCR	The Offshore Installation and Wells (Design and Construction etc.) Regulations 1996 (SI1996/913)
DP	Decommissioning Programme
E	East
EA	Environmental Appraisal
EPS	Early Production Skid
ESAS	European Seabirds at Sea
EUNIS	European Nature Information System
FPAL	First Point Assessment
GL	Gas Lifted (well)
H	Height
HLV	Heavy-Lift Vessel
HSE	Health and Safety Executive
ICES	International Council for Exploration of the Sea
JNCC	Joint Nature Conservation Committee
km	Kilometre
KP	Kilometre Point
L	Length
m	Metre
m^2	Metres squared
m^3	Cubic Metres
MAT	Master Application Template

Abbreviation	Explanation
N	North
NCMPA	Nature Conservation Marine Protected Area
NORM	Naturally Occurring Radioactive Material
N/A	Not Applicable
OGA	Oil and Gas Authority
OGUK	Oil and Gas UK
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning
OSPAR	from Oslo/Paris, the Convention for the Protection of the Marine Environment of the North East Atlantic
OSPAR 2006/5	OSPAR Recommendation on a Management Regime for Offshore Cuttings Piles
P&A	Plug & Abandon
PL	Pipeline (number)
PLU	Umbilical (number)
PON5	Petroleum Operations Notice 5
S29	Section 29
SAC	Special Area of Conservation
SAT	Subsidiary Application Template
SCAP	Supply Chain Action Plan
SEPA	Scottish Environmental Protection Agency
SFF	Scottish Fishermen's Federation
SLV	Single Lift Vessel
SNH	Scottish Natural Heritage
SSIV	Subsea Isolation Valve
SUDS	Subsea Umbilical Distribution System
SWIM	Subsea Water Injection Manifold
Te/ te	tonnes
TEMPSC	Totally Enclosed Motor Propelled Survival Craft
TNT	Tartan North Terrace
TNW	Tartan North West
TOES	Totally (Enclosed Motor Propelled Survival Craft) Orientation and Evacuation System
TSE	Tartan South East
UK	United Kingdom
UKBAP	United Kingdom Biodiversity Action Plan

Abbreviation	Explanation
UKCS	United Kingdom Continental Shelf
UKHO	United Kingdom Hydrographic Office
W	Width
WGS84	World Geodetic System 1984
WHPS	Well Head Protection Structure
£m	Million Pounds

Figures and Tables

1 EXECUTIVE SUMMARY

1.1 Combined Decommissioning Programmes

This document contains multiple Decommissioning Programmes (DPs) for the subsea infrastructure associated with the Tartan Subsea (Tartan North Terrace (TNT) & Tartan Satellite (TS), Tartan Oil Export Pipeline, Tartan Gas Import Pipeline) fields operated by Repsol Sinopec Resources UK Limited.

It forms part of the overall Tartan Area Decommissioning, which also includes the Tartan Topsides, Tartan Substructure (Jacket), Petronella, Highlander, Duart and Galley which will be covered by separate Decommissioning Programmes.

A summary of the subsea installations, pipelines and umbilicals covered by these DP submissions are provided in the Tables in Sections 1.4.1 and 1.4.2.

1.2 Requirement for Decommissioning Programme(s)

Installation(s):
In accordance with the Petroleum Act 1998, the Section 29 notice holders of the Tartan Development Area field pipelines (see Table 1.2) are applying to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) to obtain approval for the decommissioning of the Subsea Installations detailed in Section 2.2 of these programmes. (See also Section 8 – Partner Letter(s) of Support).

Pipeline(s)/ Structures(s):
In accordance with the Petroleum Act 1998, the Section 29 notice holders of the Tartan Area field pipelines (see Table 1.4) are applying to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) to obtain approval for the decommissioning of the pipelines, umbilicals and structures detailed in Section 2.3 of these programmes. (See also Section 8 – Partner Letter(s) of Support).

In conjunction with public, stakeholder and regulatory consultations, these DPs are submitted in compliance with national and international regulations and OPRED guidelines. The offshore decommissioning activities started in 2020 with the Tartan field CoP, and the Tartan Subsea decommissioning project activities are expected to last until 2033 (see Section 6.3).

1.3 Introduction

The Tartan Development Area comprises a number of fields; Figure 1-1; tied back to the Tartan Alpha (A) platform located in Block 15/16, approximately 140km east of the nearest Scottish coastline and in a water depth of approximately 138m. The fields include Tartan, Highlander, Duart, Petronella and Galley. From the Tartan A platform, the processed oil is exported to the Claymore platform. In addition, a gas export/import pipeline ties into the Frigg Gas Pipeline System. The Tartan Development Area consists of 92 wells; 21 Platform wells and 71 subsea wells; however, these DPs relate specifically to the Tartan Subsea (TNT, TNW & TSE) fields which consists of 27 wells ; Figure 1-2.

The Tartan Subsea field lies in the south-eastern area of the Fladen Ground in the central North Sea within the area covered by the Scottish National Marine Plan. It is c. 25km from the Scanner Pockmark Special Area of Conservation (SAC's), and c. 35km from the Central Fladen Nature Conservation Marine Protected Area (NCMPA).

Following public, stakeholder and regulatory consultation, these decommissioning programmes will be submitted without derogation and in full compliance with OPRED guidelines. These DPs explain the proposed decommissioning activities and are supported by a Comparative Assessment (CA) [Ref: 1] for the pipelines and umbilical's and an Environmental Appraisal (EA) [Ref: 2].

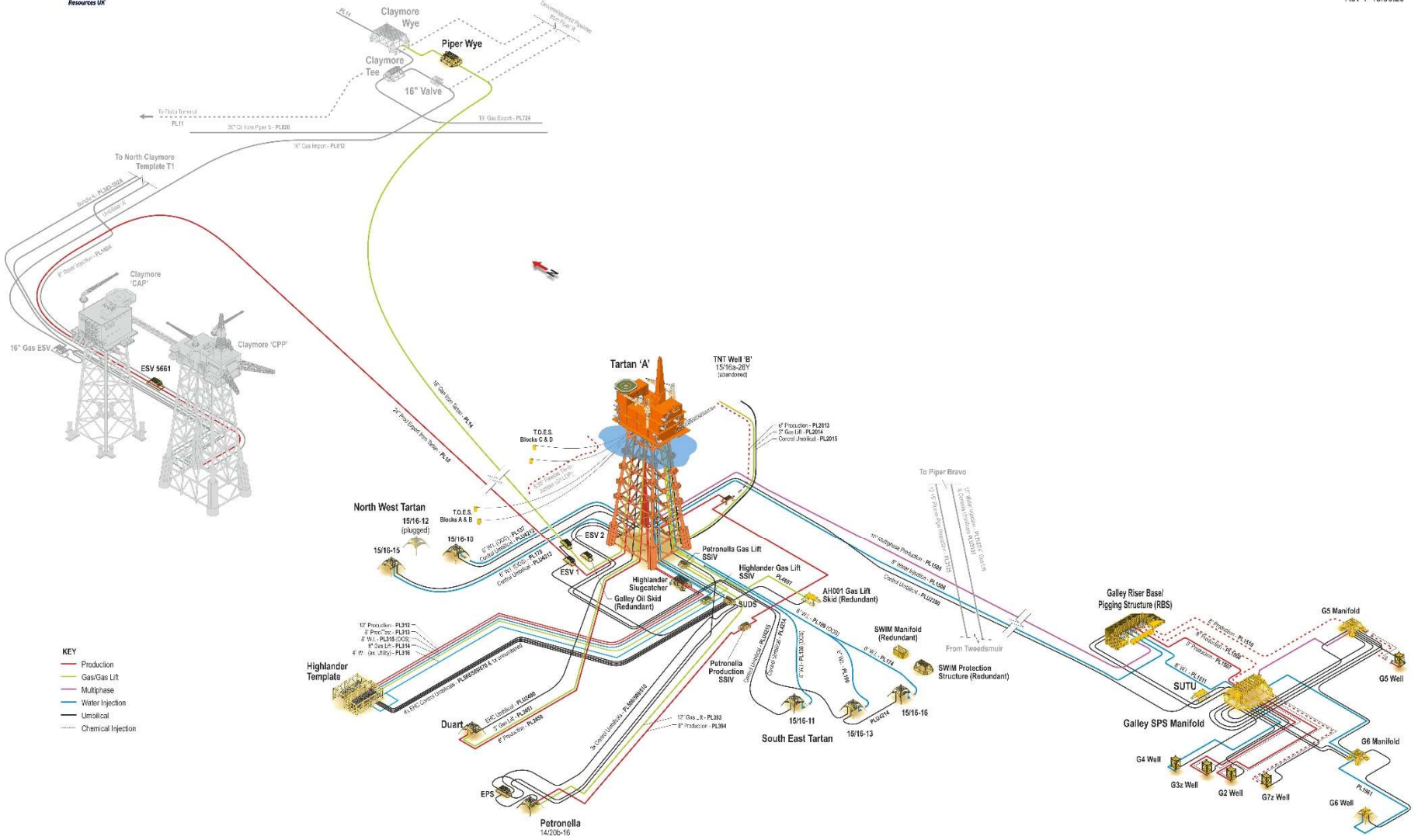


Figure 1-1: Schematic showing the Tartan Development Area

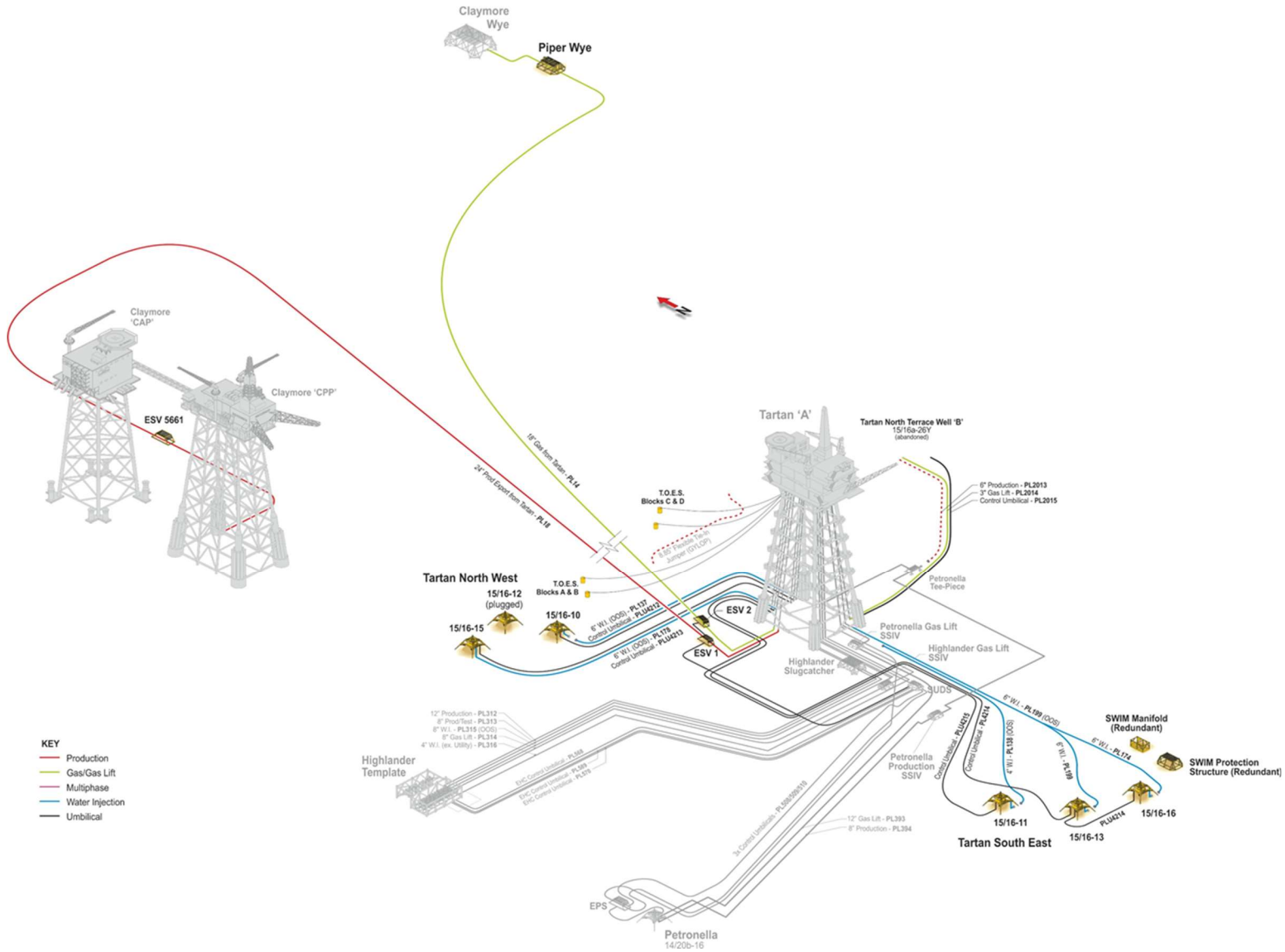


Figure 1-2: Tartan Subsea (North Terrace, North West & South East Satellites) Field Layout Schematic

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

1.4.1 Installation(s)

Table 1-1: Installation(s) Being Decommissioned			
Field(s)	Tartan (TNT, TSW & TSE)	**Production Type (Oil/Gas/Condensate)**	Oil
Water Depth (m)	136	**UKCS block**	14/20 & 15/16
Distance to median (km)	94	**Distance from nearest UK coastline (km)**	131
Surface Installation(s)			
Number	Type	Topsides Weight (Te)	Jacket Weight (Te)
N/A[1]			
Subsea Installation(s)		**Number of Wells**	
Number	Type	Platform	Subsea
		0	27[6]
Tartan North Terrace			
1	Tee Piece	0	0
Tartan North West (including TOES)			
3	Well Head Protection Structure (WHPS)	0	4[6]
3	Anode Skids		
4	TOES (Totally Enclosed Motor Propelled Survival Craft (TEMPSC) Orientation and Evacuation System (TOES)) Subsea Structures		
Tartan South East			
3	Well Head Protection Structure (WHPS)	0	3[6]
3	Anode Skids		
1	Wye Piece		
1	Sensor Spool Skid		
1	Protection Structure part of Subsea Water Injection Manifold (SWIM)		
1	Manifold Skid part of SWIM		
Tartan Oil Export			
2	Subsea Isolation Valves (SSIV)	0	0

[1] Tartan A topsides and substructure are covered by separate DPs.

[6] Total 27no. wells include 4no. Tartan North West, 3no. Tartan South East, and 20no. Abandoned wells as detailed in table 2-5.

2	SSIV Skid Protection Frame		
3	Claymore Protection cages		
Tartan Gas Import			
1	Subsea Isolation Valves (SSIV)	0	0
1	SSIV Skid Protection Frame		
1	Piper Wye		
Drill Cuttings pile(s)			
Number of Piles	2[2]	Total Est Volume (m^3)	423
Pile 1	TNW cuttings pile	Estimated Volume (m^3)	225
Pile 2	TSE cuttings pile	Estimated Volume (m^3)	198

Table 1-2: Installation(s) Section 29 Notice Holders Details

Section 29 Notice Holder(s)	Registration Number	Equity Interest (%)
Section 29 Notices Holders who are owners		
Repsol Sinopec Oil Trading Limited	02307374	100.00
Section 29 Notice Holders who are not owners		
Texaco North Sea U.K. Limited	00807340	Exited
Chevron Captain Company LLC	FC005494	Exited
Repsol Sinopec Resources UK Limited	00825828	Exited

Pipeline(s)

Table 1-3: Pipeline(s) Being Decommissioned

Number of Pipeline(s) Details given in Table 2.3	**19**

Table 1-4: Pipeline(s) Section 29 Notice Holders Details

Section 29 Notice Holder(s)	Registration Number	Equity Interest (%)

[2] It is recognised that a section of the Tartan lines and the oil export and gas export/import lines are laid through the Tartan A cuttings pile. The proposed management strategy for the Tartan A cuttings pile will be captured in the Tartan A substructure DP. The selected management option will be supported by a BAT assessment which will take account of the selected pipeline decommissioning options.

Tartan Subsea[3]		
Section 29 Notices Holders who are owners		
Repsol Sinopec Oil Trading Limited	02307374	100.00[4]
Repsol Sinopec Alpha Limited	04796268	19.556[5]
Repsol Sinopec North Sea Limited	01061863	36.667[5]
Repsol Sinopec Resources UK Limited	00825828	20.277[5]
Transworld Petroleum UK Limited	01010787	23.5[5]
Section 29 Notice Holders who are not owners		
Chevron Captain Company LLC	FC005494	Exited
ARCO British Limited LLC	BR001713	Exited
Chevron Britain Limited	01006065	Exited
ELF Exploration UK Limited	00810743	Exited
ENI UK Limited	00862823	Exited
Tartan North Terrace		
Section 29 Notices Holders who are owners		
Repsol Sinopec Oil Trading Limited	02307374	100.00
Section 29 Notice Holders who are not owners		
Chevron Captain Company LLC	FC005494	Exited
Tartan North West		
Section 29 Notices Holders who are owners		
Repsol Sinopec Oil Trading Limited	02307374	100.00
Section 29 Notice Holders who are not owners		
Chevron Captain Company LLC	FC005494	Exited
Tartan South East		
Section 29 Notices Holders who are owners		
Repsol Sinopec Oil Trading Limited	02307374	100.00
Section 29 Notice Holders who are not owners		
Chevron Captain Company LLC	FC005494	Exited

[3] Tartan Subsea includes the Tartan Oil Export Line and the Tartan Gas Import Line
[4] Section 29 Notice Holders associated to Tartan Subsea and Oil Export Line
[5] Section 29 Notice Holders associated to Tartan Gas Export Import Line

1.5 Summary of Proposed Decommissioning Programmes

Table 1-5: Summary of Decommissioning Programme(s)		
Selected Option	**Reason for Selection**	**Proposed Decommissioning Solution**
1. Topsides		
N/A		
2. Substructures (Jackets/FPSO etc)		
N/A		
3. Subsea Installation(s)		
Complete removal and recycling onshore.	To comply with OSPAR requirements leaving unobstructed seabed. Removes a potential obstruction to fishing operations and maximises recycling of materials.	Where piles exist, these will be cut to -3m below the seabed.
4. Pipelines, Flowlines & Umbilicals		
Trenched and buried lines will be decommissioned in situ, with remediation of any exposed sections. Surface laid lines that are currently exposed will be recovered and returned to shore. Lines in open trenches but not adequately buried will be decommissioned in situ, with remediation of any exposed sections.	Those lines to be decommissioned in situ are already trenched and buried for most of their lengths and will not affect other users of the sea. Surface laid lines that are currently exposed and lines that are currently in open trenches but not adequately buried will be recovered to shore to prevent future interaction with fishing gear. Lines in open trenches but not adequately buried will be decommissioned in situ but will require remedial action to prevent future interaction with fishing gear.	The already trenched and buried pipelines and umbilicals will be decommissioned in situ. The exposed sections will be remediated by trenching and burying (the most preferred option). Other remediation options such as cutting and removing exposed sections to shore or by covering exposed sections with rock will also be carried forward to the Contracting and Procurement (C&P) engagement exercise and tendering process on all three options and the Operator will consult with OPRED should this exercise result in a change in preference of the remediation option. The surface laid lines will be recovered and returned to shore (the most preferred option) Lines in open trenches but not adequately buried will be decommissioned in situ by trenching and burying along their full length (the most preferred option). Other remediation options such as cutting and removing to shore or by with rock will also be carried forward to the Contracting and Procurement (C&P) engagement exercise and tendering process on all three options and the Operator will consult with OPRED should this exercise result in a change in preference of the remediation option.

5. Wells		
Wells 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 Oil & Gas UK Guidelines for the Suspension and Abandonment of Wells (Issue 6, June 2018).	Meets HSE regulatory requirements in accordance with O&G UK and OGA.	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 OGA 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.
6. Drill Cuttings		
The two small drill cuttings piles will be left to degrade naturally following the results of a BAT assessment.	The cuttings piles have previously been determined to be below thresholds for oil loss (<10 te/yr) and footprint persistence (<500 km^2.yr) set by OSPAR Recommendation 2006/5 on the management of offshore cuttings piles. In addition, following any disturbance during recovery of the subsea infrastructure, the oil loss thresholds will not be exceeded as the total hydrocarbon content in each cuttings pile is estimated to be < 0.45 te.	The drill cuttings piles at the TNW and TNE drill centres will be left *in situ* though a portion of each of the piles is likely to be disturbed during recovery of the subsea infrastructure associated with each pile. The expected maximum volumes of disturbance and the associated impacts are discussed in detail in the supporting Subsea EA Report.
7. Interdependencies		
Recovery of the WHPS will require plugging & abandonment for the following Wells and Xmas tree recovery to be completed prior to recovery of the structures: TS10, TS11, TS12, TS13, TS15 & TS16. The selected decommissioning options for the Tartan A substructure may impact on how the Tartan A ends of the Tartan Subsea pipelines and umbilical's are decommissioned. In addition, the BAT assessment to be carried out to determine the optimal approach for managing the Tartan A cuttings pile will take account of the results of the pipelines and umbilical's CA and the Tartan A substructure CA.		

1.6 Fields Location Including Field Layout and Adjacent Facilities

Figure 1-3: Fields Location in UKCS.

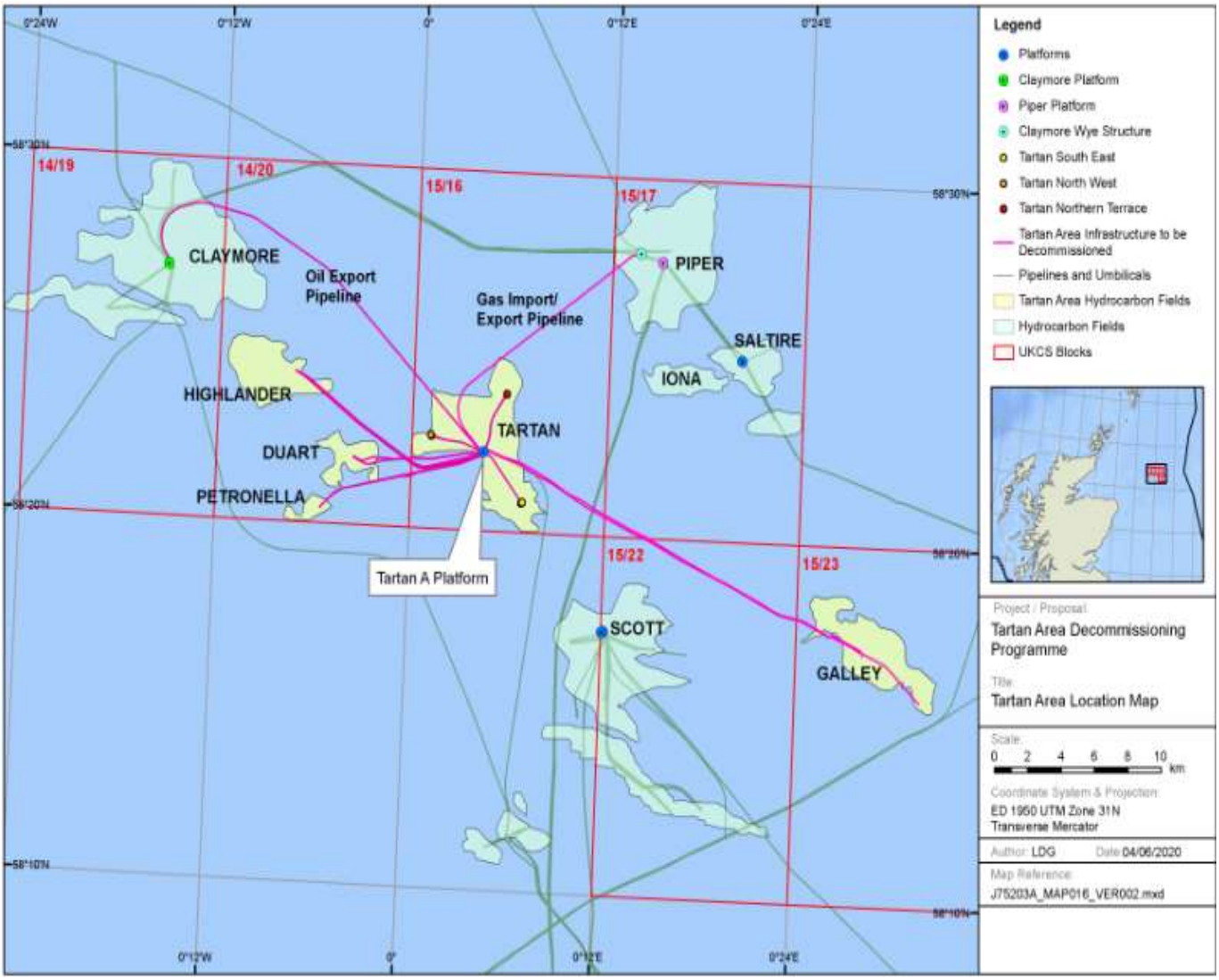


Table 1-6: Adjacent Facilities					
Owner	**Name**	**Type**	**Distance/Direction**	**Information**	**Status**
CNOOC International	Scott	Fixed Platform	13km South East	Production steel drilling and Accommodation steel jack-up	Active
Repsol Sinopec Resources UK Limited	Piper B	Fixed Platform	13km North East	Drilling Production & Accommodation Fixed steel	Active
Repsol Sinopec Resources UK Limited	Saltire	Fixed Platform	16km East North East	Drilling production steel	Active
Repsol Sinopec Resources UK Limited	Claymore	Fixed Platform	27km North West	Drilling Production & Accommodation - steel	Active
Repsol Sinopec Resources UK Limited	PL820	30" Oil Export Pipeline	KP 16.313 (PL14 crosses over)	Crossing at Piper Bravo Platform to Piper/Claymore Wye	Operational
Repsol Sinopec Resources UK Limited	PL726	16" Gas Export Pipeline	KP 16.637 (PL14 crosses over)	Crossing at Piper Bravo Platform to Claymore Tee	Operational
Repsol Sinopec Resources UK Limited	Tartan	Fixed Platform	8km East	Drilling Production & Accommodation Fixed steel[1]	Cessation of Production (Wells Suspended)
Repsol Sinopec Resources UK Limited	PL2450 / PL2451 / PLU2480	8" Production / 3" Gas Lift / Control Umbilical	32km West North West	Duart Subsea Infrastructure	Cessation of Production (Well Suspended)

Repsol Sinopec Resources UK Limited	PL1505 / PL1506 / PL1507 / PL1508 / PL1510 / PL1511 / PL1961 / PLU2380 / PLU5056 / PLU5060	10" Production / 8" Water Injection / 3No. 8" In-field Production / 8" In-field Water Injection / 6" In-field Water Injection / Control Umbilical / 3No. In-field Control Umbilical	32km East South East	Galley Subsea Infrastructure	Cessation of Production (Wells Suspended)
Repsol Sinopec Resources UK Limited	PL312 / PL313 / PL314 / PL315 / PL316 / PL568 / PL569 / PL570	12" Production / 8" Test & Production / 8" Gas Lift / 8" Water Injection / 4" Water Injection / 3No. Control Umbilical	37km West North West	Highlander Subsea Infrastructure[1]	Cessation of Production (Wells Suspended)
Repsol Sinopec Resources UK Limited	PL393 / PL394 / PL508 / PL509 / PL510	12" Gas Lift / 8" Production / 3No. Control Umbilical	33km West North West	Petronella Subsea Infrastructure[1]	Cessation of Production (Well Suspended)

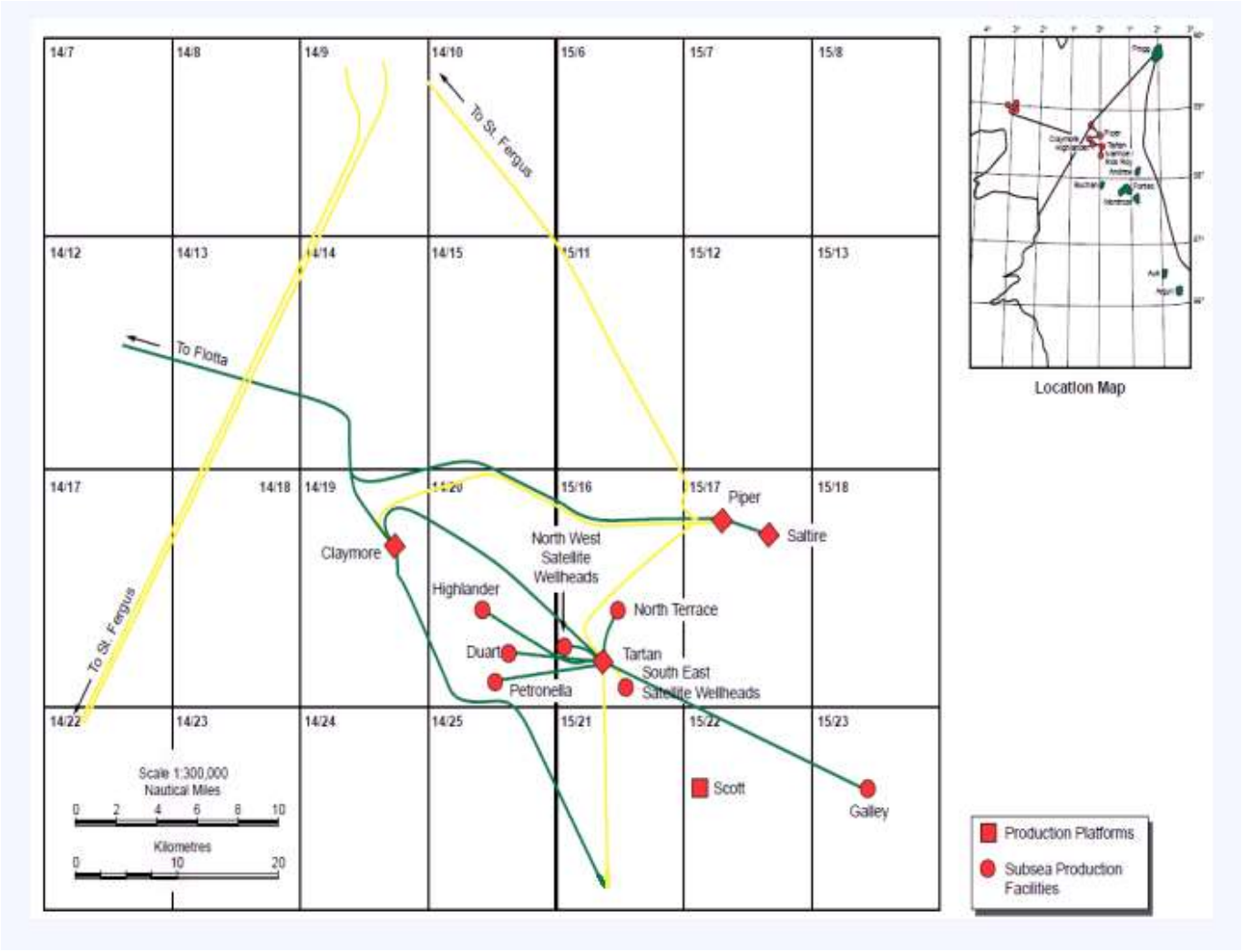
Impacts of Decommissioning Proposals

None of the adjacent facilities listed above are affected by these decommissioning programmes. However, the operators of these installations will be contacted to investigate any benefits and cost savings available through co-operation and alignment of decommissioning activities.

Discussion still to be 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.

NOTE All Duart, Galley, Petronella and Highlander lines are listed in Table1-6, all Tartan Subsea lines are listed in Table 2-3. These are collectively known as the Tartan 'Area' lines. Numerous of these individual lines have multiple Tartan 'Area' in-field crossings and due to the sheer quantity, they are not listed in Table 1-6. It is, however, recognised that these crossings will impact the methodology and sequencing of the individual lines as part of the overall decommissioning campaign.

Figure 1-4: Adjacent Facilities



1.7 Industrial Implications

It is Repsol Sinopec Resources UK Limited's 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 Tartan Subsea decommissioning activities with other developments or decommissioning activities 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 OGA and other industry bodies in engagement sessions with the decommissioning supply chain on issues relating to these DPs and timelines, including engaging directly with disposal yards that serve the North Sea;
- Utilising the First Point Assessment (FPAL) database 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 OGA.

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									

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
Tartan North Terrace					
TNT Gas Lift Tee Piece (pipework)	1	4.1m (L) x 0.7m (W) x 0.3m (H) 5.0Te	WGS84 Decimal	58.398283 0.076178	Structure is a gravity-base structure, with no protection.
			WGS84 Decimal Minute	58° 23' 53.82" N 00° 04' 34.24" E	
Tartan North West					
Well 15/16-10 (TS10) WHPS	1	17.4m (L) x 14.8m (W) x 11.1m (H) 66Te	WGS84 Decimal	58.376350 0.019631	Structure is a gravity base structure providing independent protection to Xmas tree. Structure & Xmas tree to be removed during P&A activity.
			WGS84 Decimal Minute	58° 22' 34.86" N 00° 01' 10.67" E	
Well 15/16-12 (TS12) WHPS	1	17.4m (L) x 14.8m (W) x 11.1m (H) 66Te	WGS84 Decimal	58.376436 0.019305	Structure is a gravity base structure providing independent protection to Xmas tree. Structure & Xmas tree to be removed during P&A activity.
			WGS84 Decimal Minute	58° 22' 35.17" N 00° 01' 09.50" E	
	1	18.0m (L) x	WGS84	58.376500	

Table 2-2: Subsea Installations and Stabilisation Features					
Subsea installations including Stabilisation Features	**Number**	**Size(m)/Weight (Te)**	**Location**		**Comments/Status**
Well 15/16-15 (TS15) WHPS		18.0m (W) x 7.8m (H) 36Te	Decimal	0.019064	Structure is a gravity base structure providing independent protection to Xmas tree. Structure & Xmas tree to be removed during P&A activity.
			WGS84 Decimal Minute	58° 22' 35.40" N 00° 01' 08.63" E	
North West Anode Skid 1	1	12.2m (L) x 2.4m (W) x 1.0m (H) 7Te	WGS84 Decimal	58.376197 0.019481	Structure is a gravity-base structure, with no protection.
			WGS84 Decimal Minute	58° 22' 34.31" N 00° 01' 10.13" E	
North West Anode Skid 2	1	12.2m (L) x 2.4m (W) x 1.0m (H) 7Te	WGS84 Decimal	58.376550 0.019697	Structure is a gravity-base structure, with no protection.
			WGS84 Decimal Minute	58° 22' 35.58" N 00° 01' 10.91" E	
North West Anode Skid 3	1	12.2m (L) x 2.4m (W) x 1.0m (H) 7Te	WGS84 Decimal	58.376550 0.018772	Structure is a gravity-base structure, with no protection.
			WGS84 Decimal Minute	58° 22' 35.58" N 00° 01' 07.58" E	
TOES Block A	1	2m (L) x 2m (W) x 0.5m (H) 5Te	WGS84 Decimal	58.368531 0.068558	Structure is a gravity-base structure c/w buoy with a submerged upward thrust of 0.6Te.
			WGS84 Decimal Minute	58^0 22' 06.71" N 00^0 04' 06.81" E	
TOES Block B	1	2m (L) x 2m (W) x 0.5m (H) 5Te	WGS84 Decimal	58.368714 0.068436	Structure is a gravity-base structure c/w buoy with a submerged upward thrust of 0.6Te.
			WGS84 Decimal Minute	58^0 22' 07.37" N 00^0 04' 06.37" E	
TOES Block C	1	2m (L) x 2m (W) x	WGS84 Decimal	58.370328 0.068953	Structure is a gravity-base structure c/w

Table 2-2: Subsea Installations and Stabilisation Features					
Subsea installations including Stabilisation Features	**Number**	**Size(m)/Weight (Te)**	**Location**		**Comments/Status**
		0.5m (H) 5Te	WGS84 Decimal Minute	58^0 22' 13.18" N 00^0 04' 08.23" E	buoy with a submerged upward thrust of 0.6Te.
TOES Block D	1	2m (L) x 2m (W) x 0.5m (H) 5Te	WGS84 Decimal	58.370478 0.0.69156	Structure is a gravity-base structure c/w buoy with a submerged upward thrust of 0.6Te.
			WGS84 Decimal Minute	58^0 22' 13.72" N 00^0 04' 08.96" E	
Tartan South East					
Well 15/16-11 (TS11) WHPS	1	17.4m (L) x 14.8m (W) x 11.1m (H) 66Te	WGS84 Decimal	58.347281 0.113356	Structure is a gravity-base structure providing independent protection to Xmas tree. Structure & Xmas tree to be removed during P&A activity.
			WGS84 Decimal Minute	58° 20' 50.21" N 00° 06' 48.08" E	
Well 15/16-13 (TS13) WHPS	1	18.0m (L) x 18.0m (W) x 7.8m (H) 36Te	WGS84 Decimal	58.347086 0.019305	Structure is a gravity-base structure providing independent protection to Xmas tree. Structure & Xmas tree to be removed during P&A activity.
			WGS84 Decimal Minute	58° 20' 49.51" N 00° 06' 49.28" E	
Well 15/16-16 (TS16) WHPS	1	17.4m (L) x 14.8m (W) x 11.1m (H) 66Te	WGS84 Decimal	58.346964 0.114000	Structure is a gravity-base structure providing independent protection to Xmas tree. Structure & Xmas tree to be removed during P&A activity.
			WGS84 Decimal Minute	58° 20' 49.07" N 00° 06' 50.40" E	
South East Anode Skid 1	1	12.2m (L) x 2.4m (W) x 1.0m (H) 7Te	WGS84 Decimal	58.347361 0.113100	Structure is a gravity-base structure, with no protection.
			WGS84 Decimal	58° 20' 50.50" N 00° 06' 47.16" E	

Table 2-2: Subsea Installations and Stabilisation Features					
Subsea installations including Stabilisation Features	**Number**	**Size(m)/Weight (Te)**	**Location**		**Comments/Status**
			Minute		
South East Anode Skid 2	1	12.2m (L) x 2.4m (W) x 1.0m (H) 7Te	WGS84 Decimal	58.346894 0.113386	Structure is a gravity-base structure, with no protection.
			WGS84 Decimal Minute	58° 20' 48.82" N 00° 06' 48.19" E	
South East Anode Skid 3	1	12.2m (L) x 2.4m (W) x 1.0m (H) 7Te	WGS84 Decimal	58.346714 0.113847	Structure is a gravity-base structure, with no protection.
			WGS84 Decimal Minute	58° 20' 48.17" N 00° 06' 49.85" E	
Wye Piece (incl. Pipework)	1	2.4m (L) x 1.4m (W) x 0.4m (H) 0.5Te	WGS84 Decimal	58.347106 0.114133	Structure is a gravity-base structure, with no protection.
			WGS84 Decimal Minute	58° 20' 49.58" N 00° 06' 50.88" E	
Sensor Spool Skid (incl. Pipework)	1	1.4m (L) x 0.6m (W) x 0.8m (H) 2Te	WGS84 Decimal	58.347281 0.113356	Structure is a gravity-base structure, afforded protection by the Well 15/16-11 (TS11) WHPS, by being on the seabed underneath / within the footprint of the Well 15/16-11 (TS11) WHPS.
			WGS84 Decimal Minute	58° 20' 50.21" N 00° 06' 48.08" E	
Protection Structure part of Subsea Water Injection Manifold (SWIM)	1	6.5m (L) x 5.9m (W) x 2.3m (H) 9Te	WGS84 Decimal	58.346911 0.114883	Redundant gravity-base structure, wet stored.
			WGS84 Decimal Minute	58° 20' 48.88" N 00° 06' 53.58" E	
Manifold Skid part of Subsea Water Injection Manifold (SWIM) (incl. Pipework)	1	3.8m (L) x 3.5m (W) x 1.9m (H) 9Te	WGS84 Decimal	58.347106 0.114817	Redundant gravity-base structure, wet stored.
			WGS84 Decimal Minute	58° 20' 49.58" N 00° 06' 53.34" E	

Table 2-2: Subsea Installations and Stabilisation Features					
Subsea installations including Stabilisation Features	**Number**	**Size(m)/Weight (Te)**	**Location**		**Comments/Status**
Tartan Oil Export					
Tartan SSIV (ESV1) (incl. Pipework)	1	13.0m (L) x 4.8m (W) x 2.5m (H) 40.77Te	WGS84 Decimal	58.369419 0.069389	Structure is an in-line gravity-base structure, afforded protection by protection frame.
			WGS84 Decimal Minute	58^0 22' 09.91" N 00^0 04' 09.80" E	
Tartan SSIV Skid Protection Frame	1	16.2m (L) x 8.8m (W) x 3.5m (H) 37.15Te	WGS84 Decimal	58.369419 0.069389	Structure is a gravity-base structure, affording protection to in-line skid.
			WGS84 Decimal Minute	58^0 22' 09.91" N 00^0 04' 09.80" E	
Claymore SSIV (ESV5661) (incl. Pipework)	1	12.4m (L) x 12.2m (W) x 4.2m (H) 52.57Te	WGS84 Decimal	58.450147 0.256072	Structure is an in-line gravity-base structure, afforded protection by protection frame.
			WGS84 Decimal Minute	58^0 27' 00.53" N 00^0 15' 21.86" E	
Claymore SSIV Skid Protection Frame	1	16.2m (L) x 14.0m (W) x 5.0m (H) 37.15Te	WGS84 Decimal	58.450147 0.256072	Structure is a gravity-base structure, affording protection to in-line skid.
			WGS84 Decimal Minute	58^0 27' 00.53" N 00^0 15' 21.86" E	
Claymore Protection Cage No.1 (Riser Tie-in Spool No.1)	1	19.2m (L) x 10.2m (W) x 3.2m (H) 168.99Te	WGS84 Decimal	58.449072 0.255008	Structure is a gravity-base structure, affording protection to spool-pieces.
			WGS84 Decimal Minute	58^0 26' 56.66" N 00^0 15' 18.03" E	
Claymore Protection Cage No. 2 (Riser Tie-in Spool No.2)	1	9.4m (L) x 12.0m (W) x 3.2m (H) 125.27Te	WGS84 Decimal	58.449167 0.254778	Structure is a gravity-base structure, affording protection to spool-pieces.
			WGS84 Decimal Minute	58^0 26' 57.00" N 00^0 15' 17.20" E	
Claymore Protection Cage No.3 (Claymore SSIV- ESV5661)	1	7.5m (L) x 4.9m (W) x 2.1m (H) 50.14Te	WGS84 Decimal	58.449247 0.254806	Structure is a gravity-base structure, affording protection to spool-pieces.
			WGS84 Decimal	58^0 26' 57.29" N 00^0 15' 17.30" E	

Table 2-2: Subsea Installations and Stabilisation Features					
Subsea installations including Stabilisation Features	**Number**	**Size(m)/Weight (Te)**	**Location**		**Comments/Status**
			Minute		
Tartan Gas Import					
Tartan SSIV (ESV2) (incl. Pipework)	1	11.0m (L) x 4.4m (W) x 2.4m (H) 23.2Te	WGS84 Decimal	58.370033 0.068842	Structure is an in-line gravity-base structure, afforded protection by protection frame.
			WGS84 Decimal Minute	58^0 22' 12.12" N 00^0 04' 07.83" E	
Tartan SSIV Skid Protection Frame	1	14.2m (L) x 6.5m (W) x 3.5m (H) 33.9Te	WGS84 Decimal	58.370033 0.068842	Structure is a gravity-base structure, affording protection to in-line skid.
			WGS84 Decimal Minute	58^0 22' 12.12" N 00^0 04' 07.83" E	
Piper Wye (incl. Pipework)	1	21.7m (L) x 15.3m (W) x 4.1m (H) 133Te	WGS84 Decimal	58.465864 0.226269	Structure is a gravity-base structure, affording protection to separate wye pipework (weight of which is included in the overall structure weight).
			WGS84 Decimal Minute	58^0 27' 57.11" N 00^0 13' 34.57" E	
Grout Skirt	1	110.25Te	WGS84 Decimal	58.465864 0.226269	Grout was a "pumped" grout skirt around entire perimeter of Piper Wye Structure.
			WGS84 Decimal Minute	58^0 27' 57.11" N 00^0 13' 34.57" E	

2.3 Pipelines Including Stabilisation Features

Table 2-3: Pipeline/Flowline/Umbilical Information									
Description	**Pipeline Number[1]**	**Diameter (inches)**	**Length (km)**	**Description of Component Parts**	**Product Conveyed**	**From – To End Points**	**Burial Status[2]**	**Pipeline Status**	**Current Content**
Tartan North Terrace									
Production Pipeline	PL2013	6	3.603	carbon steel / plastic coatings	Oil	Adjacent to recovered TNT Tree to dis-connection at Ex. TNT Tee Piece	Trenched / Backfilled	Out of Use	Treated seawater
Gas Lift Riser / Pipeline	PL2014	3	3.569	carbon steel / plastic coatings	Lift Gas	Tartan Alpha Platform to Adjacent to recovered TNT Tree	Trenched / Backfilled	Out of Use	Treated seawater
Umbilical	PLU2015[3]	5.2	3.600	Electrical, Hydraulic & Chemical Carbon steel / copper / plastic & misc. coatings	Hydraulic Fluid / Chemicals	Tartan Alpha Platform to Adjacent to recovered TNT Tree	Trenched / Backfilled	Out of Use	Hydraulic cores filled with Pelagic 100 Chemical cores filled with Treated Seawater
Umbilical	PL4024	1.0	0.003	Chemical Carbon steel / plastic & misc. coatings	Chemicals	Loop connected to SUTU at TNT	Surface laid	Out of Use	Treated seawater
Umbilical	PL4025	1.0	0.003	Chemical Carbon steel / plastic & misc. coatings	Chemicals	Loop connected to SUTU at TNT	Surface laid	Out of Use	Treated seawater

Tartan North West									
Water Injection Riser / Pipeline	PL137	6	3.795	carbon steel / plastic coatings	Water Injection	Tartan Alpha Platform to Well 15/16-10 (TS10)	Surface laid	Out of Use	Filled with water injection fluids
Water Injection Riser / Pipeline	PL178	6	3.793	carbon steel / plastic coatings	Water Injection	Tartan Alpha Platform to Well 15/16-15 (TS15)	Surface laid	Out of Use	Filled with water injection fluids
Umbilical	PLU4212	2.5	3.600	Hydraulic Carbon steel / plastic & misc. coatings	Hydraulic Fluid	Tartan Alpha Platform to Well 15/16-10 (TS10)	Surface laid	Out of Use	Hydraulic cores filled with Pelagic 100
Umbilical	PLU4213	3	3.600	Hydraulic Carbon steel / plastic & misc. coatings	Hydraulic Fluid	Tartan Alpha Platform to Well 15/16-15 (TS15)	Surface laid	Out of Use	Hydraulic cores filled with Pelagic 100
Tartan South East									
Water Injection Pipeline	PL138	6	3.540	carbon steel / plastic coatings	Water Injection	Blinded Big Inch Connecter (adjacent Petronella Gas Lift SSIV) to Sensor spool at Well 15/16-11 (TS11)	Surface laid	Out of Use	Filled with water injection fluids
Water Injection Riser / Pipeline	PL199	6	3.540	carbon steel / plastic coatings	Water Injection	Tartan Alpha Platform to Well 15/16-13 (TS13)	Surface laid	Out of Use	Filled with water injection fluids
Water Injection Jumper	PL174	4	0.016	carbon steel / plastic & misc. coatings	Water Injection	Wye Piece to Sensor spool at Well 15/16-16 (TS16)	Surface laid	Out of Use	Filled with water injection fluids

Umbilical / Umbilical Jumper	PLU4215	2.5	3.530	Hydraulic / Chemical Carbon steel / plastic & misc. coatings	Hydraulic Fluid / Chemical	Tartan Alpha Platform to Well 15/16-11 (TS11)	Surface laid	Out of Use	Hydraulic cores filled with Pelagic 100 / Chemical cores filled with treated seawater
Umbilical / Umbilical Jumper	PLU4214	3	3.580	Hydraulic Carbon steel / plastic & misc. coatings	Hydraulic Fluid	Tartan Alpha Platform to Well 15/16-13 (TS13)	Surface laid	Out of Use	Hydraulic cores filled with Pelagic 100
Tartan Oil Export									
Oil Export Pipeline	PL18[4]	24	27.085	carbon steel / plastic coatings / concrete coating	Oil	Tartan Alpha Platform to Claymore Alpha Platform	Trenched / Natural Backfill	Out of Use	Treated Seawater
Umbilical	PLU5048	3.15	0.300	Electrical / Hydraulic Carbon steel / copper / plastic & misc. coatings	Hydraulic Fluid	SUDS to Tartan Oil Export SSIV (ESV1)	Surface laid	Out of Use	Hydraulic cores filled with Pelagic 100
Umbilical	PLU5049	3.15	0.105	Electrical / Hydraulic Carbon steel / copper / plastic & misc. coatings	Hydraulic Fluid	Claymore Production Platform to Claymore SSIV (ESV5661)	Surface laid	Out of Use	Hydraulic cores filled with Pelagic 100
Tartan Gas Import									
Gas Import Pipeline	PL14	18	17.171	carbon steel / plastic coatings / concrete coating	Gas	Claymore Wye Piece to Tartan Alpha Platform	Trenched / Natural Backfill	Out of Use	Seawater
Umbilical	PLU5050	3.15	0.090	Electrical / Hydraulic	Hydraulic Fluid	Tartan Oil Export SSIV (ESV1) to	Surface laid	Out of Use	Hydraulic cores filled with Pelagic 100

				Carbon steel / copper / plastic & misc. coatings		Tartan Gas Import SSIV (ESV2)			

Note 1 All above PL numbers include corresponding jumpers and spool pieces where applicable

Note 2 Burial Status, when quoted trenched and buried is for main pipeline/ umbilical (jumpers and spool pieces at pipeline ends are surface laid)

Note 3 Further umbilical short loops PL4024 and PL4025 (both 3m in length) attached to the SUTU remain in-situ (as part of the Tartan North Terrace umbilical PLU2015). These lines are integral to this umbilical PLU2015 and as such are not included as separate line items in this table.

Note 4 The PL18 riser section to Claymore CCP topsides currently resides in the Tartan Subsea DP. Subject to the removal contractor's proposal as part of the execution phase, any changes to this interface will be reviewed and addressed prior to any execution work commencing offshore.

Table 2-4: Subsea Pipeline Stabilisation Features

Stabilisation Feature	Total Number	Weight (Te)	Location(s)	Exposed/Buried/Condition
Tartan North Terrace				
Concrete mattresses (109 x 4.7Te / 6x3x0.15m)	109	512.3	Tartan Alpha Platform/ TNT Well end	Exposed
Grout Bags (25kg)	150	3.8	Tartan Alpha Platform/ TNT Well end	Exposed
Rock cover	N/A	12500	Intermittently along pipeline routes	N/A
Tartan North West				
Concrete mattresses (1 x 4.7Te / 6x3x0.15m)	1	4.7	Well 15/16-10 (TS10)	Exposed
Tartan South East				
Grout Bags (25kg)	150	3.8	Well 15/16-13 (TS13)/ Well 15/16-16 (TS16)	Exposed
Tartan Oil Export				
Timber Mud Mats (6 x 1.9Te / 7.5x2x0.3m)	6	11.4	Tartan Alpha Platform	Exposed

Grout Bags (25kg)	723	18.1	Tartan Alpha Platform/ Claymore Alpha Platform	Exposed
Concrete mattresses (90 x 4.7Te / 6x3x0.15m)	90	423.0	Intermittently along pipeline route	Exposed
Concrete Protection Units (53 x 11.5Te/ 3.3x4.9x2.1m, 1 x 13Te/ 3.3x5.8x1.5m & 11 x 14Te / 3.3x5.8x1.5m)	65	776.5	Claymore Alpha Platform	Exposed
Rock cover	N/A	1130	Intermittently along pipeline routes	N/A
Tartan Gas Import				
Timber Mud Mats (3 x 1.9Te / 7.5x2x0.3m)	3	5.7	Tartan Alpha Platform	Exposed
Grout Bags (25kg)	130	3.25	Tartan Alpha Platform	Exposed
Concrete mattresses (6 x 4.7Te / 6x3x0.15m)	6	28.2	Tartan Alpha Platform/ Piper Wye structure	Exposed
Rock cover	N/A	633	Intermittently towards Tartan Alpha Platform/ Piper Wye structure	N/A

2.4 Wells

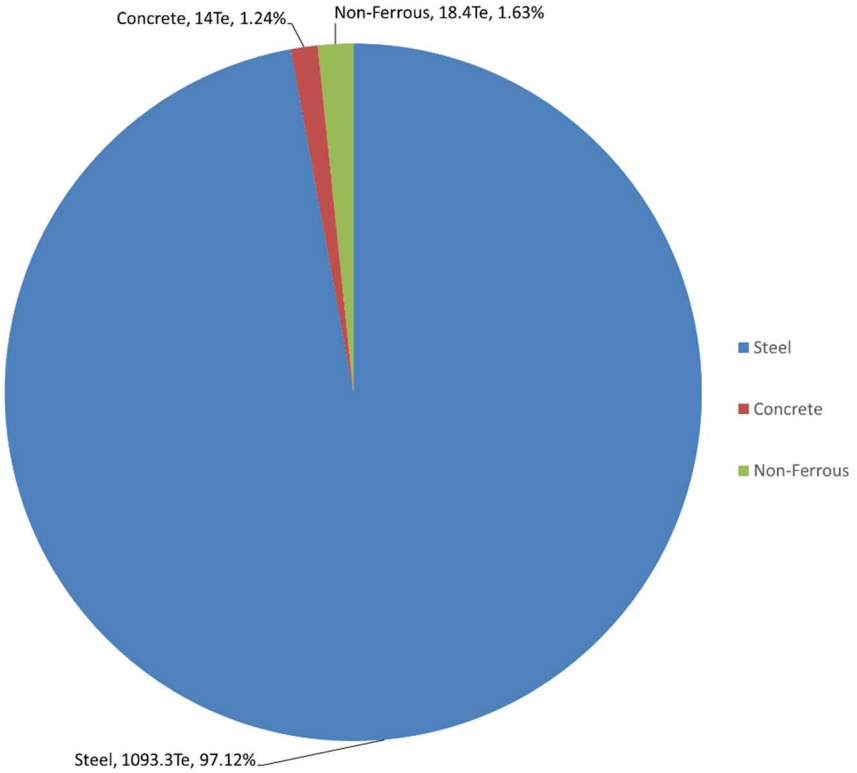
Table 2-5: Well Information			
Platform Wells	**Designation**	**Status**	**Category of Well**
None			
Subsea Wells	**Designation**	**Status**	**Category of Well**
Tartan Subsea			
15/16-1	Exploration	Abandoned	N/A
TS10	Water Injector	Plugged	SS 3/0/1
TS11	Producer	Plugged	SS 4/0/1
TS12	Producer	Shut-in	SS 4/3/1
TS13	Water Injector	Plugged	SS 4/0/1
15/16-14Z	Appraisal	Abandoned	N/A
TS15	Gas Lift Producer	Shut-in	SS 4/0/1
TS16	Water Injector	Shut-in	SS 4/3/1
15/16-2Z	Appraisal	Abandoned	N/A
15/16-3Z	Appraisal	Abandoned	N/A
15/16-4	Appraisal	Abandoned	N/A
15/16-4A	Appraisal	Abandoned	N/A
15/16-5	Appraisal	Abandoned	N/A
15/16-6	Appraisal	Abandoned	N/A
15/16-7	Appraisal	Abandoned	N/A
15/16-8	Appraisal	Abandoned	N/A
15/16-9	Appraisal	Abandoned	N/A
15/16a-23	Exploration	Abandoned	N/A
15/16a-24	Producer	Suspended	SS 3/3/1
15/16a-25	Appraisal	Abandoned	N/A
15/16a-26Y	Gas Lift Producer	Abandoned	N/A
15/16b-17	Appraisal	Abandoned	N/A
15/16b-18	Exploration	Abandoned	N/A
15/16b-19	Exploration	Abandoned	N/A
15/16b-20	Exploration	Abandoned	N/A
15/16b-21	Exploration	Abandoned	N/A
15/16b-22Z	Appraisal	Abandoned	N/A

2.5 Drill Cuttings

Table 2-6: Drill Cuttings Pile(s) Information			
Location of Pile Centre (Latitude/Longitude)		**Seabed Area (m^2)**	**Estimated volume of cuttings (m^3)**
Pile 1	TNW cuttings pile: 58° 22' 35.17" N 00° 01' 09.50" E	955	225
Pile 2	TSE cuttings pile: 58° 20' 49.51" N 00° 06' 49.28" E	851	198

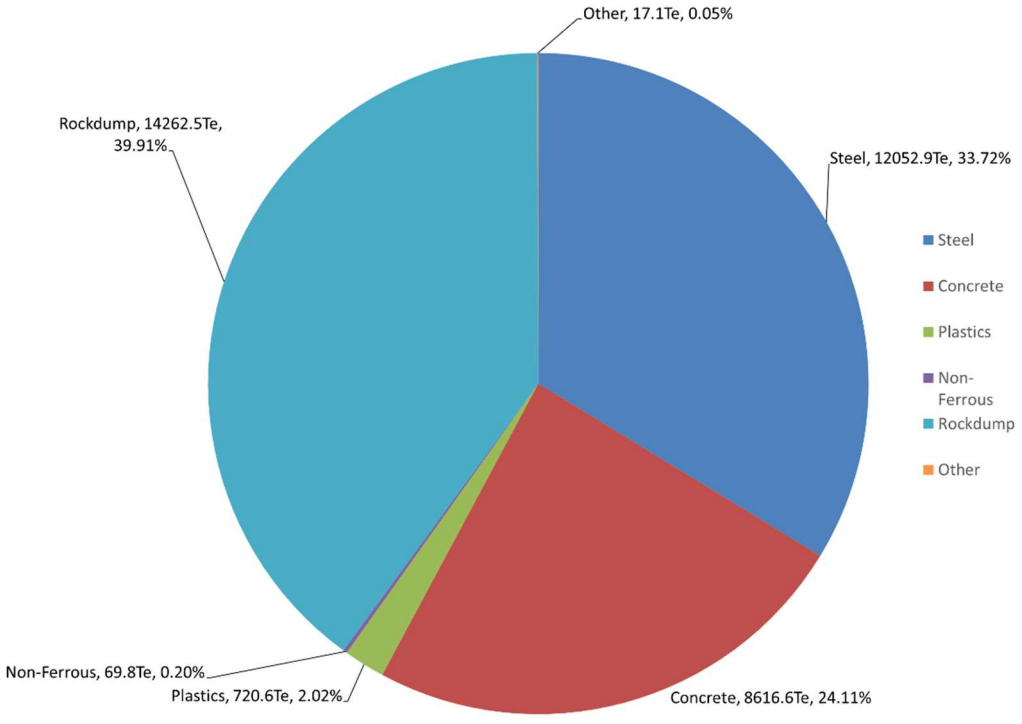
2.6 Inventory Estimates

Figure 2-1: Estimated Inventory – Subsea Tartan Installations



Total Mass = 1,125.7 Te

Figure 2-2: Estimated Inventory – Tartan Pipelines, Umbilicals, Risers & Stabilisation Features



Total Mass = 35,739.5 Te

Note: The 'Other' is made up of 17.1Te timber mattresses.

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 Tartan Subsea 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 installations as appropriate.

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) ☐ 2) SLV ☐ 3) Piece small ☐ 4) Other ☐	
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) ☐ 2) SLV ☐ 3) Piece small ☐ 4) Other	
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)**
Tartan Northern Terrace			
TNT Gas Lift Tee Piece	1	Full Removal	Return to shore for reuse/ recycling/ disposal
Tartan North West			
WHPS (TS10; TS12; TS15)	3	Full Removal	Return to shore for reuse/ recycling/ disposal
North West Anode Skids (1, 2 & 3)	3		
Tartan South East			
WHPS (TS11, TS13, TS16)	3	Full Removal	Return to shore for reuse/ recycling/ disposal
South East Anode Skids (1, 2 & 3)	3		
Wye Piece	1		
Sensor Spool Skid	1		
Protection Structure part of Subsea Water Injection Manifold (SWIM)	1		
Manifold Skid part of Subsea Water Injection Manifold (SWIM)	1		
Tartan Oil Export			
Tartan SSIV (ESV1)	1	Full Removal	Return to shore for reuse/ recycling/ disposal
Tartan SSIV Skid Protection Frame	1		
Claymore SSIV (ESV5661)	1		
Tartan SSIV Skid Protection Frame	1		
Claymore Protection Cage (No.1; No.2 & No.3)	3		
Tartan Gas Import			
Tartan SSIV (ESV2)	1	Full Removal	Return to shore for reuse/ recycling/ disposal
Tartan SSIV Skid Protection Frame	1		
Piper Wye	1		
Exposed Grout Bags (25kg)	4410		

TOES (Totally Enclosed Motor Propelled Survival Craft (TEMPSC) Orientation and Evacuation System (TOES)) Subsea Structures			
TOES Block	4	Full Removal	Return to shore for reuse/ recycling/ disposal

3.4 Pipelines

Decommissioning Options:

*Key to Options:

1) Total removal - by reverse reeling
2) Total removal – by reverse S-lay [Note 1]
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
Group A: PL18 (KP 0.000 to KP 15.602) & PL14	Rigid Trunk Pipelines, Concrete Coated and Trenched and Buried	Whole pipeline group	3), 4), 5), 6) and Leave in situ and monitor [Note5]
Group B: PL137, PL138, PL178, PL199, PLU4212, PLU4213, PLU4214 & PLU4215	Rigid Pipelines and Umbilicals, Surface Laid	Part of a pipeline group covering pipelines in other fields within the Tartan Area [Note 4]	1), 3), 4) & 5)
Group C: PL2013, PL2014 & PLU2015	Rigid Pipelines and Umbilicals, Trenched and Buried	Part of a pipeline group covering pipelines in other fields within the Tartan Area [Note 4]	1), 4), 5) & 6)
Group F PL18 (KP 15.602 to KP 26.560)	Rigid Trunk Pipeline, Concrete Coated and Partially Trenched and Buried [Note 3]	Whole pipeline group	3), 4), 5), 6) and Leave in situ and monitor [Note 5]

Notes

1. Option 2) Total Removal by Reverse S-Lay was discounted for pipeline Groups B and C during the pre-screening studies and before the CA workshop as these pipeline groups with smaller diameter pipelines could be recovered using reverse reeling techniques, which achieved a Total Removal Option in a more efficient method, incurring less deck space requirements, less manual handling and lower cost than adopting Reverse S-lay techniques. Option 2) Total Removal by Reverse S-Lay was also discounted for Trunkline Groups A and F during pre-screening studies as these trunklines have aged concrete coating and as there is no industry track record of reverse S-Lay of concrete coated pipe, there is concern that the deterioration of the concrete coating over time would hinder initial pick up of the pipe and may result in sections of concrete coating falling off during recovery. A Total Removal by Cut and Lift was assessed for Groups A and F during the workshop.

2. DOL denotes distance from mean seabed level to top of pipe within an existing trench.

3. PL18 (KP 15.602 to KP 26.560) was assessed separately under Group F from PL18 (KP 0.000 to KP 15.603) Group A, as the Group F section of trunkline status on the seabed is different from the upstream section of trunkline assessed under Group A. The trunkline section under group F is in an open trench with an average burial depth of 0.44m to top of pipe. Total length of exposures is 1.49km, with mid-line exposures of 1.3km approximately with some large length exposures of approximately 0.5km currently covered with mattresses and concrete blocks. This is different from the trunklines assessed under Group A, where both lines are

fully trenched and buried to an average burial depth of more than 0.6m to top of pipe, exposures on these trunklines are mainly at the pipeline ends, with a very short mid-line exposure only.

4. One combined CA workshop was convened covering all pipelines and umbilicals across all fields within the Tartan Development Area and for expediency some pipeline groups with similar facets were grouped together, regardless of field location. Only pipelines/umbilicals within the Tartan Subsea field are reported in this table, with other pipelines within the pipeline groups located in other fields reported in their applicable Decommissioning Programme. See Figure 3-1 for details.

5. Large diameter trunk lines which are not trenched and buried have been identified in the BEIS Guidance Notes as potential candidates for decommissioning in-situ, subject to the outcome of a CA evaluation, the trunklines in Group A and F fall into this category. Therefore, an additional decommissioning option of Leave In situ and monitor has been assessed in the CA workshop for Groups A and F. This Leave In-situ option would mean that no remedial action would be required to the pipelines, but that periodic monitoring would be required, with the specifics of monitoring agreed with OPRED.

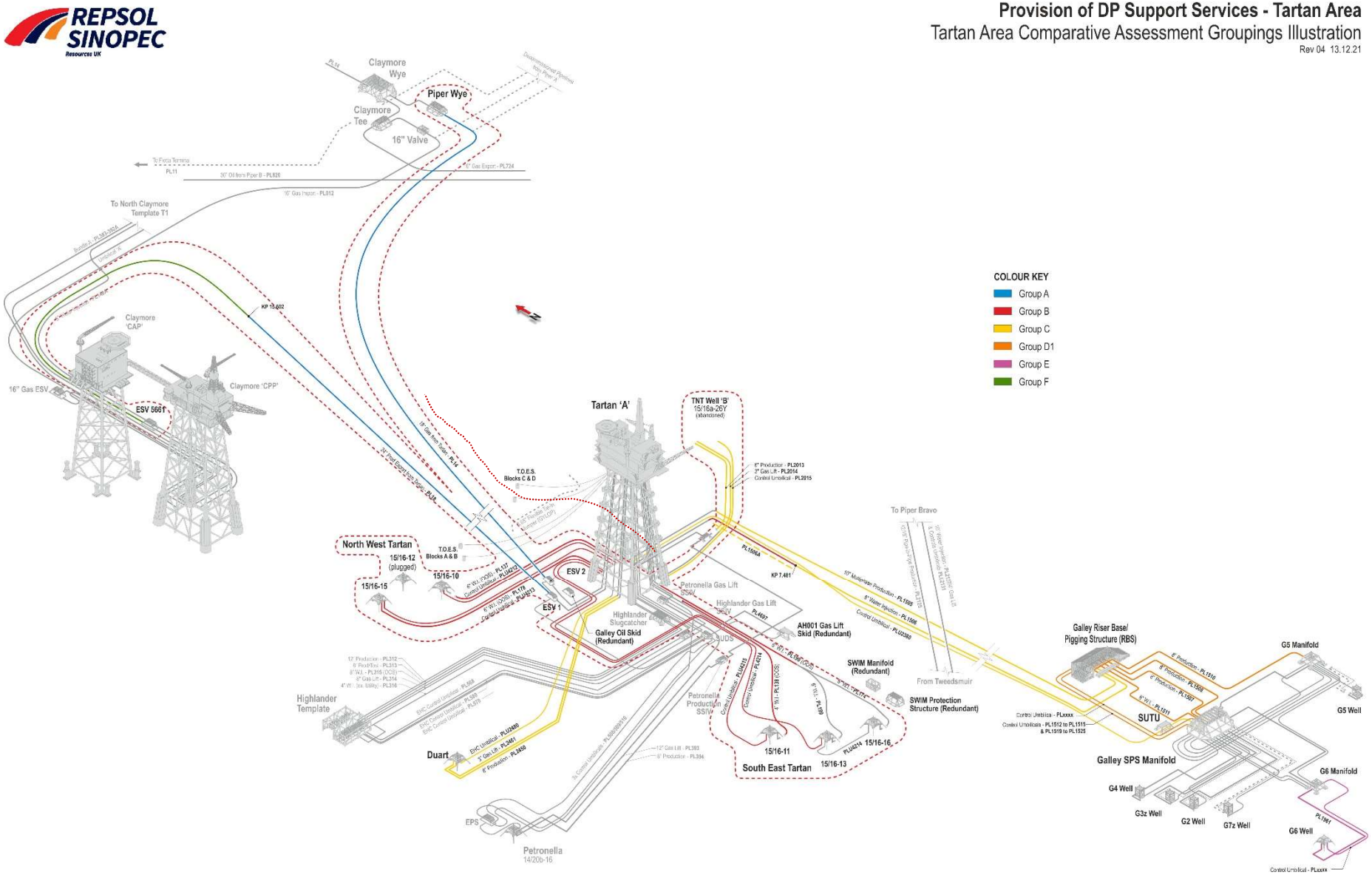
Comparative Assessment Method:

A Comparative Assessment (CA) was carried out for all pipelines and umbilicals in line with the recommendations of the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) Guidance Notes. 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 Oil and Gas UK (OGUK).

A combined CA Workshop covering all pipelines and umbilicals in the Tartan Area 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 trunklines, pipelines and umbilicals associated with the Tartan Subsea field only is described in these Decommissioning Programmes.

Figure 3-1: Field Layout showing Pipeline Groups



Outcome of Comparative Assessment:

Table 3-6: Outcome of Comparative Assessment		
Pipeline or Group (as per PWA)	**Recommended Option**	**Justification**
Group A	Option 5) Decommission by leaving trenched and buried sections in situ and remediating the exposed sections by trench and bury techniques Note1.	This group consists of two large diameter, concrete coated trunklines each 15km and 18.5km long. Both trunklines are fully trenched buried to an average burial depth of more than 0.6m to top of pipe, exposures are mainly at pipeline ends, with a very short mid-line exposure only. Option 3) was discounted during the CA based on the comparatively poor evaluation on 3 main criteria: - The technical uncertainties associated with cutting and lifting sections of the trunklines which have known to suffer internal corrosion and have lost 60% to 70% of their wall thickness in some areas - The significant vessel durations involved in recovery of the lines which is estimated to be *c.* 21 months to recover both pipelines. By comparison to the remediate in-situ Option 4), 5) and 6) which have an overall vessel duration of between 3 to 4 weeks. The much longer vessel durations of Option 3) would therefore impose an increased safety risk and cost than the other options. - The much poorer environmental performance than the remediate insitu options in terms of the extent of onshore waste processing anticipated with *c.*13,579te of materials returned onshore and potentially *c.*5,309te of this to landfill. The Leave in situ and monitor option (do nothing) was also discounted during CA as it was assessed as having the greatest increased risk to other users of the sea of all the options evaluated. - This increased risk from exposed sections of pipeline decommissioned in-situ, with no mitigation introduced to prevent snagging from over trawling. - The exposed pipeline sections will deteriorate overtime which may lead to increased snagging risk to trawling nets. This snagging risk may also have a commercial impact on the fishing industry (under the main criteria Societal), due to the potential for lost nets and the fishermen introducing a self-imposed exclusion zone. Also, the long term economic risk of the leave in situ and monitor option was rated as Moderate Impact (Amber) due to anticipated ongoing and prolonged monitoring surveys and the increased potential of future remedial action required and therefore cost, compared to the other decommissioning options.

		Each of the Remediate In-situ options 4) with exposed sections rock covered, 5) with exposed sections trenched and buried and 6) with exposed sections cut and removed, performed much better than the other options discounted above and were evaluated and rated mostly Low Impact (Green) across most of the individual sub-criteria: - Option 6) is only rated marginally worse than Option 5), by one additional Moderate Impact (Amber) under the sub-criterion "Risk to Project Personnel" due to the fact Option 6) recovers a small quantity of materials to the vessel deck to be handled by the deck crew. - Option 4) is rated marginally worse than Option 5) and 6), mainly due to the fact Option 4) introduces a number of small new rock berms to the seabed, with approximately 978te of new rock over a pipeline length of 100m approximately. This has been rated Moderate Impact (Amber) for both "residual risk to other users of the sea" and "change of habitat long term" Note 2.
Group B	Option 1) Decommission by Total Removal by Reverse Reeling	The lines are surface laid with no evidence of self-burying from survey reports. The remediate insitu Options 4) and 5) were discounted during CA as: - Option 4) will require a significant amount of new material (187,000te of rock cover) to be introduced to the seabed to cover all pipelines in Group B across the field; - The pipelines in Group B across the field cross each other 42 times with many crossings near each other making Option 5) trench and bury techniques technically difficult between these crossings and trench and burial could not be achieved at the many pipelines crossings and at these locations may require an alternative solution such as spot rock cover or cut and lift. This would result in increased complexity and uncertainty in the vessel durations for Option 5) compared to other options. Since all lines in this group are surface laid Option 6) Remediate in-situ with exposed sections cut and lift, is the same as Option 3) Total Removal by cut and lift and therefore was not considered in the CA. Option 3) was also discounted during the CA due to the significant vessel durations involved in recovery of the lines which is estimated to be *c.*19 months to recover all pipelines in Group B across the field. By comparison to option 1) Total Removal by Reverse Reeling which has an overall vessel duration of less than 3 weeks for all of Group B across the field and achieves the same end state as Option 3). The much longer vessel durations of Option 3) would therefore impose an increased safety risk and cost than the other options.
Group C	Option 5)	The pipelines and umbilicals in this group are buried to an average depth greater than 0.6m to top of pipe and, based

	Decommission by leaving trenched and buried sections in situ and remediating the exposed sections by trench and bury techniques [Note1.]	on a review of the historic survey information it is expected or has been demonstrated that these pipelines and umbilicals will remain buried. Total removal options were discounted for these trenched and buried pipelines as full removal of the lines would be technically challenging, whilst the increased safety risk exposure time to project personnel both offshore and onshore in having to handle large pipeline and umbilical lengths was a concern. In addition, recovery of the buried pipelines would result in excessive seabed disturbance. There will be minimum legacy risk to other users of the sea in leaving these pipelines in situ as historical surveys have demonstrated that the trenched and buried sections of the pipelines will remain buried.
Group F	Option 5) Decommission by leaving trenched and buried sections in situ and remediating the exposed sections by trench and bury techniques [Note1.]	This group consists of one large diameter, concrete coated trunkline 11km long. This section of trunkline is in an open trench with an average burial depth of 0.44m to top of pipe. Total length of exposures is 1.49km, with mid-line exposures of 1.3km approximately with some large length exposures of approximately 0.5km currently covered with mattresses and concrete blocks. Option 3) was discounted during the CA based on the comparatively poor evaluation on 3 main criteria: - The technical uncertainties associated with cutting and lifting sections of the trunklines which have known to suffer internal corrosion and have lost 60% to 70% of their wall thickness in some areas - The significant vessel durations involved in recovery of the lines which is estimated to be *c.* 7.5 months to recover the trunkline. By comparison to the remediate in-situ Option 4), 5) and 6) which have an overall vessel duration of between 3 to 5 weeks. The much longer vessel durations of Option 3) would therefore impose an increased safety risk and cost than the other options. - The much poorer environmental performance than the remediate insitu options in terms of the extent of onshore waste processing anticipated with *c.*5,233te of materials returned onshore and potentially *c.*1,334te of this to landfill. The Leave in situ and monitor option (do nothing) was also discounted during CA as it was assessed as having the greatest increased risk to other users of the sea of all the options evaluated. - This increased risk from the multiple exposed sections of trunkline decommissioned in-situ, with no mitigation introduced to prevent snagging from over trawling. Although it was noted that the mid-line exposures were in an open trench with top of pipe below mean seabed level;

		- The exposed pipeline sections will deteriorate overtime which may lead to increased snagging risk to trawling nets. This snagging risk may also have a commercial impact on the fishing industry (under the main criteria Societal), due to the potential for lost nets and the fishermen introducing a self-imposed exclusion zone.; Economic Risk of the leave in situ and monitor option was rated as Moderate Impact (Amber) due to anticipated ongoing and prolonged monitoring surveys and the increased potential of future remedial action required and therefore cost, compared to the other decommissioning options. Each of the Remediate In situ Options 4) with exposed sections rock covered, 5) with exposed sections trenched and buried and 6) with exposed sections cut and removed, performed much better than the other options evaluated and are rated predominantly Low Impact (Green) across most of the individual sub-criteria. Option 6) is only rated marginally worse than Option 5), by one additional Moderate Impact (Amber) under the sub-criterion "Risk to Project Personnel" due to the fact Option 6) recovers a small quantity of materials to the vessel deck and Option 5) does not. Option 4) is rated marginally worse than Option 5) and 6), mainly due to the fact Option 4) introduces a number of small new rock berms to the seabed, with approximately 978te of new rock over a pipeline length of 100m approximately.

Note 1 The conclusion of the CA was that there is no significant differentiator on each of the remediation options for the exposed sections of trunkline (Group A and F), pipelines and umbilicals (Group C). However, the slight differences have resulted in the remediate in situ options being prioritised for Groups A, C and F as follows:

- Priority 1 – Trench and bury (Option 5)
- Priority 2 – Cut and lift (Option 6)
- Priority 3 – Rock cover (Option 4)

Given that there is no significant differentiator Repsol Sinopec Resources UK Limited intend to carry out a Contracting and Procurement (C&P) engagement exercise and tendering process on all three options for Groups A, C and F and will consult with OPRED should this exercise result in a change in preference of the remediation option from Option 5).

Note 2 Sediments across the Tartan Development Area are considered to represent three main habitats: circalittoral fine mud (EUNIS A5.36), circalittoral sandy mud (EUNIS A5.35) and deep circalittoral mixed sediment (EUNIS A5.45). In addition, the majority of the Tartan Development Area, is considered to meet the criteria for the OSPAR listed threatened and/or declining habitat 'Sea pen and burrowing megafauna communities' as well as the UK Habitat Feature of Conservation Importance and UKBAP habitat 'mud habitats in deep water'.
Where new materials (e.g. Rock cover) is proposed as an option this has been rated more poorly for the Environmental sub criterion "Change to Long Term Habitat" than other options where no new materials are added, the rating applied has taken account of the quantity of new materials added.

3.5 Pipeline Stabilisation Feature(s)

Table 3-7: Pipeline Stabilisation Feature(s)			
Stabilisation feature(s)	**Number**	**Option**	**Disposal Route (if applicable)**
Exposed Concrete Mattresses (13 x 8.3Te; 287 x 4.7Te; 30 x 3.3Te)	206	Full recovery of exposed concrete mattresses. It is intended that the 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 comparative assessment.	Return to shore for reuse/ recycling/ disposal
Exposed Grout Bags (25kg)	1,153	Full recovery.	Return to shore for reuse/ recycling/ disposal
Exposed Timber Mud Mats (1.9Te)	9	Full recovery.	Return to shore for reuse/ recycling/ disposal
Exposed Concrete Protection Units (53 x 11.5Te / 1 x 13Te / 11 x 14Te)	65	Full recovery.	Return to shore for reuse/ recycling/ disposal
Rock cover (Te)	14,263	To remain in place.	N/A

3.6 Wells

Table 3-8: Well Plug and Abandonment
The wells (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 version of the Oil & Gas UK Guidelines for the Suspension and Abandonment of Wells (Issue 6, June 2018).

3.7 Drill Cuttings

Table 3-9: Drill Cuttings decommissioning Options		
How many drill cuttings piles are present?		2
Tick options examined: ☐Remove and re-inject ☐Leave in place ☐Cover ☐Relocate on seabed ☐Remove and treat onshore ☐Remove and treat offshore ☐Other		
Review of Pile characteristics	**Pile 1**	**Pile 2**
How has the cuttings pile been screened? (desktop exercise/actual samples taken)	Samples taken	Samples taken
Dates of sampling (if applicable)	September 2019	September 2019
Sampling to be included in pre-decommissioning survey?	Yes	Yes
Does it fall below both OSPAR thresholds?	Yes	Yes
Will the drill cuttings pile have to be displaced?	Yes	Yes
What quantity (m^3) would have to be displaced/removed?	112[1]	100[1]
Will the drill cuttings pile have to be displaced in order to remove any pipelines?	Yes	Yes
What quantity (m^3) would have to be displaced/removed?	22[1]	20[1]
Have you carried out a Comparative Assessment of options for the Cuttings Pile?	A CA is not required for any of the three piles as they are all below the OSPAR thresholds: however, a BAT assessment to identify optimal approach to managing the cuttings piles was completed.[2]	
[1]. The volume of disturbed cuttings presented are considered to be maximum estimates based on available data e.g. survey reports, ROV footage and PWAs. In addition, there is expected to be overlap between the cuttings disturbed when recovering spools, pipelines etc. and those disturbed when the subsea structures are being recovered. [2]Results of the BAT assessment are provided in Table 1-5.		

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	Residual hydrocarbons will be removed and transported to shore. Pipework 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. All pipelines will be flushed, cleaned and filled with seawater prior to decommissioning activities taking place.
Marine growth	Where necessary and practicable to allow access, some marine growth will be removed offshore. The remainder will be brought ashore and disposed of in accordance with health, safety and environmental protocols.
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 Tartan Area decommissioning Project to maximize the amount of material from the projects 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 in situ
Installations	N/A	N/A	N/A
Subsea Installations	1,125.6	1,125.6	0
Pipelines	35,744.3	3,055.1	32,689.2

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 Tartan Development Area are the Scanner Pockmark SAC, and the Central Fladen NCMPA, located *c.* 25 km west and *c.* 35 km north respectively of the fields. Given the distance to these sites, the activities associated with decommissioning the Tartan Subsea infrastructure will not impact on designated areas.
Seabed	Repsol Sinopec Resources UK Limited commissioned a pre-decommissioning environmental survey in September/October 2019. As part of the survey, video, stills of the seabed and seabed samples were collected to assess the existing environmental conditions. The sediments across the area covered by the pre-decommissioning survey were considered to be relatively homogenous and to comprise three main habitats: circalittoral fine mud (EUNIS A5.36), circalittoral sandy mud (EUNIS A5.35) and deep circalittoral mixed sediment (EUNIS A5.45). The sea pens *Virgularia mirabilis* and *Pennatula phosphorea* and burrows and tracks created by megafauna (e.g. *Nephrops norvegicus*) were widespread throughout the survey area. The majority of the Tartan Development Area, is therefore considered to meet the criteria for the OSPAR listed threatened and/or declining habitat 'Sea pen and burrowing megafauna communities' as well as the UK Habitat Feature of Conservation Importance and UKBAP habitat 'mud habitats in deep water'. Juvenile specimens of the OSPAR protected species ocean quahog (*Arctica islandica*) were recorded across the survey area and two adult specimens were recorded from two samples taken at the TSE drilling location. As a result of the wells drill at the TNW and TSE locations, small cuttings piles occur at each of these drill centres. As captured in Table 2-5 the largest of these piles (TNW) has a volume of 225m^3. The estimated hydrocarbon content within the TNW and TSE cuttings piles is < 0.4 te.
Fish	Several fish species are known to spawn in the area including (but not limited to): cod, whiting, lemon sole, Norway pout, *Nephrops*, and sprat. Group 0 fish for a number of species have been found in the area indicating it is used as a nursery ground for these species including (but not limited to): anglerfish, whiting, cod, hake, haddock, Norway pout, *Nephrops,* blue whiting and sprat. Of the fish species identified in the area, cod, Norway pout, whiting, blue whiting and anglerfish have been assessed by the Scottish Natural Heritage (SNH) and the Joint Nature Conservation.

Fisheries	The infrastructure associated with the Tartan Subsea fields occur within International Council for Exploration of the Sea (ICES) rectangles 45E9 and 45F0. Pelagic, demersal and shellfish species are fished from both these rectangles. Available data suggests that these ICES rectangles encompass an area that is relatively important to the UK fishing industry such that fishing activity in the area can be considered high. A review of the Scottish Government landings data for 2014 to 2018 shows that trawl gear is used in both rectangles, whilst seine nets are also active in rectangle 45E9.
Marine Mammals	The Atlas of Cetacean Distribution in Northwest European Waters suggests that moderate to low densities of Atlantic white-sided dolphin and harbour porpoise and high to low densities of white-beaked dolphin and minke whale have been sighted in the immediate vicinity of the Tartan Development Area infrastructure.
Birds	European Seabirds at Sea (ESAS) data collected over 30 years, indicates the presence of a number of bird species in the area including but not limited to the northern gannet, northern fulmar, black-legged kittiwake, lesser and greater black-backed gull, razorbill, great and Arctic skua, little auk, herring gull, common gull, common guillemot and Atlantic puffin.
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 vicinity of the Tartan Development Area is considered low. There are no offshore windfarm developments within the vicinity of the Tartan Development Area. The fields are located in a well-developed oil and gas area with a number of developments in the area including Scott (*c*. 13 km southeast), Piper B (*c*. 13 km northeast) Saltire (*c*. 16 km east northeast) and Claymore (*c*. 27 km northwest).
Atmosphere	Offshore, emissions to the atmosphere will arise from the vessels used to decommission the Tartan, Highlander and Petronella 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	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: • The physical presence of vessels; • Energy use and atmospheric emissions; • Underwater noise from vessels; • Discharges to sea from vessels; • Temporary disturbance to the seabed from activities, including cutting and recovery; • Discharges to sea from the subsea installations during recovery operations; • Production of waste materials.	• 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 will be identified in the EA Report and are summarised here: • 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. • Vessel use will be optimised. • Flushing and cleaning have been completed in line with BAT/BEP (Best Available Technique/Best Environmental Practice) requirements. • Work procedures will be in place to minimise duration of activities and minimise likelihood of dropped objects. • Any potential SIMOPS (simultaneous operations) will be managed through bridging documents and communications. • Cutting/dredging/jetting work plans will be in place. • Internal cutting of the conductor associated with the WHPS.

		• Preference will be given to the use of side scan sonar surveys to determine a clear seabed. • Post decommissioning survey strategy.
Decommissioning Pipelines	Trenched and buried pipelines and umbilicals where DOL is > 0.6 m will be decommissioned *in situ* with remediation of the exposed ends. Surface laid lines and trenched and buried lines where DOL is < 0.6 m will be recovered. All surface laid spools and umbilical jumpers will be recovered. Aspects considered for the decommissioning of the pipelines and umbilical include those considered for 'Subsea Installation Removal'. In addition, they included: • Legacy impacts.	During decommissioning of the pipelines and umbilicals the relevant mitigation measures identified for 'Subsea Installation Removal' (see above) will be applied. In addition: • With respect to remediating the exposed sections of those lines to be decommissioned in situ, trench and bury or cut and recover will be prioritised over the use of rockdump. • If rockdump is used it will be minimised and will be laid in profiles aligned with industry standards. • Preference will be given to the use of side scan sonar surveys to determine a clear seabed. • Post decommissioning survey strategy.
Decommissioning Stabilisation Features	The base case is to decommission the existing rockdump *in situ* and recover the exposed mattresses and grout bags. Aspects considered for the decommissioning of the stabilisation materials include those considered for 'Subsea Installation Removal'. In addition, as for 'Decommissioning of Pipelines' legacy impacts were also considered.	During decommissioning of the 'Stabilisation Features' the relevant mitigation measures identified for 'Subsea Installation Removal' (see above) will be applied. In addition: • 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. • A survey strategy will be agreed with OPRED for monitoring any stabilisation features that will be decommissioned in situ.
Decommissioning Drill Cuttings	The cuttings piles at the Tartan field subsea tie-back locations all fall below the OSPAR 2006/5 thresholds for rate of oil loss and persistence over time. Removal of the subsea infrastructure will result in some disturbance to the cuttings piles, however, given the small size of the piles,	Following resettlement of any cuttings that are disturbed during the recovery of the subsea infrastructure, the cuttings piles will be decommissioned in situ. Work and lifting procedures will be in place to minimise cuttings disturbance.

	and the estimated hydrocarbon content (< 0.4 te in each pile), following disturbance the pile will remain within the OSPAR 2006/5 thresholds.	

5 INTERESTED PARTY CONSULTATIONS

Consultations Summary:
As part of the informal stakeholder engagement process in August 2020 Repsol Sinopec Resources UK Limited issued a Scoping Report to a number of stakeholders.

The Scoping Report provided an overview of the Tartan Development Area, the proposed decommissioning activities and an overview of the impacts to be assessed in this EA. Recipients of the Scoping Report were invited to comment on the Scoping Report with respect to any concerns they may have.

In addition to issuing the Scoping Report, Repsol Sinopec Resources UK Limited carried out a number of informal stakeholder engagement sessions including separate meetings with various stakeholders as the project progressed. Repsol Sinopec Resources UK Limited also carried out two Stakeholder Engagement Workshops in February 2020 to share the proposed decommissioning activities. No major concerns were raised.

Table 5.1 summarises the main concerns that the stakeholders have identified to date and full details are provided in Chapter 2 of the EA Report.

Table 5-1: Summary of Stakeholder Comments

Who	Comment	Response
Informal Stakeholder Consultations		
OPRED	No response was received from OPRED on the Scoping Report OPRED attended the Stakeholder Engagement Workshop and raised no concerns.	N/A
JNCC	In response to the Scoping Report, JNCC provided guidance on information to be included in the EA. In addition, they requested that the amount of additional hard substrate is minimised. At the Stakeholder Engagement Workshop, JNCC raised discussion points on the cuttings pile modelling carried out to support the EA and on the use of rock cover to mitigate exposed line sections.	JNCC's guidance with respect to the EA has been noted and applied where relevant. All surface laid pipelines and umbilicals will be recovered. The base case is to trench and bury or cut and recover the exposed sections of the buried pipelines and umbilical. Should the application of rockdump be selected during the C&P process, rock volumes will be minimised and laid in line with industry standards. At the Stakeholder Engagement Workshop, JNCC raised no concerns in relation to the proposed decommissioning activities. The discussion points raised are detailed in Chapter 2 of the EA Report.

Scottish Environment Protection Agency (SEPA)	No response was received from SEPA on the Scoping Report. SEPA attended the Stakeholder Engagement Workshop and raised no concerns.	N/A
United Kingdom Hydrographic Office (UKHO)	In response to the Scoping Report, the UKHO advised that at this point of the project they had no specific requests and would comment on the DPs issued for public consultation.	N/A
Scottish Fishermen's Federation (SFF)	In their response to the Scoping Report SFF referred Repsol Sinopec Resources UK Limited to their Oil and Gas Decommissioning Policy and advised they had no comments on the Scoping Report. At the Stakeholder Engagement Workshop, SFF raised discussions in relation to: • Fate of subsea structures; and • Exposures on lines decommissioned *in situ*.	Repsol Sinopec Resources UK Limited will continue to take account of the SFF Oil and Gas Decommissioning Policy during the Tartan Development Area Decommissioning Project. Repsol Sinopec Resources UK Limited confirmed that all subsea structures will be recovered. In addition, they confirmed that all exposures would be mitigated such that no free spans would remain.
Marine Scotland science (MSS)	No response was received from MSS on the Scoping Report. MSS attended the Stakeholder Engagement Workshop and raised discussions on (1) the cuttings piles and potential impacts of disturbance (2) pipeline exposures.	Repsol Sinopec Resources UK Limited confirmed that the cuttings piles occur within existing 500 m exclusion zones, and that the EA Report assesses any potential cumulative impacts of disturbing the different cuttings piles. In addition, Repsol Sinopec Resources UK Limited confirmed that all exposures would be mitigated.
Oil and Gas Authority (OGA)	No response was received from the OGA on the Scoping Report. The OGA attended the Stakeholder Engagement Workshop and raised discussions on potential reuse options for the pipelines.	Repsol Sinopec Resources UK Limited confirmed that reuse options had been considered but were not found to be feasible.
Health and Safety Executive (HSE)	No response was received from the HSE on the Scoping Report. The HSE attended the Stakeholder Engagement Workshop and raised discussions on post activity ground truthing of the results of the modelling of the disturbance to the cuttings piles and sediment types in the area.	Repsol Sinopec Resources UK Limited confirmed that post decommissioning surveys would be carried out (further details are included in the EA Report). In addition, Repsol Sinopec Resources UK Limited confirmed the sediment types associated with the area (further details are included in the EA Report).
Statutory Consultations		

Various Statutory Consultees	Following statutory consultation (5th April – 27th May 2022), RSRUK received a number of guidance notes, questions and actions relating to the Tartan Subsea Decommissioning Programme and supporting documents from the consultees.	All consultee comments have been satisfactorily addressed throughout OPRED's process, and minor updates to the Decommissioning Programme and supporting documents have been implemented where appropriate.
Public	No comments received.	N/A

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 will align with established Repsol Sinopec Resources UK Limited Health, Safety and Environment policies and meet all relevant legislative requirements. A 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 OGA. Repsol Sinopec Resources UK Limited will report regularly on the execution of these DPs to OPRED and discuss any changes in plans in advance.

6.2 Post-Decommissioning Debris Clearance and Verification

A pre-decommissioning survey has been completed to identify debris within the installations' 500 m zones and within the 100 m 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 the installation sites and pipeline corridors or by the post decommissioning survey. Following full Tartan Subsea field decommissioning, post-decommissioning site surveys will be conducted within a 500m radius of the installation sites and 100m corridor of any pipeline route. Once the Tartan Subsea field installations and pipelines are removed RSRUK will inform OPRED and inform and provide evidence of removal. 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 competed, 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.

The licence holders 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.

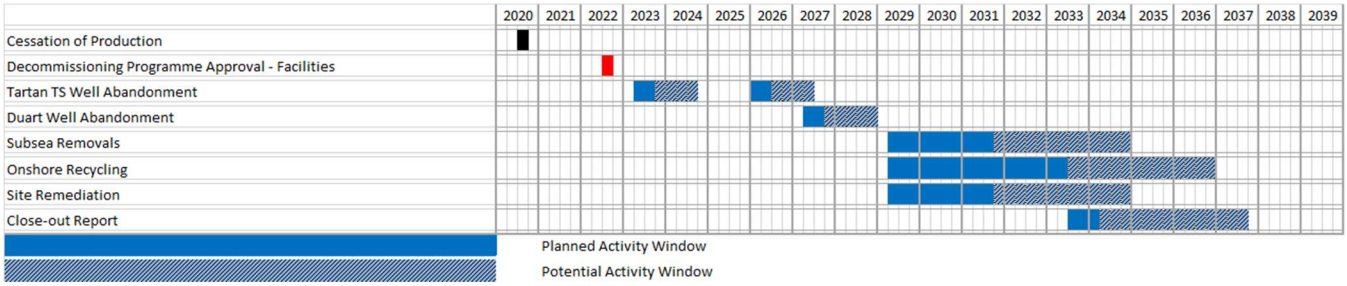
6.3 Schedule

The main milestones on the Tartan (Subsea, North Terrace & Satellite) DPs are:

- Wells abandonment
- Subsea infrastructure removal
- Post removal survey

The schedule may change to maximise economic recovery or to exploit opportunities to minimise decommissioning impacts by combining other decommissioning activities within our portfolio into campaigns, or by combining Tartan Area decommissioning operations with third party decommissioning. The schedule for the Tartan (Subsea, North Terrace & Satellite) DPs is outlined in Figure 6.1.

Figure 6-1: Gantt Chart of Project Plan



6.4 Costs

Table 6-1: Provisional Decommissioning Programme(s) costs	
Item	**Estimated Cost (£m)**
Platform(s)/Jacket(s) - Preparation/Removal and Disposal	N/A
Pipeline(s) Decommissioning	Will be provided to OPRED[1]
Subsea Installation(s) and Stabilisation Feature(s)	Will be provided to OPRED[1]
Well Abandonment	Will be provided to OPRED[1]
Continuing Liability – Future Pipeline and Environmental Survey Requirements	Will be provided to OPRED[1]
TOTAL	Will be provided to OPRED[1]

[1] Estimated Costs are confidential and will be provided separately to OPRED

6.5 Close Out

A close out report will be submitted to OPRED within 12 months of the completion of full Tartan Development Area decommissioning activities, including debris clearance and post-decommissioning surveys. The close out report will notify OPRED of any variances to outcomes that have been detailed in these DPs.

6.6 Post-Decommissioning Monitoring and Evaluation

A post decommissioning environmental seabed survey, covering pipeline routes and sites of wellheads and installations, will be carried out when 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-DTATAR001-GE-0096	Tartan Area Decommissioning Comparative Assessment Report
RP-DTATAR001-HS-0151	Subsea Environmental Appraisal Report

8 PARTNER LETTER(S) OF SUPPORT

DocuSign Envelope ID: 9F3A874D-EDC7-468D-B552-58387C95E40B

Chevron Britain Limited
1 Westferry Circus
Canary Wharf
London
E14 4HA
020 7719 - 3415

Offshore Petroleum Regulator for Environment & Decommissioning

Department for Business, Energy & Industrial Strategy
3rd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

For attention of: Debbie Taylor
Senior Decommissioning Manager
Offshore Decommissioning Unit

By post and by email to:
ruth.mcdermott@beis.gov.uk

Your Ref: 12.04.06.05/171C

2nd November 2022

Dear Sir or Madam,

Piper Field Pipeline PL14 Decommissioning Programme – included in the Tartan N Terrace & Tartan Satellite Subsea Decommissioning Progammes
Petroleum Act 1998

We acknowledge receipt of your letter dated 5th October 2022.

We, Chevron Britain Limited confirm that we authorise Repsol Sinopec Resources UK Limited ("Repsol") to submit on our behalf an abandonment programme relating to the Piper Field Pipeline PL14 (as included in the Tartan N Terrace & Tartan Satellite Subsea Decommissioning Progammes) as directed by the Secretary of State on 5th October 2022.

We confirm that we support the proposals detailed in the Piper Field Pipeline PL14 Decommissioning Programme (as included in the Tartan N Terrace & Tartan Satellite Subsea Decommissioning Progammes) dated October 2022 to be submitted by Repsol in so far as it relates to those facilities in respect of which we are required to submit an abandonment programme under Section 29 of the Petroleum Act 1998.

Yours faithfully

DocuSigned by:
Andrew Kulpecz
Andrew Kulpecz
Director
For and on behalf of Chevron Britain Limited

Registered in England and Wales
Registered office: 1Westferry Circus, Canary Wharf, London E14 4HA
Company No: 1006065

Chevron Captain Company LLC
1 Westferry Circus
Canary Wharf
London
E14 4HA
020 7719 - 3415

Offshore Petroleum Regulator for Environment & Decommissioning

Department for Business, Energy & Industrial Strategy
3rd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

For attention of: Debbie Taylor
Senior Decommissioning Manager
Offshore Decommissioning Unit

By post and by email to:
ruth.mcdermott@beis.gov.uk

Your Ref: 12.04.06.05/43C

2nd November 2022

Dear Sir or Madam,

Tartan Fields Pipelines Decommissioning Programme
Petroleum Act 1998

We acknowledge receipt of your letter dated 5th October 2022.

We, Chevron Captain Company LLC confirm that we authorise Repsol Sinopec Resources UK Limited ("**Repsol**") to submit on our behalf an abandonment programme relating to the Tartan Fields Pipelines as directed by the Secretary of State on 5th October 2022.

We confirm that we support the proposals detailed in the Tartan Fields Pipelines Decommissioning Programme dated October 2022 to be submitted by Repsol in so far as it relates to those facilities in respect of which we are required to submit an abandonment programme under Section 29 of the Petroleum Act 1998.

Yours faithfully

DocuSigned by:
Andrew Kulpecz
[illegible]

Andrew Kulpecz
Director
For and on behalf of Chevron Captain Company LLC

Incorporated with limited liability in Delaware U.S.A.
Foreign Company No: FC005494
Branch No: BR001194
Registered Office: 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA

DocuSign Envelope ID: 9F3A874D-EDC7-468D-B552-58387C85E40B

Chevron Captain Company LLC
1 Westferry Circus
Canary Wharf
London
E14 4HA
020 7719 - 3415

Offshore Petroleum Regulator for Environment & Decommissioning

Department for Business, Energy & Industrial Strategy
3rd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

For attention of: Debbie Taylor
Senior Decommissioning Manager
Offshore Decommissioning Unit

By post and by email to:
ruth.mcdermott@beis.gov.uk

Your Ref: 12.04.06.05/47C

2nd November 2022

Dear Sir or Madam,

Tartan Field Pipelines PL18, PL137, PL138, PL199, PLU4212 ,PLU4214 and PLU4215 Decommissioning Programme
Petroleum Act 1998

We acknowledge receipt of your letter dated 5th October 2022.

We, Chevron Captain Company LLC confirm that we authorise Repsol Sinopec Resources UK Limited ("Repsol") to submit on our behalf an abandonment programme relating to the Tartan Field Pipelines PL18, PL137, PL138, PL199, PLU4212 ,PLU4214 and PLU4215 as directed by the Secretary of State on 5th October 2022.

We confirm that we support the proposals detailed in the Tartan Field Pipelines PL18, PL137, PL138, PL199, PLU4212, PLU4214 and PLU4215 Decommissioning Programme dated October 2022 to be submitted by Repsol in so far as it relates to those facilities in respect of which we are required to submit an abandonment programme under Section 29 of the Petroleum Act 1998.

Yours faithfully

DocuSigned by:
Andrew Kulpecz

Andrew Kulpecz
Director
For and on behalf of Chevron Captain Company LLC

Incorporated with limited liability in Delaware U.S.A.
Foreign Company No: FC005494
Branch No: BR001194
Registered Office: 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA

DocuSign Envelope ID: 9F3A874D-EDC7-468D-B552-58387C95E40B

Chevron Captain Company LLC
1 Westferry Circus
Canary Wharf
London
E14 4HA
United Kingdom
020 7719 - 3415

Offshore Petroleum Regulator for Environment & Decommissioning

Department for Business, Energy & Industrial Strategy
3rd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

For attention of: Debbie Taylor
Senior Decommissioning Manager
Offshore Decommissioning Unit

By post and by email to:
ruth.mcdermott@beis.gov.uk

Your Ref: 12.04.06.06/172C

2nd November 2022

Dear Sir or Madam,

Tartan Subsea Installations Decommissioning Programme
Petroleum Act 1998

We acknowledge receipt of your letter dated 5th October 2022.

We, Chevron Captain Company LLC confirm that we authorise Repsol Sinopec Resources UK Limited ("Repsol") to submit on our behalf an abandonment programme relating to the Tartan Subsea Installations as directed by the Secretary of State on 5th October 2022.

We confirm that we support the proposals detailed in the Tartan Subsea Installations Decommissioning Programme dated October 2022 to be submitted by Repsol in so far as it relates to those facilities in respect of which we are required to submit an abandonment programme under Section 29 of the Petroleum Act 1998.

Yours faithfully

DocuSigned by:
Andrew Kulpecz
[illegible]

Andrew Kulpecz
Director
For and on behalf of Chevron Captain Company LLC

Incorporated with limited liability in Delaware U.S.A.
Foreign Company No: FC005494
Branch No: BR001194
Registered Office: 2711 Centerville Road, Suite 400, Wilmington DE 19808, USA

DocuSign Envelope ID: 9F3A874D-EDC7-468D-B552-58387C85E40B

Texaco North Sea U.K. Limited
1 Westferry Circus
Canary Wharf
London
E14 4HA
020 7719 - 3415

Offshore Petroleum Regulator for Environment & Decommissioning

Department for Business, Energy & Industrial Strategy
3rd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

For attention of: Debbie Taylor
Senior Decommissioning Manager
Offshore Decommissioning Unit

By post and by email to:
ruth.mcdermott@beis.gov.uk

Your Ref: 12.04.06.06/172C

2nd November 2022

Dear Sir or Madam,

Tartan Subsea Installations Decommissioning Programme
Petroleum Act 1998

We acknowledge receipt of your letter dated 5th October 2022.

We, Texaco North Sea U.K. Limited confirm that we authorise Repsol Sinopec Resources UK Limited ("Repsol") to submit on our behalf an abandonment programme relating to the Tartan Subsea Installations as directed by the Secretary of State on 5th October 2022.

We confirm that we support the proposals detailed in the Tartan Subsea Installations Decommissioning Programme dated October 2022 to be submitted by Repsol in so far as it relates to those installations in respect of which we are required to submit an abandonment programme under Section 29 of the Petroleum Act 1998.

Yours faithfully

DocuSigned by:
Andrew Kulpecz
[illegible]

Andrew Kulpecz
Director
For and on behalf of Texaco North Sea U.K. Limited

Registered in England and Wales
Registered office: 1Westferry Circus, Canary Wharf, London E14 4HA
Company No: 807340

TotalEnergies

TotalEnergies E&P UK

Offshore Petroleum Regulator for Environment and Decommissioning
Department for Business, Energy & Industrial Strategy
3rd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

03/11/2022

Dear Sir or Madam,

ABANDONMENT OF THE PIPER FIELD PIPELINE PL14 – INCLUDED IN THE TARTAN SUBSEA – TARTAN NORTH TERRACE (TNT) & TARTAN SATELLITES (TS) DECOMMISSIONING PROGRAMMES, PETROLEUM ACT 1998

On behalf of Elf Exploration UK Limited, I acknowledge receipt of your letter dated 5th October 2022.

Elf Exploration UK Limited confirms that it authorises Repsol Sinopec Resources UK Limited to submit on its behalf the abandonment programme relating to the Piper Field Pipeline PL14 as directed by the Secretary of State on 5th October 2022.

Elf Exploration UK Limited confirms support for the proposals detailed in the Tartan Subsea – Tartan North Terrace (TNT) & Tartan Satellites (TS) Decommissioning Programmes dated October 2022, which is to be submitted by Repsol Sinopec Resources UK Limited, insofar as they relate to those Piper Field Pipeline PL14 facilities in respect of which Elf Exploration UK Limited is required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully,

Jean-Luc Guizlou
Managing Director

For and on behalf of Elf Exploration UK Limited

cc: Colin Hopkins, Senior Decommissioning Project Engineer, Repsol Sinopec Resources UK Limited

Mailing address: TotalEnergies House, Tarland Road, Westhill - AB32 6JZ - UK
T: +44 1224 297000

TotalEnergies E&P UK Limited – Registered in England
Registered address: 18th Floor, 10 Upper Bank Street, Canary Wharf, London, E14 5BF, UK – Registration Number 811900

eni uk
Registered Office
Eni UK Limited
Eni House, 10 Ebury Bridge Road
London SW1W 8PZ
United Kingdom
Registered in England & Wales
(Company number 862823)
Tel: +44 (0) 20 7344 6000
Fax: +44 (0) 20 7344 6044

Offshore Petroleum Regulator for Environment and Decommissioning
Department for Business, Energy & Industrial Strategy
3rd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

1 November 2022

Re: PETROLEUM ACT 1998 - ABANDONMENT OF THE PIPER FIELD PIPELINE PL14 - INCLUDED IN THE TARTAN N TERRACE (TNT) & TARTAN SATELITE (TS) SUBSEA DECOMMISSIONING PROGRAMMES

Dear Sir or Madam

We acknowledge receipt of your letter dated 5th October 2022.

We, Eni UK Limited, confirm that we authorise Repsol Sinopec Resources UK Limited ("**Repsol**") to submit on our behalf abandonment programmes relating to the Abandonment of the Piper Field Pipeline PL14 – included in the Tartan N Terrace (TNT) & Tartan Satelite (TS) Subsea Decommissioning Programmes facilities as directed by the Secretary of State on 5 October 2022.

We confirm that we support the proposals detailed in the Repsol's Decommissioning Programmes revision October 2022, which is to be submitted by Repsol in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

Luciano Vasques (Nov 1, 2022 19:28 GMT)

Luciano Vasques
Managing Director
For and on behalf of Eni UK Limited

REPSOL SINOPEC
ALPHA LIMITED

163 Holburn Street
Aberdeen
AB10 6BZ

T +44 (0)1224 352500
F +44 (0)1224 353400
W www.repsolsinopecuk.com

8 November 2022
Our Ref: 22GEN001/LC

Offshore Petroleum Regulator for Environment and Decommissioning
Department for Business, Energy & Industrial Strategy
3rd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Dear Sir or Madam

Tartan Subsea – Tartan North Terrace (TNT) & Tartan Satellite (TS) Decommissioning Programmes

PETROLEUM ACT 1998

We acknowledge receipt of your letters dated 5th October 2022.

We, Repsol Sinopec Alpha Limited confirm that we authorise Repsol Sinopec Resources UK Limited to submit on our behalf abandonment programmes relating to the Tartan installations and pipelines as directed by the Secretary of State on 5th October 2022.

We confirm that we support the proposals detailed in the Tartan Subsea - Tartan North Terrace (TNT) & Tartan Satellite (TS) Decommissioning Programmes dated October 2022, which is to be submitted by Repsol Sinopec Resources UK Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

For and on behalf of **Repsol Sinopec Alpha Limited**

Director

REPSOL SINOPEC NORTH SEA LIMITED

163 Holburn Street
Aberdeen
AB10 6BZ

T +44 (0)1224 352500
F +44 (0)1224 353400
W www.repsolsinopecuk.com

8 November 2022
Our Ref: 22GEN001/LC

Offshore Petroleum Regulator for Environment and Decommissioning
Department for Business, Energy & Industrial Strategy
3rd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Dear Sir or Madam

Tartan Subsea – Tartan North Terrace (TNT) & Tartan Satellite (TS) Decommissioning Programmes
PETROLEUM ACT 1998

We acknowledge receipt of your letters dated 5th October 2022.

We, Repsol Sinopec North Sea Limited confirm that we authorise Repsol Sinopec Resources UK Limited to submit on our behalf abandonment programmes relating to the Tartan installations and pipelines as directed by the Secretary of State on 5th October 2022.

We confirm that we support the proposals detailed in the Tartan Subsea - Tartan North Terrace (TNT) & Tartan Satellite (TS) Decommissioning Programmes dated October 2022, which is to be submitted by Repsol Sinopec Resources UK Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

For and on behalf of **Repsol Sinopec North Sea Limited**

Director

REPSOL SINOPEC
OIL TRADING LIMITED

163 Holburn Street
Aberdeen
AB10 6BZ

T +44 (0)1224 352500
F +44 (0)1224 353400
W www.repsolsinopecuk.com

8 November 2022
Our Ref: 22GEN001/LC

Offshore Petroleum Regulator for Environment and Decommissioning
Department for Business, Energy & Industrial Strategy
3rd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Dear Sir or Madam

Tartan Subsea – Tartan North Terrace (TNT) & Tartan Satellite (TS) Decommissioning Programmes

PETROLEUM ACT 1998

We acknowledge receipt of your letters dated 5th October 2022.

We, Repsol Sinopec Oil Trading Limited confirm that we authorise Repsol Sinopec Resources UK Limited to submit on our behalf abandonment programmes relating to the Tartan installations and pipelines as directed by the Secretary of State on 5th October 2022.

We confirm that we support the proposals detailed in the Tartan Subsea - Tartan North Terrace (TNT) & Tartan Satellite (TS) Decommissioning Programmes dated October 2022, which is to be submitted by Repsol Sinopec Resources UK Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

For and on behalf of **Repsol Sinopec Oil Trading Limited**

Director

TRANSWORLD PETROLEUM
(U.K.) LIMITED

163 Holburn Street
Aberdeen
AB10 6BZ

T +44 (0)1224 352500
F +44 (0)1224 353400
W www.repsol-sinopec.com

8 November 2022
Our Ref: 22GEN001/LC

Offshore Petroleum Regulator for Environment and Decommissioning
Department for Business, Energy & Industrial Strategy
3rd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Dear Sir or Madam

Tartan Subsea – Tartan North Terrace (TNT) & Tartan Satellite (TS) Decommissioning Programmes

PETROLEUM ACT 1998

We acknowledge receipt of your letters dated 5th October 2022.

We, Transworld Petroleum (U.K.) Limited confirm that we authorise Repsol Sinopec Resources UK Limited to submit on our behalf abandonment programmes relating to the Tartan installations and pipelines as directed by the Secretary of State on 5th October 2022.

We confirm that we support the proposals detailed in the Tartan Subsea - Tartan North Terrace (TNT) & Tartan Satellite (TS) Decommissioning Programmes dated October 2022, which is to be submitted by Repsol Sinopec Resources UK Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

For and on behalf of **Transworld Petroleum (U.K.) Limited**

Director

REPSOL SINOPEC RESOURCES UK LIMITED

163 Holburn Street
Aberdeen
AB10 6BZ

T +44 (0)1224 352500
F +44 (0)1224 353400
W www.repsolsinopecuk.com

8 November 2022
Our Ref: 22GEN001/LC

Offshore Petroleum Regulator for Environment and Decommissioning
Department for Business, Energy & Industrial Strategy
3rd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Dear Sir or Madam

Tartan Topsides Decommissioning Programme, the Tartan Subsea – Tartan North Terrace (TNT) & Tartan Satellite (TS) Decommissioning Programmes and the Duart Decommissioning Programmes
PETROLEUM ACT 1998

We acknowledge receipt of your letters dated 5th October 2022.

We, Repsol Sinopec Resources UK Limited, as operator on behalf of ourselves Repsol Sinopec North Sea Limited, Repsol Sinopec Alpha Limited, Repsol Sinopec LNS Limited, Repsol Sinopec Oil Trading Limited and Transworld Petroleum (U.K.) Limited hereby submit the Tartan Topsides Decommissioning Programme, the Tartan Subsea – Tartan North Terrace (TNT) & Tartan Satellite (TS) Decommissioning Programmes and the Duart Decommissioning Programmes dated October 2022 as directed by the Secretary of State on 5th October 2022.

The Tartan Topsides Decommissioning Programme, the Tartan Subsea – Tartan North Terrace (TNT) & Tartan Satellite (TS) Decommissioning Programmes and the Duart Decommissioning Programmes dated October 2022 are submitted by Repsol Sinopec Resources UK Limited on behalf of the Section 29 Notice Holders under section 29 of the Petroleum Act 1998.

Yours faithfully

For and on behalf of **Repsol Sinopec Resources UK Limited**

Director

ARCO British Limited LLC
Chertsey Road
Middlesex
Sunbury on Thames
TW16 7BP

Offshore Petroleum Regulator for Environment and Decommissioning
Department for Business, Energy & Industrial Strategy
3rd Floor, Wing C
AB1 Building
Crimon Place
Aberdeen
AB10 1BJ

Date: 2nd November 2022

Dear Sir or Madam,

Tartan Subsea Decommissioning Programme – ARCO British Limited LLC Support

We, ARCO British Limited LLC, remain in receipt of a notice under section 29 of the Petroleum Act 1998 ("Section 29 Notice") in relation to certain facilities located at the Tartan Field.

In such capacity and in so far as relevant to such facilities, we confirm that Repsol Sinopec Resources UK Ltd is authorised to submit on our behalf abandonment programmes relating to the Tartan Field.

Yours faithfully,

Allen Deans

Allen Deans
Commercial Advisor, bp North Sea

BP Exploration Operating Company Limited, Company No. 00305943
Registered Office: Chertsey Road, Sunbury On Thames, Middlesex, TW16 7BP

9 APPENDIX A – PUBLIC NOTICE

Public Notices

PUBLIC NOTICE

The Petroleum Act 1998

Tartan Area fields Decommissioning

Repsol Sinopec Resources UK Limited has submitted, for the consideration of the Secretary of State for Business, Energy and Industrial Strategy, a number of draft Decommissioning Programmes (DPs) for the installations and pipelines associated with the Tartan Area field infrastructure in accordance with the provisions of the Petroleum Act 1998. It is a requirement of the Act that interested parties be consulted on such decommissioning proposals. The items/facilities covered by the Decommissioning Programme(s) are:

- Tartan Alpha production platform (topsides) including platform wells;
- Tartan Subsea wells, including TNT, TS and all related subsea infrastructure;
- Duart Subsea wells and all related subsea infrastructure and;

Wells: all wells 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 Oil & Gas UK Well Decommissioning Guidelines.

Repsol Sinopec Resources UK Limited hereby gives notice that a summary of the Tartan Area Decommissioning Programmes can be viewed at the internet website address: www.repsolsinopecuk.com

Alternatively, a hard copy of the respective Tartan Area Decommissioning Programmes can be requested via email or phone call:

Phone: 01224352973

Email: TARAREADECOM@repsolsinopecuk.com

Representations regarding the Tartan Areas Decommissioning Programmes should be submitted in writing to Repsol Sinopec Resources UK Limited, 163 Holburn Street, Aberdeen AB10 6BZ where they should be received by 17th May 2022 and should state the grounds upon which any representations are being made.

Teresa Munro

Decommissioning Manager

Date: 5th April 2022

Repsol Sinopec Resources UK Limited
Company Address
163 Holburn Street
Aberdeen
AB10 6BZ

Figure 9-1: Public Notice – The Press and Journal, 5th April 2022

Public Notices

PUBLIC NOTICE

The Petroleum Act 1998

Tartan Area fields Decommissioning

Repsol Sinopec Resources UK Limited has submitted, for the consideration of the Secretary of State for Business, Energy and Industrial Strategy, a number of draft Decommissioning Programmes (DPs) for the installations and pipelines associated with the Tartan Area field infrastructure in accordance with the provisions of the Petroleum Act 1998. It is a requirement of the Act that interested parties be consulted on such decommissioning proposals. The items/facilities covered by the Decommissioning Programme(s) are:

- Tartan Alpha production platform (topsides) including platform wells;
- Tartan Subsea wells, including TNT, TS and all related subsea infrastructure;
- Duart Subsea wells and all related subsea infrastructure and.

Wells: all wells 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 Oil & Gas UK Well Decommissioning Guidelines.

Repsol Sinopec Resources UK Limited hereby gives notice that a summary of the Tartan Area Decommissioning Programmes can be viewed at the internet website address:

www.repsolsinopecuk.com

Alternatively, a hard copy of the respective Tartan Area Decommissioning Programmes can be requested via email or phone call:

Phone: 01224352973

Email: TARAREADECOM@repsolsinopecuk.com

Representations regarding the Tartan Areas Decommissioning Programmes should be submitted in writing to Repsol Sinopec Resources UK Limited, 163 Holburn Street, Aberdeen AB10 6BZ where they should be received by 17 th May 2022 and should state the grounds upon which any representations are being made.

Date: 5 th April 2022
Repsol Sinopec Resources UK Limited
Company Address
163 Holburn Street
Aberdeen
AB10 6BZ

Teresa Munro
Decommissioning Manager

Figure 9-2: Public Notice – The Daily Telegraph, 5th April 2022