Saltire A Topsides and Saltire Area Subsea Infrastructure Decommissioning Programmes

Final

28th November 2022

DOCUMENT CONTROL

Approvals

	Name	Signature	Date
Prepared by	Liang Wang		28/11/2022
Checked by	Robbie Dunbar-Smith		28/11/2022
Reviewed by	Teresa Munro		28/11/2022
Approved by	Adam Sheikh	pp	28/11/2022

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Number	Section	Description

Terms and Abbreviations

Abbreviation	Explanation
A	Alpha
B	Bravo
BEIS	Department for Business, Energy and Industrial Strategy
CA	Comparative Assessment
CoP	Cessation of Production
DD	Drilling Derrick
DP	Decommissioning Programme(s)
DSM	Drilling Substructure Module
EA	Environmental Appraisal
EIA	Environmental Impact Assessment
EL	Elevation
EU	European Union
FCA	Flotta Catchment Area
FLS	Flare
FPS	Flange Protection Structure
HLV	Heavy Lift Vessel
HSE	Health and Safety Executive
JNCC	Joint Nature Conservation Committee
km	Kilometres
km^2	Square Kilometres
LSA	Low Specific Activity (Scale)
m	Metres
m^3	Cubic Metres
MAT	Master Application Template
N/A	Not Applicable
NFFO	National Federation of Fishermen's Organisations
NMSF	National Marine Sanctuary Federation
NOAA	National Oceanic and Atmospheric Administration

Abbreviation	Explanation
NORM	Naturally Occurring Radioactive Material
NSTA	North Sea Transition Authority
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning
OS	Ordinance Survey
OSPAR	Oslo-Paris Convention
OVI	Oil Vulnerability Index
PFPS	Piper Flange Protection Structure
PL	Pipe Line (as in PL Number)
PON	Petroleum Operations Notice
PROD	Production
RSRUK	Repsol Sinopec Resources UK Limited
SAT	Subsidiary Application Template
SCAP	Supply Chain Action Plan
SEL	Sound Exposure Level
SEPA	Scottish Environmental Protection Agency
SFPS	Saltire Flange Protection Structure
SLV	Single Lift Vessel
SOSI	Seabird Oil Sensitivity Index
SSIV	Subsea Isolation Valve
TEMPSC	Totally Enclosed Motor Propelled Survival Craft
TOS	Top of Steel
UK	United Kingdom
UKCS	United Kingdom Continental Shelf
USV	Underwater Safety Valve
UT	Utilities
UTM	Universal Transverse Mercator
WDM	Wellhead/Drilling Module
WGS84	World Geodetic System 1984
WHPU	Wellhead Protection Unit
WI	Water Injection
WID	Water Injection Development

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1 EXECUTIVE SUMMARY

1.1 Combined Decommissioning Programmes

This document contains the combined Decommissioning Programmes (DPs) for the installations and pipelines associated with the Saltire Area (consisting of the Saltire, Iona and Chanter fields), as follows:

- Saltire Section 29 Notices:
    - Saltire Alpha (Saltire A) topsides; note that a separate Decommissioning Programme has been prepared for the Saltire A substructure.
    - Saltire Water Injection Development Wellhead Protection Unit.
    - The Pipelines, Flowlines, Umbilicals and Power Cables and any associated Apparatus.
- Chanter Section 29 Notices:
    - Chanter Wellhead Protection Unit.
    - The Pipelines, Flowlines, Umbilicals and any associated Apparatus.

Note that this DP is for the Saltire A topsides and Saltire Area subsea infrastructure only. The Saltire A jacket is the subject of a separate Decommissioning Programme submitted separately **[Ref.** Error! Reference source not found.**]**.

1.2 Requirement for Decommissioning Programmes

Installations:

In accordance with the Petroleum Act 1998, the Section 29 notice holders of the Saltire Area installations/field (see Table 1.2) are applying to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED), part of the Department for Business, Energy and Industrial Strategy (BEIS), to obtain approval for decommissioning the installations detailed in Section 2 of this document (see also section 8 – Partner Letter of Support).

Pipelines:

In accordance with the Petroleum Act 1998, the Section 29 notice holders of the pipelines (see Table 1.5 and Table 1.6) are applying to OPRED to obtain approval for decommissioning the pipelines detailed in Section 2.3 of this document (see also section 8 – Partner Letter of Support).

In conjunction with public, stakeholder and regulatory consultation, the DPs are submitted in compliance with national and international regulations and OPRED guidelines.

1.3 Introduction

The Saltire Area is located approximately 200 kilometres North-East of Aberdeen in 145 metres of water. It forms part of the Flotta Catchment Area (FCA) System, connecting into the System through Piper B installation. The Saltire Area consists of a collection of developed fields (Saltire, Chanter and Iona) and associated infrastructure located in UK block 15/17.

The Saltire Area assets were installed in 1992 as part of the Piper Area redevelopment and consist of the Saltire A platform, the subsea Saltire Water Injection Development (WID), the subsea Chanter production system and all pipeline/umbilicals linking these assets to the Piper B platform. The Iona field was developed via platform based wells drilled from the Saltire A platform.

Although the Saltire Area assets were originally designed to be monitored and controlled by Piper B, they were never used in that mode, rather they were operated as a conventional manned installation.

Saltire A is a fixed drilling/production platform, located 7 km South-East of the Piper B platform. Prior to production being suspended, oil and gas was exported to Piper B via a 40-inch pipeline bundle containing one 10-inch diameter multiphase export line, an 8-inch diameter gas lift line and two 16-inch diameter lines. One of the 16-inch diameter lines was used for sea water injection

(previously gas export service); the other 16-inch diameter line was originally used for sea water injection until it failed and was taken out of service.

From Piper B, oil was exported through a 30-inch diameter line to the Flotta Terminal facilities in Orkney, while gas was exported to the St Fergus Gas Terminal via a 16-inch diameter gas export line. From 2000, up until the suspension of production, all gas was used for fuel requirements within the Greater Piper Area. The 30-inch pipeline to Flotta is out with the scope of the current DPs.

Production from Saltire, Chanter and Iona was suspended in August 2014. Formal approval to cease production was requested from the North Sea Transition Authority (NSTA) on the 19th of September 2016, with approval being received by Repsol Sinopec Resources UK Limited (RSRUK) on the 11th of November 2016.

Following public, stakeholder and regulatory consultation, the DPs are submitted in full compliance with OPRED guidelines. A Comparative Assessment (CA) was carried out to determine the appropriate removal extent for Saltire Area subsea infrastructure. The DPs explain the principles of the removal activities and is supported by an Environmental Appraisal (EA).

1.4 Overview of Installations/Pipelines Being Decommissioned

1.4.1 Installations

Table 1.1: Installations Being Decommissioned

Installations Being Decommissioned			
Fields:	**Saltire, Iona and Chanter**	**Production Type (Oil/Gas/Condensate)**	**Oil / Gas / Condensate**
Water Depth (m)	**145**	**UKCS block**	**15/17**

Surface Installations		
Number	**Type**	**Topsides Weight (tonnes)**
1	Production Platform	12,874[Note 1]

Subsea Installations		Number of Wells			
Number	**Type**	**Platform**		**Subsea**	
1	Wellhead Protection Unit (Saltire)	Saltire	10	Saltire WID	4
1	Wellhead Protection Unit (Chanter)	Chanter	2	Chanter	3
		Iona	2	Iona	0

Apparatus Associated with the Pipelines	
Number	**Type**
4	Towheads (Saltire)
4	Towhead Protection Frames (Saltire)
6	Flange Protection Structures (Saltire)
1	Flange Protection Structures (Chanter)
2	Power Cable J-Tube Extensions (Saltire)

Drill Cuttings Piles		Distance to Median	Distance from nearest UK coastline
Number of Piles	**Total Estimated volume (m^3)**	**km**	**km**
2			
Saltire WID WHPU	158	66	158
Chanter WHPU	77.9	65	159

Notes:

1. Dry weight

Table 1.2: Saltire Installation Section 29 Notice Holders Details

Installation Section 29 Notice Holder Details		
Current Owners	**Registration Number**	**Equity Interest (%)**
Repsol Sinopec Resources UK Limited	00825828	20.277
Repsol Sinopec North Sea Limited	01061863	36.667
Transworld Petroleum (U.K.) Limited	01010787	23.500
Repsol Sinopec Alpha Limited	04796268	19.556
Exited Parties	**Registration Number**	**Equity Interest (%)**
Elf Exploration UK Limited	00810743	-
Chevron Britain Limited	01006065	-
ARCO British Limited, LLC	FC005677	-
Eni UK Limited	00862823	-

Table 1.3: Chanter Installation Section 29 Notice Holder Details

Installations Section 29 Notice Holder Details		
Current Owners	**Registration Number**	**Equity Interest (%)**
Repsol Sinopec Resources UK Limited	00825828	20.277
Repsol Sinopec North Sea Limited	01061863	36.667
Transworld Petroleum (U.K.) Limited	01010787	23.500
Repsol Sinopec Alpha Limited	04796268	19.556
Exited Parties	**Registration Number**	**Equity Interest (%)**
Elf Exploration UK Limited	00810743	-
Chevron Britain Limited	01006065	-
ARCO British Limited, LLC	FC005677	-
Eni UK Limited	00862823	-

1.4.2 Pipelines, Umbilicals and Power Cables

Table 1.4: Pipelines Being Decommissioned

Pipelines Being Decommissioned		
Number of Bundles	2	Ref. Table 2.3
Number of Pipelines	8 (Note 1)	
Number of Umbilicals	4 (Note 2)	
Number of Power Cables	2	

Notes:

1. Four (4) pipelines in Saltire A to Piper B bundle, three (3) pipelines in Saltire A to Saltire WID bundle, one (1) pipeline from Chanter WHPU to Piper B.
2. Two (2) umbilical sections corresponding to the Saltire A to Piper B bundle, one (1) umbilical sections corresponding to the Saltire A to Saltire WID bundle, and the Chanter umbilical.

Table 1.5: Saltire Pipelines Section 29 Notice Holder Details

Pipelines Section 29 Notice Holder Details			
Pipeline Number	**Section 29 Notice Holder**	**Registration Number**	**Equity Interest (%)**
Saltire A to Piper B Bundle PL880 PL881 PL882 PL883 (Note 1)	*Current Owners*		
	Repsol Sinopec Resources UK Limited	00825828	20.277
	Repsol Sinopec North Sea Limited	01061863	36.667
	Transworld Petroleum (U.K.) Limited	01010787	23.500
	Repsol Sinopec Alpha Limited	04796268	19.556
	Exited Parties		
	Elf Exploration UK Limited	00810743	-
	Chevron Britain Limited	01006065	-
	ARCO British Limited, LLC	FC005677	-
	Eni UK Limited	00862823	-
Saltire A to Piper B Towhead Umbilicals PLU4533 PLU4534	*Current Owners*		
	Repsol Sinopec Resources UK Limited	00825828	20.277
	Repsol Sinopec North Sea Limited	01061863	36.667
	Transworld Petroleum (U.K.) Limited	01010787	23.500
	Repsol Sinopec Alpha Limited	04796268	19.556
	Exited Parties		
	Elf Exploration UK Limited	00810743	-
	Chevron Britain Limited	01006065	-
	ARCO British Limited, LLC	FC005677	-
	Eni UK Limited	00862823	-
Saltire A to Saltire WID Bundle PL897 PL898 PL899 (Note 2)	*Current Owners*		
	Repsol Sinopec Resources UK Limited	00825828	20.277
	Repsol Sinopec North Sea Limited	01061863	36.667
	Transworld Petroleum (U.K.) Limited	01010787	23.500
	Repsol Sinopec Alpha Limited	04796268	19.556
	Exited Parties		
	Eni UK Limited	00862823	-
Saltire A to Saltire WID Bundle PLU4738	*Current Owners*		
	Repsol Sinopec Resources UK Limited	00825828	20.277
	Repsol Sinopec North Sea Limited	01061863	36.667
	Transworld Petroleum (U.K.) Limited	01010787	23.500
	Repsol Sinopec Alpha Limited	04796268	19.556
Saltire Power Cables West PL4531 East PL4532	*Current Owners*		
	Repsol Sinopec Resources UK Limited	00825828	20.277
	Repsol Sinopec North Sea Limited	01061863	36.667
	Transworld Petroleum (U.K.) Limited	01010787	23.500
	Repsol Sinopec Alpha Limited	04796268	19.556
	Exited Parties		
	Elf Exploration UK Limited	00810743	-
	Chevron Britain Limited	01006065	-
	ARCO British Limited, LLC	FC005677	-
	Eni UK Limited	00862823	-

Notes:

1. The terminating tie-ins of PL880, PL881, PL882 and PL883 are on the Piper B and Saltire A topsides. However, the Saltire Area decommissioning scope for these pipelines will end at the Piper B riser base tie-ins. The riser sections for PL880, PL881, PL882 and PL883 on Piper B will be decommissioned as part of a future Piper B Decommissioning Programme while the riser sections for these pipelines on Saltire A will be decommissioned as part of the Saltire A Jacket Decommissioning Programme **[Ref.** Error! Reference source not found.**]**.
2. The terminating tie-ins for PL887, PL898 and PL899 are on the Saltire A topsides. The riser sections for these pipelines will be decommissioned as part of the Saltire A Jacket Decommissioning Programme **[Ref.** Error! Reference source not found.**]**.

Table 1.6: Chanter Pipelines Section 29 Notice Holder Details

Pipelines Section 29 Notice Holder Details			
Pipeline Number	**Section 29 Notice Holder**	**Registration Number**	**Equity Interest (%)**
Chanter Oil / Condensate Flowline PL847 (Note 1) Chanter Gas Lift Riser PL848 (Note 2) Chanter Umbilical PL849.1 –13	*Current Owners*		
	Repsol Sinopec Resources UK Limited	00825828	20.277
	Repsol Sinopec North Sea Limited	01061863	36.667
	Transworld Petroleum (U.K.) Limited	01010787	23.500
	Repsol Sinopec Alpha Limited	04796268	19.556
	Exited Parties		
	Elf Exploration UK Limited	00810743	-
	Chevron Britain Limited	01006065	-
	ARCO British Limited, LLC	FC005677	-
	Eni UK Limited	00862823	-

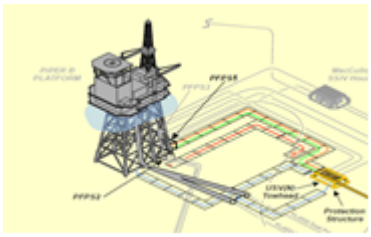
Notes

1. The terminating tie-ins of PL847 are on the Piper B topsides. However, the decommissioning scope of this pipeline will end at the Piper B riser base tie-in. Amendments shall be made to the notice for Piper B to include items associated with these pipelines on Piper B that are not being decommissioned in these DPs. This riser section of PL847 will be decommissioned as part of a future Piper B decommissioning Programme.
2. The Chanter Gas Lift Riser (PL848) will not be decommissioned as part of the Saltire Area Decommissioning Project as it is attached to the Piper B platform. This riser section of PL848 will be decommissioned as part of a future Piper B decommissioning Programme.

1.5 Summary of Proposed Decommissioning Programmes

Table 1.7: Summary of Decommissioning Programmes

Selected Option	Reason for Selection	Proposed Decommissioning Solution (Note 1)
1. Topsides		
Saltire A: Complete removal, onshore dismantling, recycling and disposal	Complies with requirements of OSPAR Decision 98/3 for complete removal and maximises recycling of materials	Remove the topsides and transport ashore for dismantling. Cleaned equipment refurbished for re-use where possible. Equipment which cannot be re-used will be recycled or other disposal routes as appropriate.
2. Subsea Installations		
1 Saltire WID Wellhead Protection Unit (WHPU) 1 Chanter Wellhead Protection Unit (WHPU) Full removal, including foundations down to 3 m below seabed	To comply with OSPAR requirement of leaving unobstructed seabed. Removes a potential obstruction to fishing operations and maximises recycling of materials	Removal to shore for re-use where possible, recycling and disposal.
3. Pipelines, Flowlines & Umbilicals and any Associated Apparatus		
Saltire A to Piper B Bundle Saltire A to Saltire WID Bundle Decommission in-situ	The Comparative Assessment confirmed that leaving the bundles in-situ is the recommended option on the basis of safety, environmental, societal and technical considerations.	Leave bundles in-situ with ends and free spans remediated by rock dump.
Spools, jumpers, umbilicals and flange protection structures. Full removal	To comply with OSPAR requirement of leaving unobstructed seabed. Removes a potential obstruction to fishing operations and maximises recycling of materials	Removal to shore for re-use where possible, recycling and disposal.
Towheads and towhead protection frames Full removal	To comply with OSPAR requirement of leaving unobstructed seabed. Removes a potential obstruction to fishing operations and maximises recycling of materials	Removal to shore for re-use where possible, recycling and disposal.
Saltire Power Cables, Chanter Umbilical and Chanter Oil / Condensate Flowline Decommission in situ where buried. Remediate any exposed sections.	The Comparative Assessment confirmed that leaving the power cables, the umbilical, and the flowline in-situ with the ends and exposures being trenched and buried is the recommended option on the basis of safety, environmental, societal and technical considerations.	The trenched and buried sections will be decommissioned in-situ. The exposed sections at each end will be remediated by trench and burial.
Stabilisation features: Base Case Full Removal	To comply with OSPAR requirements of leaving unobstructed seabed	Full removal and transport ashore for dismantling. Where mattresses/grout bags cannot be safely recovered due to degradation, RSRUK will consult with OPRED before any alternative option is executed.
4. Wells		
Wells will be plugged and abandoned to RSRUK standards which comply with HSE "Offshore Installations and Wells (Design and Construction, etc.) Regulations 1996" and align with Oil and Gas UK Well Decommissioning Guidelines (Issue 6, June 2018)	Meets HSE regulatory requirements	Platform Wells – Plug and Abandon Subsea Wells – Plug and Abandon 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 OPRED for application to abandon the wells. Additionally, planned work will be reviewed by a well examiner to RSRUK standards then submitted to the HSE for review.
5. Drill Cuttings		
Saltire WID Cuttings Pile Disperse in-situ during removal of WHPU	Proximity of drill cuttings to WHPU means that it is not possible to remove WHPU without dispersing cuttings pile. No suitable technologies available for retrieval and processing of cuttings pile prior to WHPU removal.	Dispersed in-situ during removal of Saltire WID WHPU. The expected maximum volumes of disturbance and the associated impacts are discussed in detail in the supporting EA.
Chanter Cuttings Pile Disperse in-situ during removal of WHPU	Proximity of drill cuttings to WHPU means that it is not possible to remove WHPU without dispersing cuttings pile. No suitable technologies available for retrieval and processing of cuttings pile prior to WHPU removal.	Dispersed in-situ during removal of Chanter WHPU. The expected maximum volumes of disturbance and the associated impacts are discussed in detail in the supporting EA.
6. Interdependencies		
During removal of the Saltire WID WHPU and Chanter WHPU, the cuttings piles at those locations will be disturbed during the structure removal process. Given the small size of the piles, it is expected that following disturbance, the piles will remain within the OSPAR thresholds.		

Selected Option	Reason for Selection	Proposed Decommissioning Solution (Note 1)
RSRUK have carried out a BAT assessment, which has concluded that the most appropriate method for managing the piles is to disperse them during removal of the WHPUs. The Chanter Oil/Condensate Flowline and the Chanter Umbilical are crossed by the Saltire A to Saltire WID bundle. As the outcome of the Comparative Assessment process is for all of these items to be left in-situ, there is no requirement to consider their interdependencies further. The Saltire A to Saltire WID bundle is crossed by two third party pipelines, which are not currently scheduled for decommissioning. As the outcome of the Comparative Assessment process is for the bundle to be left in-situ, there is no requirement to consider their interdependencies further. The Saltire A to Piper B bundle, East and West Power Cables, Chanter Oil/Condensate Flowline and Chanter Umbilical are all crossed by several 3rd party infrastructure associated with the Tweedsmuir field, which is still operational. Where items such as spools that are to be fully removed are crossed by Tweedsmuir infrastructure, final decommissioning of these items will be delayed until decommissioning of the Tweedsmuir infrastructure to minimise the potential risk of damage to operational Tweedsmuir infrastructure.		
7. Deferred Recovery		
The recovery of the items listed below will need to be deferred until Tweedsmuir field is decommissioned to minimise the potential risk of damage to Tweedsmuir's operational infrastructure. • Spools & J-tube extensions ○ PL880 Water Injection - 4 spools with a total length of 134.96m ○ PL881 Water Injection - 3 spools with a total length of 149.06m ○ PL882 Multiphase Export - 3 spools with a total length of 136.19m ○ PL883 Gas Lift - 3 spools with a total length of 138.1m ○ East Power Cable J-tube Extension - 4 spools with a total length of 150.22m ○ West Power Cable J-Tube Extension - 3 spools with a total length of 150.45m • Flexible and Flexible jumper ○ PL847 Chanter Oil/Condensate Flexible Flowline Tail Note 2 • Umbilicals and Umbilical/Cables Tails ○ Towhead USV(N) Control Umbilical jumper PLU4534 with a length of 170m ○ Chanter Umbilical Tail PL849Note 3 ○ East Power Cable Tail PL4532Note 4 ○ West Power Cable Tail PL4531 Note 4 • Structures (Flange protectors underneath Piper B Platform) ○ Piper Flange Protection Structure 2 (PFPS2) ○ Piper Flange Protection Structure 3 (PFPS3) ○ Piper Flange Protection Structure 3 (PFPS3) Roof ○ Piper Flange Protection Structure 5 (PFPS5) • Mattresses and Grout Bags ○ Mattresses – 292 No. ○ Grout Bags – 1,000 No  Discussions with the Tweedsmuir Field Owners and Repsol entities have taken place and the temporary Leave In Situ approach has been agreed and will be taken forward by RSRUK. RSRUK is fully committed to recovering this remaining infrastructure at the time of the Tweedsmuir Field decommissioning, and an agreed monitoring regime will be discussed with OPRED and will continue until all decommissioning activities have been completed.		

Note 1: Any permit applications required for any work associated with the Proposed Decommissioning Solutions will be submitted as appropriate.

Note 2: PL847 will be buried and trenched as close to Piper B platform as per comparative assessment. Any remining exposed length (tail) will be cut and removed.

Note 3: PL849 will be buried and trenched as close to Piper B platform as per comparative assessment. Any remining exposed length (tail) will be cut and removed.

Note 4: East and West power cables will be buried and trenched as close to Piper B platform as per comparative assessment. Any remining exposed length (tail) will be cut and removed.

1.5.1 Timing of Saltire Area Topsides and Subsea Infrastructure Removals

Saltire A Topsides

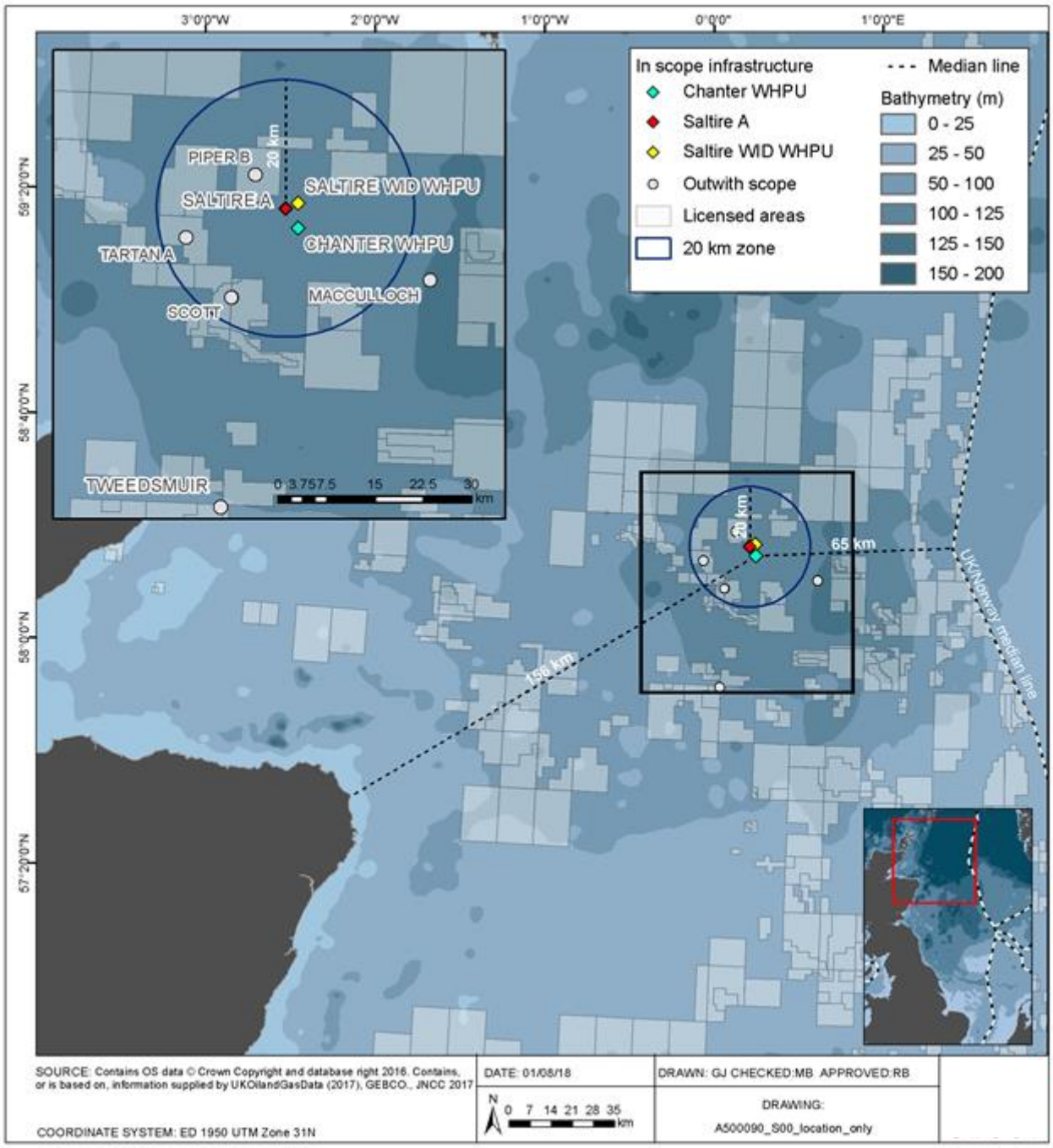
Subject to market availability of cost effective removal services, the topsides will be decommissioned following permanent down-manning of the platform.

Saltire Area Subsea Infrastructure

Subject to market availability of cost effective removal services, the Saltire Area subsea infrastructure will be decommissioned following permanent plugging and abandonment of the Saltire Area subsea wells.

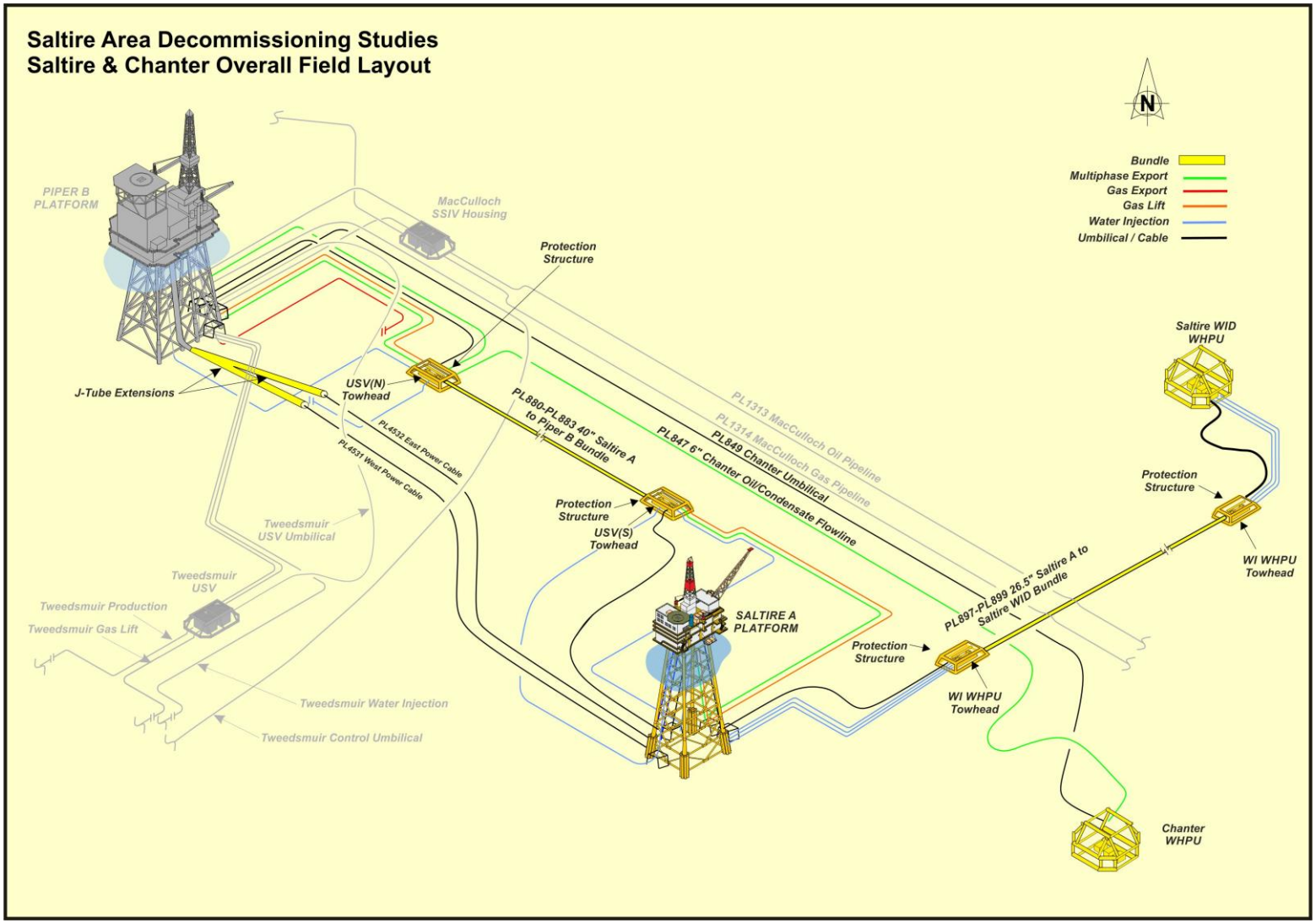
1.6 Field Location Including Field Layout and Adjacent Facilities

Figure 1.1: Field Location in UKCS



Note: There is no surface infrastructure associated with the Iona field as all of the wells into the field were drilled from the Saltire A platform with all produced fluids processed through the Saltire A system.

Figure 1.2: Field Layout



Note: There is no surface infrastructure associated with the Iona field as all of the wells into the field were drilled from the Saltire A platform with all produced fluids processed through the Saltire A system.

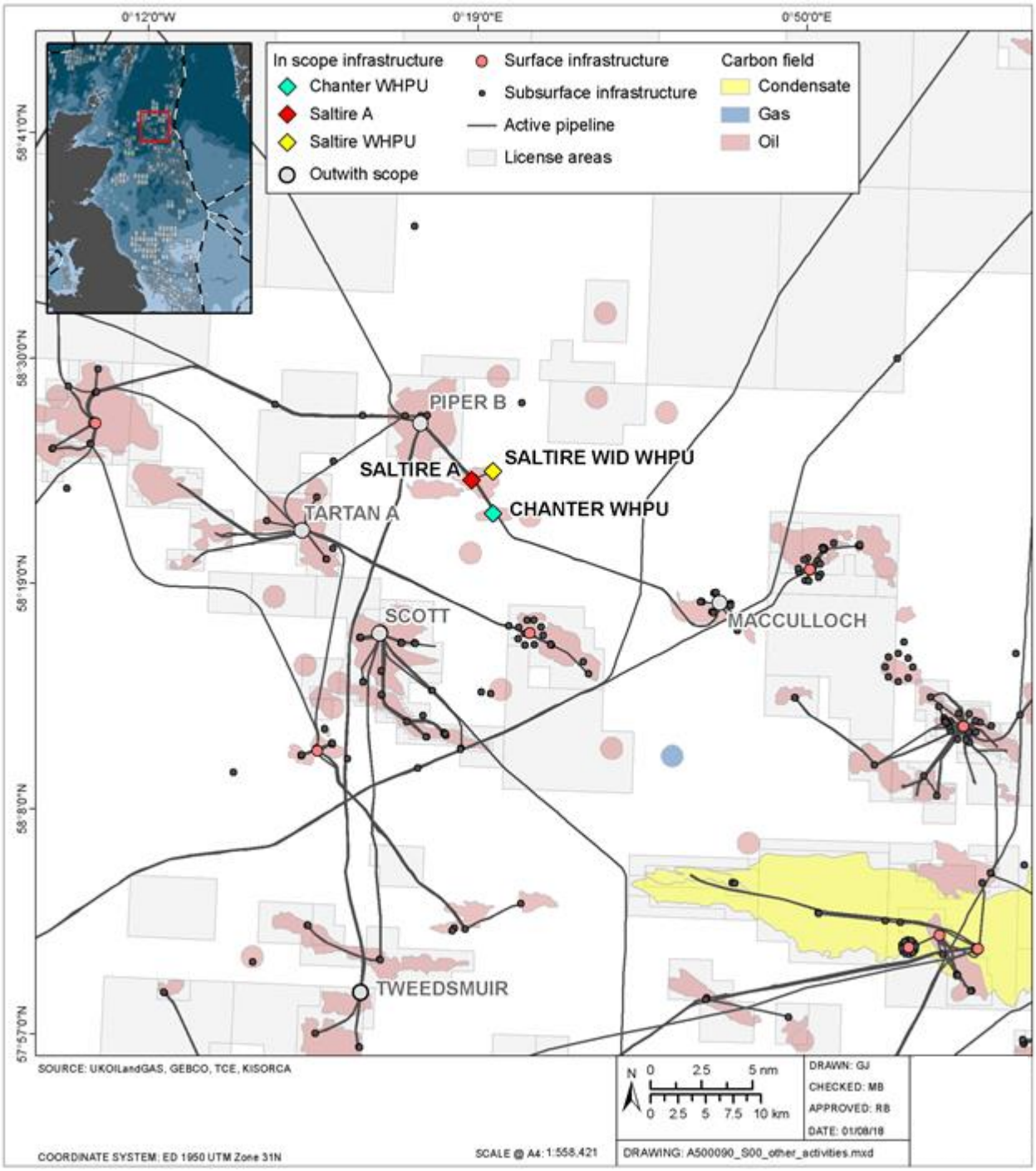
The adjacent facilities shown in Table 1.8 reflect those directly connected or crossed by the infrastructure being decommissioned as part of these programmes only plus installations within 20 kilometres of the Saltire Area infrastructure.

Table 1.8: Adjacent Facilities

Owner	Name	Type	Distance/Direction	Information	Status
Repsol Sinopec Resources UK Limited Repsol Sinopec North Sea Limited Transworld Petroleum (U.K.) Limited Repsol Sinopec Alpha Limited	Piper B	Platform	7.0 km North-West	Saltire, Iona and Chanter production fluids were previously exported via the Piper B platform.	Operational
Repsol Sinopec Oil Trading Limited	Tartan A	Platform	15.5 km West	Installation within 20 km of Saltire Area but no interaction with Saltire Area infrastructure and no impact from cessation of production from Saltire Area.	Operational
CNOOC Petroleum Europe Limited Dana Petroleum (E&P) Limited Edison E&P UK Ltd MOL Operations UK Limited Total Oil UK Limited	Scott	Platform	16.0 km South-West	Installation within 20 km of Saltire Area but no interaction with Saltire Area infrastructure and no impact from cessation of production from Saltire Area.	Operational
Chrysaor Production (U.K.) Limited Eni UK Limited Noble Energy (Oilex) Limited Rigel Petroleum (NI) Limited	MacCulloch	Field	25.1 km South-East	Decommissioned field associated with pipelines that cross Saltire Area infrastructure	Out of Use
Repsol Sinopec Resources UK Limited Repsol Sinopec North Sea Limited Transworld Petroleum (U.K.) Limited Repsol Sinopec Alpha Limited	Tweedsmuir	Field	52.3 km South-West	Operating field associated with pipelines and umbilicals that cross Saltire Area Infrastructure	Operational
Repsol Sinopec Transportation (UT) Limited	PL1313	10” Pipeline	35.5 km pipeline from MacCulloch to Piper B.	Oil Pipeline. Crosses Saltire WID bundle including PL897, PL898 & PL899 approximately 300 m from Saltire A	Out of Use
Repsol Sinopec Transportation (UT) Limited	PL1314	10” Pipeline	35.5 km pipeline from MacCulloch to Piper B.	Gas Pipeline. Crosses Saltire WID bundle including PL897, PL898 & PL899 approximately 300 m from Saltire A. Crosses PL847, PL849 (PL849.1 – 13) at tie-in to Piper B	Out of Use

Owner	Name	Type	Distance/Direction	Information	Status
Repsol Sinopec Resources UK Limited Repsol Sinopec North Sea Limited Transworld Petroleum (U.K.) Limited Repsol Sinopec Alpha Limited	PL2125	12” in 18” Pipe-in-pipe Pipeline	54 km from Tweedsmuir to Piper B	Oil Pipeline that approaches Piper B in proximity to Saltire Area infrastructure.	Operational
Repsol Sinopec Resources UK Limited Repsol Sinopec North Sea Limited Transworld Petroleum (U.K.) Limited Repsol Sinopec Alpha Limited	PL2127	10” Pipeline	54 km from Tweedsmuir to Piper B	Water Injection Pipeline that approaches Piper B in proximity to Saltire Area infrastructure.	Operational
Repsol Sinopec Resources UK Limited Repsol Sinopec North Sea Limited Transworld Petroleum (U.K.) Limited Repsol Sinopec Alpha Limited	PL2129	4” Pipeline	54 km from Tweedsmuir to Piper B	Gas Pipeline that approaches Piper B in proximity to Saltire Area infrastructure.	Operational
Repsol Sinopec Resources UK Limited Repsol Sinopec North Sea Limited Transworld Petroleum (U.K.) Limited Repsol Sinopec Alpha Limited	PL2131	Control Umbilical	54 km from Tweedsmuir to Piper B	Control Umbilical. Crosses 40” Saltire bundle including PL880, PL881, PL882, PL883 PL847, PL849 (PL849.1 – 13) at Piper B.	Operational
Repsol Sinopec Resources UK Limited Repsol Sinopec North Sea Limited Transworld Petroleum (U.K.) Limited Repsol Sinopec Alpha Limited	PLU2134	USV Control Umbilical	Approximately 300m from Tweedsmuir USV to Piper B	USV Control Umbilical. Crosses spools for PL880, PL881, PL882, PL883 PL847, and PL849 (PL849.1 –13), East and West Power cables at Piper B.	Operational
Impact of Decommissioning Proposals					
Decommissioning of the adjacent facilities is not part of the DPs but the operators of these installations will be contacted to investigate any benefits and cost savings available through co-operation and alignment of decommissioning activities.					

Figure 1.3: Adjacent Facilities



1.7 Industrial Implications

It is the intention of RSRUK to develop a contract strategy that will result in an efficient and cost-effective execution of the decommissioning works. RSRUK will also endeavour to combine Saltire decommissioning activities with other development or decommissioning activities to reduce mobilisation costs should the opportunity arise.

RSRUK will demonstrate this intention by:

- Publishing information on the decommissioning project and timelines on its decommissioning website;
- Working closely with the NSTA and other industry bodies in engagement sessions with the decommissioning supply chain on issues relating to the DPs and timelines, including engaging directly with disposal yards that serve the North Sea;
- Utilising the Achilles 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 activities, wherever possible, with Operators of adjacent infrastructure to optimise efficiencies and cost reduction;
- Developing and submitting a Supply Chain Action Plan (SCAP) to the NSTA.

2 DESCRIPTION OF ITEMS TO BE DECOMMISSIONED

2.1 Installations: Surface Facilities

Table 2.1: Surface Facilities Information

Name	Facility Type	Location		Topsides/Facilities	
				Weight (tonnes)	Number of Modules
Saltire A	Production Platform	WGS84 Decimal	58.416807 N 0.334206 E	12,874[Note 1]	4[Note 2]
		WGS84 Decimal minute	58° 25.008' N 00° 20.052' E		

Notes

1. Dry weight.
2. Saltire A topsides comprise an integrated deck with 3 discrete additional modules, namely the Accommodation Module, Flare Tower and Upper Drilling Derrick.

2.2 Installations: Subsea Including Stabilisation Features

Table 2.2: Subsea Installations

	Length (m)	Width (m)	Height (m)	Weight (tonnes)	Foundations	Location (WGS84)	
						Decimal	Decimal Minute
Saltire Installations							
Saltire WID WHPU	26.30	21.80	9.70	WHPU – 166 Piles – 28.8 TOTAL – 194.8	Piled	58.42468199N 0.366455293E	58° 25.481' N 0° 21.987' E
Chanter Installations							
Chanter WHPU	20.17	19.91	9.00	WHPU – 151 Piles – 57.6 TOTAL – 208.6	Piled	58.3902191N 0.36939873E	58° 23.413' N 0° 22.164' E

2.3 Pipelines including Stabilisation and Other Features

Table 2.3: Bundles & Pipelines

Pipeline No.	Description	Length (m)	OD x WT (mm)	Total Weight (tonnes)	Burial Status	From – To End Points	Product Conveyed	Pipeline Status	Current Content
Saltire A to Piper B Bundle				5,783		Piper B Platform to Saltire A Platform			
N/A	Bundle Carrier Pipe	6,690	1016 x 12.2		Surface Laid		N/A	N/A	N/A
PL880	Water Injection (Failed)	7,265	406.4 x 17.9		Within Bundle		Injection water	Out-of-use	Flushed
PL881	Water Injection (Previously Gas Export)	7,174	406.4 x 17.5		Within Bundle		Injection water	Out-of-use	Flushed
PL882	Multiphase Export (Previously Oil Export)	7,328	273.1 x 11.1		Within Bundle		Multiphase hydrocarbon	Out-of-use	Waste fluids from drains, annulus fluids – pipeline will be flushed prior to decommissioning
PL883	Gas Lift Pipeline	7,357	219.1 x 11.1		Within Bundle		Inhibited seawater	Out-of-use	Flushed

Pipeline No.	Description	Length (m)	OD x WT (mm)	Total Weight (tonnes)	Burial Status	From – To End Points	Product Conveyed	Pipeline Status	Current Content
Saltire A to Saltire WID Bundle				781		Saltire Alpha Isolation Valve to Tie-in Flange at WHPU			
N/A	Bundle Carrier Pipe	2,150	673.1 x 10.3		Surface Laid		N/A	N/A	N/A
PL897	6-inch Water Injection Line	2,442	168.3 x 12.7		Within Bundle		Injection water	Out-of-use	Injection water
PL898	6-inch Water Injection Line	2,445	168.3 x 12.7		Within Bundle		Injection water	Out-of-use	Injection water
PL899	6-inch Water Injection Line	2,462	168.3 x 12.7		Within Bundle		Injection water	Out-of-use	Injection water
Chanter Oil/Condensate Flowline				1,020		Chanter Well (WHPU) to Piper B Platform			
PL847	Chanter Oil/Condensate Flexible Flowline	11,093.6	168.3 (for sections that are rigid pipe) 244.9 (for sections that are flexible) Note 4		Trenched & Buried with 7 No. mid-line connections (untrenched)		Oil	Out-of-use	Flushed

Notes:

1. Lengths quoted in above table are as listed in the Pipeline Works Authorisation for the relevant pipeline.
2. Weights quoted in above table include (where applicable), towheads, protection structures and spools but exclude risers/etc. associated with pipeline.
3. Risers and associated pipeline equipment on Piper B will be decommissioned as part of a future Piper B decommissioning Programme.
4. 244.9 mm is the outer diameter of the flexible flowline sections of PL847. Rigid sections of this line (e.g. the riser, and structure pipework) have outer diameter of 168.3 mm.

Table 2.4: Pipeline Structures

	Length (m)	Width (m)	Height (m)	Weight (tonnes)	Foundations	Location (WGS84)	
						Decimal	Decimal Minute
Saltire A to Piper B Bundle							
USV(N) Towhead	23.49	3.75	3.77	99.8	Gravity Based	58.46014164N 0.251291903E	58° 27.609' N 0° 15.078' E
USV(S) Towhead	23.46	3.75	3.77	114.9	Gravity Based	58.41722388N 0.331309775E	58° 25.034' N 0° 19.879' E
USV(N) Towhead Protection Frame	25.90	9.15	4.90	70.4	Gravity Based	58.46014164N 0.251291903E	58° 27.609' N 0° 15.078'
USV(S) Towhead Protection Frame	25.90	9.15	4.90	68.8	Gravity Based	58.41722388N 0.331309775E	58° 25.034' N 0° 19.879' E
Saltire Flange Protection Structure 1 (SFPS1)	9.20	5.80	5.90	13.6	Gravity Based	58.41617999N 0.33256644E	58° 24.971' N 0° 19.954' E
Saltire Flange Protection Structure 2 (SFPS2)	13.50	6.63	4.12	24.2	Gravity Based	58.41617999N 0.33256644E	58° 24.971' N 0° 19.954' E
Saltire Flange Protection Structure 3 (SFPS3)	9.18	5.77	6.19	17.0	Gravity Based	58.41617999N 0.33256644E	58° 24.971' N 0° 19.954' E
Piper Flange Protection Structure 2 (PFPS2)	7.70	5.80	4.50	10.0	Gravity Based	58.46072748N 0.249420836E	58° 27.644' N 0° 14.965' E
Piper Flange Protection Structure 3 (PFPS3)	10.15	7.02	4.15	15.2	Gravity Based	58.46072748N 0.249420836E	58° 27.644' N 0° 14.965' E
Piper Flange Protection Structure 3 (PFPS3) Roof	4.85	4.35	3.30	3.0	Gravity Based	58.46072748N 0.249420836E	58° 27.644' N 0° 14.965' E

	Length (m)	Width (m)	Height (m)	Weight (tonnes)	Foundations	Location (WGS84)	
Saltire A to Saltire WID Bundle							
WI Saltire Towhead	7.89	2.70	0.97	11.2	Gravity Based	58.41642992N 0.333368969E	58° 24.986' N 0° 20.002' E
WI WHPU Towhead	7.98	2.70	0.97	9.7	Gravity Based	58.42439006N 0.366468526E	58° 25.463' N 0° 21.988' E
WI Saltire Towhead Protection Frame	8.56	4.56	1.35	10.8	Gravity Based	58.41642992N 0.333368969E	58° 24.986' N 0° 20.002' E
WI WHPU Towhead Protection Frame	8.56	4.56	1.35	6.5	Gravity Based	58.42439006N 0.366468526E	58° 25.463' N 0° 21.988' E
Saltire Flange Protection Structure 4 (SFPS4)	9.08	5.93	6.15	17.0	Gravity Based	58.41617999N 0.33256644E	58° 24.971' N 0° 19.954' E
Roof Structure between SFPS3 and SFPS4	8.80	4.93	1.00	5.4	Gravity Based	58.41617999N 0.33256644E	58° 24.971' N 0° 19.954' E
Chanter Oil/Condensate Flowline							
Piper Flange Protection Structure 5 (PFPS5)	11.05	5.80	4.53	11.7	Gravity Based	58.46072748N 0.249420836E	58° 27.644' N 0° 14.965' E
Saltire Power Cables							
East Power Cable J-Tube Extension	150.22	0.273	0.273	11.7	Gravity Based	58.46072748N 0.249420836E	58° 27.644' N 0° 14.965' E
West Power Cable J-Tube Extension	150.45	0.273	0.273	12.2	Gravity Based	58.46072748N 0.249420836E	58° 27.644' N 0° 14.965' E

Table 2.5: Umbilicals and Power Cables

Description	Length (m) (Note 1)	OD (mm)	Total Weight (tonnes)	Burial Status	From – To End Points	Product Conveyed	Line Status	Current Content
Saltire								
Towhead USV(N) Control Umbilical PLU4534	170	123	10.3	Mattressed	Piper B to USV(N) Towhead	Hydraulic fluid	Operational	Hydraulic fluid
Towhead USV(S) Control Umbilical PLU4533	135	123	8.6	Mattressed	Saltire A to USV(S) Towhead	Hydraulic fluid	Operational	Hydraulic fluid
East Power Cable PL4532	7,263	123	260.7	Trenched & Buried	Piper B to Saltire A	N/A	Operational	N/A
West Power Cable PL4531	7,241	123	260.0	Trenched & Buried	Piper B to Saltire A	N/A	Operational	N/A
Saltire WID Control Umbilical PLU4738								
Saltire A to Bundle	250	146	6.1	Mattressed	Saltire A to WI Saltire Towhead	Hydraulic fluid	Out-of-use	Hydraulic fluid
Within Saltire A to Saltire WID Bundle	2,150	137	34.87	Within Bundle	Saltire Alpha Isolation Valve to Tie-in Flange at WHPU	Hydraulic fluid	Out-of-use	Hydraulic fluid
Bundle to WHPU	50	146	1.1	Mattressed	WI WHPU Towhead to WID WHPU	Hydraulic fluid	Out-of-use	Hydraulic fluid
Chanter								
Chanter Umbilical PL849.1 –13	10,770	138 Note 2	361.0	Trenched & Buried	Chanter to Piper B	Hydraulic fluid & chemicals	Operational	Hydraulic fluid & chemicals

Notes:

1. The lengths stated for the towhead control umbilicals exclude the riser sections. However, the lengths stated for the power cables include the riser sections.
2. 138mm is composite umbilical outside diameter. Umbilical contains 10 × ½" and 3 ×. ¼" gas lift / chemical injection lines.

Table 2.6: Mattresses and Grout Bags

Mattress / Grout Bag	Location	Total Count	Total Weight (tonnes)	Status
Saltire A to Piper B Bundle				
Concrete Mattress	Saltire A	163	562.8	Exposed
	Piper B	200	746.4	Exposed
	Mid-line	14	37.5	Exposed
Grout Bag	Saltire A	500	10.0	Some exposed; some beneath pipe / umbilical
	Piper B	500	10.0	Some exposed; some beneath pipe / umbilical
	Mid-line	250	5.0	Beneath pipe
Saltire A to Saltire WID Bundle				
Concrete Mattress	Saltire A	17	68.3	Exposed
	Saltire WID WHPU	52	84.6	Exposed
	Mid-line	16	42.8	Some exposed; some underneath carrier pipe
Grout Bag	Saltire A	500	10.0	Some exposed; some underneath carrier pipe
	Saltire WID WHPU	500	10.0	Some exposed; some underneath carrier pipe
Chanter				
Concrete Mattress	Chanter	321	300.6	Exposed
	Piper B	92	225.1	Exposed
	Mid-line – Flowline	152	193.1	Exposed
	Mid-line – Umbilical	27	57.7	Most exposed; some under umbilical
Grout Bag	Chanter	500	10.0	Some exposed; some beneath pipe / umbilical
	Piper B	500	10.0	Some exposed; some beneath pipe / umbilical
	Mid-line – Umbilical	1340	26.8	Under umbilical

2.4 Wells

Table 2.7: Platform Wells

Field	Well	Designation	P&A Category	Status
Saltire	15/17-A1	Oil Production	PL 4/3/3	Plugged
Saltire	15/17-A2	Oil Production	PL 4/3/3	Plugged
Saltire	15/17-A4	Oil Production	PL 4/3/3	Plugged
Saltire	15/17-A5	Water Injection	PL 4/3/3	Plugged
Saltire	15/17-A6	Oil Production	PL 4/3/3	Plugged
Saltire	15/17-A7	Water Injection	PL 4/3/3	Plugged
Saltire	15/17-A8	Oil Production	PL 4/3/3	Plugged
Saltire	15/17-A9	Water Injection	PL 4/4/3	Phase 1 Abandoned
Chanter	15/17-A10	Water Injection	PL 4/3/3	plugged
Iona	15/17-A11	Oil Production	PL 4/3/3	Plugged
Saltire	15/17-A12	Oil Production	PL 4/3/3	Plugged
Chanter	15/17-A13Z	Oil Production	PL 4/3/4	plugged
Iona	15/17-A14Z	Oil Production	PL 0/0/3	Phase 1 Abandoned
Saltire	15/17-A15Z	Oil Production	PL 4/0/4	Plugged

Table 2.8: Subsea Wells

Field	Well	Designation	P&A Category	Status
Chanter	15/17-13	Oil Production	SS 4/0/3	Shut in
Chanter	15/17-14	Appraisal	SS 0/0/0	Phase 3 abandoned
Chanter	15/17-15	Appraisal	SS 0/0/0	Phase 3 Abandoned
Saltire WID	15/17-16Z	Water Injection	SS 2/0/3	Plugged
Saltire WID	15/17-17	Water Injection	SS 2/0/3	Plugged
Saltire WID	15/17-20Z	Appraisal	SS 0/0/1	Phase 2 Abandoned
Saltire WID	15/17-22Z	Water Injection	SS 3/0/3	Shut in

For details of well categorisation, see the Oil and Gas UK Well Decommissioning Guidelines, Issue 6, June 2018.

2.5 Drill Cuttings

See section 3.7 for details.

Table 2.9: Drill Cuttings Pile Information

Location of Pile Centre (WGS 84 Decimal)	Max Height (m)	Seabed Area (m^2)	Volume (m^3)
Saltire WID WHPU 58.42468199N, 0.366455293E	0.5	757	158
Chanter WHPU 58.3902191N, 0.36939873E	1.0	655	77.9

2.6 Inventory Estimates

The approximate amount of key materials used in the make-up of the Saltire and Chanter topsides, pipelines, subsea infrastructure and stabilisation features has been evaluated. Further review of the inventories of materials will be conducted during the detailed engineering phase of decommissioning. Summaries of the material inventories are shown in Table 2.10 to Table 2.13 below. An inventory will be shared with the Scottish Environmental Protection Agency (SEPA) as part of the Active Waste Management Plan for the decommissioning activities.

The Asset and Waste Inventory Report **[Ref.** Error! Reference source not found.**]** contains further information on the inventory.

Table 2.10: Saltire Installations Estimated Inventory

	Weight (tonnes)						
	Ferrous	Non-Ferrous	Plastic	Hazardous/ NORM	Concrete	Other	Total
Saltire A Topsides	10,898	841	406	86	1	642	**12,874**
Saltire WID WHPU	183	12	-	-	-	-	**195**
Total (tonnes)	**11,081**	**853**	**406**	**86**	**1**	**642**	**13,069**
% of Total	**84.8%**	**6.5%**	**3.1%**	**0.7%**	**0.0%**	**4.9%**	**100%**

Table 2.11: Chanter Installations Estimated Inventory

	Weight (tonnes)						
	Ferrous	Non-Ferrous	Plastic	Hazardous/ NORM	Concrete	Other	Total
Chanter WHPU	197	12	0	0	0	0	**209**
Total (tonnes)	**197**	**12**	**0**	**0**	**0**	**0**	**209**
% of Total	**94.4%**	**5.6%**	**0%**	**0%**	**0%**	**0%**	**100%**

Table 2.12: Saltire Pipelines Estimated Inventory

	Weight (tonnes)						
	Ferrous	Non-Ferrous	Plastic	Hazardous/ NORM	Concrete	Other	Total
Saltire A – Piper B Bundle	***5,735***	***32.2***	***15.7***	***-***	***-***	***-***	***5,783***
Carrier Pipe & Internal Pipelines	5,112	18.4	14.8	-	-	-	5,145
Tie-in Spools	194.4	6.2	0.9	-	-	-	201.5
Towheads	213.4	1.3	-	-	-	-	214.7
Towhead Protection Structures	136.4	2.9	-	-	-	-	139.3
Flange Protection Structures	79.6	3.4	-	-	-	-	83.0
Saltire A – Saltire WID Bundle	***736.2***	***6.8***	***38.1***	***-***	***-***	***-***	***781.1***
Carrier Pipe & Internal Pipelines	662.5	4.8	3.1	-	-	-	670.4
Umbilical (within bundle)	-	-	34.9	-	-	-	34.9
Tie-in Spools	14.9	0.3	0.1	-	-	-	15.3
Towheads	20.5	0.3	-	-	-	-	20.8
Towhead Protection Structures	16.8	0.5	-	-	-	-	17.3
Flange Protection Structures	21.5	0.9	-	-	-	-	22.4
Power Cables	***218.8***	***119.6***	***206.1***	***-***	***-***	***-***	***544.5***
Saltire East Power Cable	98.5	59.1	103.1	-	-	-	260.7
Saltire West Power Cable	98.2	58.9	102.8	-	-	-	260.0
Power Cable J Tube Extensions	22.1	1.6	0.2	-	-	-	23.9
Control Umbilicals	***15.5***	***0.2***	***10.4***	***-***	***-***	***-***	***26.1***
USV North Towhead Control Umbilical	6.4	0.1	3.8	-	-	-	10.3
USV South Towhead Control Umbilical	5.3	0.1	3.2	-	-	-	8.6
Saltire WID Control Umbilical (Saltire A)	3.2	-	2.9	-	-	-	6.1

	Weight (tonnes)						
	Ferrous	Non-Ferrous	Plastic	Hazardous/ NORM	Concrete	Other	Total
Saltire WID Control Umbilical (Saltire WID)	0.6	-	0.5	-	-	-	1.1
Mattresses and Grout Bags	**-**	**-**	**-**	**-**	**-**	***1,588***	***1,588***
Mattresses	-	-	-	-	-	1,543	1,543
Grout Bags	-	-	-	-	-	45.0	45.0
Total (tonnes)	**6,706**	**159**	**270**	**0**	**0**	**1,588**	**8,722**
% of Total	**76.9%**	**1.8%**	**3.1%**	**0%**	**0%**	**18.2%**	**100%**

Note: The number of decimal places listed in the above table is dependent on the overall weight of the item listed and the engineering definition available for that element. Small weights (less than 1,000 tonnes) are listed with one decimal place while larger weights are rounded to the nearest tonne.

Table 2.13: Chanter Pipelines Estimated Inventory

	Weight (tonnes)						
	Ferrous	Non-Ferrous	Plastic	Hazardous/ NORM	Concrete	Other	Total
Chanter Oil / Condensate Flowline	***843.2***	***0.5***	***176.6***	**-**	**-**	**-**	***1,020***
Flowline	815.1	-	173.1	-	-	-	988.3
Jumper	16.4	-	3.5	-	-	-	19.9
Spools	0.5	-	0.004	-	-	-	0.5
Flange Protection Structure	11.2	0.5	-	-	-	-	11.7
Chanter Umbilical	***119.2***	***9.2***	***232.6***	**-**	**-**	**-**	***361.0***
Mattresses and Grout Bags	**-**	**-**	**-**	**-**	**-**	***823.4***	***823.4***
Mattresses	-	-	-	-	-	776.6	776.6
Grout Bags	-	-	-	-	-	46.8	46.8
Total (tonnes)	**962**	**10**	**409**	**-**	**-**	**823**	**2,205**
% of Total	**43.6%**	**0.5%**	**18.5%**			**37.3%**	**100%**

Note: The number of decimal places listed in the above table is dependent on the overall weight of the item listed and the engineering definition available for that element. Small weights (less than 1,000 tonnes) are listed with one decimal place while larger weights are rounded to the nearest tonne.

3 REMOVAL AND DISPOSAL METHODS

In line with the waste hierarchy, RSRUK have considered other potential reuse options for the Saltire Area subsea infrastructure.

Options to re-use the infrastructure in-situ for future hydrocarbon developments were assessed, but none yielded a viable commercial opportunity, primarily due to the absence of remaining hydrocarbon reserves in the vicinity, and a Cessation of Production Application was approved by the North Sea Transition Authority (NSTA) in November 2016.

RSRUK have reviewed, and will continue to review, the platform's equipment inventories to assess options for their re-use either as entire units or to supplement the company's spares inventory.

On removal and where practical, RSRUK will ensure the principles of the waste hierarchy will be met in the handling of materials from Saltire Area Decommissioning to maximize the amount of material which can be reused or recovered/recycled.

RSRUK 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. As the decommissioning is not scheduled to be completed imminently, RSRUK 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.

The selection of a disposal yard contractor has not yet been finalised by RSRUK. However, if the selected disposal yard is in a country outside of the UK, the waste will be dealt with in line with the receiving country's waste legislation taking account of any required applications, reporting or notifications under the Transfrontier Shipment of Waste Regulations 2007.

3.1 Saltire A Topsides

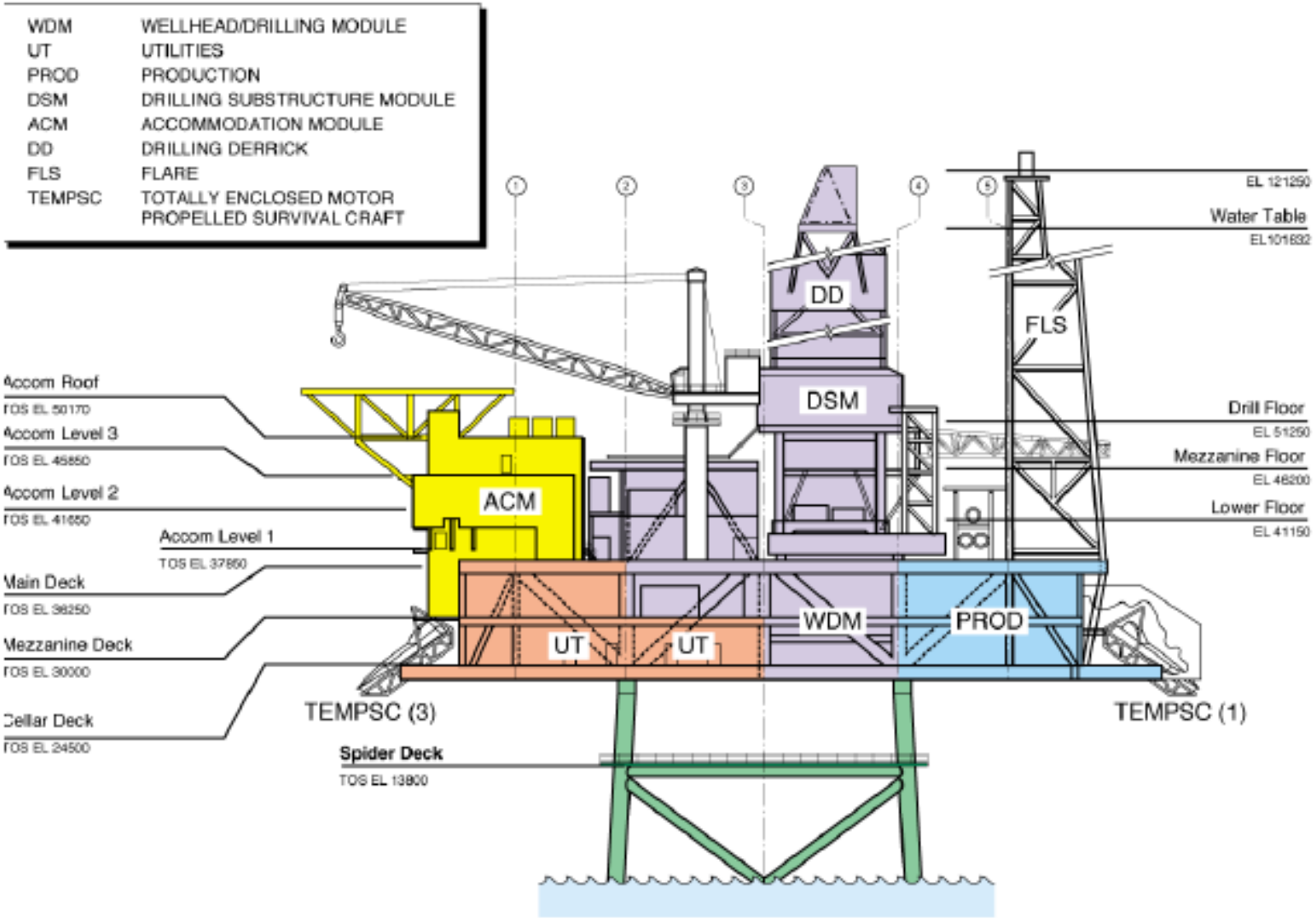
3.1.1 Topsides Decommissioning Overview

The Saltire A topsides comprises an integrated deck that supports three additional modules, namely, Accommodation Module, Flare Tower and Upper Drilling Derrick, as shown in Figure 3.1. The Integrated Deck is arranged over three working elevations; Cellar, Mezzanine and Main. These are divided into functional areas, Process, Wellhead/Drilling, Utilities, Control and Accommodation which are segregated from each other by blast and/or fire walls where necessary, as shown in Figure 3.2.

In general, the facilities are arranged with the main hazard risks, process and wellheads located to the east, while the accommodation and utilities are located to the west of the Installation. A pedestal crane is located on each of the north and south sides of the installation.

Figure 3.1: Saltire A Topsides

Figure 3.2: Diagram of Saltire A Modules



3.1.2 Preparation/Cleaning

Table 3.1: Cleaning of Topsides for Removal

Waste Type	Composition of Waste	Disposal Route
Onboard hydrocarbons	Hydrocarbons	Fluids will be drained and transported to shore for treatment as applicable. Residual hydrocarbons will be transported to shore with the installation and will be treated at the waste facility as applicable.
Other hazardous materials	NORM, any radioactive material, instruments containing heavy metals, batteries	NORM, if present, will be disposed of in accordance with the appropriate authorisation through an approved waste receiver. Other hazardous materials will be transported ashore for re-use or disposal.
Original paint coating	The presence of lead-based paints will be identified.	Painted items will be disposed of onshore with consideration given to any toxic components. Painted items deemed hazardous will be treated as appropriate at the waste facility.
Asbestos	Asbestos and ceramic fibre	Asbestos will be shipped to shore and disposed of by an appropriate waste facility.
Note: Hazardous and non-hazardous materials will be captured within the project's material inventory, which will remain live and form a key part of the active waste management plan.		

3.1.3 Topsides Removal Methods

Table 3.2: Saltire A Topsides Removal Methods

Topsides Removal Methods	
1) Reverse Installation via HLV (semi-submersible crane vessel) ☑ 2) Single Lift via monohull crane vessel ☑ 3) Single Lift via SLV ☑ 4) Piece small ☑ 5) Other – Hybrid Removal ☑	
Method	**Description**
Reverse installation by HLV	Removal of separated topsides modules by HLV for transportation to onshore facility for deconstruction. Selected equipment to be re-used, and deconstructed material to be recovered for recycling and/or disposal.
Single lift removal by SLV or monohull	Removal of topsides as a complete unit using a SLV, and transportation to onshore facility for deconstruction. Selected equipment to be re-used, and deconstructed material to be recovered for recycling and/or disposal.
Offshore deconstruction (piece small)	Removal of topsides by breaking up offshore and transporting to shore using monohull crane vessel and work barge. Recovered materials will be sorted for re-use, recycling or disposal at an onshore facility. This option is not considered feasible for Saltire A topsides.
Hybrid Removal	This would be a variation on reverse installation whereby one or more of the modules supported on the integrated deck would be removed in a combined lift with the integrated deck. This option is not considered feasible for the Saltire A topsides.
Proposed removal method and disposal route	**The Saltire A topsides will be fully removed and returned to shore for recycling. However, a final decision on decommissioning method will be made following a commercial tendering process.** **This process may identify additional methodologies as technologies develop and become field proven.** **Following the commercial tender process, RSRUK will inform OPRED of the result of the process.**

3.2 Jacket / Substructure

No platform jackets or substructures are being decommissioned as part of this DP. RSRUK intend to submit a separate DP for the jacket. There may be a period after topside removal that further decommissioning activities are taking place on the jacket prior to its removal. In the interim period the jacket will be marked on charts and MCA compliant lighting and radar reflection will be maintained.

3.2.1 Jackets/Substructures Decommissioning Overview

Table 3.3: Saltire A Jacket Weight

Description	Dry Weight (tonnes)	Remarks
N/A	N/A	N/A

Table 3.4: Jacket/Substructure

Name of Jackets/Substructures	Substructure weight (tonnes)	Date Installed	Seeking Derogation from OSPAR Decision 98/3 (Yes/No)
N/A	N/A	N/A	N/A

Table 3.5: Outcome of Comparative Assessment

Name of Jackets/Substructures	Recommended Option	Justification
N/A	N/A	N/A

Table 3.6: Saltire A Jacket/Substructure Decommissioning Methods

Decommissioning Methods	
N/A	
Method	**Description**
N/A	N/A

3.3 Subsea Installations and Stabilisation Features

Table 3.7: Subsea Installations and Stabilisation Features

Subsea installations and stabilisation features	Number / Quantity	Option	Disposal Route (if applicable)
Saltire WID WHPU	1	WHPU and pile sections from seabed to 3m below seabed - Full Removal Pile sections below 3m below seabed - left in-situ	Return to shore for reuse or recycling
Chanter WHPU	1	WHPU and pile sections from seabed to 3m below seabed - Full Removal Pile sections below 3m below seabed - left in-situ	Return to shore for reuse or recycling

3.4 Pipelines

Decommissioning Options:

*Key to Options:

1) Remove – reverse reeling
2) Remove – Reverse S lay
3) Trench and bury
4) Rock dump
5) Partial Removal
6) Leave in place
7) Remedial trenching
8) Remedial removal
9) Remedial rock-dump
10) Remove – Unbury (if required), cut and lift

Table 3.8: Pipeline or Pipeline Groups Decommissioning Options

Pipeline or Group (as per PWA)	Condition of line / group (Surface laid / Trenched / Buried / Free Spanning)	Whole or part of pipeline/group	Decommissioning Options* considered
Saltire Bundle PL880, PL881, PL882, PL883	Surface Laid	Whole line	3, 4, 6, 10
PL880 Spools	Surface laid, mattressed		Full removal
PL881 Spools	Surface laid, mattressed		Full removal
PL882 Spools	Surface laid, mattressed		Full removal
PL883 Spools	Surface laid, mattressed		Full removal
Chanter Flowline PL847	Trenched and buried	Whole line	1, 6, 7, 9
PL847 Spools	Surface laid, mattressed		Full removal
Saltire WID Bundle PL897, PL898, PL899, PLU4738	Surface Laid	Whole line	3, 4, 6, 10
PL897 Spools	Surface laid, mattressed		Full removal
PL898 Spools	Surface laid, mattressed		Full removal
PL899 Spools	Surface laid, mattressed		Full removal
Saltire Bundle Towhead umbilicals PLU4533, PLU4534	Surface laid, mattressed	Whole line	Full removal
Saltire WID Bundle Towhead umbilicals (contained within PLU4738)	Surface laid, mattressed	Whole line	Full removal
Chanter Electro-Hydraulic Control Umbilical PL849.1 –13	Trenched and buried	Whole line	1, 6, 7, 9

Pipeline or Group (as per PWA)	Condition of line / group (Surface laid / Trenched / Buried / Free Spanning)	Whole or part of pipeline/group	Decommissioning Options* considered
West Power Cable PL4531	Trenched and buried	Whole line	1, 6, 7, 9
East Power Cable PL4532	Trenched and buried	Whole line	1, 6, 7, 9

Table 3.9: Pipeline Structure Decommissioning Options

Pipeline Structures	Number / Quantity	Option	Disposal Route (if applicable)
Saltire Towheads	4	Full removal	Return to shore for reuse or recycling
Saltire Towhead Protection Frames	4	Full removal	Return to shore for reuse or recycling
Saltire Flange Protection Structures	8	Full removal	Return to shore for reuse or recycling
Chanter Flange Protection Structures	1	Full removal	Return to shore for reuse or recycling

3.4.1 Comparative Assessment Method

A CA was carried out for all pipelines, umbilicals and power cables in line with the recommendations in OPRED Guidance Notes. The CA considered Technical, Safety and Environmental Risks and Societal and Economic Impacts. The assessments closely followed the Guidelines on Comparative Assessments in Decommissioning Programmes published by Offshore Energies UK **[Ref.** Error! Reference source not found.**]**.

Workshops were held by RSRUK (including representatives from safety, environmental, subsea, topsides and decommissioning teams) using established terms of reference, detailed data on field facilities and recorded results approved by participants.

3.4.2 Outcome of Comparative Assessment

Table 3.10: Outcomes of Comparative Assessment

Pipeline or Group	Recommended Option	Justification
Saltire A to Piper B Bundle PL880, PL881, PL882, PL883	Bundle will be left in situ with the associated towheads and protection structures removed. The cut ends and any free spans existing on the bundle will be remediated by rock dump.	Leaving the bundle in-situ with ends and free spans remediated by rock dump has been assessed to be a strong option in terms of safety and technical risk and, while it is not as strong for environmental and societal impact, these are not sufficient to offset the strong safety and technical assessment. Once the economic criterion is included, this overall preference for leaving the bundle in-situ is strengthened. It should be noted that alternative strategies for remediating ends and free spans (e.g. local dredging to lower cut ends, or grout bag infill at free spans) may be adopted. See section 4.4 of the CA report **[Ref. 1]** for further details. Periodic monitoring and remediation will be carried out as required. Repsol-Sinopec will consider an approach to periodically review the bundles with a view to selecting a permanent option in the future, e.g. full removal or full rock placement, dependent on technology advances and an associated step change in safety (relative to the other options). Any permanent solution will be discussed and agreed with OPRED

Pipeline or Group	Recommended Option	Justification
Saltire A to Saltire WID Bundle PL897, PL898, PL899, PLU4738	Bundle will be left in situ with the associated towheads and protection structures removed. The cut ends and any free spans existing on the bundle will be remediated by rock dump.	Leaving the bundle in-situ with ends and free spans remediated by rock dump has been assessed to be a strong option in terms of safety and technical risk and, while it is not as strong for environmental and societal impact, these are not sufficient to offset the strong safety and technical assessment. Once the economic criterion is included, this overall preference for leaving the bundle in-situ is strengthened. . It should be noted that alternative strategies for remediating ends and free spans (e.g. local dredging to lower cut ends, or grout bag infill at free spans) may be adopted. See section 5.4 of the CA report **[Ref. 1]** for further details. Periodic monitoring and remediation will be carried out as required. Repsol-Sinopec will consider an approach to periodically review the bundles with a view to selecting a permanent option in the future, e.g. full removal or full rock placement, dependent on technology advances and an associated step change in safety (relative to the other options). Any permanent solution will be discussed and agreed with OPRED
Chanter Oil/Condensate Flowline PL847	The flowline is currently buried along the majority of its length. The flowline will be left in situ with any exposures (e.g. mid-line connections) trenched and buried.	The selected option is the most or equal most preferred option from a Safety and Environment perspective. It is less preferred than other options against the Societal criteria, but this is insufficient to offset these preferences. Technically, all options are equally preferred. Once the economic criterion is included, the overall preference for the selected option changes to a preference for leaving the flowline in situ with exposures remediated by rock dump, driven by the low decommissioning cost for this option. Given the guidance that economic considerations should not be the driving factor for selecting the decommissioning option, leaving the flowline in-situ with its exposures trenched and buried was selected. See section 6.4 of the CA report **[Ref. 1]** for further details.
Chanter Umbilical PL849.1 –13	The umbilical is currently buried along the majority of its length. The umbilical will be left in situ with any exposures (e.g. ends) trenched and buried.	The selected option is the most or equal most preferred option from a Safety and Environment perspective. It is less preferred than other options against the Societal criteria, but this is insufficient to offset these preferences. Technically, all options are equally preferred. Once the economic criterion is included, the overall preference for leaving the umbilical in situ with any exposures trenched and buried is maintained. See section 7.4 of the CA report **[Ref. 1]** for further details.
West Power Cable PL4531	The power cable is currently buried along the majority of its length. The power cable will be left in situ with any exposures (e.g. ends) trenched and buried.	The selected option is the most or equal most preferred option from a Safety and Environment perspective. It is less preferred than other options against the Societal criteria, but this is insufficient to offset these preferences. Technically, all options are equally preferred. Once the economic criterion is included, the overall preference for leaving the power cable in situ with any exposures trenched and buried is maintained. See section 7.4 of the CA report **[Ref. 1]** for further details.
East Power Cable PL4532	The power cable is currently buried along the majority of its length. The power cable will be left in situ with any exposures (e.g. ends) trenched and buried.	The selected option is the most or equal most preferred option from a Safety and Environment perspective. It is less preferred than other options against the Societal criteria, but this is insufficient to offset these preferences. Technically, all options are equally preferred. Once the economic criterion is included, the overall preference for leaving the power cable in situ with any exposures trenched and buried is maintained. See section 7.4 of the CA report **[Ref. 1]** for further details.

Note: As detailed in Table 1 .7 (Point 7-Defered Recovery) the recovery of items which carry a potential risk of damage to Tweedsmuir's operational infrastructure will be deferred until the time of the Tweedsmuir field being decommissioned.

3.5 Pipeline Stabilisation Features

Table 3.11: Pipeline Stabilisation Feature Decommissioning Options

Pipeline stabilisation features	Number / Quantity	Option	Disposal Route (if applicable)
Concrete mattresses – Accessible	1454	Full removal (Note 1)	Return to shore for reuse / recycling / disposal
Grout bags – Accessible	4590	Full removal (Note 1)	Return to shore for reuse / recycling / disposal
Rock Dump	2,000 tonnes approximate estimate	Made safe and left in-situ	

Notes:

1. Where mattresses/grout bags cannot be safely recovered due to degradation or inaccessible, RSRUK will consult with OPRED before any alternative option is executed.

3.6 Wells

Table 3.12: Well Plug and Abandonment

The Saltire development consists of 10 platform wells and 4 WID subsea wells, the Iona development consists of 2 platform wells and the Chanter development consists of 2 platform wells plus 3 subsea wells. These wells, as listed in Table 2.7 and Table 2.8, will be plugged and abandoned in accordance with the latest version of the Oil & Gas UK Wells Decommissioning Guidelines (Issue 6, June 2018) **[Ref.** Error! Reference source not found.**]**. A MAT and the supporting SAT will be submitted in support of the works carried out. An application will be submitted to the WONS team at NSTA (North Sea Transition Authority).

3.7 Drill Cuttings

3.7.1 Drill Cuttings Decommissioning Options

OSPAR Recommendation 2006/5 has indicated that if the oil release rate from a cuttings pile is less than 10 tonnes/year and the area persistence is less than 500 km² years then the best environmental option for the management of the pile is to leave it in place undisturbed to degrade naturally.

Survey work was undertaken in October/November 2017 to ensure the current condition of the piles is known and allow for a robust cuttings management plan cognisant of OSPAR 2006/5. Further review of the decommissioning approach for the Saltire WID WHPU and Chanter WHPU drill cuttings management has been carried out.

Following a best available technology review **[Ref.** Error! Reference source not found.**,** Error! Reference source not found. **and** Error! Reference source not found.**]**, it has been determined that the most appropriate method for drill cuttings treatment for the Saltire WID WHPU and Chanter WHPU is the use of suction dredging to relocate the drill cuttings to the local seabed area. Modelling of this operation predicts that the water column impact in all scenarios will be short-term and localised near to the seabed and is therefore unlikely to have a long-term impact **[Ref.** Error! Reference source not found.**]**.

Table 3.13: Drill Cuttings Decommissioning Options

How many drill cuttings piles are present?	Two	
Tick options examined:		
☐Remove and re-inject	☑Leave in place	☐Cover
☑Relocate on seabed	☐Remove and treat onshore	☐Remove and treat offshore

☑Other - Other treatment/remediation options and the options above are discussed as part of the BAT assessment **[Ref.** Error! Reference source not found.**]**.		
Review of Pile characteristics	**Saltire WID WHPU**	**Chanter WHPU**
How has the cuttings pile been screened? (desktop exercise/actual samples taken)	Yes	Yes
Dates of sampling (if applicable)	2017	2017
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 in order to remove the installation?	Yes – Cuttings to be removed and relocated to seabed by suction dredging	Yes – Cuttings to be removed and relocated to seabed by suction dredging
What quantity (m^3) would have to be displaced/removed?	158	78
Will the drill cuttings pile have to be displaced in order to remove any pipelines?	No	No
What quantity (m^3) would have to be displaced/removed?	0	0
Have you carried out a CA of options for the Cuttings Pile?	Not required as below OSPAR threshold	Not required as below OSPAR threshold

3.7.2 Comparative Assessment Method

Not applicable.

3.7.3 Outcome of Comparative Assessment

Not applicable.

3.8 Waste Streams

Table 3.14: Waste Stream Management Methods

Waste Stream	Removal and Disposal method
Bulk liquids	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 disposal route for the remainder will be confirmed in future and will disposed of in accordance with health, safety and environmental protocols.
NORM/LSA Scale	Tests for NORM will be undertaken offshore and disposal will be carried out in full compliance with all relevant regulations.
Asbestos	The final disposal route will depend on the quantities found but will be dealt with and disposed of in full compliance with all relevant regulations.
Other hazardous wastes	Will be recovered to shore and disposed of in full compliance with all relevant regulations.
Onshore Dismantling sites	Appropriate licenced sites will be selected. Facility chosen must demonstrate waste stream management throughout the deconstruction process and demonstrate their ability to deliver the disposal options reflecting the waste hierarchy's aims. Existing sites would need a proven track record.

As part of the Contracting Strategy, RSRUK will ensure the selection of waste competent Contractor(s), experienced in the handling of all wastes associated with the Decommissioning of Oil and Gas Platforms.

The waste management provider's/disposal yards shall follow the waste management hierarchy in the handling of materials from Saltire Decommissioning to maximize the amount of material from the projects which is reused or recovered/recycled. RSRUK 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.

It is anticipated that up to 90% of the returned material will be reused or recovered/recycled.

Table 3.15: Inventory Disposition

	Total Inventory Tonnage	Planned tonnage to shore	Planned left *in-situ*
Saltire A Topsides	12,874 tonnes	12,874 tonnes	0 tonnes
Saltire WID WHPU	195 tonnes	174 tonnes	21 tonnes
Chanter Installations	209 tonnes	167 tonnes	42 tonnes
Saltire Pipelines	8,722 tonnes	2,387 tonnes	6,335 tonnes
Chanter Pipelines	2,205 tonnes	911 tonnes	1,294 tonnes

4 ENVIRONMENTAL APPRAISAL

4.1 Environmental Sensitivities (Summary)

Table 4.1: Environmental Sensitivities

Environmental Receptor	Main Features
Conservation Interests	The closest designated site to the Saltire Area is the Scanner Pockmark Special Area of Conservation (SAC), 38 km to the south-east and designated for the presence of submarine structures made by leaking gases, listed as an Annex I feature in the EU Habitats Directive. Other designated sites are more than 49 km from the Saltire Area. Features of conservation importance noted in survey work across the whole of the Saltire Area include the Scottish Priority Marine Feature (PMF) 'burrowed mud' and one of its constituent biotopes, the OSPAR-listed threatened and/or declining habitat/species 'sea-pens and burrowing megafauna communities'. In addition, the ocean quahog (a type of clam) is listed by OSPAR as a threatened and/or declining species and is also listed as a Scottish PMF; records of this species occur throughout the CNS region around the Saltire Area. Survey work over the Saltire Area found no adult-sized specimens but juveniles were recorded in grab samples at most stations. No Annex I habitat such as rocky, stony or biogenic reef, or submarine features made by leaking gases were recorded within the Saltire Area.
Seabed	Water depths across the Saltire Area range between 142 m and 145 m. The seabed at all three fields consists primarily of sediments with very little hard substrata. Species living on the seabed observed through photography were generally sparse, due mainly to dominance of muddy sedimentary habitats and the relative absence of hard substrata, and similar over the whole area surveyed. The more frequently observed species included sea-pens, sea urchins, starfish, shrimps, hermit crabs and hagfish. The invertebrate community living within the sediments and sampled by grab was generally similar across the Saltire Area, with the most abundant species being mainly polychaete species characteristic of background conditions in this part of the CNS, as evident in the earliest baseline surveys. However, a subtle platform-related gradient in distribution was evident around Saltire A, with the identities of the most abundant species within 200 m differing very slightly from those further away. There are bathymetrically distinct cuttings piles present on the seabed at the Saltire WID WHPU plus the Chanter WHPU. The piles at the Saltire WID WHPU and the Chanter WHPU have surface areas of 757 m^2 and 655 m^2, volumes of 158 m^3 and 78 m^3 and maximum depths of 0.5 m and 1.0 m respectively. Each pile was surrounded by a central zone of elevated hydrocarbon contamination in which total hydrocarbon concentrations were ≥50 $\mu g g^{-1}$. The size of this area was 0.01 km^2 at the Saltire WID WHPU and the Chanter WHPU.

Environmental Receptor	Main Features
Fish	The Saltire Area lies within known spawning areas for cod, Norway pout, and Norway lobster. The region is a low intensity nursery ground for anglerfish, blue whiting, cod, hake, ling, mackerel, plaice, sandeels, spotted ray, spurdog and whiting. Norway pout, Norway lobster and sprat are also known to use all or part of the area as a nursery ground. However, published sensitivity maps indicate that the probability of aggregations of juvenile anglerfish, blue whiting, hake, haddock, herring, mackerel, horse mackerel, Norway pout, plaice, sprat and whiting occurring in the offshore decommissioning Project area is low. Of the fish identified as spawning in the Saltire Area cod is listed as vulnerable by the IUCN. The Saltire area is also a low intensity nursery ground for numerous species of which mackerel and spurdog are listed as vulnerable by the IUCN. Of the species identified as using the Saltire area for spawning or nursery grounds cod, Norway put, anglerfish, blue whiting, ling, mackerel, spurdog, whiting, herring and horse mackerel are listed as Priority Marine Features.
Fisheries	According to fisheries statistics for the UK provided by Marine Scotland, the region around the Saltire Area has targeted primarily for pelagic fish in terms of landed weight over the period 2013 - 2017. The tonnage of demersal species is a lot lower, but its value is generally on a par with the value of pelagic catches. Shellfish catches, dominated by Norway lobster, have been approximately 700 tonnes or less between 2013 and 2017, but in 2017 accounted for 40% of the landed value. Both fishing effort and landings have been low over the last six years of statistics, but summer months are generally busiest. Vessel monitoring data indicate that fishing effort is multinational; the majority of fishing to the south and west of the Saltire Area was from UK-registered vessels (all demersal trawlers), while most of the fishing to the north and east was from overseas vessels. Overall, the fishing effort in the vicinity of the Saltire Area is low compared to other UK offshore areas.
Marine Mammals	The harbour porpoise and the white-beaked dolphin are the most frequently recorded cetaceans in in and around the Saltire Area. The predicted densities of these species in the vicinity of the Saltire Area from recent Small Cetaceans in European Atlantic waters (SCANS-III) surveys is approximately 0.7 – 0.8 harbour porpoise per km² and 0.25 – 0.3 white-beaked dolphins per km², which is average compared to data across the UK. Grey seal densities vary across the offshore waters of the Project are very low at <1 seal per 25 km². Harbour seal density is also predicted to be very low across the Project area, at <1 animals per 25 km². Additionally, from June to September, harbour seals are on shore more often than at other times of the year.
Birds	Large numbers of moulting auks (e.g. razorbills, guillemots, puffins) disperse from their coastal colonies and into offshore waters from July onwards and are sensitive to surface pollution as they are flightless at this time. Of these species, puffins are listed as IUCN 'Vulnerable' and razorbills are IUCN 'Near Threatened'; all other species in the area are listed as IUCN 'Least Concern'. The most abundant seabird species found in the Project area are northern fulmar, black-legged kittiwake and common guillemot. Herring gulls, glaucous gull and great black-backed gulls also use the area in winter. Following the 'Seabird Oil Sensitivity Index' developed by Offshore Energies UK, the vulnerability of seabirds to surface oil pollution in the vicinity of the Saltire Area and surrounding blocks is considered low between January – March and June – August, high to extremely high in September and October, and very high in November and December. There was no data for April/May in most of the blocks located in the vicinity of the Saltire Area.
Onshore Communities	Waste generated during decommissioning will be transported to shore in an auditable manner through licensed waste contractors. The waste management hierarchy of 'reduce, re-use, recycle' will be followed. RSRUK intends to engage approved waste management contractors to handle, store and dispose of all waste generated by the decommissioning activities.
Other Users of the Sea	Shipping density in the central North Sea in the vicinity of the proposed decommissioning activities is low. Average densities range from 0.2 vessels up to approximately five vessels per week and are mainly cargo and supply vessels. The proposed decommissioning operations are located in a well-developed area for oil and gas extraction. Although several pipelines and two cables are located in the vicinity of the Project area (apart from those specific to the Saltire Area), the closest active field, Piper B, is 7 km to the north west of Saltire A.

Environmental Receptor	Main Features
Atmosphere	Emissions to atmosphere offshore will arise from the vessels used to decommission the Saltire Area infrastructure. Onshore emissions will result from the yard activities including recycling of the steel and other materials associated with the structures returned to shore.

4.2 Potential Environmental Impacts and their Management

4.2.1 Environmental Appraisal Summary

The Environmental Appraisal (EA) **[Ref. 2]** identifies potential environmental impacts by identifying interactions between the proposed decommissioning activities and the local environment while considering responses from stakeholders. The EA also details mitigation measures designed to avoid and reduce the identified potential environmental impacts and describes how these will be managed in accordance with the RSRUK established Environmental Management System (EMS).

Following an assessment of the key potential impacts through an environmental issues identification workshop and subsequent risk assessment, the EA concludes that the recommended options to decommission the Saltire Area facilities can be completed without causing significant impact to the environment. Those activities that have a potential for a significant impact are summarised in Table 4.2, along with the proposed environmental management measures to minimise that impact.

Table 4.2: Environmental Impact Management

Activity	Main Impacts	Management
Topsides Removal	Emissions during decommissioning activities, largely from fuel combustion gases from vessels; Physical presence of vessels in relation to other sea users.	Vessels, combustion machinery and fuel use conform to UK and international emissions standards; Vessel use will be optimised/minimised for the decommissioning activities; Use of established contractors with appropriate capability, licences and maintenance procedures will be selected and audited; and, Other sea users will be notified in advance of activities occurring.
Subsea Installations Removal	Disturbance to seabed and cuttings piles from cutting of infrastructure piled foundations, and from possible overtrawling activities [Note 1]; Possible snagging risk to other sea users from holes in the seabed remaining after removal of structures; Waste to onshore – impacts to air quality, odour and visual amenity due to yard operations and transport, and use of scarce landfill resource.	Management measures will include those outlined above for topsides removal together with the following: Use of approved contractors with proven experience, licences, controls, consents and environmental management procedures; Survey data confirm absence of Annex I habitat and species features; Stakeholder engagement, notifications procedures and data made available for charting and FishSAFE plotters; No vessel anchoring planned; Cuttings survey and modelling data indicate disturbance will not change current cuttings pile footprint significantly; Excavated areas remediated as necessary to mitigate snagging risks to other sea users; Surveys and debris searches will be conducted as part of a programme to ensure a safe seabed is left for other sea users; and [Note 1] Post-decommissioning monitoring; type and frequency to be determined through a risk-based approach but will be agreed with OPRED.

Activity	Main Impacts	Management
Decommissioning Pipelines	Disturbance to seabed; Possible exclusion and snagging risk to other sea users from pipelines decommissioned *in situ*; Waste to onshore – impacts to air quality, odour and visual amenity due to yard operations and transport, and use of scarce landfill resource.	Management measures will include those outlined above for topsides removal together with the following: Use of approved contractors with proven experience, licences, controls, consents and environmental management procedures; Survey data confirm absence of Annex I habitat and species features; Stakeholder engagement, notifications procedures and data made available for charting and FishSAFE plotters; No vessel anchoring planned; Excavated areas remediated and any berms created profiled to mitigate snagging risks to other sea users; Surveys and debris searches will be conducted as part of a programme to ensure a safe seabed is left for other sea users; and Note 1 Post-decommissioning monitoring; type and frequency to be determined through a risk-based approach but will be agreed with OPRED.
Decommissioning Stabilisation Features	Disturbance to seabed; Possible exclusion and snagging risk to other sea users if any protection features end up being decommissioned *in situ*; Waste to onshore – impacts to air quality, odour and visual amenity due to yard operations and transport, and use of scarce landfill resource.	Management measures will include those outlined above for topsides removal together with the following: Use of approved contractors with proven experience, licences, controls, consents and environmental management procedures; Survey data confirm absence of Annex I habitat and species features; Stakeholder engagement, notifications procedures and data made available for charting and FishSAFE plotters; No vessel anchoring planned; Surveys and debris searches conducted as part of a programme to ensure a safe seabed is left for other sea users. Note 1 Post-decommissioning monitoring; type and frequency to be determined through a risk-based approach but will be agreed with OPRED.
Decommissioning Drill Cuttings	Disturbance of the cuttings piles during decommissioning operations could potentially occur during the removal of the Saltire WID WHPU and Chanter WHPU (but would be avoided if it is possible to cut the piles internally) and from overtrawling, but also to an undefined extent from future fishing activity.	Cuttings piles survey data shows that cuttings piles at both locations are small and well below OSPAR thresholds set for oil release and persistence; Stakeholder engagement, notifications procedures and data made available for charting and FishSAFE plotters; Post-decommissioning monitoring; type and frequency to be determined through a risk-based approach but will be agreed with OPRED.

Note 1: The initial clear seabed verification survey will be conducted using non-intrusive methods, should the results be deemed inconclusive alternative methods, including over trawling, will be discussed with OPRED.

5 INTERESTED PARTY CONSULTATIONS

The following table lists all consultations with interested parties for decommissioning of all infrastructure (Saltire A jacket, Saltire A topsides, and Saltire Area subsea infrastructure) in the Saltire area.

Table 5.1: Summary of Stakeholder Comments

UK	
Comment	**Response**
Informal Stakeholder Consultations	
Scottish Fishermen's Federation	
Has the recent high level of prawn fishing activity in the Saltire are been taken into account within the DP or EA?	The prawn fishing activity levels have been taken into account as part of the fishing and marine vessel studies that formed the basis for the comparative assessment work, and is outlined in Section 3.10 of the EA.
How are the remaining drill cuttings going to be identified and communicated to fishermen?	The locations of any remaining drill cuttings will be captured on Fishsafe, Kingfisher and Admiralty Chart updates (see Section 5.2.3 of the EA).
It is noted that ICES rectangle 45F0 has the highest concentration of pipelines / spans in the UKCS	Noted and understood (see Section 3.11 of the EA). Any reportable free spans on the bundles that will be left in situ will be remediated during decommissioning with the remaining bundle periodically monitored and remediated as required.
Strongly against the potential for leaving the bundle towheads and associated protection structures in-situ.	Decommissioning plan is to fully remove all bundle towheads and associated protection structures, as outlined in Section 2 of the EA and detailed in the DP for decommissioning of the Saltire Area subsea infrastructure.
Joint Nature Conservation Committee	
Are the Seapens and burrowing megafauna communities going to be discussed/assessed within the DP or EA?	The impact of the proposed decommissioning activities on these communities is fully discussed within Section 5.1 of the EA.
Will marine growth be cleaned from the jacket offshore (which could impact sensitive species on the seabed)?	All marine growth (apart from localised cleaning around cut / lift locations) will be retuned onshore with the structure.
What is proposed method of removal for piles on Wellhead Protection Unit structures that cannot be pulled out?	Such piles will be cut 3 m below the seabed (see Section 2.1.1.2 of the EA).
Is there evidence of scour and span creation following rock installation around the bundles?	Video footage of previous rock placement areas around bundle reviewed and no major scour issues identified.
Concerns over rock placement being applied in an area that has sea-pen and burrowing megafauna communities.	The level of rock placement estimated for each pipeline being decommissioned in-situ in Section 5.1.2.4 of the EA, and impact assessment for this is given in Sections 5.1.3.1 and 5.1.3.2 of the EA.
If the bundles are self-buried to 0.5 m, why has additional rock placement not been considered to comply with current regulations of 0.6 m buried depth for infrastructure left in the seabed?	Full rock placement of the bundles to comply with 0.6 m burial was considered as part of the CA for the bundles and was found to not be the most appropriate overall solution, mainly due to the environmental impact on a sensitive area and of the significant quantity of rock required.
Survey data should at least include the area of proposed operations, unless justification is provided as to why wider area surveys are sufficiently representative of conditions at the site of proposed operations.	Survey data covers all proposed operations, see Sections 3.1 to 3.5 of the EA.
Survey data should provide adequate evidence that habitats and species of nature conservation concern (including Annex I habitats) are or are not present within operational impact areas.	Evidence presented in Sections 3.1 - 3.5 of the EA, and the conclusion about habitats and species of conservation concern outlined in Section 3.5.2 of the EA.
It is good practice to include a diagram indicating the surveyed area in the context of the proposed activity and to identify any sample points or the location of photographic evidence. Data provided should also include high resolution acoustic data, video and / or still images.	Diagrams of sample stations and survey area included as Figures 3.1 and 3.2 of the EA. Sonar data findings and example photographic images are provided in Section 3.3 of the EA.

UK	
Comment	**Response**
Informal Stakeholder Consultations	
As per guidance, the environmental description should focus on the actual area to be developed and not just provide a generic description of the local environment. Evidence should be presented within the application confirming that the data used are still relevant.	A focused environmental description that incudes any necessary surrounding context has been provided in Section 3 of the EA.
Any gaps or limitations in environmental information should be acknowledged with, where appropriate, strategies to address these gaps or limitations.	No gaps identified.
The definition of the OSPAR threatened and declining feature 'Sea-pens and burrowing megafauna communities' is the subject of on-going discussions between Contracting Parties as scientific knowledge improves, particularly for deep sea areas. The presence of burrowing megafauna is the essential defining characteristic; the presence or absence of sea-pens does not in itself define the feature. Sea-pens may form a prominent feature of the seabed, but do not have to be present to define this habitat. This assumption is equally true of the Scottish 'burrowed mud' PMF.	Based on site-specific survey data, Section 3.5.2 of the EA acknowledges that Saltire is located within a seabed area that can regarded as largely consisting of sea-pen and burrowing megafauna habitat.
We are available for discussion if required, concerning protected habitats and species, to ensure that the correct information is provided within the EA and DP and to allow assessment of whether proposed operations may adversely affect habitats or species of conservation importance.	Noted and understood.
The proposed operations are not within a marine protected area. We recommend checking the status of any sites discussed in the EA and DP prior to submission; further information can be found on the JNCC web page (http://jncc.defra.gov.uk/offshoreMPAs).	Information on marine protected sites in the vicinity has been checked and is provided in Section 3.9 of the EA.
We encourage the operator to minimise the amount of hard substrate material used during all operations and welcome detailed commentary on any stabilisation operations to allow further understanding of their actual nature conservation impact. This would include locations, size/grade of rock used, tonnage/volume, footprint, impact assessment and expected fate of the deposits. Where use of stabilisation material cannot be avoided, we recommend using a more targeted placement method where possible e.g. fallpipe vessel rather than side discharge methods.	Noted and understood. See section 5.1.2.4 and Table 5.4 of the EA for rock placement detail, quantification and methods.
We would recommend that where possible the Seabird Oil Sensitivity Index (SOSI) is used. The purpose of this index is to identify areas where seabirds are likely to be most sensitive to oil pollution by considering factors that make a species more or less sensitive to oil-related impacts. We highlight, however, that this index is not intended to inform environmental baselines on seabird populations and recommend consideration of other data sources for this purpose. JNCC would also like to highlight that JNCC and OPRED are currently in the process of revising the periods of concern for drilling activities, based on the SOSI. While previous recommendations were considering periods of concern when there were two or more sequential months of very high seabird vulnerability (OVI), the updated periods of concern for drilling will be defined as any single month that presents, in a given licence block, either a very high or extremely high seabird median sensitivity.	Other data sources have been used in addition to consideration of SOSI (see Section 3.7 of the EA). Noted, although since the proposed activities do not involve drilling or seismic survey of any type, no discussion of periods of concern for these is given in Section 3.7 of the EA (we note here that there are currently no periods of concern highlighted for either drilling or seismic activities in UKCS Block 15/17).
JNCC note the presence of harbour porpoise and white-beaked dolphin in the vicinity of the development. The SCANS III 2017 publication indicates the presence of white sided dolphins and minke whales in low densities in the area. We request that white sided dolphins and minke whales are included in any future marine mammal baseline data.	The presence of white sided dolphins and minke whales in the region is noted in Section 3.8 of the EA.
Injury thresholds and hearing functions for marine mammals previously published by Southall et al (2007) were updated in 2016 (NMSF, 2018) and most recently in 2019 (Southall et al.,	As noted in Table 4.1 of the EA, no project activities will generate high-energy impulsive noises (which would be the most likely to cause injury to biota). No explosives, piling or

UK	
Comment	**Response**
Informal Stakeholder Consultations	
2019). The thresholds and functions presented in these 2019 documents are identical and reflect the most comprehensive and up to date scientific knowledge relating to the risk of auditory injury to marine mammals. We therefore require these new thresholds and functions be used for any marine mammal noise assessments; however, we highlight the terminology used to identify the hearing function groups does differ between the two documents. Future applications should be clear as to which reference has been used in the assessment. NOAA has also published a spreadsheet to estimate injury range as a result of a proposed activity, based on the cumulative SEL metric. We are still assessing whether this would be an appropriate tool for use in the UKCS.	seismic sources will be used. On this basis assessment of injuries or significant disturbance through noise to marine mammals was scoped out of assessment in the Saltire EA. However, this information is noted for future assessments.
JNCC considers it best practice to consider the full worst-case scenario to enable a meaningful assessment of the full environmental impacts of a project.	This principle has been applied throughout the Saltire EA.
JNCC suggests that the proposed operations are assessed alongside approved developments under construction, approved developments that have not yet commenced construction, developments submitted for approval but not yet approved, as well as any other significant appropriate development for which some realistic figures are available.	Cumulative assessment takes into account other approved developments nearby, together with seabed trawling by the fishing industry (relevant to the overtrawling activities that may ensue at Saltire as part of debris removal or provision of assurance on a snag-free seabed (Sections 5.1.6 and 5.2.4 of the EA).
Scottish Environmental Protection Agency	
Are there any radioactive sources on the jacket?	No radioactive sources have been detected during ROV surveys of jacket.
OPRED	
If bundles are left in-situ, operator will be required to review technology and report back to OPRED for 10 years, in a similar manner to other operators with decommissioned bundles.	Noted and understood.

6 PROGRAMME MANAGEMENT

6.1 Project Management and Verification

RSRUK have 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 RSRUK Health, Safety and Environmental policies and meet all relevant legislative requirements. A contracting strategy will be based on RSRUK procurement and contract policies, including competitive tendering for all contractor services. Where possible, activities will be co-ordinated with other decommissioning operations and take account of any initiatives promoted by the NSTA. RSRUK will report regularly on the execution of the DPs to OPRED and discuss any changes in plans in advance.

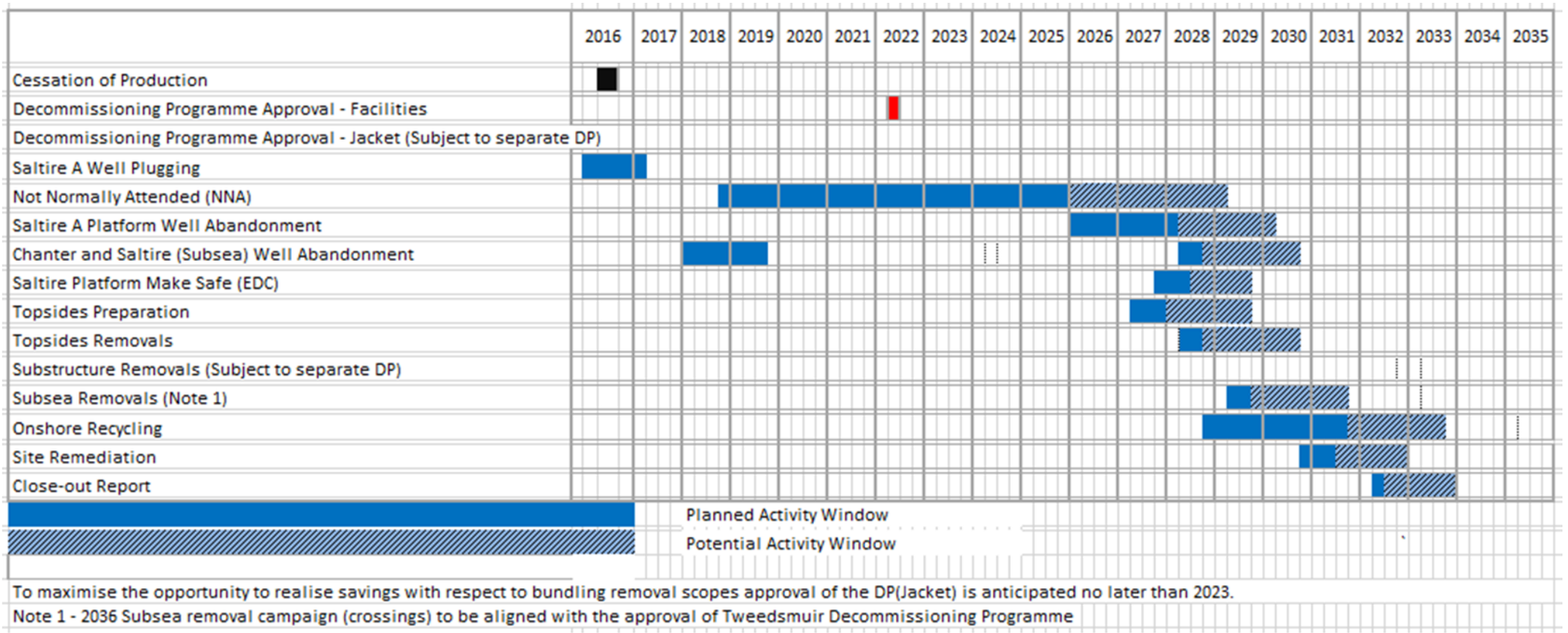
6.2 Post-Decommissioning Debris Clearance and Verification

A pre-decommissioning survey has been conducted and used along with the results from previous operational surveys to identify debris within the 500m zones and within the 100m (50m either side of the pipeline) pipeline corridors **[Ref.** Error! Reference source not found.**]**. 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. Debris removal will form part of the subsea decommissioning execution scope of work. The seabed conditions at the installation sites and pipeline corridors will be independently validated initially through non-intrusive methods, however, if the results are inconclusive alternative methods for clear seabed validation will be discussed with OPRED. The post decommissioning survey will provide further verification. This will be followed by a statement of clearance to all relevant governmental departments and non-governmental organisations.

6.3 Schedule

The current schedule for decommissioning activities in the Saltire Area, including the Saltire A topsides and area subsea infrastructure elements, is outlined in Figure 6.1. 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 Saltire decommissioning operations with third-party decommissioning.

Figure 6.1: Saltire Area Decommissioning Project Plan



6.4 Costs

RSRUK has used the Offshore Energies UK work breakdown structure to develop cost estimates for the Saltire A Topsides and Saltire Area subsea infrastructure DPs. The provisional estimated costs have been provided to OPRED in confidence.

6.5 Close Out

In accordance with the OPRED Guidelines, a close out report will be submitted to OPRED explaining any variations from the DPs (normally within 12 months of the completion of the onshore disposal) including debris removal and independent verification of seabed clearance and plus finalising of the onshore work related to recycling and disposal of all materials removed the seabed.

6.6 Post-Decommissioning Monitoring and Evaluation

A post decommissioning environmental seabed survey, covering pipeline routes and the installation site shall be carried out when decommissioning activity has been concluded. The survey will also 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

1. Repsol Sinopec Resources UK Limited document number RP-DTASAL001-GE-0047: Saltire Area Decommissioning Option Selection Studies – Subsea and Pipelines Infrastructure Comparative Assessment Report.
2. Repsol Sinopec Resources UK Limited document number RP-DTASAL001-HS-0053: Saltire Area Decommissioning Option Selection Studies – Environmental Appraisal Report.

8 PARTNER LETTER(S) OF SUPPORT

DocuSign Envelope ID: 4B1D3C85-9013-409D-BD31-678D0213AFD9

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 email to: ruth.mcdermott@beis.gov.uk

Your Ref: 12.04.06.05/270C

28th November 2022

Dear Sir or Madam,

PETROLEUM ACT 1998 ABANDONMENT OF THE SALTIRE INSTALLATIONS

We acknowledge receipt of your letter dated 23rd November 2022 which formally called for the submission of the abandonment programme in relation to the Saltire installations.

We, Chevron Britain Limited confirm that we authorise Repsol Sinopec Resources UK Limited (**"Repsol"**) to submit on our behalf an abandonment programmes relating to the Saltire A Topsides and Saltire Area Subsea infrastructure Decommissioning Programmes, dated 28th November 2022.

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 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 email to: ruth.mcdermott@beis.gov.uk

Your Ref: 12.04.06.05/75C

28th November 2022

Dear Sir or Madam,

PETROLEUM ACT 1998 ABANDONMENT OF THE SALTIRE FIELD PIPELINES

We acknowledge receipt of your letter dated 23rd November 2022 which formally called for the submission of the abandonment programme in relation to the Saltire field pipelines.

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 Saltire A Topsides and Saltire Area Subsea infrastructure Decommissioning Programmes, dated 28th November 2022.

Yours faithfully

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

Chevron

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 email to: ruth.mcdermott@beis.gov.uk

Your Ref: 12.04.06.05/91C

28th November 2022

Dear Sir or Madam,

PETROLEUM ACT 1998 ABANDONMENT OF THE CHANTER INSTALLATIONS

We acknowledge receipt of your letter dated 23rd November 2022 which formally called for the submission of the abandonment programme in relation to the Chanter installations.

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 Saltire A Topsides and Saltire Area Subsea infrastructure Decommissioning Programmes, dated 28th November 2022.

Yours faithfully

DocuSigned by:
Andrew Kulpecz

Andrew Kulpecz
Director
For and on behalf of Chevron Britain Limited

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 email to: ruth.mcdermott@beis.gov.uk

Your Ref: 12.04.06.05/77C

28th November 2022

Dear Sir or Madam,

CHANTER FIELD PIPELINES DECOMMISSIONING PROGRAMME PETROLEUM ACT 1998

We acknowledge receipt of your letter dated 23rd November 2022 which formally called for the submission of the abandonment programme in relation to the Chanter Field Pipelines.

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 Saltire A Topsides and Saltire Area Subsea infrastructure Decommissioning Programmes, dated 28th November 2022.

Yours faithfully

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

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
2nd Floor, Wing C, AB1 Building
Crimon Place
Aberdeen AB10 1BJ

25th November 2022

Dear Sir or Madam

SALTIRE A TOPSIDES AND SALTIRE AREA SUBSEA INFRASTRUCTURE DECOMMISSIONING PROGRAMMES PETROLEUM ACT 1998

We acknowledge receipt of your letters dated 23rd November 2022, which formally called for the submission of the abandonment programmes in relation to the Saltire A Topsides and Saltire Area Subsea Infrastructure.

We, Eni UK Limited, confirm that we authorise Repsol Sinopec Resources UK Limited to submit on our behalf the abandonment programmes relating to the Saltire A Topsides and Saltire Area Subsea Infrastructure, dated 28 November 2022, to the Secretary of State.

Yours faithfully

Luciano Vasques (Nov 25, 2022 18:28 GMT)

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

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: 9th December 2022

Dear Sir or Madam,

Saltire Subsea and Saltire A Topsides Decommissioning Programmes – 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 Saltire 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 Saltire Field.

Yours faithfully,

Allen Deans

Allen Deans
Commercial Advisor, bp North Sea

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: 9th December 2022

Dear Sir or Madam,

Chanter 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 Chanter 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 Chanter Field.

Yours faithfully,

Allen Deans

Allen Deans
Commercial Advisor, bp North Sea

REPSOL SINOPEC
ALPHA LIMITED

163 Holburn Street
Aberdeen
AB10 6BZ

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

14th December 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

Saltire A Topsides and Saltire Area Subsea Infrastructure Decommissioning Programmes

PETROLEUM ACT 1998

We acknowledge receipt of your letters dated 23 November 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 Saltire and Chanter installations and pipelines as directed by the Secretary of State on 23 November 2022.

We confirm that we support the proposals detailed in the Saltire A Topsides and Saltire Area Subsea Infrastructure Decommissioning Programmes dated 28 November 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

14th December 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

Saltire A Topsides and Saltire Area Subsea Infrastructure Decommissioning Programmes
PETROLEUM ACT 1998

We acknowledge receipt of your letters dated 23 November 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 Saltire and Chanter installations and pipelines as directed by the Secretary of State on 23 November 2022.

We confirm that we support the proposals detailed in the Saltire A Topsides and Saltire Area Subsea Infrastructure Decommissioning Programmes dated 28 November 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

Registered in England and Wales No. 01061583 – Registered Office: Suite 1, 7th Floor, 50 Broadway, London, SW1H 0BL

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

11th December 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

Saltire A Topsides and Saltire Area Subsea Infrastructure Decommissioning Programmes

PETROLEUM ACT 1998

We acknowledge receipt of your letters dated 23 November 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 Saltire and Chanter installations and pipelines as directed by the Secretary of State on 23 November 2022.

We confirm that we support the proposals detailed in the Saltire A Topsides and Saltire Area Subsea Infrastructure Decommissioning Programmes dated 28 November 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

14th December 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

Saltire A Topsides and Saltire Area Subsea Infrastructure Decommissioning Programmes
PETROLEUM ACT 1998

We acknowledge receipt of your letters dated 23 November 2022.

We, Repsol Sinopec Resources UK Limited, as operator on behalf of ourselves Repsol Sinopec North Sea Limited, Repsol Sinopec Alpha Limited and Transworld Petroleum (U.K.) Limited hereby submit the Saltire A Topsides and Saltire Area Subsea Infrastructure Decommissioning Programmes dated 28 November 2022 as directed by the Secretary of State on 23 November 2022.

Saltire A Topsides and Saltire Area Subsea Infrastructure Decommissioning Programmes dated 28 November 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

APPENDIX A PUBLIC NOTICE

Public Notices

PUBLIC NOTICE

The Petroleum Act 1998
Saltire "A" Topsides & Saltire Area Subsea Infrastructure Decommissioning

Repsol Sinopec Resources UK Limited has submitted, for the consideration of the Secretary of State for Business, Energy and Industrial Strategy, the draft Decommissioning Programme (DP's) for the installations and pipelines associated with the Saltire "A" Topsides & Saltire Area Subsea 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 are:

- Saltire "A" production platform (Topsides) including platform wells;
- Saltire Subsea Area Infrastructure including Saltire Water Injection Development Wellhead Protection Unit & pipelines, flowlines & umbilicals.
- Chanter including Chanter Wellhead Protection unit & pipelines, flowlines, umbilicals and associated apparatus.

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 Saltire "A" Topsides & Saltire Area Infrastructure Decommissioning Programme can be viewed at the internet website address: www.repsolsinopecuk.com

Alternatively, a hard copy of the Saltire "A" Topsides & Subsea Area Infrastructure Decommissioning Programmes can be requested via email or phone call:

Phone: 01224-352973.
Email: Teresa.Munro@repsolsinopecuk.com

Representations regarding the Saltire "A" Topsides & Saltire Area Subsea Infrastructure 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 27th March 2022 and should state the grounds upon which any representations are being made.

Date: 25th February 2022
Repsol Sinopec Resources UK Limited

Teresa Munro
Decommissioning Manager
163 Holburn Street
Aberdeen
AB10 6BZ

Figure 9.1: Public Notice – The Press and Journal, 25th February 2022

Public Notices

PUBLIC NOTICE

The Petroleum Act 1998

Saltire "A" Topsides & Saltire Area Subsea Infrastructure Decommissioning

Repsol Sinopec Resources UK Limited has submitted, for the consideration of the Secretary of State for Business, Energy and Industrial Strategy, the draft Decommissioning Programme (DP's) for the installations and pipelines associated with the Saltire "A" Topsides & Saltire Area Subsea 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 are:

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- Saltire Subsea Area Infrastructure including Saltire Water Injection Development Wellhead Protection Unit & pipelines, flowlines & umbilicals.
- Chanter including Chanter Wellhead Protection unit & pipelines, flowlines, umbilicals and associated apparatus.

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 Saltire "A" Topsides & Saltire Area Infrastructure Decommissioning Programme can be viewed at the internet website address: www.repsolsinopecuk.com

Alternatively, a hard copy of the Saltire "A" Topsides & Subsea Area Infrastructure Decommissioning Programmes can be requested via email or phone call:

Phone: 01224-352973

Email: Teresa.Munro@repsolsinopecuk.com

Representations regarding the Saltire "A" Topsides & Saltire Area Subsea Infrastructure 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 27th March 2022 and should state the grounds upon which any representations are being made.

Date: 25th February 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, 25th February 2022

Repsol Sinopec Resources UK
163 Holburn Street, Aberdeen AB10 6BZ, UK

Tel: +44 (0) 1224 352500
www.repsolsinopecuk.com