Topaz Decommissioning Programmes



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INEOS Oil & Gas UK Topaz Decommissioning Programmes

CONTROLLED DOCUMENT

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Terms and Abbreviations

Abbreviation	Explanation
CEFAS	Centre for Environment, Fisheries and Aquaculture Science
DMS	Degrees Minutes Seconds
E	East
HSE	Health and Safety Executive
JNCC	Joint Nature Conservation Committee
Km	kilometres
LAT	Lowest Astronomical Tide
LSA	Low Specific Activity
m	Metres
PLA MAT	Pipeline Operations Master Application Template
MAT	Master Application Template
MoD	Ministry of Defence
NORM	Naturally Occurring Radioactive Material
NUI	Normally Unmanned Installation
NW	North-West
OGUK	Oil and Gas UK
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning
OSPAR	Oslo/Paris Convention (for the Protection of the Marine Environment in the North-East Atlantic)
P&A	Plug and Abandonment
SAT	Subsidiary Application Template
SLV	Shear Leg Vessel
SNS	Southern North Sea
te	tonnes
UKCS	United Kingdom Continental Shelf
UK	United Kingdom
WHPS	Wellhead Protection Structure



1 Executive Summary

1.1 Combined Decommissioning Programmes

This document contains two Decommissioning Programmes, one for each set of notices under Section 29 of the Petroleum Act 1998. The Decommissioning Programmes are:

- The Topaz installation a subsea wellhead protection structure; and
- The associated two pipelines PL2631 (gas export pipeline) and PLU2632 (umbilical).

1.2 Requirement for Decommissioning Programmes

Installation

In accordance with the Petroleum Act 1998, and on behalf of the Section 29 notice holders of the Topaz installation (see Table 1-2), INEOS UK SNS Limited is applying to OPRED to obtain approval for decommissioning the installation detailed in Section 2 of this document. (See also Section 8 – Partner Letters of Support).

Pipelines

In accordance with the Petroleum Act 1998, and on behalf of the Section 29 notice holders of the Topaz Pipelines (see Table 1-4), INEOS UK SNS Limited is applying to OPRED to obtain approval for decommissioning the pipelines detailed in Section 2 of this document. (See also Section 8 – Partner Letters of Support).

In conjunction with public, stakeholder and regulatory consultation, the decommissioning programmes are submitted in compliance with national and international regulations and OPRED guidelines. The schedule outlined in this document is for a 5 year decommissioning project (including planning phase) with offshore works due to begin in 2021.

1.3 Introduction

The Topaz subsea wellhead is located in the southern basin of the UKCS (see Figure 1-1) in Block 49/02, approximately 15.5km to the south-east of the DNO North Sea (ROGB) Limited owned Schooner platform. The Topaz well is tied back to the Schooner platform via a 6.6" gas export pipeline. There is also an 3.6" umbilical between Schooner and Topaz providing control and chemical injection (i.e. hydraulic control hoses, methanol, electrical power and control communications). The Schooner platform is tied back to the Murdoch platform (see Figure 1-3). Topaz ceased production in October 2017 due to decreased production rates from the well. In 2019, the pipeline and umbilical were both cleaned and flushed and reside in a flooded condition.

The nearest coastline is 130km south west (Norfolk, UK) and the UK/Netherlands median line lies 42km east. Topaz lies in approximately 34m of water (to Lowest Astronomical Tide).

Following public, stakeholder and regulatory consultation, the decommissioning programmes are submitted without derogation and in full compliance with OPRED guidelines. The decommissioning programmes explain the principles of the removal activities and are supported by an environmental impact assessment. The decommissioning programme for the pipelines is also supported by a comparative assessment.

The proposed activities are summarised as follows.

- The Topaz well will be plugged and abandoned in accordance with Oil & Gas UK guidelines;
- The wellhead protection structure will be removed and recycled or disposed onshore;



- The gas export pipeline will be partially removed. The tie-in spools will be removed and recycled or disposed onshore. The exposed sections at both ends will be removed or lowered to achieve adequate depth of coverage with best endeavours to achieve -0.6m. The existing buried sections of pipeline will be left *in situ*;
- The umbilical will be partially removed. The exposed sections adjacent to the Topaz well and Schooner platform will be removed and recycled or disposed onshore. The exposed ends will be lowered to achieve adequate depth of coverage with best endeavours to achieve -0.6m. The existing buried sections of umbilical will be left *in situ*; and
- On completion of the decommissioning programmes a seabed survey will be undertaken to identify and recover debris within the platform 500m zone and a 100m wide corridor along each pipeline route.

1.4 Overview of Installation & Pipelines Being Decommissioned

Table 1-1 Installation Being Decommissioned

Installation Being Decommissioned						
Field(s):	Topaz	Production Type (Oil/Gas/Condensate)	Gas/Condensate			
Water Depth (m)	34 m	UKCS block	49/02			
	Surface I	nstallation(s)				
Number	Туре	Topsides Weight (Te)	Jacket Weight (Te)			
None -		-	-			
Subsea II	nstallation(s)	Number of Wells				
Number Type		Platform	Subsea			
One Wellhead Protection Structure		-	One			
Drill Cut	tings pile(s)	Distance to median	Distance from nearest UK coastline			
Number of Piles Total Estimated volume (m ³)		km	km			
2 250m ³		42 to UK/Netherlands	130km NE Norfolk			

Table 1-2 Installation Section 29 Notice Holders Details

Installation Section 29 Notice Holders Details							
Section 29 Notice Holder(s)	Registration Number	Equity Interest (%)					
INEOS UK SNS Limited	01021338	57.5%					
Ithaca Energy (UK) Limited	SC272009	35%					
DNO North Sea (U.K.) Limited	04848017	7.5%					
INEOS UK E&P Holdings Limited	SC200459	0%					
DNO North sea PLC	04622251	0%					
Ithaca Energy Limited	GBJE126983	0%					
Neptune E&P UKCS Limited	03386464	Exited					



Table 1-3 Pipelines Being Decommissioned

Pipelines Being Decommissioned					
Number of Pipelines	2	(See Table 2.2)			

Table 1-4 Pipelines Section 29 Notice Holders Details

Pipeline Section 29 Notice Holders Details						
Section 29 Notice Holder(s)	Registration Number	Equity Interest (%)				
INEOS UK SNS Limited	01021338	57.5%				
Ithaca Energy (UK) Limited	SC272009	35%				
DNO North Sea (U.K.) Limited	04848017	7.5%				
INEOS UK E&P Holdings Limited	SC200459	0%				
DNO North Sea PLC	04622251	0%				
Ithaca Energy Limited	GBJE126983	0%				
Neptune E&P UKCS Limited	03386464	Exited				

1.5 Summary of Proposed Decommissioning Programmes

Table 1-5 Summary of Decommissioning Programmes

Summary of Decommissioning Programmes					
Selected Option	Reason for Selection				
1. Topsi	des				
n/a	n/a				
2. Jack	et				
n/a	n/a				
3. Subsea Inst	allation(s)				
The Wellhead Protection Structure will be completely removed from the seabed. Any permit applications for work associated with	To comply with OSPAR requirements leaving an unobstructed seabed.				
removal of the subsea installation (MAT) will be submitted.					
4. Pipelines, Flowlin	es & Umbilicals				
 The pipeline and umbilical will be left <i>in-situ</i> except for short exposed sections between the end of burial and bottom of the riser/j-tube at the Schooner platform. Minimal local excavation will be carried out at each end, but enough to ensure safe removal of short exposed ends of the pipelines. Based on the surveys conducted in 2009, 2012, 2015 and 2019, our findings indicate are that the pipelines are stable and will remain buried. Any permit applications required for work associated with pipeline cutting and removal (PLA MAT) will be submitted. 	Outside the 500m safety zone the pipelines are already exposed to fishing activity. Historical survey data show that both the gas export pipeline and umbilical are sufficiently buried and stable, posing no hazard to marine users. Minimal seabed disturbance, lower energy useage, reduced risk to personnel engaged in the activity.				



Summary of Decommissioning Programmes					
Selected Option	Reason for Selection				
5. Pipeline Stabilisation Features					
Mattresses and grout bags will be completely recovered where feasible. Any permit applications required for work associated with removal (PLA MAT) will be submitted.	Both pipelines are trenched and buried. Only the transitional sections at each end have stabilisation features, which will all be removed where the condition of these items allows safe recovery. In the event that a group or series of mattresses are identified that cannot be recovered, INEOS will consult with OPRED regarding an alternative approach.				
6. Wel	ls				
Plugged and abandoned in accordance with HSE "Offshore Installations and Wells DCR 1996" and Oil & Gas UK Guidelines for the Suspension and Abandonment of wells (Issue 6, June 2018).	Meets industry standards. The well will be plugged and abandoned to comply with HSE "Offshore Installations and Wells DCR 1996" and in accordance with OGUK Guidelines for the "Suspension and Abandonment of Wells" (Issue 6, June 2018) as it meets with OGA and HSE requirements. A Master Application Template (MAT) and the supporting Subsidiary Application Templates (SATs) will be submitted in support of works carried out. Application will also be submitted to the OGA to plug and abandon the wells.				
7. Drill Cu	ttings				
Leave in place to degrade naturally.	The two mounds either side of the wellhead are approximately 0.5-0.8m high and either (i) emanate from the top hole section of the well which was drilled using non-toxic water based mud or (ii) have been formed by seabed currents around the wellhead structure. Left undisturbed the mounds are expected to disperse naturally over time.				
8. Interdeper	ndencies				
The Topaz pipelines are connected to the Schooner Platform. Liaison will be required between DNO Petroleum and INEOS in order to maximise efficiency of the decommissioning effort.					

Mattresses and grout bags will be removed as part of the partial pipeline and partial umbilical removal activities.



1.6 Field Location Including Field Layout and Adjacent Facilities

Figure 1-1 Field Location





Figure 1-2 Field Layout



Table 1-6 Adjacent Facilities

Adjacent Facilities (See Figure 1.3 overleaf)						
Owner	Name	Туре	Distance / Direction	Information	Status	
DNO North Sea (ROGB) Limited	Schooner A	Platform	15.5km North-West	Host platform for production from Topaz and source of hydraulic fluid, chemicals, power for the Topaz umbilical	Active	
DNO North Sea (ROGB) Limited	Ketch	Platform	20.8km North-East	-	Active	
Spirit Energy North Sea LimitedChiswickPlatform34.7km East-Active						
Impacts of Decommissioning Proposals						
There are no direct impacts on adjacent facilities from the decommissioning works other than the required interaction with the Schooner platform works. As part of the Environmental Appraisal, no cumulative impacts were identified.						



Figure 1-3 Adjacent Facilities





1.7 Industrial Implications

The subsea well abandonment will be completed using a jack-up drilling rig. The pipeline cutting and burial works and removal of stabilisation features shall be undertaken using specialist construction support vessel or multi support vessel.

In planning and preparing for executing the Topaz decommissioning strategy, INEOS as operator of the Topaz field, on behalf of the Section 29 Notice Holders, shall undertake to develop a contract strategy that will result in an efficient and cost effective execution of the decommissioning works.

INEOS will work with the OGA and Supply Chain teams during this period to ensure effective technical solutions are selected that are environmentally acceptable and safe.



2 Description of Facilities to be Decommissioned

2.1 Installations: Subsea Including Stabilisation Features

Table 2-1 Subsea Installations

Subsea installations including stabilisation features	Number	Size/Weight (te)	Location		Comments/Status
Tree	1	21	WGS84	53°56'5801 N 02°13'22.49E	Tree is located on top of wellhead
Wellhead protection structure including piles which secure the structure to the seabed	1	28	(DMS)	53.9499 N 02.2229 E	Four piles

Figure 2-1 Image of the Topaz Subsea Wellhead





2.2 Pipelines Including Stabilisation Features

Table 2-2 Pipeline / Flowline / Umbilical Information

	Pipeline / Flowline / Umbilical Information									
Description	Pipeline No. (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts	Product Conveyed	From – To End Points	Burial Status	Pipeline Status	Contents	
Export line	PL2631	6.6	15.72	Steel	Out of Use - Topaz to Water Schooner		Trenched and Buried	Shut-in	Line will be cleaned/flushed prior to decommissioning.	
Umbilical	PLU2632	3.6	15.85	Umbilical	Out of Use - Water	Schooner to Topaz	Trenched and Buried	Shut-in	Line will be cleaned/flushed prior to decommissioning.	

Table 2-3 Subsea Pipeline Stabilisation Features

Subsea Pipeline Stabilisation Features								
Stabilisation Feature	Total Number	Weight (te)	Location(s)	Exposed/Buried/Condition				
Concrete mattresses	47	6 tonnes each	PL2631	Exposed				
Concrete mattresses	62	6 tonnes each	PLU2632	Exposed				
Rock Dump	728m long	1,757	PL2631	Exposed. Deposited at 14 No. discrete locations along the pipeline route.				
Grout Bags ¹	9	0.025 (each)		Exposed				
Formwork	n/a	n/a	n/a	n/a				
Frond Mats	n/a	n/a	n/a	n/a				
Other	n/a	n/a	n/a	n/a				

¹ The number of grout bags has been estimated using available data, however, there is some uncertainty regarding the exact number of bags.



2.3 Wells

Table 2-4 Well Information

Well Information								
Well	Subsea Wells	Designation	Status	Category of Well (O&GUK guidelines)				
49/2a-6z	One subsea wellhead	Gas Production	Shut-In	SS 3.1.3				

For details of well categorisations see OGUK Guidelines for the Suspension or Abandonment of Wells. Issue 6, June 2018.

2.4 Drill Cuttings

There are two mounds either side of the Topaz wellhead that are believed to be (i) either cuttings from the top hole section that was drilled using non toxic gel sweeps and discharged either side of the well when it was constructed (i.e. conductor cuttings), or (ii) have been created by seabed currents moving over and around the Topaz wellhead structure. The volume of the mounds is estimated to be some 250m³.

2.5 Inventory Estimates

Table 2-5 Aspirational Inventory Disposition²

Inventory	Total Inventory Tonnage	Planned Tonnage to Shore	Planned tonnage decommissioned <i>in</i> <i>situ</i>			
Xmas Tree and Wellhead Protection Structure	49	49	0			
Pipeline	854.3	21.5	832.8			
Umbilical	206	6	200			

All recovered materials will be transported onshore for re-use, recycling or disposal. It is not possible to predict the market for reusable materials with any confidence, therefore, the figures in Table 2-5 above are aspirational.

3 Removal and Disposal Methods

Waste will be dealt with in accordance with the Waste Framework Directive. The reuse of an installation or pipelines (or parts thereof) is first in the order of preferred waste management options. Options for the reuse of installations or pipelines (or parts thereof) are currently under investigation. Waste generated during decommissioning will be segregated by type and periodically transported to shore in an auditable manner through licensed waste contractors. Steel and other recyclable metals are estimated to account for the greatest proportion of the materials inventory.

Should any items be taken out with the UKCS, an application under the Transfrontier Shipment of Waste Regulations shall be made to the Environment Agency.

² Excluding deposited rock



3.1 Subsea Installations and Associated Stabilisation Features

Table 3-1 Subsea Installations and Associated Stabilisation features

Subsea installations and stabilisation features	Number	Option	Disposal Route (if applicable)
Wellhead & tree	1	Complete removal following well abandonment	Recovery to shore for re- use or recycling
Wellhead protection structure	1	Complete removal	Recovery to shore for re- use or recycling

3.2 Pipelines

Decommissioning Options:

The following decommissioning options are considered and identified in terms of applicability to the pipelines in [1]:

- 1. Complete Removal;
- 2. Leave *in situ* making the pipeline ends safe.

3.2.1 Comparative Assessment Method

A comparative assessment of the decommissioning options was undertaken. Each decommissioning option was qualitatively assessed against safety, environment, technical and societal and cost.

3.2.2 Outcome of Comparative Assessment

Table 3-2 Pipeline or Pipeline Groups/Decommissioning Options

Pipeline or Pipeline Groups/Decommissioning Options								
Pipeline or Group (as per PWA)	Decommissioning Option	Outcome						
PL2631	Leave in situ	The pipeline is trenched and buried with no exposures recorded since original installation in 2009.						
		Therefore, it is proposed to leave the pipeline <i>in situ</i> . Although some minor seabed disturbance associated with dealing with the pipeline ends will occur, this solution will result in no seabed disturbance for the majority of the route.						
		Future pipeline burial surveys will be required but these are unlikely to document a change in burial status.						
		Burial profile provided in Appendix A.						
PLU2632	Leave in situ	As above.						
		Burial profile provided in Appendix A.						



3.3 **Pipeline Stabilisation Features**

All mattresses and grout bags will be recovered and remove to shore.

Table 3-3 Pipeline Stabilisation Features

Pipeline Stabilisation Feature(s)							
Stabilisation feature(s)	Number	Option	Disposal Route (if applicable)				
Concrete mattresses over pipeline and umbilical	109	Remove to shore.	Recover to shore for re-use, recycling or disposal.				
Grout Bags	9	Remove to shore.	Recover to shore for re-use, recycling or disposal				
Rock Dump	1757 te	Leave in-situ	n/a				

3.4 Wells

Table 3-4 Well Plug and Abandonment

Well Plug and Abandonment

The well which remains to be abandoned, as listed in Section 2.4 (Table 2.4), will be plugged and abandoned in accordance with Oil and Gas UK Guidelines for the Suspension and Abandonment of Wells, Version 6, June 2018.

A Master Application Template (MAT) and the supporting Subsidiary Application Template (SAT) will be submitted in support of works carried out. Applications will be submitted to OPRED for application to abandon wells.

3.5 Drill Cuttings

It is believed that the majority of cuttings discharged during the drilling of the Topaz well are likely to have dispersed as there are no significant cuttings piles observed around the Topaz wellhead structure. However, inspection surveys have revealed some mounds approximately 0.5-0.80m high either side of the well. These are possibly cuttings from the drilling of the tophole section of the well, which was undertaken using non toxic gel sweeps or they are depositional mounds caused by seabed currents around the wellhead structure. In either case, the mounds do not represent a snag hazard and are non toxic. Therefore, these mounds will be left on the location following completion of the decommissioning programme.



3.6 Waste Streams

Table 3-5 Waste Stream Management Methods

	Waste Stream Management Methods						
Waste Stream	Removal and Disposal method						
Bulk liquids	The pipeline and umbilical will be cleaned, flushed and left filled with seawater. Further cleaning and decontamination will take place onshore prior to re-use or recycling.						
Marine growth	Where necessary and practicable to allow access inside the WHPS some marine growth will be removed offshore. The remainder will be brought to shore and disposed of according to guidelines and company policies.						
NORM/LSA Scale	Tests for NORM will be undertaken offshore by the Radiation Protection Adviser a any NORM encountered will be dealt with and disposed of at a licensed facility.						
Asbestos	No asbestos at Topaz.						
Other hazardous wastes	Will be recovered to shore and disposed of according to guidelines and company policies and under appropriate permit.						
Onshore Dismantling sites	Appropriate licensed sites will be selected. The nominated facility will demonstrate a proven disposal track record and waste stream management throughout the deconstruction process and demonstrate their ability to deliver innovative recycling options.						



Table 3-6 Re-use, Recycling and Disposal Aspirations for Recovered Material

Inventory	Re-Use	Recycle	Disposal			
Installations	<5%	>95%	<5%			
Pipelines	<5%	>95%	<5%			

4 Environmental Appraisal Overview

4.1 Environmental Sensitivities

Environmental sensitivities are discussed in the Environmental Appraisal (Ref).

4.2 Potential Environmental Impacts and their Management

There will be some planned and unplanned environmental impacts arising from decommissioning of Topaz. Long term environmental impacts from the decommissioning operations are expected to be low. Incremental cumulative impacts and transboundary effects associated with the planned decommissioning operations are also expected to be low. There will be a requirement for a new Environmental Appraisal to be produced and submitted to OPRED should the Decommissioning Programmes change.

5 Interested Party Consultations

Table 5-1 Summary of Stakeholder Comments

	Summary of Stakeholder Comments								
Stakeholder	Comment	Response							
	Informal Consultations								
Global Marine Systems	None	-							
CEFAS	None	-							
Crown Estate	None	-							
MoD	None	-							
JNCC	None	-							
	Statutory Consultations								
National Federation of Fishermen's Organisations	None	-							
Scottish Fishermen's Federation	None	-							
Northern Irish Fish Producer's Organisation	None	-							
Global Marine Systems	None	-							
Public	None	-							



6 **Programme Management**

6.1 **Project Management and Verification**

The project management team resource will be provided from INEOS internal resource and by using external resources such as consultants, engineers and contractors.

A small, focused team of key personnel will be maintained within INEOS that will be responsible for leading a number of specialist contracting groups for the engineering, procurement, decommissioning and well P&A as well as for interfacing with the regulatory bodies.

An Independent Verification Body will be appointed for the duration of the execute phase of the project.

Any changes in detail to the offshore removal programme will be discussed and agreed with OPRED.

6.2 **Post-Decommissioning Debris Clearance and Verification**

A Post decommissioning survey will be conducted covering a 500m radius of the Topaz wellhead location and a 100m corridor along both gas export pipeline and umbilical route. Any seabed debris related to offshore oil and gas activities will be recovered and transported to shore to be disposed or recycled in line with existing disposal methods. Independent verification of seabed state will be obtained by trawling the platform area and pipelines. A clear seabed certificate will be submitted to OPRED.

6.3 Schedule

Figure 6-1 Gantt Chart of Project Plan – Main Offshore Activities

Activity Window		2020				2021			2022			2023				2024				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Engineering / cost review																				
Subsea wellhead removal																				
Partial pipelines & umbilical removal																				
Over trawl surveys																				
Env. Survey window																				

6.4 Costs

Programme costs will be provided to OPRED separately.

6.5 Close-Out

In accordance with the OPRED guidelines, a close out report will be submitted to OPRED explaining any variations from the Decommissioning Programmes normally within 12 months of completion of the offshore decommissioning scope. The report will include debris removal and independent verification of seabed clearance and the first post-decommissioning environmental survey.

6.6 Post-Decommissioning Monitoring and Evaluation

A post decommissioning environmental seabed survey, centred around the wellhead location will be carried out. The survey will focus on physical, and to a lesser extent chemical, disturbances of the decommissioning activities.



Results of this survey will be available once the work is complete, with a copy forwarded to OPRED.

All pipeline routes and structure sites will be the subject of surveys when decommissioning activity has concluded. After the surveys have been sent to OPRED and reviewed, a post monitoring survey regime will be discussed and agreed by both parties, which is likely to consist of a minimum of two post decommissioning environmental surveys and structural pipeline surveys.

6.7 Residual Liability

INEOS recognises that it will continue to retain ownership of, and residual liability for, all decommissioned items allowed to remain in place through acceptance of the results of the comparative assessment process in Section 3. INEOS undertakes:

- to contact OPRED in advance, in the event that any parties to the programmes will no longer have a presence in the UK, to provide the details of the organisation or individual who will act in their place;
- to notify OPRED of any organisation/individual that will engage with OPRED on future legacy and liability matters;
- to notify OPRED of any organisation/individual that will be the contact point for any future third party claims for damage caused by pipelines left in place;
- to ensure that any alternative organisation/individual will have appropriate authority for and knowledge of the DPs, to engage with OPRED;
- to ensure that any alternative organisation/individual will have access to appropriate funding to carry out any actions relating to the residual legacy and liability as outlined in the approved DPs.

7 Supporting Documents

Table 7-1 Supporting Documents

	Supporting Documents						
Ref	Document Number	Title					
[1]	RD-TOP-ZPL005	Comparative Assessment Report					
[2]	RD-TOP-ZPL006	Environmental Appraisal					

8 Partner Letters of Support





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

Attn: Ms Debbie Taylor

11 February 2021

Dear Ms Taylor,

TOPAZ FIELD DECOMMISSIONING PROGRAMMES - PETROLEUM ACT 1998

We, INEOS UK E&P Holdings Limited (company number SC200459), as a holder of a Section 29 Notice relative to the Topaz field, confirm that we authorise INEOS SNS UK Limited to submit the abandonment programmes relating to the Topaz Installation and Topaz Pipelines, together the 'Decommissioning Programmes' as directed by the Secretary of State 14th January 2021.

We confirm that we have no objections to the proposals detailed in the Topaz Decommissioning Programmes dated 22nd January 2021, which were submitted by INEOS SNS UK Limited in so far as they relate to those facilities and pipelines in respect of which we are required to submit abandonment programmes under section 29 of the Petroleum Act 1998.

Yours sincerely

Dougie Scott CEO

For and on behalf of INEOS UK E&P Holdings Limited

Registered in England Registered Office: Anchor House, 15-19 Britten Street London SW3 3TY Company number: SC 200459 VAT Registration Number: 756 4981 82





Ithaca Energy (UK) Limited Hill of Rubislaw Aberdeen AB15 6XL

T : +44 (0)1224 638582 W: www.ithacaenergy.com

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

Attn. Ms Debbie Taylor

Date: 29th January 2021

Dear Ms Taylor,

TOPAZ DECOMMISSIONING PROGRAMMES - PETROLEUM ACT 1998

We, Ithaca Energy (UK) Limited (company number SC272009), confirm that we authorise INEOS SNS UK Limited (company number 01021338) to submit on our behalf the abandonment programmes relating to the Topaz Installation and the Topaz Pipelines, together the 'Decommissioning Programmes'.

We confirm that we have no objections to the proposals detailed in the Topaz Decommissioning Programmes, dated 22 Jan 2021, which were submitted by INEOS SNS UK Limited in so far as they relate to those facilities in respect of which we are required to submit abandonment programmes under section 29 of the Petroleum Act 1998.

Yours sincerely

Bill Dunnett Director

For and on behalf of Ithaca Energy (UK) Limited

Ithaca Energy (UK) Limited, Registered in Scotland, No. SC272009 Registered Office: 13 Queen's Road, Aberdeen AB15 4YL





Attn: Ms Debbie Taylor Decommissioning Manager Offshore Petroleum Regulator for Environment and Decommissioning Department for Business, Energy and Industrial Strategy AB1 Building Crimon Place Aberdeen AB10 1BJ

9 February 2021

Dear Ms Taylor,

Letter of Support: Topaz Decommissioning Programmes – Petroleum Act 1998.

We, DNO North Sea plc, (company number 04622251), confirm that we authorise INEOS SNS UK Limited (company number 01021338) to submit on our behalf the abandonment programmes relating to the Topaz Installation and the Topaz Pipelines, together the 'Decommissioning Programmes'.

We confirm that we have no objections to the proposals detailed in the Topaz Decommissioning Programmes, dated 22 Jan 2021, which were submitted by INEOS SNS UK Limited in so far as they relate to those facilities in respect of which we are required to submit abandonment programmes under section 29 of the Petroleum Act 1998.

Your sincerely,

Ørjan Gjerde Managing Director DNO North Sea plc



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

Attn. Ms Debbie Taylor

Date: 27th January 2021

Dear Ms Taylor,

TOPAZ DECOMMISSIONING PROGRAMMES - PETROLEUM ACT 1998

We, Neptune E&P UKCS Limited, company number 03386464, confirm that we authorise INEOS SNS UK Limited (company number 01021338) to submit on our behalf the abandonment programmes relating to the Topaz Installation and the Toapz Pipelines, together the 'Decommissioning Programmes'.

We confirm that we have no objections to the proposals detailed in the Topaz Decommissioning Programmes, dated 22 Jan 2021, which were submitted by INEOS SNS UK Limited in so far as they relate to those facilities in respect of which we are required to submit abandonment programmes under section 29 of the Petroleum Act 1998.

Yours sincerely

Peter Lunny Director JV and Commercial For and on behalf of Neptune E&P UKCS Limited

Neptune E&P UKCS Limited 16 North Esplanade West Aberdeen AB115RJ United Kingdom T:+44(0)1224 281000 F:+44(0)1224 281025 www.neptuneenergy.com Company No. 03386464 Registered in England and Wales at: Nova North, 11 Bressenden Place London SW1E 5BY United Kingdom





Attn: Ms Debbie Taylor Decommissioning Manager Offshore Petroleum Regulator for Environment and Decommissioning Department for Business, Energy and Industrial Strategy AB1 Building Crimon Place Aberdeen AB10 1BJ

9 February 2021

Dear Ms Taylor,

Letter of Support: Topaz Decommissioning Programmes – Petroleum Act 1998.

We, DNO North Sea (U.K.) Limited, (company number 04848017), confirm that we authorise INEOS SNS UK Limited (company number 01021338) to submit on our behalf the abandonment programmes relating to the Topaz Installation and the Topaz Pipelines, together the 'Decommissioning Programmes'.

We confirm that we have no objections to the proposals detailed in the Topaz Decommissioning Programmes, dated 22 Jan 2021, which were submitted by INEOS SNS UK Limited in so far as they relate to those facilities in respect of which we are required to submit abandonment programmes under section 29 of the Petroleum Act 1998. Your sincerely,

Ørjan Gjerde Managing Director DNO North Sea (U.K.) Limited

DNO North Sea (U.K.) Limited 24 Carden Place, Aberdeen AB10 1UQ Telephone: +44 1224 650 920 Fax: +44 1224 650 921

Registered in England No: 04622251 Registered office: 30 Crown Place, London EC2A 4ES dno.no





Ithaca Energy Limited

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

Attn. Ms Debbie Taylor

Date: 29th January 2021

Dear Ms Taylor,

TOPAZ DECOMMISSIONING PROGRAMMES - PETROLEUM ACT 1998

We, Ithaca Energy Limited (company number GBJE126983), confirm that we authorise INEOS SNS UK Limited (company number 01021338) to submit on our behalf the abandonment programmes relating to the Topaz Installation and the Topaz Pipelines, together the 'Decommissioning Programmes'.

We confirm that we have no objections to the proposals detailed in the Topaz Decommissioning Programmes, dated 22 Jan 2021, which were submitted by INEOS SNS UK Limited in so far as they relate to those facilities in respect of which we are required to submit abandonment programmes under section 29 of the Petroleum Act 1998.

Yours sincerely

G.M

Gilad Myerson Director

For and on behalf of Ithaca Energy Limited

Ithaca Energy (UK) Limited, Registered in Scotland, No. SC272009 Registered Office: 13 Queen's Road, Aberdeen AB15 4YL

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Appendix A – Pipeline & Umbilical Burial Charts

Pipeline Burial

In the most recent surveys of the pipeline route in 2019, no freespans or exposures were identified on the route. The last depth of burial survey in 2015 confirmed that the pipeline was buried along the complete route. Figure A-1 below shows the depth of cover along the pipeline from surveys undertaken in 2012 and 2015. A comparison between the two surveys showed that the average depth of cover increased by 0.3m between 2012 and 2015.



Figure A-1 – 6.6inch Gas Pipeline



Umbilical Burial

In the most recent surveys of the pipeline route in 2019, no freespans or exposures were identified on the route. The last depth of burial survey in 2015 confirmed the depth of cover over the umbilical to average 1.19m. Depth of cover was very similar in surveys undertaken 2012, indicating relatively stable conditions for the umbilical.





Appendix B – Public Notices

ENVIRONMENT & INFRASTRUCTURE

ENERGY

PUBLIC NOTICE THE PETROLEUM ACT 1998 TOPAZ FIELD

INEOS UK SNS Limited has submitted, for the consideration of the Secretary of State for Business, Energy and Industrial Strategy, draft Decommissioning Programmes for the Topaz Subsea Installation and Pipelines 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 Programmes are the Topaz Subsea Installation and pipelines. The Topaz Subsea Installation is located in the southern basin of the United Kingdom continental Shelf in license block 49/02.

INEOS UK SNS Limited hereby gives notice that a summary of the Topaz Decommissioning Programmes can be viewed at the internet address:

https://www.gov.uk/guidance/oil-and-gas-decommissioning-of-

offshore-installations-and-pipelines

Alternatively a hard copy of the Decommissioning Programmes may be inspected at the following location(s) during office hours:

INEOS UK SNS Limited

Anchor House

15-19 Britten Street

London

SW3 3TY

Representations regarding the Topaz Decommissioning Programme should be submitted in writing to Mr Phillip Jones at INEOS UK SNS Limited, Anchor House, 15-19 Britten Street, London, SW3 3TY where they should be received by 15th November 2020 and should state the grounds upon which any representations are being made.

Date: 16th October 2020 INEOS UK SNS Limited Anchor House 15-19 Britten Street London SW3 3TY Dougie Scott CEO

(3656255)