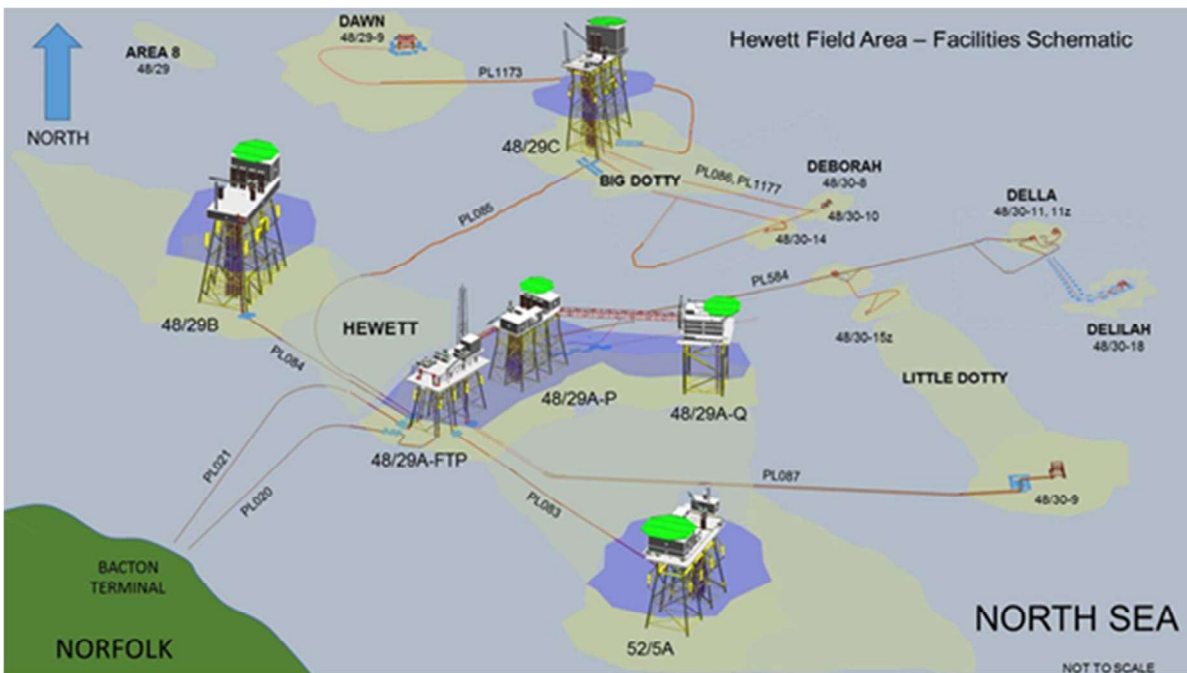



HEWETT PLATFORMS DECOMMISSIONING PROGRAMME

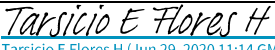

Draft for Consultation



June 2020

	<p style="text-align: center;">Company Document ID ENIUK-#831627-v3D-Hewett_Decommissioning_Programme_-_Platforms</p>	<p style="text-align: center;">Sheet of Sheets 2 / 66</p>
--	---	---

Document Verification

	Name	Signature	Date
Prepared by	M. Lee		
Reviewed by	T. Flores	 <small>Tarsicio E Flores H (Jun 29, 2020 11:14 GMT+1)</small>	
Approved by	R. Innes	 <small>Richard Innes (Jun 29, 2020 11:29 GMT+1)</small>	

Revision History

Rev.	Date	Nr. of sheets	Description
00	31/10/2018	71	Pre-Draft submission for discussion with BEIS (OPRED)
01	14/12/2018	66	Pre-Draft resubmission following OPRED comments
02	30/05/2019	64	Further integration of OPRED Comments as per OPRED ODU Comments & Decision Record Sheet attached and updates to schedule information
03	20/09/2019	63	Further integration of OPRED Comments as per OPRED ODU Comments & Decision Record Sheet attached and updates to schedule information.
04	21/11/2019	66	Further integration of OPRED Comments as per OPRED ODU Comments & Decision Record Sheet attached, updates to schedule information and outputs from alignment with the developing EA
05	27/02/2020	66	Further integration of OPRED Comments as per OPRED ODU Comments response sheet Issue as Draft for Consultation
06	27/04/2020	66	Revised with updated schedule and follow up comments from OPRED Engagement 23-04-2020
07	26/06/2020	66	Amend and align tables on p 9 and 63.

Distribution List

Name/Addressee	Organization	No of Copies
Jade Jones Assistant Decommissioning Manager	OPRED	1

Hold Record

HOLD	Sheet	Paragraph	Description
1	65	Table 8.1	Partner letters of support
2	66	Annex A	Consultation Public Notices

Table of Contents

		INST = Installations; P/L = Pipelines	INST	P/L
1	EXECUTIVE SUMMARY.....	9	√	
1.1	DECOMMISSIONING PROGRAMME	9	√	
1.2	REQUIREMENT FOR A DECOMMISSIONING PROGRAMME	9	√	
1.3	INTRODUCTION	10	√	
1.3.1	FIELDS	10	√	
1.3.2	PLATFORMS	10	√	
1.3.3	HISTORY	10	√	
1.4	OVERVIEW OF INSTALLATIONS BEING DECOMMISSIONED	11	√	
1.4.1	INSTALLATIONS	12	√	
1.5	SUMMARY OF PROPOSED DECOMMISSIONING SOLUTIONS	14	√	
1.6	FIELD LOCATION INCLUDING FIELD LAYOUT ADJACENT FACILITIES.	16	√	
1.7	MARINE PROTECTED AREAS.....	20	√	
1.7.1	ADJACENT FACILITIES	20	√	
1.8	INDUSTRIAL IMPLICATIONS	28	√	
2	ASSETS TO BE DECOMMISSIONED.....	29	√	
2.1	INSTALLATIONS: SURFACE FACILITIES	29	√	
2.1.1	PLATFORM 48/29A-FTP	31	√	
2.1.2	PLATFORM 48/29A-P AND BRIDGES	33	√	
2.1.3	PLATFORM 48/29A-Q	34	√	
2.1.4	PLATFORM 48/29B	36	√	
2.1.5	PLATFORM 48/29C	38	√	
2.1.6	PLATFORM 52/5A	40	√	
2.2	WELLS	42	√	
2.3	INVENTORY ESTIMATES	44	√	
3	REMOVAL AND DISPOSAL OPTIONS	47	√	
3.1	WASTE HIERARCHY	47	√	
3.2	TOPSIDES.....	47	√	
3.2.1	PREPARATION AND CLEANING.....	47	√	
3.2.2	REMOVAL METHODS.....	49	√	
3.3	JACKETS	50	√	
3.3.1	JACKET REMOVAL METHODS	50	√	
3.4	WASTE STREAMS	50	√	
4	ENVIRONMENTAL APPRAISAL OVERVIEW	52	√	
4.1	ENVIRONMENTAL SENSITIVITIES (SUMMARY).....	52	√	
4.2	POTENTIAL ENVIRONMENTAL IMPACTS AND THEIR MANAGEMENT ..	54	√	



		INST = Installations; P/L = Pipelines	
		INST	P/L
5	INTERESTED PARTY CONSULTATIONS	58	✓
6	PROGRAMME MANAGEMENT	61	✓
6.1	PROJECT MANAGEMENT AND VERIFICATION	61	✓
6.2	POST-DECOMMISSIONING DEBRIS CLEARANCE AND VERIFICATION	61	✓
6.3	SCHEDULE	62	✓
6.4	COSTS	63	✓
6.5	CLOSE OUT	63	✓
6.6	POST-DECOMMISSIONING MONITORING AND EVALUATION	63	✓
7	SUPPORTING DOCUMENTS	64	✓
8	PARTNER LETTERS OF SUPPORT	65	✓
	ANNEXURE A	66	✓

Terms and Abbreviations

Abbreviation	Explanation
BEIS	Department for Business, Energy & Industrial Strategy
CAF	Compressed Asbestos Fibre
CoP	Cessation of Production
EA	Environmental Appraisal
E&I	Electrical and instrumentation
EMT	Environmental Management Team
Eng	Engineering
Eni	Eni Hewett Limited. a wholly owned subsidiary of Eni UK Limited
EPRD	Engineering, Preparation, Removal and Disposal
EU	European Union
EUNIS	European Nature Information System
FTP	Field Terminal Platform
GMS	Global Marine Systems
H1	First half of the year
H ₂ S	Hydrogen Sulphide
HC	Hydrocarbon
HLV	Heavy Lift Vessel
HSE	Health Safety & Environment.
HSEx	(Offshore Safety Directive Regulator) Health and Safety Executive
ICES	International Council for the Exploration of the Sea
ITT	Invitation to tender
JNCC	Joint Nature Conservation Committee
km	Kilometre
LSA	Low Specific Activity scale
m ³	Cubic Metre
MBES	Multi Beam Echo Sounder
MCZ	Marine conservation Zone
N/A	Not Applicable
NFFO	National Federation of Fishermen's Organisations
nM	Nautical Mile
NORM	Naturally Occurring Radioactive Materials
NPAI	Not Permanently Attended Installation



Abbreviation	Explanation
NUI	Normally Unmanned Installation
O&GUK	Oil & Gas UK
ODU	Offshore Decommissioning Unit
OGA	Oil and Gas Authority
OPEP	Oil Pollution Emergency Plan
OPRED	Offshore Petroleum Regulator for Environment & Decommissioning
OSPAR	Oslo-Paris Convention
P&A	Plug and Abandon / Plugging and Abandonment
PEXA	Practice and Exercise Area
PFML	Petrofac Facilities Management Limited
PON	Petroleum Operations Notice
PWA	Pipeline Works Authorisation
RAF	Royal Air Force
SAC	Special areas of Conservation
SCAP	Supply Chain Action Plan
SFF	Scottish Fishermen's Federation
SLV	Single-Lift Vessel
SNS	Southern North Sea
SOW	Scope of Work
SPA	Special Protection Area
SS	Subsea
STAP	Eni Standards and Procedures
Te	Metric Tonnes
TOOPEP	Temporary Operations Oil Pollution Emergency Plan
UGS	Underground Gas Storage
UK	United Kingdom
UKCS	United Kingdom Continental Shelf
WGS84	World Geodetic System of 1984
WHPS	Well-Head Protection Structure
WEEE	Waste Electrical and Electronic Equipment
WONS	Well Operations Notifications System



Tables

Table 1.1 - Installations Being Decommissioned	12
Table 1.2 - Installations Section 29 Notice Holders Details.....	13
Table 1.3 - Summary of Decommissioning Solutions.....	14
Table 1.4 – List of Adjacent Facilities	20
Table 2.1 - Surface Facilities Information	29
Table 2.2 - Platform Wells Information	42
Table 2.3 – Estimated Inventory (Installations)	45
Table 3.1 - Topsides Preparation and Cleaning.....	48
Table 3.2 - Topsides Removal Method Options	49
Table 3.3 - Jacket Decommissioning Method Options.....	50
Table 3.4 - Waste Stream Management Methods.....	50
Table 3.5 - Inventory Disposition	51
Table 4.1 - Environmental Sensitivities	52
Table 4.2 - Environmental Impact Management Enabling Works	55
Table 4.3 - Environmental Impact Management Platforms Decommissioning.....	56
Table 5.1 - Summary of Stakeholder Comments	58
Table 7.1 - Table of Supporting Documents.....	64
Table 8.1 - Table of Attachments	65

Figures

Figure 1.1 - Field Location in UKCS	16
Figure 1.2 - Hewett Field Area Facilities Schematics	17
Figure 1.3 - Area Overview	18
Figure 2.1 - Aerial View of 48/29A Complex.....	31
Figure 2.2 - West Elevation of 48/29A-FTP Topside	32
Figure 2.3 - 3D Model View of Platform 48/29A-FTP	32
Figure 2.4 - East Elevation of 48-29A-P Topside	33
Figure 2.5 - 3D Model View of 48/29A-P Jacket	34
Figure 2.6 - East Elevation of 48/29A-Q Topside	35
Figure 2.7 - 3D Model View of 48/29A-Q Jacket	35
Figure 2.8 - Aerial View of 48/29B	36
Figure 2.9 - East Elevation of 48/29B Topside	37
Figure 2.10 - 3D Model View of Platform 48/29B	37
Figure 2.11 - Aerial View of 48/29C.....	38
Figure 2.12 - East Elevation of 48/29C Topside.....	39
Figure 2.13 - 3D Model View of Platform 48/29C	39
Figure 2.14 - Aerial View of 52/5A.....	40
Figure 2.15 - Diagram of 52/5A Topside	41
Figure 2.16 - 3D Model View of Platform 52/5A	41
Figure 2.17 – Estimated Inventory (Installations)	46

1 EXECUTIVE SUMMARY

1.1 DECOMMISSIONING PROGRAMME

This document comprises one Decommissioning Programme describing the six Hewett Field platform installations:

- Fixed well and production platform 48/29A-P
- Terminal platform 48/29A-FTP, bridge-linked to 48/29A-P
- Accommodation platform 48/29A-Q, bridge-linked to 48/29A-P
- Fixed well and production platform 48/29B
- Fixed well and production platform 48/29C
- Fixed well and production platform 52/5A

The installation decommissioning programmes is submitted without derogation and in compliance with OPRED guidelines.

1.2 REQUIREMENT FOR A DECOMMISSIONING PROGRAMME


In accordance with the Petroleum Act 1998, the Section 29 notice holders of the Hewett installations (see table 1.2) are applying to The Offshore Petroleum Regulator for Environment & Decommissioning (OPRED) to obtain approval for decommissioning the six installations detailed in Section 2.1 of this programme.

In conjunction with public, stakeholder, and regulatory consultation, this Decommissioning Programme is submitted in compliance with national and international regulations and OPRED guidelines.

A Cessation of Production application for the field has been discussed with the Oil and Gas Authority with a letter of approval received in February 2019.

The schedule outlined in this document is for a decommissioning programme for the platform structures removal with an earliest start date in late 2021. Preparation works for cleaning and flushing to achieve hydrocarbon free status started in March 2019, when one platform, 48/29B, was shut in while the other three producing platform have continued to produce. The other platforms will cease producing in a phased field shut down and the final field Cessation of Production is currently planned to be at the end of 2020. Pipelines and Subsea infrastructure will be addressed in a separate Decommissioning Programme. Currently foreseen major project milestones are as follows:

Milestones	Approx. Date
Issue ITT Package for Platform Decommissioning	2020
Award Platform Decommissioning Contract	2021
Dismantling Safety Case Approved	2021
Start of Platform Removal Prep Works window	2021
Platforms Removal Window Start (First Platform Available)	2022
All Platform Prep Works Complete	2023

	<p style="text-align: center;">Company Document ID</p> <p style="text-align: center;">ENIUK-#831627-v3D-Hewett_Decommissioning_Programme_-_Platforms</p>	<p style="text-align: center;">Sheet of Sheets</p> <p style="text-align: center;">10 / 66</p>
--	--	---

Milestones	Approx. Date
Platforms Removal & Disposal Window End	2028
Platforms Decommissioning Programme Close-Out Report Submission	Within one year after removal

1.3 INTRODUCTION

The Hewett Field is located in Blocks 48/28a, 48/30a, 48/29a, 52/4a and 52/5a of the UKCS. The field lies in the Southern North Sea within the UK Sector, approximately 22km north-east of the Norfolk coast. The Hewett area contains the main Hewett field, consisting of five horizons vertically situated above each other, and six adjacent satellite fields: Big Dotty, Little Dotty, Deborah, Dawn, Della, and Delilah. The main Hewett Field, Big Dotty, Little Dotty and Deborah are in a single unitised licensed area.

See Figure 1.2, for relative layout of the facilities. Further information on the platform installations can be found in section 2.1.

1.3.1 Fields

The Hewett Field straddles all five of the blocks above and accesses the gas from three production platforms, 48/29A-P, 48/29B and 52/5A. The two additional platforms 48/29A-FTP and 48/29A-Q are bridge-linked to the 48/29A-P platform (this group also known as the 48/29A Complex or Central Complex).

Big Dotty field straddles 48/29b and 48/30a blocks and the wells are accessed from the 48/29C platform.

Deborah and Little Dotty fields are situated entirely in block 48/30a. The Deborah Field is accessed via three subsea wells tied back to 48/29C. Little Dotty is accessed by two subsea wells, one tied back to 48/29A-FTP and the other tied back to 48/29A-P via a tee into the Della flowline.

Three further reservoirs in separate licence areas were also developed using subsea wells. Dawn is tied back to 48/29C platform, and Della and Delilah are tied back to the 48/29A Complex.


The subsea structures associated with these subsea wells are not included in this Decommissioning Programme document and will be addressed in a separate Decommissioning Programme.

1.3.2 Platforms

The 49/29A Complex is self-contained with gas turbine power generation located on the FTP platform. This complex consists of three bridge-linked platforms: 48/29A-P, 48/29A-FTP and 48/29A-Q (the latter housing the living quarters and the operational helideck). The remaining platforms 48/29B, 48/29C and 52/5A are not-permanently attended installation (NPAIs), with production tied back to the 48/29A Complex via 24" pipelines. It is noted that a stand-alone Decommissioning Programme has been approved by OPRED for removal of 48/29B vent stack. This task an enabler for Jack-up drilling rig access to undertake the wells plug and abandonment programme.

1.3.3 History

Hewett Field development began in 1968, consisting of the two-platform development 48/29A-P, 48/29A-FTP and the single satellite platform 52/5A, 4km south-east of the 48/29A-FTP. Following this, the addition of 48/29B, 8km to the north-west took place in 1973. The next platform followed in 1976, with 48/29C being installed over Big Dotty Reservoir, located to the north of the Hewett Field, 9km from 48/29A-FTP. The living-quarters platform 48/29A-Q was added to the central complex in 1992, being bridge-linked to 48/29A-P.

	<p style="text-align: center;">Company Document ID</p> <p style="text-align: center;">ENIUK-#831627-v3D-Hewett_Decommissioning_Programme_-_Platforms</p>	<p style="text-align: center;">Sheet of Sheets</p> <p style="text-align: center;">11 / 66</p>
--	--	---

The steel production platforms were each designed to carry wellhead equipment for up to 8 gas wells, with 52/5A and 48/29A-P being modified to carry 11 and 9 wells respectively. The eight-legged 48/29A-FTP supports the pipeline risers receiving gas from the production platforms and the subsea well (48/30-9). The FTP also supports the export risers for transporting the gas to the onshore Bacton Terminal via two 30-inch subsea pipelines.

1.4 OVERVIEW OF INSTALLATIONS BEING DECOMMISSIONED

The Hewett field infrastructure comprises six platforms and 32 platform wells. This Decommissioning Programme concerns platform decommissioning only. Pipelines and umbilicals attached to the platforms being removed will be flushed, isolated and physically separated from the platforms, but no other impact upon subsea field infrastructure is anticipated. Pipelines and subsea infrastructure Decommissioning will be addressed in a separate Decommissioning Programme to be submitted at a future time in accordance with relevant regulations at the time.

1.4.1 Installations

Table 1.1 - Installations Being Decommissioned

Field Information			
Field	Hewett	Production Type	Gas
Water Depth (m)	20.4 to 36	UKCS blocks	48/29 and 52/5
Distance to Median (km)	77	Distance to UK Coastline (km)	22
Surface Installations			
Number	Type	Total Topsides Weight (Current Estimate) ^[1,5] (Te)	Total Jackets Weight (Current Estimate including piles) ^[1] (Te)
6	Fixed steel jacket	13,221	7,375
Name	Water Depth (relative to lowest astronomical tide)	Total Topsides Weight (Current Estimate) ^[1,5] (Te)	Total Jackets Weight (Current Estimate including piles) ^[1] (Te)
48/29B	33.5m	2,221 ^[5]	1,636
48/29C	36.6m	2,164	1833
52/5A	21.3m	2,414	969
48/29A(FTP)	19.9m	1,968	671
48/29A(P)	22.6m	2,903	1049
48/29A(Q)	24.5m	1,551	1217
Subsea Installations		Number of Wells	
Number	Type	Platform	Subsea
None being decommissioned under this Decommissioning Programme ^[2]		32	N/A ^[3]
Drill Cuttings piles			
Number of Piles	None ^[4]	Total Est. Volume (m ³)	n/a

[1] The currently estimated total jackets weight includes weight of the piles expected to be recovered (1,276 Te of marine growth is excluded). Currently estimated total topsides weight includes weight of the bridges linking the Complex.

[2] The Section 29 notice for the Hewett field installations also describes WHPSs for subsea wells 48/30-8, 48/30-10, 48/30-14 (all associated with Deborah field), 48/30-9 and 48/30-15z (both associated with Little Dotty field). These subsea installations will not be affected by the proposals of this Programme and their

decommissioning will be addressed in a separate Decommissioning Programme to be submitted at a future date.

- [3] *The eight subsea wells tied back to the surface installations will be covered by a separate Decommissioning Programme.*
- [4] *Following surveys in 2018 it has been established that there are no cutting piles remaining under the platforms due to the highly mobile nature of the seabed in which the platforms lie.*
- [5] *This figure is adjusted to reflect execution of removal of 48/29B Vent stack of 8.4Te under a separate Decommissioning Programme.*

Table 1.2 - Installations Section 29 Notice Holders Details

Section 29 Notice Holders	Registration Number	Equity Interest (%)
Chrysaor Petroleum Company U.K Limited. (Formerly ConocoPhillips Petroleum Company U.K. Limited)	00792712	0%
Eni Hewett Limited (formerly Tullow Oil UK Limited)	SC090159	51.68694%
Eni LNS Limited	00970280	12.96239%
Eni UK Limited	00862823	24.66400%
Perenco Gas (UK) Limited (formerly Superior Oil (U.K.) Limited)	00715529	10.68667%

1.5 SUMMARY OF PROPOSED DECOMMISSIONING SOLUTIONS

Topsides and jackets will be removed and recovered to shore. A final decision on decommissioning method will be made following an engineering feasibility and commercial tendering process.

Table 1.3 - Summary of Decommissioning Solutions

Selected Option	Reason for Selection	Proposed Decommissioning Solution
Topsides - All Installations		
Complete removal	The platforms will be completely removed as they do not fall under any derogation case outlined by the Petroleum Act 1998 or associated legislation and guidance. This method removes potential obstructions and returns the seabed to a natural state and a condition that is favourable to other users of the sea, and remove obstruction to fisheries. No users have yet been found for further use of the installations.	The Platforms & Pipelines will be flushed, cleaned, made safe and hydrocarbon free. The "Making Safe" activities includes well P&A getting to HC Free. Preparation works for removal will be performed prior to removal by lift vessel and transported ashore for Processing/recycling/disposal at a suitable onshore facility.
Jackets - All installations		
Complete removal	Leaves clear seabed, removes a potential obstruction to fishing operations and maximises recycling of materials	Complete removal and the project will aim for the piles to be severed at a level of -3 metres below the natural seabed level, to ensure the remains will not be a hazard to other users of the sea. The hierarchy waste management will be applied and re-use, re-cycling, recovery/processing will be applied with the minimum practicable channelled for disposal.
Wells		
Abandoned in accordance with Oil & Gas UK Guidelines for the Suspension and abandonment of Wells.	All platform wells need to be abandoned prior to platform removal to meet OGA and HSE regulatory requirements	Well abandonment will be undertaken in accordance with approved well designs, applicable legislation, Permits Licences, Consents, Notifications and Approvals will be applied for commensurate with the work, and any associated conditions will be complied with and verified



Selected Option	Reason for Selection	Proposed Decommissioning Solution
Interdependencies all installations		
<p>Flushing of the pipelines will take place as part of the “making safe” work scopes on all platforms. After flushing short spool sections will be removed from both ends of the pipelines and flowlines to ensure isolation of the pipelines from the jackets and subsea wells (water gapping), subject to appropriate consents.</p> <p>After completion of the well P & A campaign, each of the platforms will be put into cold stack or lighthouse mode pending preparation for removal and later removal of the structures</p> <p>Moving of some mattresses is likely to be required to provide access to cut and remove short spool sections from the pipelines and any mattresses placed around the jacket legs (to prevent scour) may need to be moved to allow access to dredge around the piles for cutting at an appropriate level below the sea bed.</p> <p>Whole of jackets will be removed including attached riser sections. Some sediment will be displaced during the spool cutting and jacket pile cutting operations.</p>		



1.6 FIELD LOCATION INCLUDING FIELD LAYOUT ADJACENT FACILITIES

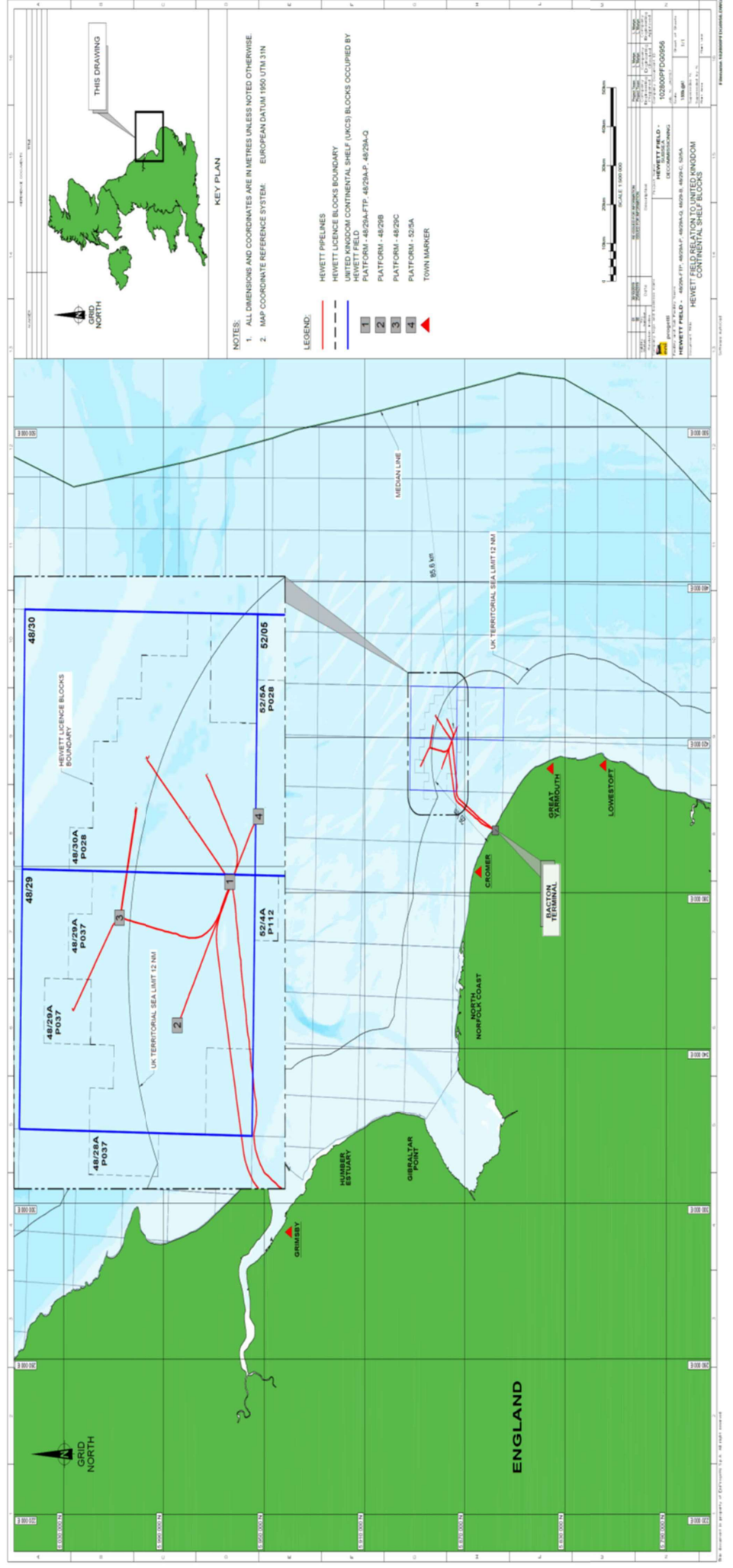
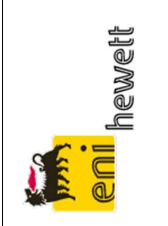


Figure 1.1 - Field Location in UKCS



Sheet of Sheets
17 / 66

Company Document ID
ENIUK-#631627-v3D-Hewlett_Decommissioning_Programme_-_Platforms

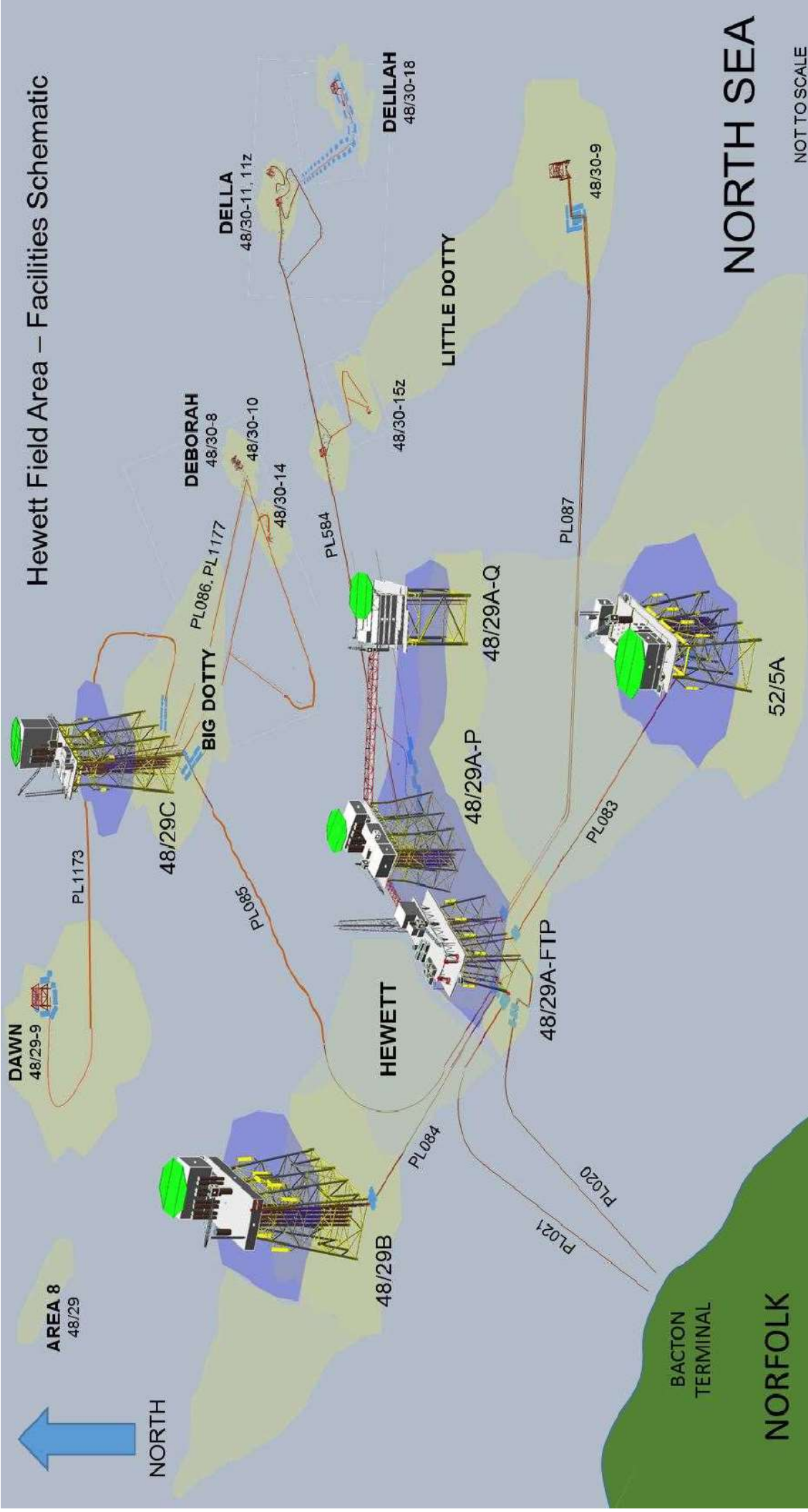


Figure 1.2 - Hewett Field Area Facilities Schematics

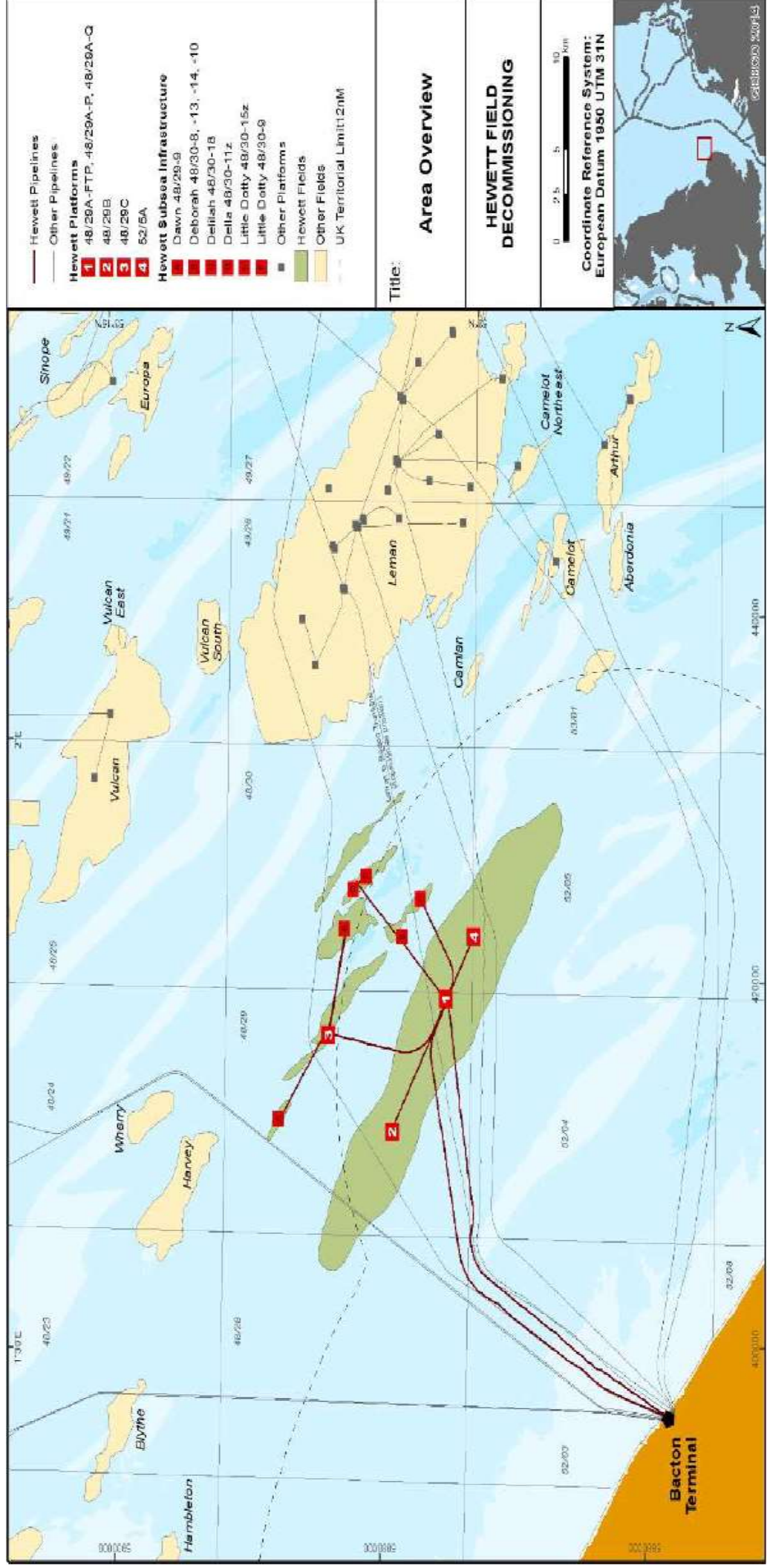
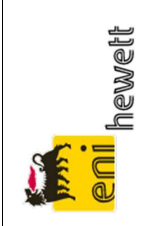


Figure 1.3 - Area Overview



Company Document ID
ENIUK-#831627-v3D-Hewlett_Decommissioning_Programme_-_Platforms

Sheet of Sheets
19 / 66

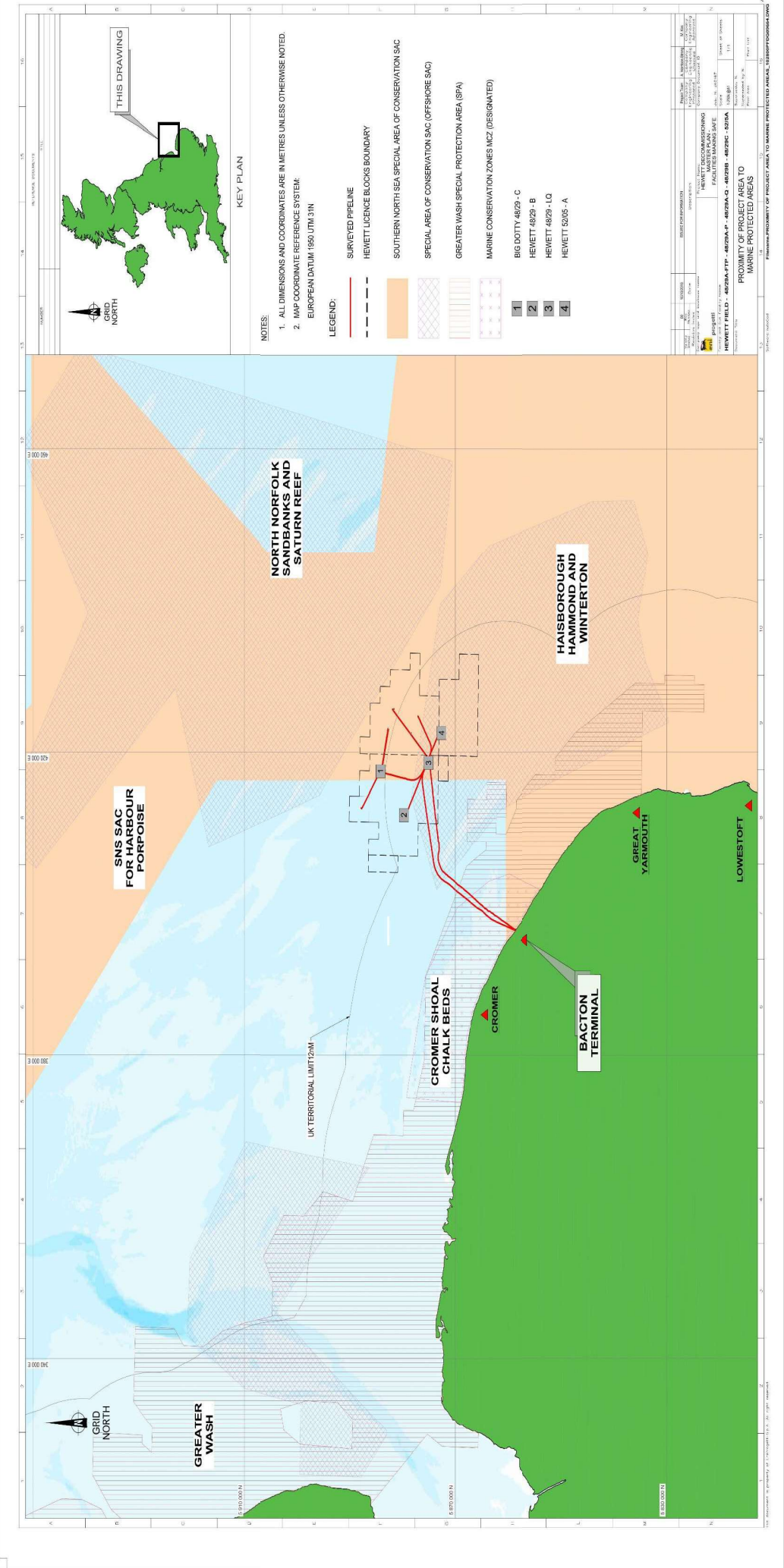



Figure 1.4 Proximity of Hewett Field Area to Marine Protected Area

	<p style="text-align: center;">Company Document ID ENIUUK-#831627-v3D-Hewett_Decommissioning_Programme_-_Platforms</p>	<p style="text-align: center;">Sheet of Sheets 20 / 66</p>
--	--	--

1.7 MARINE PROTECTED AREAS

The following Marine protected areas are within 40 KM of the Hewett Field infrastructure, the potential impacts and associated controls regarding Marine Protection are outlined in the environmental appraisal associated with and referenced in this Decommissioning Programme

Marine Protected Areas (within 40 km of the Project)	
Special Area of Conservation (SAC)	<ul style="list-style-type: none"> Haisborough, Hammond and Winterton (52/5A and 48/29A within, 48/29B = 1.7km, 48/29C = 6.3km) Southern North Sea (48/29A, 48/29C and 52/ 5A within, 48/29B = 4.4km) North Norfolk Sandbanks and Saturn Reef (48/29C = 7.0km, 48/29A=12.1km, 52/5A= 12.6km, 48/29B = 14.2km) The Wash and North Norfolk Coast (48/29B = 37.8 km is the closest)
Special Protection Area (SPA)	<ul style="list-style-type: none"> Greater Wash (52/5A= 9.0km, 48/29A=10.2km, 48/29B = 11.5km, 48/29C = 17km) The Thames outer estuary (52/5A 38.3km is the closest platform)
Marine Conservation Zone (MCZ)	<ul style="list-style-type: none"> Cromer Shoal Chalk Beds (48/29B = 15.7km, 52/5A= 19.8km, 48/29A=21.8km, 48/29C = 23km)

1.7.1 Adjacent Facilities

Pipelines and umbilicals associated with the Hewett platforms will be subject to their own Decommissioning Programme, however they will be prepared, isolated and separated from the platforms, but no other impact upon subsea field infrastructure is anticipated.

The listing of relevant adjacent facilities is therefore limited to the pipelines connected to the platforms. The platform wells are set out in Table 2.2. A listing of the adjacent subsea wells in the Hewett field, both those directly connected to infrastructure and those which are included for information only, can be found in table 2.3.

The major inter-field pipelines are labelled on Figure 1.2.

Table 1.4 – List of Adjacent Facilities

Owner	Name	Type	Direction / Distance	PWA Table A Start / End	Information	Status
Eni, Perenco	PL20	30" gas export pipeline	Hewett 48/29A-FTP to Bacton Gas Terminal, 27.9km long.	From Hewett Sphere Launcher to Bacton Onshore Terminal Sphere Receiver.	Pipeline is disconnected midline with a length of pipe removed. Crosses under PL121 Shell 30" Gas Line from Leman to Bacton.	Out-of-use (Interim Pipeline Regime)



Owner	Name	Type	Direction / Distance	PWA Table A Start / End	Information	Status
Eni, Perenco	PL21	30" gas export pipeline	Hewett 48/29A-FTP to Bacton Gas Terminal, 32.8km long.	From Hewett Sphere Launcher to Bacton Onshore Terminal Sphere Receiver.	Crosses over PL121 Shell 30" Gas Line from Leman to Bacton.	Operational
Eni, Perenco	PL83	24" gas export pipeline	Hewett 52/5A to Hewett 48/29A-FTP, 4.0km long.	From Sphere Launcher (52/5A) to Sphere Receiver (48/29A-FTP)	No pipeline crossings.	Operational
Eni, Perenco	PL84	24" gas export pipeline	Hewett 48/29B to Hewett 48/29A-FTP, 8.6km long.	From Hewett 48/29B Vent Valve to Hewett 48/29A-FTP Vent Valve	Crosses over PL121 Shell 30" Gas Line from Leman to Bacton.	Out-of-use (Interim Pipeline Regime)
Eni, Perenco	PL85	24" gas export pipeline	Hewett 48/29C to Hewett 48/29A-FTP, 10.5km long.	From Sphere Launcher (48/29C) to Sphere Receiver (48/29A-FTP)	Crosses under PL1177 8" Gas line from Deborah Well 48/30-14 to Platform 48/29C. Crosses under PL121 Gas line from Leman to Bacton. Crosses over Telephone Cable (Bacton Borkum No. 2 AJ).	Operational
Eni, Perenco	PL86	10.75" gas export pipeline	Deborah 48/30-8, with tie-back from Deborah 48/30-10, to Hewett 48/29C, 5.9km long.	From Subsea Well 48/30-8 to Drilling Production Platform 48/29-C	No pipeline crossings.	Operational



Owner	Name	Type	Direction / Distance	PWA Table A Start / End	Information	Status
Eni, Perenco	PLU4689	3.0" control umbilical	Hewett 48/29C to Deborah 48/30-8, 5.9km long.	From Topside Hydraulic Control Panel (48/29C Platform) to Subsea Hydraulic Control System (48/30-8 Well).	Hydraulic control umbilical running parallel to PL86. No umbilical crossings.	Operational
Eni, Perenco	PLU4690	2.8" control umbilical	Hewett 48/29C to Deborah 48/30-10, 5.9 km long.	From Topside Hydraulic Control Panel (48/29C Platform) to Subsea Hydraulic Control System (48/30-10 Well).	Hydraulic control umbilical running parallel to PL86. No umbilical crossings.	Operational
Eni, Perenco	PL135.1	2.375" chemical pipeline	Hewett 48/29C to Deborah 48/30-8 and 48/30-10, 5.9km long.	From Drilling Production Platform 48/29-C to Subsea Wells 48/30-8 and 48/30-10.	Piggybacked to PL86. No pipeline crossings.	Operational
Eni, Perenco	PL135.2	2.375" chemical pipeline	Hewett 48/29C to Deborah 48/30-14, 5.9km long.	From Drilling Production Platform 48/29-C to Subsea Well 48/30-14.	Piggybacked to PL86. No pipeline crossings.	Operational
Eni, Perenco	PL1173	8.625" gas export pipeline	Dawn 48/29-9 to Hewett 48/29C, 6.1 km long.	From Dawn Subsea Well No. 48/29-9 to Hewett Platform 48/29-C	Crosses over PL370 IOG 24" Gas Line Thames to Bacton.	Out-of-use (Interim Pipeline Regime)
Eni, Perenco	PL1174.1-2	2 no. 0.75" NB chemical cores (Part of 4.9" electro-hydraulic CI umbilical)	Hewett 48/29C to Dawn 48/29-9, 6.2km long.	From Hewett Platform 48/29-C to Dawn Subsea Well No 48/29-9.	Piggybacked to PL1173. Crosses over PL370 IOG 24" Gas Line Thames to Bacton.	Out-of-use (Interim Pipeline Regime)



Owner	Name	Type	Direction / Distance	PWA Table A Start / End	Information	Status
Eni, Perenco	PL1177	8.625" gas export pipeline	Hewett 48/29C to Deborah 48/30-14, 5.8km long.	From Hewett Platform 48/29-C to Deborah Subsea Well No. 48/30-14	Crosses over PL85 24" Gas Line 48/29C to 48/29A-FTP	Operational
Eni, Perenco	PLU4688	6.0" hydraulic control umbilical	Hewett 48/29C to Deborah 48/30-14, 6.0km long.	From Topside Umbilical Termination (48/29C Platform) to Subsea Umbilical Termination (48/30-14 Well)	Piggy-back to PL1177. Crosses over PL85 24" Gas Line 48/29C to 48/29A-FTP	Operational
Eni, Perenco	PL87	8.625" gas export pipeline	Little Dotty 48/30-9 to Hewett 48/29A-FTP, 6.2km long.	From Subsea Well 48/30-9 to Drilling Production Platform 48/29A-FTP.	No pipeline crossings.	Out-of-use (Interim Pipeline Regime)
Eni, Perenco	PL136.1	2.375" chemical pipeline	Hewett 48/29A-FTP to Little Dotty 48/30-9, 6.2km long.	From Drilling Production Platform 48/29A-FTP to Subsea Well 48/30-9.	Piggybacked to PL87. No pipeline crossings.	Out-of-use (Interim Pipeline Regime)
Eni, Perenco	PL136.2	2.375" chemical pipeline	Hewett 48/29A-FTP to Little Dotty 48/30-9, 6.2km long.	From Drilling Production Platform 48/29A-FTP to Subsea Well 48/30-9.	Piggybacked to PL87. No pipeline crossings.	Out-of-use (Interim Pipeline Regime)
Eni, Perenco	PLU4743	6.0" hydraulic control umbilical	Hewett 48/29A-FTP to Little Dotty 48/30-9, 7.7 km long.	From Topside Hydraulic Control Panel (48/29A-FTP Platform) to Subsea Hydraulic Control System (48/30-9 Well)	Hydraulic control umbilical running parallel to PL87. No pipeline crossings.	Out-of-use



Owner	Name	Type	Direction / Distance	PWA Table A Start / End	Information	Status
Eni, Perenco	PL584	10.75" gas export pipeline	Della 48/30-11z , with tie-backs from Delilah 48/30-18 (PLEM) & Little Doty 48/30-15z (MTM) to Hewett 48/29A-P, 9.2km long.	From 48/30-11 Subsea Well Della to 48/29A-P Hewett Platform.	Cross over PL585 /586 disused Della umbilical Crosses over PL121 Shell 30" Gas Line from Lemam to Bacton	Operational
Eni, Perenco	PL585	0.5" NB chemical core (part of 3.8" Della hydraulic CI umbilical)	Hewett 48/29A-P to Della 48/30-11z, 10.4km long.	From 48/29A-P Hewett Platform to 48/30-11 Subsea Well Della.	One of the chemical cores forming part of the Della control umbilical running parallel to PL584. Cross under PL584 Della gas export pipeline Crosses over PL121 Shell 30" Gas Line from Lemam to Bacton Crosses under PL1630 Delilah 8" NB Production Flowline. Crosses under PL1629 Delilah 6.4" umbilical	Out-of-use (Interim Pipeline Regime)



Owner	Name	Type	Direction / Distance	PWA Table A Start / End	Information	Status
Eni, Perenco	PL586	0.5" NB chemical core (part of 3.8" Della hydraulic CI umbilical)	Hewett 48/29A-P to Della 48/30-11z, 10.4km long.	From 48/29A-P Hewett Platform to 48/30-11 Subsea Well Della.	<p>One of the chemical cores forming part of the Della control umbilical running parallel to PL584.</p> <p>Cross under PL584 Della gas export pipeline</p> <p>Crosses over PL121 Shell 30" Gas Line from Lemam to Bacton</p> <p>Crosses under PL1630 Delilah 8" NB Production Flowline.</p> <p>Crosses under PL1629 Delilah 6.4" umbilical</p>	Out-of-use (Interim Pipeline Regime)
Eni, Perenco	PL1323.1-5	5.2" electro hydraulic CI umbilical	Hewett 48/29A-P to Della 48/30-11z, Little Doty 48/30-15z and Delilah 48/30-18, 9.7km long.	From Hewett Platform to SUT.	<p>EHCI control umbilical running parallel to PL584.</p> <p>Crosses over PL121 Shell 30" Gas Line from Lemam to Bacton</p> <p>Crosses over PL585 /PL586 disused Della umbilical</p> <p>Crosses under PL1630 Delilah 8"NB production flowline</p> <p>Crosses under PL1629 6.4" Delilah umbilical.</p>	Operational



Owner	Name	Type	Direction / Distance	PWA Table A Start / End	Information	Status
Eni, Perenco	Bacton Gas Terminal	Onshore Gas Terminal	Reception for Hewett Trunklines PL20 & PL21, 31.3km and 32.6km from Platform 48/29A-FTP respectively.	N/A	Gas production from Hewett and Satellite Fields are routed to Bacton Gas Terminal	Operational
Eni, Perenco	Deborah 48/30-8 Subsea Well	Subsea Well	Subsea well 5.9km ESE of Platform 48/29C platform, 8.6km NNE of Platform 48/29A-FTP.	N/A	Gas production to 48/29C.	Operational
Eni, Perenco	Deborah 48/30-10 Subsea Well	Subsea Well	Subsea well 5.9km ESE of Platform 48/29C platform, 8.6km NNE of Platform 48/29A-FTP.	N/A	Gas production to 48/29C.	Operational
Eni, Perenco	Deborah 48/30-14 Subsea Well	Subsea Well	Subsea well 5.8km ESE of Platform 48/29C platform, 8.5km NNE of Platform 48/29A-FTP.	N/A	Gas production to 48/29C.	Operational




Owner	Name	Type	Direction / Distance	PWA Table A Start / End	Information	Status
Eni, Perenco	Little Dotty 48/30-9 Subsea Well	Subsea Well	Subsea well 5.7km ENE of Platform 48/29A- FTP.	N/A	Gas production to 48/29A-FTP.	Out-of-Use
Eni, Perenco	Dawn 48/29-9 Subsea Well	Subsea Well	Subsea well 6.0km WNW of Platform 48/29C, 14.3km NNW of Platform 48/29A- FTP.	N/A	Gas production to 48/29C.	Out-of-Use
Eni, Perenco	Della 48/30-11z Subsea Well	Subsea Well	Subsea well 9.2km NNE of Platform 48/29A- FTP.	N/A	Gas production to 48/29A-P.	Operational
Eni, Perenco	Little Dotty 48/30-15z Subsea Well	Subsea Well	Subsea well 4.6km NNE of Platform 48/29A- FTP.	N/A	Gas production to 48/29A-P.	Operational
Eni, Perenco	Delilah 48/30-18 Subsea Well	Subsea Well	Subsea well 9.1km NNE of Platform 48/29A- FTP.	N/A	Gas production to 48/29A-P.	Operational

Owner	Name	Type	Direction / Distance	PWA Table A Start / End	Information	Status
Eni, Perenco	Midline Termination Module	Subsea Structure	Subsea structure housing midline tee for PL584 gas export pipeline from Della 48/30-11z Subsea Well to Platform 48/29A-P and midline termination unit of PL1323 Della Control Umbilical.	As described	Protective structure to midline tee and SUTU	Operational
Eni, Perenco	Pipeline End Manifold	Subsea Structure	Subsea structure housing midline tee for subsea tie-backs (Della 48/30-11z Subsea Well and Delilah 48/30-18 Subsea Well) routed to 48/29A-P via PL584, and subsea umbilical termination of PL1323 Della Control Umbilical.	As described	Protective structure to pipeline end terminations and SUTU	Operational

1.8 INDUSTRIAL IMPLICATIONS

Eni is actively engaging with the market and other operators decommissioning in the SNS to maximise the value of past lessons learned, and has taken advantage of industry conferences to present the project to prospective contractors. A number of contractual approaches are under consideration, including award of a single EPRD contract. Eni has consulted with a variety of contractors to inform this process. Eni is liaising with the Oil & Gas Authority (OGA), to provide more details through a Supply Chain Action Plan (SCAP).

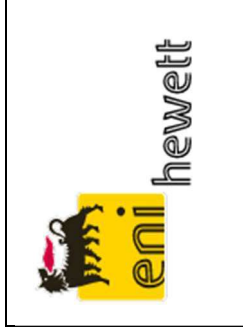
	<p style="text-align: center;">Company Document ID</p> <p style="text-align: center;">ENIUK-#831627-v3D-Hewlett_Decommissioning_Programme_-_Platforms</p>	<p style="text-align: center;">Sheet of Sheets</p> <p style="text-align: center;">29 / 66</p>
--	---	---

2 ASSETS TO BE DECOMMISSIONED

2.1 INSTALLATIONS: SURFACE FACILITIES

Table 2.1 - Surface Facilities Information

Name	Facility Type	Location		Topsides/Facilities			Jackets		
				Estimated Dry Weight (Te)	Number of Modules ^[1]	Estimated Weight (Te) ^[2]	Number of Legs	Number of Piles	Estimated Weight of Piles (Te)
48/29A-FTP	Field Terminal Platform	WGS84 Decimal	53.016755 01.794147	1,968	6	519	8	8	152
		WGS84 Decimal Minute	53°01'00.317"N 1°47'38.928"E						
48/29A-P	Production platform in 48/29A complex (include Bridge from platform 48/29A-P to platform 48/29A-FTP)	WGS84 Decimal	53.017331 01.794676	2,903	8	892	12	12	157
		WGS84 Decimal Minute	53°01'02.392"N 1°47'40.835"E						
48/29A-Q	Accommodation Platform (include Bridge from platform 48/29A-P to platform 48/29A-Q)	WGS84 Decimal	53.017573 01.796324	1,551	2	803	4	4	414
		WGS84 Decimal Minute	53°01'03.264"N 1°47'46.768"E						



Company Document ID
ENIUK-#831627-v3D-Hewlett_Decommissioning_Programme_-_Platforms

Sheet of Sheets
30 / 66

Name	Facility Type	Location		Topsides/Facilities			Jackets		
				Estimated Dry Weight (Te)	Number of Modules ^[1]	Estimated Weight (Te) ^[2]	Number of Legs	Number of Piles	Estimated Weight of Piles (Te)
48/29B	Satellite platform	WGS84 Decimal	53.053997 01.684644	2,221	8	1,309	8	12	327
		WGS84 Decimal Minute	53°03'14.388"N 1°41'04.718"E						
48/29C	Satellite platform	WGS84 Decimal	53.097048 01.764338	2,164	4	1,337	8	8	496
		WGS84 Decimal Minute	53°05'49.374"N 01°45'51.618"E						
52/5A	Satellite Platform	WGS84 Decimal	52.998708 01.846315	2,414	6	815	8	8	154
		WGS84 Decimal Minute	52°59'55.350"N 01°50'46.735"E						

Notes on Table 2.1:

[1] The platforms were not designed or built using a modern modular approach, but predominantly constructed using "stick-build" methods and equipment skids, and in some cases were subsequently modified in the field as requirements developed. The listing of 'Number of Modules' describes heavy, bulky and/or self-contained systems or components, i.e. sections that it is anticipated may be considered as one piece for removal. The "modules" considered are listed under the description of each platform within Section 2.1

[2] Jackets estimated weight excludes piles and excludes estimated 1,276 Te of marine growth.

The following is a description of each of the platform installations. The corresponding platform wells and tied-back subsea wells are summarised in tables in section 2.2.



Figure 2.1 - Aerial View of 48/29A Complex

The first Hewett field platforms to be built were 48/29A-FTP (left) and 48/29A-P (centre), bridge-linked to each other. In 1992 this complex was expanded to include 48/29A-Q (right), with its own link to 48/29A-P.

2.1.1 Platform 48/29A-FTP

This is an eight-leg platform and is central to the operations of the Hewett Field as it receives gas from the Hewett Field production platforms and subsea wells, which is then passed to the onshore facility at Bacton along two 30" subsea pipelines. For this purpose, it houses the central collection manifolds for gas flowlines from the production platforms. Sour gas from subsea Little Dotty well, 48/30-9, which ceased production in 2004, was also received here.

The cellar deck (48.5m × 24.3m) holds the major items of operating equipment such as the fire pumps A and B, air receivers and storage vessels, and central hydraulic unit. The main deck (42.8m × 16.7m) holds power, control and utilities such as the Kenz 23 Crane, gas turbine driven power generation units GT3 and GT4, and emergency standby diesel generator. GT4 had its engine unit removed and replaced in November 2019 as it is required to run the A38 export gas compressor. GT3 was taken out of service in 2018 due to failed bearing seals and was not economic to repair.

Modules: Workshop module; radio tower; glycol coolers skid; 2 gas turbine driven generators; main/cellar decks topsides.

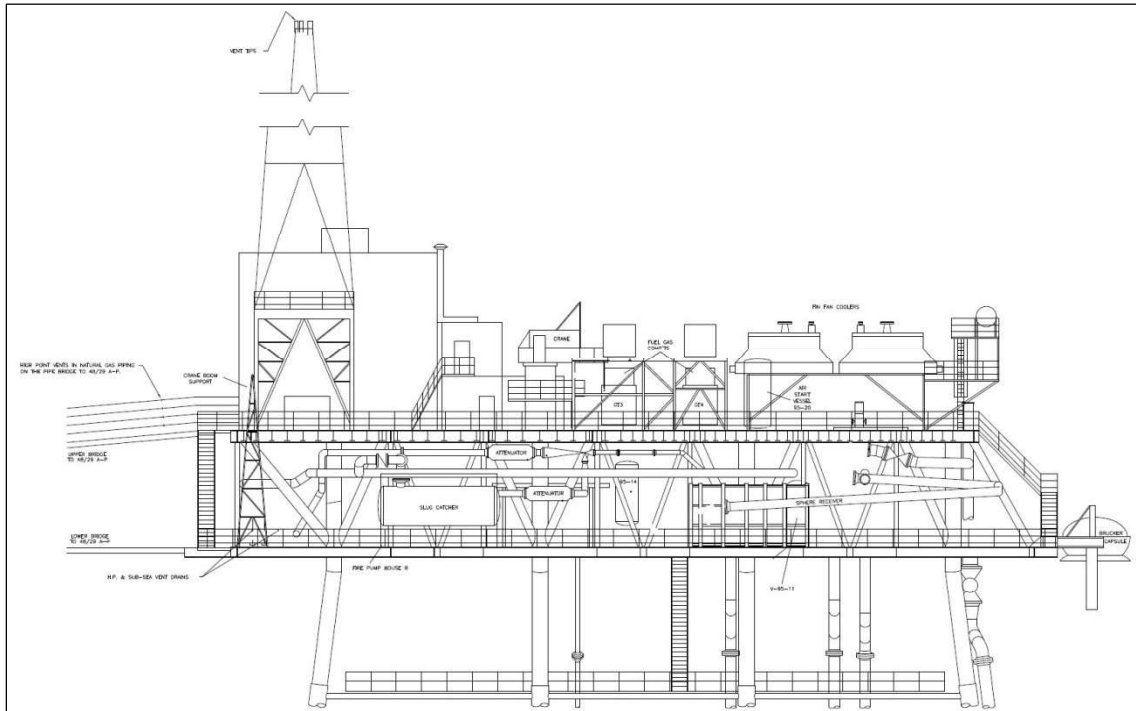


Figure 2.2 - West Elevation of 48/29A-FTP Topside

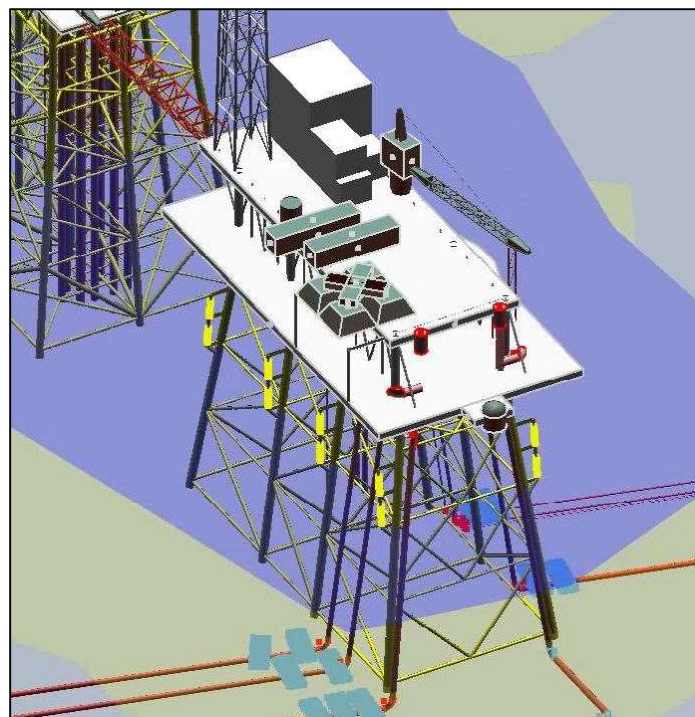


Figure 2.3 - 3D Model View of Platform 48/29A-FTP

2.1.2 Platform 48/29A-P and Bridges

The 48/29A-P platform is a conventional twelve-leg piled steel production platform on a three by four (3 x 4) grid. It has seven platform wells drilled into the Lower Bunter reservoir, one well (A9) into the Zechstein reservoir and one well (A10) into the Plattendolomite reservoir. Gas from the subsea wells 40/30-11 Della, 48/30-15 Little Dotty (production ceased in 2001) and 48/30-18 Delilah, drilled into the Rotliegendes reservoir, is also received here.

The 48/29A-P (Production) and 48/29A-FTP (Field Terminal) platforms are linked by a 20-metre bridge at main and cellar deck levels, a link which also carries the three pipelines for gas produced on the platform. A bridge on the opposite side of 48/29A-P, 75m in length, links this platform to the accommodation platform 48/29A-Q at Main Deck level.

The production platform itself is on three levels; the cellar deck, main deck and control room / helideck (redundant). The cellar deck holds the major items of operating equipment and has dimensions of 36.6m x 21.3m. The main deck has dimensions of 42.7m x 21.3m, and holds the gas production utilities such as the separators, generator room, air compressors and process gas suction scrubber and also houses the main A38 Gas Turbine driven compressor.

Modules: workshop module; redundant helideck; 2 contactor skids; fuel gas heater skid; gas turbine enclosure skid; gas compressor, main/cellar decks topsides.

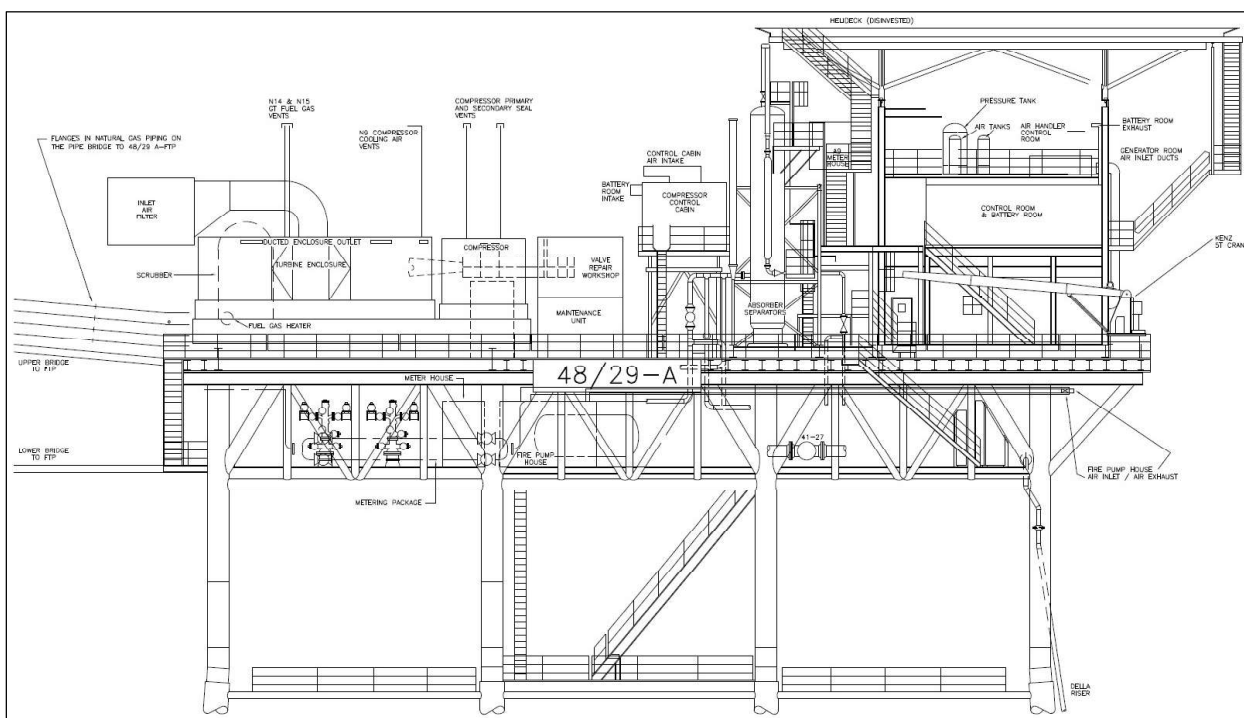


Figure 2.4 - East Elevation of 48-29A-P Topside

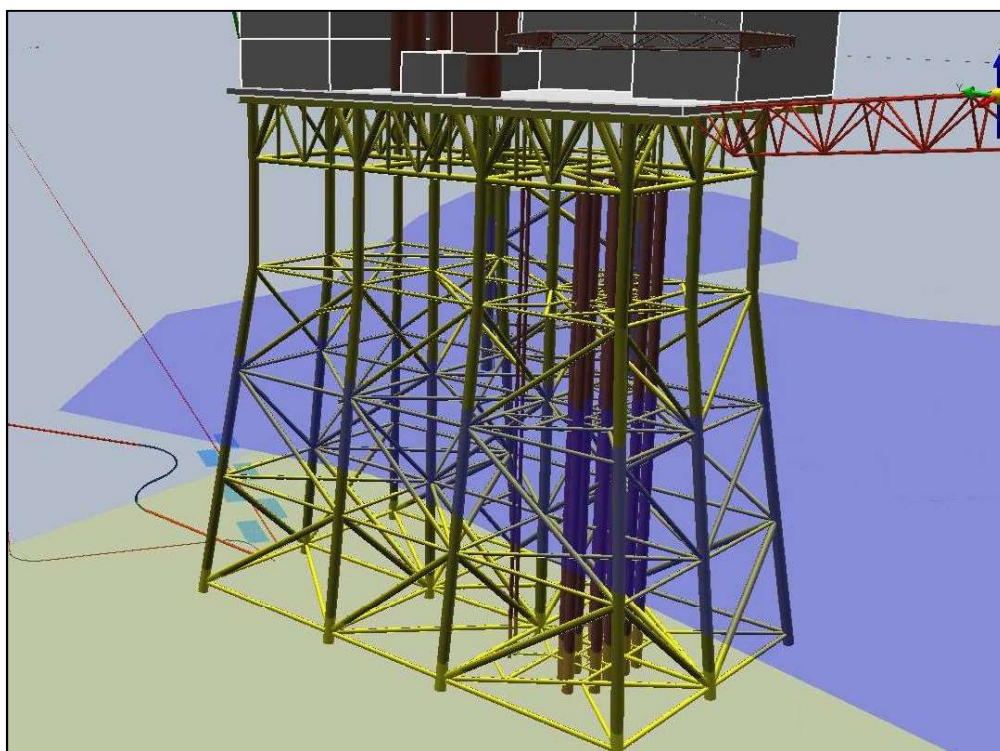


Figure 2.5 - 3D Model View of 48/29A-P Jacket

2.1.3 Platform 48/29A-Q

48/29A-Q is a four-leg piled steel platform, installed in December 1992, which serves as accommodation for up to 44 personnel, in 20 two-bed cabins and 4 one-bed cabins. The platform is a Safe Area, with a 75 metre bridge providing separation from 48/29A-P and only small quantities of diesel fuel being present on the platform. There are no platform wells or tied-back subsea wells.

The topsides accommodation module is comprised of five levels with an internal stairway linking the levels. The utilities level contains the 415 Volt input transformer, the main switch rooms, plant room, laundry and gymnasium. Level 1 holds the galley, dining room, lounge room, cold stores and freezers, and the catering staff accommodation. Level 2 consists of the general office, cabins and a quiet room. Level 3 contains two-man cabins, a sick bay and the Heli-admin area. Steps from Level 3 access the roof which hosts the radio room and the helideck Modules. The Platform considered as one module for Decommissioning, as it is planned to be lifted in one piece, including the helideck.

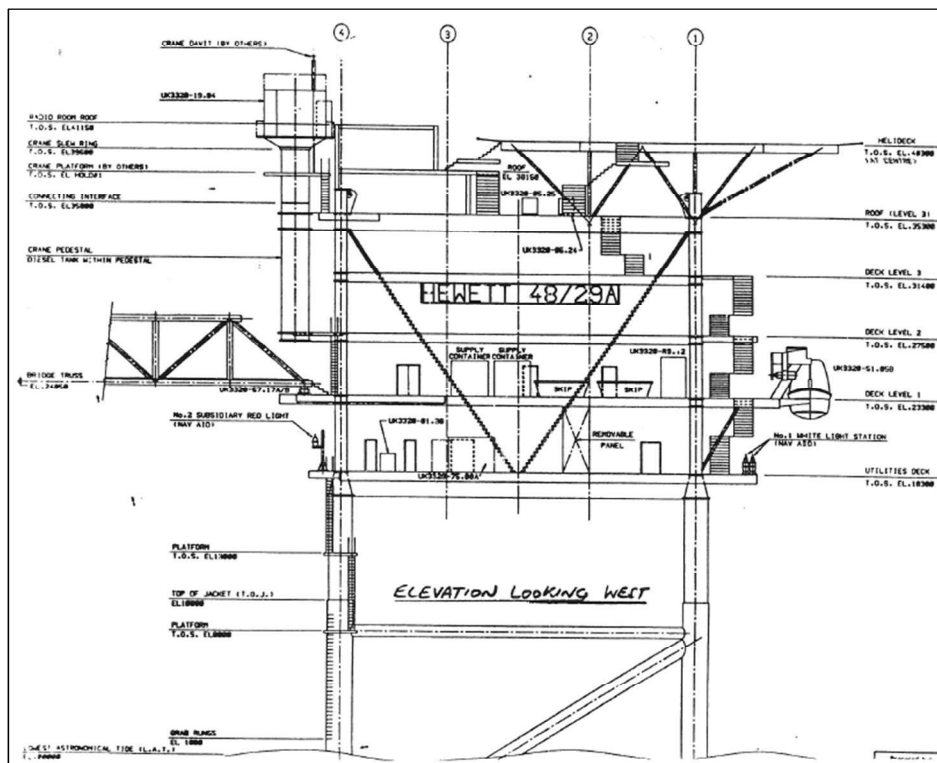


Figure 2.6 - East Elevation of 48/29A-Q Topside

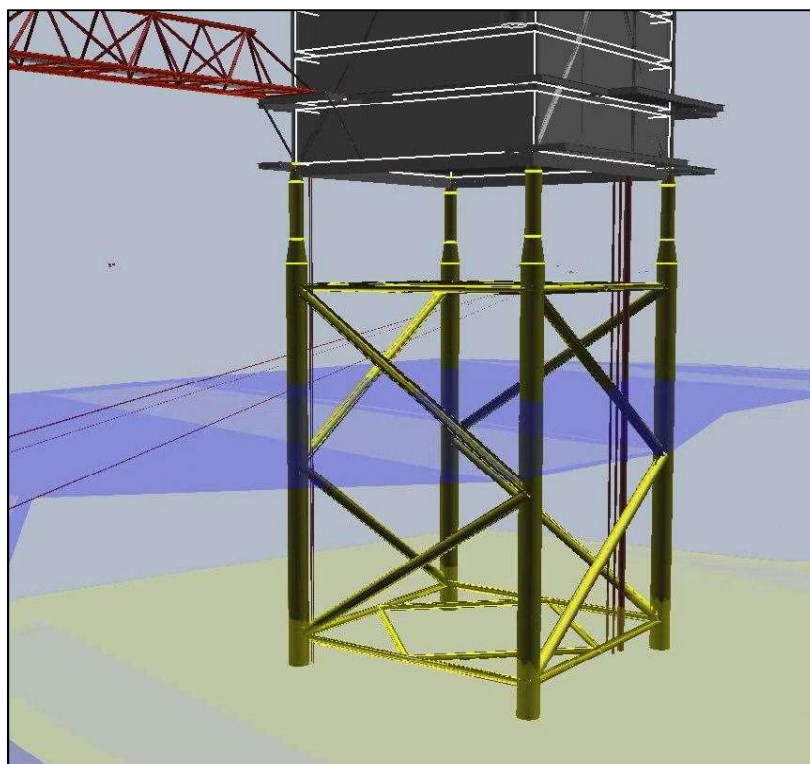


Figure 2.7 - 3D Model View of 48/29A-Q Jacket

2.1.4 Platform 48/29B

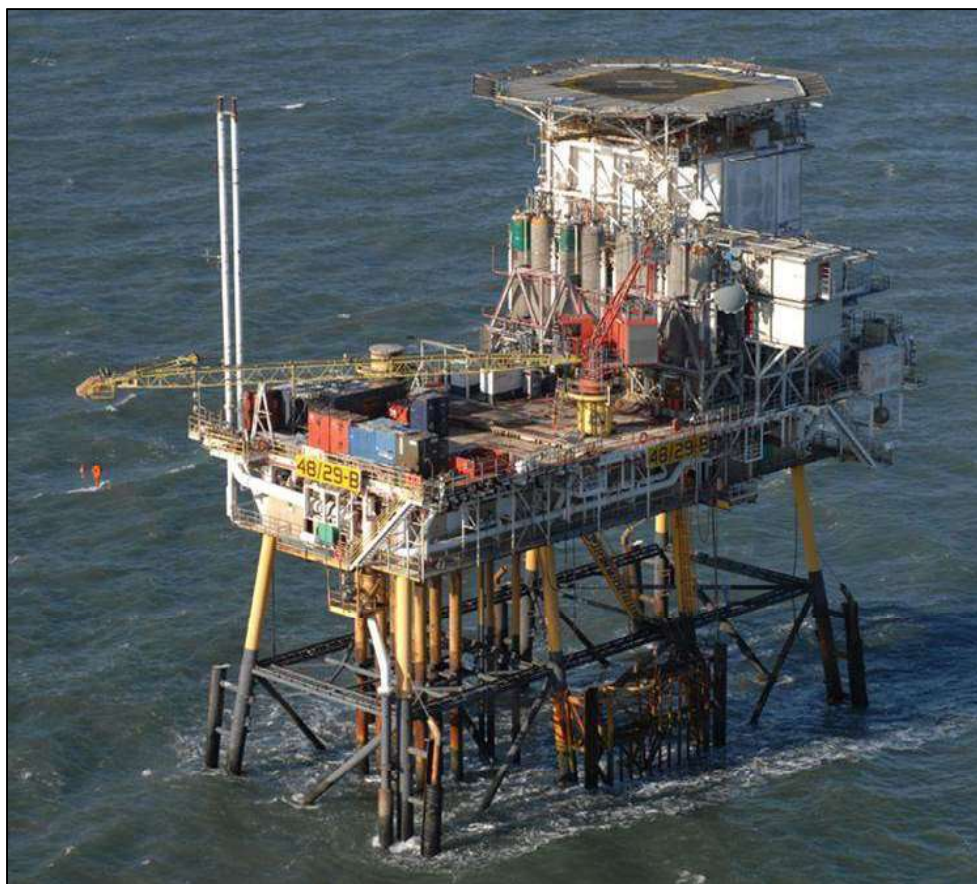


Figure 2.8 - Aerial View of 48/29B

48/29B is an eight-leg conventional piled steel production platform, on a two by four (2 x 4) grid. It has six platform wells drilled into the Lower Bunter reservoir and two wells (B10 and B11) into the Zechstein reservoir. The Lower Bunter well, B1, is currently designated as a water injector. The platform exports gas to 48/29A-FTP through a 24" subsea pipeline.

The installation was modified during 2006 to a Normally Unmanned Installation (NUI) with minimum facilities, but accommodation was reinstated in 2007 to enable overnight visits to the platform, thereafter defined as a Not Permanently Attended Installation (NPAI).

This platform is on three levels, the cellar deck, main deck and the control room/helideck. Similar to the production and field terminal platforms of the central complex, the cellar deck holds the major items of operating equipment and the main deck holds the main utilities. The 48/29B platform contains accommodation for 8 personnel. The original accommodation, directly underneath the helideck has been disinvested but not removed, and a new accommodation block installed. The dimensions of the cellar deck are 36.6 m × 18.3 m, and the main deck, 42.7m × 21.3m.

In April 2019 Eni received OPRED approval for vent stack removal and preparation works at 48/29B, this work was completed November 2019 and a close out report is in process of development. The removal of 48/29B vent stack was an enabler for Jack-up drilling rig access to undertake the wells plug and abandonment programme.

Modules: accommodation; 3 no. cabins; helideck; 2 no. contactor skids; main/cellar decks topsides.

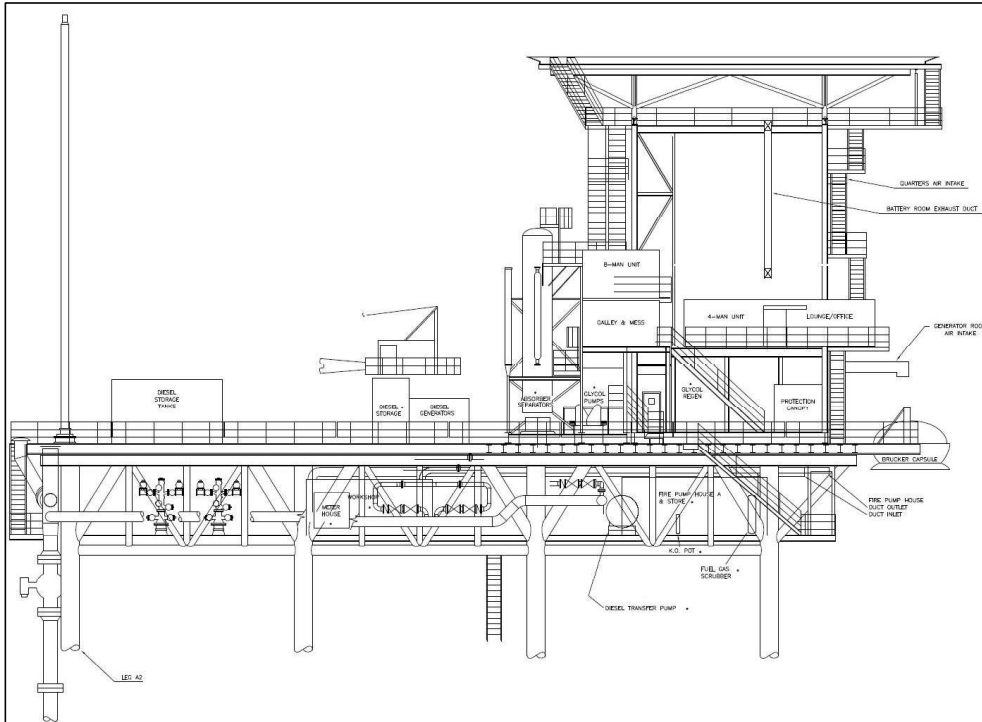


Figure 2.9 - East Elevation of 48/29B Topside

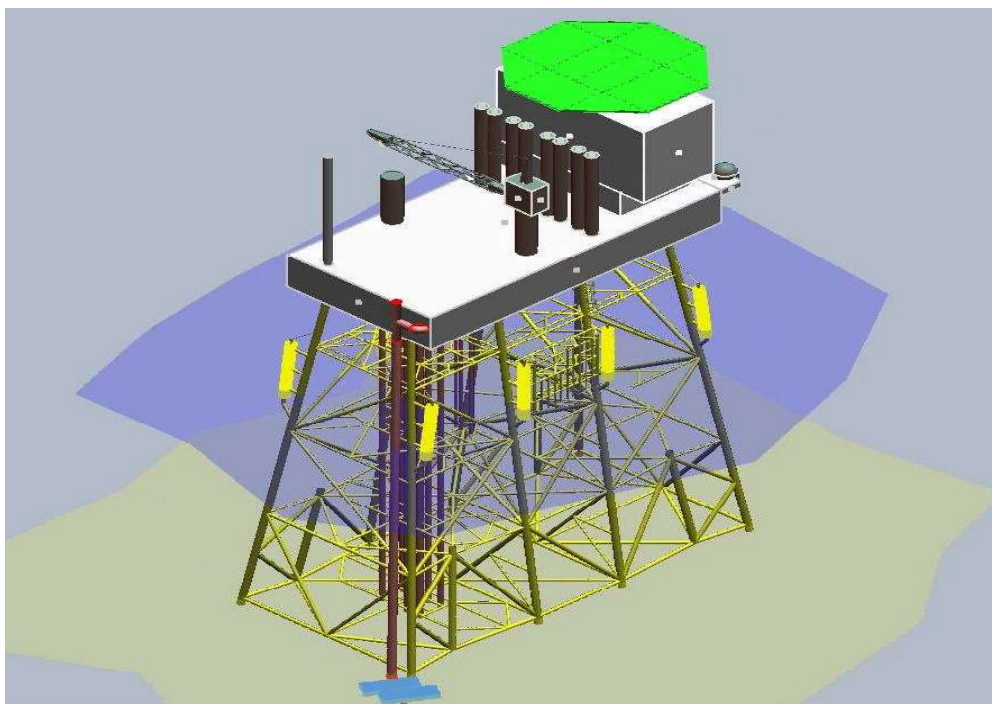


Figure 2.10 - 3D Model View of Platform 48/29B

2.1.5 Platform 48/29C



Figure 2.11 - Aerial View of 48/29C

48/29C is an eight-leg conventional piled steel production platform, on a two by four (2 x 4) grid. It has four platform wells drilled into the Rotliegendes (Big Dotty) reservoir. The following subsea wells are tied into 48/29C: Deborah 48/30-8 and 48/30-10 via a common 10" flowline; Deborah 48/30-14 via a separate 8.6" flowline; Dawn 48/29-9 via an 8.6" flowline, (production ceased in 2004).

The installation was modified during 2006 to a NUI with minimum facilities, but accommodation was reinstated in 2007 to enable overnight visits to the platform. As a result 48/29C has been redefined as a NPAI.

The 48/29C platform consists of three levels, the cellar deck, main deck and the control room/helideck. The cellar deck (dimensions 42.7m x 21.3m) holds the major items of operating equipment such as the subsea well control skid and fresh water tanks/pumps. The gas production utilities are located on the main deck. Accommodation is on the main deck (36.6m x 12.2m) having a total capacity for 12 personnel.

Modules: accommodation module; helideck; contactor skid; main/cellar decks main topsides.

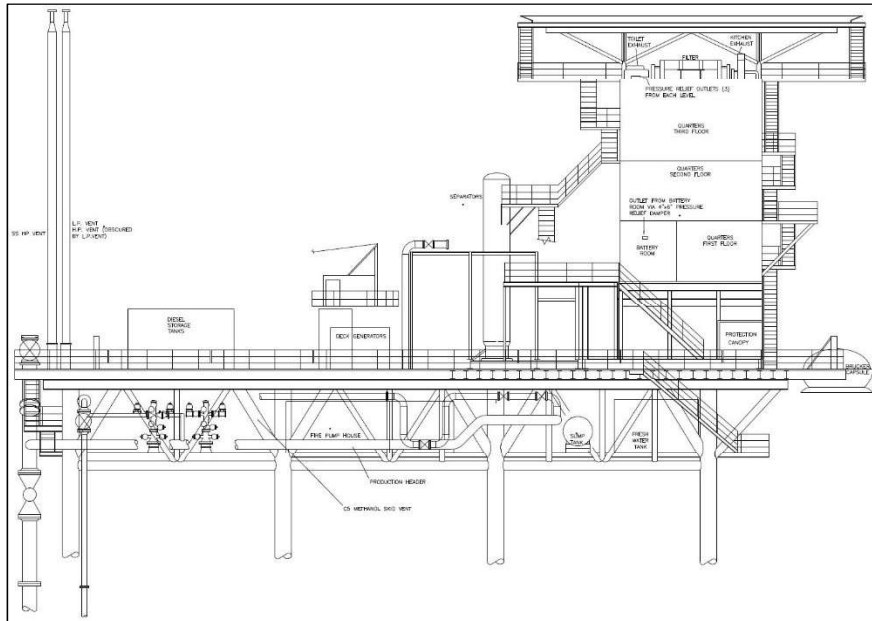


Figure 2.12 - East Elevation of 48/29C Topside

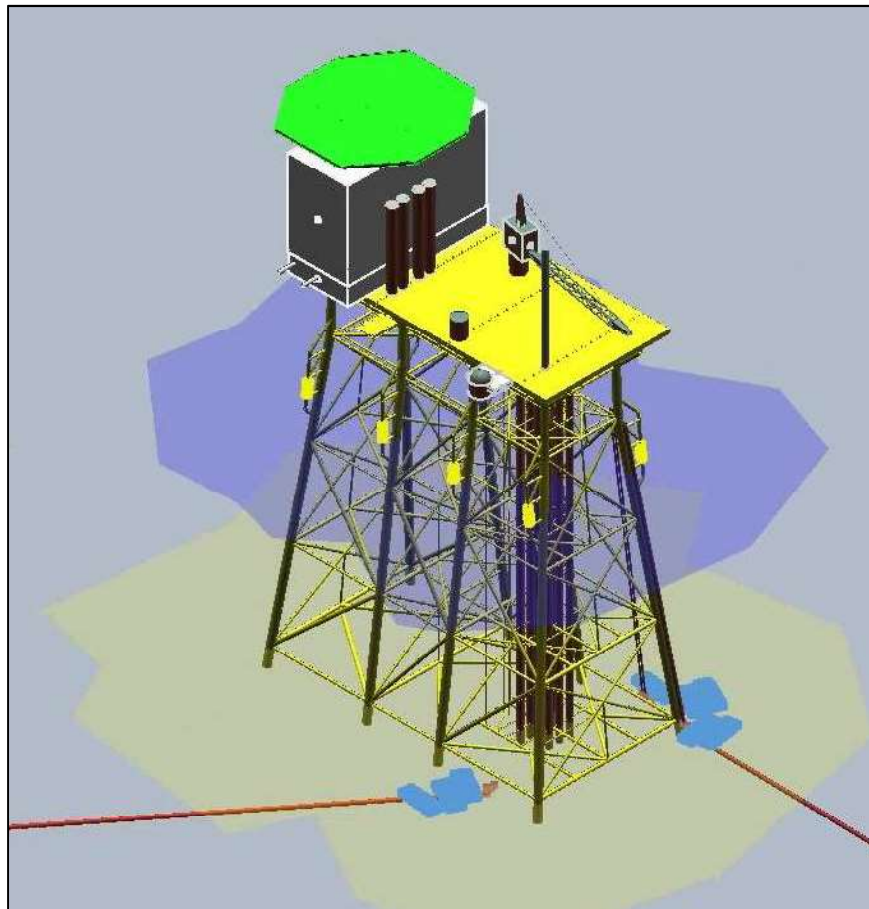


Figure 2.13 - 3D Model View of Platform 48/29C

2.1.6 Platform 52/5A



Figure 2.14 - Aerial View of 52/5A

The 52/5A platform is an eight-leg conventional piled steel production platform on a two by four (2 x 4) grid. There are eleven platform wells but no subsea wells tied-back to the platform. Six wells produce sweet gas from the high pressure Zechstein reservoir (wells A11 to A16 inclusive). The other five wells, A1, A7, A8, A9 and A10 which produced from the sour Upper Bunter reservoir have stopped producing and have been isolated from the process. Well A9 is used for produced water re-injection. The platform exports gas to the 48/29A-FTP through a 24" subsea pipeline. Accommodation is provided on the 52/5A platform for up to 12 persons in two-man cabins. The platform is designated as an NPAl.

52/5A has a cellar deck (39.2m x 16.6m) and a main deck (42.7m x 21.3m) with a helideck on the top level. The cellar deck contains both the fire pump houses A and B, hydraulic power units, wellheads, pressure vessels and gasoline transfer pump. On the main deck is the Kenz crane, air compressors, generator room with main switch room and motor control room.

Modules: accommodation module; helideck; 2 contactor skids; gas turbine (redundant); E&I workshop; main/cellar decks topsides.

In order to facilitate precise rig positioning over well-bay areas, partial removal of the redundant gas-turbine skid steelwork, ducting, and housing, removal of redundant steelwork on the platform south side, and removal of the vent stack assembly is anticipated to be undertaken prior to mobilization of the rig. Removal and transportation to shore of this material will be managed by the current field supply vessel and disposal arrangements to Great Yarmouth or Lowestoft Harbour, minimising any environmental or societal impacts.

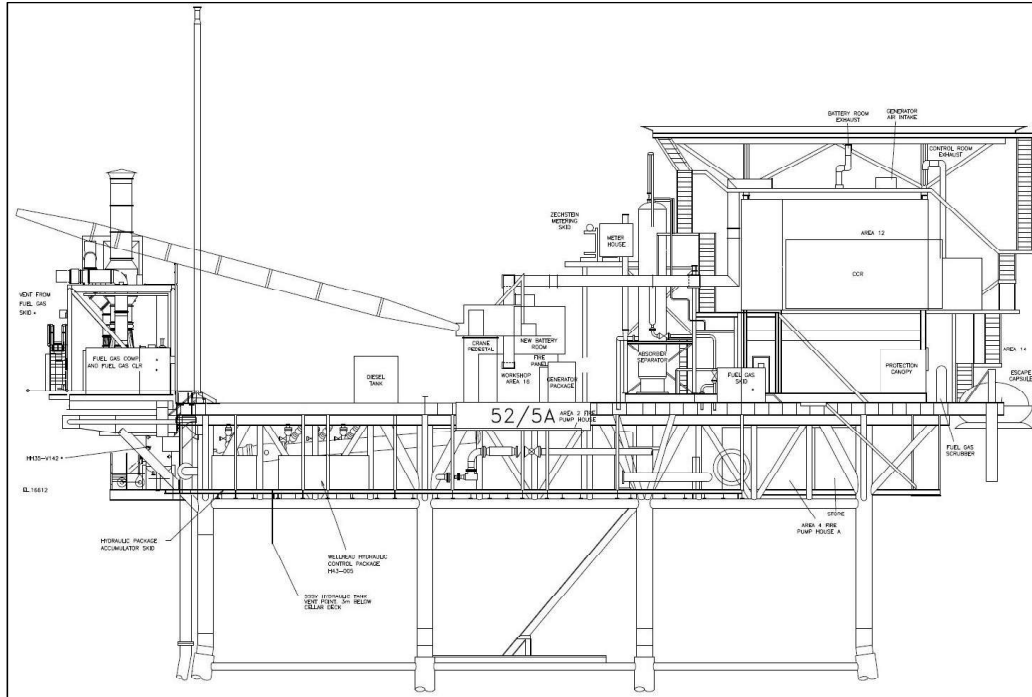


Figure 2.15 - Diagram of 52/5A Topside

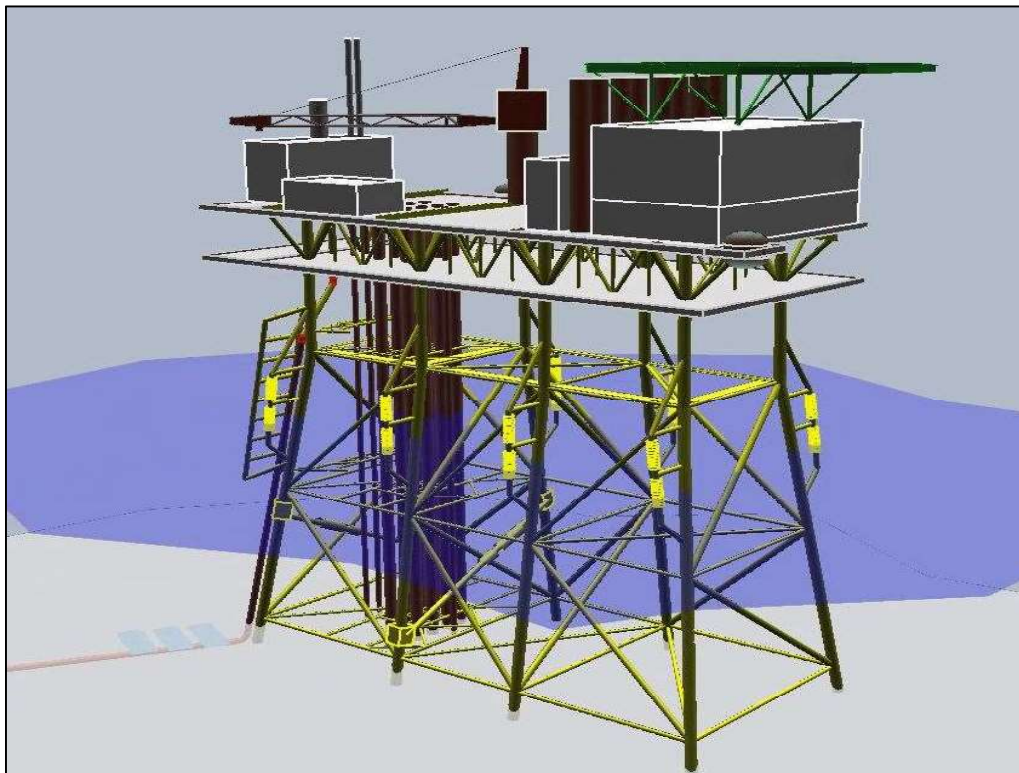


Figure 2.16 - 3D Model View of Platform 52/5A

2.2 WELLS

The Hewett asset has 32 platform wells spread over 4 platforms, drilled between 1967 and 2008. In addition to these 32 wells, there are 9 wells classed as AB2 which were side tracked and the wellhead renamed. These wells will move to status AB3 as part of the P&A programme of the 32 wells described herein.

The Platform wells will be plugged and abandoned, using a Mobile Offshore Drilling Unit (rig) prior to removal of the platform structures. Where appropriate, preparatory works for platform removal will be undertaken while the rig is on location. The subsea wells, which are not covered by this decommissioning programme, are currently programmed to be abandoned in two phases, the first phase between well abandonments at platform locations and the second phase following the final platform wells on 29AP. In order to separate the subsea wells from the platforms to achieve hydrocarbon free status, the flow lines will be flushed either with the rig on location, or without but using a dive vessel. The subsea wells may be used as donor wells for disposal of flushed fluids from the flow lines and pipelines while access to the platforms is easily available, enabling overall cost savings.

Eni's chosen abandonment scheme has been formulated after consideration of the elements presented in both Eni STAP (Eni standards and procedures) and O&GUK along with a review of other abandonment operations being carried out in the North Sea. The abandonment scheme selected centres around demonstrating good cement isolation of the reservoir from surface and from any aquifers, and is presented below. A PON 5 will be submitted in support of abandonment works to be carried out.

Table 2.2 details all active, suspended and abandoned platform wells.

The status descriptions follow the OGA Well Operations Notifications System (WONS) definitions:

- **Planned:** A well that has been planned but not yet started drilling
- **Drilling:** A well that is being drilled at the moment
- **Completed Operating:** Completed well that is currently active
- **Completed Shut in:** Completed well that is shut in
- **Plugged:** A well that has been temporarily plugged
- **AB1:** The reservoir has been permanently isolated
- **AB2:** All intermediate zones with flow potential have been isolated
- **AB3:** The well origin at surface is removed. The well will never be used or re-entered again.

Table 2.2 - Platform Wells Information

Well	Designation	Status	Comments
48/29A-P Platform			
48/29-A1	Gas Producer	Completed Operating	
48/29-A2	Gas Producer	Completed Operating	
48/29-A3	Gas Producer	Completed Operating	
48/29-A4	Gas Producer	AB2	
48/29-A5	Gas Producer	Completed Operating	
48/29-A6	Gas Producer	Completed Operating	



Well	Designation	Status	Comments
48/29-A7	Gas Producer	Completed Operating	
48/29-A8	Gas Producer	Completed Operating	
48/29-A9	Gas Producer	Completed Operating	Geological Side Track of 48/29-A4
48/29-A10	Gas Producer	Completed Operating	
48/29B Platform			
48/29-B1	Produced water injector	Completed Suspended	Converted from gas producer
48/29-B2	Gas Producer	Completed Closed In	
48/29-B3	Gas Producer	Completed Suspended	
48/29-B4	Gas Producer	Completed Closed In	
48/29-B5	Gas Producer	AB2	
48/29-B6	Gas Producer	Completed Suspended	
48/29-B7	Gas Producer	AB2	
48/29-B8	Gas Producer	Completed Suspended	
48/29-B9	Gas Producer	AB2	Geological Side Track of 48/29-B5
48/29-B10	Gas Producer	Completed Suspended	Geological Side Track of 48/29-B7
48/29-B11	Gas Producer	Completed Closed in	Geological Side Track of 48/29-B9
48/29C Platform			
48/29-C1	Gas Producer	Completed Shut in	
48/29-C2	Gas Producer	AB2	
48/29-C3	Gas Producer	Completed Shut in	
48/29-C4	Gas Producer	Completed Shut in	Geological Side Track of 48/29-C2
48/29-C5	Pilot Hole	AB2	
48/29-C5z	Gas Producer	Completed Shut in	Geological Side Track of 48/29-C5



Well	Designation	Status	Comments
52/5-A Platform			
52/5-A1	Gas Producer	Completed Shut in	Tie Back of 52/05-1 ^[1]
52/5-A4	Gas Producer	AB2	
52/5-A5	Gas Producer	AB2	
52/5-A6	Gas Producer	AB2	
52/5-A7	Gas Producer	Completed Shut in	
52/5-A8	Gas Producer	Completed Shut in	
52/5-A9	Produced water injector	Completed Operating	Converted from gas producer
52/5-A10	Gas Producer	Completed Shut in	
52/5-A11	Gas Producer	Completed Operating	
52/5-A12	Gas Producer	Completed Operating	Geological Side Track of 52/5-A4
52/5-A13	Gas Producer	Completed Shut in	Geological Side Track of 52/5-A5
52/5-A14	Gas Producer	Completed Operating	Geological Side Track of 52/5-A6
52/5-A15	Gas Producer	Completed Operating	
52/5-A16	Gas Producer	Completed Operating	

Note on Table 2.2:

[1] An appraisal well, 52/05-1 was drilled in 1967 and suspended. This was tied-back to the 52/5A platform subsequently located above in 1968-69 and re-nominated 52/5-A1.

2.3 INVENTORY ESTIMATES

Quantities have been estimated based on documentation review and non-intrusive surveying work. Intrusive surveying and sampling will be undertaken as the decommissioning project progresses, to provide a more accurate quantification of the installations inventories, particularly those of a hazardous nature.

The Inventory and Mapping of Materials studies for each platform provide the best available information regarding each platform.

The table below summarises the current estimated overall breakdown of materials to be removed. These quantities relate to the platform installations only, and are limited to everything above the seabed cutline – wells materials and jacket piling below this level are not included, will be left in place, in accordance with guidance.

Table 2.3 – Estimated Inventory (Installations)

Installation	Hazardous material (Te)	Concrete (Te)	Ferrous Metal (Te)	Non-Ferrous Metal (Te)	Plastics (Te)	WEEE (Te)	Total (Te)
48/29A-FTP	213	56	2,361	2	3	4	2,639
48/29A-P	141	101	3,702	2	0	5	3,951
48/29A-Q	242	110	2,344	26	35	12	2,769
48/29B ^[2]	148	388	3,277	35	6	3	3,857
48/29C	166	116	3,670	37	6	1	3,996
52/5A	199	53	3,096 ^[3]	14	9	12	3,383
Total^[1] Te	1,109	824	18,450	116	59	37	20,595
%age	5.4%	4.0%	89.5%	0.6%	0.3%	0.2%	100%

Note: Reference the Hewett Field Platforms Environmental Appraisal (ENIUK-#805479) for more detail information.

[1] Weights exclude the estimated 1,276 Te of marine growth associated with all platform jackets.

[2] Adjusted to Reflect Vent stack of 8.4 Te removed under approved Decommissioning Programme

[3] In order to facilitate rig positioning prior to decommissioning a vent stack assembly and redundant steelwork weighing approximately 62.5 Te will be removed in advance of rig arrival, actual weights subject to rig positioning survey finalization,

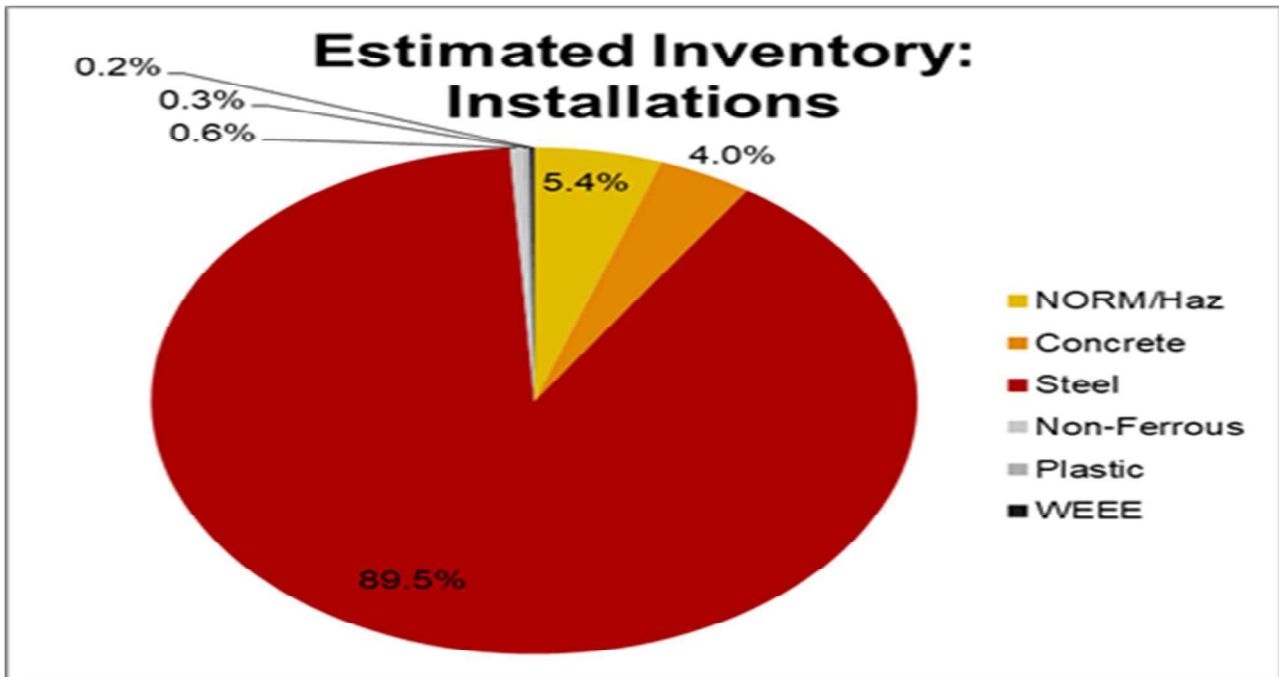



Figure 2.17 – Estimated Inventory (Installations)

	<p style="text-align: center;">Company Document ID</p> <p style="text-align: center;">ENIUK-#831627-v3D-Hewett_Decommissioning_Programme_-_Platforms</p>	<p style="text-align: center;">Sheet of Sheets</p> <p style="text-align: center;">47 / 66</p>
--	--	---

3 REMOVAL AND DISPOSAL OPTIONS

The decommissioning strategy is at an early stage of definition. A number of contractual and technical approaches are under consideration. A final decision on decommissioning methods, including removal and disposal, will be made following a commercial tendering process.

3.1 WASTE HIERARCHY

Eni waste hierarchy aligns with the principles of the EU Waste Framework Directive (Directive 2008/98/EC). Contractor and onshore site selection processes will be implemented to ensure compliance with waste hierarchy and all applicable waste regulations and Duty of Care.

As the re-use of installations (or parts thereof) is first in the order of preferred waste management options, it has been fully assessed and, deemed unfeasible due to the age and the extent to which the platforms have passed their design life. An exception is 48/29A-Q, the accommodation quarters on the central complex, for which any potential for re-use is under preliminary investigation.

Recyclable metals, predominantly steel, are estimated to account for the greatest proportion of the materials inventory. The current plan is to transport the structures (topsides and jackets) to onshore decommissioning facility for re-use, recycling and disposal using an appropriately licenced contractor. Contractor and site selection process are still in early stages and thus the potential trans-frontier shipment of waste may be considered, subject to commercial considerations and regulatory conditions.

Once a final decision on the decommissioning method is made, ENI will inform OPRED. Should the topsides be considered for removal and disposal outside of the UK, an application under the Trans-frontier Shipment of Waste Regulations shall be made to the Environment Agency.

Wastes generated during decommissioning will be segregated and recorded by type and transported to onshore waste facilities through licensed waste contractors for recovery or disposal.

3.2 TOPSIDES

3.2.1 Preparation and Cleaning

Prior to removal, the topsides will be cleaned of hydrocarbons and, where practical, of other hazardous materials. The primary route for disposal of flushed fluids is injection into the reservoir via donor wells. Other options may be considered as per table 3.1.

Table 3.1 - Topsides Preparation and Cleaning

Waste Type	Composition of waste	Disposal Route
On-board Hydrocarbons and liquids arising from flushing during Making Safe	Process fuels, Diesel , lubricants	Where possible, on-board HCs will be re-injected into the reservoir via a donor well. Should this approach be unsuccessful or if a suitable donor well is unavailable, flushed fluids containing HCs will be returned to shore for separation and use. Alternatively, consideration may be given to processing larger quantities of HC contaminated fluids offshore and treated water disposed of to sea and HCs returned to shore for recycling or disposal, subject to appropriate consents.
Hydraulic Fluid	Liquids drained from skids and equipment.	Hydraulic fluids will be drained into suitable containers and transported onshore for re-use/disposal
NORM	Potentially contained within liquids, scales, residues, and internal contamination to process pipework presence to be identified on breaking of containment	If the presence of NORM is identified, where possible it will be injected into the reservoir via a donor well. Where this approach is not available (bulk NORM solids) it will be transported onshore and disposed of in accordance with the regulations.
Asbestos and Ceramic Fibre	CAF Gaskets, panelling, as defined in asset asbestos register and asbestos surveys.	The presence of quantities of asbestos is anticipated in the topsides process systems, in form of compressed asbestos fibre (CAF) gaskets, and within panels of topsides accommodation. Asbestos-containing materials will be transported onshore and disposed of via an appropriately licenced waste management contractor.
Other Hazardous Materials	Liquids, sludges, cleaning chemicals	Where possible, cleaning chemicals will be injected into the reservoir via a donor well together with remaining hydrocarbon inventory and flushing fluids. Should this approach be unsuccessful or if a suitable donor well is unavailable, they will be returned to shore for appropriate disposal. If any H ₂ S is found the primary disposal route will be into a donor well.

3.2.2 Removal Methods

Table 3.2 - Topsides Removal Method Options

Option	Description
Single lift removal by SLV/Monohull Crane Vessel	Removal and transportation to shore of topsides as complete units. No prior weight-reduction other than items removed to achieve CoP and HC-free state. Once at shore, processing for re-use of selected equipment, recycling, break-up, and/or disposal.
Modular/piece-large removal by HLV for re-use/recycling/disposal	The platforms were not constructed using a modular approach. In consideration of this, “modular” deconstruction is taken to denote a strategy of removing large, heavy items separately, such as –a self-contained accommodation module, helideck or gas turbine skid/enclosure. Such “modules” would be transported either for reuse in alternate location(s) and/or recycling or disposal. For the six platforms, “modular” is taken to be similar to a “piece-large” approach, wherein virtually all heavy items supported on the topsides are removed, followed by the ‘remainder’ topsides removed as one or more pieces.
Offshore removal ‘piece small’ for onshore reuse/disposal	Removal of topsides by first disassembling topsides into relatively small components limited by crane and vessel handling capacity, then transported to shore. Items will then be sorted for re-use, recycling or disposal.
Proposed removal method and disposal route	A final decision on decommissioning method will be made following a commercial tendering process. Due consideration will be given to the requirement of permits and consents for any proposed trans-frontier shipments of waste.

It is project aim to sever any piles below the natural seabed level at a depth of 3 Metres to ensure that any remains are unlikely to become uncovered.

3.3 JACKETS

3.3.1 Jacket Removal Methods

Table 3.3 - Jacket Decommissioning Method Options


Option	Description
Onshore Disposal using HLV	Removal of the jacket as complete unit and transport ashore for break up, recycling and/or disposal. Re-use of selected equipment would take place where practicable.
Onshore Disposal using 'Piece Small'	Remove jacket in several pieces using attendant work barge and transport to shore yard.
Proposed removal method and disposal route	A final decision on decommissioning method will be made following a commercial tendering process. Due consideration will be given to the requirement of permits and consents for any proposed trans-national shipments of waste.

3.4 WASTE STREAMS

The table below provides an overview of the main waste streams associated with the Decommissioning Project activities and outlines the scheme for their management. Detailed waste inventories and active management plans will be developed to cover each phase of the project to ensure that all waste is systematically identified, characterised and effectively managed to ensure compliance with Regulatory and Company requirements. Equipment and materials re-use opportunities will be identified and evaluated to reduce waste quantities wherever viable and practicable.

Table 3.4 - Waste Stream Management Methods

Waste Stream	Cleaning, Removal and Disposal Method
Steel	Steel will be removed by dismantling. The scrap metals will be transported to suitably-licensed facilities for processing.
Bulk liquids (e.g. on-board hydrocarbons, chemicals)	<p>During the topsides cleaning phase, bulk liquids from pipework, vessels and pipelines will be injected into the reservoir via a donor well, as far as reasonably practicable.</p> <p>Where, for operational reasons, it is not possible to dispose of liquids into disposal well, the liquids will be suitably contained and transported onshore for appropriate processing and disposal by fully licensed onshore contractor. Where permissible in accordance with regulations and tested to ensure within the permitted levels of associated discharge permits, water used for flushing purposes may be disposed of to sea.</p>

	<p style="text-align: center;">Company Document ID ENIUK-#831627-v3D-Hewett_Decommissioning_Programme_-_Platforms</p>	<p style="text-align: center;">Sheet of Sheets 51 / 66</p>
--	---	--

Waste Stream	Cleaning, Removal and Disposal Method
Marine growth	Where necessary and practicable to allow access, marine growth will be removed offshore under appropriate Marine License(s); any remaining marine growth will be taken ashore for disposal. Onshore disposal options will be managed in accordance with appropriate license(s), guidelines and company policies.
NORM/LSA Scale	See note below headed Disposal of Radioactive Material Including LSA .
Asbestos and ceramic fibre	Asbestos is anticipated within the topsides structure and systems. Appropriate control and management of asbestos will be in place. Asbestos-containing materials will be contained and transported onshore for disposal to an appropriately licenced facility in accordance with guidelines and company policies.
Other hazardous wastes	Any other hazardous waste (e.g. instruments containing heavy metals, batteries, paints, smoke alarms etc.) will be recovered to shore and disposed of under appropriate permit(s) and according to appropriate regulations and company policies.
Onshore Dismantling Sites	Only appropriately licenced disposal yard(s) and waste contractor(s) will be selected. Disposal yard and contractor selection process will require a proven disposal track record and waste stream management compliant with regulations throughout the deconstruction process, and will consider ability to deliver innovative recycling options.

Disposal of Radioactive Material Including LSA

It is currently anticipated that there is a potential for low levels of LSA scale and residues associated with some elements of the decommissioning of the installations or the plugging and abandonment of the associated wells. The project will include consideration of NORM & LSA waste as part of an overall consultation process with the Environment Agency, ensure that all necessary registrations and Consents as well as processes and procedures are in place prior to commencement of decommissioning operations. The project will also follow internal contractor selection process and undertake audits prior to commencement of activities to ensure radioactive material will be handled, transported and disposed of by appropriately licensed waste contractors.

Waste Management Plan

Active waste management plans will be established and developed for each stage / phase of the project to ensure that effective prior arrangements are in place for all waste management and disposal activities. In addition, an audit programme will be developed to ensure that all waste disposal routes and facilities are fully audited to ensure regulatory compliance prior to commencement of activities.

Table 3.5 - Inventory Disposition

	Total Inventory Tonnage	Planned Tonnage to Shore	Planned Left In Situ
Installations	20,595	20,595	0

It is not currently possible to predict the market for re-usable materials with confidence however there is a target material recycling rate of better than 95%.

4 ENVIRONMENTAL APPRAISAL OVERVIEW

As per the Guidance Notes on Decommissioning of Offshore Oil and Gas Installations and Pipelines dated November 2018, the project are producing an Environmental Appraisal (EA) document (ENIUK-#805479) describing Environmental Impact Assessment process and assessing environmental impact of the decommissioning activities contained within this Decommissioning Programme.

4.1 ENVIRONMENTAL SENSITIVITIES (SUMMARY)

Table 4.1 - Environmental Sensitivities

Environmental Receptor	Main Features	
Conservation interests	Special Areas of Conservation (SAC)	<ul style="list-style-type: none"> Haisborough, Hammond and Winterton (52/5A and 48/29A Complex within, 48/29B = 1.7km, 48/29C = 6.3km) Southern North Sea (48/29A Complex, 48/29C and 52/ 5A within, 48/29B = 4.4km) North Norfolk Sandbanks and Saturn Reef (48/29C = 7.0km, 48/29A Complex =12.1km, 52/5A= 12.6km, 48/29B = 14.2km) The Wash and North Norfolk Coast (48/29B = 37.8 km is the closest)
	Special Protection Areas (SPA)	<ul style="list-style-type: none"> Greater Wash (52/5A= 9.0km, 48/29A=10.2km, 48/29B = 11.5km, 48/29C = 17km) The Thames outer estuary (52/5A 38.3km is the closest platform)
	Marine Conservation Zones (MCZ)	<ul style="list-style-type: none"> Cromer Shoal Chalk Beds (48/29B = 15.7km, 52/5A= 19.8km 48/29A=21.8km, 48/29C = 23km)
Seabed	<p>The seabed is classified as the EUNIS biotope complex 'Circalittoral coarse sediment' (A5.14) and '<i>Sabellaria spinulosa</i> on stable circalittoral mixed sediment' (A5.611).</p> <p>Benthic fauna is characteristic for this region of the SNS.</p> <p>Potential EC Habitats Directive Annex I reef habitats were encountered:</p> <ul style="list-style-type: none"> Aggregations of <i>Sabellaria spinulosa</i>; majority of a 'no reef' status with some of a 'low reef' classification at 48/29B and 48/29C transects. The Stony reef was observed at one 52/5A transect with sections categorised as 'medium', 'low' and 'not' reef. <p>The seabed is of extremely dynamic nature and is subjected to strong hydrodynamic disturbance. Distinct sandy bed forms, including sandbanks, sand waves, mega ripples, sand ribbons and sand streams, are observed.</p>	

Environmental Receptor	Main Features
<p>Fish</p>	<p>Several species use the seabed in the area around the Hewett field as spawning and nursery grounds at different times of the year.</p> <p>Spawning: sandeel, whiting, herring, mackerel, sole and lemon sole. Nursery: sandeel, herring, mackerel, whiting, cod, plaice, sole, lemon sole.</p>
<p>Fisheries</p>	<p>Fishing effort (ICES rectangles 34F1 and 35F1) is regarded as low and predominantly coastal, using vessels less than 10 metres in length with static fishing gear (pots and traps) with the dominant catch being shellfish. There is also presence of beam trawls targeting demersal fish.</p>
<p>Marine Mammals</p>	<p>EU Habitats Directive Annex II / IV Species:</p> <ul style="list-style-type: none"> • Platforms (except 48/29B) lie in an area of importance for Harbour porpoise (<i>Phocoena phocoena</i>) – Southern North Sea SAC. The site includes key winter and summer habitat for this species. • Other Annex II / IV species that could be present in the vicinity of the field include white-beaked dolphin (<i>Lagenorhynchus albirostris</i>), minke whale (<i>Balaenoptera acutorostrata</i>), grey seal (<i>Halichoerus grypus</i>) and harbour (common) seal (<i>Phoca vitulina</i>).
<p>Birds</p>	<p>The most abundant species likely to be present in the vicinity of the Hewett field are fulmar, kittiwake and guillemot in the breeding season, kittiwake, great black-backed gull, guillemot and razorbill over winter and guillemot in the post-breeding dispersal period.</p> <p>The nearest SPA is the Greater Wash SPA (approx. 11km) designated for the EU Birds Directive Annex I bird species and regularly occurring migratory bird species.</p> <p>Seabird vulnerability to oil pollution in the Hewett field varies throughout the year and is extremely high and very high in the winter and spring months (October to April) and high to medium May to September.</p>
<p>Onshore Communities</p>	<p>Waste generated during decommissioning will be sent to licensed onshore waste facilities through licensed waste contractors. The waste management hierarchy and Duty of Care will be followed. No onshore communities are expected to be affected.</p>

Environmental Receptor	Main Features
<p>Other Users of the Sea</p>	<p>Shipping: High to very high density with busy ports of Grimsby and Immingham as well as Great Yarmouth and Lowestoft.</p> <p>Oil and Gas: Well developed industry. Several Decommissioning Programmes within the wider Southern North Sea already approved with works underway and several more Decommissioning Programmes under consideration.</p> <p>Renewables: A number of wind farm areas at different stages of the consenting process within the vicinity of the Hewett field with closest two active north-west approximately 26.5 km (Dudgeon) and 31.8 km (Sheringham Shoal) and one in pre-planning south-east approximately 32 km (East Anglia North Tranche One West).</p> <p>Military Defence: Not within the Hewett field, however a military Practice and Exercise area (PEXA) used by the Royal Air Force (RAF) is situated approximately 60 km to the north.</p> <p>Submarine Cables and Pipelines: One telecommunication cable situated approximately 13 km west of Hewett Platform 48/29B (inactive).</p> <p>Marine Archaeology and Wrecks: A total of 8 known shipwrecks within the Hewett field, but none are protected.</p> <p>Aggregate Extraction: The nearest active licenced aggregate extraction site is located approximately 55 km south of the Hewett field. There is also an extraction option area located to the north.</p>
<p>Atmosphere</p>	<p>The wind regime around the Hewett field with large variations in wind direction and speed leads to rapid dispersion and dilution of atmospheric emissions.</p> <p>Offshore decommissioning operations and onshore waste processing will be the main source of atmospheric emissions. It is expected that these emissions will be localised.</p>

4.2 POTENTIAL ENVIRONMENTAL IMPACTS AND THEIR MANAGEMENT

There will be some environmental impacts associated with the decommissioning of the Hewett platforms. However the impacts will be managed such that they are localised, short-term and of low significance following implementation of the proposed mitigation measures contained within the Environmental Appraisal. Long-term, environmental, cumulative and trans-boundary environmental impacts are expected to be negligible. Eni and Petrofac Facilities Management Limited (Duty Holder) operate Environmental Management Systems independently certified to ISO14001:2015. Hewett decommissioning programme activity is fully integrated within the scope of these management systems.

Table 4.2 - Environmental Impact Management Enabling Works

Activity	Main Impacts	Management
<p>Late-life activities & Decommissioning Programme enabling works</p> <p>(Enabling works are conducted in advance of the implementation of the decommissioning programme and supporting EA. These scopes are delivered subject to existing consents requirements.)</p>	<p>The activities such as well abandonment, pipeline flushing and topside cleaning have the potential to cause localised environmental impacts, including:</p> <ul style="list-style-type: none"> • Seabed disturbance as a result of rig placement (jack-up). • Discharges to the marine environment from drilling rig operations and residues from topsides. • Chemical releases to the marine environment. • Physical presence of additional vessels with the potential to cause disruption to other users of the sea. • Production of waste materials. • Energy use and associated atmospheric emissions. 	<p>Mitigation measures proposed:</p> <ul style="list-style-type: none"> • Making the required Submissions & obtaining relevant licences and Consents for activities in accordance with Regulatory requirements. • Seabed disturbance <ul style="list-style-type: none"> ○ Selection of rig to reduce the number of rig moves required. • Noise <ul style="list-style-type: none"> ○ Plan and execute activities as efficiently as possible to minimise vessel operations. • Discharges and Spills <ul style="list-style-type: none"> ○ Base case for the project is to reinject all fluids associated with the well abandonment activities into donor wells. ○ TOOPEP/OPEP in place to deal with emergency spills. • Contractor management <ul style="list-style-type: none"> ○ Prior to contract award, full technical and HSE evaluation undertaken, pre-mobilisation audits. ○ Risk assessments and monitoring of performance will be undertaken. • Waste <ul style="list-style-type: none"> ○ Waste hierarchy will be followed in full compliance with EU and UK waste legislation and Duty of Care. • Rig and vessels: various emissions <ul style="list-style-type: none"> ○ Ensure rig has efficient power generation systems. ○ On board operating procedures to address fuel efficiency and type (ultra-low sulphur), noise, waste management and any discharges.

Table 4.3 - Environmental Impact Management Platforms Decommissioning

Activity	Main Impacts	Management
<p>Topsides Removal</p>	<p>The activities of cutting and lifting the facilities using lift vessels have the potential to cause localised environmental impacts, including:</p> <ul style="list-style-type: none"> • Seabed disturbance from HLV placement, anchors or potential dropped objects. • Noise: underwater from vessels (Dynamic positioning) and surface from cutting. • Discharges to the marine environment from vessels and residues from topsides. • Hydrocarbon and chemical releases to the marine environment. • Production of waste materials. • Energy use and associated atmospheric emissions. • Physical presence of vessels and equipment with the potential to cause short-term disruption to other users of the sea. <p>Potential impacts are expected to be localised, short-term and of low significance provided the implementation of the mitigation measures proposed.</p>	<p>Mitigation measures proposed:</p> <ul style="list-style-type: none"> • Seabed disturbance <ul style="list-style-type: none"> ○ Anchoring procedures will be developed. ○ Post-decommissioning survey to recover any debris. ○ Minimise potential for dropped objects. • Noise <ul style="list-style-type: none"> ○ Plan and execute activities as efficiently as possible and select equipment and removal method to minimise cutting and vessel operations. • Discharges and Spills <ul style="list-style-type: none"> ○ Hydrocarbon inventories to be removed from the topsides prior to commencing removal operations. ○ Contain any unpredicted releases. ○ OPEP in place to deal with emergency spills. • Contractor management <ul style="list-style-type: none"> ○ Prior to contract award, full technical and HSE evaluation undertaken, pre-mobilisation audits. ○ Risk assessments and monitoring of performance will be undertaken. • Waste <ul style="list-style-type: none"> ○ Waste hierarchy will be followed in full compliance with EU and UK waste legislation and Duty of Care. • Vessels: various emissions <ul style="list-style-type: none"> ○ On board operating procedures to address fuel efficiency and type (ultra-low sulphur), noise, waste management and any discharges. ○ Minimise durations of operations.
<p>Jackets Removal</p>	<p>The activities of cutting the jacket piles and lifting the jackets from the seabed using lift vessels may cause localised environmental impacts, including:</p> <ul style="list-style-type: none"> • Seabed disturbance from anchors, temporary placement of equipment, potential dropped objects. • Underwater noise from vessels, cutting and excavation. • Discharges to the marine environment from vessels. • Hydrocarbon and chemical releases to the marine environment. • Production of waste materials. 	<p>Mitigation measures proposed:</p> <ul style="list-style-type: none"> • Noise and seabed habitat disturbance <ul style="list-style-type: none"> ○ Design the works to minimise the overall area of disturbance. ○ Plan and execute activities as efficiently as possible and select equipment and removal method to minimise seabed disturbance, cutting and vessel operations. ○ Back-up plan for practical difficulties in removing the piles. • Seabed disturbance <ul style="list-style-type: none"> ○ Anchoring procedures will be developed. ○ Post-decommissioning survey to recover any debris.

Activity	Main Impacts	Management
	<ul style="list-style-type: none"> • Energy use and associated atmospheric emissions. • Physical presence of vessels and with the potential to cause short-term disruption to other users of the sea. <p>The impacts listed are expected to be localised, short-term and of low significance provided the implementation of the mitigation measures proposed.</p>	<ul style="list-style-type: none"> ○ Minimise potential for dropped objects. • Vessel Discharges and Spills <ul style="list-style-type: none"> ○ OPEP in place to deal with emergency spills. • Contractor management <ul style="list-style-type: none"> ○ Prior to contract award, full technical and HSE evaluation undertaken, pre-mobilisation audits. ○ Risk assessments and monitoring of performance will be undertaken. • Waste <ul style="list-style-type: none"> ○ Waste hierarchy will be followed in full compliance with EU and UK waste legislation and Duty of Care. • Vessels: various emissions <ul style="list-style-type: none"> ○ On board operating procedures to address fuel efficiency and type (ultra-low sulphur), noise, waste management and any discharges. ○ Minimise durations of operations.
Subsea Installations Removal	Covered in the Decommissioning Programme associated with the subsurface infrastructure	n/a
Decommissioning Pipelines	Covered in the Decommissioning Programme associated with the subsurface infrastructure	n/a
Decommissioning Stabilisation Features	Covered in the Decommissioning Programme associated with the subsurface infrastructure	n/a

5 INTERESTED PARTY CONSULTATIONS

Consultations Summary

A detailed Stakeholder Engagement Plan has been developed by the Decommissioning project to ensure all potentially interested parties will be consulted. Over the forthcoming months engagement will be undertaken and any expectations, issues or concerns raised by the consultees will be addressed by the project.

A stakeholder engagement report summarising the consultations undertaken, incorporating any stakeholder comments and how these were addressed by the project, will be prepared and submitted to support the Decommissioning Programme process.


Dialogue with Stakeholders began in October 2017. [Table 5.1](#) below shows the consultations that have been held to date. The conversations focused on presenting initial outline of the Decommissioning Programmes, on pre-decommissioning Environmental Baseline Seabed Survey scope and permitting related to pre-decommissioning activities. As the project progresses, this section will be updated to reflect the consultation process.

Table 5.1 - Summary of Stakeholder Comments

Who	Comment	Response
Stakeholder Consultations		
OPRED Environmental Management Team (EMT)	<p>Topics covered:</p> <ol style="list-style-type: none"> 1) Pre-decommissioning Platforms Environmental Baseline Seabed Survey design: engage Natural England. 2) EA Scope: proportionate to the size of the project and assessment of the worst-case scenarios. 3) Conservation Objectives and integrity of the MPAs sites within Hewett Field, specifically for SNS SAC harbour porpoise and the potential impacts on prey availability. 4) <i>Sabellaria spinulosa</i> presence summarising various surveys undertaken by Eni to be presented. 5) Engage other Operators for in combination/ cumulative impacts and assess any potential for synergies. 	<ol style="list-style-type: none"> 1) Eni engaged Natural England 2) Addressed in the relevant sections of the EA 3) Addressed in the relevant sections of the EA 4) Addressed by the relevant maps within the EA <p>Eni engaged the Operators closest to Hewett field.</p> <p>EMT Meetings held :</p> <p>04-Oct-2017, 31-Jan-2018 28-Nov-2018, 17-Apr-2019 20-Sep-2019</p>
Oil and Gas Authority (OGA)	<ol style="list-style-type: none"> 1) PWA and consenting for preparatory works, cleaning & flushing, P&A as well as interconnection process with the Regulator OPRED (EMT) & ODU. 2) PWA process following approval of the Decommissioning Programme. 3) Supply Chain Action Plan (SCAP) 4) Cessation of Production (CoP) document 5) Operations team 	<p>Guidance received and currently being implemented to ensure PWA / pipeline inventory is up-to-date.</p> <p>Guidance received and currently being implemented.</p>

Who	Comment	Response
Joint Nature Conservation Committee (JNCC)	<ol style="list-style-type: none"> 1) Pre-decommissioning Platforms Environmental Baseline Seabed Survey design: reference stations, <i>Sabellaria spinulosa</i> 'reefiness' assessments guidance and survey to have +100% coverage. 2) Engage Natural England. 3) Southern North Sea SAC: consideration to be given to updated Conservation Objectives, specifically noise potential effects on supporting habitats and availability of prey and in-combination effects with other projects (spatial and temporal). For noise levels recommendation to use the newest NOAA 2016/2018 study or Southall et al. 2019. 4) Minimise the introduction of new hard substrate materials to the seabed and consideration given to materials that can be removed. 	<ol style="list-style-type: none"> 1) Survey design amended and survey completed according to advice provided. 2) Eni engaged Natural England. 3) Addressed in the relevant sections of the EA. 4) Eni engaged market to check, whether any safe and feasible alternatives exist <p>Initial combined meeting with OPRED EMT and JNCC to outline high-level concept of the seabed survey. JNCC Meetings held : 04-Oct-2017, 30-Jan-2018 28-Nov-2018, 17-Apr-2019 16-Sept 2019.</p>
Natural England	<ol style="list-style-type: none"> 1) Pre-decommissioning Platforms Environmental Baseline Seabed Survey design: reference stations selection in similar sediment type and in the similar water depth. 2) Consideration to be given for jacket infrastructure removal – as alternative to removal potential use of infrastructure for future seaweed farming. 3) Minimise the introduction of new hard substrate materials to the seabed and consideration given to materials that can be removed. 	<ol style="list-style-type: none"> 1) Survey design amended and survey completed according to advice provided. 2) Eni considered this alternative, however the selected option is to return the clear seabed. 3) Eni engaged market to check, whether any safe and feasible alternatives exist. <p>Natural England meetings held: 11-Dec-2017 12-Nov-2019</p>
Health & Safety Executive	<p>To provide an overview of the decommissioning plan/schedule, the proposed approach to managing Material Changes to the Safety Case (PFML Duty Holder) and the associated plans for assessing and managing the safety related (including Major Accident Hazards management) aspects/risks associated with the decommissioning operations.</p>	<p>Further updates and consultations will be required. Update meeting was held on 1st November 2019.</p>

Who	Comment	Response
Environmental Agency Engagement	<p>The objective of the meeting was to receive initial input from the Environment Agency on the project approach to waste management, clarify the current proposed waste management strategy is acceptable and understand the extent of future engagement required with the Environment Agency.</p> <ol style="list-style-type: none"> 1) Investigate reuse opportunities and factor in time 2) Marine Growth advice if brought onshore 3) Trans-frontier Shipment of Waste process 	<p>Meeting was held on 21st Aug 2019. Minutes were developed and references</p> <ol style="list-style-type: none"> 1) Ongoing 2) Eni will follow the regulations and requirements 3) Eni will follow the regulations and requirements
National Federation of Fishermen's Organisations (NFFO)	<p>Initial meetings to provide outline of the Decommissioning Programmes Pre-decommissioning</p> <ol style="list-style-type: none"> 1) Platforms Environmental Baseline Seabed Survey design and FLO arrangements 2) Preference to remove all stabilisation material - cut and remove legs and other items rather than rock placement. 3) Fishing activity on Hewett field – reach out to the MMO and Inshore Fisheries Conservation Authority (IFCA). 4) Overtrawlability versus pre-clearance ROV survey and debris clearance. 5) Support the use of guard vessels. 	<ol style="list-style-type: none"> 1) FLO arrangements implemented for the duration of the survey. 2) Implemented for platforms removal. Where possible, all stabilisation material will be removed. 3) Eni obtained fish landings data from the MMO. 4) Awaiting further feedback. 5) Suitable guard vessel will be used throughout the decommissioning project. 6) NFFO Meetings Held 17-Apr-2018, 23-Sep-2019
Scottish Fishermen's Federation (SFF)	<p>Initial meeting on future decommissioning activities, follow up to provide outline of the Decommissioning Programmes.</p> <ol style="list-style-type: none"> 1) SFF indicated that all aspects of the Hewett decommissioning should be discussed with NFFO. 2) Consider undertaking Fishing Intensity Study in the wider Hewett area via NFFO. 	<ol style="list-style-type: none"> 1) Implemented. 2) Fishing Intensity Study will be considered for the subsea infrastructure decommissioning and not platforms decommissioning <p>SFF Meetings Held ; 14-Jun-2018, May 2019</p>
Northern Irish Fish Producers Organisation	<p>A statutory Consultee</p>	<p>Preliminary e-mail contact only to date</p>
Global Marine Systems Limited	<p>A statutory Consultee</p>	<p>Preliminary e-mail contact only to date.</p>
Public	<p>Consultations aligned with Decommissioning Plan Progress</p>	<p>Meetings are being planned with local communities in 2020.</p>

	Company Document ID ENIUK-#831627-v3D-Hewett_Decommissioning_Programme_-_Platforms	Sheet of Sheets 61 / 66
--	---	----------------------------

6 PROGRAMME MANAGEMENT

6.1 PROJECT MANAGEMENT AND VERIFICATION

An Eni Decommissioning Project Management team has been set up to manage suitable sub-contractors for the removal of the installation. Standard procedures for operational control and hazard identification and management will be used.

Eni has had regular meetings with OPRED and will continue to do so in order to provide verification concerning progress and compliance.

Where possible the work will be coordinated with other decommissioning operations in the SNS. The Management team will monitor and track the process of consents and the consultations required as part of this process. Any changes in detail to the offshore removal programme will be discussed and agreed with OPRED.

6.2 POST-DECOMMISSIONING DEBRIS CLEARANCE AND VERIFICATION






Sea bed surveys will establish the extent of any debris or other oilfield related materials on the sea bed. The environmental baseline seabed survey covered a two by two kilometre area around each of the installations, and will provide detailed information on the existence of debris.


In the event that debris is found during the surveys, the removal of this will be assessed and dealt with appropriately during the platform removal or subsea decommissioning scope. One of the objectives of the project is to leave the seabed in a state such that it is safe to other users of the sea.

Following the decommissioning of the installations, further post decommission surveys will be undertaken to determine if any debris remains within a 500m radius of installations. Seabed clearance verification will be undertaken, using methods and techniques agreed in prior consultation with OPRED following decommissioning activities.

6.3 SCHEDULE

The strategy of the project intends, primarily for commercial reasons, to allow a significant time window in which a potential decommissioning contractor would be able to remove the platforms, following preparation works.

HEWETT DECOMMISSIONING MASTER PLAN SUMMARY PROJECT SCHEDULE		2017				2018				2019				2020				2021				2022				2023				2024				2025				2026				2027				2028			
		Q2	Q3	Q4	Q1	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Decommissioning Enabling Activities																																																	
Platforms Decommissioning Programme																																																	
Making Safe (HC Free) - Including Well P&A																																																	
CoP Document (approved by OGA)		◆ Approved																																															
Phased Field CoP																																																	
Z9B Platform (Topsides Cleaning and Well P&A)		█																																															
Z9C Platform (Topsides Cleaning and Well P&A)		█																																															
5Z/5A Platform (Topsides Cleaning and Well P&A)		█																																															
Z9A Platform (Topsides Cleaning and Well P&A)		█																																															
Subsea Wells P&A (8 x production & 1 x ES&A)		█																																															
Flush all Subsea Well Flowlines & Interfield / Export Pipeline		█																																															
Hydro Carbon Free		█																																															
Platforms Decommissioning																																																	
Window for Preparatory Works for Removal		█																																															
Window for Removal & Disposal of Topsides & Jackets		█																																															
Close-out Report																																																	
Subsea Assets Decommissioning																																																	
Seabed Surveys / Clearance Survey		█																																															
 Regulatory Approval  Well P&A																																																	
 Millstones  Window																																																	
 Flushing & Prep for Rig Arrival																																																	
		29 Apr 2020																																															

	<p style="text-align: center;">Company Document ID ENIUUK-#831627-v3D-Hewett_Decommissioning_Programme_-_Platforms</p>	<p style="text-align: center;">Sheet of Sheets 63 / 66</p>
--	--	--

Key Project Milestones	Approx. Date
Issue ITT Package for Platform Decommissioning	2020
Award Platform Decommissioning Contract	2021
Dismantling Safety Case Approved	2021
Start of Platform Removal Prep Works window	2021
Platforms Removal Window Start (First Platform Available)	2022
All Platform Prep Works Complete	2023
Platforms Removal & Disposal Window End	2028
Platforms Decommissioning Programme Close-Out Report Submission	Within one year after removal

Adequate time has been allowed for approval of regulatory documents including the Decommissioning Programme and phased updates to the installation Safety Case(s).

6.4 COSTS

To be provided separately to OPRED and OGA in line with OGA work breakdown structure.

6.5 CLOSE OUT

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

6.6 POST-DECOMMISSIONING MONITORING AND EVALUATION

This Decommissioning Programme relates only to the decommissioning of the Hewett platform installations which as stated above will be completely removed and returned to shore for reuse, recycling, or disposal.

Once the Installations have been removed, a post-decommissioning Environmental Seabed Survey will be undertaken which will include a further suite of Side Scan Sonar and MBES work covering the same geographical area as in the Pre-Decommissioning Environmental Seabed Survey. The post-decommissioning survey will also repeat the Sediment Physio-Chemistry and Faunal Analysis to determine whether there has been any change to the marine environment.

As it is the intention to remove all of the infrastructure associated with the platform, it would not be envisaged that any further post-decommissioning activities would be required after the post-decommissioning seabed survey. Nevertheless this will be the subject of further consultations with the Regulatory Authorities and the statutory consultees. Maintenance activities are also not envisaged, as all the platform structures are to be removed.

7 SUPPORTING DOCUMENTS


Table 7.1 - Table of Supporting Documents

ID	Description	Document Number
1	Hewett Field Map – Field Location in UKCS	128000PFDG09656
2	Hewett Field Map – Offshore Windfarm Sites	102800PFDG09655
3	Hewett Field Map – Area Overview	102800PFDG09657
4	Physe, 2013. Hewett Field – Met ocean Criteria. Volume 2 – Operational Presentations. Ref: C522-R582-13 (1D).	-
5	Hewett Vessel Traffic Survey (VTS) and Collision Risk Assessment (CRA)	A-301712-S15-REPT-001
6	48/29A-FTP Inventory and Mapping of Materials	102800PGRG09005
7	48/29A-P Inventory and Mapping of Materials	102800PGRG09006
8	48/29A-Q Inventory and Mapping of Materials	102800PGRG09007
9	48/29B Inventory and Mapping of Materials	102800PGRG09001
10	48/29C Inventory and Mapping of Materials	102800PGRG09004
11	52/5A Inventory and Mapping of Materials	102800PGRG09002
12	Stakeholder Engagement Plan	102800PFPA09620
13	Environmental Appraisal	ENIUK-#805479

8 PARTNER LETTERS OF SUPPORT

Table 8.1 - Table of Attachments

Ref.	Document Number	Title
1	HOLD 1	Letters from partner Section 29 Holders

	<p style="text-align: center;">Company Document ID ENIUK-#831627-v3D-Hewett_Decommissioning_Programme_-_Platforms</p>	<p style="text-align: center;">Sheet of Sheets 66 / 66</p>
--	---	--

ANNEXURE A

CONSULTATION PUBLIC NOTICES AND CONSULTEE CORRESPONDENCE

Ref.	Document Number	Title
2	HOLD 2	Consultation Public Notices