



# UK ENVIRONMENTAL STATEMENT 2019



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At TAQA, we are committed to the highest standards of health, safety, security, environmental and quality (HSSEQ) performance. We work to respect the natural environment and to achieve our goals of ensuring that no harm comes to people; to providing a safe, secure workplace; and carrying-out our activities with minimal impact on the environment. Our commitment to safe and incident-free operations goes hand-in-hand with improved operational reliability, lower costs and higher productivity.





# Introduction

## Welcome to TAQA's 2019 Environmental Statement

I am pleased to present the 2019 Environmental Statement for TAQA's UK business. At TAQA, we are committed to the highest standards of health, safety, security, environmental and quality (HSSEQ) performance.

In 2019 we continued to prioritise safe and reliable operations across our portfolio, while executing a significant capital investment and decommissioning programme. In addition, we had firm focus on our ESG (environmental, social and governance) agenda, which captures the principles and practices that position TAQA Europe as a responsible business. In 2019 we participated in the Business in the Community (BITC) Responsible Business Tracker; a measurement tool to assess our performance as a responsible business by tracking our progress against BITC's Responsible Business Map, which was built on the UN's Global Goals or Sustainable Development Goals (SDGs). The results of this will help us to build a roadmap for continuous improvement in this area in 2020 and beyond.

During 2019 we continued to observe positive trends across TAQA's main environmental impacts. Despite carbon dioxide emissions remaining on par with 2018, diesel usage decreased for a fourth year in a row, mainly attributed to continued operational focus on utilising fuel gas. Produced water continued to see a positive reduction in overall volume discharged and there was also a positive reduction of permitted chemical discharge to sea.

However, we also recognise there are areas for improvement and driven by our environmental management system, ISO14001, we continue to implement the best possible environmental practices and processes by utilising Best Available Techniques (BAT) and, in addition, identify potential environmental issues, sharing and implementing lessons learned.

As part of planning for future decommissioning activity, TAQA also undertook a series of environmental baseline and habitat assessment surveys around a number of our subsea fields and pipelines. In addition, materials inventory surveys were conducted on our platforms to help aid the creation of the active waste management plan (AWMP) for each of our assets.

Sustainability continues to be a key business focus at TAQA, and this goes hand in hand with good environmental performance. We will continue to respect the ESG principles and build on these further and look at new ways to improve or further reduce our impact on the environment to ensure a safe and successful future in the UK.



“

In 2019 we continued to prioritise safe and reliable operations across our portfolio, while executing a significant capital investment and decommissioning programme.

*Donald Taylor*

**Donald Taylor**  
Managing Director, TAQA Europe

# Health, Safety, Security & Environment Policy

The health, safety and security of our employees, contractors and the public is our highest priority; it is more important than any operational priority.

**We must also:**

- Ensure that our assets are operated safely
- Assure the integrity of our assets
- Respect, protect and understand the natural environment

**HSSE = Health, Personal Safety, Major Accident Prevention, Security and Environment**

We strongly believe that excellent business performance requires excellent HSSE performance – we recognise this as a core value.

Employees and contractors are required to focus on these four areas.

**Leadership**

- Everyone within TAQA understands their accountabilities for the management of HSSE
- The structure and resources necessary to achieve and measure HSSE accountabilities are provided
- Requirements of applicable legislation and standards are identified, understood and complied with
- Personnel have the required competencies and are fit for work
- Our workforce is aligned, involved and empowered in the identification and management of HSSE hazards and the achievement of our HSSE goals
- Key stakeholder groups are identified and a good working relationship is maintained with them (understanding and addressing their issues and concerns)
- Everyone within TAQA demonstrates commitment and accountability to implement this policy and to work in accordance with the TAQA Management System Elements and Expectations

**Operational Risk Identification and Assessment**

- Risks are identified, assessed and appropriately managed
- Information required to support safe operation is identified, accurate, available and up to date

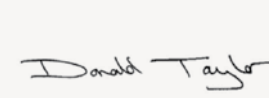
**Operational Risk Management**

- The standards, procedures and operating manuals required to support project, maintenance and operational activities are identified, developed, understood and consistently applied
- Process and operational status monitoring and handover requirements are defined, understood and carried out
- Operational interfaces with third parties are identified, assessed and appropriately managed
- Risks arising from any form of change are systematically identified, assessed and managed
- A systematic process is in place to verify the safe condition of plant and equipment and to ensure that personnel are appropriately prepared (before start-up or return to normal operations)
- We are appropriately prepared for all necessary actions which may be required for the protection of the public, personnel (including contractors), the environment, plant equipment and reputation in the event of an incident
- We aim to prevent pollution and protect the environment from the impact of our operations

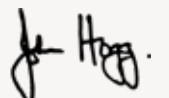
**Review and Improvement**

- We routinely monitor our activities through internal/external audits and produce key performance indicators – we review these indicators and intervene as necessary
- Compliance with our expectations is routinely reviewed and audited to determine whether this policy remains appropriate and is being implemented effectively
- The management system is routinely reviewed for continual improvement and to enhance HSSE performance
- All incidents, near misses and opportunities for improvement are consistently reported and investigated, and that identified actions and learnings are implemented on a timely basis

We all have a personal responsibility to work safely and protect the environment. We are all safety leaders, irrespective of our role or location. Everyone is empowered to challenge and stop work if they are in any doubt regarding a job they are involved in or observing.



**Donald Taylor**  
Managing Director



**John Hogg**  
HSSEQ Director



**René Zwanepol**  
NL Country Manager



**Sandy Hutchison**  
Legal, Commercial and Business Services Director



**Gary Tootill**  
Technical Director



**Calum Riddell**  
Operations Director



**Helen Stuart**  
Human Resources Director



**Iain Lewis**  
Europe CFO / Europe Decommissioning Director





# North Sea Operations



## TAQA in the UK

TAQA's UK business was incorporated in 2006 and is a wholly owned subsidiary of Abu Dhabi National Energy Company. Since acquiring its first North Sea interests in 2007, TAQA has created a business which is now ranked amongst the top exploration and production companies in the UK North Sea.

The majority of TAQA's UK portfolio is wholly owned and operated. In the northern North Sea it consists of 100% operated equity in the Tern, Kestrel, Eider, Otter, Cormorant North, South Cormorant, Falcon and Pelican fields. It also has a 64.5% operated interest in the Cladhan field, 60% operated interest in the Cormorant East field and a 26.73% non-operated interest in the Hudson field. TAQA has a 24% non-operated interest in the Sullom Voe Terminal and operates the Brent System, where it has a 16% interest.

In the central North Sea TAQA has a 70% operated interest in the Harding field, 70% in the Morrone field, 88.7% in the Devenick field and 37.04% non-operated interest in the Maclure field. In the Brae area TAQA has non-operated interests of 45.7% in Block 16/7a, 50.1% in East Brae and 65% in the Braemar field. It also has an interest in the SAGE pipeline and onshore terminal.

## Abu Dhabi National Energy Company PJSC (known as TAQA)

TAQA, meaning energy in Arabic, is the brand name of Abu Dhabi National Energy Company PJSC. TAQA is an international energy and water company listed on the Abu Dhabi Securities Exchange. TAQA strives to be safe and sustainable, and embrace the challenge of delivering affordable and reliable energy and water. TAQA is proud to align its strategy with Abu Dhabi's Economic Vision 2030, a roadmap for a sustainable economy with a focus on knowledge-based industry. TAQA's interests lie in conventional and alternative power generation, water desalination, oil and gas exploration and production, pipelines and gas storage. TAQA operates in Canada, Ghana, India, Iraq, Morocco, the Netherlands, Oman, Saudi Arabia, the United Arab Emirates, the United Kingdom and the United States.





## 2019 overview

In 2019 we continued to prioritise safe and reliable operations across our portfolio, while executing a significant capital investment and decommissioning programme.

In 2019, production from our Europe operations averaged over 39,000 boed. Our operated assets delivered robust production with continued high production efficiency. Production enhancing drilling activities on the Cormorant East and North Cormorant fields were a success, from both a technical and a scheduling perspective.

A shutdown at Cormorant Alpha in summer featured several major worksopes, including engine and power turbine replacement and a control systems upgrade, flare boom inspection, fabric maintenance and potential dropped

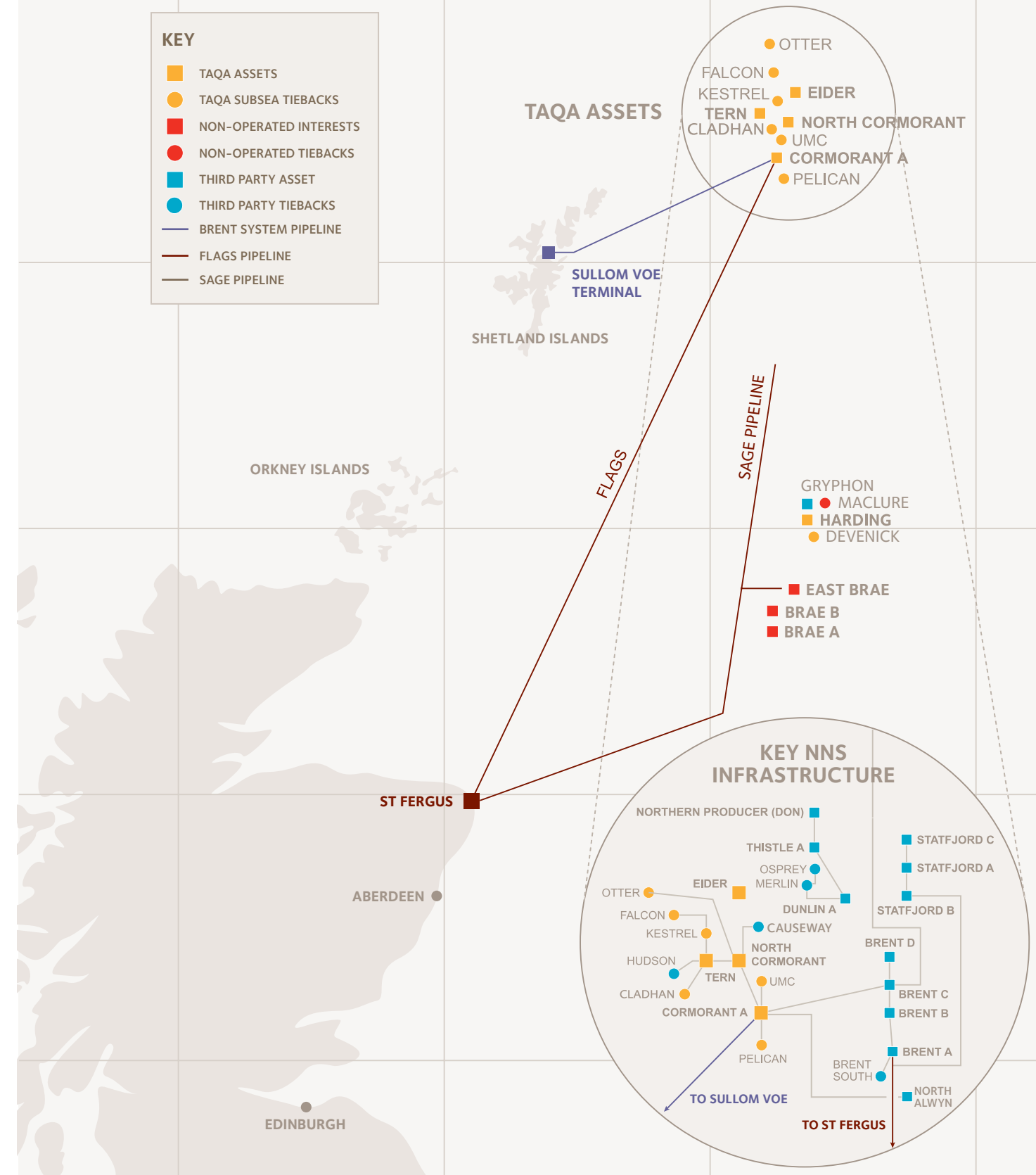
object removal as well as reinstatement of pigging facilities at the western leg gas riser. Other features of the programme included the close-out of 76 mechanical corrosion damage reports (MCDRs) and a variety of inspection scopes.

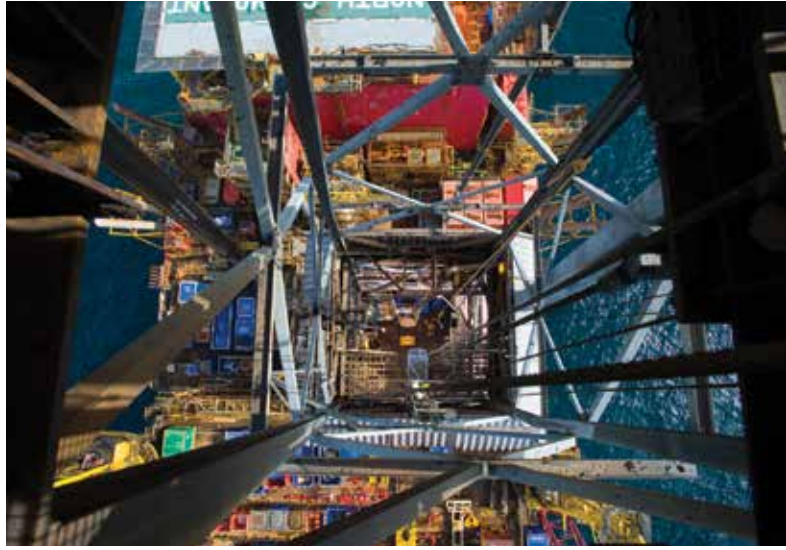
Plug & Abandonment (P&A) campaigns at Pelican, North Cormorant and Underwater Manifold Centre in the UK were also delivered well. In 2019 the mobile rig MSS1 completed a mixed campaign of development and intervention at the Pelican location prior to moving to UMC where it completed a five well P&A campaign. The rig then was sublet towards the end of the year to Spirit Energy.

The North Cormorant rig equipment was returned to service prior to a mixed well abandonment and development

campaign commencing. Well CN-01 was decommissioned successfully after which the rig performed workover activities on CN-07 and drilled side-tracks on CN-33 and CN-39.

In 2019 we also recorded notable progress in safety performance through the year, due not least to a Safety Improvement Plan that helped us meet our targets for the year.





## North Cormorant

**Position:**  
177km (110 miles) north-east of Lerwick, Shetland

**Block number:**  
211/21a

**Operator/Duty Holder:**  
TAQA

**Equity:**  
100% TAQA

**Discovery date:**  
August 1974

**Water depth:**  
161m (528ft)

**Est ultimate recovery:**  
Approx. 165 million barrels of oil

**Reservoir depth:**  
2710m (8900ft)

**Producing horizon:**  
Middle Jurassic

**Oil production:**  
Via Brent System

**Storage capacity:**  
Nil

**Type of installation:**  
8 legged steel jacket

**Function:**  
North Cormorant is a drilling and production facility for the North Cormorant field. The oil is then routed to Cormorant Alpha for onward transmission through the Brent System to Sullom Voe Terminal.

Since 2012 the North Cormorant platform is also a production facility for the TAQA Cormorant East field and the third party Causeway and Fionn fields. Since 2017 North Cormorant is also the production facility for the Otter field.

Gas is imported through the Western Leg via Brent A and the Far North Liquids and Associated Gas System (FLAGS) Pipeline to St Fergus Terminal. Crude oil, imported from Tern, is exported to Cormorant Alpha.



## Eider

**Position:**  
184km (114 miles) north-east of Lerwick, Shetland

**Block number:**  
211/16a and 211/21a

**Operator/Duty Holder:**  
TAQA

**Equity:**  
100% TAQA

**Discovery date:**  
May 1976

**Water depth:**  
157.5m (517ft)

**Est ultimate recovery:**  
Since first production in 1988, Eider produced in the region of 174 million barrels of oil equivalent.

**Oil production:**  
Ceased production, acting as utility platform.

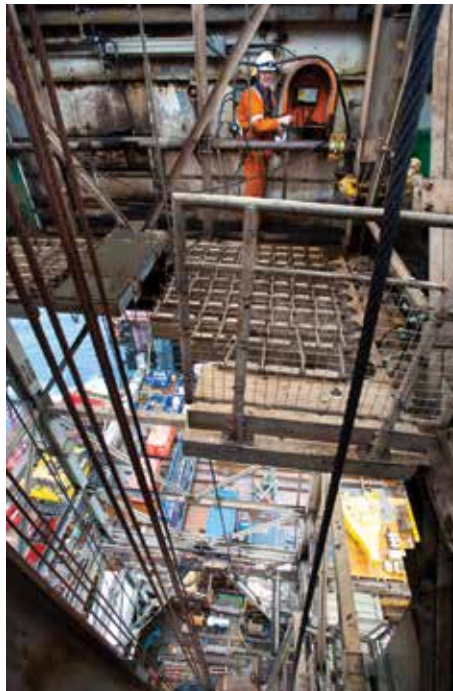
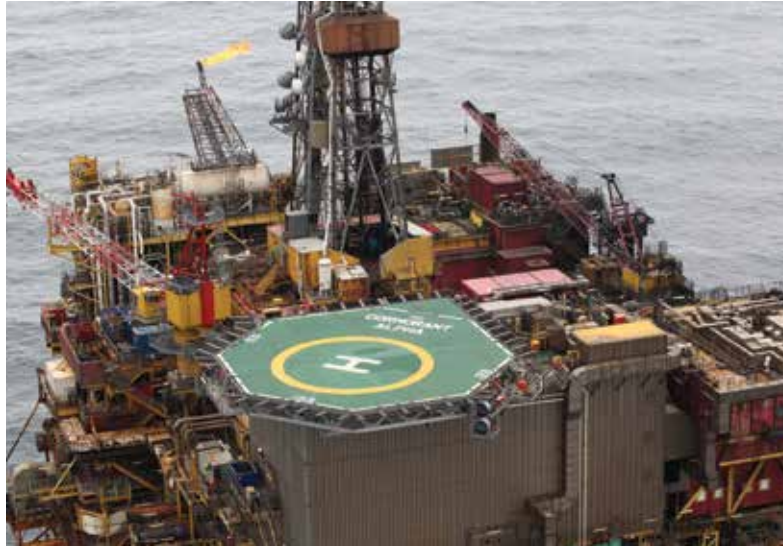
**Storage capacity:**  
Nil

**Type of installation:**  
8 legged steel jacket

**Function:**  
Eider serves as a utility platform providing power, chemical and control systems to support the Multi Phase Pump (MPP) operation for the subsea completed Otter field.

Otter reservoir fluids are produced through the MPP, a subsea pumping station which pumps the fluids along the pipeline to North Cormorant. The fluids are processed on North Cormorant and exported via the Brent System to Sullom Voe Terminal.





## Cormorant Alpha

**Position:**  
161km (100 miles) north-east of Lerwick, Shetland

**Block number:**  
211/26a

**Operator/Duty Holder:**  
TAQA

**Equity:**  
100% TAQA (not including Brent System owners' interest)

**Discovery date:**  
September 1972

**Water depth:**  
150m (492ft)

**Est ultimate recovery:**  
Approx. 307 million barrels of oil

**Reservoir depth:**  
2895m (9500ft)

**Producing horizon:**  
Middle Jurassic (Brent) sands

**Oil production:**  
Via Brent System

**Gas production:**  
Commingled in process separation then via Western leg to FLAGS line to St Fergus.

**Type of installation:**  
Concrete gravity structure – 4 legs

**Function:**  
Cormorant Alpha was designed to drill, produce, meter and pump oil and gas. Cormorant Alpha also receives oil via pipelines from Thistle, Brent C, North Alwyn and North Cormorant platforms as well as from the Underwater Manifold Centre (UMC) and Pelican subsea tie-backs. Oil from Cormorant Alpha is exported to Sullom Voe Terminal in the Shetlands via the Brent System. Gas from Cormorant Alpha also joins the Western Leg Gas Pipeline link to the FLAGS.

## Tern

**Position:**  
169km (105 miles) north-east of Lerwick, Shetland

**Block number:**  
210/25a

**Operator/Duty Holder:**  
TAQA

**Equity:**  
100% TAQA

**Discovery date:**  
April 1975

**Water depth:**  
167m (548ft)

**Est ultimate recovery:**  
Approx. 297 million barrels of oil

**Reservoir depth:**  
2440m (8005ft)

**Producing horizon:**  
Middle Jurassic (Brent) Sands

**Oil production:**  
Via Brent System

**Gas import/export:**  
Via Western Leg and Western Isles

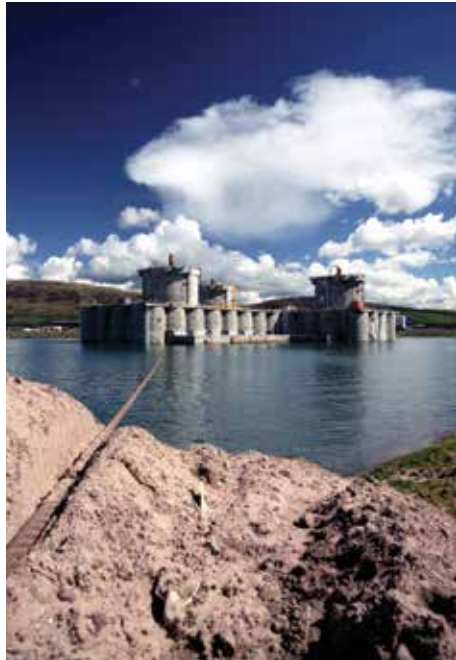
**Storage capacity:**  
Nil

**Type of installation:**  
8 legged steel jacket

**Function:**  
The Tern platform serves as a production facility for the Tern, Cladhan, Falcon, Hudson and Kestrel fields, and as a drilling facility for the Tern field. It provides gas lift facilities for the Tern, Cladhan, Falcon, Kestrel and Hudson fields and also provides water injection facilities for the Tern, Cladhan, Falcon, Kestrel and Otter fields. Crude oil is exported to North Cormorant before joining the Brent System via Cormorant Alpha. The separated gas is compressed and used as fuel gas compressed gas as well as lift gas.







## Harding

**Position:**  
320km (200 miles)  
north-east of Aberdeen

**Block number:**  
9/23b

**Operator/duty holder:**  
TAQA

**Equity:**  
70% TAQA  
30% Maersk

**Discovery date:**  
1987

**Water depth:**  
110m (330 ft)

**Est ultimate recovery:**  
Approx. 286 million barrels  
of oil

**Reservoir depth:**  
1676.4m (5500ft)

**Producing horizon:**  
Tertiary (Balder)

**Oil production:**  
Oil from Harding is exported via 24-  
inch diameter oil export pipeline to a  
submerged tanker loading system.

**Storage capacity:**  
600,000 barrels

**Type of installation:**  
Harding is a heavy-duty jack-up  
production unit, resting on a gravity  
base/storage tank.

**Function**  
The basis of the Harding development is  
a large, heavy-duty jack-up platform.  
It is a fully integrated drilling and  
production platform for the Harding field.  
The topsides structure sits on the Gravity  
Base Tank (GBT), a reinforced concrete  
structure that provides the foundation.  
The GBT is also a T-shaped storage tank,  
which acts as a large storage tank for  
the export of crude oil. Oil production is  
exported from the GBT around every 4-6  
weeks via a short (2km), 24" pipeline  
and submerged Offshore Loading System  
(OLS) to shuttle tankers.



## Brent System

The Brent System is responsible for transporting  
around 30k bbls a day from some 12 North Sea  
fields. This accounts for almost 40% of the oil  
processed by Sullom Voe terminal and around  
3% of UK offshore oil export.

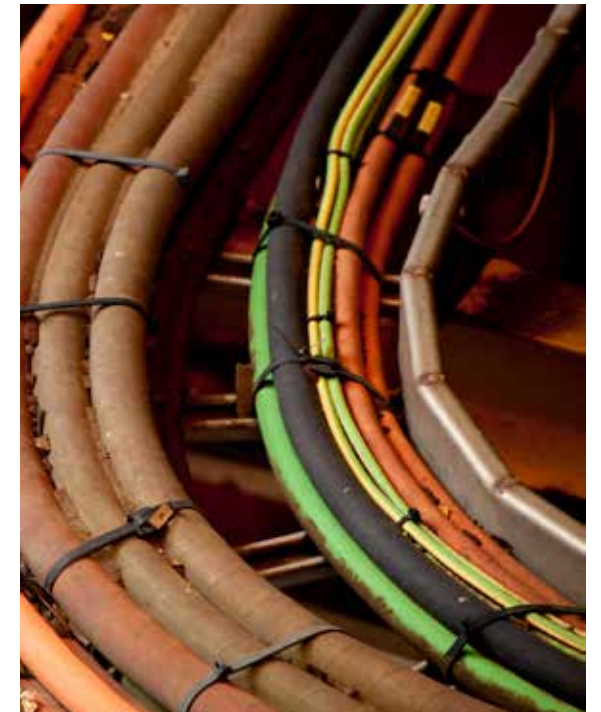
**30,000 barrels** – Average amount of oil  
transported per day.

**153km** – Transportation distance from  
Cormorant Alpha to Sullom Voe.

**16%** – TAQA interest.

The Brent System is a joint venture between  
21 participants who each own a percentage  
interest in the system. Brent System consists of  
a proportion of the processing system on, and  
structure of, the TAQA operated Cormorant  
Alpha platform, as well as the 153km pipeline  
connecting Cormorant Alpha to the Sullom Voe  
Terminal in the Shetland Islands.

TAQA has been operator of the Brent System  
since 2009.



## TAQA'S HSSE Management System Elements And Expectations

### Leadership

01. Leadership Involvement and Responsibility
02. Compliance with Legislation and Standards
03. Employee Competence
04. Workforce Engagement
05. Communication with Stakeholders

### Risk Identification and Risk Assessment

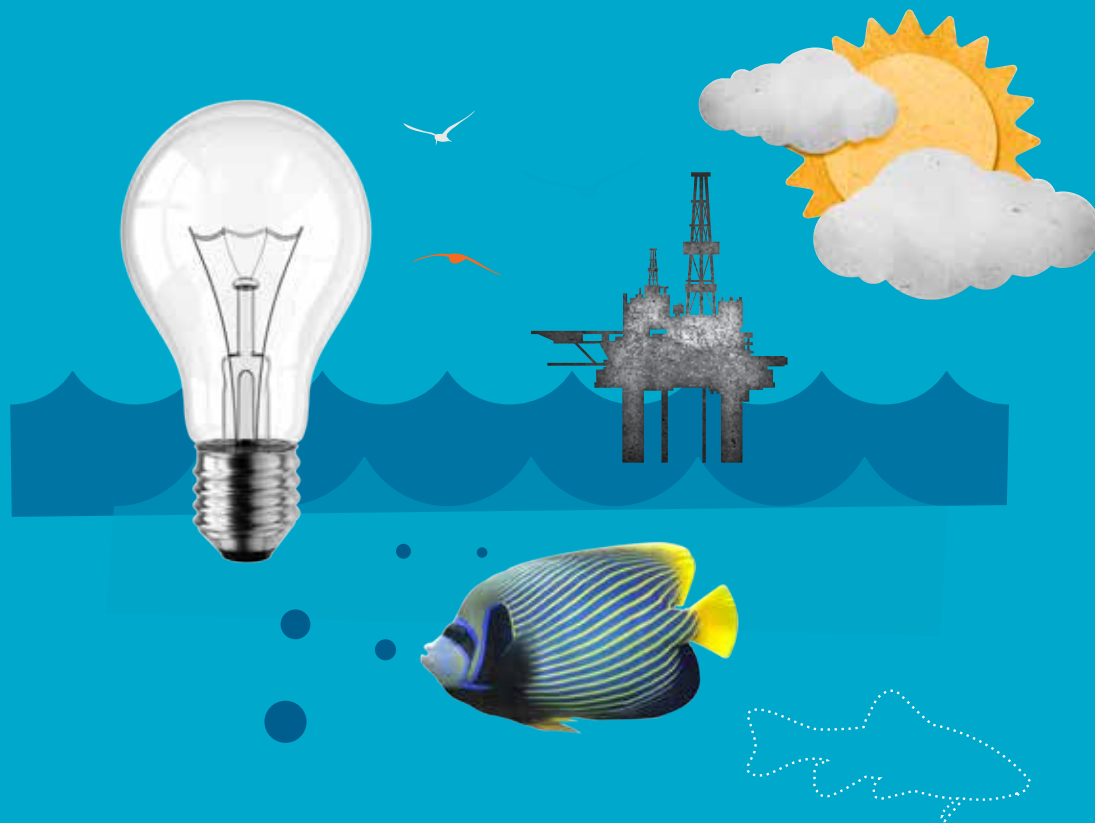
06. Hazard Identification and Risk assessment
07. Documentation, Records and Knowledge

### Risk Management

08. Operating Manuals and Procedures
09. Process and Operational Status Monitoring and Handover
10. Management of Operational Interfaces
11. Technical Standards
12. Management of Change and Project Management
13. Operational Readiness and Process Start-up
14. Emergency Preparedness
15. Inspection and Maintenance
16. Management of Safety Critical Devices
17. Work Control, Permit to Work and Task Risk Management
18. Contractor Management

### Review and Improvement

19. Incident Reporting and Investigation
20. Audit, Assurance and Management Review



## TAQA Commitment to Operational Excellence

### Health, Safety, Security and Environment (HSSE) Management Programme

TAQA is committed to the pursuit and attainment of a world class health, safety, security and environmental performance. It pledges to respect the natural environment, and to work to achieve its goals of ensuring that no harm comes to people; to provide a safe, secure workplace; and to carry out its activities with minimal impact on the environment. To meet this commitment, TAQA has established an HSSE policy that describes its core principles for HSSE management.

To implement the HSSE programme, TAQA utilises 20 elements and expectations that make up its HSSE Management System. The elements correspond to the "Plan-Do-Check-Act" elements of ISO standards for health, safety, environment and quality management systems.

The HSSE programme ensures that within all of its activities and operations, TAQA will as a minimum:

- Ensure all TAQA leaders demonstrate leadership and commitment to the programme throughout the organization, ensuring that the commitments set out in the HSE Policy are achieved
- Ensure compliance to legislation is maintained, whilst working constructively to influence proposed laws and regulations and debate on emerging issues
- Provide assurance that personnel are competent; that they possess the requisite underpinning working knowledge, understanding, skill & attitude, and clearly demonstrate the ability to routinely undertake the tasks and activities of the designated work roles, safely, consistently & reliably to the minimum defined standard of performance
- Identify key stakeholder groups and develop and maintain a good working relationship with them, understanding and addressing their issues and concerns
- Manage risks by performing comprehensive risk assessments to provide essential decision making information. Develop and implement plans to manage significant risks to an acceptable level
- Identify, maintain and safeguard important information. Ensure personnel can readily access and retrieve information. Required standards and safe working practices are provided to support project, maintenance and operational activities
- Design, construct, install, commission, operate, maintain, assure and decommission all TAQA assets in a healthy, safe, secure, environmentally sound, reliable and efficient manner
- Incidents will be prevented by identifying and minimising workplace and personal health risks, through implementation of robust and effective work control, permit to work and task risk management arrangements. Promote and reinforce all safe behaviours
- Identify all necessary actions to be taken to protect people, the environment, TAQA's assets and reputation in the event of an emergency or security threat
- Maintain operations stability and integrity throughout lifecycle of facility by use of clearly defined and documented operational, maintenance, inspection and corrosion control programs. Seek improvements in process and equipment reliability by systematically eliminating defects and sources of loss. Assessment of the degree to which expectations are met is essential to improve operations Integrity, maintain accountability and reliability
- Ensure that risks and exposures from proposed changes are identified, evaluated and managed to remain within pre-set (design) acceptance criteria
- Ensure contractors and suppliers perform in a manner that is consistent and compatible with TAQA policies and business performance standards. Ensure contracted services and procured materials meet the requirements and expectations of TAQA standards
- Report and investigate all incidents. Learn from incidents and use the information to take corrective action and prevent recurrence
- Confirm that TAQA processes are implemented and assess whether they are working effectively. Measure progress and continually improve towards meeting TAQA HSSE objectives, targets and key performance indicators

# Environmental Management System and ISO 14001

TAQA operates an Environmental Management System (EMS) which is set out in accordance with the requirements of ISO140001. In 2019 TAQA continued utilisation of the ISO14001:2015 standard.

The International Standards Organisation (ISO) is a non-governmental network of global national standards institutes. ISO 14001 is the main management systems specification document in the ISO 14000 series containing the essential elements that must be satisfied by an organisation seeking registration or certification for its Environmental Management System (EMS).

The EMS provides a systematic approach to help control processes or activities which may have a potential environmental impact by means of procedures, instructions, training and education. It is designed to minimise the impact to the environment from TAQA's day to day operations and ensuring compliance with legal obligations while ensuring the business is equipped to deal with emergency scenarios.





The key components of TAQAs ISO14001 certified EMS are:

**ORGANISATIONAL CONTEXT** – Structure of organisation, which also includes the scope of the EMS. Identifies processes, roles and responsibilities.

**MANAGEMENT SUPPORT & REVIEW** – Leadership commitment, including the HSSE Policy. Management reviews are crucial to the cycle for continuous improvement. Regular Management Review meetings initiating and evaluating improvement programmes.

**LEGAL REQUIREMENTS** – Identification of applicable legal regulations is an integral part of the EMS. Confirmation of operations to legal, statutory and regulatory requirements.

**ENVIRONMENTAL ASPECTS** – Elements or activities that may result in a positive or negative impact on the environment and how to control them.

**OBJECTIVES, TARGETS AND PROGRAMMES** – The TAQA ‘Objectives and Targets List’ with respect to environmental performance is reviewed annually then translated into plans and programmes to ensure effective and successful implementation.

**TRAINING, AWARENESS AND COMPETENCE** – Periodic training and awareness are cornerstones of the TAQA Learning and Development Programme. Environmental awareness.

**DOCUMENT CONTROL** – All EMS documentation is systematically managed to ensure it is up to date, accurate and traceable.

**OPERATIONAL CONTROL** – TAQA’s procedures and work instructions are set up to minimise and control the impact of environmental aspects.

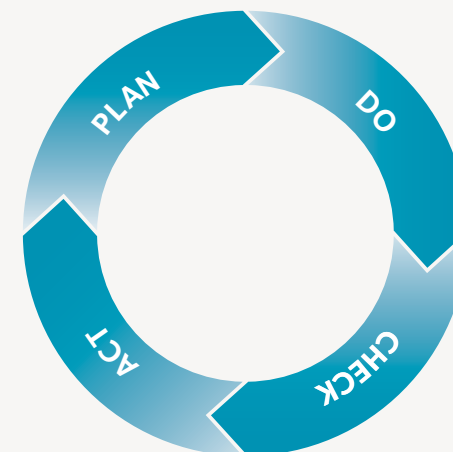
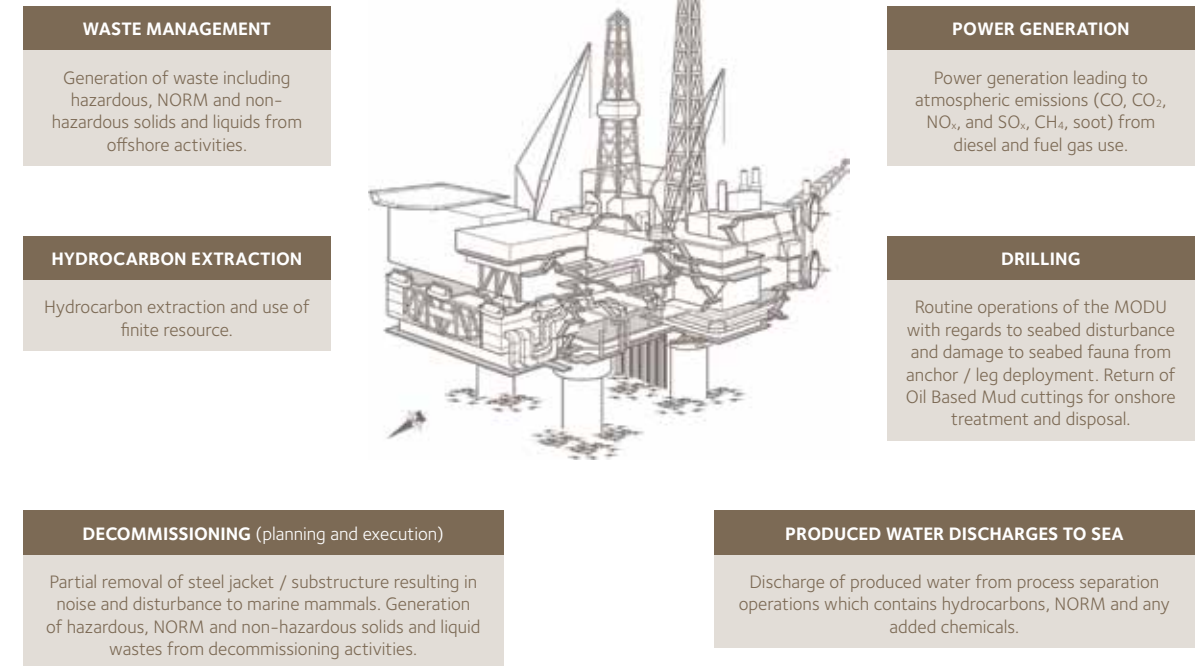
**COMMUNICATION** – Effective external and internal communication of environmental issues by TAQA contributes to the success of the EMS. This is carried out internally through regular meetings and offshore visits and externally with authorities and third parties.

**EMERGENCY PREPAREDNESS AND RESPONSE** – Location level response plans are in place and are designed to effectively manage a wide variety of emergency scenarios. Necessary resources are available and exercises carried out to measure effectiveness – including oil spill response and control.

**MONITORING AND MEASUREMENT** – All incident reports, such as near misses, incidents and accidents are systematically recorded, root causes identified and preventative/corrective actions are tracked. Continual improvement.

**AUDITING** – Regular auditing ensures the continued effectiveness of the EMS. All internal audits are performed according to the TAQA audit procedure, results are then discussed in cross functional meetings and corrective actions are tracked for progress.

## Overview of Operations with Environmental Aspects



## PLAN-DO-CHECK-ACT

The ISO 14001 philosophy is based on the Plan-Do-Check-Act (PDCA) management model. In continuously going through each individual step, environmental management can result in improved environmental performance. The use of the PDCA cycle helps in keeping the environmental management system a continuous process instead of an individual event.

**PLAN:** tools for identification of targets in environmental performance.

**DO:** tools for achieving goals of environmental management.

**CHECK:** tools for checking the effect of environmental management.

**ACT:** tools for taking effective adjusting measures in environmental management.

Two independent ISO 14001 surveillance audits were undertaken in 2019, both on and offshore. These audits covered all of the elements of ISO 14001. Both audits were positive with 3 minor non-conformances and a number of observations and opportunities for improvement being identified. Observations and opportunities for improvement identified.

# Environmental Performance



In 2019 TAQA saw the continuation of a drilling and well abandonment program on the mobile rig MSS1, well side-tracks, workovers and abandonment on North Cormorant and a successfully planned shutdown on Cormorant Alpha. All operations had a continued focus on safe, efficient and sustainable operations.



## Atmospheric Emissions

Atmospheric emissions from TAQA's offshore activities arise primarily from the combustion of fuel gas and diesel for power generation and the flaring of associated gas that cannot be used or exported for safety reasons (an integral part of the platform safety systems).

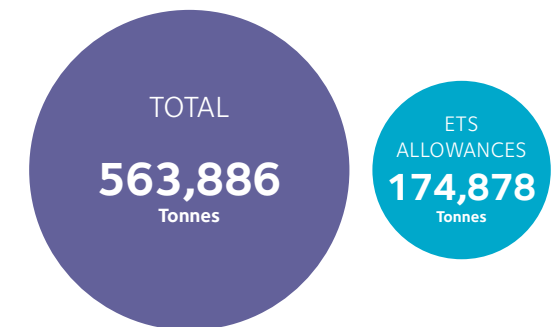
### CARBON DIOXIDE EMISSIONS

The Greenhouse Gases Emissions Trading Scheme (Amendment) Regulations (2020) is the statutory mechanism used to regulate and reduce CO<sub>2</sub> emissions to the atmosphere. All TAQA assets account for carbon dioxide (CO<sub>2</sub>) emissions by means of the cap and trade system, which allows for an allocated allowance of CO<sub>2</sub> to be emitted and then allowance for all subsequent releases have to be purchased.

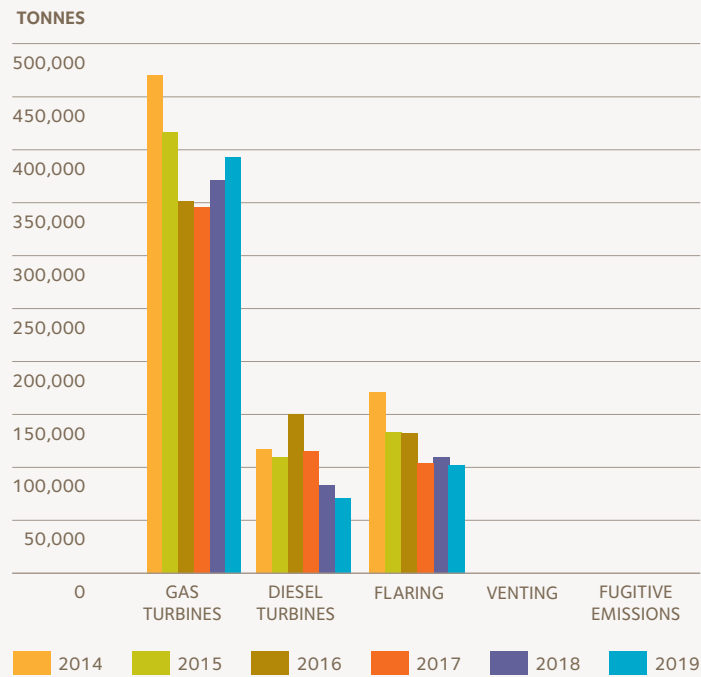
The major combustion processes on TAQA's platforms resulting in the production of CO<sub>2</sub> is the generation of electrical power and the compression of gas for transportation to shore. Reservoir gas provides the primary fuel source with diesel acting as back up.

**Figure 1** shows the actual (full year) amount of CO<sub>2</sub> emitted against the combined Emissions Trading Scheme (ETS) allowance. CO<sub>2</sub> emissions in 2019 were approximately 70% greater than the ETS allowance and on a par with the 2018 emissions. The introduction of ETS Phase III in 2013 saw a significant reduction in allowances which continue to decrease each year. TAQA's overall allowance decreased by 16,264 tonnes, 9%, between 2018 and 2019. To account for the deficit between allowance and emissions TAQA purchased additional allowance from the trading scheme. During 2020 ETS procedures and processes will be updated to be in line with Phase IV.

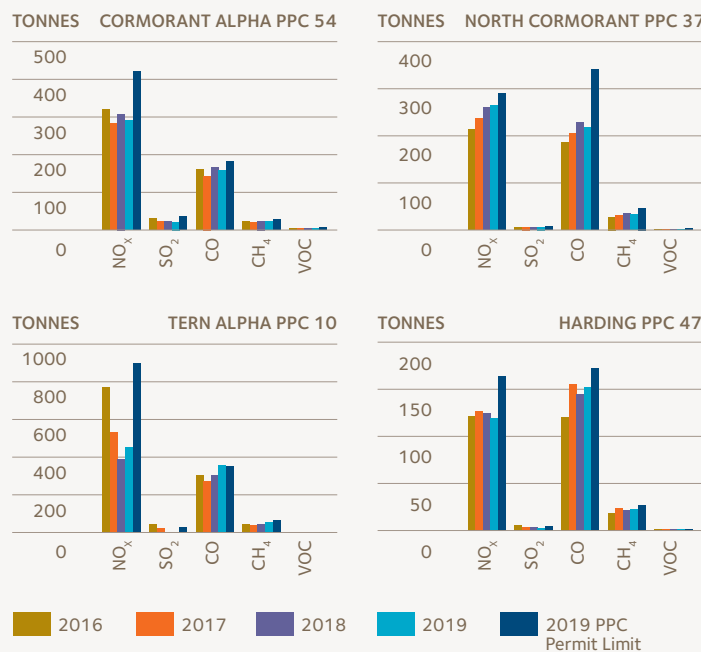
**FIGURE 1:**  
2019 FULL YEAR CO<sub>2</sub> EMISSIONS VS ETS ALLOWANCES



**FIGURE 2:**  
CO<sub>2</sub> DISCHARGES BY SOURCE



**FIGURE 3:**  
ACTUAL NON CO<sub>2</sub> ATMOSPHERIC EMISSIONS VS PERMIT ALLOWANCE



**Figure 2** shows that the largest proportion of CO<sub>2</sub> discharge comes from turbine gas usage. The CO<sub>2</sub> emissions from gas turbines increased in 2019 compared to 2018. This was due to the continuation of operational initiatives to change focus on to using fuel gas as opposed to diesel (as can be seen from the graphs. Diesel use has decreased over the last 4 years to its lowest point since 2014).

**NON CO<sub>2</sub> ATMOSPHERIC EMISSIONS**

The main combustion emission from TAQA's operations is carbon dioxide, however smaller emissions of nitrous oxide, sulphur dioxide, carbon monoxide, methane and volatile organic compounds are also produced. Non CO<sub>2</sub> atmospheric emissions from TAQA installations are regulated via legislation covering flare emissions, vent gas emissions and combustion plant emissions.

**Figure 3** shows all the platforms non CO<sub>2</sub> atmospheric emissions. Tern had one non-conformance for exceeding their Carbon Monoxide (CO) by 9.6 tonnes over the course of 2019. All other platforms were within the permitted allowance for all non CO<sub>2</sub> atmospheric emissions.

It is noted that Eider is the only platform that does not have a Pollution Prevention & Control (PPC) permit because the installed combustion plant on board is below the threshold required to hold a permit.

**Produced Water**

Produced water is created during the extraction of oil and gas from subsurface. The produced water may contain water which has come directly from the reservoir, water injected into the formation to aid the extraction of oil or gas and any chemicals added during the production/treatment process. Oil reservoirs typically produce more water during extraction compared to gas reservoirs and as the reservoirs mature the proportion of water increases. The produced water is separated from the hydrocarbons, therefore it can contain dissolved and dispersed hydrocarbons.

The Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2005 (OPPC) (as amended) regulate all oil discharges to sea and require that all of these discharges must be permitted by the Offshore Petroleum Regulator for Environmental and Decommissioning (OPRED). OPRED place strict limitations on both the concentration and quantity of oil discharged within the produced water in order to protect the marine environment.

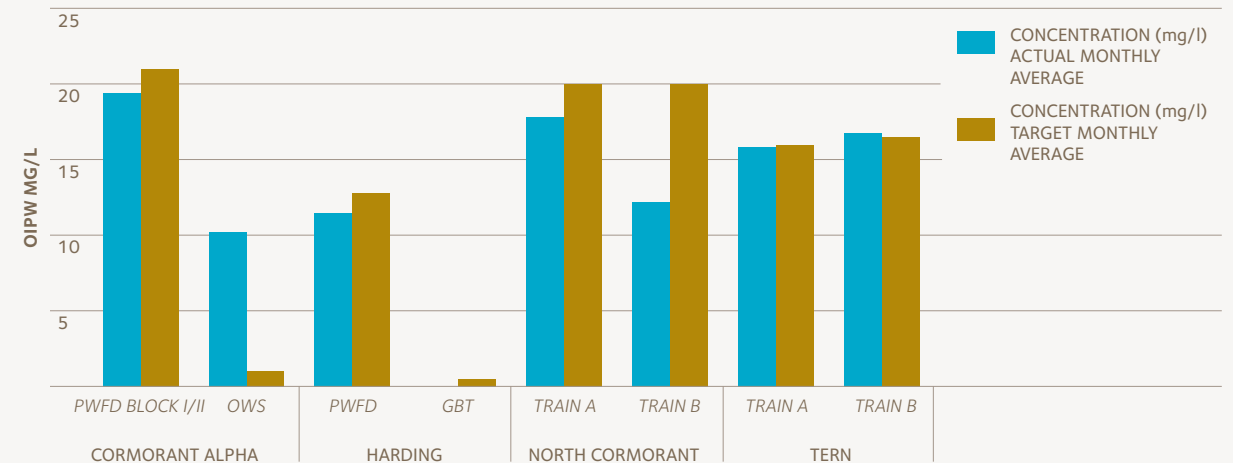
The four producing TAQA installations report a total of eight individual discharges streams – two on Cormorant Alpha, two on North Cormorant, two on Tern and two on Harding – all of which must meet the legal monthly oil in water discharge average of 30mg/l. The exception to this is the second discharge stream on Harding which comprises of displacement water discharged from the Buffer Cell (during oil production water is displaced through the buffer cell and discharged to sea to a legislative limit of 40mg/l). A third discharge from Tern, the Hudson subsea tieback, is operated by Dana Petroleum; therefore, the produced water discharge data is not included in this report. During 2018, Eider ceased production and subsequent produced water discharge, as such 2019 did not have any associated discharges.

Reporting discharge streams on an individual basis ensures that a constant focus can be maintained on the quality of each discharge stream via the required sample regime. If any deterioration in quality is observed then subtle process adjustments can be made (e.g. skimming produced water flash drums or changing vessel liquid interface levels) to minimise the overall quantity of dispersed oil being discharged to sea.

**Figure 4** shows that the TAQA internal target for average oil in produced water (OIPW) concentration for each discharge stream was met in 2019, except for Cormorant Alpha Oil Water Separator (OWS) and Tern B train. Tern B Train exceeded the internal target by 0.27mg/l (1%). The Cormorant Alpha OWS did not meet the internal target, by 9.18mg/l, as the operating philosophy changed during 2019, whereby the constant tank water turnover and discharge was turned off. The OWS was discharged less frequently with an overall reduced volume of water to sea (no tank water), subsequently the oil in water concentration was at a higher concentration and exceeded the internal target.

All discharge streams meet the legal monthly average limit of 30mg/l.

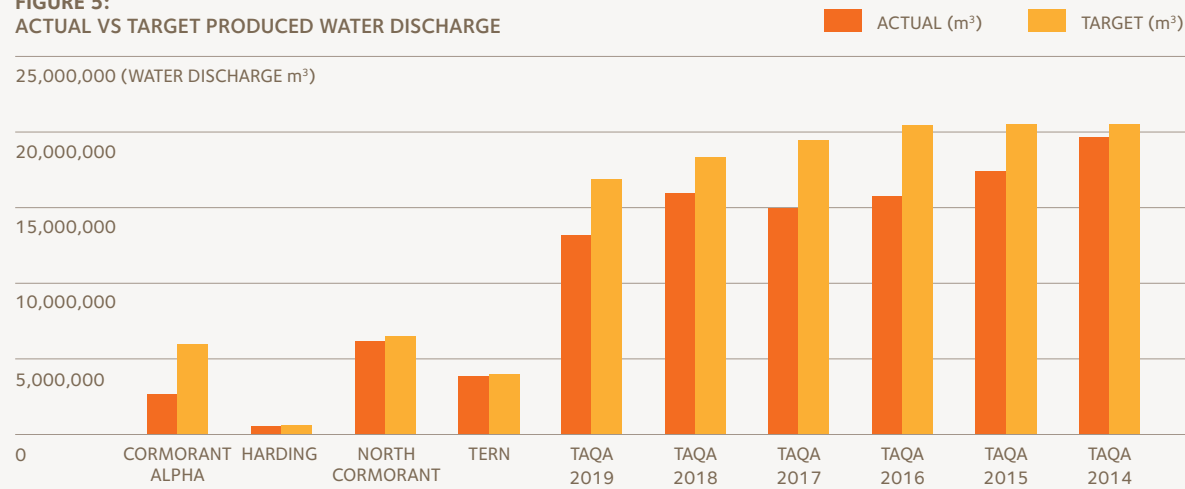
**FIGURE 4:**  
ACTUAL OIPW VS TARGET OIPW CONCENTRATIONS



**Figure 5** (overleaf) illustrates that all platforms met their internal produced water discharge targets for 2019. 2019 saw a further 16.7% decrease in the volume of discharged produced water compared to 2018 (there was a 3.5% decrease from 2017 to 2018), due to platforms undertaking planned and unplanned shutdowns. Harding is the only platform that has the capability

to re-inject produced water. 2019 saw 91.7% (5,712,257m<sup>3</sup>) of the total produced water being re-injected back into the reservoir which decreases the volume discharged to sea. It is also noted that produced water comprised of 16% of all discharges to sea (81,270m<sup>3</sup>) with the remaining 84% from displacement water from the GBT (439,014m<sup>3</sup>).

**FIGURE 5:**  
ACTUAL VS TARGET PRODUCED WATER DISCHARGE



**FIGURE 6:**  
ACTUAL VS TARGET OIL IN PRODUCED WATER DISCHARGES TO SEA

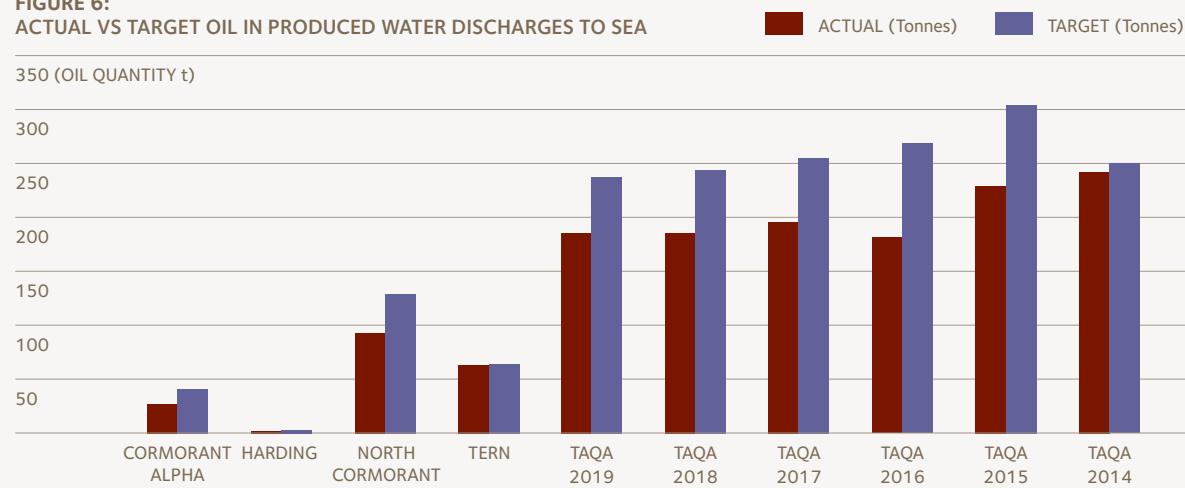


Figure 6 shows the actual quantity of oil discharged to sea via produced water for all TAQA platforms during 2019 compared to internal targets. A total of 185.69 tonnes of dispersed oil was discharged to sea which is 22% below the internal target. This is a 0.05 tonne decrease from the amount that was discharged in 2018.

In addition to the produced water discharge streams on the installations there were also three additional project based term OPPC permits in place during 2019. These projects were subsea works and abandonment operations including work on the Otter Multi Phase Pump (3.55kg of oil discharged), disconnection of UMC Wells as part of abandonment work (112.85kg of oil discharged) and return of reservoir fluids to surface during abandonment operations on the Pelican field (17kg of oil discharged).

## Waste

A variety of solid and liquid hazardous and non-hazardous wastes are produced from TAQA's offshore operations, including: drill cuttings, waste chemicals, tank washings, waste oil, paper, scrap metal, glass and wood. To ensure legal compliance all TAQA platforms actively segregate their waste streams which reduces contamination of disposal routes and minimises environmental impact by reusing, recycling and using waste in Waste-to-Energy (WtE) plants (where possible).

The Merchant Shipping (Prevention of Pollution by Garbage) Regulations 1998 prohibits overboard discharge of offshore waste. All waste is therefore segregated offshore and disposed of onshore via a variety of routes including re-use, recycling, WtE, landfill and incineration.

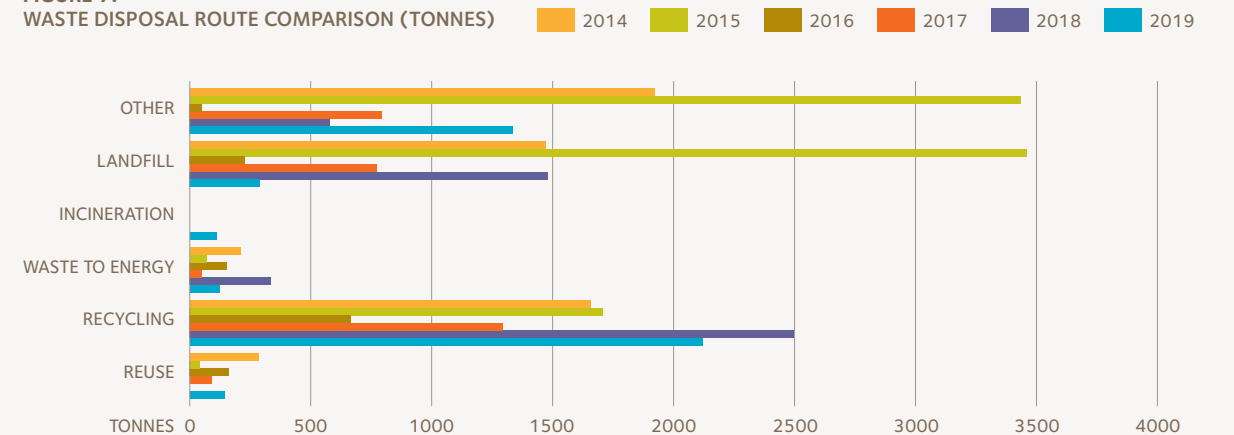
Figure 7 details the tonnage of TAQA waste going to each disposal route over the last five years. In 2018 TAQA changed the incumbent waste management company which allowed a greater quantity of waste to be sent to WtE and recycled. There has been a decrease in the overall waste generated during 2019 in comparison to 2018, by 787 tonnes. There was a decrease of 1,195 tonnes going to landfill due to the changing scope of drilling works occurring on the MSS1. This change also accounted for an increase of 757 tonnes going for Other treatment, such as wet bulks (liquids) and chemicals.

Figure 8 gives an overview of the percentages of different waste disposal routes generated by the TAQA offshore locations during 2019. The proportion of waste sent for recycling saw a slight increase of 0.5% and a decrease of WtE by 3.8% in comparison to 2018, mainly due to the cumulative waste total and reducing and composition of waste streams (MSS1 well work). Furthermore, Harding saw nearly 30% of 2019 waste re-used due to removal of base oil (from a previous drilling campaign).

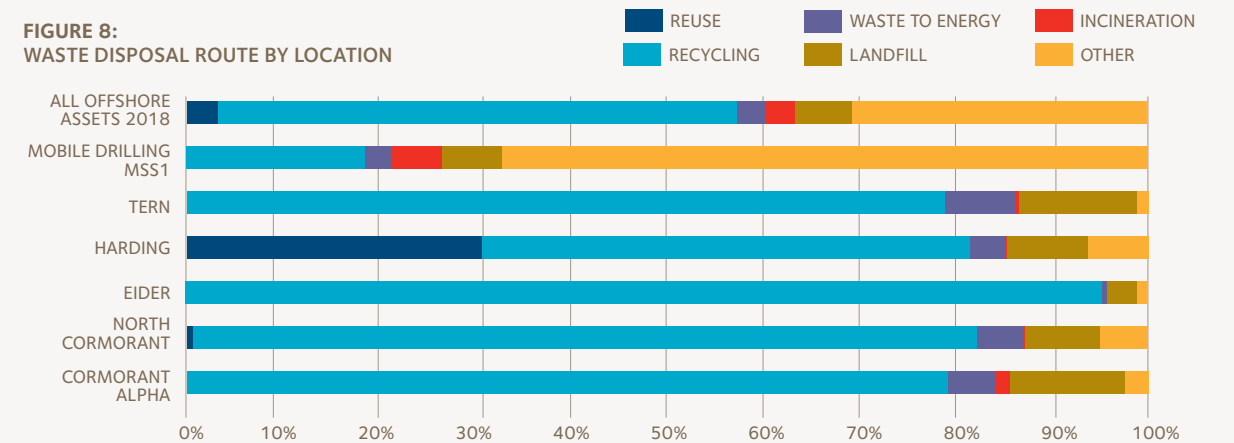
Annual waste targets for general waste were set for all platforms during 2019. The platform target for 2019 was for 93% (average) correct segregation of general waste (a slight decrease on the 2018 target of 94%, due to the target not being met). This was measured by conducting quarterly general waste skip audits. The target was based on continual improvement in waste segregation to ensure that waste is sent to the correct disposal route. The higher waste targets were met by the three out of five platforms – Tern (99%), Eider (98%) and Harding (99%). North Cormorant (90%) and Cormorant Alpha (91%) did not meet the internal target. In comparison to 2018, four out of five platforms improved their skip audit performance.

New waste targets have been set for 2020 which are aimed at reducing the overall proportion of waste to landfill, these targets are based on historical reported data: Tern <5%, Cormorant Alpha <10%, North Cormorant <8%, Eider <10%, Harding <9%. Additionally, TAQA will continue to audit the general waste skips for all platforms during 2020.

**FIGURE 7:**  
WASTE DISPOSAL ROUTE COMPARISON (TONNES)



**FIGURE 8:**  
WASTE DISPOSAL ROUTE BY LOCATION



## Chemicals

Chemical use and discharge is regulated under the Offshore Chemicals Regulations 2002 (as amended) (OCR). A permit must be obtained from OPRED prior to the use and discharge of chemicals associated with production, drilling, well interventions and pipeline operations offshore.

These permits describe the selection, deployment, discharge route and environmental impact assessment for chemicals that are either used continuously or on a batch (ad-hoc) basis.

A key objective of the OCR Regulations is “to identify chemicals that might be considered hazardous and to ensure wherever possible their substitution by less hazardous or non-hazardous chemicals”.

Classification of chemicals is undertaken via the Offshore Chemical Notification Scheme (OCNS). This scheme assigns a substance a risk/hazard category. This is either a colour or a letter (dependent on the method used to model the risk), based on the varying levels of hazard/risk to the receiving environment associated with its discharge (see Table 1).

**Table 1** shows the relative quantities of chemicals used and discharged according to their classification under the OCNS. The quantities of chemicals used (16,733 tonnes) and discharged (4,247 tonnes) cover all those used during 2019 for TAQA's installation operations, drilling of new wells, well abandonment/intervention activities and pipeline operations.

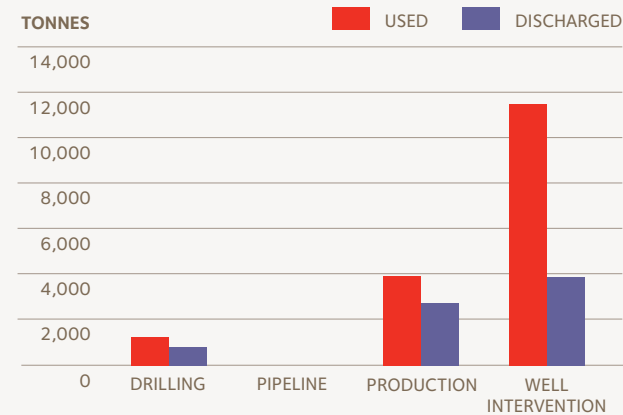
A substitution warning is assigned to an offshore chemical if it is considered by CEFAS to be harmful to the environment, i.e. the chemical or one of its components fails to meet set criteria with respect to biodegradation, bioaccumulation potential or toxicity.

It should be noted that of the total 4,247 tonnes of chemicals discharged to sea during 2019, 97.8% of this was a discharge of either the lowest risk CHARM (Chemical Hazard Assessment and Risk Management) category Gold, or the Non-CHARM lowest risk category E – a 1.2% decrease from 2018, however there was an overall reduction of 3,251 tonnes of chemicals discharged to sea. Of the chemicals discharged to sea during 2019, just over 4.85% was comprised of chemicals which carry a substitution warning – this increased from 2.19% in 2018 due to well abandonment/interventions and drilling.

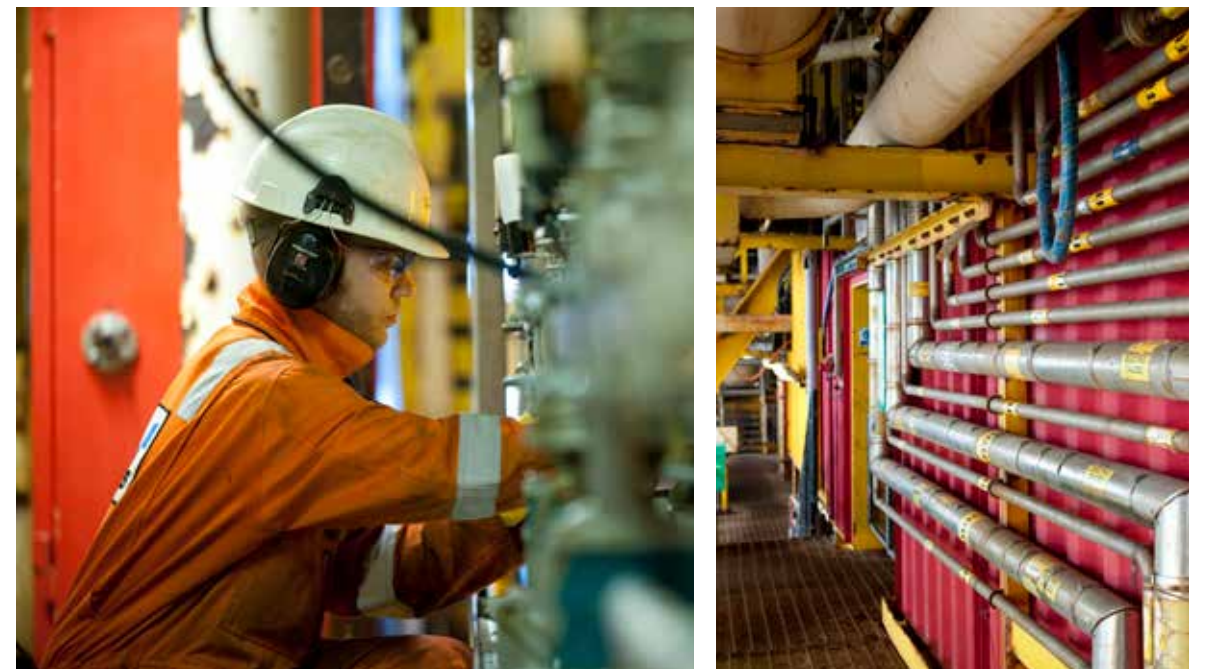
**TABLE 1:**  
CHEMICAL USAGE AND DISCHARGE QUANTITIES  
ACCORDING TO OCNS CATEGORY

	TOTAL USAGE (KG)	TOTAL DISCHARGE (KG)
A	4,655.00	0.00
B (NONE)	0.00	0.00
C	2,095.15	1,935.00
D	21,604.15	17,819.47
E	12,578,239.46	922,694.24
WHITE	0.00	0.48
SILVER	195,474.41	73,036.00
GOLD	3,930,913.60	3,231,311.30
	16,732,981.77	7,497,505.07

**FIGURE 9:**  
CHEMICAL USAGE AND DISCHARGE



**Figure 9** highlights that well abandonment/intervention operations used the largest amount of chemicals during 2019, increasing by 53% use from 2018, however there is a decrease of 3,100 tonnes discharged to sea, mainly due to chemicals being sent onshore for treatment. Drilling related chemical use and discharge decreased from 2018 which is reflective of the change in activity to well abandonment/intervention activity in 2019. Comparing with historical production chemical usage although there has been higher use and discharge than 2018, it is on a similar par with previous years activity.







## Accidental Spills

All offshore operations must be covered by an approved Oil Pollution Emergency Plan (OPEP). These plans describe the procedures and notifications that must be undertaken in the event of a release. They are regularly tested and exercised by offshore and onshore response teams to ensure they are robust and fit for purpose. All unplanned discharges to sea of oil and chemicals, regardless of volume, must be reported to relevant authorities (OPRED, Marine Scotland, MCA and JNCC) via a Petroleum Operations Notice 1 (PON1).

At TAQA, there are a variety of systems and procedures in place to mitigate against and reduce the potential of the unplanned releases to sea. If a loss of containment does occur whether it reaches the sea or is recovered at the location, it is captured in the company's incident reporting database. The release is then subject to investigation to identify the root cause.

**Table 2** shows the number of PON1s submitted by TAQA during 2019, detailing if it was an oil or chemical release and the corresponding quantity. A total of 26 releases occurred from TAQA operations in 2019, 7 less than 2018. 7 of these spills were hydrocarbon and totalled 0.01 (a 93% reduction in hydrocarbon release from 2018 and the lowest quantity in the last 5 years). Chemical accidental releases however had a 17% increase to 14.97 tonnes from 12.57 tonnes in 2018. The majority of the volume occurred from two incidents – a fire pump on North Cormorant with a leaking seal and a subsea methanol leak in the Pelican Field, tied back to Cormorant Alpha.

**TABLE 2:**  
ACCIDENTAL SPILLS TO SEA

■ OIL SPILL ■ CHEMICAL SPILL

PLATFORM	DESCRIPTION OF OIL (GREY ENTRIES) OR CHEMICAL SPILL (BLUE ENTRIES)	MAX QUANTITY SPILLED (KG)
CORMORANT ALPHA	Pelican Subsea Field intermittent refined base oil leak appearing on sea surface	402.2
	Pelican Subsea well (P-22) hydraulic fluid leak from wellhead	2,236.0
	Pelican Subsea Field Methanol leak from abandoned well P-16 (dyed Methanol and historical Methanol losses)	4,476.0
EIDER	Hydraulic oil leak from parted crane hose	5.0
	Hydraulic oil leak from hose connection	1.0
	Diesel leak from bunkering sample valve	6.4
	Diesel leak from self-sealing coupling on bunkering hose	0.4
	Diesel leak from pinhole on bunkering hose	0.07
	Diesel leak from pipework in the diesel distribution system	4.0
HARDING*	Conductor Tensioner Erifon leak on AQ1, slot 14 (cylinder 1)	22.5
	Conductor Tensioner Erifon leak on AQ1, slot 14 (cylinder 2)	10.0
	Conductor Tensioner Erifon leak on AQ1, slot 14 (cylinder 3)	40.0
	Conductor Tensioner Erifon leak on IC1, slot 16 (cylinder 4 and 18)	52.0
	Conductor Tensioner Erifon leak on PC3, slot 11 (cylinder 2, 3 and 4)	95.0
	Conductor Tensioner Erifon leak on IC5, slot 13 (cylinder 2 and 4)	14.0
	Conductor Tensioner Erifon leak on PS1, slot 22 (cylinder 2 and 4)	52.5
	Conductor Tensioner Erifon leak on WS1, slot 17 (cylinder 1)	17.0
	Conductor Tensioner Erifon leak on PN1, slot 2 (cylinder 4)	37.5
	Conductor Tensioner Erifon leak on WC1, slot 5 (cylinder 4)	30.0
	Conductor Tensioner Erifon leak on slot 1 (cylinder 3), slot 10 (cylinder 2) and slot 12 (cylinder 3)	53.5
	Water Based Mud leak from localised corrosion on pipework	20.0
NORTH CORMORANT	Diesel leak from hammer lug connection on bunkering hose	0.4
	Diesel leak from carcass of bunkering hose	1.0
	Diesel leak from hammer lug connection on bunkering hose	1.0
	Hydraulic oil leak into caisson from emergency fire pump	7,175.0
TERN	Deoiler leak from open drains caisson	215.0

\* It is noted that all but one of the chemical PON1 reports submitted in 2019 by Harding were attributed to losses of hydraulic fluid from the conductor tensioner system due to historical design issues. A rolling program of improvements are ongoing since 2017

# Onshore Initiatives

As a responsible energy company, TAQA continually looks to support the communities in which it operates. We have an active corporate social responsibility programme which looks to achieve three overarching goals: protect the environment; support the local communities where we operate; and increase education, potential and creativity.



## Macduff Marine Aquarium

Situated on Aberdeenshire's scenic coast in the traditional fishing town of Macduff, Macduff Marine Aquarium features marine life from the Moray Firth, Scotland's largest bay, in a variety of exciting and innovative exhibits. In 2019 TAQA continued its long-standing relationship with the aquarium to promote environmental issues. The aquarium joined forces with TAQA to introduce new awareness workshops as part of its formal education programming early in 2019. These workshops, aimed at primary school children, explore how plastics persist and affect the marine environment. To date the new plastic programming has been delivered to 1 278 school aged children and their teachers and they continue to be the aquarium's most popular programming since their introduction.

## Arnhall Moss

The Arnhall Moss Local Nature Reserve Discovery Trail was launched in September 2019. The wildlife discovery trail is a partnership project between Elrick Primary School, Aberdeenshire Council Ranger Service and TAQA (with its UK office based in Westhill). Arnhall Moss is an area of land close to Elrick Primary School which is widely used by the local community for walking, learning and informal recreational activities. TAQA supported the discovery trail, bat walks and litter picking equipment for Elrick Primary School as part of the partnership.

## Greenpower

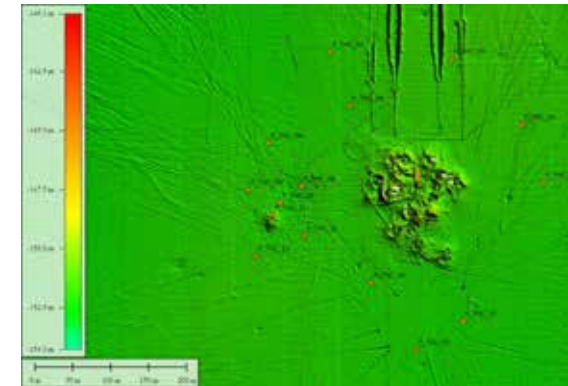
Greenpower is a national engineering competition which challenges school pupils to design, construct and race electric cars. As well as showing the fun side of science and exploring green energies, the event also develops teamwork, communication skills and elements of project management, providing participants with an all-round experience. TAQA recognises that the future of the oil and gas industry relies on a skilled workforce so it's important that, from a young age, children get a better understanding of how subjects such as technology and engineering might be applied in real life. TAQA is the long-time principle sponsor and each year a large team of TAQA staff volunteer to help run the event.

## Outdoor Access Trust Scotland

In 2019 TAQA continued its partnership with the Outdoor Access Trust Scotland, a conservation charity involved in the preservation, restoration and upgrading of our unique upland paths in both of Scotland's National Parks. TAQA 'adopted' the popular 6km Broad Cairn mountain path on Royal Deeside for the second year. TAQA's support provided vital funding for ongoing maintenance of the path.



# Decommissioning



From top to bottom:  
BSL Double Van Veen Grab  
Recovery , Pelican Manifold  
Cuttings Pile THC Station  
Field Sampling Strategy, and  
BSL ROV Box Corer and a  
Mattress with sandbags and  
anthropogenic debris

2019 saw a number of activities in support of TAQA's preparation for decommissioning.

In line with the Oil & Gas Authority (OGA) "glidepath" planning has commenced a number of years ahead of Cessation of Production (CoP) to ensure that timely and cost efficient decommissioning takes place when the assets come to the end of their economic life. A number of regulatory submissions are required to be made to facilitate this process, these include Decommissioning Programmes and Environmental Appraisals. Both of these documents rely on recent, accurate data to support the conclusions reached within them.

In Q4 2019 TAQA undertook a series of five Environmental Baseline Surveys around the Pelican subsea field and pipelines connecting our Tern, Eider and North Cormorant platforms and our Otter subsea field. The data gathered during these surveys will be reported back during H1 2020 and will help inform decommissioning submissions made to the regulator.

A series of offshore visits to TAQA's Northern North Sea assets were undertaken to complete Materials Inventory surveys during 2019. The surveys establish, as far as we can on live assets, the quantity of hazardous and non-hazardous materials present. This in turn helps inform the Environmental Appraisal and Decommissioning Programme of such quantities. This information will also be used in the contracting process, in order that removal and disposal vendors are aware of the composition of the assets they are handling. This information will also be used to aid the creation of the AWMP which will be required to satisfy the onshore regulator that waste associated with the decommissioned asset is being managed in a legally compliant and effective manner.

# Environmental Objectives

Each year a number of key objectives are set. The purpose of these objectives are to help achieve and demonstrate continual improvement in the environmental performance of TAQA in the UK. Each objective is made up of several individual targets. The table below provides an overview of the status of the 2019 objectives at year end.

## ENVIRONMENTAL OBJECTIVE OVERVIEW

OBJECTIVE		STATUS
1	Environmental Studies/Assurance Activities	99%
2	Offshore Operations Continuous Improvements	100%
3	Environmental Engineering Control Improvements	93%
4	Waste Management Continuous Improvements: Reduction of waste to landfill both onshore and offshore (see below):	100%
	<p><b>a)</b> Less than 3% food &amp; 4% recyclables (average) in general waste skips for offshore (&gt;93% general waste)</p> <p><b>b)</b> Less than 10% food &amp; 12% recyclables (average) in general waste skips for onshore (&gt;78% general waste)</p>	TEA (99%), CON (90%), EIA (98%) and HAR (99%) COA (91%). 2 out of 5 targets were not met
5	Environmental Management System Continuous Improvements	81%

■ COMPLETED/ACHIEVED (>90%)
 ■ PARTIALLY COMPLETE (>75%)
 ■ INCOMPLETE/NOT ACHIEVED (<75%)

In summary, six of the objectives in 2019 were fully or partially completed. Environmental studies/assurance activities involved supporting a number of business units including decommissioning and projects in particular the Abandonment of Storage Cells and Rundowns Systems (ASCARS), drill cuttings characterisation, the continuation of the platform Materials Inventory generation and delivering topsides Environmental Appraisals for the respective Decommissioning Programme.

The waste management targets were based on reducing the contaminants within general waste. Although performance was strong in 2019, two out of the five offshore assets just missed the target of 93% correct segregation of general waste. The Onshore sites (TAQA House and Annex 1) met the segregation target, with well over 78% of general waste correctly disposed. These improvements, from an average of 57.5% in 2018 to 85%, were mainly due to the implementation of dry mixed recycling bin stations (designed to reduce the number of individual recycling bins). Offshore sites have implemented dry mixed recycling in 2019 and the benefits of this should be observed in 2020.

The Environmental Engineering Control objective and targets were nearly all completed. TAQA sourced the Weston's PLANC tool in 2019 to help coordinate permitting requirements for projects and

decommissioning – this will be further rolled out during 2020 to complete these objectives.

EMS continuous improvements objectives which were not fully completed have been pushed into 2020. Creation of a revised Environmental Induction was started in 2019 and will be finalised during 2020 and rolled out as part of a wider company induction process. Similarly, the Offshore Operations Environmental Requirements Handbook has subsequently been rolled out during the beginning of 2020. TAQA have also incorporated a Green Procurement Questionnaire into their tender process in a drive to improve the sustainability of sourced plant, equipment and other service/products.

In 2020, TAQA is again continuing its efforts on a number of focussed objectives in five key areas:

1. Environmental Studies/Assurance Activities
2. Offshore Operations Continuous Improvement
3. Environmental Engineering Control Improvement
4. Waste Management Continuous Improvement
5. Environmental Management System Continuous Improvement

# Glossary

<b>ASCARS</b> Abandonment of Storage Cells and Rundowns Systems	<b>ISO 14001</b> International Standards Organisation 14001 – specifies the requirements for an environmental management system	<b>OWS</b> Oily Water Separator
<b>AWMP</b> Active Waste Management Plan	<b>JNCC</b> Joint Nature Conservation Committee	<b>P&amp;A</b> Plug & Abandonment
<b>BAT</b> Best Available Technique	<b>mboe/d</b> Thousand Barrels Oil Equivalent per Day	<b>PDCA</b> Plan-Do-Check-Act cycle for environmental management and improvement
<b>BITC</b> Business in the Community	<b>MCA</b> Maritime and Coastguard Agency	<b>PON</b> Petroleum Operations Notice
<b>boed</b> Barrels Oil Equivalent per Day	<b>MCDR</b> Mechanical Corrosion Damage Reports	<b>PPC</b> Offshore Combustion Installations (Pollution Prevention and Control) Regulations (2013)
<b>CEFAS</b> Centre for Environment, Fisheries and Agricultural Science	<b>MEI</b> Major Environmental Incident	<b>PWFD</b> Produced Water Flash Drum
<b>CH<sub>4</sub></b> Methane	<b>MODU</b> Mobile Offshore Drilling Unit	<b>SDG</b> Sustainable Development Goals
<b>CHARM</b> Chemical Hazard Assessment and Risk Management	<b>MPI</b> Major Pollution Incident	<b>SECE</b> Safety and Environmental Critical Elements
<b>CO</b> Carbon Monoxide	<b>MPP</b> Multi Phase Pump	<b>SCM</b> Subsea Control Module
<b>CO<sub>2</sub></b> Carbon Dioxide	<b>NNS</b> Northern North Sea	<b>SO<sub>2</sub></b> Sulphur Dioxide
<b>COA</b> Cormorant Alpha Platform	<b>NORM</b> Naturally Occurring Radioactive Material	<b>SPE</b> Society of Petroleum Engineers
<b>CON</b> North Cormorant Platform	<b>NO<sub>x</sub></b> Oxides of Nitrogen	<b>STL</b> Submerged Turret Loading (oil export system removed from the Harding Field during 2016)
<b>CoP</b> Cessation of Production	<b>OBM</b> Oil Based Mud	<b>SSIV</b> Subsea Isolation Valve
<b>EIA</b> Eider Platform	<b>OCR</b> Offshore Chemicals Regulations (2002) (as amended)	<b>TEA</b> Tern Platform
<b>EMS</b> Environmental Management System	<b>OCNS</b> Offshore Chemical Notification Scheme	<b>TH</b> TAQA House
<b>ESG</b> Environmental, Social & Governance	<b>OGA</b> Oil & Gas Authority	<b>UKCS</b> United Kingdom Continental Shelf
<b>ETS</b> Emissions Trading Scheme	<b>OIPW</b> Oil in Produced Water	<b>UMC</b> Underwater Manifold Centre
<b>FLAGS</b> Far North Liquids and Associated Gas System	<b>OLS</b> Offshore Loading System (oil export system installed at the Harding Field during 2016)	<b>VOC</b> Volatile Organic Compound
<b>GBT</b> Gravity Base Tank	<b>OPEP</b> Oil Pollution Emergency Plan	<b>WEEE</b> Waste Electrical & Electronic Equipment
<b>HAR</b> Harding Platform	<b>OPPC</b> Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations (2005) (as amended)	<b>WtE</b> Waste-to-Energy
<b>HSSEQ</b> Health, Safety, Security, Environment and Quality	<b>OPRED</b> Offshore Petroleum Regulator for Environment and Decommissioning	

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