



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.

**FOR FURTHER INFORMATION,  
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# INTRODUCTION



## WELCOME

I am pleased to present the 2020 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.

2020 was a challenging year globally as a result of the COVID-19 pandemic. Despite the challenging environment, we continued to prioritise safe and reliable operations across our portfolio, while managing the safety and wellbeing of the people working on our assets by employing robust COVID-19 measures. This included deferring some planned non-essential project activity to ensure minimum manning levels. In addition, 2020 saw us take over operatorship of the Brae Area assets in October, and we also continued to deliver our decommissioning programme, with TAQA's first topside removal project planned for 2021 at Brae Bravo.

During 2020 we drafted the UK Emissions Management Strategy and continued a focus on our ESG (environmental, social and governance) agenda, which captures the principles and practices that position TAQA Europe as a responsible business. In 2020 we also continued to work with Business in the Community (BITC) on our results from the Responsible Business Tracker, which is built on the UN's Sustainable Development Goals (SDGs). Work has now begun on a roadmap, using this data, for continuous improvement that complements the UK Emissions Management focus in 2021 and beyond.

In 2020 we continued to observe positive trends across TAQA's main environmental impacts. Carbon dioxide emissions for the non-Brae assets remained on par with 2019 and gas usage increased due to an operational reliability focus. There is further work planned in 2021 to identify emission reduction and energy saving measures under the UK Emissions Management Strategy and the workforce are being actively engaged to participate with ideas and suggestions.

Produced water continued to see a 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, driven by our certified environmental management system, ISO 14001.

Throughout 2021 our goal is to integrate the Brae assets within our organisation and management system and harmonise key documentation to ensure consistency across all operated assets. We also continue to implement the best possible environmental practices and processes by utilising Best Available Techniques (BAT): for example,



in 2020 we reviewed sources of our combusted emissions against regulatory permits. Through the above processes and goals, we will identify potential environmental improvements across all areas of the business and implement lessons learned.

Optimising the reliability of late-life assets is a key element of sustainable operations and this is a key business focus at TAQA, driving environmental performance. We will continue to respect the ESG principles and incorporate these in our operations, while looking at new ways to improve or further reduce our impact on the environment.

**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

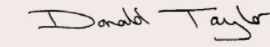
## OPERATIONAL RISK MANAGEMENT

- 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

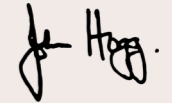
## REVIEW AND IMPROVEMENT

- 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  
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Director



**GARY TOOTILL**  
Subsurface and  
Wells Director/Interim NNS  
Operations Director



**CALUM RIDDELL**  
CNS Operations  
Director



**DAVID WILSON**  
Projects, Engineering  
and Assurance Director



**GARY HUNT**  
Human Resources  
Manager



**IAIN LEWIS**  
Europe CFO/Europe  
Decommissioning Director

# NORTH SEA OPERATIONS



## ABU DHABI NATIONAL ENERGY COMPANY PJSC (KNOWN AS TAQA)

Our roots are in Abu Dhabi with operations in the UAE and beyond. We're a top 10 integrated utilities champion in the EMEA region with power and water and oil and gas operations in 11 countries around the world.

Our story begins in 1998 with the privatisation of Abu Dhabi's power and water sector, underscoring the importance of water security and provision of power to communities across the UAE. This move paved the way for TAQA's establishment as a publicly listed company on the Abu Dhabi Securities Exchange (ADX) in 2005. Since then, we've grown into a diversified company with operations in the UAE as well as Canada, Ghana, India, Iraq, Morocco, Netherlands, Oman, Saudi Arabia, United Kingdom and United States.

We are proud to be a company that provides energy and water to communities around the world.

## TAQA IN THE UK

In the UK TAQA operates eight platforms, which produce from several fields spread across the northern North Sea and the central 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. We also have 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 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.

# 2020 OVERVIEW

TAQA's UK business demonstrated strong resilience throughout the sustained economic uncertainty of 2020, particularly in navigating the significant operational challenges and demand volatility caused by the global COVID-19 pandemic.

In 2020, production from our Europe operations averaged 35,000 boed, from twenty producing fields.

In 2020, TAQA Europe increased its operated asset portfolio with the transfer of operatorship of the Brae field assets, which occurred on October 1, 2020. TAQA has since initiated performance improvement measures in the areas of safety, asset reliability and cost efficiency. As a result of the transfer of operatorship, TAQA Europe now operates eight offshore platforms in the northern and central regions of the UK sector of the North Sea, with Brae Alpha, Brae Bravo and East Brae being added to the already operated portfolio of Cormorant Alpha, Eider, North Cormorant, Tern and Harding.

In June 2020 a planned shutdown to undertake critical maintenance and integrity scopes was undertaken on North Cormorant and despite some challenges resulting from the COVID-19 pandemic, one of the biggest shutdown programmes on Harding in recent years was also successfully completed in Autumn. The key work scopes included a flare tip change out, as well as a PCS system upgrade. A four-well infill campaign at the North Cormorant platform was also completed in May.

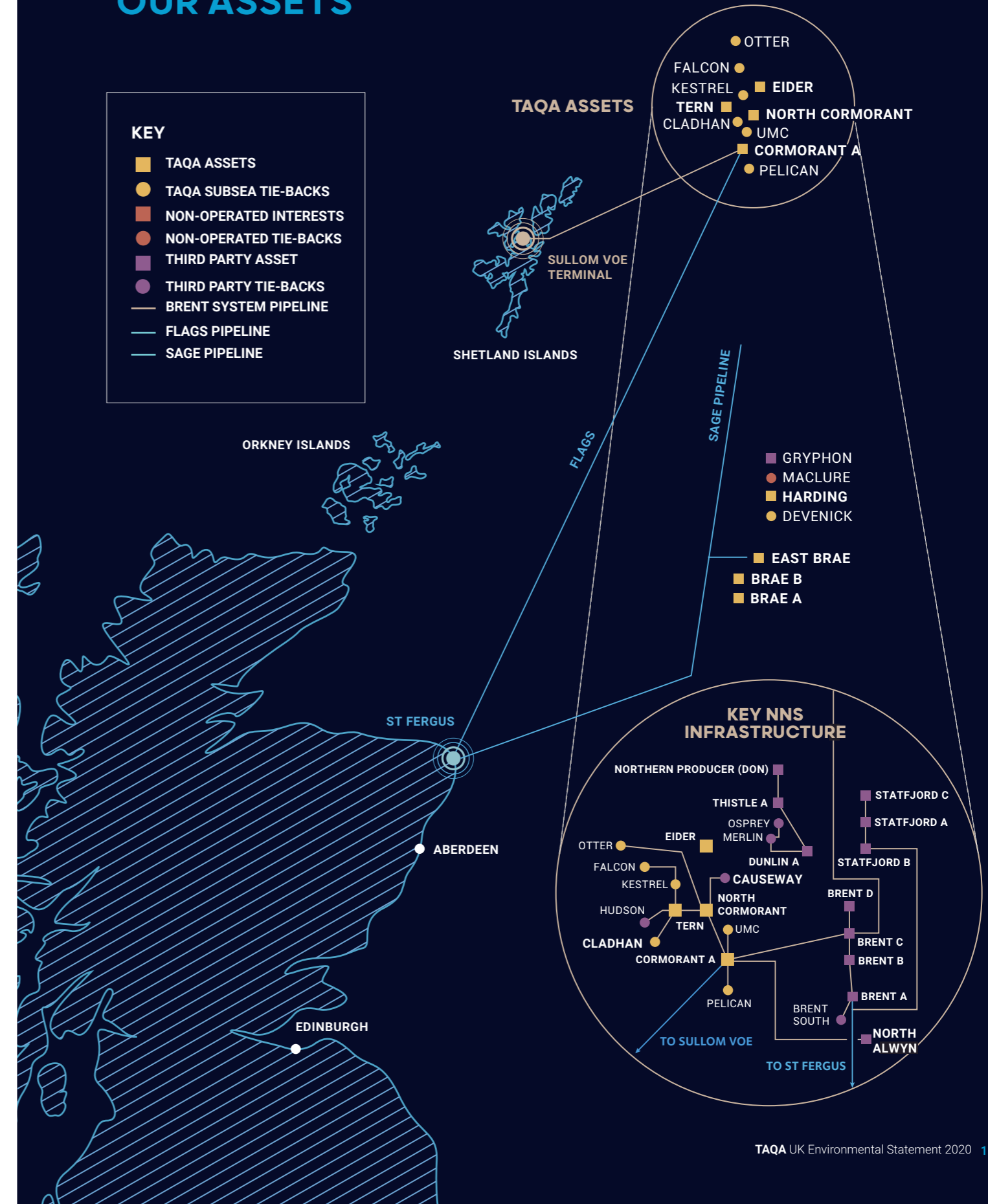
In addition, TAQA continued to plan for and deliver its decommissioning programme, with its first topside removal project planned for 2021 at Brae Bravo.

The UK business also received approval from the UK Department of Business, Energy and Industrial Strategy for decommissioning programs for the topside facilities at the Eider, Tern and North Cormorant platforms.

**“TAQA EUROPE NOW OPERATES EIGHT OFFSHORE PLATFORMS IN THE NORTHERN AND CENTRAL REGIONS OF THE UK SECTOR OF THE NORTH SEA.”**



# OUR ASSETS





## 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)

### 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.

## BRAE ALPHA

### POSITION:

207km (129 miles) east of Sumburgh Head, Shetland

### BLOCK NUMBER:

16/7a

### OPERATOR/DUTY HOLDER:

TAQA

### EQUITY:

45.7% TAQA

### DISCOVERY DATE:

1975

### WATER DEPTH:

112m (367ft)

### OIL PRODUCTION:

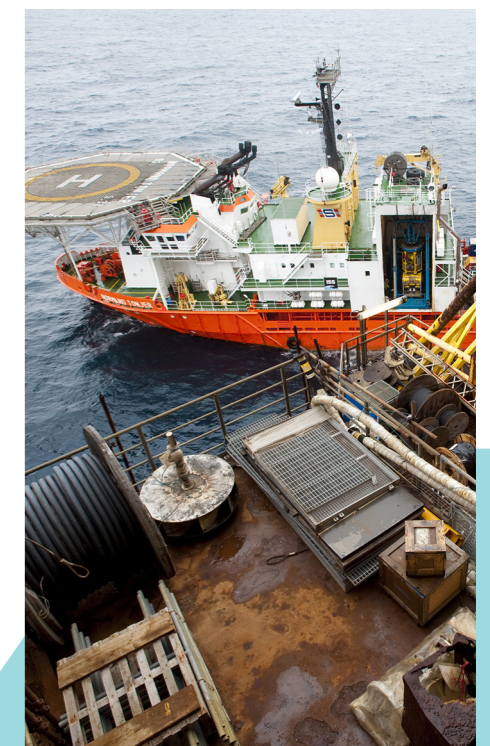
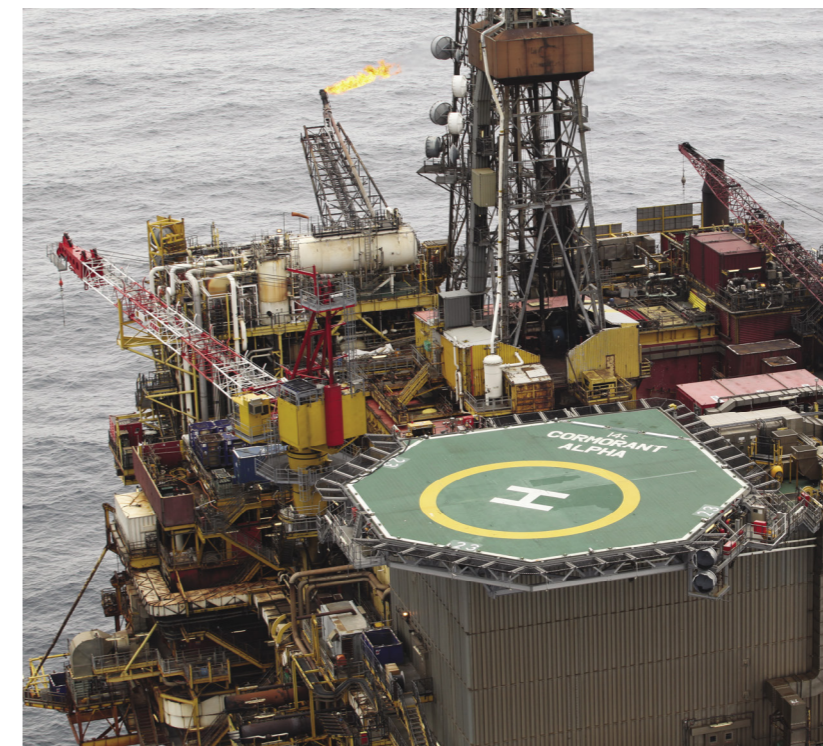
Oil (and natural gas liquids) are exported through the TAQA operated Brae to Forties pipeline and onwards via the Forties Pipeline System to the Kinneil reception terminal on the Firth of Forth.

### GAS PRODUCTION:

Gas from the Brae area is piped to the St Fergus gas terminal via a tie-in to the Scottish Area Gas Evacuation (SAGE) pipeline system.

### FUNCTION:

The Brae Alpha platform is a single, integrated platform consisting of drilling rig, production, utility and accommodation facilities. Brae Alpha topside facilities process produced fluids from the South, Central and West Brae (including Sedgewick). Field reservoirs plus fluids from the Spirit Energy operated Birch, Larch and Sycamore (Trees) Field reservoirs and Enoch, operated by Repsol Sinopec.





## EAST BRAE

### POSITION:

193km (120 miles) east of Sumburgh Head, Shetland

### BLOCK NUMBER:

16/3a

### OPERATOR/DUTY HOLDER:

TAQA

### EQUITY:

50.1% TAQA

### DISCOVERY DATE:

1980

### WATER DEPTH:

116m (380ft)

### OIL PRODUCTION:

Oil (and natural gas liquids) are exported through the TAQA operated Brae to Forties pipeline and onwards via the Forties Pipeline System to the Kinneil reception terminal on the Firth of Forth.

### GAS PRODUCTION:

Gas from the Brae area is piped to the St Fergus gas terminal via a tie-in to the SAGE pipeline system.

### TYPE OF INSTALLATION:

Manned 4 legged Steel Platform

### FUNCTION:

East Brae is a single integrated platform consisting of drilling rig, production, utility and accommodation facilities, to the north of Brae Bravo. East Brae topside facilities process produced fluids from the TAQA operated East Brae and Braemar Field reservoirs. In October 2012, Devenick, was tied-back to the East Brae platform and brought online.

## 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)

### OIL PRODUCTION:

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

### STORAGE CAPACITY:

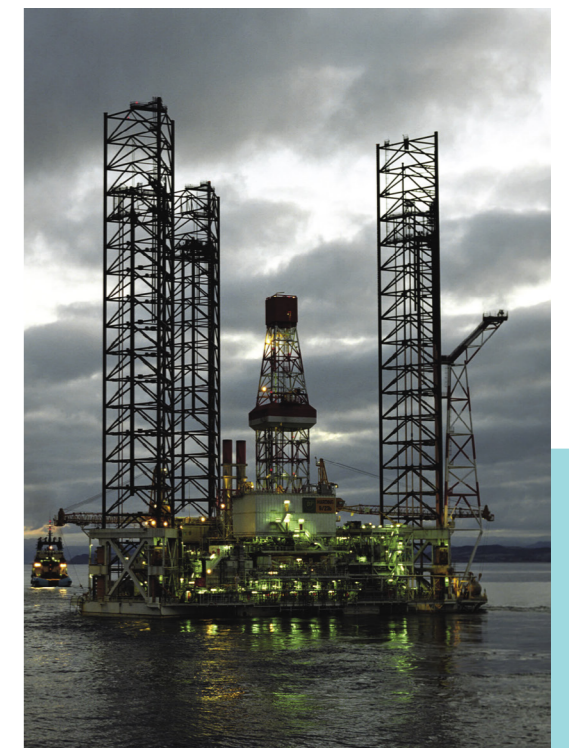
600,000 barrels

### TYPE OF INSTALLATION:

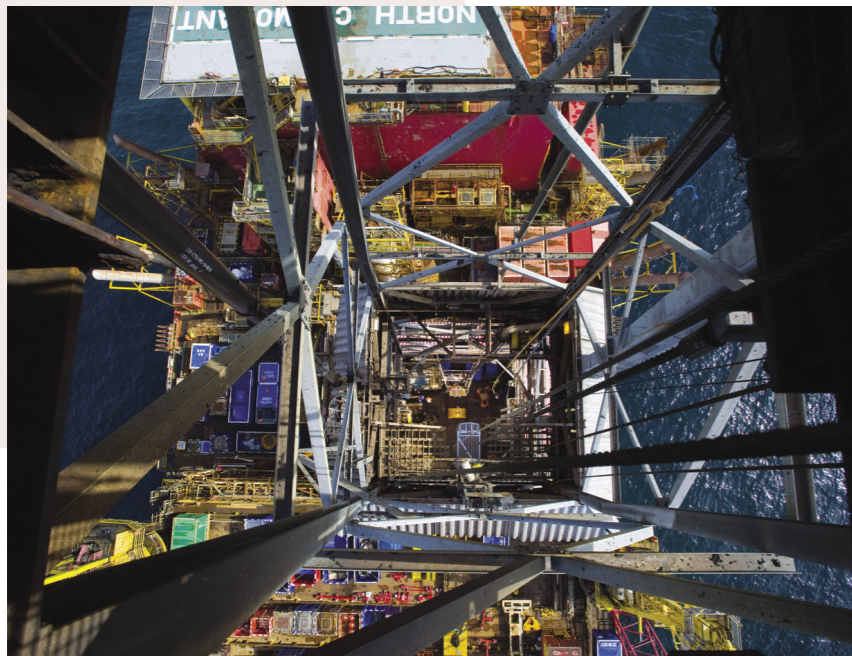
Harding is a heavy-duty jack-up production unit, resting on a gravity base/storage tank.

### 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.







## 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)

**OIL PRODUCTION:**

Via Brent System

**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.

## 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)

**OIL PRODUCTION:**

Via Brent System

**GAS IMPORT/EXPORT:**

Via Western Leg and Western Isles

**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.



## BRAE BRAVO

**POSITION:**

191km (119 miles) east of Sumburgh Head, Shetland

**BLOCK NUMBER:**

16/7a

**OPERATOR/DUTY HOLDER:**

TAQA

**EQUITY:**

45.7% TAQA

**DISCOVERY DATE:**

1976/1977

**WATER DEPTH:**

99m (324ft)

**OIL PRODUCTION:**

Production at Brae Bravo ceased in December 2018.

**TYPE OF INSTALLATION:**

The Brae Bravo platform is a single, integrated 8 legged platform.

**FUNCTION:**

The Brae Bravo platform is a single, integrated platform consisting of drilling rig, production, utility and accommodation facilities. Production at Brae Bravo ceased in December 2018 and the platform was disembarked in July 2019. Decommissioning operations including topside removal is planned in 2021.

## 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)

**OIL PRODUCTION:**

Production at Eider ceased in January 2018

**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.

## BRENT SYSTEM

The Brent System is responsible for transporting around 30k bbls a day from some 12 North Sea fields. This accounts for almost 50% 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 18 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.

## 20. TAQA'S HSSE MANAGEMENT SYSTEM ELEMENTS & 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

### ADOPTION OF THE BRAE ASSET RESPONSIBLE OPERATIONS MANAGEMENT SYSTEM (ROMS)

TAQA took the decision to adopt the Responsible Operations Management System (ROMS) for the Brae assets from the 1st October 2020, when operatorship moved to TAQA. The decision to adopt ROMS was supported by a detailed Gap analysis which highlighted that the ROMS is largely compliant with the TAQA Group Management System, Commitment to Operational Excellence (COE).

The TAQA Europe HSSE Policy (presented earlier in this report) has also been reviewed and its expectations are met by the ROMS standards.

During 2021 there will be a process of formal integration and harmonisation of the Brae processes and procedures within the TAQA Management System.



## 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 organisation, 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

# ENVIRONMENT



## ENVIRONMENTAL MANAGEMENT SYSTEM

TAQA operates an Environmental Management System (EMS) which is set out in accordance with the requirements of ISO14001.

TAQA continued to apply the ISO14001:2015 standard to all operations in 2020, excluding the Brae assets when operatorship commenced from 1st October 2020. The Brae EMS sits under ROMS and has been externally verified and aligns to the principals of ISO14001:2015. TAQA plans to integrate and align the Brae EMS under the ISO14001 standard in 2021.

The International Standards Organisation (ISO) is a non-governmental network of global national standards institutes. ISO14001 is the main management systems specification document in the ISO14000 series containing the essential elements that must be satisfied by an organisation seeking registration or certification for its Environmental Management System.

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 TAQA's 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 Environmental Management System. 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.



#### 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

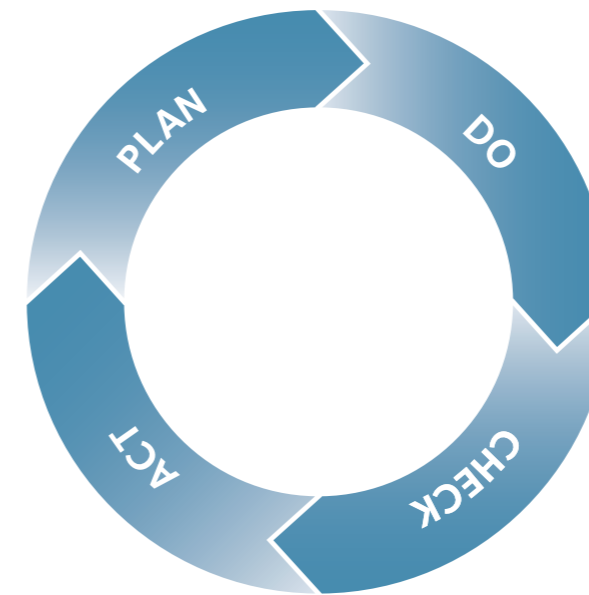
All incident reports, such as near misses, incidents and accidents are systematically recorded, root causes identified and preventative/corrective actions are tracked to ensure continual improvement.

#### 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.

## PLAN-DO-CHECK-ACT

The ISO14001 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.

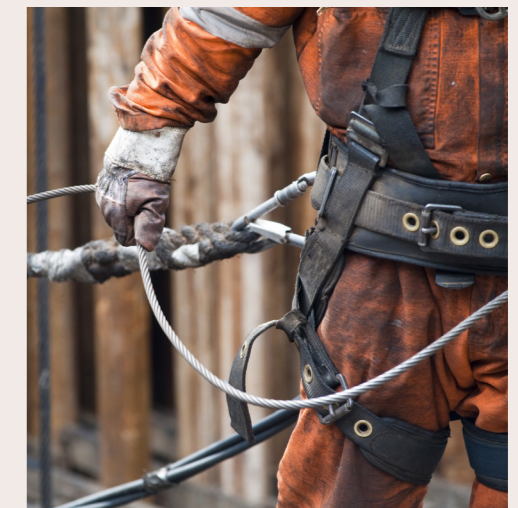
**Do:** tools for achieving goals of environmental management.

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

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

Two independent ISO14001 surveillance audits were undertaken in 2020, however due to COVID-19 restrictions both audits were virtual, remotely auditing two offshore assets (North Cormorant and Cormorant Alpha). These audits covered all of the elements of ISO14001. Both audits were extremely positive with no non-conformances and a number of observations and opportunities for improvement being identified.

**“BOTH AUDITS WERE EXTREMELY POSITIVE WITH NO NON-CONFORMANCES AND A NUMBER OF OBSERVATIONS AND OPPORTUNITIES FOR IMPROVEMENT BEING IDENTIFIED.”**



# ENVIRONMENT PERFORMANCE

In 2020 offshore activities were reduced due to the COVID-19 global pandemic. Therefore, safety and reliability were the focus, ensuring efficient and sustainable operations. The Brae Field, consisting of the operating Brae Alpha and East Brae platforms, was also under TAQA operatorship from the 1st of October 2020. Therefore, performance data is included for these platforms.

## 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 which allows for an allocated allowance of CO<sub>2</sub> to be emitted and then allowance for all subsequent emissions must be purchased. All TAQA assets account for carbon dioxide (CO<sub>2</sub>) emissions by means of the cap-and-trade system.

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 2020 were approximately 68% greater than the ETS allowance and excluding the Brae assets, on a par with the 2018 and 2019 emissions. To account for the deficit between allowance and emissions TAQA purchased additional allowance from the trading scheme. During 2020 ETS procedures and processes were updated to be in line with Phase IV and plans for the UK GHG trading scheme in 2021.

**Figure 2** shows that the largest proportion of CO<sub>2</sub> emissions comes from turbine gas usage. The CO<sub>2</sub> emissions from gas turbines has increased year-on-year since 2017. This was due to the continuation of operational initiatives to change focus to using fuel gas as opposed to diesel (as can be seen from the graphs). Diesel use had decreased from 2014 until 2019, however there was a slight increase in diesel use during 2020.

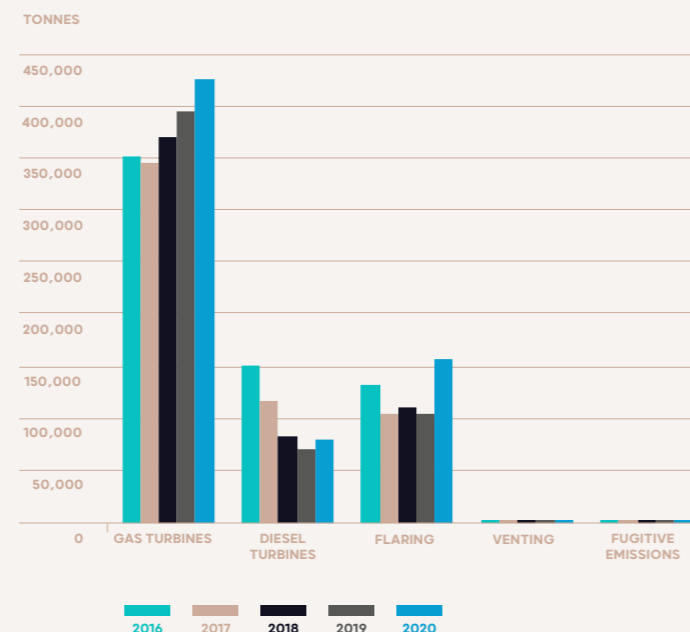
**FIGURE 1:**  
2020 FULL YEAR CO<sub>2</sub> EMISSIONS VS ETS ALLOWANCES

Including Q4 2020 Brae asset data

	2019 SUMMARY	2020 EXCLUDING BRAES	2020 INCLUDING BRAES
Total	563,886	569,932	659,001
ETS Allowances	174,878	164,877	210,784
Surplus/Deficit	-389,008	-405,055	-448,217

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

Including Q4 2020 Brae asset data



## 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. All platforms were within the permitted allowance for all non-CO<sub>2</sub> atmospheric emissions permitted within the TAQA PPC permits.

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.

**FIGURE 3:**  
2020 TAQA ACTUAL NON-CO<sub>2</sub> ATMOSPHERIC EMISSIONS VS PERMIT ALLOWANCE

Including Q4 2020 Brae asset data



**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 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 to protect the marine environment.

The six producing TAQA installations report a total of ten individual discharge streams – two on Cormorant Alpha, two on North Cormorant, two on Tern, two on Harding, one on East Brae and one on Brae Alpha – all of which must meet the legal monthly oil in water discharge average of

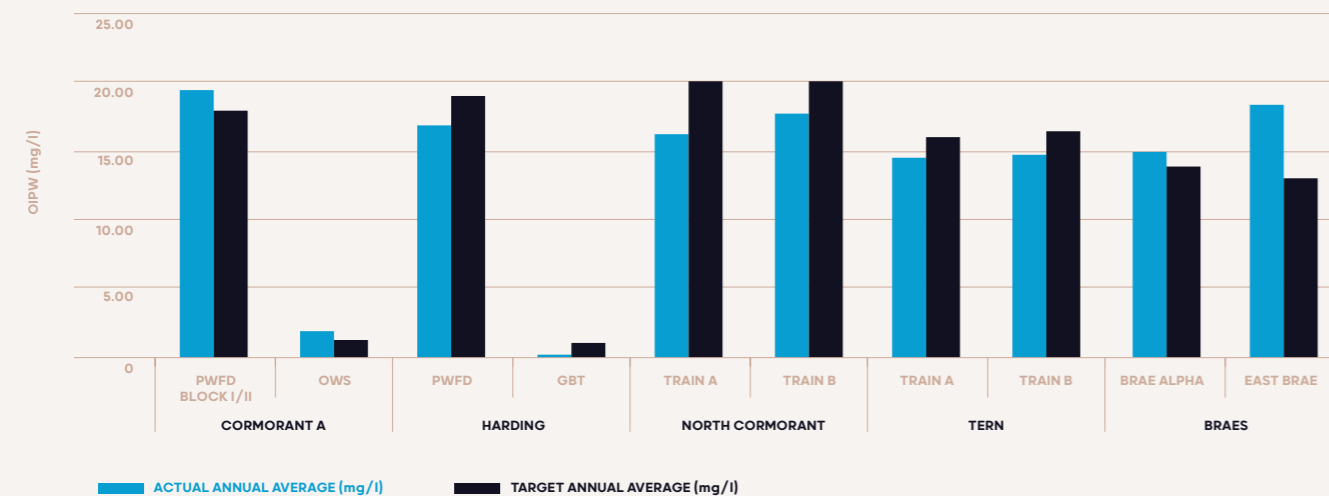
30mg/l. The exception to this is the second discharge stream on Harding which comprises of displacement water discharged from the Buffer Cell (during oil production water is displaced through the buffer cell and discharged to sea to a legislative limit of 40mg/l). A third discharge from Tern, the Hudson subsea tie-back, was operated by Dana Petroleum in 2020; therefore, the produced water discharge data is not included in this report.

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 2020, except for Cormorant Alpha OWS, PWFD, and Brae Alpha/East Brae. Cormorant Alpha PWFD and OWS exceeded the internal target oil in water concentration by 1.51mg/l (8%) and 0.54mg/l (43%). The Brae Alpha and East Brae oil concentration was above the target; however, this was well within annual oil tonnage.

**FIGURE 4:**  
2020 TAQA ACTUAL OIPW VERSUS TARGET OIPW CONCENTRATIONS

Including Q4 2020 Brae asset data



**FIGURE 5:**  
2020 TAQA ACTUAL VERSUS PRODUCED WATER DISCHARGE

Including Q4 2020 Brae asset data

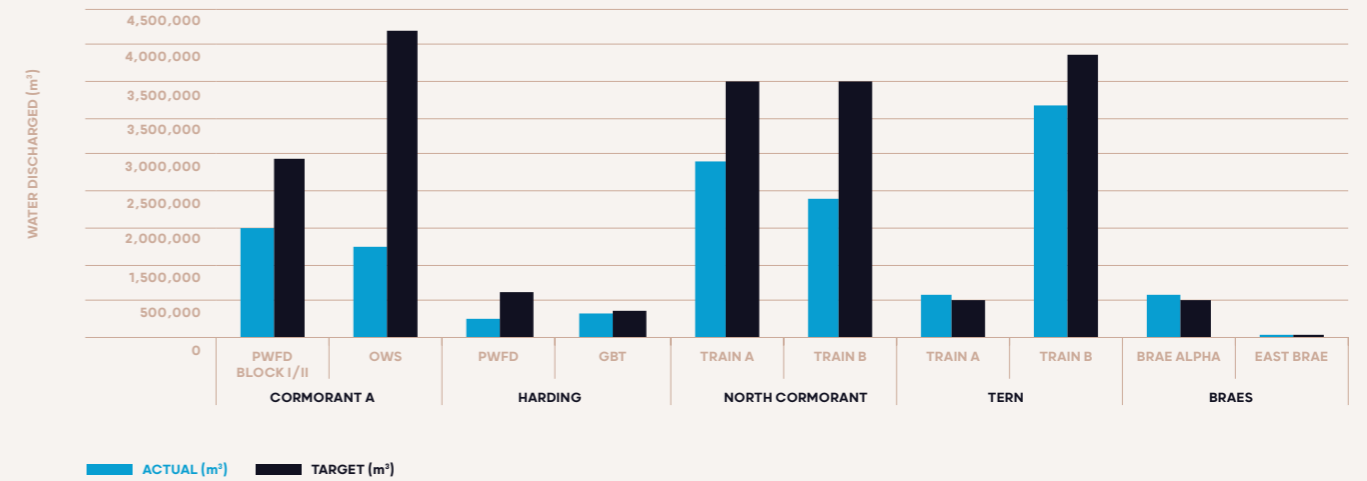


Figure 5 illustrates that all platforms met their internal produced water discharge targets for 2020, excluding Tern Train A and Brae Alpha. Excluding Brae Alpha and East Brae, 2020 saw a further 6.8% decrease in the volume of discharged produced water compared to 2020 (the volume of water discharged has decreased each year since 2017), due to platforms undertaking planned and unplanned shutdowns. Harding is the only platform that has the capability to re-inject produced water and in 2020, 94% (4,316,276m³) of the total produced water was re-injected back into the reservoir which decreases the volume discharged to sea.

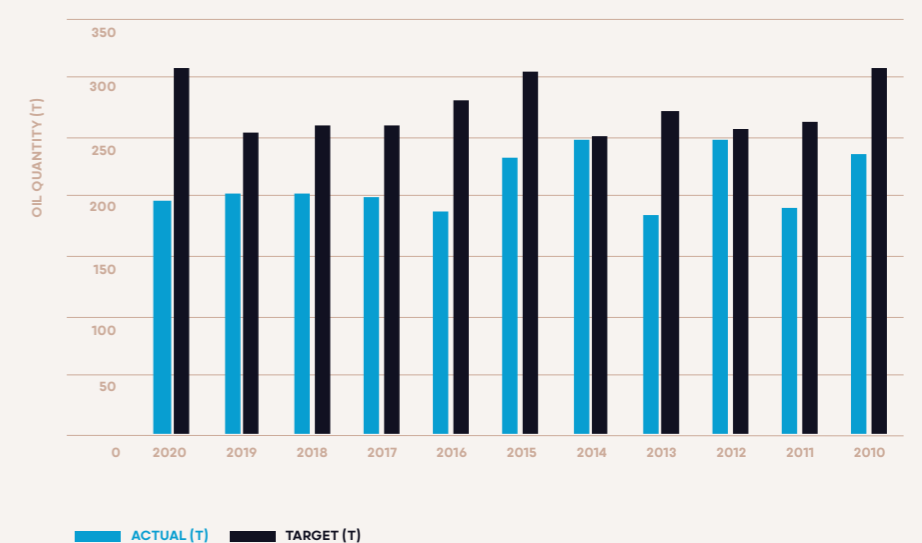
Figure 6 shows the actual quantity of oil discharged to sea via produced water for all TAQA platforms during 2020 compared to internal targets. A total of 197.7 tonnes of dispersed oil was discharged to sea which is 36% below the internal target. This is a 4.6 tonne increase from the amount that was discharged in 2019, however, 8.6 tonnes of oil were discharged to sea by the Brae Alpha and East Brae during Q4 2020.

In addition to the platform production produced water discharge streams there was also a miscellaneous OPPC permit for an emergency response pump discharge on Cormorant Alpha, with 3,317m³ of leg tank water discharged to sea, however, no oil was detected in the discharges.

There were also two subsea OPPC discharge permits approved in 2020. One for the Tern Kestrel subsea field work and the other was for Cormorant Alpha Underwater Manifold Centre (UMC) repair works; zero oil to sea discharges were reported for both activities.

**FIGURE 6:**  
TAQA 2010 - 2020 ACTUAL VERSUS TARGET TOTAL OIL IN PRODUCED WATER

Including Q4 2020 Brae asset data



**PRODUCED WASTE**

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, Waste to Energy (WtE), landfill and incineration.

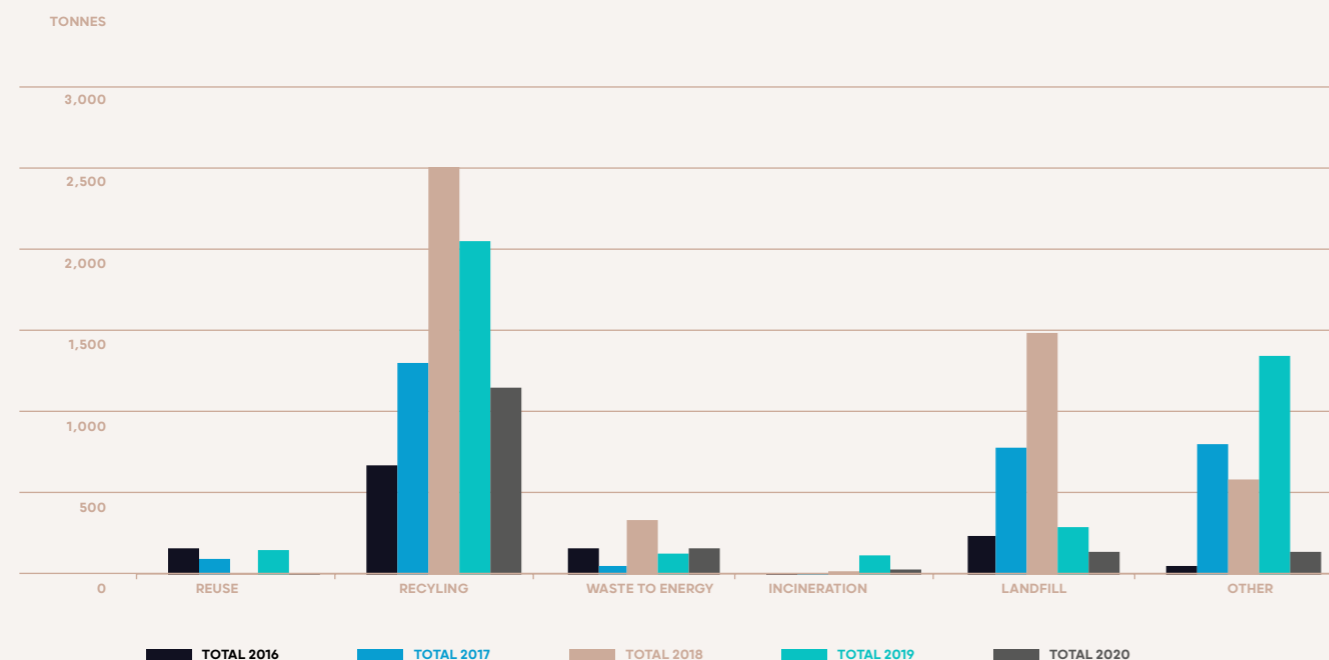
A variety of solid and liquid hazardous and non-hazardous wastes are produced from TAQA's offshore operations, including drill cuttings, waste chemicals, tank washings, waste oil, paper, scrap metal, glass, and wood. To ensure legal compliance all TAQA platforms actively segregate their waste streams which reduces contamination of disposal routes and minimises environmental impact by reusing, recycling, and using waste in (WtE) plants (where possible), following the hierarchy of waste management, **Figure 7**.

**Figure 8** 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 significant decrease in the overall waste generated during 2020 compared to 2019, by 2,455 tonnes. This decrease is attributed to reduced well based activities (e.g. the other disposal route) and a reduction in all work scopes during the COVID-19 global pandemic.

**FIGURE 7: TAQA WASTE DISPOSAL HIERARCHY**

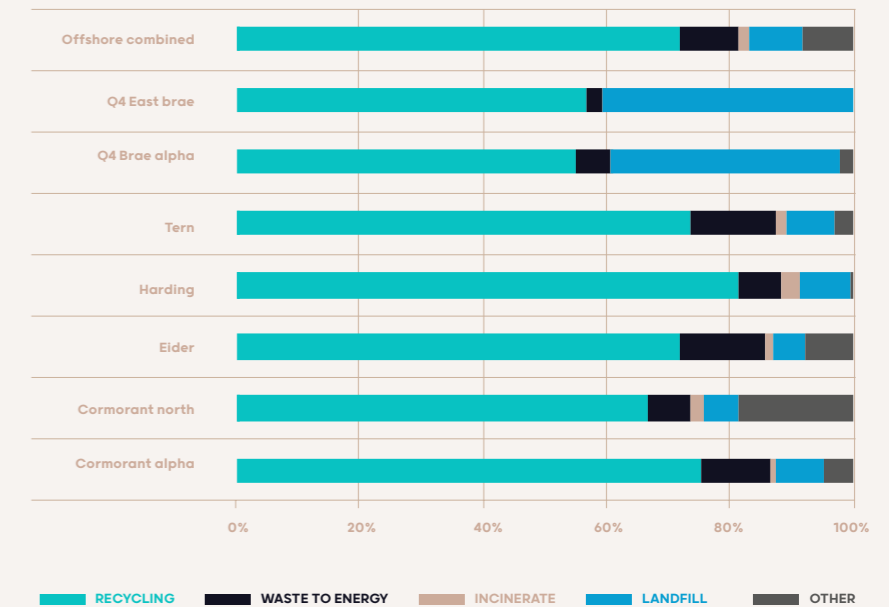


**FIGURE 8: TAQA 2020 WASTE DISPOSAL ROUTE BY LOCATION**  
Including Q4 2020 Brae asset data



**FIGURE 9: TAQA 2020 WASTE DISPOSAL ROUTE BY LOCATION INCLUDING Q4 2020 BRAE ASSET DATA**

**Figure 9** gives an overview of the percentages of different waste disposal routes generated by the TAQA offshore locations during 2020. The proportion of waste sent for recycling saw a large increase of 18% due to a reduction in all activities which would normally generate more hazardous waste streams that tend to go to landfill, reuse or other routes (treatment/discharged under consent).



**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 (11,090 tonnes)

and discharged (3,886 tonnes) cover all activities during 2020 including operations, well abandonment/intervention activities and pipeline operations. There was a decrease of over 5,600 tonnes of chemicals used and nearly 360 tonnes less chemical discharged to sea versus 2019, mainly due to decreased activities including drilling and well abandonment/interventions.

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 3,886 tonnes of chemicals discharged to sea during 2020, 95.5% 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 2.3% decrease from 2019, however there was an overall reduction of 360 tonnes of chemicals discharged to sea. Of the chemicals discharged to sea during 2020, just under 9% comprised of chemicals which carry a substitution warning – this increased from 4.9% in 2019 due to an overall relative reduction in chemicals used versus some drilling and well abandonment/interventions.

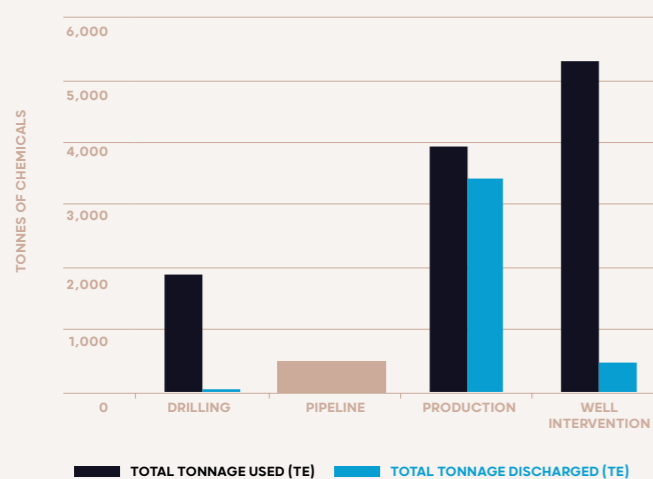


**TABLE 1:**  
**2020 CHEMICAL USAGE AND DISCHARGE QUANTITIES**  
**ACCORDING TO OCNS CATEGORY**  
Including Q4 2020 Brae asset data

CHEMICAL RANKING	TOTAL USAGE (KG)	TOTAL DISCHARGE (KG)
A	9,813.50	503.50
B - none	0.00	0.00
C	105,125.01	104,947.64
D	58,259.63	28,847.04
E	7,499,023.65	827,432.25
White	0	0.00
Silver	93,396.74	40,931.91
Gold	3,324,818.64	2,884,192.58
<b>TOTAL (kg)</b>	<b>11,090,437.17</b>	<b>3,886,854.92</b>

Figure 10 highlights that well abandonment/intervention operations used the largest amount of chemicals during 2020, decreasing by over 6,000 tonnes compared to chemical use in 2019. Drilling related chemical use and discharge increased slightly from 2019, with 632 tonnes more chemical used in the first part of 2020 (before reduced activities during COVID-19 global pandemic restrictions). Comparing historical production chemical usage, levels were constant with just under 20 tonnes less chemical used in 2020 versus 2019.

**FIGURE 10:**  
**2020 TAQA CHEMICAL USAGE AND DISCHARGE**  
Including Q4 2020 Brae asset data



**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 2020 (including Q4 2020 Brae asset data), detailing if it was an oil or chemical release and the corresponding quantity. A total of 23 releases occurred from TAQA operations in 2020, three less than 2019. Eight of these spills were hydrocarbon and totalled 1.01 tonnes. Chemical accidental releases represented 15 of the reported PON1s, however the spill volume was significantly lower than 2019 with 2.46 tonnes released versus 14.97 tonnes in 2019.

**TABLE 2:**  
**ACCIDENTAL SPILLS TO SEA**

OIL SPILL CHEMICAL SPILL

PLATFORM	DESCRIPTION OF OIL (GREY ENTRIES) OR CHEMICAL SPILL (BLUE ENTRIES)	MAX QUANTITY SPILLED (TONNES)
CORMORANT ALPHA	PON1/9716 Brayco SV3 hydraulic fluid release from Remote Operated Vehicle (ROV) chain block whilst working on Slot 36 underneath Cormorant Alpha.	0.0008
	PON1/9525 Underwater Manifold Centre (UMC) subsea oil leak.	0.807
	PON1/9779 Drain collection tank overflowed oily water to sea (this tank was overwhelmed from a fire main leak).	0.0072
	PON1/9821 UMC Tree P4 well hub leak from connector during barrier testing (as part of the previous leak PON1/9525 repair works)	0.004
EAST BRAE	PON1/9871 Methanol leak from the stem on the needle valve on the methanol spill back line.	0.0005
	PON1/9980 Loss of HW443ND hydraulic fluid due to leak on actuator, on the Braemar line.	0.45
EIDER	PON1/9333 East crane hydraulic hose parted releasing fluid to sea. Hydraulic line O-ring failure.	0.0009
	PON1/9232 Drain collection pot overturned when being re-positioned.	0.003
	PON1/9394 Diesel overflowed from atmospheric vent lines. Lines blocked due to tank being drained as part of the diesel line replacements and residue clogging up system.	0.0177
	PON1/9730 Diesel bunkering hose changed out and drained of any residual diesel into a bund. Bund had a small leak due to corrosion resulting in a release to sea.	0.0010
HARDING*	PON1/9539 Piston seal failure on tensioner cylinder 4 on well AQ1 (Slot 14).	0.012
	PON1/9550 Cooling medium expansion vessel sight glass failed causing loss of cooling medium fluid to open hazardous drains and then to sea.	0.081
	PON1/9552 Piston seal failure on tensioner cylinder 1 on well AQ2 (Slot 15).	0.030
	PON1/9620 Piston seal failure on tensioner cylinder 3 on well AQ2 (Slot 15).	0.002
	PON1/9647 Piston seal failure on tensioner cylinder 3 on well IS6 (Slot 19).	0.068
NORTH CORMORANT	PON1/9632 Suspected failure of a hydraulic seal resulting in sudden influx of hydraulic fluid into the cofferdam.	0.040
TERN	PON1/9680 Lube oil spill from ejected instrument tubing on gas compressor 2.	1.688
	PON1 9801 Retrospective report from 2019 due to ongoing subsea leak of swaged fitting on methanol hose.	0.0435
	PON1 9832 Hydraulic oil lost to sea from O-ring failure.	0.0258
	PON1 9861 Leak of coolant from fire pump 3.	0.0097
	PON1 9353 East crane engine oil lost to sea through failed fitting.	0.0039
	PON1/9571 Diesel leak from leg tank during bunkering.	0.043
	PON1 9866 Crude oil to sea after hose parted during sparging operations on Hudson dehydrator vessel.	0.1293

\* It is noted that all but one of the chemical PON1 reports submitted in 2020 by Harding were attributed to losses of hydraulic fluid from the conductor tensioner system due to historical design issues. A rolling programme of improvements is ongoing.

## ENVIRONMENTAL OBJECTIVES

Each year several key objectives are set. The purpose of these objectives is 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.

Table 3 below provides an overview of the status of the 2020 objectives at year end.

Table 3 2020 Environmental Objectives Summary

OBJECTIVE		STATUS																												
1	Environmental studies/assurance activities	89%																												
2	Offshore operations improvements	80%																												
3	Environmental engineering control improvements	100%																												
4	Waste management continuous improvements: Reduction of waste to landfill for offshore only due to COVID-19 working from home restrictions and limited onshore waste in 2020 (see below):	100%																												
	<table border="1"> <thead> <tr> <th></th> <th>Diverted Waste Target</th> <th>Landfill Limit</th> <th></th> </tr> </thead> <tbody> <tr> <td>Harding (HAR)</td> <td>91%</td> <td>9%</td> <td>HAR (92%/8%)</td> </tr> <tr> <td>Cormorant Alpha (COA)</td> <td>90%</td> <td>10%</td> <td>COA (91%/9%)</td> </tr> <tr> <td>North Cormorant (NCO)</td> <td>92%</td> <td>8%</td> <td>NCO (94%/6%)</td> </tr> <tr> <td>Tern Alpha (TEA)</td> <td>92%</td> <td>8%</td> <td>TEA (92%/8%)</td> </tr> <tr> <td>Eider Alpha (EA)</td> <td>90%</td> <td>10%</td> <td>EIA (95%/5%)</td> </tr> <tr> <td colspan="3"></td> <td>All assets met target</td> </tr> </tbody> </table>		Diverted Waste Target	Landfill Limit		Harding (HAR)	91%	9%	HAR (92%/8%)	Cormorant Alpha (COA)	90%	10%	COA (91%/9%)	North Cormorant (NCO)	92%	8%	NCO (94%/6%)	Tern Alpha (TEA)	92%	8%	TEA (92%/8%)	Eider Alpha (EA)	90%	10%	EIA (95%/5%)				All assets met target	
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			All assets met target																											
5	Brae transition requirements	100%																												
6	Environmental management system continuous improvements	89%																												

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

In summary, six of the objectives in 2020 were fully or partially completed, a summary of each is provided below:

Environmental studies/assurance activities involved supporting several business units including decommissioning and projects in particular the Cormorant Alpha Substructure Abandonment (CASA), drill cuttings characterisation, the continuation of the platform Materials Inventory generation and delivering topsides Environmental Appraisals for the respective Decommissioning Programmes.

Offshore operations improvements were delivered to 80% through involvement in the joint industry Methane Acton Plan (MAP) and completion of an audit of the Kintore offshore supply base. Objectives were not delivered fully due to restrictions on the E-Rep away day due to COVID-19 and delays in the Shetland oil spill response equipment agreement.

The Environmental engineering control objectives and targets were completed in 2020 with additional training/roll-out delivered on the Weston's PLANC tool.

The waste management targets were based on diversion of waste from landfill, the least favoured option on the waste hierarchy, see Figure 7. Overall, all five offshore assets achieved the targets, with the highest landfill rate in 2020 at Cormorant Alpha with 9% of all waste going to landfill. Given that activities were reduced in 2020 due to COVID-19, three of five assets have maintained the same

waste targets in 2021. Furthermore, the waste focal point will introduce targets for the Brae assets in 2021, ensuring a consistent comparison of waste performance at all operated assets.

The Brae transition requirement objective was also completed in 2020 to ensure a smooth and legally compliant transition after the 1st of October 2020 operator hand-over.

EMS continuous improvements objectives which were not fully completed have been pushed into 2021 including the re-scheduling of the Secretary of State's Representative (SOSREP) Tier 3 oil spill response exercise due to COVID-19 global pandemic restrictions. Creation of a revised environmental induction was planned to be finalised in 2020, however due to company re-branding, the induction will be launched in 2021.

In 2021, TAQA is again continuing its efforts on focussed objectives in six key areas:

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

# DECOMMISSIONING



## DECOMMISSIONING

2020 saw several activities in support of TAQA's preparation for decommissioning and execute activities. The following sections summarise the main environmental actions delivered in 2020.

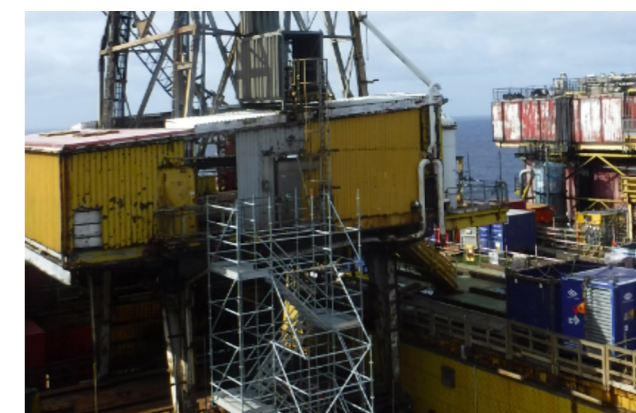
### SUPPORT DURING PREPARATIONS AND PLANNING

- Environmental Baseline and Habitat Surveys
- NNS Asset Topside Hazardous Materials Inventory surveys
- Decommissioning Programme & Environmental Appraisals
- SEPA waste management engagement
- Generation of the Cormorant Alpha Derrick removal project Active Waste Management Plan (AWMP)



### CORMORANT ALPHA DERRICK REMOVAL - SUPPORT DURING EXECUTE PHASE

- By end 2020, 114 tonnes of the planned 763 tonnes (15%) has been returned to shore for disposal, the remainder will be returned onshore in 2021
- 96% recycled vs. the Environmental Appraisal target of 97%
- Excellent compliance to date with zero waste related incidents or legislative non-compliances
- Waste is being recorded separately from production/operational waste for decommissioning reporting purposes



### BRAE BRAVO DECOMMISSIONING (FROM 1ST OCTOBER 2020)

- Support during preparations and planning including regulatory interface, permits and derogation applications
- Brae Bravo topsides is planned to be removed in 2021, therefore, several environmental permits were submitted and the AWMP was created
- Further support will be delivered during 2021 including environmental permit management, emergency response planning and HSE support on the heavy lift vessel during lifting activities



# ONSHORE INITIATIVES



## MACDUFF MARINE AQUARIUM

In 2020 TAQA continued its long-standing relationship with the Macduff Marine Aquarium in Aberdeenshire to promote environmental issues. The aquarium joined forces with TAQA to introduce a new display on the issue of plastics in our seas. Plastics in the ocean have become a huge global issue and one that TAQA is keen to help tackle by raising public awareness of how we can all make a difference. Having previously supported educational workshops on plastic pollution at the aquarium this new permanent interactive feature helps us think about how we can all be more responsible about our use of and disposal of plastics.

## RIVER DEE TRUST EDUCATION PROGRAMME

The River Dee Trust is a conservation charity which works to preserve and communicate the importance of the River Dee and how we can better understand and improve the river so that we may look after it for this and future generations. In early 2020 the organisation had to stop its typical educational outreach programme due to the COVID-19 pandemic. With the support of TAQA and others, the programme was reimagined to help teach school children in a safe manner. Our support allowed an Education Support Officer to be appointed who delivered a programme in part online with downloadable lessons as well as real-life learning sessions delivered in the playground. In 2020 around 350 adults and children were engaged across 35 individual visits to schools in the local area.

## GREYHOPE BAY

TAQA is a founding 'Admiral' funder of the Greyhope Bay project, which aims to deliver a marine experience centre and community space where visitors can enjoy and connect to the natural, marine and historical environment on Aberdeen's doorstep. Although delayed by the COVID-19 pandemic in 2020, the first phase of the project is delivering a low impact, glass-fronted centre, café and outdoor decking that will enhance access to Torry Battery, a site with a unique heritage and panoramic views of Aberdeen city, harbour and coast, and the best view of the city's bottlenose dolphins. The building and facility operations will act as a flagship in sustainable practice, modelling innovation in technology, the circular economy and low-impact behaviours with the aim of sharing understanding and emulating changes we can make to protect our marine environment.

## IT EQUIPMENT DONATION

Our partnership with specialist provider Re-Tek saw our redundant IT equipment refurbished and made available through a variety of channels for re-use. Various activities to upgrade equipment yielded a total of six tonnes of unwanted assets that were collected by Re-Tek for recycling. That in turn generated a rebate to TAQA of £26,900 which is being used by the local authority to tackle digital poverty and increase access to IT for people who would benefit from such support.

## OFFICE RELOCATION FURNITURE DONATION

We reached an agreement with Peterhead-based charity Stella's Voice for it to take all furniture and other goods that were no longer needed by us as part of TAQA's relocation to new office space – and put them to the best possible use. The charity spent several days during the autumn clearing everything from desks, chairs, pedestals and filing cabinets to whiteboards, dishwashers and even vending machines – totalling around 38 tonnes of donated items. This project ensured we met legal compliance and followed best practice to drive our waste management up the waste hierarchy and divert waste from traditional disposal methods.



# GLOSSARY

**ADX**

Abu Dhabi Securities Exchange

**AWMP**

Active Waste Management Plan

**BAT**

Best Available Technique

**BITC**

Business in the Community

**boed**

Barrels Oil Equivalent per Day

**CASA**

Cormorant Alpha Storage cells Abandonment

**CEFAS**

Centre for Environment, Fisheries and Agricultural Science

**CH<sub>4</sub>**

Methane

**CHARM**

Chemical Hazard Assessment and Risk Management

**CO**

Carbon Monoxide

**CO<sub>2</sub>**

Carbon Dioxide

**COA**

Cormorant Alpha Platform

**COE**

Commitment to Operational Excellence

**CON**

North Cormorant Platform

**EIA**

Eider Platform

**EMS**

Environmental Management System

**ESG**

Environmental, Social & Governance

**ETS**

Emissions Trading Scheme

**FLAGS**

Far North Liquids and Associated Gas System

**GBT**

Gravity Base Tank

**HAR**

Harding Platform

**HSSEQ**

Health, Safety, Security, Environment and Quality

**ISO 14001**

International Standards Organisation 14001 – specifies the requirements for an environmental management system

**JNCC**

Joint Nature Conservation Committee

**MAP**

Methane Acton Plan

**mboe/d**

Thousand Barrels Oil Equivalent per Day

**MCA**

Maritime and Coastguard Agency

**MPP**

Multi Phase Pump

**NNS**

Northern North Sea

**NORM**

Naturally Occurring Radioactive Material

**NO<sub>x</sub>**

Oxides of Nitrogen

**OBM**

Oil Based Mud

**OCR**

Offshore Chemicals Regulations (2002) (as amended)

**OCNS**

Offshore Chemical Notification Scheme

**OGA**

Oil & Gas Authority

**OIPW**

Oil in Produced Water

**OLS**

Offshore Loading System (oil export system installed at the Harding Field during 2016)

**OPEP**

Oil Pollution Emergency Plan

**OPPC**

Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations (2005) (as amended)

**OPRED**

Offshore Petroleum Regulator for Environment and Decommissioning

**OWS**

Oily Water Separator

**P&A**

Plug & Abandonment

**PDCA**

Plan-Do-Check-Act cycle for environmental management and improvement

**PON**

Petroleum Operations Notice

**PPC**

Offshore Combustion Installations (Pollution Prevention and Control) Regulations (2013)

**PWFD**

Produced Water Flash Drum

**ROMS**

Responsible Operations Management System

**ROV**

Remotely Operated Vehicle

**SAGE**

Scottish Area Gas Evacuation pipeline system

**SDG**

Sustainable Development Goals

**SCM**

Subsea Control Module

**SO<sub>2</sub>**

Sulphur Dioxide

**SOSREP**

Secretary of State's Representative

**SSIV**

Subsea Isolation Valve

**TEA**

Tern Platform

**TH**

TAQA House

**UKCS**

United Kingdom Continental Shelf

**UMC**

Underwater Manifold Centre

**VOC**

Volatile Organic Compound

**WEEE**

Waste Electrical & Electronic Equipment

**WtE**

Waste-to-Energy



**CONTACT**

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**E-Rep**