



EnQuest PLC
UKCS Environmental Statement 2018



WELCOME TO ENQUEST'S PUBLIC STATEMENT ON ENVIRONMENTAL MANAGEMENT AND UKCS ENVIRONMENTAL PERFORMANCE FOR 2018

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Executive summary

This statement has been prepared to fulfil the regulatory requirement under the OSPAR recommendation 2003/5 to produce an annual public environmental statement.

It represents an open and transparent representation of our environmental performance across our offshore operations for the year 2018.

The statement covers environmental performance, describes the extent to which we are meeting our environmental goals and outlines our future objectives.

All assets achieved yearly average oil in produced water concentrations within the 30 mg/l limit as set by the Regulator. However Kittiwake, due to process instability associated with management of the Grouse well, experienced several periods of high oil in water concentrations during the first quarter and early in the second quarter of 2018. A 'Produced Water Hit Squad' was set up to drive oil in water improvements, which was successful. As a comparison, the Kittiwake oil in water performance for the second half of 2018 was 27mg/l and continues to trend down in the first half of 2019.

Individually, the assets performed at the following levels:

Thistle Alpha - 12.09 mg/l

Northern Producer - 27.47 mg/l

Heather Alpha - 27.96 mg/l

Magnus - 9.60 mg/l

EnQuest Producer - 25.27 mg/l

Kittiwake* - 38.00 mg/l

Kraken* - 19.03 mg/l

* Third Party Operators

Identifying ways to minimise the risk of unplanned spills remained a focus throughout 2018, with the number of unplanned spills to the marine environment totalling 24. Sixteen of these were hydrocarbon releases, six were chemical and two were a permitted discharge notification.

In early 2018, we completed a successful external verification of our 2017 Greenhouse Gas Emissions as required under the Companies Act 2006 (Strategic and Directors' Reports) regulations 2013.

Total CO₂ equivalent emissions resulting from flaring and power generation totalled 940,029 tonnes in 2018.

As a mature province, the UKCS presents itself as a challenging place to work. Nevertheless, we are committed to improving the environmental performance of our assets.

HSE&A Policy

Health, Safety, Environment & Assurance



EnQuest is one of the largest UK independent oil producers in the UK North Sea. We are committed to operating responsibly and will not compromise our health, safety or environmental standards to meet our business objectives.

Through respect for our people, our contractors, our customers, our stakeholders and the environment, we will operate to achieve our principal aim: **safe results, with no harm to people and respect for the environment.**

To achieve this we will manage our business such that we:

- Demonstrate strong leadership and visible commitment to HSE&A
- Comply with all applicable legislation and industry standards
- Maintain high-quality systems and processes
- Assess and manage risks
- Maintain safe and healthy workplaces
- Manage and mitigate our impact on the environment
- Provide trained and competent resources
- Encourage open and honest communication
- Ensure our contractors and suppliers comply with our policies and procedures
- Maintain the integrity of our assets over their life cycles
- Assess and manage change
- Plan and be prepared for potential emergencies
- Investigate and learn from incidents
- Strive for continual improvement in our performance

Should operational results and safety ever come into conflict, we all have a responsibility to choose safety over operational results. This includes the responsibility to stop a job whenever activities may conflict with this policy.

A handwritten signature in black ink, appearing to read 'Amjad Bseisu'.

Amjad Bseisu
Chief Executive Officer
EnQuest PLC, January 2018

A handwritten signature in black ink, appearing to read 'Bob Davenport'.

Bob Davenport
Managing Director – North Sea
EnQuest PLC, January 2018

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www.enquest.com

Overview

EnQuest is an independent production and development company with operations in the UK North Sea and Malaysia. The Group's strategic vision is to be the operator of choice for maturing and underdeveloped hydrocarbon assets by focusing on operational excellence, differential capability, value enhancement and financial discipline.

Principal assets

At the end of 2018 we are the licensee, well, pipeline and installation operator for Heather, Thistle, Northern Producer, EnQuest Producer and Magnus.

EnQuest has an equity stake of 15.1% in SVT, 18.0% in the Ninian Pipeline System and 41.9% in the Northern Leg Gas Pipeline.

EnQuest is the licensee, well and pipeline operator for the Greater Kittiwake Area. Petrofac became the installation operator of Kittiwake in June 2017.

EnQuest is the licensee, well and pipeline operator of the Kraken fields. Bumi Armada are installation operator of the Kraken FPSO.

EnQuest also has a non-operated interest in Alba oilfield.

Delivering sustainable growth

EnQuest is proving that it can deliver sustainable growth through increasing production and reserves.

Production averaged 55,447 Boepd in 2018, growing by 48% compared to 2017, and Net 2P Reserves at 31 December 2018 were 17% higher than 2017 at 245 MMboe.

Respect for the environment

As a responsible operator, we manage our operations to prevent incidents and minimise the environmental impact:

- In EnQuest, respect is paramount for our people, our environment and the safety of others;
- Effective management of Health, Safety and Environmental performance is a key objective across the business.

Guiding all our activities is our principal aim:

**SAFE RESULTS, NO HARM TO PEOPLE
AND RESPECT FOR THE ENVIRONMENT.**



OFFSHORE ACTIVITIES

PRODUCTION AND DEVELOPMENT

Production and development

At the end of December 2018, we had interests in 18 UK production licences and were the operator of 16 of these licences.

FIG.1



Figure 1 shows our present areas of production and development, along with areas in which we hold a licence.

08 Thistle

The Thistle field was discovered in 1973. A single steel jacket platform was installed in 1976 and production began in February 1978 for BNOC/Britoil/BP. The licence operatorship subsequently changed to DNO in 2003, then to Lundin in 2004 before the demerging of Lundin's UK assets in 2010, when EnQuest became the operator.



Northern Producer

In the Don field, oil was discovered in the sandstone of the Middle Jurassic Brent Group in 1973. The discovery was subsequently appraised by Shell/ESSO in 1976 and then developed by BP in the 1990s. EnQuest's redevelopment began production in 2009. The development consists of four sub-sea tie-backs: Don South West, West Don, Conrie and Ythan.



Heather/Broom

Discovered in 1973, with first oil production in 1978, the Heather field lies in the East Shetland Basin. Oil is exported from the platform to the Ninian pipeline system and hence to the Sullom Voe Terminal. The Heather platform acts as the host for the nearby Broom field sub-sea development, providing services to the Broom wells and processing the produced fields.



Magnus

The Magnus oilfield was discovered in March 1974 in the 4th licensing round. Oil was found 2,709 metres below the seabed in a water depth of 186 metres. The field was named after the Viking saint of Orkney - Magnus.

Having acquired an initial 25% interest and operatorship of the asset in December 2017, at the end of 2018 EnQuest successfully completed the acquisition of the remaining 75% interest in Magnus.



Alma/Galia

Alma/Galia represented EnQuest's first new hub development and was a project of significant scale. Located in the central North Sea, 310 kilometres south-east of Aberdeen in water depth of approximately 80 metres, the project revitalised the UK North Sea's first producing field - Argyll - and consisted of four production wells tied back to the FPSO EnQuest Producer.



Kittiwake

The Kittiwake field was discovered in 1981. It was developed with a fixed steel jacket platform and production began in 1990. Oil is exported to the Forties Pipeline System via a 10" oil export line to Forties Unity. Surplus gas is exported via a 4" export line to the nearby SEGAL gas pipeline. Further exploration in the Greater Kittiwake Area (GKA) discovered the Grouse, Mallard, Gadwall and Goosander fields. All these additional sub-sea developed fields were tied back to the Kittiwake platform. In February 2014, EnQuest acquired a 50% stake and operatorship of GKA which consists of the Kittiwake field and surrounding development/acreage. EnQuest also acquired a 100% interest in the Kittiwake to Forties oil export pipeline. The Scolty/Crathes development consists of a single horizontal well drilled in to each of the Scolty and Crathes fields. The fields are tied back to the Kittiwake platform and have greatly extended the useful life of this production hub.



Kraken

Kraken is a heavy oil producing asset, located in the East Shetland basin, to the west of the North Viking Graben, approximately 125 kilometres east of Shetland. First oil was delivered in June 2017, with the field development plan completed around the end of the first quarter of 2019. Kraken is expected to have a long field life of over 20 years with the prospect of relatively low decommissioning.



Transocean Leader

The Transocean Leader was contracted to drill the Kraken Development. The Kraken field is a large heavy oil accumulation in the UK North Sea, located in the East Shetland basin, approximately 125 kilometres east of Shetland. Drilling at the fourth drill centre at Kraken was completed around the end of the first quarter of 2019.



ENVIRONMENTAL MANAGEMENT SYSTEM

OUR AIM:
**SAFE RESULTS, WITH NO HARM TO
PEOPLE AND RESPECT FOR THE
ENVIRONMENT**

We manage our environmental activities via our integrated Safety and Environmental Management System.

As an operator of offshore oil and gas installations on the UKCS, the environmental regulators BEIS OPRED and SEPA require companies to have in place an Environmental Management System that:

- Achieves the environmental goals of the prevention and elimination of pollution from offshore sources and of the protection and conservation of the maritime area against other adverse effects of offshore activities;
- Maintains and encourages continual improvement in environmental performance; and
- Is in accordance with the principles of internationally recognised standards such as ISO 14001:2015.

We have implemented an integrated Safety and Environmental Management System ('SEMS') which is accessed via the Business Management System ('BMS') on our intranet. The EMS element of the SEMS has been established and implemented to ensure Company activities are conducted in such a way that minimises risks to the environment throughout Company operations. It provides a framework for the achievement of objectives in order for us to manage risk in accordance with the requirements of Company policies, applicable legislation, national/international standards and contractual or partnership commitments.

We have established an HSE&A Policy, which is a statement of intent from the Chief Executive Officer and is intended to communicate EnQuest's aims and expectations regarding environmental management to personnel and stakeholders (including contractors, clients and shareholders).

The Corporate Major Accident Prevention Policy complements the HSE&A Policy and outlines the approach to control, prevent and manage major accident hazards.

Our HSE&A Principles are developed to support the achievement of the HSE&A Policy commitments across all company operations and form the basis for the development and application of HSE&A management systems, processes and procedures at all levels within our business.

As the EMS is subject to auditing and review, and we have created a number of Key Performance Indicators which are reviewed monthly, our goal of complying with statutory requirements is repeatedly tested. Furthermore, as we apply our EMS across all our operations, we are able to share and learn from best practice and achieve our goal of minimising risk of impact to the environment.

Our EMS is structured in line with the requirements of the international standard for environmental management and has been externally verified to meet the requirements of OSPAR Recommendation 2003/5.

HSE&A is our top priority and it is deeply embedded in our culture and values. It is integral to how we manage our business with regard to people, installations and the environment in which we operate.

Our HSE&A Policy underpins how our environmental goals are progressed throughout our business operations. We are fully committed to operating responsibly so that environmental risks are minimised.

ENVIRONMENTAL PERFORMANCE

Across all of our assets, the volume of liquid waste produced (including the oil content of produced water, produced water volumes and chemicals discharged to sea) remain within all permitted allowance levels as agreed by the Regulator.

Our chemical selection complies with the required regulations, we strive to minimise the overall volume of chemicals used and where feasible use those with a lower environmental impact.

There were four chemical replacements with less hazardous content in 2018 and all of them have no discharge to the marine environment.

We introduced a Greening Plan on producing assets to set targets for seeking alternative chemicals for products carrying a substitution warning label and replace where possible.

We work closely with chemical suppliers to undertake research and development of new, more environmentally friendly chemicals. We also aim to reduce usage application rates and the volumes discharged where possible.

As a producer of waste, we have a duty of care to ensure that all waste is transferred and disposed of in accordance with the relevant legislation. We have established procedures, aligned with ISO14001:2015 to clearly identify responsibilities and manage waste following the waste hierarchy as per regulations.

CO₂ equivalent emissions resulting from the combustion of fuel gas and diesel for the purpose of generating power totalled 724,300 tonnes, with the flaring of gas accounting for an additional 356,600 tonnes of CO₂.

Emissions monitoring methodologies have been improved, in line with the requirements of the EU Emissions Trading Scheme monitoring and reporting Regulations 2012.

Minimising and preventing spills to the marine environment remained a focus during 2018. Throughout the year, there were 10 unplanned spills of hydrocarbons (2017: eight) and six unplanned chemical spills (2017: 13) across EnQuest's UK operations.

14 EnQuest regularly monitors and reports its environmental performance in relation to these aspects in line with the requirements of EU and UK law.

Liquid discharges

Oil and gas extraction has associated produced water. On EnQuest's offshore installations, hydrocarbons are separated from produced water as part of the production process. However, as traces of oil inevitably remain, the discharge of produced water is strictly controlled by the Offshore Petroleum Activities (Oil Pollution Prevention & Control) Regulations 2005 (as amended). These Regulations set a limit on the average oil content of the water discharged. Liquid discharge also consists of production chemicals discharged to water in the extraction process. Production chemicals have a number of functions. Any chemical used offshore during oil and gas production must be approved by the Centre for Environment, Fisheries and Aquaculture Science (Cefas). The use and discharge of production chemicals is controlled under the Offshore Chemical Regulations 2002 (as amended). In collaboration with our chemical suppliers, EnQuest strives to use chemicals with a lower environmental impact where feasible in our operations through the chemical management process.

Spills

Given the nature of our activities, there is always a risk that unplanned spills may occur. All spills to sea, regardless of volume, must be reported to BEIS OPRED via a Petroleum Operations Notice ('PON1').

At EnQuest we take our responsibilities to prevent spills to sea very seriously. We have processes in place to minimise this risk.

In addition to statutory reporting requirements, we internally record and investigate any releases of unpermitted chemical or oil. This helps improve our understanding of the root causes and identify actions to prevent similar incidents occurring in the future.

Material waste

Our operations consume natural resources and other material which generate a range of wastes. We must ensure that the segregation, transportation and eventual disposal of waste are managed in accordance with legislative requirements. We work closely with our onshore waste management contractors to identify recycling routes for as much of our waste as possible and conduct regular audits to evaluate waste management practices.

Atmospheric emissions

We use energy in extracting, processing and exporting oil and gas. Atmospheric emissions generated by these activities are regulated by the Greenhouse Gases Emission Trading Scheme (ETS) and the Offshore Combustion Installation (Prevention and Control of Pollution) Regulations 2013. We seek to use energy efficiently within our facilities and continually look to identify opportunities that may reduce emissions from our operations. In addition, we report our annual greenhouse gas (GHG) emissions in our Directors' Report as per the Companies Act 2006 (Strategic and Directors' Reports) Regulations 2013 within the Annual Report and Accounts.

Liquid waste

EnQuest aims to minimise the environmental impact of the discharge of produced water. Treatment plants at our assets remove the majority of hydrocarbons and solids present in the produced water stream. All our water is treated and monitored prior to discharge.

Oil in water

As produced water contains traces of hydrocarbon, the Offshore Petroleum Activities (Oil Pollution, Prevention & Control) Regulations 2005 (as amended) sets the daily permitted average oil content of produced water at 30 mg/l.

Average oil concentration of produced water by asset

FIG.2

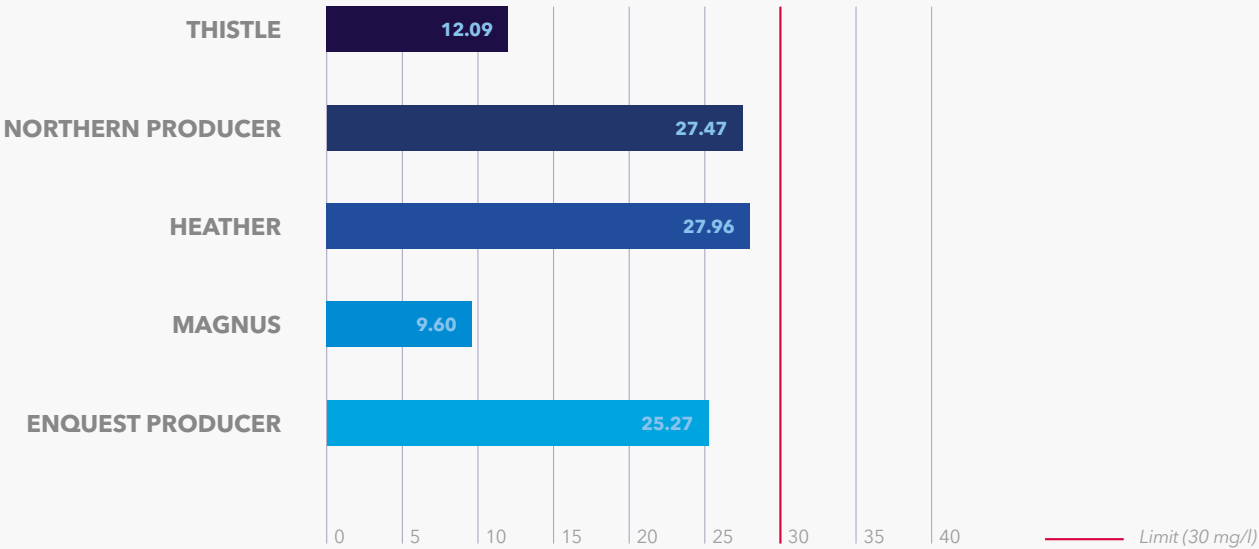


Figure 2 above shows average oil concentration of produced water across our assets for 2018. All EnQuest operated assets have demonstrated yearly average oil concentrations that sit within the 30 mg/l limit.

16 Liquid discharge continued

Produced water discharged to sea (m³)

FIG.3a

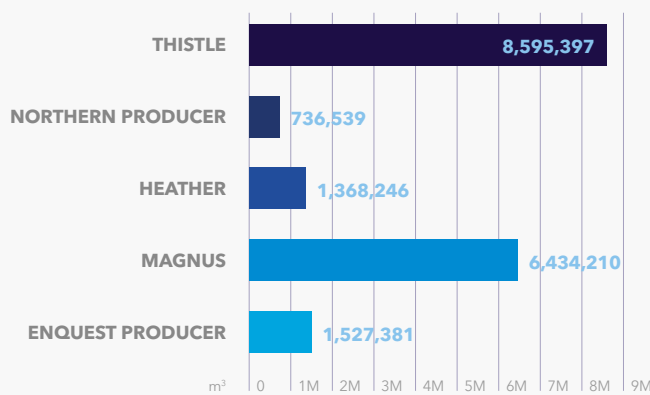


Figure 3a. above shows total volume of produced water discharged to sea during 2018.

Oil in produced water discharged to sea (tonnes)

FIG.3b

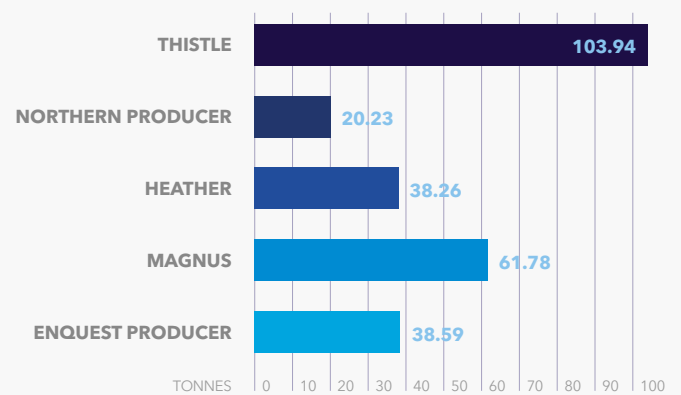


Figure 3b. above shows oil discharged to sea via the produced water stream during 2018.

Total chemical use (kg)

FIG.4a

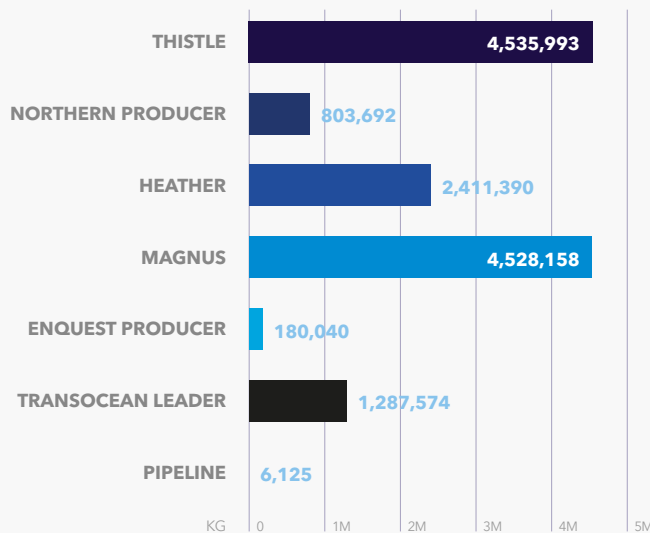


Figure 4a. above shows total chemical used during 2018.

Total chemical discharge (kg)

FIG.4b

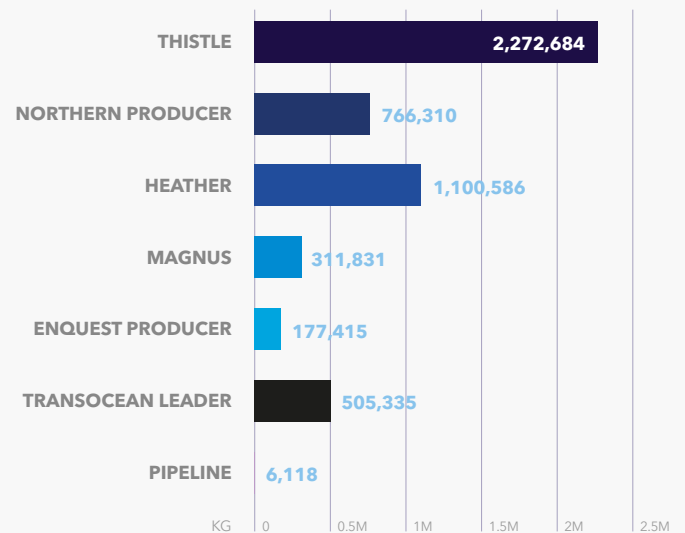


Figure 4b. above shows total mass of chemicals discharged to sea via the produced water stream during 2018.

Spills

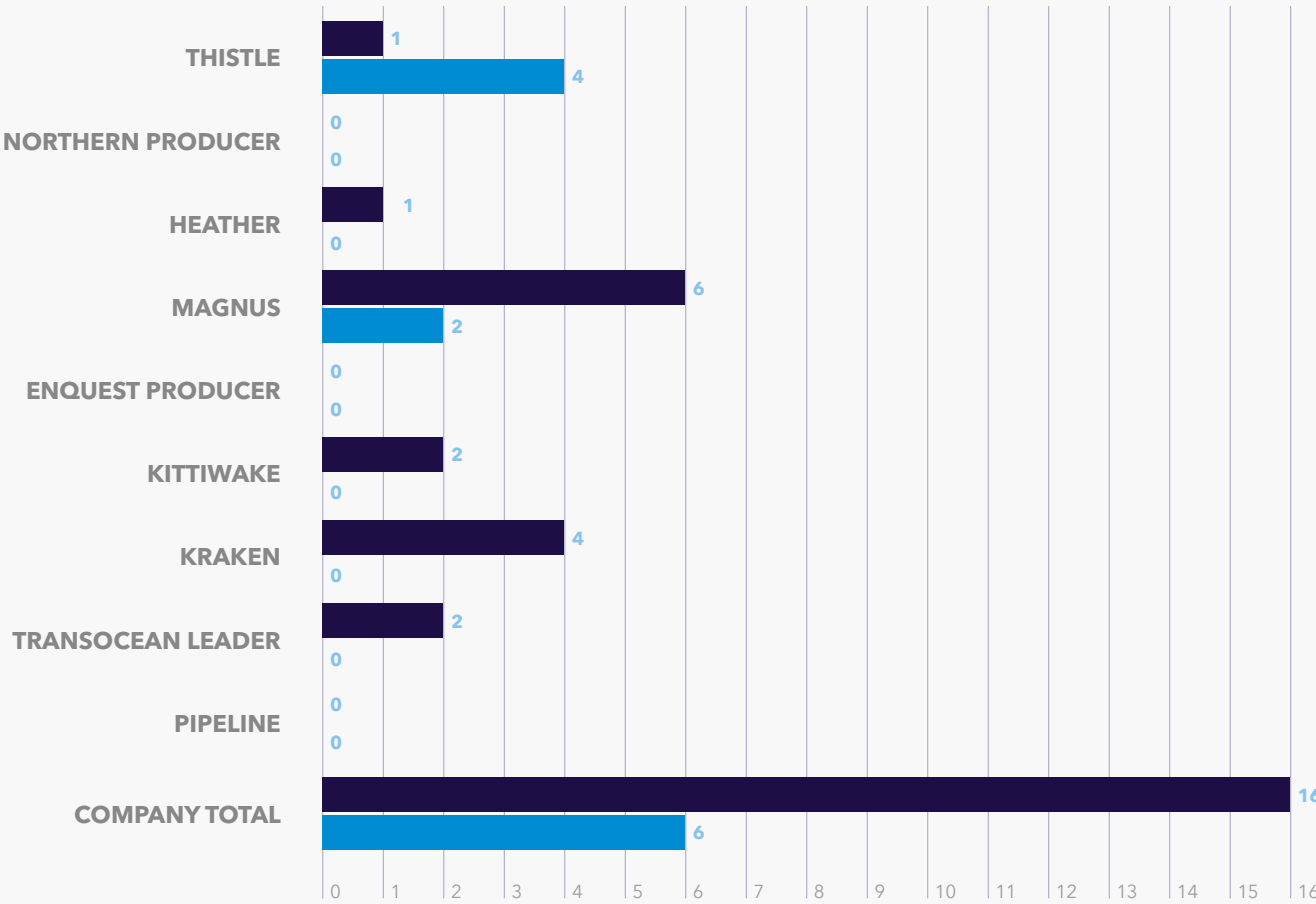
As spills at sea can have consequences for the marine environment, we work to minimise the risk with a focus on prevention. We have BEIS OPRED approved oil emergency pollution plans in place across all our assets and are a member of Oil Spill Response Limited, the world’s largest spill response organisation.

Number of spills

All spills to the marine environment, regardless of volume, must be reported to BEIS OPRED via a PON1. Figure 5 (below) details the number of PON1s submitted to BEIS OPRED during 2018.

Number of spills during 2018

FIG.5



Excludes permitted discharge notification

Hydrocarbon Chemical

Figure 5 details the number of spills to sea originating in 2018 from across our operations.

18 Spill quantities

Mass of spills during 2018

FIG.6

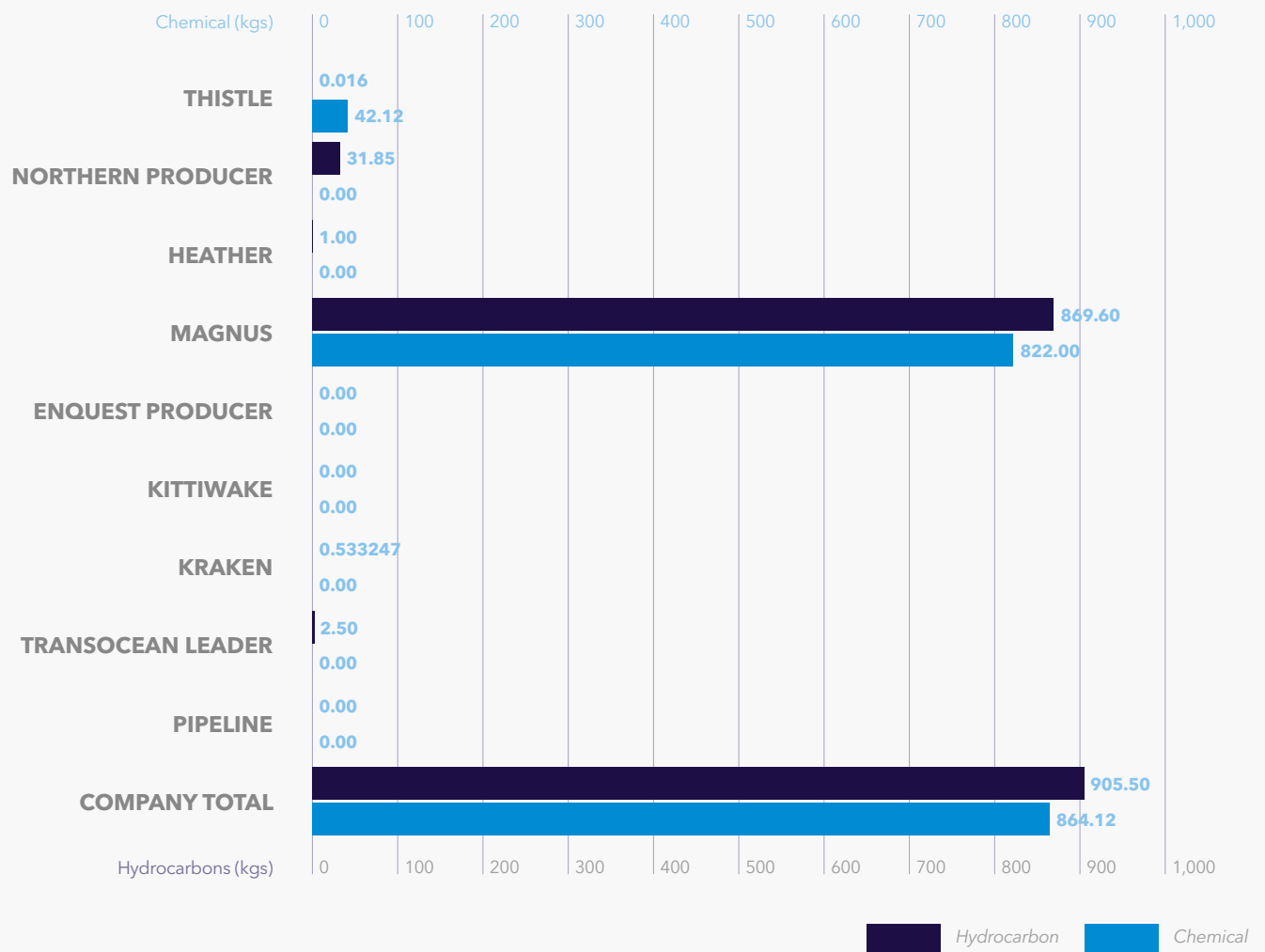


Figure 6 details the total volume of hydrocarbon or chemical spills originating in 2018 from across our operations.

Mandatory carbon reporting

Under the Companies Act 2006 (Strategic and Director’s Reports) Regulations 2013, EnQuest were required to report its annual greenhouse gas (GHG) emissions in its Directors’ report. EnQuest’s 2018 GHG emissions were externally verified in March 2019. The charts below provide detail of all our assets GHG emissions expressed as a CO₂ equivalent.

GHG emissions by asset

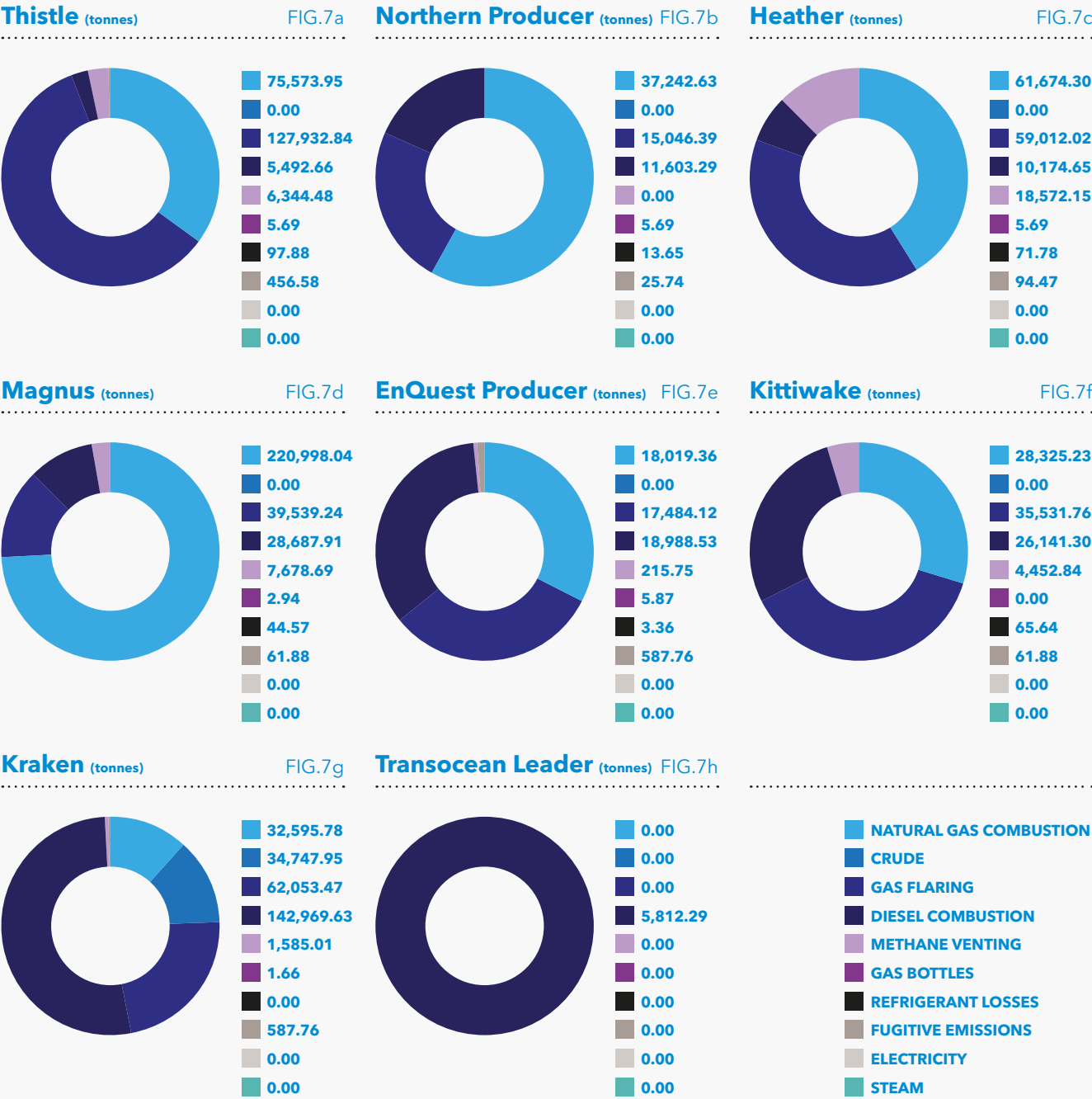
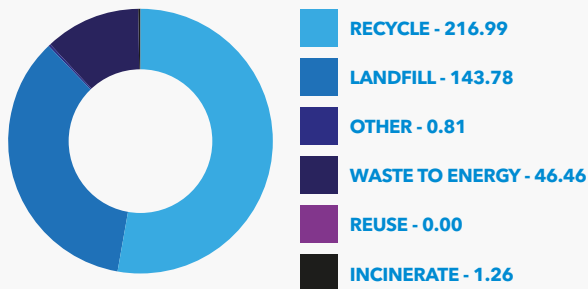


Figure 7 above shows the greenhouse gas emissions by asset in 2018.

20 Operational waste by asset

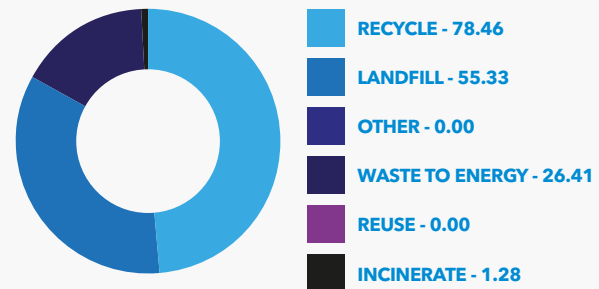
Thistle - waste (tonnes)

FIG.8a



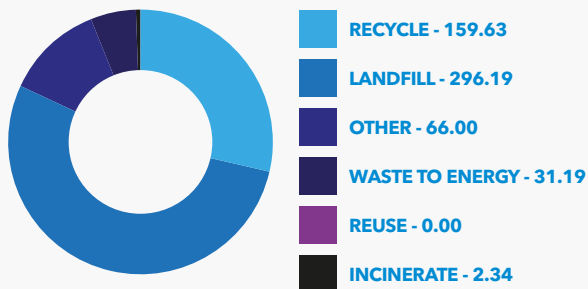
Northern Producer - waste (tonnes)

FIG.8b



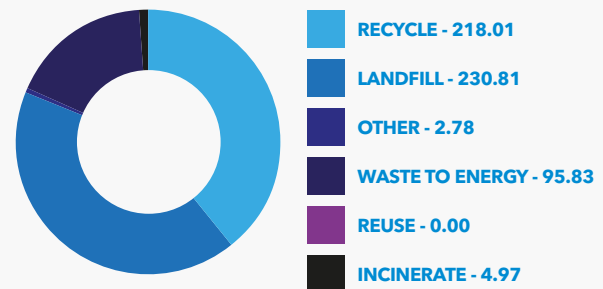
Heather - waste (tonnes)

FIG.8c



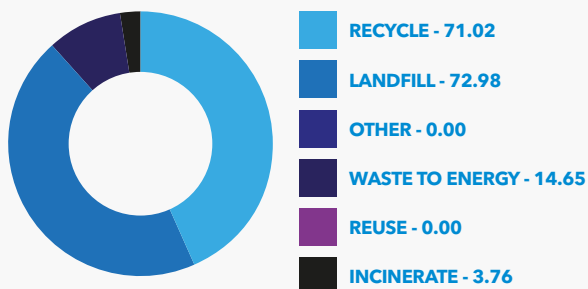
Magnus - waste (tonnes)

FIG.8d



EnQuest Producer - waste (tonnes)

FIG.8e



Transocean Leader - waste (tonnes)

FIG.8f

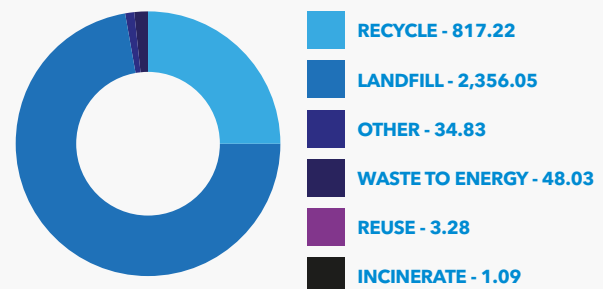


Figure 8 charts above shows the destination of waste that is generated on EnQuest assets, including the drilling rig in 2018.

LOOKING FORWARD

AS A MATURE PROVINCE, THE UKCS PRESENTS ITSELF AS A CHALLENGING PLACE TO WORK. LOOKING FORWARD TO 2019, ENQUEST IS COMMITTED TO FURTHER IMPROVING ITS ENVIRONMENTAL PERFORMANCE



22 2019 Continual Improvement Plan

EnQuest remains committed to improving our environmental performance.

The HSE&A Continual Improvement Plan ('CIP') describes our improvement initiatives; what we will do to achieve them and how we will measure success. Specific objectives, targets and actions are developed and cascaded to all levels within the organisation. The Environmental Team Lead provides input to the development of the CIP by using the current performance data together with significant environmental aspects and impacts to guide focus areas.

The key Environmental Control objective for 2019 is to:

- Improve Environmental Management System Understanding;
- Improve EU ETS understanding through the business;
- Reduce the number of Environmental Incidents.

Across our assets we continue to raise awareness of environmental legislation and permit conditions to prevent permit non-compliances. An Environmental Compliance manual has been developed and will be rolled out across the company, to explain the roles and responsibilities pertaining to environment permit obligations and risks associated to our activities and how to control and measure them.

We continue to investigate any spills to sea and permit non-compliances to identify root causes and implement improvement actions.

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