SPIRIT ENERGY

ENVIRONMENTAL PERFORMANCE REVIEW 2018

FOREWORD

I am delighted to present Spirit Energy's Environmental Performance Review for 2018, our first full year of business as one of Europe's top independent oil and gas operators..

As a newly-incorporated oil and gas operator, Spirit Energy's vision is to add value as an independent and sustainable oil and gas business in Europe, and I look forward to seeing the teams across our operations deliver that vision in the years ahead.

With the combination of Centrica's exploration and production business and Bayerngas Norge completing in December 2017, the focus of this review is predominantly on the performance of the legacy Centrica assets. Despite significant changes to the business the focus on safe and compliant operations remained unchanged throughout the year.

Spirit Energy's first full year of operations was a busy one, with our teams across the UK, Norway, the Netherlands and Denmark producing nearly 47 million barrels of oil equivalent (mmboe) and progressing combined reserves and resources of 780 mmboe across nearly 150 exploration licences towards potential development. 2018 also marked our first entry into the West of Shetland region, with a 50% farm-in to the Greater Warwick Area and a three-well drilling programme taking place this year in one of the last known world-class oil development opportunities in the UK. We also took on operatorship of the Babbage field in the Southern North Sea and made great progress on the development of the Oda field in Norway, which thanks to the hard work of our teams and close collaboration with our supply chain came online early and under budget earlier this year.

We are active throughout the life cycle of our assets, and last year we also progressed our decommissioning campaign by abandoning 11 North Sea wells.

Although Spirit Energy is only just over a year old, the commitment of our predecessors – Centrica's exploration and production business and Bayerngas Norge – to safe operations for our people and for the environment is as strong as ever. Working closely with the rest of the industry, including our fellow operators and supply chain partners, the safety of our people and our environmental responsibilities remains foremost in our minds.

Gerry Harrison

EVP HSE and Non-Operated Production

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HEALTH, SAFETY, ENVIRONMENT AND SECURITY POLICY

At Spirit Energy creating an incident free workplace is our top priority. All employees and business partners are required to comply with this policy and our commitments outlined below.

We are committed to:

Assessing, understanding and managing our HSES risks and impacts

Enabling the creation of a positive culture holding each other accountable, helping us to: achieve our HSES goals; support business growth; and realise our vision of an incident free workplace

Proactively supporting employee health and safety, seeking ways to protect the environment, including the prevention of pollution, efficient use of resources and the reduction of waste and carbon emissions

Empowering and encouraging personnel to work in a safe way

Intervening if we believe that the work environment or task is unsafe or may cause environmental damage, or we see an unsafe act

Learning from our successes and incidents, and freely sharing lessons with business partners

Working with stakeholders, suppliers and business partners in the pursuit of good practice in HSES

Continually improving and setting measurable objectives and targets in business plans to enhance HSES performance

Developing and testing prioritised incident response and recovery plans to protect our people, the environment and minimize business impact

Ethically conducting our business and complying with regulatory and other applicable requirements

Our HSES management system enables the delivery of these policy commitments, is structured in line with recognised good practice, and is routinely assured. Independent certification to ISO 14001 shall be maintained for our environmental material operations.

Our performance is reviewed regularly and relevant results published.

Chris Cox

Chief Executive

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OUR OPERATIONS

Our operations are organised into three asset groups – the North Sea (including facilities in both the UK and the Netherlands), Morecambe Bay and Norway.

This review covers the 2018 performance of the operated assets which are within the OSPAR region.

North Sea Assets

Our operated assets in the North Sea include the Chestnut oil field, located in the central part of the UK North Sea, which has been in production since 2008 and is produced via the Hummingbird Spirit floating production, storage and offloading (FPSO) vessel. In the Southern North Sea, operated assets include facilities in the Netherlands and UK sectors, such as the manned fixed platform at J6-A and the not permanently attended installation (NPAI) at Babbage, where we became operator in December 2018. Our portfolio also includes seven further NPAIs and one subsea asset.

In addition to routine operations at these facilities, in 2018 carried out drilling operations at Chiswick in the Greater Markham Area and commissioned equipment to reduce NOx emissions from the J6A installation. Our activities also included progress on decommissioning the A Fields (Alison, Annabel, Ann and Audrey), while F3-FA also ceased production in June 2018. During the year, the owner of the Hummingbird Spirit FPSO, Teekay, also took on responsibility for environmental permits at the Chestnut field.

Morecambe Assets

The combined fields of Morecambe Bay continue to provide a significant portion of the UK's gas supply, having produced more than 6.5trillion cubic feet of gas for UK homes and businesses since coming on stream in 1985. The asset also includes the Barrow Gas Terminal, which processes all the gas from Morecambe Bay.

The Morecambe Bay fields are produced via three bridge-linked platforms, forming the Central South Morecambe installation, as well as seven NPAIs and two subsea tiebacks.

Brownfield modifications were carried out on two NPAIs in Morecambe Bay in 2018, DP6 and DP8, reducing maintenance requirements on both platforms. Following work to reroute all gas formerly processed at the South Morecambe Terminal at the Barrow Gas Terminals to the nearby North Morecambe Terminal, work to remove redundant equipment at the South Morecambe Terminal has now begun.

Norway Assets

Operated assets in Norway include the producing Vale field, which flows back to the Statoil Heimdal platform, while the Oda field also came on stream ahead of time and under budget in March 2019 following development drilling in 2018. During the year we also carried out exploration drilling at the Cassidy, Scarecrow (Barents Sea) and Tethys prospects. In our non-operated portfolio, our interests include stakes in major Norwegian fields such as Statfjord, Kvitebjørn, Heimdal and Valemon

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OUR ENVIRONMENTAL MANAGEMENT SYSTEM

The Spirit Energy Environmental Policy outlines our responsibilities in relation to environmental stewardship and our comittment to continually improve our environmental performance. The environmental management of our operations are integrated within health and safety as well as the business management activities. This integrated system ensures the embedding of environmental requirements into business practices for maximum benefit.

The following key impacts and risks are managed within routine operations:

- Carbon dioxide emissions from power generation and flaring
- Oil discharged in produced water
- Chemical use and discharge to sea
- Waste generation and disposal
- Unplanned events – emissions, discharges and permit non-compliances

Performance is reported to the regulators and within Spirit Energy to operations and senior management and a number of other forums such as to the Carbon Disclosure Project. Performance data is also available on one of our sharholders website (www.Centrica.com).

Improvements in performance are planned and managed within the annual improvement planning cycle. These improvements are approved by senior leadership and aligned with business operational plans. Maximum benefit from strategic initiatives and improvements can be achieved across the exploration and production buisiness through this planning process.

The activities in our operated assets from exploration to decommissioning are certified to the Environmental Management System ISO14001[1]. Our ISO14001 certificates were transitioned to the 2015 standard prior to the deadline in 2018.

This report summarises the performance and initiatives of Spirit Energy's exploration and production operations in 2018 and the planned improvements in 2019 as required by OSPAR[2].

[1] ISO 14001 is an internationally recognised standard for environmental management systems

[2] OSPAR Recommendation 2003/5 to Promote the Use and Implementation of Environmental Management Systems by the Offshore Industry

OUR PERFORMANCE

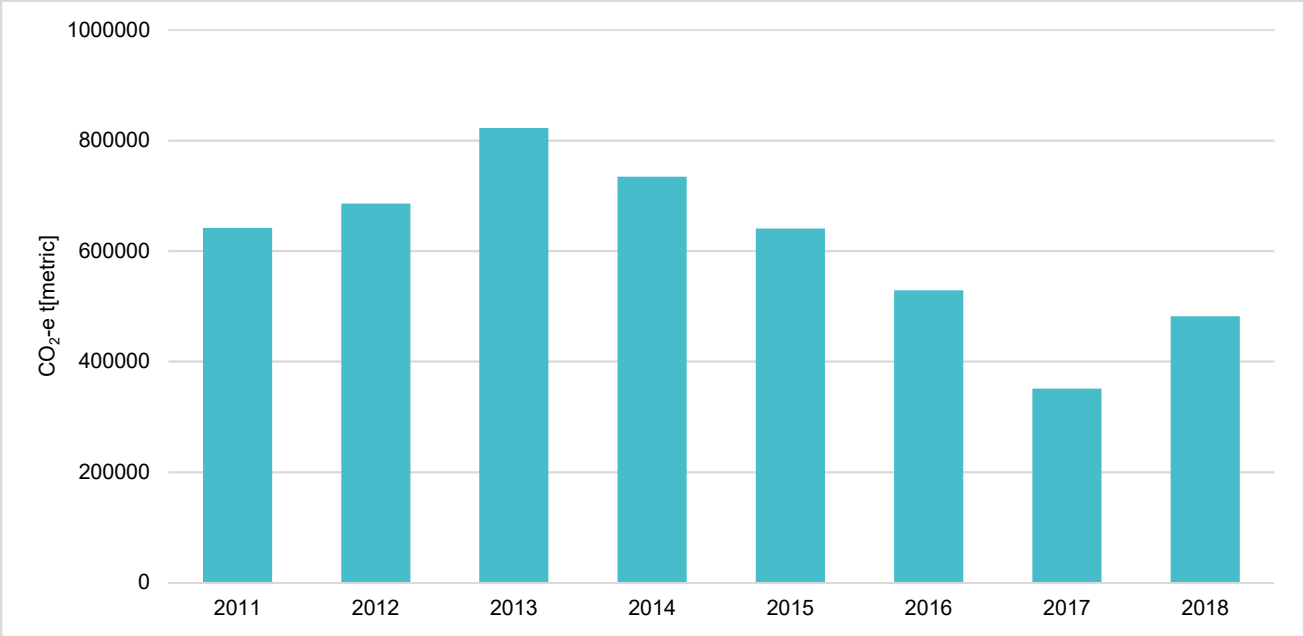
The environmental performance of our activities in 2018 is summarised below and presented in detail in the Appendix.

Carbon dioxide emissions

The emissions from our offshore and onshore installations are shown from 2011 to 2018 in Figure 1 and in Figure 2 for our higher emitting facilities. Emissions data for all of our operated assets are in the Appendix.

The majority of emissions to atmosphere from our installations are from gas-fired turbines used for power generation and gas compression. The lack of process and compression equipment on the smaller NPAIs results in considerably lower emissions from these installations.

Figure 1 – Historical carbon dioxide emitted (EU ETS)

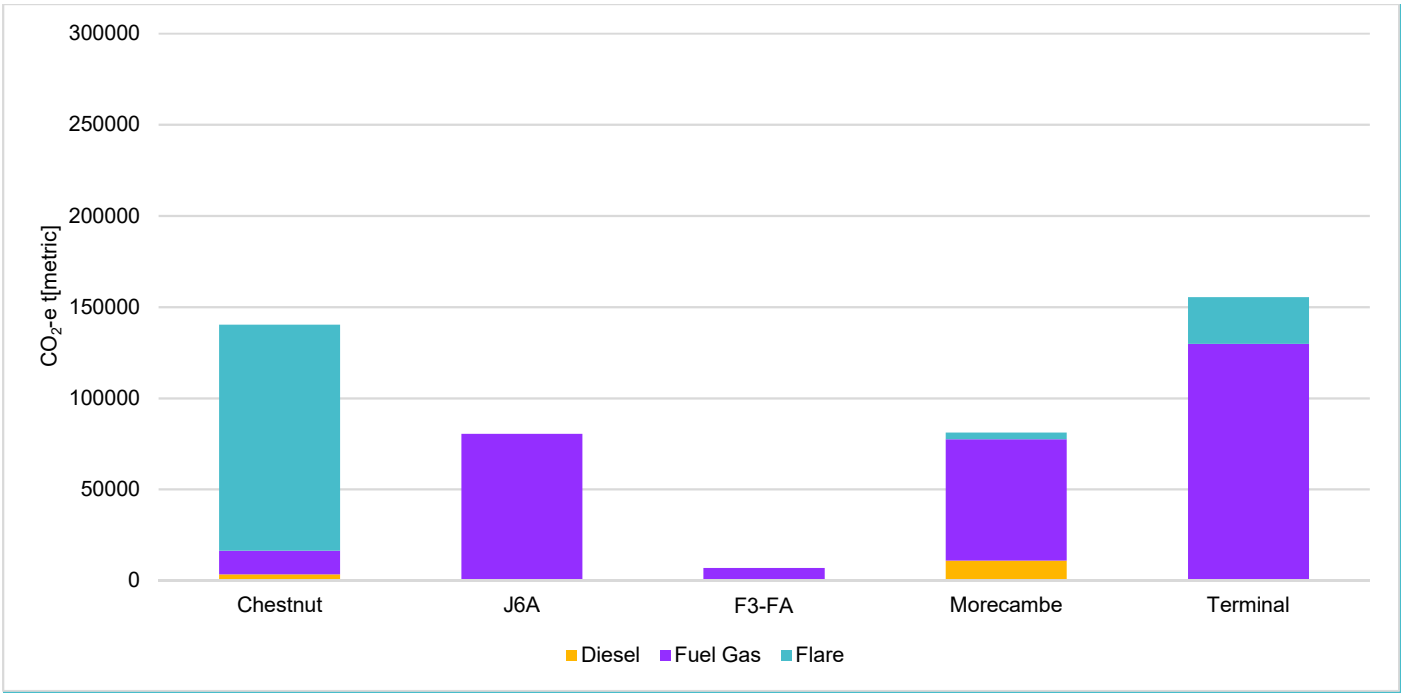


In 2018, the asset emissions were impacted by the following:

- Production at Morecambe in 2017 was unusually low due to extended shutdown. The increase in emissions in 2018 reflects the return to normal production levels.
- Reduced production and emissions at F3-FA due to stopping gas production.
- Increased emissions at Hummingbird Spirit FPSO due to production from the additional well at Chestnut.

Carbon dioxide from the combustion emissions at the Hummingbird Spirit FPSO (Chestnut field), Morecambe Bay, J6-A in the Greater Markham Area (GMA) and the Barrow Gas Terminals are part of the EU Emissions Trading System (EU ETS). In 2018 Chestnut, Morecambe and the Barrow Gas Terminals met the ETS free allowances limits.

Figure 2 – Carbon dioxide emitted in 2018



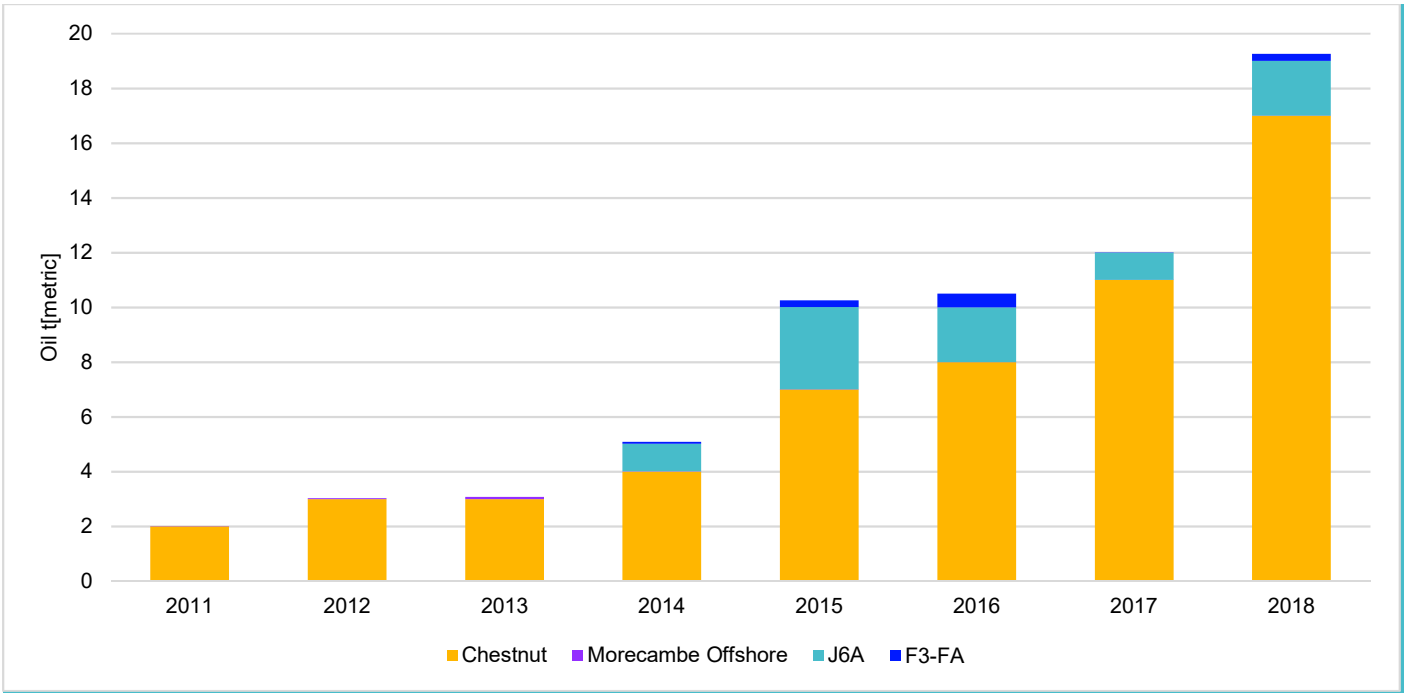
Oil discharged in produced water

Oil is discharged to sea in produced water following treatment at the Hummingbird Spirit FPSO (Chestnut field), South Morecambe, J6-A and F3-FA facilities. The total oil in produced water discharged from these facilities over the past seven years is shown in Figure 3.

The oil discharged in produced water from our assets has continued the increasing trend. In 2018 we discharged more of oil to sea in produced water than 2017 due to:

- Production upsets on J6A resulted in discharges of oil in produced water in exceedances for three months of 2018. The discharge of oil has been managed through process stabilization and filtration of the water prior to discharge. The oil in water discharges are Field tests and the re-engineering of the produced water system are planned for 2019.
- Flowback from acid wash and scale squeeze from the Chestnut reservoir resulted in exceedences of the oil to sea limits on the permit.
- Addition of production from a third well at the Chestnut field.

Figure 3 – Oil discharged to sea 2011-2018



Chemical use and discharge to sea

The amount and type of chemicals used for our offshore operations differ depending on the activities and reservoir types, for example the rock type to be drilled, well design and production functions.

The majority of the substitution or red chemicals are permitted for contingency use in the well activities and on the Hummingbird FPSO for Chestnut, however only a small amount these chemicals were discharged. Work continues to identify replacement products across our activities and is summarised for the UK in the review of the technical justifications for chemicals flagged for substitution carried out within Spirit Energy.

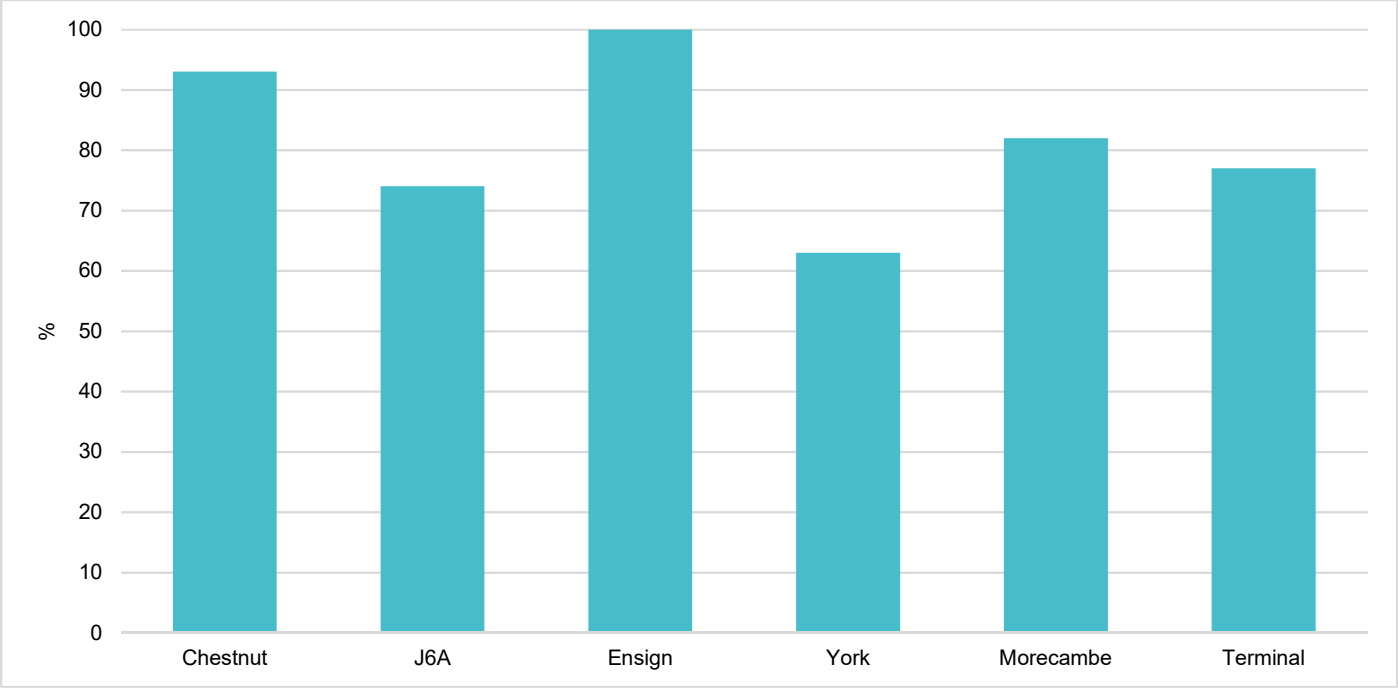
Waste generation and disposal

Waste is a key area for environmental impact, from the potential for contamination from hazardous wastes to long term impacts of waste such as plastics in our environment. As decommissioning activities including well plug and abandonment are increasing in frequency we are working with the operations to minimise the production of waste e.g. through disposal of cleaning fluids downhole and reduction of packaging materials taken offshore.

The average recycling[3] percentage of all production, well operation development and decommissioning projects in 2018 was 85%. We continued the focus on waste production and management in production, wells and projects in 2019.

[3] Reuse, recycling and waste to energy

Figure 4 – 2018 waste recycled from producing installations



Unplanned events

In 2018 there was 14 releases to sea, an increase from 8 in 2017, however there were four less permit non-compliances a decrease from 18 in 2017 to 14.

Spills to sea

A total of 4814.5 l was released to sea from Spirit Energy assets in 2018, eight oil (<21.5 l) and six chemical (4793 l). The largest spill was 3500 l of non-black/red chemical base oil during the exploration drilling at the Fogelberg well in Norway. Eight of the other releases to sea were hydraulic oil/fluid and ranged from 400l as a result of maintenance of a subsea well to 0.001 l. The remaining small releases occurred during bunkering/loading operations or were issues with secondary containment. Investigations were carried out into all the releases and lessons learnt captured where appropriate e.g. equipment changeout and increase in assurance activities.

Other regulatory non-compliances

Of the 14 non-compliances submitted in 2018, only two were against the chemical regulations in the UK which is a decrease from 2017. The two were due to the use of a chemical in a flushing operation that wasn't permitted for that specific operation. The operation was part of a multi-activity vessel mobilisation and has been addressed through increasing assurance.

The 12 remaining non-compliances comprised 12 OPPC and one EU ETS issue with contaminated gas samples. The 11 oil-to-sea non-compliances included 8 operational issues (seven at the Chestnut Hummingbird FPSO and one on J6A in Netherlands) plus three administrative oversights. The Chestnut issues were due to the processing of returns from an acid wash and the volume of water being processed during that time. The J6A problem was due tot eh ongoing produced water issues on that platform. In future intervention activities we will increased assurance in relation to the treatment of slops.

All events have been investigated and addressed at both asset and cross asset basis to ensure learnings are captured for Spirit Energy.

Onshore Performance

Barrow Gas Terminals

The Barrow Gas Terminal operates under an Environment Permit which is regulated by the Environment Agency (EA) and an annual performance report is submitted to the EA for the site.

Emissions to air from the process and discharges to water are monitored and managed within the limits specified in the permit. Any deviation from these limits is investigated to prevent a reoccurrence.

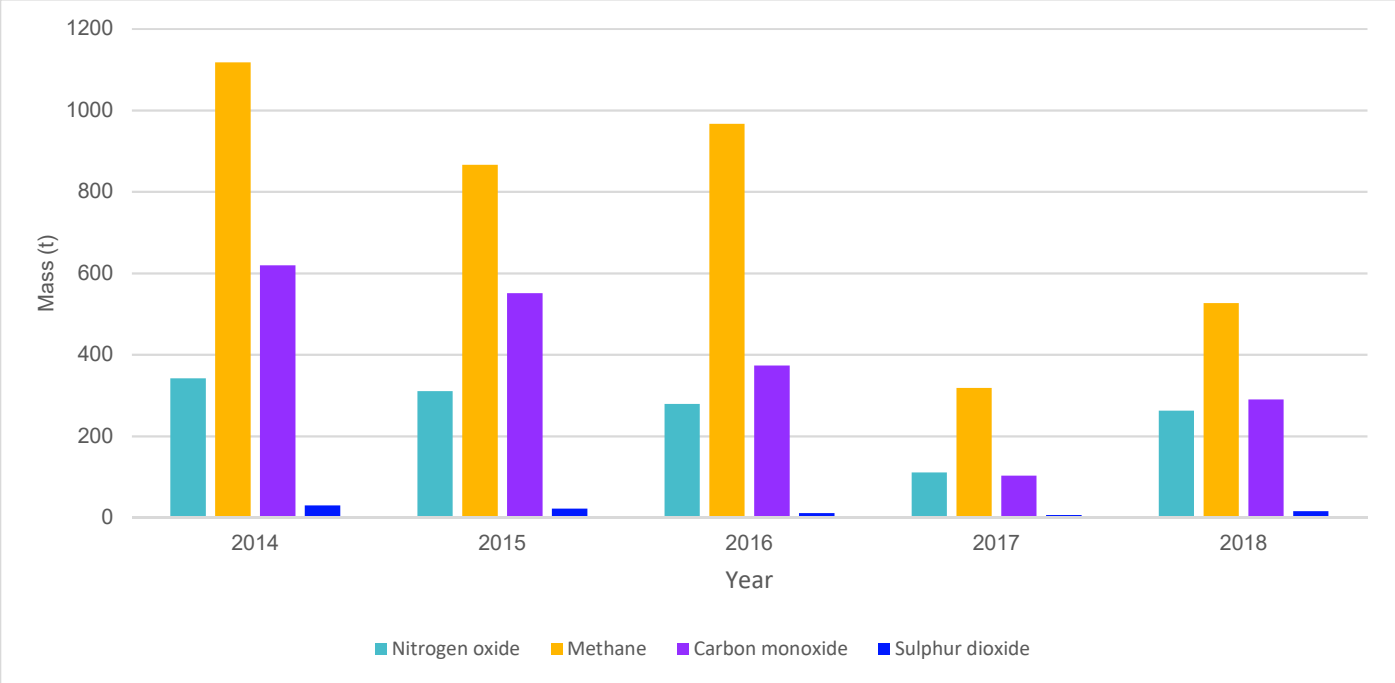
In 2018 there were three notifications to the EA following environment events on site.

- A notification was submitted in June following a breach of the emission limit for carbon monoxide from the Rivers Acid Plant. This was due to a fault on the combustion air system to the acid plant incinerator.
- In July a notification was submitted following a small isolated fire in a UPS system cabinet isolated fire on North Morecambe Terminal.
- In November a notification was submitted after the rear door of waste vacuum tanker accidentally opened and the non hazardous contents of the tanker were spilt and contained on site with no impact on the surrounding environment.

The £11.2m project to install a Catalytic Convertor to treat the nitrogen oxide emissions from the North Morecambe Terminal Field Gas Compressor was due to be commissioned in late 2018, however this was delayed until early 2019. This will reduce the emissions of NOx and CO from the Field Gas Compressor, which is the largest source of these emissions on site, by over 80%.

Emissions to air from the Barrow Gas Terminals have been decreasing year on year as shown in the graph below due in part to the amalgamation of the two terminals into one. The decommissioning of the South Morecambe Terminal was continued in 2018 and is expected to be completed in 2019.

Figure 5 – Emissions of Nitrogen oxides, methane carbon monoxide and sulphur dioxide from the terminal



Case Study: Barents Sea

This summer our exploration well, Scarecrow, in the Barents Sea was drilled using the Island Innovator rig. This drilling operation was the result of two years of planning and assurance from drill and relief well plans, chemical use and discharge, spill prevention and oil spill response planning to engagement with non-governmental organisations due to the location. This detailed preparation and focus from the drilling team including the rig crew resulted in an incident-free operation at the Scarecrow location.

Case Study: Location

Whilst the well location in 500 m water depth was in the northern part of the Barents Sea, 138 km south-west of Bjørnøya and 310 km north of Hammerfest. An area which has seen previous exploration and production activities and it is a shipping route.

The polar front and ice margins are areas of elevated biological production, and therefore an important feeding area for various groups of organisms. Our well location was distant from this area and the well was drilled in the spring/summer which presents a lower risk or impact.

Bjørnøya is home to some of Europe's largest breeding colonies of seabirds. The main environmental challenges for the area are the proximity to important foraging areas for seabirds at Bjørnøya during the breeding season and to the polar front and marginal ice zone.

No location specific conditions assigned by the regulator for the license.

Case Study: Bird Migration

There is a lack of knowledge about presence and distribution of auk birds in summer when they are not capable of flying (moulting) and perform swimming migrations. We decided to take the opportunity while we were in the area to monitor, identify, register and report on all present seabirds (and mammals) in the drilling area every 6 hours to supplement the scientific data set.

Monitoring of the guillemot and Brünnich's guillemot during the Scarecrow campaign revealed that the migratory route of these species indeed passes through this central part of the Barents Sea, and that the birds spend about one week to get there from Bear Island.

This is important and valuable information both for research purposes, as well as input for future drilling campaigns in the area.

Spirit Energy is also sponsing a research program, SEATRACK, aiming to map the migration routes and the overwinthering locations for sea birds. Further information is found here: http://www.seapop.no/en/seatrack/

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2018-2019 ENVIRONMENTAL IMPROVEMENT PLANS AND PERFORMANCE

	Initiative	Progress
Risk management – environmental integrity	Continued cross-asset focus on the management of regulatory compliance.	Increased assurance of the inspection and maintenance activities was carried out in 2018 on spill prevention, chemical and oil management and oil spill response. Audits will be carried out on atmospheric emissions in 2019.
Reporting and Performance	Common reporting system across the E&P business and review all performance metrics.	The standalone online observations reporting tool is now embedded in throughout the business. In 2018 we planned enhancements to our internal reporting tool to streamline our internal reporting and will be implementing these in 2019.
Awareness and training	Improvements in environmental awareness across North Sea and Morecambe assets	The process for learning from events inclugin distribution of environmental messages is embedded in the buisiness and distributed to operations as applicable. The use of the Energy Institute modules has been implemented both for Spirit Energy staff and contractors e.g. for rig or vessel activities. The access to the modules will be further embedded in the competency management systems in 2019
Carbon/energy management	Development of carbon savings and energy efficiency opportunities	We continued reporting the carbon intensity of our major emitting installations in 2018. The ESOS reviews will be conducted on the Morecambe assets again in 2019 and will highlight opportunitites for energy efficiency.
Waste management	Development of waste key performance indicator and opportunities for improvement.	A cross asset waste KPI was developed and reported to the assets throughout 2017 and 2018. This has provided better understanding of our waste production. We will be focusing on the waste to energy, landfill and liquid treatment in 2019.
ISO14001 Compliance	Transfer to the 2015 ISO14001	The remaining two ISO 14001 certificates were transitioned in 2018.

APPENDIX

Performance Data

	Morecambe		North Sea					Norway	
Key indicator	**South Morecambe**	**Total of 7 NPAIs and subsea infrastructure**	**Chestnut**	**J6-A**	**F3-A**	**Total of 6 NPAIs and subsea infra-structure**	**Wells and Projects[2] Operations**	**Vale**	**Well Operations**
Annual average oil in produced water mg/l	4.5	N/A	25.1	20.7	7.3	N/A	N/A	N/A	N/A
Tonnage of oil in produced water to sea	0.002	N/A	16.6	2.31	0.25	N/A	N/A	N/A	N/A
CO_2 from combustion for power generation and compression (t)	78,249[1]	N/A	18,163[1]	80465[1]	6579	649	N/A	N/A	7318[1]
CO_2 from flaring (t)	2,831	N/A	124,759	N/A	N/A	N/A	N/A	N/A	1724
Number of substitution chemicals permitted *	3		5[3]	0	0	2	6	1	22
Amount of permitted chemicals discharged (t)	18		104.1	475.9	11.7	185	1763	0	3854
Percentage of permitted chemicals discharged with a SUB warning (%)	0%		56.8[3]	0	0	0	0.13	0	0.1
Waste amount (t)	836		60	144	Included in J6A	61	1312	N/A	296
% of total waste reused/recycled/waste to energy	88%		93	74	Included in J6A	76	97	N/A	100

1 ETS Verified Data

2 Project data included

3 Note that all chemical use is to end Q2 when Teekay took over the chemical permit

4 Norwegian chemcial classification is red.

The NPAIs have no discharge of produced water to sea and the power generation on the facilities is diesel driven below 20MW which produces limited emission. Subsea infrastructure emissions/discharges and waste are managed via the host installations unless there is an intervention activity at the subsea location.

Unplanned event data

	Morecambe		North Sea					Norway	
Key indicator	**South Morecambe**	**Total of 7 NPAIs and Subsea Infrastructure**	**Chestnut**	**J6-A**	**F3-A**	**Total of 6 NPAIs and Subsea Infra-structure**	**Wells and Projects**	**Vale**	**Well Operations**
Number and total litresof oil released to sea	3 (0.251l)	2 (0.505)	1 (<0.001l)	1 (20l)	0	0	1 (0.6l)	0	0
Number and total litres of chemicals released to sea	1 (120l)	1 (0.9)	0	0	0	1 (1091.5l)	1 (0.297l)	0	2 (3580l)
Number of environmental permit non-conformances	2	0	6	2	0	1	3	0	0

Morecambe Other = Five DP, Calder and Millom West NPAIs, subsea infrastructure for Rhyl and Dalton

North Sea NPAIs = Ensign, York Chiswick, Grove, A-fields and Babbage (December only)

North Sea Subsea Infrastructure = Trees, A-Fields, Eris/Ceris, Seven Seas, Kew

Our fields are produced back to the following facilities:

- A-fields back to Conoco-Phillips LOGGs platform
- Trees fields to the Marathon Brae Alpha platform
- Vale field to the Statoil Heimdal platform.


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