REPSOL SINOPEC RESOURCES UK

2018 ENVIRONMENTAL STATEMENT

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Repsol Sinopec Resources UK Limited strives to provide a reliable, safe and efficient energy supply, and to continuously improve to meet the demands of the current challenges within the oil and gas industry whilst delivering environmental performance that meets or exceeds regulation.

In 2018 we continued to deliver improvements across nearly all aspects of the business; including safety, production efficiency, operating costs, lifting costs, and a reduction in our decommissioning liability. These improvements have not stopped us from operating in an environmentally responsible and transparent manner. To ensure this we actively monitor and audit ourselves, both internally and independently.

Overall greenhouse gases (expressed as equivalent CO_2) reduced in 2018. This trend is due to the aforementioned performance improvement that has resulted in fewer production upsets and a gradual decline of production potential.

The UK Environmental Regulator (OPRED) places strict limitations on both the quantity and concentration of oil discharged in produced water. While 2018 saw an increase in the average oil in water concentrations from our facilities, the total mass of oil that was discharged to sea reduced from 2017 to 2018. It should be noted that the Company's oil in water performance still remains well below the regulatory limits. In parallel, the Company continues to develop and implement produced water improvement plans.

The total mass of production chemicals used and discharged to sea are reported under the Offshore Chemicals Regulations (OCR). In 2018 the Company's mass of chemicals discharged to sea reduced overall.

The number of accidental oil and chemical spill incidents also reduced in 2018; however, the total cumulative mass of these spills increased. It should be noted that a significant proportion of this is due to subsea hydraulic control chemicals that, by design, are likely to have little or no environmental impact.

In Q3 2018 we managed the changeover of our waste management vendor, and worked closely with the new vendor and waste management companies to formalise and build a proactive working relationship. Ultimately, our level of waste is linked to the level and type of operations conducted. Whilst 2018 was a very busy year, with major shutdowns, maintenance and modifications campaigns, we successfully reduced the volume of waste sent to landfill.

Overall, we continue to operate a challenging portfolio of ageing assets, but are continuing to deliver year on year performance improvements across the business. Our environmental performance remains central to this.

Darren Stoker

Chief Technical Officer

UK OPERATIONS

Fields and Installations

Our principal UK operating areas, (shown below) encompasses a total of 51 fields, 11 operated assets and 2 onshore teminals detailed in Tables 1 and 2.

Oil & gas production

Oil reservoirs contain a mixture of oil, water and natural gas. A primary purpose of an offshore production platform is to separate out the extracted 'well fluids' into these three separate components using separation vessels. Once the oil has been separated from the gas and water, it is pumped to shore via subsea pipelines; or, in the case of oil from the Ross and Blake fields, shipped to shore. The gas is dried and then compressed. Some of the gas, where possible, is used to generate power to run the process equipment on site and the remainder of the gas is exported via pipeline to the UK mainland (see Table 1), used for gas lift, or flared.

The proportion of oil, gas and water produced from reservoirs changes over time. Oil and gas production will decrease and the volume of water will increase. The separated water, known as produced water, is managed, cleaned and processed to reduce oil droplets prior to discharge to sea.

Drilling

As the fields mature and more information about the reservoirs becomes available, more wells may be drilled or existing wells may be revisited. This can be done either from the platform, or with mobile drilling rigs. Geological information and production tests determine how many wells are needed to produce the oil and gas efficiently.

HYDROCARBON EXPORT ROUTES Table 1

Installation	Oil	Gas
Arbroath	Via Montrose	Via Montrose
Auk	Via Fulmar	N/A
Beatrice	Nigg Oil Terminal	N/A
Bleo Holm	Shuttle Tanker	Frigg Pipeline
Buchan#	Forties Pipeline	N/A
Claymore	Flotta Pipeline	N/A
Clyde	Norpipe Pipeline	St Fergus Line
Fulmar	Norpipe Pipeline	St Fergus Line
Montrose	Forties Pipeline	CATS Pipeline
Piper B	Flotta Pipeline	Frigg Pipeline
Saltire	Via Piper B	Via Piper B
Tartan	Flotta Pipeline	Frigg Pipeline

FIELDS & INSTALLATIONS Table 2

FIELD	BLOCK	INSTALLATION
Arbroath	22/18	Arbroath
Arkwright	22/23a	Arbroath
Auk	30/16	Auk
Auk North	30/16n,t	Fulmar
Beatrice	11/30a	Beatrice Complex
Beauly*	16/21	Balmoral*
Blake	13/24b	Bleo Holm
Brechin	22/23	Montrose
Buchan	21/01	Buchan#
Burghley*	16/22	Balmoral*
Carnoustie	22/17	Arbroath
Cayley	22/17s	Montrose
Chanter	15/17	Piper B
Claymore 14/19	14/19	Claymore
Claymore 14/20b	14/20b	Claymore
Clyde	30/17b	Clyde
Duart	14/20b	Tartan
Enoch*	16/13a	Brae*
Fulmar	30/16	Fulmar
Galley	15/23	Tartan
Godwin	22/17n & 22/17s	Arbroath
Halley	30/12b	Fulmar
Hannay	20/05c	Buchan#
Highlander	14/20	Tartan Alpha
Iona	15/17	Piper B
Leven	30/17b	Clyde
Medwin	30/17b	Clyde
Montrose	22/17	Montrose
Nethan	30/17b	Clyde
Orion	30/18	Clyde
Petronella	14/20	Tartan
Piper	15/17	Piper B
Ross	13/29	Bleo Holm
Saltire	15/17	Saltire
Scapa	14/19	Claymore
Shaw	22/22a	Montrose
Tartan	15/16	Tartan Alpha
Tartan North Terrace	15/16b	Tartan Alpha
Tweedsmuir	21/01a	Piper B
Wood	22/18	Montrose
Affleck*	30/19a	Clyde via Janice FPU*#
Andrew*	16/27a	Andrew*
Balmoral*	16/21b,c	Balmoral*
Blane*	30/03	Ula*
Cawdor*	30/13 & 30/14	Clyde
Flyndre*	30/13 & 30/14	Clyde
Glamis*	16/21a	Balmoral*
MacCulloch*	15/24b	North Sea Producer*#
Stirling*	16/21b,c	Balmoral*
Wareham*	98/06a,07a	Onshore
Wytch Farm*	98/06a,07a	Onshore

* Not operated by the company therefore data is not included in this report.
\# Installation no longer at location

ENVIRONMENTAL MANAGEMENT

The company has an integrated Safety and Environmental Management System (SEMS). The environmental elements of the system have been independently verified as meeting the requirements of the Oslo-Paris Convention (OSPAR) Recommendation 2003/5 to promote the use and implementation of Environmental Management Systems by the offshore industry.

Minimise impact and continuous improvement

Our environmental commitment, as outlined in our corporate HSE policy, is to minimise our impacts and always comply with the law or the company's standards, whichever are higher. All environmental aspects including climate change, air quality, water quality and waste are issues that receive constant attention to minimise our environmental impacts. The environmental impacts from oil and gas exploration and production activities have been minimised as far as practicable through the design of the installations and subsequent modifications made to plant and process.

We follow a 2-phase environmental management strategy

The first phase consists of the identification and characterisation of our environmental impacts to determine their significance and how to manage them. This considers local environmental sensitivities, company and legislative performance standards and stakeholder concerns.

The second phase involves the development and implementation of environmental management strategies that are integrated with business and operational systems, and are integral to all company performance improvement objectives: such as safety, installation integrity and security of supply.

Targets and objectives

Our Executive Committee sets annual environmental targets against which performance is tracked. Each is set with a view to achieving the overarching objective of continuous improvement. To ensure all of our installations work towards achieving the targets, a performance contract is agreed with the site leadership team and company personnel.


REPSOL SINOPEC
Resources UK

HEALTH, SAFETY & ENVIRONMENT POLICY

The Company Policy is to conduct our business in a manner that ensures we:

- cause no harm to people;
- minimise our impact on the environment;
- comply with regulatory requirements;
- choose safety over operational results;
- maintain a state of emergency preparedness.

The objectives of this Policy are to ensure we:

- always comply with the law or Company standards, whichever is of a higher standard;
- operate our business to ensure proactive risk mitigation and continuous improvement;
- set goals and targets, and measure performance against them;
- communicate openly with those who may be affected by our activities;
- strive to prevent all accidents and incidents, prevent pollution, use resources sustainably and capitalise on lessons learned;
- are able to respond to any foreseeable emergency.

SAFE OPERATIONS IN ALL COMPANY ACTIVITIES IS A CORE VALUE

If operational results ever conflict with this Policy, we all have a responsibility to choose compliance with this Policy over operational results and Repsol Sinopec Resources UK Limited will support that choice.

Bill Dunnett
Managing Director

Produced in-house by Document & Records Team
RSR-HSE-00-POL-COM-001.A01, Summary Extract of Company HS&E Policy
Effective January 2018

Our Corporate HSE Policy

Permits and consents

Our conduct in the North Sea is governed by a range of legislation and we are required to hold a number of permits and consents that authorise our operations. These permits and consents come with detailed operating conditions to which we must adhere.

We track and investigate non-compliance (permit breaches) to measure and continually improve the effectiveness of our systems, processes and procedures.

ENVIRONMENTAL MANAGEMENT BY DESIGN AND MAINTENANCE

Our installations are designed and maintained to minimise their environmental impact.

Primary impact mitigation measures have been integrated into the design of the facilities and include:

- Closed system processes to safely contain reservoir fluids in vessels and flow lines under all process conditions.
- Pressure, temperature, flow control and shutdown systems to maintain safe operating conditions at all times.
- Bunding of areas with a potential for spills.

Secondary defence measures are those that relate to the operation of the facilities and include:

- Corrosion prevention and monitoring programmes and preventative maintenance programmes ensure that vessels, flow lines, valves, fittings and equipment remain in a safe operating condition.
- Consideration of all potential accidental/emergency scenarios to ensure procedures and resources are in place for prevention, control and mitigation.
- Procedures to minimise operational leaks and spills and ensure availability of clean-up equipment to deal with spillages.
- Training of personnel to operate and maintain the above safeguards in good working order.

ENVIRONMENTAL PERFORMANCE

EMISSIONS TO ATMOSPHERE OF GREENHOUSE GASSES

The Company operates within the UK regulatory framework and actively supports, economic measures that will improve energy efficiency and reduce atmospheric emissions.

The extraction and processing of oil and gas is energy intensive. During normal operations, installations burn natural gas and diesel for power generation. Any extracted gas that cannot be used or exported has to be flared for safety reasons. The combustion of fuel results in the emission of CO_2 and other greenhouse gases (GHG). The level to which different GHG's contribute to Climate Change depends on the type of gas, for example 1 tonne of methane (CH4) has an effect on the atmosphere equivalent to approximately 21 tonnes of CO_2.

In order to comprehensively assess the impact of our operations, GHG's are combined and expressed as tonnes of CO_2 equivalent. CO_2e / 1000 BOE (Production Carbon Intensity) has also been used as an environmental measure of production efficiency from a climate change perspective.

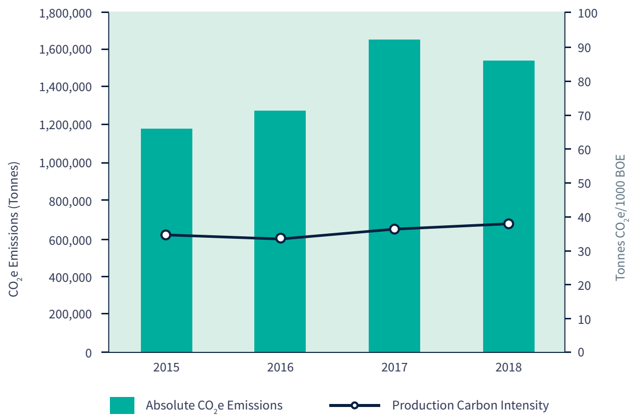


Figure 1
CO_2 Equivalent emissions and production intensity annual trend

Figure 1 shows a decrease in company level CO_2e emissions in 2018; CO_2 emissions from six of our thirteen installations in the portfolio contributing to this improvement. The remaining seven assets saw rises in their emissions. However, due to a small reduction in BOE exported carbon emissions per barrel of oil equivalent rose slightly in 2018.

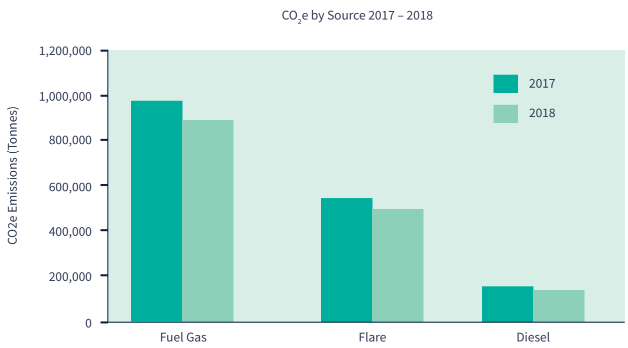


Figure 2
2018 CO_2 Equivalent emissions by source

Figure 2 shows the contribution of CO_2e from each source over the last 2 years. In 2018 emissions from each source have decreased overall.

The European Union Emissions Trading Scheme (EU ETS) is a trading system for CO_2 emissions arising from fuel combustion and flaring. **Figure 3** shows how each site performed against its Government allocated allowance or 'cap' in 2018. All Company sites emitted a greater mass of CO_2 than their allocated free allowance. In line with the requirements of the EU ETS, the shortfall was purchased through a designated mechanism so that these sites had sufficient allowances to account for their CO_2 emissions.

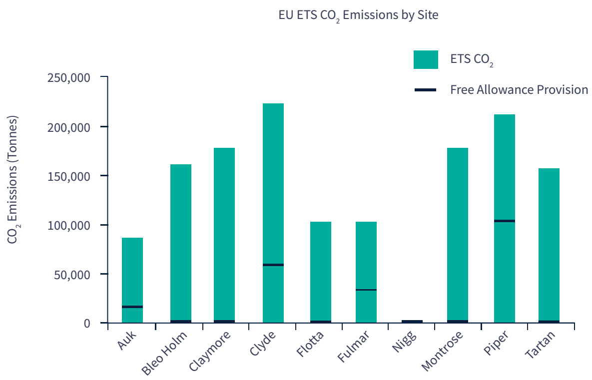
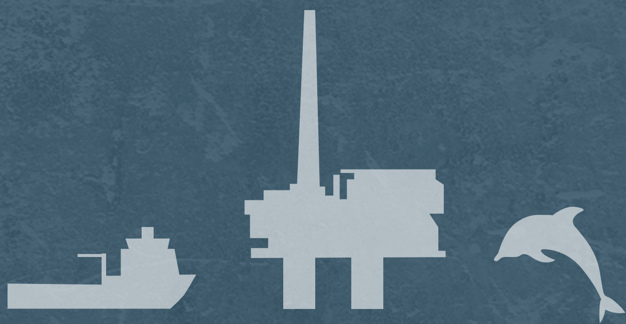


Figure 3
2018 EU-ETS CO_2 emissions and allowance per installation

ENVIRONMENTAL PERFORMANCE

DISCHARGES TO SEA



OIL IN PRODUCED WATER

The fluid extracted from our oil wells contains a mixture of oil, entrained gas and water. The primary function of our offshore installations is to separate the oil, gas and water, before sending the oil onshore and either reusing the produced gas as fuel, using it to aid lift in wells, or combusting it in the flare. The water is treated before safely discharging it to sea. The treated water may still contain some oil at the point of discharge.

To protect the marine environment, industry regulators place strict limitations on both the concentration and quantity of oil discharged in produced water, with a drive towards minimising these discharge concentrations. At these low concentrations, the entrained oil quickly disperses and is broken down by weathering and marine microorganisms. The UK government enforces a standard, internationally agreed emission limit value of 30 mg of oil per litre of produced water discharged (flow weighted average over one month), to which all our offshore installations are permitted.

Figure 4 shows a small decrease in the total mass of oil discharged to sea in 2018. This reduction in mass is directly linked to the volume of produced water discharged, which is less than that recorded in 2017. **Figure 4** also shows a small increase in the average discharge concentration in 2018. This minor increase can be linked to the accumulation, throughout the year, of numerous instances where sample discharges of more than 100 mg/litre were recorded. Such discharges are notified to the environmental regulator and are generally attributed to process upsets and/or poor separation facilities linked to deteriorating weather in the case of our Belo Holm FPSO. Although there was an increase in average discharge concentration, at a Company level, the average concentration remains significantly below the permitted limit.

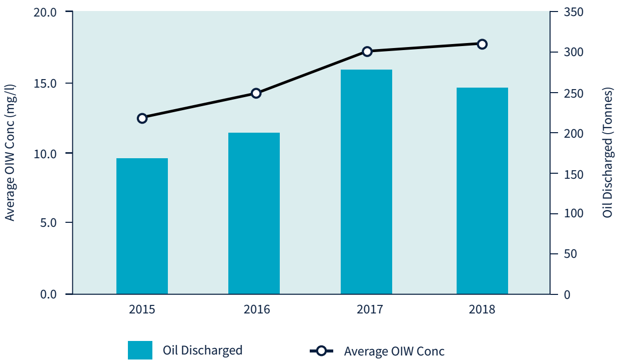


Figure 4

Annual Total Oil and Produced Water to Sea

Figure 5 illustrates that, in 2018, oil in water concentrations decreased at a number of our installations when compared with 2017 data. This is due to a number of factors:

- Increased production rates and sustained process uptime, leading to a more effective treatment process
- Active produced water improvement plans on a number of installations
- Increased production rates from high water cut wells, which increases the volume of water in the process, thereby increasing hydrocyclone efficiency

The consistently low oil in water concentrations achieved by Auk, Claymore, Fulmar and Piper has made a significant contribution to improving the annual company average.

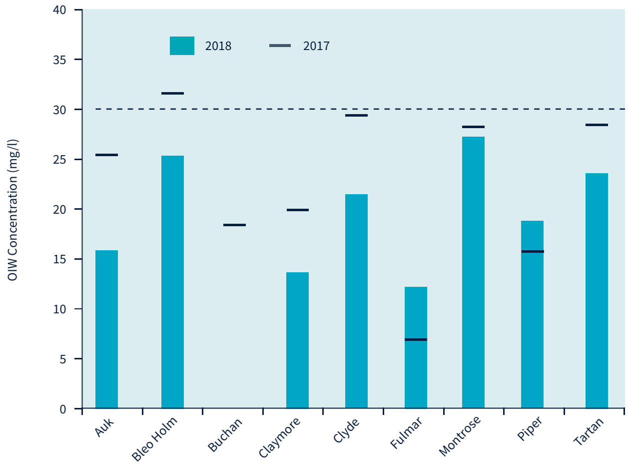


Figure 5

Installation Oil in Produced Water Performance

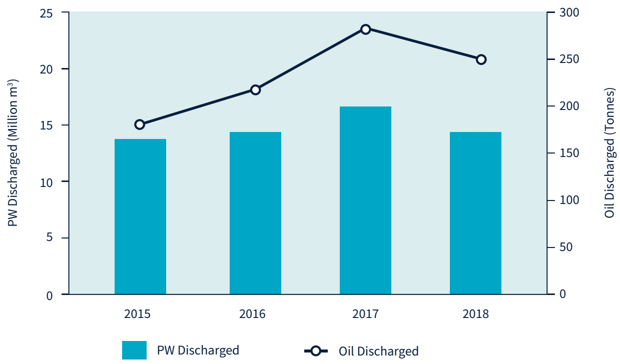


Figure 6

Annual Discharge Mass

The total mass of oil discharged to sea in 2018, as depicted in **Figure 6**, shows a decrease when compared with 2017. However, it should be noted that there was a marginal drop in total produced water volume for 2018, which would lead to an overall drop in total mass of oil discharged.

Due to the nature of produced water, discharges can occasionally give rise to an oil sheen on the sea surface around the installation. Periodically, either due to poor plant performance resulting in sustained higher oil in waters, or calm weather, sheens can extend some distance from the discharge point. Any notifications of sheens reported on our installations are investigated, and, if necessary, steps taken to rectify the cause. Where these sheens are considered more significant than normal, and extend outside the platform 500 m zone, we are required to notify the environmental regulator. During 2018, the Company raised one such notification.

PRODUCTION CHEMICALS

The Company utilise a variety of chemicals within the offshore production process; chemicals are used to maintain and operate subsea infrastructure, improve the flow of fluids from the reservoir, aid separation, prevent corrosion and remove deposited solids within vessels. Production chemicals are then either exported with oil to shore, or discharged to sea from the produced water stream.

The use and discharge of production chemicals offshore is heavily regulated through the approval of a chemical permit for each installation, as well as the use of pipeline or well intervention chemical permits, these incorporate regulatory limits for each chemical used and discharged. Chemical use and discharge offshore is regulated through the Offshore Chemicals Regulation (OCR) 2002 (as amended). These regulations implement the OSPAR Decision 2000/2 on a Harmonised Mandatory Control System (HMCS) for the Use and Reduction of the Discharge of Offshore Chemicals on the UK Continental Shelf. The HMCS details requirements for the comprehensive testing, ranking, hazard assessment and risk management of chemicals and, in addition, the substitution of certain chemicals by less hazardous alternatives. The Company ensures all chemicals used during our offshore operations are covered, including the use and discharge, by a relevant chemical permit. The quantity of chemicals used and discharged is then reported quarterly to the environmental regulator.

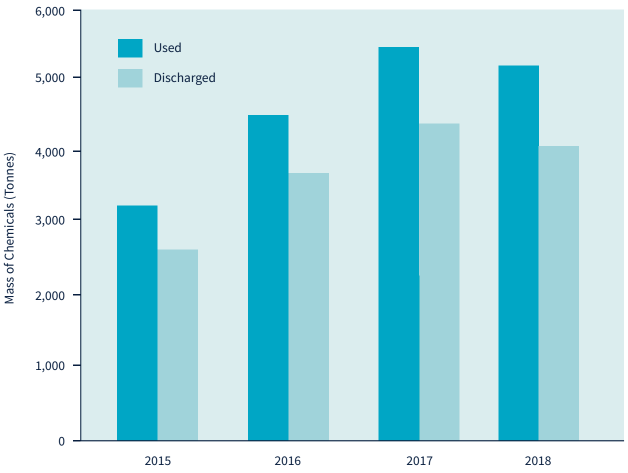


Figure 7

Tonnage of Production Chemicals Used and Discharged per year

Figure 7 illustrates that there has been a slight decrease in both use and discharge of production chemicals throughout 2018, when compared to 2017. This decrease is directly linked to steady production uptime which reduces the quantity of chemicals used, as a large number of chemicals are required for start-ups and shutdowns. Additionally, two installations were converted into Not Normally Attended (NNA) mode as part of our decommissioning strategy and a further installation was categorised as Ceasation of Production (CoP) in October. As a result, production chemical use on these three installations has either ceased or reduced significantly in 2018.

Some production chemicals used have a substitution (SUB) warning, meaning they contain a component that may present a hazard to the marine environment. An important part of the HMCS is the phased replacement of these harmful chemicals.

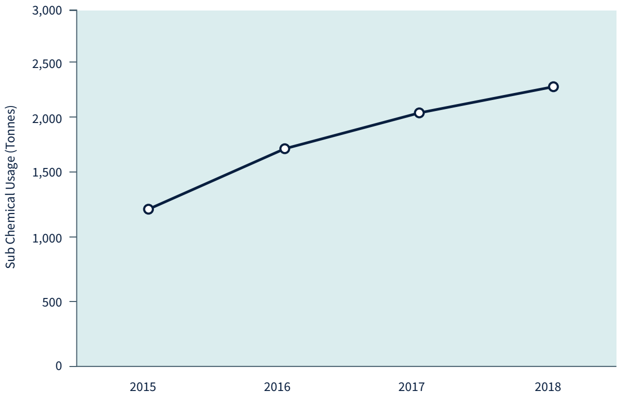


Figure 8

Usage of Chemicals with Substitution Warning 2015 - 2018

Figure 8 shows an increased usage of substitution chemicals in 2018 compared to previous years across all the company's activities. As with other production chemicals, this is directly attributable to production uptime of the installations rather than the addition of new chemicals with a substitution warning. The use of SUB chemicals in production activities has remained consistent in 2018 when compared to 2017.

The rise in SUB chemical usage in 2018 can be derived from the increased Well Intervention activities undertaken across all the assets. These intervention activities led to an overall increase in chemical utilisation including the use of chemicals with SUB warnings. To reduce the number of SUB chemicals used on our installations, we are working with our chemical vendors to find alternatives which do not carry SUB warnings, and trial them on our installations.

The Company actively reviews each installation's chemical permit application on a regular basis and removes unused products, to ensure our permits remain current. Furthermore, on an annual basis, the Company reviews the use of substitution chemicals with chemical vendors to identify priority chemicals for swap out for the coming year. Chemicals identified and agreed for swap out are then added as a KPI to the chemical vendor's annual contract. To ensure a continued focus on this issue throughout the year, these KPIs are monitored at project-specific and quarterly business review meetings. However, swapping out long running bespoke chemicals, which have acquired a substitution warning, comes with its own challenges and whilst best endeavours are made, they are not always successful, because of their uniqueness.

Despite these challenges, in 2018, the Company successfully swapped out 1 chemical to a 'greener' alternative which did not carry a SUB warning. A further planned swap-out was unfortunately not possible to progress due to the replacement chemical obtaining a substitution warning towards the end of the year.

DRILLING AND PIPELINE CHEMICALS

Chemicals are used to facilitate the safe handling of Wells during Drilling, Well Interventions and Pipeline Operations. The chemicals are specifically selected to optimise operations and performance.

As can be seen from **Figure 9**, chemical use in 2018 has almost doubled in comparison to previous years. This is a direct reflection of the activity levels throughout the year where there were three rigs on hire, a significant vessel campaign and increased platform intervention campaigns. However, it should be noted discharge of chemicals was slightly less than the previous year, but remaining fairly consistent. This minor reduction in chemical discharge can be attributed to plugging and abandonment campaigns where significant quantities of cement is mixed to create plugs as a result there is a zero discharge to sea of this product. The cement plugs remain in the well and the infrastructure above is removed upon final abandonment. This activity equates to a significant usage volume with no associated discharge.

In mid 2017 a Mobile Offshore Drilling Unit (MODU) was contracted to initiate a significant well workover on one of the Company's major well stock to bring the well back into production after an unforeseen shut-it. Unfortunately, this operation was unsuccessful and resulted in the affected well having to be fully abandoned which was completed in the early half of 2018.

In early summer 2018 the Company completed its rig based plug and abandonment workscope of the Beatrice Bravo Installation utilising a Jack-Up rig over the platform.

Numerous pipeline and well intervention operations were conducted throughout 2018 to reinstate, maintain, and enhance well performance through planned improvement opportunities. Such operations were undertaken to remove blockages caused by scale build up and to reduce pitting and maintain pipeline integrity cause by corrosion.

Figure 10, demonstrates the marked contrast in quantities of chemicals used and discharged when Pipeline, Well intervention and Drilling activities are compared separately. Drilling operations use large quantities of chemicals but only a small proportion are discharged to sea. This is, in part, due to the fact that Oil Base Muds (OBMs) are shipped onshore for treatment to recover the base oil which is then recycled. Pipeline operations in contrast, will discharge most chemicals through flushing and barrier testing operations but the quantities involved are significantly low compared to well operations. Whilst well intervention chemicals are generally routed back to the production installation, where discharge occurs at the host installation along with the produced water.

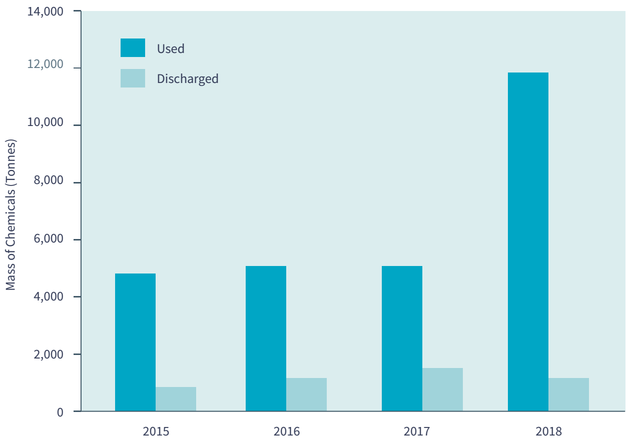


Figure 9
Total Chemicals Used and Discharged During Drilling, Well Intervention and Pipeline Operations

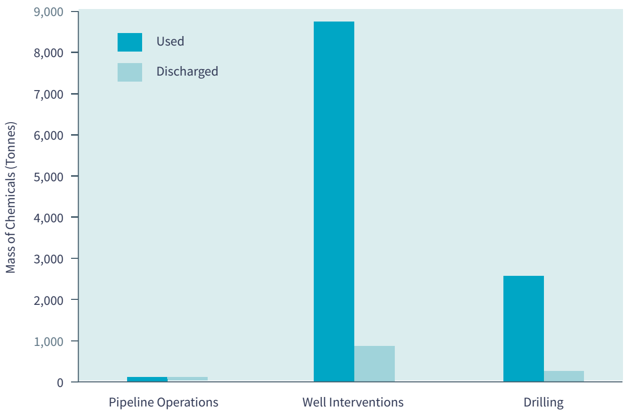


Figure 10
2018 Chemical Use and Discharge by Operation

As with the production related chemicals, reducing the number of substitution chemicals used during drilling operations, including platform drilling, is an area of focus. Due to the very specialist nature of chemicals used during these complex activities, alternative chemistries which provide the same or improved performance are often limited. The Company continues to work closely with chemical vendors and drilling contractors to test and replace substitution chemical products where it is operationally feasible to do so.

ENVIRONMENTAL PERFORMANCE

ACCIDENTAL RELEASES

Preventing oil, gas and chemical leaks is the Company's first Golden Rule. Assuring plant integrity is critical to the prevention of spills across our assets, in combination with raising awareness of spill risks, ensuring individuals are competent to perform their duties, and adhering to the Company operating procedures and our environmental permit requirements. If spills do occur, they are thoroughly investigated and corrective actions instigated.

In 2018, there was a decrease in the overall number of spills reportable to the regulator, with the number of oil spills remaining consistent (**Figure 11**). However, the total volume released from such reportable incidents has steadily increased, even as the number of incidents decreases.

This increase in overall spill volume is caused by the volume of chemical spills and, more specifically, the tonnage loss of subsea hydraulic control fluids. Uncontrolled releases of hydraulic control fluid from our subsea systems contributed to 45 % of our reportable incidents, and were responsible for 99 % of the tonnage released from spills in 2018 (See **Table 3**). This high volume of hydraulic fluid lost can be attributed to aging systems and their design (these systems are designed to be operated to failure). Although any uncontrolled releases from these systems are reportable to the environmental regulator as a spill, under normal operations, these systems discharge 100 % of their control fluids. Environmental impact assessments, which include detailed modelling of the spill, have illustrated that these releases have no discernible impact on the environment (as the hydraulic fluids are mainly water). During any period of an ongoing release, the Company is fully engaged with the regulator and corrective action plans are communicated, along with timescales for rectification.

As can be seen in **Figure 12**, Tartan has released the largest mass of spills in 2018. Tartan had two chemical spills with a total mass released of 223.5 tonnes of subsea hydraulic control fluid (See **Table 3** below). Claymore, meanwhile, had the most numerous of occurrences of spills; it had six accidental releases (two oil and four chemical). However, the total accumulated mass released of all six incidents only equates to 1.28 tonnes, of which no individual incident was > 1 tonne.

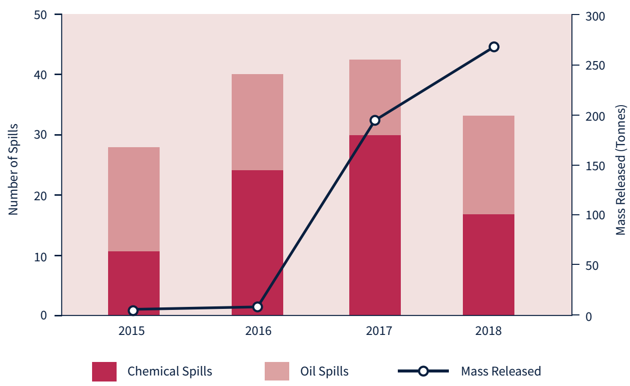


Figure 11

Overall total number of oil and chemical spills, and mass released 2015 - 2018

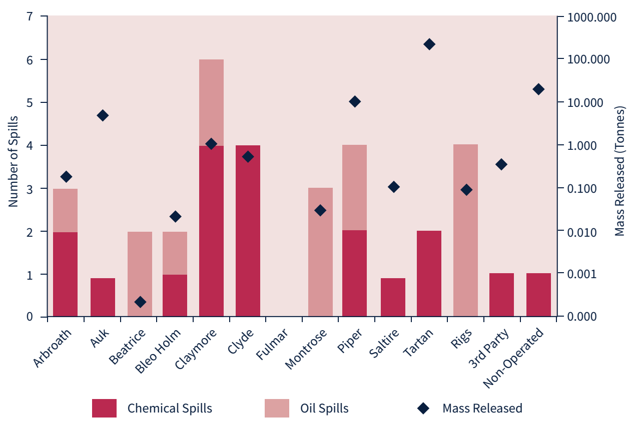


Figure 12

The number of oil and chemical spills in 2018, and mass released by installation

Table 3 - 2018 Spill Incidents Greater than 1 Tonne

Location	Brief Details	Hydrocarbon / Chemical	Mass Released (Tonnes)
Burghley Field	Subsea release of hydraulic control fluid from the LP-B supply system from a Non-Operated subsea tie-back.	Chemical	16.7
Tweedsmuir Field	Subsea release of hydraulic control fluid from a passing valve on the Seawater Injection System of the Tweedsmuir (a subsea tie-back to the Piper Installation).	Chemical	4.2
Tartan Installation	Subsea release of hydraulic control fluid from the subsea Emergency Shutdown Valve (ESV-1) at the Tartan Installation.	Chemical	2.0
Auk Installation	Loss of control line fluid from the Down Hole Safety Valve (DHSV) into the production tubing on Well AA02, with discharge of the chemical occurring via the produced water discharge stream.	Chemical	1.3
Galley Field	Subsea leak of hydraulic control fluid during Tree Valve Integrity Testing (TVIT) at Galley wellheads (a subsea tie-back to the Tartan Installation).	Chemical	3.9

ENVIRONMENTAL PERFORMANCE

WASTE MANAGEMENT

Through the activities of extracting oil and gas and decommissioning the Company will utilise materials, consume energy and generate waste.

In conjunction with our environmental policy, we work to drive our waste up the waste hierarchy and take advantage of opportunities to reduce, reuse, recycle, recover energy, or responsibly dispose of to aid a reduction of the waste we produce going to landfill.

Waste is generated from a variety of sources including; our onshore office, offshore accommodation facilities, maintenance, replacement and repairs, drilling, decommissioning activities and the packaging of consumable products.

The waste materials generated offshore are segregated and shipped to shore for reuse, recycling, or safe disposal by a licensed waste company.

In compliance with legislation and best practice, the company has controls in place for the safe handling, storage, treatment and disposal of waste arising from activities. We aim to continually improve in this area by minimising the associated impacts related to waste generation. The company actively seeks to reduce the total volume of waste generated where possible. Where this is not yet attainable, reuse and recycling options are identified and pursued.

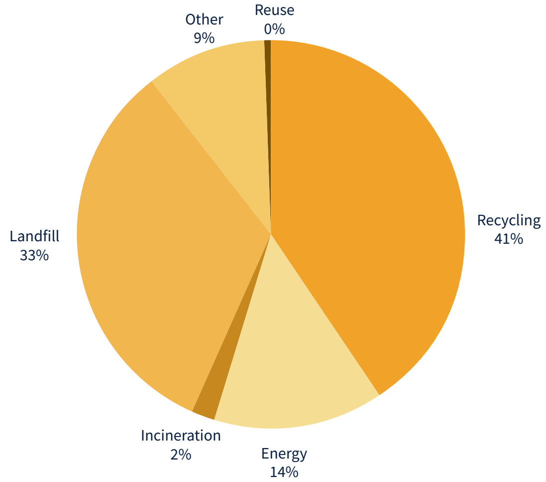


Figure 13

2018 Waste Disposal Routes

Figure 13 represents the percentage of waste sent through disposal routes for the total volume of waste generated offshore in 2018, with 41% of all company waste being recycled.

There are many factors which influence the quantity of waste from our business entering the various disposal routes. Such influencing factors include any new installation or commissioning work and the duration and frequency of planned shutdowns on installations, during such times significant work is undertaken in upgrading the installation and equipment. Volume of personnel onboard the installations can fluctuate throughout the year depending upon planned operations, as can the number of rigs and vessels engaged in activities through the Company. The volumes of recycled & reused waste generated from decommissioning activities can be significant

Figures 14 shows a comparison over a 4 year period of the total waste generated by the Company's offshore activities.

The overall waste generated in 2018 has decreased marginally in comparison to 2017. This decrease was likely influenced by less drilling activity and reduced annual shutdowns of installations throughout the year. However plug and abandonment activity was on par with 2017.

In 2018 the company had an increase in the volume of hazardous waste being treated onshore as shown in **Figure 14**. This marginal increase can mainly be attributed to three rig based campaigns which generated larger volumes of special waste requiring onshore treatment ahead of disposal.

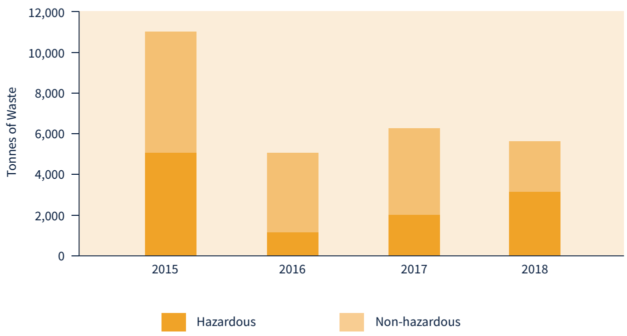


Figure 14

Total Hazardous and Non-hazardous Waste Produced 2015 - 2018

As shown in **Figure 15**, the proportion of waste material sent to landfill in 2018 has decreased marginally compared to the previous year. This reduction may be linked to the reduced annual shutdown periods undertaken by the installations thereby inadvertently generating less waste.

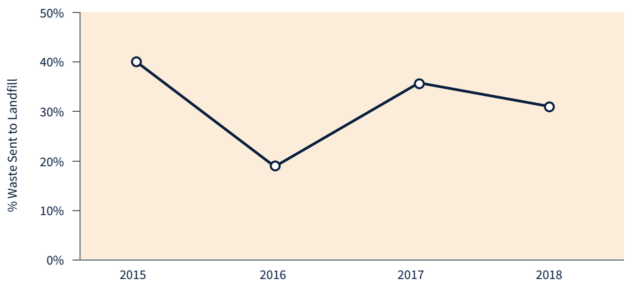


Figure 15

33% Waste Sent to Landfill

Continual Improvement: Each of our offshore installations has competent personnel managing the backloading of waste to shore. Waste generated onshore and offshore is segregated for recycling and disposal. The Company has a number of active Environmental Champions who have been instrumental at an installation level in steering improvement initiatives throughout 2018 including; the removal of single use plastic consumables and raising awareness of waste management and waste reduction.

We continue to work closely with our waste management contractors, sharing best practice and driving improvements in reuse and waste disposal. Feedback from proactive assurance checks such as quarterly general waste skip audits also helps to ensure compliance and drive improvement in waste reduction and reuse.

APPENDICES

GLOSSARY

CH4	Methane
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
CoP	Ceasation of Production
EU ETS	European Union Emissions Trading Scheme
FPSO	Floating Production, Storage, Offload vessel
GHG	Greenhouse Gas
HMCS	Harmonised Mandatory Control System
KPI	Key Performance Indicator
N_2O	Oxides of Nitrogen
NM VOC	Non-Methane Volatile Organic Compounds
NOx	Nitrogen Oxide
OBM	Oil Based Mud
OCR	Offshore Chemicals Regulation 2002
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning
OSPAR	The Convention for the Protection of the marine Environment of the North East Atlantic.
SEMS	Safety and Environmental Management System
SOx	Oxides of Sulphur
The Company	Repsol Sinopec Resources UK
The Regulator	Department for Business, Energy & Industrial Strategy (OPRED)

2018 DATA TABLES

2018 Data Table 1	Atmospheric Emissions (Tonnes)						
SITE	CO_2	Nox	N_2O	SO_x	CO	CH_4	NMVOC
Arbroath Platform	9240	186	1	1	30	51	10
Auk A Platform	81,642	205	4	19	138	830	5,321
Beatrice	4,191	78	0	0	21	0	3
Blane	0	0	0	0	0	0	0
Buchan A Platform	0	0	0	0	0	0	0
Claymore A Platform	184,473	428	14	3	435	192	117
Clyde Platform	228,269	293	11	6	530	855	970
Flotta Terminal	115,199	308	8	9	233	29	4
Fulmar A Platform	114,245	189	7	7	245	106	256
Montrose A Platform	180,063	490	11	20	394	279	213
Nigg Terminal	1,257	23	0	1	6	0	1
Piper B Platform	216,548	495	15	8	523	394	87
Ross FPSO Bleo Holm	157,448	644	12	17	403	171	68
Saltire A Platform	1,258	23	0	1	6	0	1
Tartan A Platform	154,106	295	10	2	357	1,207	843
Pipeline Operations	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Mobile Drilling / Well Interventions	13,970	260	1	9	69	1	9
Non Operated Subsea Tiebacks	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
Total	**1,461,908**	**3,918**	**95**	**104**	**3,389**	**4,114**	**7,902**

2018 Data Table 2	Produced Water			Chemicals (Tonnes)		Waste Generated (Tonnes)		Spills		
SITE	Average Oil In Water (mg/l)	Total Water Volume (m^3)	Oil Discharged Weight (Te)	Used	Discharged	Hazardous	Non-Hazardous	# Oil Spills	# Chemical Spills	Mass Released (Te)
Arbroath Platform	0	0	0	298	10	35	75	1	2	0.34
Auk A Platform	16	1,135,032	19	81	45	30	143	0	1	3.21
Beatrice	0	0	0	7	2	180	214	2	0	0.00
Blane	0	0	0	0	3	n/a	n/a	0	0	0.00
Buchan A Platform	0	0	0	0	0	n/a	n/a	0	0	0.00
Claymore A Platform	14	3,333,120	48	917	651	126	443	2	4	1.28
Clyde Platform	21	880,791	19	773	567	58	251	0	4	0.54
Flotta Terminal	3	7,131,232	25	n/a	n/a	55	387	0	0	0.00
Fulmar A Platform	13	2,090,633	27	135	140	54	329	0	0	0.00
Montrose A Platform	26	1,000,016	26	287	384	86	335	3	0	0.02
Nigg Terminal	n/a	n/a	n/a	n/a	n/a	12	86	0	0	0.00
Piper B Platform	18	3,790,258	69	922	583	52	339	2	2	14.52
Ross FPSO Bleo Holm	25	1,600,838	41	1,616	1,378	66	129	1	1	0.04
Saltire A Platform	0	0	0	2	2	8	40	0	1	0.13
Tartan A Platform	23	470,915	11	365	319	32	247	0	2	223.51
Pipeline Operations	n/a	n/a	n/a	5	3	n/a	n/a	0	0	0.00
Mobile Drilling / Well Interventions	n/a	n/a	n/a	n/a	n/a	2,276	229	4	0	0.08
Non Operated Subsea Tiebacks	**n/a**	**n/a**	**n/a**	**11,432**	**1,035**	**n/a**	**n/a**	**0**	**1**	**23.58**
Total	**18.08**	**14,301,603**	**259**	**16,838**	**5,122**	**3,069**	**3,247**	**15**	**18**	**267.25**

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