

**UK North Sea Region**

Annual Environmental  
Statement **2021**

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## Introduction



This is the annual environmental statement for Harbour Energy plc (Harbour) for 2021, as required by OSPAR Recommendation 2003/5<sup>[1]</sup>. The statement covers offshore installations operated by the company in the UK North Sea and installations owned and operated by third parties while providing services to us. It does not include information on our assets that are operated by others.

Harbour was formed in 2021 through an all-share merger between Chrysaor and Premier Oil. We are now the largest London-listed independent oil and gas company. We have a global portfolio with a leading position in the UK and multiple international growth options.

Across our diversified portfolio of interests, we have around 1,700 employees and produce c.200,000 barrels of oil equivalent per day. Our portfolio holds a balance of oil and gas resources, with 90 percent of our production and 93 percent of our reserves being in the UK.

This report contains the environmental performance for Harbour Energy's activities in the UK North Sea region in 2021 for both legacy companies. The report aims to:

- describe our main assets and activities
- provide a brief overview of our environmental management
- provide details on key environmental aspects and their impact
- summarise our UK environmental performance and progress towards objectives for the year

<sup>[1]</sup> To fulfil the requirements of OSPAR Recommendation 2003/5, all operators of offshore installations on the United Kingdom Continental Shelf (UKCS) are required to produce an annual environmental statement, which is made available to the public and the Department for Business, Energy and Industrial Strategy (BEIS).

#### Environmental impacts

At Harbour, we aim to address the environmental impact of our operations and play a role in the transition to a lower-carbon economy. Our environmental targets include conducting our business with care for the environment, reducing emissions from our operations, and no routine flaring.

In the North Sea, we aim to achieve our goal of no damage to the environment by:

- systematically identifying environmental impacts and seeking to avoid or minimise them
- improving environmental performance, including reducing our carbon emissions
- putting plans in place to reduce environmental risks associated with our projects and operations

#### Environmental management

We conduct our operations so as not to harm people, and to minimise any impact on the environment. This is enacted by our Health, Safety, Environment and Security Policy (see HSES policy documents in Appendix).

Our Environmental Management System (EMS) is certified to ISO standard 14001:2015. Our external verification body carries our regular site visits to verify we are meeting the objectives of our management system.

We apply our EMS to manage the impact of any activities, products and services on the environment. It provides a structured approach for continuous planning, implementing, reviewing and improving environmental protection measures, and working towards increasing environmental sustainability.

#### Our path to Net Zero

We intend to realise our strategic ambition of reaching Net Zero 2035 through several activities, most importantly by reducing our emissions and improving operational efficiency.

Related to this, we are leading an industry study to assess the potential for electrification of UK offshore producing assets. We are also exploring the potential for investing in UK carbon capture and storage (CCS) through our involvement in the V Net Zero and Acorn projects\*.

Across all our assets, we are continuing to improve our plant efficiency as we seek to produce our hydrocarbons in the most environmentally sustainable way we can. Innovation will play a key part. We will minimise methane emissions by adopting the best available technology and will work with industry to explore the potential for hydrogen production as well as carbon capture and storage.

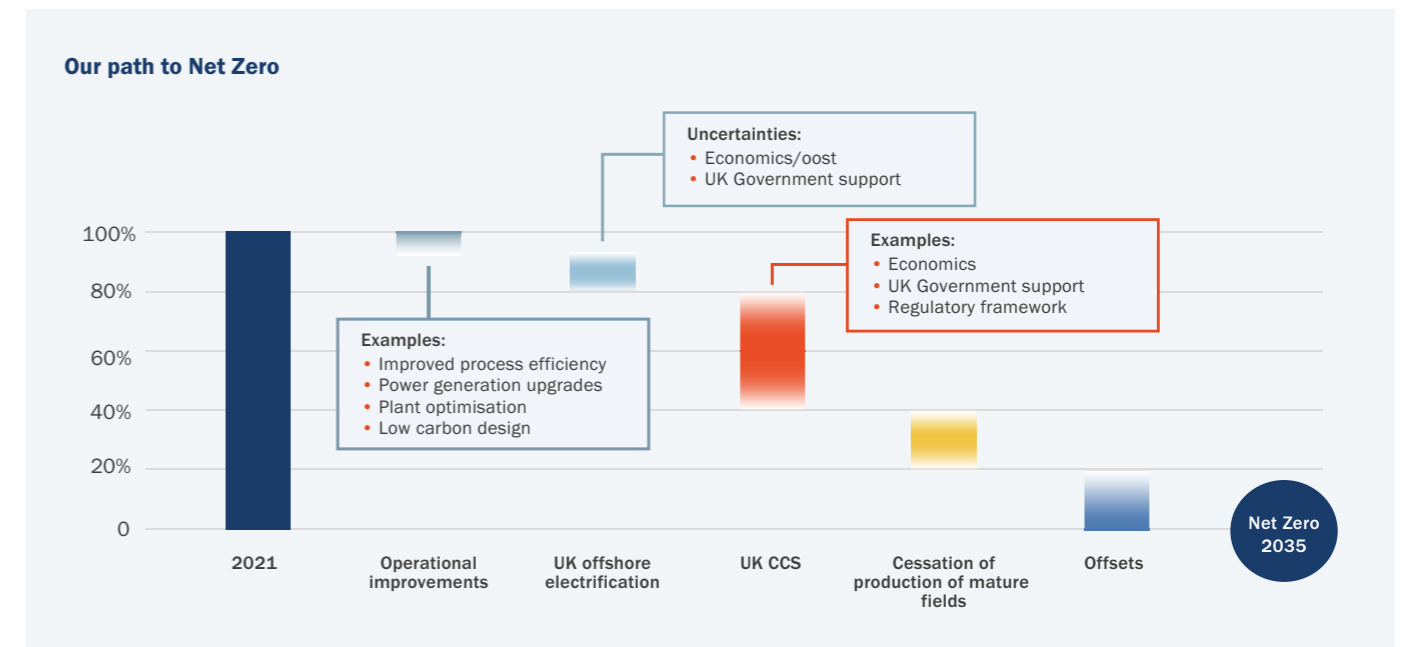
We will also keep measuring, verifying and reporting our environmental, social and governance (ESG) performance metrics in support of our sustainability goals.

#### 2021 achievements:

- standardised baseline emissions
- included carbon costs in all economic analysis
- realised emissions-reduction opportunities
- emissions of 1.6mt CO<sub>2</sub> eq, 6 percent lower than target
- offset more than 25 percent of our emissions
- emissions-reduction incentives included in remuneration and our main debt facility
- signed the World Bank Zero Routine Flaring initiative
- increased climate transparency through TCFD, CDP and SASB.



\*For more information: [harbourenergy.com/safety-esg/v-net-zero/](https://harbourenergy.com/safety-esg/v-net-zero/) [harbourenergy.com/safety-esg/acorn-project](https://harbourenergy.com/safety-esg/acorn-project)



## Our North Sea portfolio



Our purpose is to play a significant role in meeting the world's energy needs through the safe, efficient and responsible production of hydrocarbons while creating value for our stakeholders.

Harbour operates a diverse portfolio of assets in the UK North Sea, which are run as four business units or hubs:

- the Armada, Everest, Lomond (and Erskine) fields (AELE)
- the Judy, Jade, Jasmine and Joanne fields (J-Area)
- the Greater Britannia and Solan Area (GBA) - comprising Britannia and subsea tiebacks (Enochdhu, Callanish, Brodgar, Alder) and Solan
- Catcher Area

We also have assets in the East Irish Sea (EIS) and, throughout 2021, we continued work on the Tolmount development in the southern North Sea where first gas was achieved in April 2022.

Harbour also has significant ongoing decommissioning activities in the UK, currently focused on the southern and central North Sea areas.



### AELE

Harbour Energy's AELE hub consists of the operated assets of Armada, Everest and Lomond (and the non-operated Erskine high pressure/high temperature gas field). For the purposes of this report, we provide Armada, Everest and Lomond data only. Armada is in Block 22/5b of the UK North Sea, North Everest is in Block 22/10a and Lomond in 23/21a. First production was achieved from Armada in 1997, and Lomond and Everest in 1993. Production from AELE is exported via the Forties Pipeline System to the Kerse of Kinneil processing plant near Grangemouth. Gas is exported via the CATS pipeline to Teesside.



### J-Area

J-Area is in Quadrant 30 of the UK Continental Shelf, approximately 250 kilometres south-east of Aberdeen. Hydrocarbons were first discovered in the Joanne field in 1980, and commercial oil and gas sales from Judy/Joanne began in 1997. Jade is a high pressure/high temperature (HP/HT) development that consists of a normally unmanned platform tied back to Judy. It came on stream in 2002. Joanne is a subsea manifold, which is also tied back to Judy. Jasmine is a 24-slot wellhead production platform with bridge-linked accommodation and utility platform, which exports gas and liquids via the Judy platform. First production was achieved from Jasmine in 2013. After being processed on the Judy platform, gas from the J-Area is transported through the Central Area Transmission System (CATS) pipeline, and liquids are transported to Teesside through the Norpipe system.

**GBA and Solan**

Britannia is in Block 16/26 of the UK central North Sea, approximately 210 kilometres north-east of Aberdeen. The complex consists of a drilling production and accommodation platform, a long-term compression module and a 90-metre bridge connected to a production and utilities platform. Commercial production from Britannia began in 1998. Britannia satellites - Brodgar, Callanish and Enochdhu subsea developments - are controlled from Britannia. Condensate is exported through the Forties Pipeline System to the Kerse of Kinneil processing plant near Grangemouth. Gas is exported via a dedicated Britannia pipeline to the Scottish Area Gas Evacuation (SAGE) facility at St Fergus.

Commercial production from Solan in Block 205/26a began in 2016. Solan consists of three producing wells and two injector wells tied back to a steel platform. Oil is produced into a 300,000-barrel subsea oil storage tank and is offloaded via shuttle tankers.



**East Irish Sea**

Harbour has a 100 percent equity interest in East Irish Sea (EIS) assets, which are managed by Spirit Energy under contract. EIS comprises the fields of Calder, Millom and Dalton and the Rivers Terminal at Barrow-in-Furness. The environmental performance for these is reported by Spirit Energy.



**Catcher Area**

The 18 subsea wells from the Catcher, Varadero and Burgman fields are tied back to a floating production, storage and offloading vessel (FPSO). BW Offshore Catcher UK Limited (BWOCUK) is the owner of the FPSO and the appointed production installation operator. They are responsible for the day-to-day health, safety and environmental management of the facility, and all environmental permitting requirements for production operations including the PPC, chemical and oil discharge permits.

Harbour is the licensee, pipeline and well operator for the Catcher Area development. We are responsible for the FPSO's greenhouse-gas (GHG) Emissions Trading System (ETS) permit and the flare and vent consents. The data presented in this report relates to our activities for the Catcher Area development.



**Southern North Sea**

Harbour continued to develop Tolmount in Block 42/28d throughout 2021 and achieved first gas in April 2022. Following completion of drilling activity with the jack-up drilling rig *Valaris 123* in 4Q 2021, the *Valaris Norway* arrived in the field to act as a temporary accommodation unit to cover the platform commissioning phase through into 2022. Tolmount is a minimum facilities platform, which exports gas via a 20-inch pipeline to the Easington Terminal. ODE Asset Management Limited was appointed as Tolmount installation operator in advance of production start-up.

Harbour is also operator of the Johnston dry gas accumulation in the southern North Sea, where consultation is now ongoing for decommissioning. The Johnston Field is a subsea tieback to the Ravenspurn North Central Processing Platform.



**Decommissioning**

**Southern North Sea**

In 2021, we continued to work in the southern North Sea (SNS) progressing decommissioning at Viking, LOGGS and Murdoch. All the LOGGS infrastructure was successfully removed in 2021 and transported onshore for decommissioning. At the end of 2021, we had removed 24 platforms from the SNS and had a further seven in cold suspension awaiting removal.

**Central North Sea**

In 2021, the floating production vessel (FPV) in the Balmoral Field came off-station, which has resulted in only partial year data being provided for the asset.

**Our drilling rig activities**

**Enasco 92**

In 2021, the *Enasco 92* drilling rig successfully continued with the planned SNS abandonment campaign. It carried out a further 16 well abandonments, 12 at the Vulcan RD platform, followed by single subsea well abandonments at the Alexandra, Callisto ZM and Boulton HM locations, finishing 2021 at the Mimas MN platform. This brings the total wells abandoned to 130 out of 149 overall in the SNS.

**Enasco 120**

The *Enasco 120* drilling rig remained at the Jasmine wellhead platform through the first half of 2021, completing the final stages of S16 in 1Q. On completion of S16, the *Enasco 120* commenced drilling the S17 HP/HT well. The S17 well was successfully brought online in 3Q. The *Enasco 120* then moved inter-field and relocated alongside the Jade platform in 3Q. Initial work on Jade comprised the workover of JO6, during which we completed some remedial work and diagnostics. The *Enasco 120* moved onto drilling the Jade South ERD well, which was successfully drilled and completed in 4Q. Production commenced from Jade South 1Q 2022.

**Valaris 121**

We brought the *Valaris 121* drilling rig was on hire in 3Q 2021. Its first scope was drilling the Talbot appraisal well, targeting the Palaeocene Lista L2 sandstone reservoir on the west flank of the field. Following completion of activities, the *Valaris 121* moved to target the Dunnottar prospect by drilling a high pressure/high temperature (HP/HT) exploration well, before moving to the Judy RD location in 1Q 2022.

**Valaris 123**

The *Valaris 123* drilling rig remained bridge-linked at the Tolmount platform throughout 2021, conducting a four-well batch drilling programme to support the Tolmount development. The NW well was completed in 1Q 2021, SE well completed in 2Q 2021, SW well re-entered and completed in 3Q and NW well completed in 4Q 2021. First gas from Tolmount was achieved in April 2022..

**Transocean PBLJ**

The *Transocean PBLJ* semi-submersible mobile offshore drilling unit continued to operate for Harbour throughout 2021. The *Transocean PBLJ* remained on location at MacCulloch to complete Phase II of the MacCulloch abandonment campaign, using an innovative perforation/wash/cement abandonment technique that minimises risk and rig time.

In 3Q 2021, the *Transocean PBLJ* moved to East Everest Expansion (EEE) within the North Everest field, drilling the LAD development well. Work on the well was completed in 4Q 2021, after which the subsea flowline construction commenced; the well was brought online 1Q 2022. The *Transocean PBLJ* was released from hire in 1Q 2022.

# 1. Atmospheric emissions

The main source of atmospheric emissions from our operations are from the combustion of fuels (gas and diesel) for electrical power generation, compression of gas, and export of oil to shore. A small quantity of reservoir gas provides the primary fuel source and we use diesel as a back-up.

Flaring and venting emissions are associated with routine maintenance activities, equipment and plant trips plus shutdown and start-up activities. Flaring and venting is restricted to the minimum required for the safe operation of the installations.

Atmospheric emissions from well operations are mainly associated with running diesel-driven engines for the rig's power generation. Flaring is also carried out to remove hydrocarbons produced during well testing and clean-up operations.

Atmospheric pollution affects local air quality. It is also linked to global warming, ozone depletion and acid deposition in soil and water.

## 1.1. Greenhouse-gas emissions

The primary greenhouse gases (GHGs) in the Earth's atmosphere are water vapour, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O) and ozone (O<sub>3</sub>).

The emission of CO<sub>2</sub> is governed under the United Kingdom (UK) Emissions Trading System (ETS), which launched on 1 January 2021. As part of the UK ETS, our qualifying offshore installations (Armada, Lomond, North Everest, Britannia, Judy, Solan and Catcher) hold GHG emissions

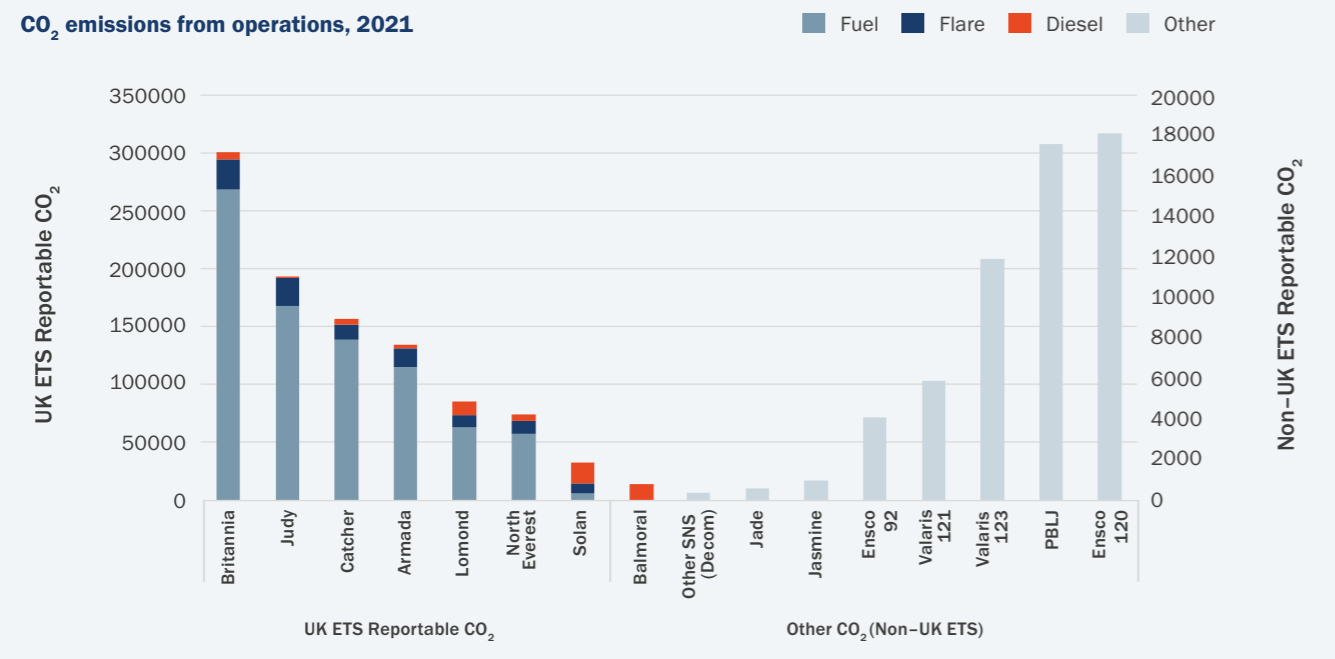
permits that authorise them to emit CO<sub>2</sub> from the combustion of fuels.

Atmospheric emissions from Jade, Jasmine, decommissioning and rig-based activities are not reportable under the UK ETS, but they are included in our environmental metric reporting as 'Other CO<sub>2</sub> (non-ETS)'.

Rig-based activities include emissions from the *Ensco 120* and *Valaris 121* operating in the J-Area, the *Valaris 123* batch drilling

the Tolmount development, the *Transocean PBLJ* completing Phase II well plug and abandonment operations at MacCulloch before drilling and completing the LAD well in the AELE hub, and the *Ensco 92*, carrying out southern North Sea plugging and abandonment work.

CO<sub>2</sub> emissions from operations, 2021



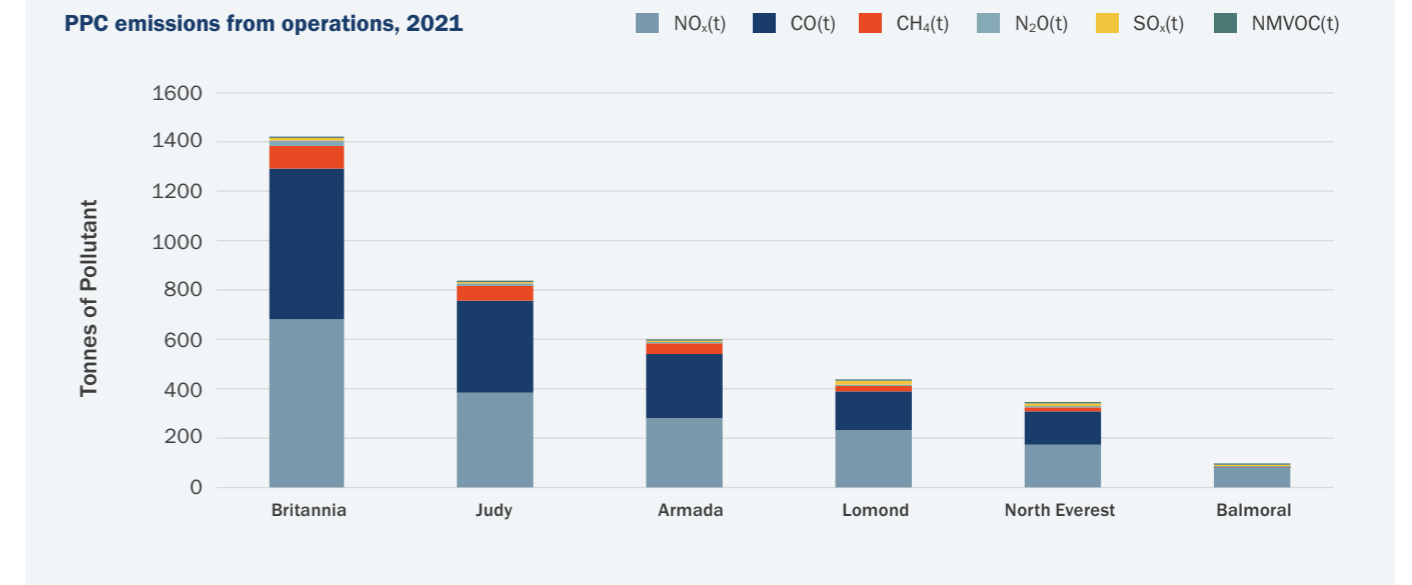
## 1.2. Other atmospheric emissions

The Offshore Combustion Installations (Pollution Prevention and Control) Regulations 2013 (as amended) (PPC) regulate atmospheric emissions (except for CO<sub>2</sub>) from offshore oil and gas facilities. Armada, Lomond, North Everest, Judy, Britannia and Balmoral hold PPC permits, with specific limit values for methane (CH<sub>4</sub>), sulphur oxides (SO<sub>x</sub>),

nitrous oxides (NO<sub>x</sub>), carbon monoxide (CO) and non-methane volatile organic compounds (NMVOC). The quantities of gases emitted to air are calculated based on fuel gas and diesel consumption data on each installation and industry-agreed emissions factors. Throughout 2021, our operations remained within all PPC permit limits.

We reported no PPC emissions for the *Catcher FPSO*. This data will be reported by the operator in their 2021 OSPAR report. Solan, Jade and Jasmine are below the PPC requirement threshold and are therefore not eligible for a PPC permit.

PPC emissions from operations, 2021



## 2. Oil discharges to sea

The OSPAR Commission recommendations are regulated through the Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2005 (as amended) (OPPC).

Water produced alongside oil and gas operations, known as produced water, contains dispersed oil that we treat to reduce concentration of oil in water to permitted levels, before discharging it to the marine environment. Produced water is one of the largest sources of hydrocarbon discharges to the sea from the offshore oil and gas industry. While there are treatment systems in place offshore to separate oil from the produced water, the discharge still has some residual oil content. Our installations discharge only a small percentage of the total produced water generated by the industry.

Our Armada, North Everest and Balmoral (surrendered in June 2021) platforms have single discharge points for produced water, while Lomond (and Erskine via EPM), Judy (and the Judy riser platform) and Britannia (and the Britannia bridge-linked platform) have two permitted discharge points each.

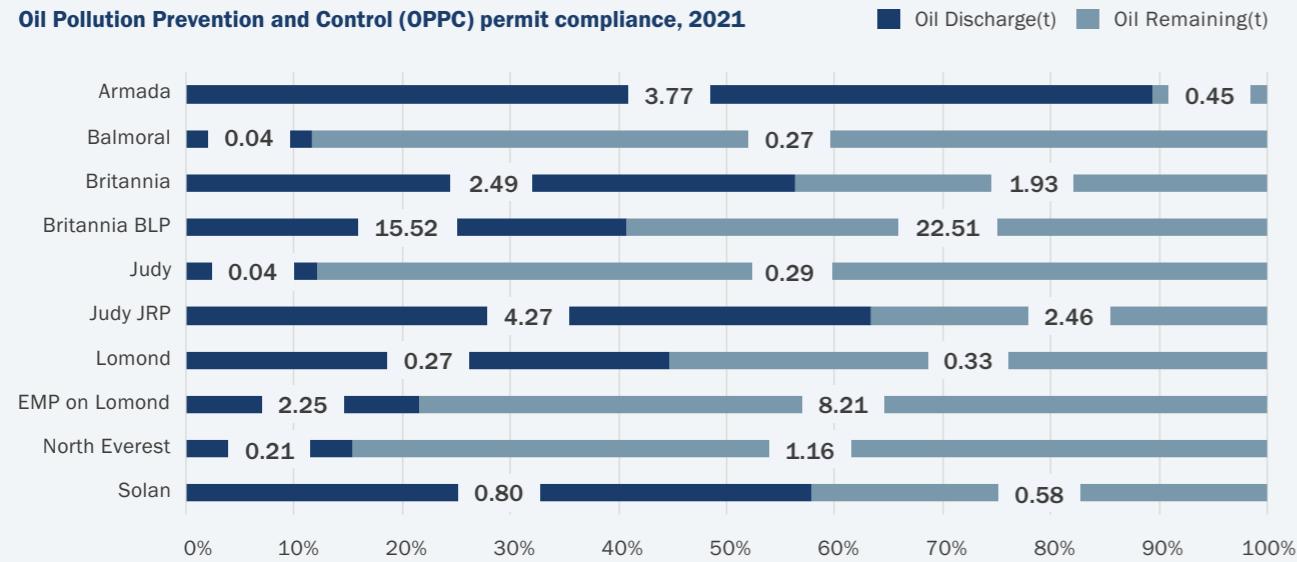
Solan has a bespoke produced-water treatment package, however water rates were so low in 2021 that the treatment package could not be run. Instead, ballast water from oil displacement within the subsea oil storage tank was discharged or reinjected once treated through the dedicated ballast-water filters.

Short-duration (term) OPPC permits were in place to support the *Ensco 120*, *Valaris 123* and *PBLJ* well operations. In addition, term

OPPC permits were in place to support decommissioning preparatory activities at Murdoch and Balmoral and in support of an Inspection, Repair and Maintenance (IRM) campaign at East Everest.

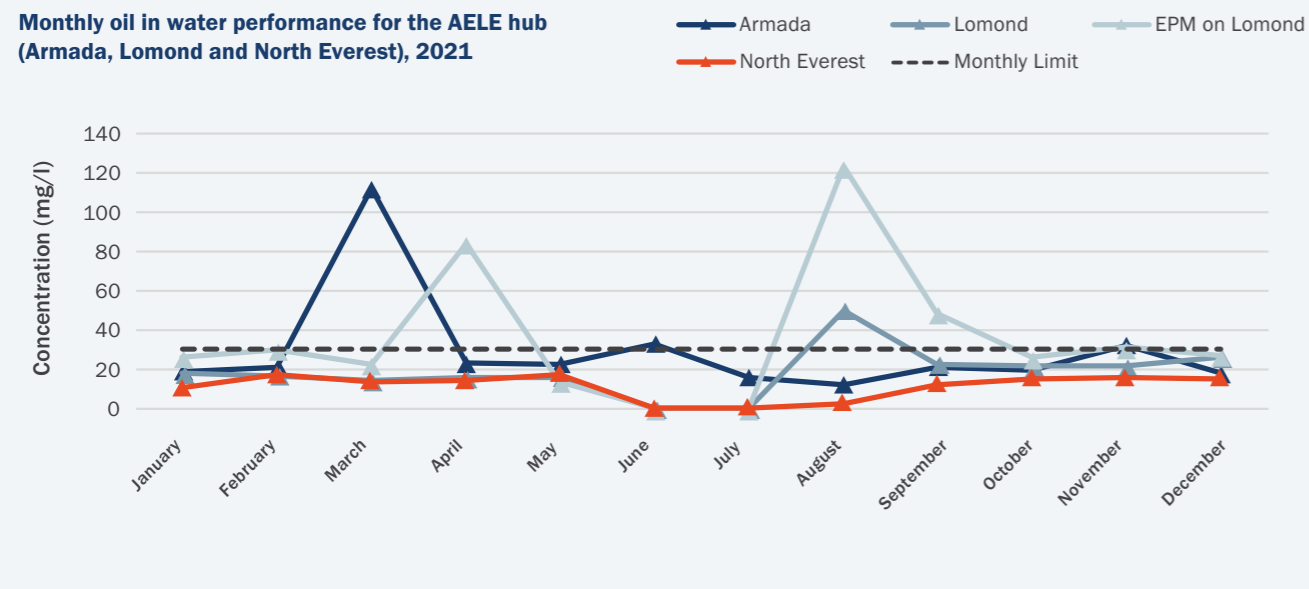
The quantity of oil discharged to sea under permitted conditions for 2021 is illustrated for all operated installations in relation to the total permitted quantity. The quantity of oil discharged depends on the volume of produced water discharged and its associated concentration.

**Oil Pollution Prevention and Control (OPPC) permit compliance, 2021**



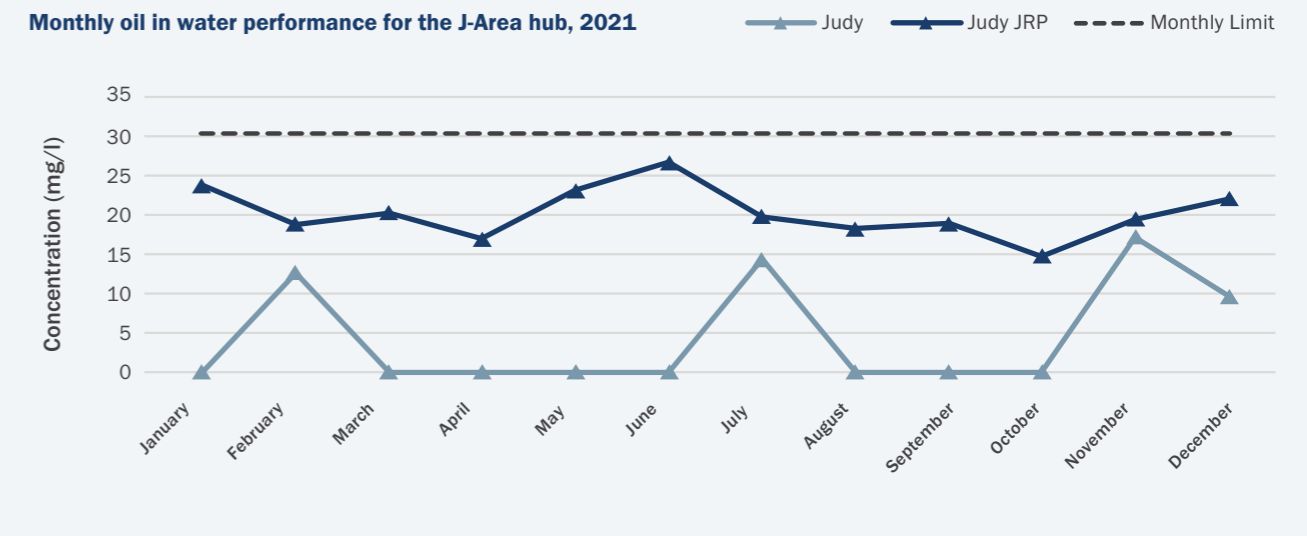
Across the AELE hub, there were 40 produced-water discharge OPPC non-compliance events in 2021. Of these, nine were with respect to the OPPC maximum monthly flow-weighted average concentration of oil per litre of water (mg/l) exceeding 30mg/l; 28 events were with respect to the concentration of individual oil in produced-water samples exceeding the 100mg/l OPPC permit limit; one was a Permitted Discharge Notification on Armada due to 1.226 tonnes of oil being discharged overboard via the produced-water system in 12 hours, and two events related to produced-water meter accuracy on Armada and Lomond.

**Monthly oil in water performance for the AELE hub (Armada, Lomond and North Everest), 2021**



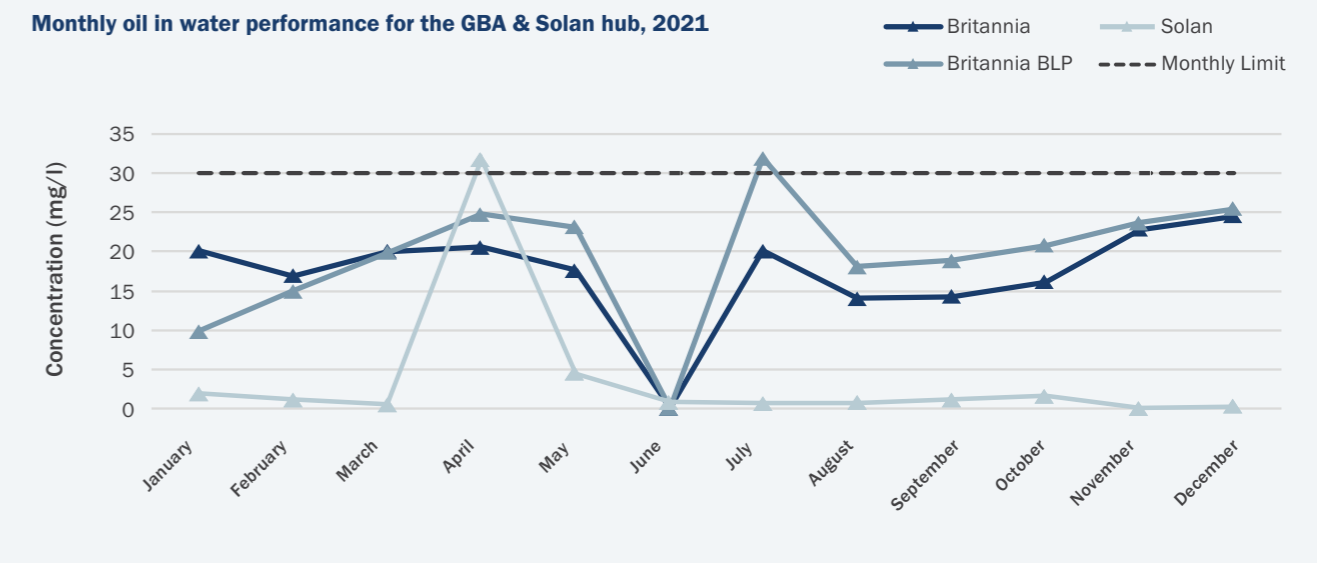
The J-Area hub reported two produced-water discharge OPPC non-compliance events in 2021. Both events were the result of the concentration of individual oil in produced-water samples exceeding the 100mg/l OPPC permit limit. All monthly flow-weighted average discharges remained within compliance within the 2021 reporting window.

**Monthly oil in water performance for the J-Area hub, 2021**



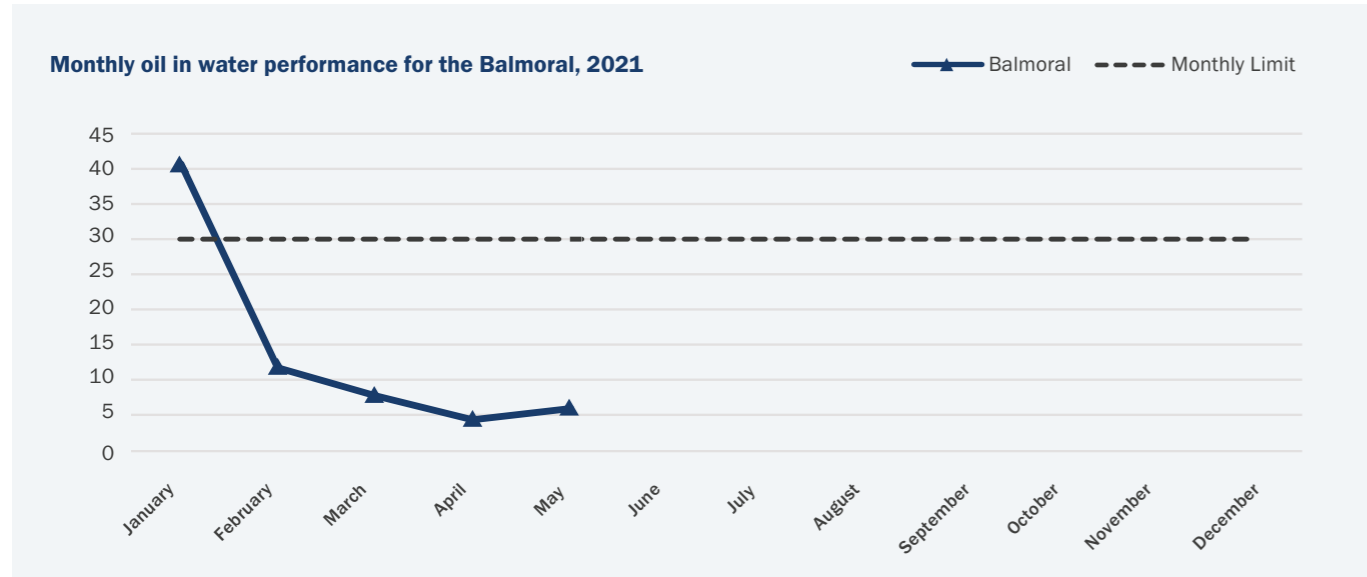
In 2021, the GBA and Solan hub reported nine produced-water discharge OPPC non-compliance events. Two were with respect to exceeding 30mg/l monthly average; six were due to the concentration of individual oil in produced-water samples exceeding the 100mg/l permit limit and one was a result of failing to receive the six-monthly produced-water meter calibration standards.

**Monthly oil in water performance for the GBA & Solan hub, 2021**



In 2021, the Balmoral installation reported one produced-water discharge OPPC non-compliance event with respect to exceeding 30mg/l monthly average. The Balmoral FPV came off station in June 2021 which accounts for the partial data.

Two further OPPC non-compliance events occurred during preparatory decommissioning operations where individual oil in produced-water samples exceeded the 100mg/l permit limit. In addition, a Permitted Discharge Notification was reported for a visible sheen during flushing operations.



### 3. Chemical discharges

Various chemicals are used offshore in drilling, production, subsea and well-intervention operations.

Any chemical used offshore must, in line with the Offshore Chemical Regulations 2002 (as amended) (OCR), first be approved by the Centre for Environment, Fisheries and Aquatic Sciences (CEFAS). The chemicals are subject to strict environmental risk assessment and, once approved, their use is controlled and monitored through a permit granted by OPRED.

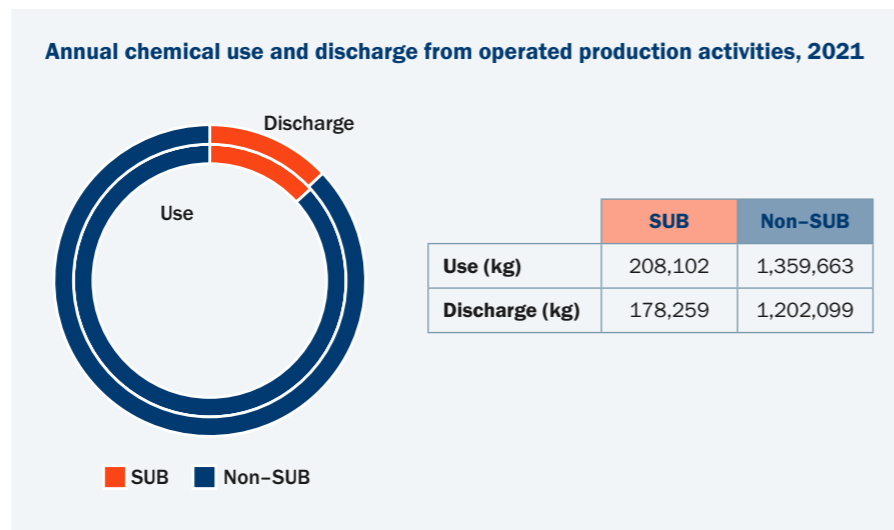
Some chemicals are regarded as PLONOR (PLO), which means that they have been determined to pose little or no risk to the environment.

Any chemicals that have been identified as posing potential environmental risks (such as bioaccumulation or slow biodegradation) are subject to controls, under which their use must first be approved by OPRED. This is backed up by detailed justification for use of the chemical. Such chemicals carry a substitution warning (SUB), which aims to phase-out the use of these chemicals.

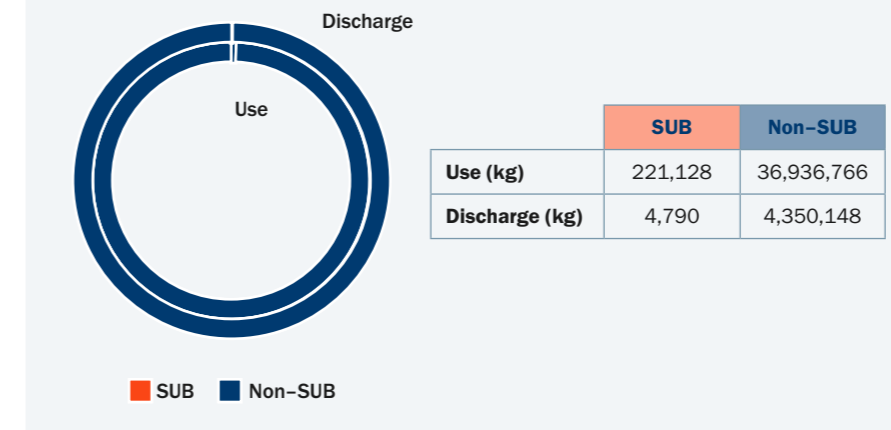
We carry out frequent reviews of chemical requirements with our chemicals suppliers and strive to reduce the number of chemicals flagged for substitution.

#### Operated production activities

Each platform holds a separate chemical permit (excluding the J-Area where a single Judy permit covers Jade and Jasmine operations), which includes justification for the use of chemicals that hold a substitution warning. We have presented the use in kgs of substitution versus non-substitution chemicals, with the percentage contribution to total use also provided.



#### Annual chemical use and discharge from operated drilling activities, 2021



#### Operated drilling activities

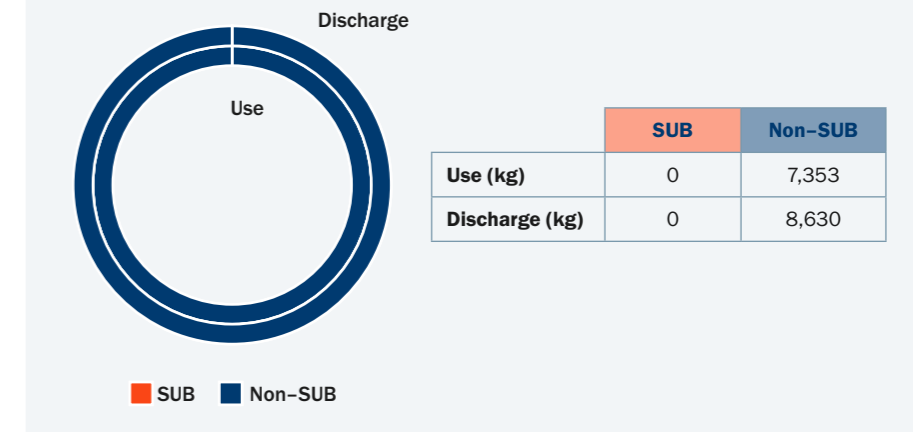
Short-duration chemical permits were also in place in 2021 to support drilling activities, pipeline operations and SNS decommissioning activities. Drilling activities represent the largest chemical use and discharge, comprising drilling mud, cement, completion and additive chemicals.

Drilling activities included operations from the *Ensco 120*, *Valaris 121*, *Valaris 123* and the *Transocean PBL*. Operations from the *Ensco 92* are included within the decommissioning activities.

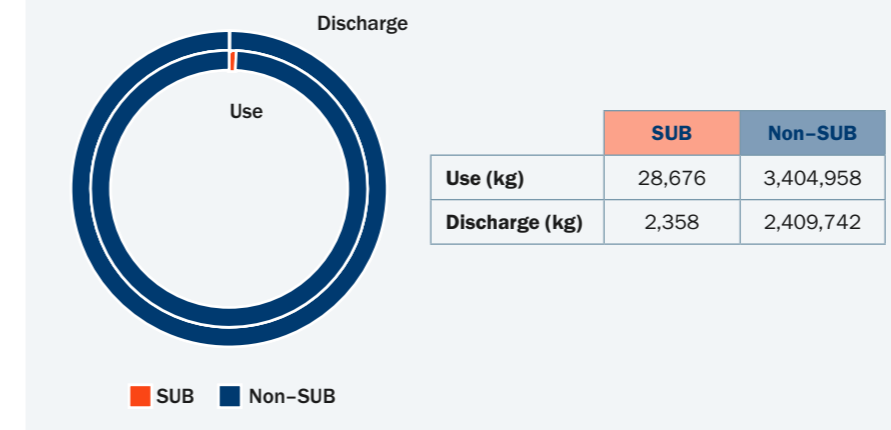
#### Operated pipeline activities

Chemical use and discharge in 2021 covered by pipeline chemical permits included one pipeline campaign undertaken in support of an IRM campaign at East Everest in the AELE area.

#### Annual chemical use and discharge from operated pipeline activities, 2021



#### Annual chemical use and discharge from decommissioning activities, 2021



#### Decommissioning activities

We present chemicals used for rig-based plug and abandonment and accommodation work vessels associated with our decommissioning under the chart for decommissioning. The pipeline flushing programmes typically use cleaning chemicals and ethylene glycol and methanol diluted in sea water. We minimised discharges to the sea during pipeline cleaning operations by using downhole reinjection or containment for onshore treatment and disposal wherever practicable.

## 4. Waste

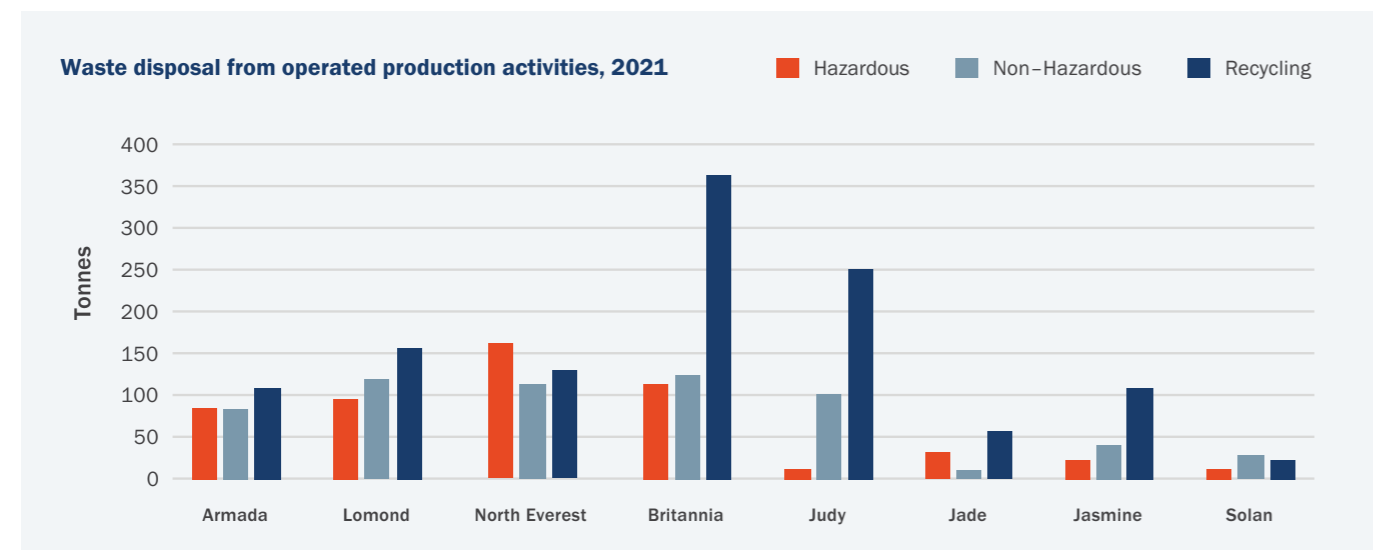
Waste is categorised as hazardous or non-hazardous, depending on whether the waste has one or more of the 15 hazardous constituents specified in Annex III of the EU revised Waste Framework Directive (WFD, European Directive 2008/98/EC).

Directive waste is divided into three main categories: recycled, non-hazardous and hazardous waste.

We work with contract waste-management companies to reduce waste, and to recycle and reuse items wherever possible. Non-hazardous waste types include packaging, galley and accommodation wastes, scrap metal and wood. Examples of hazardous waste include bulk liquid wastes from mobile accommodation or drilling units on hire, process sludges, oily rags, used chemicals, paint, batteries, fluorescent light tubes and electrical and electronic equipment.

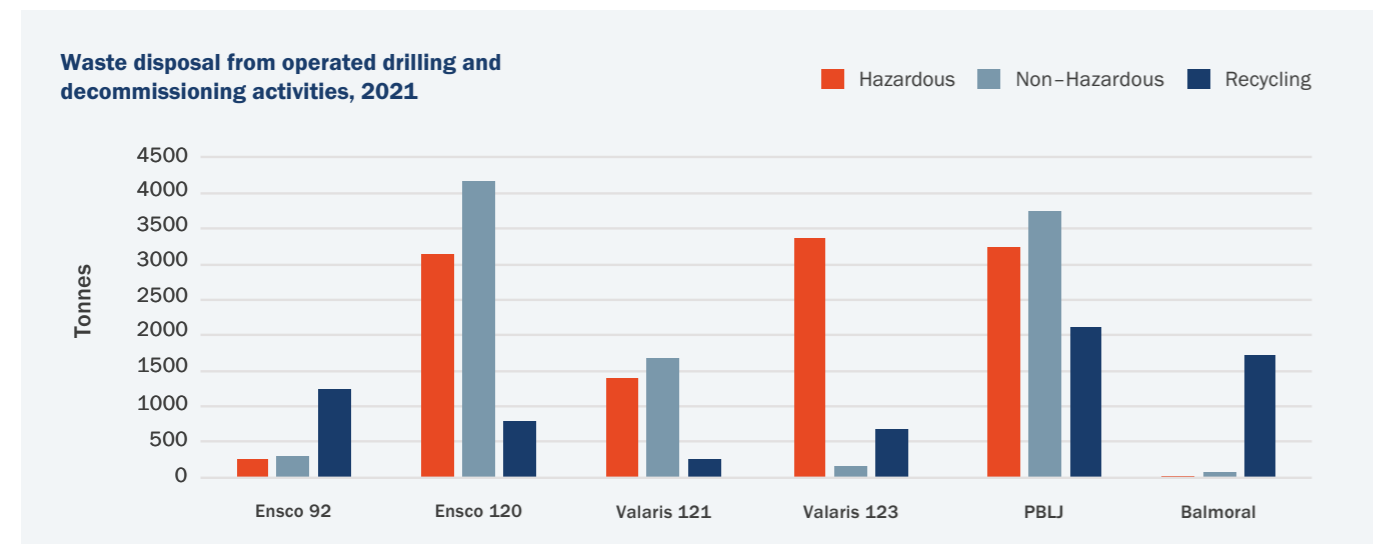
### Operated production activities

Waste generated from our operated assets include: Armada, Lomond, North Everest, Britannia, Judy, Jade, Jasmine and Solan. High recyclable values for some assets below are associated with works where large amounts of metals and heavy recyclables are being removed or replaced. Britannia also had a major shutdown in 2021, and this generates a large volume of wastes.



### Operated drilling and decommissioning activities

Waste generated from well operations and decommissioning includes the domestic and operational wastes from the *Ensko 92*, *Ensko 120*, *Valaris 121*, *Valaris 123*, *Transocean PBLJ* and *Balmoral*.



## 5. Spills to sea

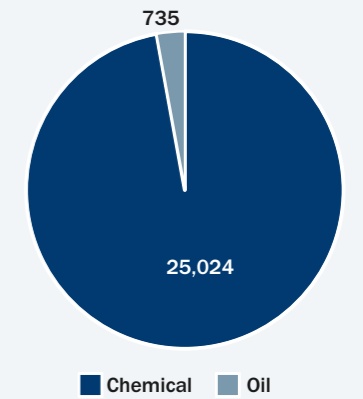
Non-permitted releases of oil or chemicals to the sea are reported to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) using a Petroleum Operations Notice 1 (PON1). These notices provide details of the event and actions taken to prevent reoccurrence. All spills to sea are reported and investigated, regardless of size.

Across our operations, 44 unplanned releases to sea occurred in 2021. Of these, 22 were chemical spills and 22 were oil spills. Two events were greater than 2 tonnes.

The first event greater than 2 tonnes occurred on North Everest in 3Q when a quick flange connector on the cooling medium line failed in operation, resulting in the loss of CORR10003A corrosion inhibitor. This event was thoroughly investigated in line with Harbour processes.

The second event that was greater than 2 tonnes occurred while the *Transocean PBLJ* was undertaking operations on the LAD well in the AELE hub, where a slip joint packing failed during adverse weather, resulting in the release of seawater and sodium chloride brine. This event was investigated by both Harbour and Transocean.

Quantity of regulatory reportable spills to sea (kg), 2021



### Number of regulatory reportable spills to sea, 2021

	Chemical				Oil			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
<b>Armada</b>	0	0	1	0	0	0	1	0
<b>Balmoral</b>	2	1	0	0	0	0	0	0
<b>Britannia</b>	2	0	3	0	0	0	0	0
<b>Jade</b>	0	0	0	0	0	1	0	2
<b>Jasmine</b>	0	0	0	0	0	0	0	0
<b>Judy</b>	0	0	0	0	0	0	1	0
<b>Lomond</b>	0	0	0	1	0	0	0	0
<b>North Everest</b>	1	0	1	0	2	0	1	0
<b>Solan</b>	0	1	1	0	0	2	0	0
<b>Decommissioning</b>	0	1	0	0	0	1	0	0
<b>Ensko 92</b>	0	2	1	1	0	0	0	1
<b>Ensko 120</b>	0	0	1	0	0	1	1	1
<b>Valaris 121</b>	0	0	0	1	0	0	1	0
<b>Valaris 123</b>	0	0	0	0	1	1	0	0
<b>Transocean PBLJ</b>	0	0	0	1	0	1	1	1

## Appendix

### 2021 environmental objectives

We outlined several environmental focus and improvements areas in our 2021 Health, Safety, Environmental and Security (HSES) Plan. In 2021, we successfully completed the following objectives:

Topic	Achievement
<b>Recertification and expansion of our environmental management system (EMS)</b>	Successfully recertified the legacy Chrysaor EMS in September and the certificate was consolidated at the Harbour Energy Europe level of the organisation.
<b>Environmental training and awareness across all our activities</b>	Environmental advisers continued to be proactive across the business providing guidance and training to ensure we met our licence-to-operate expectations. This included roll-out of new systems and processes such as the PLANC management tool.
<b>Improvement to PPC-emissions calculations</b>	Introduced an improved PPC-emissions calculation process within our AELE asset, using turbine run-hour data and loading to determine diesel consumption. We will review this process in 2022 with the view to expanding it to other assets as appropriate.
<b>Top hierarchy assessments for the UK ETS</b>	Successfully completed top hierarchy assessments for all our UK ETS qualifying installations.
<b>Execute 2021 emissions-reduction projects to achieve score-card target</b>	Successfully implemented emissions-reduction projects focusing on fuel reduction and plant optimisation with emissions 6 percent lower than the annual score-card target. For further information: <a href="https://harbourenergy.com/safety-esg/">harbourenergy.com/safety-esg/</a>
<b>Explore the use of a production-linked GHG-emissions forecasting tool</b>	We developed and implemented an emissions-forecasting tool. We will use it with trading to accurately determine emissions.
<b>Build an ESG metrics and disclosure reporting model and platform for future sustainability reporting</b>	Developed an ESG disclosure model which culminated in the publishing of our ESG report on 5 April. The independently assured ESG report is a key disclosure on the Global Reporting Initiative Standards (GRI Standards).
<b>Develop a 2021 GHG emissions-assurance statement</b>	Appointed an external verifier to assure the 2021 Group static carbon-dioxide emissions that form the basis of a sustainability-linked loan and incentivisation to improve emissions performance.
<b>Establish an energy transition (ET) forum with non-operated partners</b>	The Board endorsed our Net Zero Strategy, and we published our new Climate Change Policy. Our Net Zero goal includes our equity share of Scope 1 and 2 CO <sub>2</sub> equivalent emissions from both our operated and non-operated assets. We continue to collaborate with our non-operated partners to inform our understanding of our share of the non-operated emissions and to discuss emissions-reduction plans and opportunities through increased focus within partner meetings.
<b>Progress opportunities with Acorn, V Net Zero and central North Sea electrification</b>	We continue to invest in and explore opportunities for decarbonising oil and gas production through accessing lower-carbon electricity, carbon capture and storage, and hydrogen production through the central North Sea Electrification (CNSE) project, V Net Zero and Acorn Projects. Further information: <a href="https://harbourenergy.com/safety-esg/">harbourenergy.com/safety-esg/</a>

### 2022 environmental objectives

Our focus for 2022 is to continue to integrate our organisation. This will include revising documents within our Business Management System (BMS) to reflect the new structure.

We have set several additional focus and improvement areas for 2022 relating to environmental performance. These include:

Topic	Objective
<b>ISO 14001</b>	Integrate into a single ISO 14001 North Sea Business Unit certification.
<b>Large combustion plant stack monitoring</b>	Carry out offshore monitoring of stack sampling emissions on Armada, Judy and Britannia.
<b>Development of Environmental Unit</b>	Develop and roll out processes and training for an Environmental Unit to support an emergency event via the in-house Emergency Teams.
<b>ESG report</b>	Publish an ESG report disclosing performance metrics in accordance with the GRI and SASB standards and compliant with TCFD.
<b>ESG Standard</b>	Develop and implement an ESG Standard including disclosures plan.
<b>GHG accounting</b>	Develop and implement a GHG-emissions accounting procedure.
<b>GHG Emissions Reduction Action Plans</b>	Implement asset GHG Emissions Reduction Action Plans across our North Sea Business Unit portfolio.

## HSES policy documents

### Health, Safety, Environment and Security Policy

Our Health, Safety, Environment and Security (HSES) Policy is implemented through our Business Management System, which comprises a comprehensive set of standards and procedures that define our expectations and requirements for managing all our business activities.

**Harbour Energy**

## Health, Safety, Environment and Security Policy

Harbour Energy is committed to operating responsibly and securely, never compromising our Health, Safety, Environmental or Security (HSES) standards. Harbour Energy will do all that is reasonably practicable to reduce HSES risks, ensure the safety and security of everyone affected by our operations, protect the environment by minimising our environmental impacts, and protect our assets and business data.

**To achieve this Harbour Energy will:**

- Provide strong, visible leadership and commitment at all levels of the business
- Effectively identify hazards, threats and vulnerabilities to assess and manage risks
- Meet or surpass our legal and other requirements (e.g., compliance obligations)
- Set objectives and targets to drive improvement
- Support and train our people and assure their competence
- Provide appropriate resources
- Encourage open and honest communication
- Effectively manage the HSES risks associated with contracted work
- Maintain safe, clean, healthy and secure workplaces to protect our people, environment, assets and data
- Maintain protected high quality documented systems and processes
- Plan and prepare for potential emergencies
- Report, investigate and learn from any incidents and near misses
- Routinely inspect the workplace and audit systems and processes
- Seek opportunities to continually improve our performance

It is the responsibility of everyone in Harbour Energy to conform to our Policies and Standards and to assist the business in their implementation.

**Linda Z Cook**  
CEO Harbour Energy Plc  
01 April 2021

HAE-GLO-HSE-POL-0001, Revision 1

### Climate Change Policy

Responsibility for climate change matters, including adaptation, resilience and transition, ultimately rests with our Board of Directors. Our HSES Committee, established as a committee of the Board, is responsible for monitoring and reviewing Group-wide HSES and Net Zero Strategies.

### Sustainability Policy

Our Board established our Group's purpose, values and strategy, and is also responsible for our Environmental, Social and Governance (ESG) performance. It approves our Sustainability Policy and endorses the management of significant sustainability-related risks and opportunities.

For more information, or to see these policies, [harbourenergy.com/about-us/our-policies](https://harbourenergy.com/about-us/our-policies)

