

Statoil (U.K.) Limited

OSPAR EMS Public Statement 2015

Offshore Environmental Performance Report



Statoil (U.K.) Limited 1 Kingdom Street London W2 6BD

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Introduction

This document is the public environmental statement for the 2015 offshore petroleum activities of Statoil (U.K.) Limited. The statement has been prepared in accordance with recommendation 2003/05 of the Convention for the Protection of the Marine Environment of the North East Atlantic (the "OSPAR Convention"), which has been adopted by the United Kingdom government and offshore industry.

For more information about Statoil (U.K.) Limited, its offshore activities, its environmental management systems and its environmental performance, please contact:

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Statoil (U.K.) Limited

Statoil (U.K.) Limited is a company registered in the United Kingdom. Its principal and registered office is at 1 Kingdom Street, London W2 6BD, and it has an operational office for oil and gas development activities at Prime Four Business Park, Kingswells, Aberdeen, AB15 8QG.

Statoil (U.K.) Limited is wholly owned by Statoil ASA, an international integrated energy company that is based in Norway and listed on the Oslo and New York stock exchanges.

Statoil is the leading oil and gas company on the Norwegian continental shelf, where it is operator of over 25 surface production installations and over 500 sub-sea wells. It also has a large number of licence interests worldwide, including in North America, South America, North Africa, sub-Saharan Africa, Europe, Asia, the Middle East and Oceania.

International operatorships include the Peregrino development offshore Brazil, the Leismer oil sands project onshore Alberta, deep-water licence areas in the Gulf of Mexico, and U.S. onshore shale oil and gas fields. Statoil is also a joint venture partner of the In Salah and In Amenas gas and condensate fields onshore Algeria.

- Approximately 21,500 employees in more than 30 countries
- The world's largest oil and gas operator in waters more than 100 metres deep
- Operator of over 40 producing oil and gas fields
- Market capitalisation of more than £30 billion
- Production of over 1.9 million barrels of oil equivalent per day
- Proven reserves of more than five billion barrels of oil equivalent
- World leader in the use of deepwater technology
- World leader in carbon capture and storage
- One of the world's largest crude oil and gas suppliers
- Second largest supplier of gas to Europe
- One of the world's 200 largest listed companies

Statoil (U.K.) Limited has interests in 24 UKCS seaward production licences. The locations of these are shown in Figure 1.

The company is operator for 16 of these licences, including the Mariner licence (P335) where there is current extensive offshore development activity, and the licences P1758 and P2067¹ where exploration wells were drilled during 2015. Details of current and recent activity are provided in the next section.

The 8 UKCS licences in which Statoil (U.K.) Limited is a non-operating partner include two with producing fields: the Alba field operated by Chevron North Sea Limited and the Jupiter field operated by ConocoPhillips (U.K.) Limited.

Statoil also has interests and operatorships of a number of wind energy projects on the UKCS. Such projects are outside of the normal scope of an OSPAR EMS report but are nonetheless described in the next section.

¹ Operatorship of this licence is shared with Nexen Petroleum U.K. Limited.

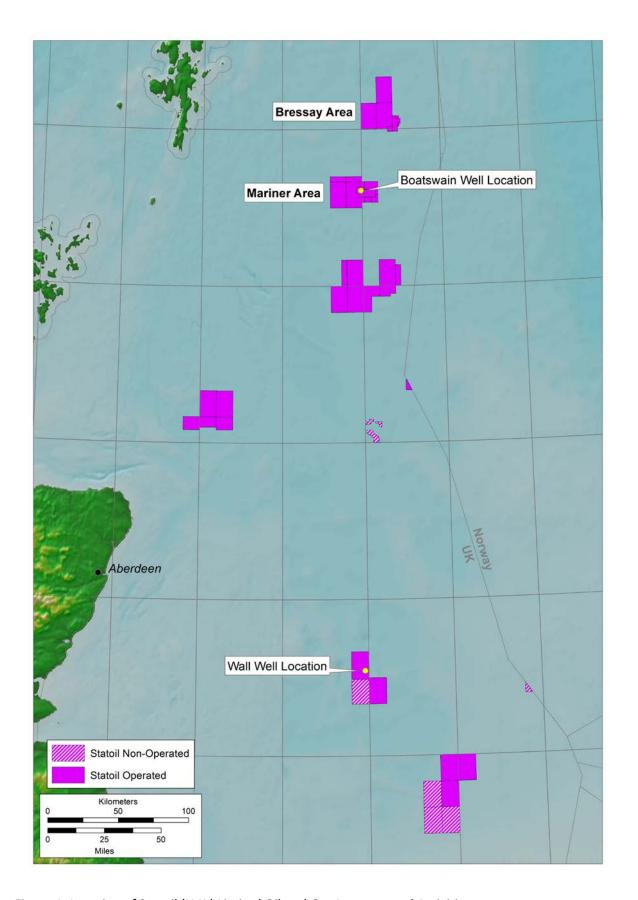


Figure 1: Location of Statoil (U.K.) Limited Oil and Gas Interests and Activities

2015 UKCS Activities

Oil & Gas Exploration Activities

Seismic Surveys

No seismic surveys were operated by Statoil (U.K.) Limited during 2015.

Exploration Drilling

During the summer of 2015 Statoil (U.K.) Limited drilled exploration wells at the "Wall" location in block 28/15 and at the "Boatswain" location in block 8/15a adjacent to the Mariner field. Both wells were drilled using the Songa Trym semi-submersible mobile offshore drilling unit owned by Songa Offshore. Both wells were subsequently fully plugged and abandoned in-line with the relevant Oil & Gas UK guidelines.

	Well Number	Spud Date	Completion Date	Coordinates ED50	Mud Type	Result
Wall	28/15-2	7 Jul 2015	21 Jul 2015	56° 32′ 23.80″ N 00° 58′ 26.33″ E	Water based	Dry
Boatswain	8/15a-3	24 Jul 2015	10 Aug 2015	59° 36′ 41.70″ N 00° 59′ 06.00″ E	Water based	Oil shows

Table 1: Details of Wall and Boatswain Wells

Oil and Gas Development Activities

<u>Mariner</u>

Statoil (U.K.) Limited is the majority equity holder and operator for UKCS seaward production licence P.335 covering the Mariner heavy oil-field. A Field Development Plan for the Mariner oil-field was approved by the Secretary of State in February 2013, since when there has been substantial progress towards an operational development. Specifically, during 2015 the following offshore installation works were carried out:

- The steel jacket structure for a Production, Drilling and Quarters (PDQ) platform was installed (transported to site, upended in position and piled in-place).
- The submerged turret loading (STL) buoy for a floating storage unit (FSU) was installed.
- A gas import pipeline was laid so as to connect the PDQ platform to the Vesterled gas trunk-line.
- Two in-field pipelines were laid so as to connect the PDQ platform and the FSU.

Drilling is scheduled to commence at Mariner during 2016, using the Noble Lloyd Noble jack-up drilling unit owned by Noble Drilling. The PDQ platform topsides modules are scheduled to arrive and be installed in 2017 and first oil production is scheduled for 2018.

Figure 2 shows an overall schematic of the completed Mariner installations.

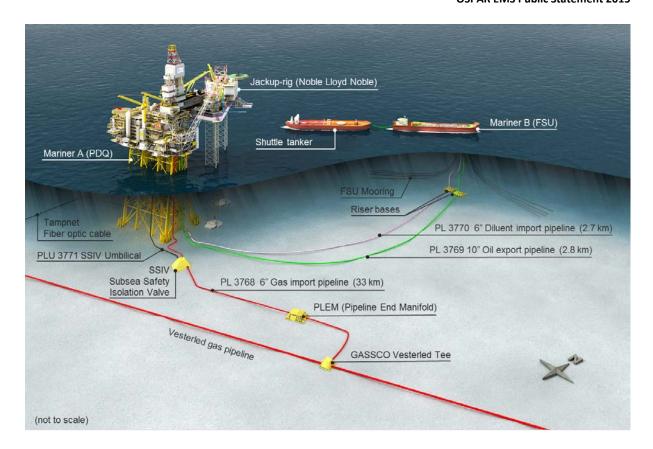


Figure 2: Schematic of Completed Mariner Development

Bressay

Statoil (U.K.) Limited is the majority equity holder and operator for the licences covering the Bressay heavy oil-field within UKCS blocks 3/27, 3/28, 9/2 and 9/3. Statoil and its licence partner, Shell, have been assessing development options for this field, although this work has now paused and there was no offshore activity at Bressay during 2015.

<u>Other</u>

Statoil Petroleum AS, one of the Statoil group's Norwegian entities, laid and commissioned a pipeline on the UKCS during 2014 and 2015. This pipeline, known as the Utsira High Gas Pipeline, connects the Edward Grieg platform on the NCS to the SAGE pipeline on the UKCS. The pipeline has now been handed over to Gassco for operations.

Wind Energy Activities

Statoil is a partner in the Sheringham Shoal offshore wind energy development located off the north Norfok coast. A total of 88 wind turbines have been installed having a combined generating capacity of 317 MW. The development is operated by Statkraft.

Statoil is the operator of the Dudgeon wind energy project, also located off the north Norfolk coast. Offshore construction will commence in 2016. Once complete, this development will comprise 67 wind turbines with a combined generating capacity of 402 MW.

Statoil is also the operator, and 100% owner, of the Hywind Scotland park - a pilot project of 5 floating wind turbines to be located off the Scottish coast near Peterhead. The combined generating capacity will be 30 MW.



Figure 3: Schematic of Completed Hywind Pilot project

Statoil is also one of four equal partners in Forewind, which has the lease for the Dogger Bank wind energy zone. The target installed capacity for this area is 7.2 GW.

Safety and Sustainability Policies

The Statoil Group's Core Values are Courageous, Open, Hands-On and Caring. The value "Caring" requires all Statoil Group companies and business units to, wherever possible:

- Cause zero harm to people and prevent accidents
- Reduce the negative impact of our activities and products on the environment
- Act within the law and comfortably within our own ethical policy
- Demonstrate social responsibility and contribute to sustainable development
- Respect the individual, help others to succeed and contribute to a positive working environment



The Statoil Group has established a number of key policies that apply to all Statoil Group companies and business units, including Statoil (U.K.) Limited. These policies are given in the <u>Statoil Book</u>. They include policies for safety and for sustainability, which are as shown below:

Statoil Group Safety Policy

We will ensure safe operations which protect people, the environment, communities and material assets. We believe that accidents can be prevented.

We are committed to:

- Integrating safety in the way we do business
- Improving safety performance in all our activities
- Demonstrating the importance of safety through hands-on leadership and behaviour
- Openness in all safety issues and active engagement with stakeholders

How we work:

- We take responsibility for the safety and security of ourselves and others
- We work systematically to understand and manage risk
- We provide our people with the necessary resources, equipment and training to deliver in accordance with their designated responsibilities
- We cooperate with our contractors and suppliers on the basis of mutual respect
- We stop unsafe acts and operations
- We aim for a safe and attractive working environment characterised by respect, trust and cooperation
- We monitor risk related to the working environment and we monitor the occupational health of our people
- We establish work processes as well as goals and performance indicators to control, measure and improve these processes
- We run safety improvement processes based on surveys and risk assessments, and we involve our people in this work
- We build robust installations/plants and maintain them to prevent accidents
- If accidents occur, our emergency response organisation will do its utmost to reduce injury and loss. Saving lives is our highest priority
- We transform lessons learned into improved safety measures through continuous learning

Statoil Group Sustainability Policy

We contribute to sustainable development through our core activities wherever we work. We aim to be the most carbon-efficient oil and gas producer, committed to creating lasting value for communities.

We are committed to:

- Integrating sustainability in the way we do business
- Applying the precautionary approach in our risk management
- Taking into account the impact our activities have on local communities and other stakeholders when making business decisions
- Contributing to social and economic development through local employment, procurement and capacity development
- Reducing greenhouse gas emissions
- Contributing to the development of a reliable, sustainable and modern energy system through innovation and cooperation
- Aiming for outstanding natural resource efficiency and preventing harm to the local environment
- Respecting all internationally recognised human rights as described in the human rights policy
- Conducting business activities in an open and transparent manner and promoting transparency within our industry

How we work:

- We identify and manage environmental and social issues through risk and impact assessments that include appropriate stakeholder engagement
- We set targets, measure, monitor and report on our sustainability performance to support continuous improvement
- We work to minimise our greenhouse gas emissions (GHG) and other environmental impacts
- We advocate for a cost on GHG emissions and for cost-efficient climate policies
- We expect our suppliers and partners to comply with applicable laws and support their efforts to meet our expectations and requirements
- We publish our revenues and payments to governments at project level
- We train our employees to deliver on our sustainability ambitions
- We cooperate with governments, industry associations, civil society, business partners and other stakeholders to develop and implement good industrial practices to further sustainable development

Statoil (U.K.) Limited OSPAR EMS Public Statement 2015

Statoil is known as a company with great commitment to health, safety and the environment. This has been reflected in the awards won by the company, and in its ranking in relevant global surveys.

For example, within the last 12 months:

- Statoil was ranked second amongst oil, gas and consumable fuels companies (and 17th overall) in the Corporate Knights Global 100 results.
- The company was awarded the Global Gas Flaring Reduction Partnership (GGFR) Excellence Award.

As an example of Statoil's environmental performance, its carbon dioxide emissions in petroleum production are around 11 kg per barrel of oil equivalent produced, compared to the average industry performance of around 17 kg.

For more details of the company's environmental activities, performance and awards, reference should be made to the <u>sustainability</u> pages of the Statoil web-site.

Environmental Management System

Introduction

The Statoil environmental management system (EMS) is an integral part of the group's overall management system. The management system has three main objectives:

- Contribute to safe², reliable and efficient operations and enable us to comply with external and internal requirements
- 2. Help us to incorporate our values, our people and our leadership principles in everything we do
- Support our business performance through high-quality decisionmaking, fast and precise execution, and continuous learning

The management system is hierarchical in that mandatory business fundamentals are supported by requirements and recommendations, as shown.

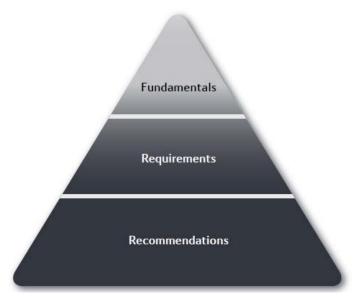


Figure 3: Statoil Management System Structure

Fundamentals

- Are essential internal regulations for the company and considered to be key success factors for Statoil to achieve its strategic objectives
- Describe what to achieve and how, over time, Statoil drives performance towards internal and external stakeholders in a competitive environment
- Cover values, principles, policies, mandates and declarations. They also cover expectations for function and process areas including definition of business tasks with identified risks and performance parameters
- Are valid corporation-wide without exception

Requirements

 Are established to manage risks, ensure safe operations and efficiency, or to comply with external regulations when performing tasks

- Describe what to comply with when performing tasks
- Cover mandates, definitions, key controls, tasks, defined outcomes, methods and required expertise
- Are made valid based on business needs and must be followed where valid and applicable for the task, unless a dispensation is in place

² Under the Statoil definitions, "safe" includes no damage to the environment.

Recommendations

- Are established to support the fulfilment of a fundamental or a requirement
- Describe a suggestion or proposal for the best course of action when performing a task and are based on the collective learning and experience in the company. Recommendations promote standardisation
- Should be followed where made valid and applicable for the task

For more information on Statoil's management system, reference may be made to the Statoil Book.

ISO 14001 Status

Statoil policy is that the overall Group does not seek certification of its management system against ISO standards, but that individual entities may seek accredited certification if there is a specific business need or local legal requirement to do so. Accordingly the management system is designed to be compatible with recognised standards such as ISO 14001 for environmental management.

The Wall and Boatswain wells that were drilled during 2015 were Statoil's first drilling or production activities on the UKCS since the Bressay and Broch wells in 2008. For the 2008 drilling campaign, Statoil (U.K.) limited had been externally verified to be implementing a management system that met the OSPAR and DECC EMS requirements. That verification lapsed in 2010 and no verification had been sought for the subsequent period during which there were no relevant UKCS activities.

In 2014, at an early stage of planning the Wall well, Statoil (U.K.) Limited engaged Lloyds Register to review the management system and related project documentation against ISO 14001. The system and its implementation were verified as meeting the OSPAR and DECC EMS requirements "with comments". The comments from the verifier were acted upon prior to the operations commencing. Lloyds Register was engaged again in early 2016 to repeat the verification, based on records from the completed Wall and Boatswain drilling campaign and on project documentation for the Mariner development and Bressay project. The result was that the verification was passed, without comment, on 12 Feb 2016.

Statoil (U.K.) Limited is considering whether to seek formal accredited certification against ISO 14001 for its UKCS oil and gas activities prior to Mariner first oil in 2018.

Environmental Goals and Objectives

The 2015 <u>Sustainability Report</u> sets out the Statoil vision and its safety/sustainability ambitions:

Our Vision:

- Staying competitive at all times
- Transforming the oil and gas industry
- Providing energy for a low carbon future

Our safety and sustainability ambitions:

- An industry leader in safe and secure operations
- Be recognised as the most carbon efficient oil and gas producer
- Create lasting local value for communities

Long-term objectives for improvement are established. For example, there is a firm objective to achieve a 1 million tonnes reduction in annual carbon emissions on the Norwegian Continental Shelf between 2008 and 2020, and a firm objective to achieve a 45% reduction in water intensity (water use per unit volume oil produced) from production of oil sands by 2020.

The "Ambition to Action" process is used to establish and record high level objectives, performance indicators and improvement actions. Objectives, indicators and actions are set annually for the Group as a whole, for each Business Unit and down each business line to local operations and projects.

Current targets and actions within the "Ambition to Action" system that apply to Statoil's UKCS oil and gas activities include:

- No serious well control incidents, an improvement in risk and barrier management, and a reduction in carbon footprint across Statoil's total drilling and well activities
- No serious incidents and the most carbon efficient solutions for major offshore projects, including Mariner development
- Personally accountable safety and security behaviour and carbon efficient operations across all international development and production activities.

Environmental Performance

This section presents the quantitative environmental performance data for the Statoil (U.K.) Limited 2015 UKCS licence activities:

- Quantities of regulated chemicals that were used or discharged during our offshore oil and gas licence activities. That is, regulated chemical use and discharge during drilling of the Wall and Boatswain wells and during installation of the Mariner facilities and pipelines.
- Quantities of waste generated, the levels of emissions to air, and the level of discharges to sea at
 installations operating at our oil and gas licence areas, i.e. at the Songa Trym drilling unit whilst
 operating at the Wall and Boatswain well sites.

Wastes, emissions and discharges from the vessels that were used for the installation activities at Mariner are not included, nor are wastes, emissions and discharges from vessels that were used to support the drilling activities. These wastes, emissions and discharges are excluded because the relevant vessels fall under maritime legislation and are not considered to be offshore installations for the purposes of OSPAR. However, it may be noted that these maritime operations were conducted without any significant adverse health, safety or environment incidents or effects.

The quantities of regulated chemicals used/discharged, waste generated, emissions to air and discharges to sea as presented below were reported to DECC at year end via the Environmental Emissions Monitoring System (EEMS).

Oil Spills and Discharges

There were no accidental spills of oil during the course of the operations, such as would require a PON1 notification. A permit was in place for controlled discharge of oil to sea via an Enviro-unit on the Songa Trym drilling unit. However, in the event, no such discharge was necessary or took place.

Regulated Chemical Use and Discharge

Use and discharge of regulated chemicals was as shown in the chart below. All chemicals use and discharge was in compliance with permits granted by DECC, and there were no chemical spills such as would require a PON1 notification.

It may be noted that oil-based drilling mud and associated chemicals were used on the Wall well due to the geology and technical nature of the well, whilst water-based mud and associated chemicals were able to be used for Boatswain.

Non-drilling chemicals were limited to biocides, oxygen scavangers and dyes, which are necessary to prevent/control biological growth, to inhibit corrosion, and to detect leaks (for example during hydro-test of the pipelines).

As a general principle Statoil prefers to select only those chemicals which are categorised as Gold / Low RQ or are in OCNS category E. However, in some cases this is not possible due to the lack of a suitable alternative. All chemicals are risk-assessed and justified for the specific operations, both as part of project planning and for the purpose of permit applications. In addition, chemicals flagged for substitution are re-justified annually.

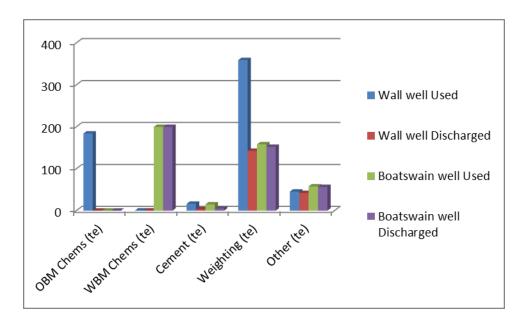


Figure 4: Use and Discharge of Regulated Drilling Chemicals

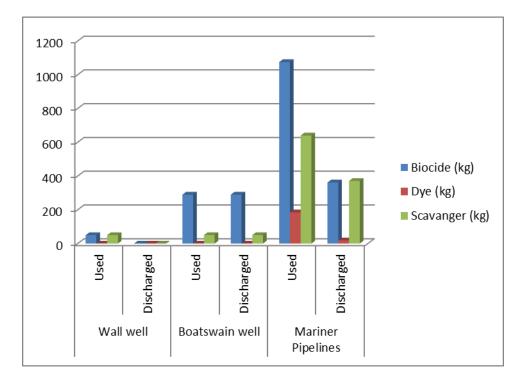


Figure 5: Use and Discharge of Other Regulated Chemicals

Waste Products Generated

A total of 939.4 tonnes of drill cuttings was discharged to sea. These cuttings were associated with well sections that had been drilled with water-based mud, and the cuttings met all regulatory and permit requirements for disposal offshore.

Other waste products generated by the offshore drilling activities were taken to shore for treatment and disposal. These wastes, and the relevant disposal routes, were as shown below.

Most of the waste that was returned to shore comprised cuttings that contained oil-based mud and/or reservoir hydrocarbons – these cuttings were treated onshore to recover the hydrocarbons prior to cuttings disposal to landfill.

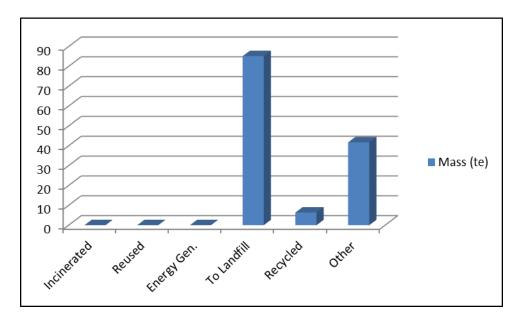


Figure 6: Waste Products Generated Offshore

Atmospheric Emissions

The principal atmospheric emissions were from diesel engines. Total fuel consumption and resultant emissions were as shown below. There was no venting or flaring of hydrocarbons.

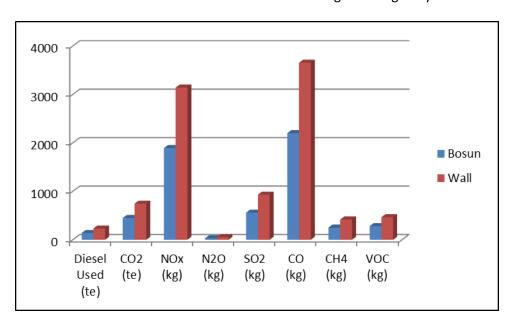


Figure 7: Atmospheric Emissions Offshore

Abbreviations

CH4 Methane

CO Carbon Monoxide CO₂ Carbon Dioxide

DECC Department of Energy and Climate Change EEMS Environmental Emissions Monitoring System

EMS Environmental Management System

FSU Floating Storage Unit GHG Greenhouse Gas

GW Gigawatt

ISO International Standardisation Organisation

ISO 14001 International Standard for Environmental Management Systems

kg Kilogram MW Megawatt

NCS Norwegian Continental Shelf

NOx Nitrogen Oxides N₂O Nitrous Oxide

OCNS Offshore Chemicals Notification Scheme

OSPAR Oslo-Paris (convention)

PDQ Production, Drilling and Quarters (platform)

PON Petroleum Operations Notice

RQ Risk Quotient

SAGE Scottish Area Gas Evacuation (pipeline)

SO₂ Sulphur Dioxide

STL Submerged Turret Loading (buoy)
UKCS United Kingdom Continental Shelf

VOC Volatile Organic Carbons