OSPAR COMMISSION

OSPAR report on Discharges, Spills and Emissions from Offshore Oil and Gas Installations in 2015

Offshore Oil & Gas Industry Series

2017

OSPAR Convention
The Convention for the Protection of the Marine Environment of the North-East Atlantic (the "OSPAR Convention") was opened for signature at the Ministerial Meeting of the former Oslo and Paris Commissions in Paris on 22 September 1992. The Convention entered into force on 25 March 1998. The Contracting Parties are Belgium, Denmark, the European Union, Finland, France, Germany, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Convention OSPAR
La Convention pour la protection du milieu marin de l'Atlantique du Nord-Est, dite Convention OSPAR, a été ouverte à la signature à la réunion ministérielle des anciennes Commissions d'Oslo et de Paris, à Paris le 22 septembre 1992. La Convention est entrée en vigueur le 25 mars 1998.
Les Parties contractantes sont l'Allemagne, la Belgique, le Danemark, l'Espagne, la Finlande, la France, l'Irlande, l'Islande, le Luxembourg, la Norvège, les Pays-Bas, le Portugal, le Royaume-Uni de Grande Bretagne et d'Irlande du Nord, la Suède, la Suisse et l'Union européenne.

Acknowledgement

This report has been prepared by the Offshore Industry Committee expert assessment panel (EAP) consisting of:

- Mr Andrew Taylor (Convenor, United Kingdom)
- Mr Emil Madsen (Denmark)
- Mr Henrik Bechmann Nielsen (Denmark)
- Mr Kurt Machetanz (Germany)
- Ms Margot Cronin (Ireland)
- Mr Ivan Abdoellakhan (the Netherlands)
- Ms Ingeborg Rønning (Norway)

with the support of the Secretariat of the OSPAR Commission.

CONTENTS

Executive Summary

Regular reporting is required in order to review progress in implementing the North-East Atlantic Environment Strategy and OSPAR measures (decisions, recommendations and other agreements) related to offshore oil and gas activities.

This report presents the discharges, spills and emissions from offshore installations in 2015. Part A of the report compiles data on the number of installations with emissions and discharges, discharges of produced water and displacement water contaminated with oil, and the use and discharge of drilling fluids, cuttings and chemicals. It also reports on accidental spills of oil and chemicals and emissions to air. Part B of the report presents the discharges and emissions over the period 2006-2015 to show the trends in discharges and emissions and use of chemicals.

Récapitulatif

Une notification régulière s'impose pour suivre la progression de la mise en œuvre de la Stratégie pour le milieu marin de l'Atlantique du Nord-est, ainsi que l'application de mesures OSPAR (décisions, recommandations et autres accords) qui visent les activités pétrolières et gazières en offshore.

Ce rapport présente les rejets, déversements et émissions provenant des installations offshore en 2015. Dans la partie A du rapport, sont collationnées les données sur le nombre d'installations procédant à des émissions et à des rejets, à des rejets d'eau de production et d'eau de déplacement contaminés par des hydrocarbures, sur la consommation et les rejets de fluides de forage, de déblais de forage et de produits chimiques utilisés et rejetés en offshore. Y sont également indiqués les déversements accidentels d'hydrocarbures et de produits chimiques, ainsi que les émissions dans l'atmosphère. Dans la partie B du rapport sont indiqués les rejets et les émissions au cours de la période allant de 2006 à 2015, afin de mettre en évidence les tendances des rejets et des émissions ainsi que la consommation des produits chimiques.

1. Introduction

1.1 Programmes and measures relevant to this report

At their meeting in Bergen (Norway) on 23-24 September 2010, OSPAR Ministers adopted the Strategy of the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic 2010-2020 ("the North-East Atlantic Environment Strategy") (OSPAR Agreement 2010-3).

The North-East Atlantic Environment Strategy sets out OSPAR's vision, objectives, strategic directions and action for the period up to 2020. In Part I, the Strategy gives prominence to the overarching implementation of the ecosystem approach and the need for integration and coordination of OSPAR's work across themes and groups. Part II provides the thematic strategies for Biodiversity and Ecosystems, Eutrophication, Hazardous Substances, Offshore Oil and Gas Industry and Radioactive Substances.

The Offshore Oil and Gas Industry thematic Strategy (Offshore Strategy) sets the objective of preventing and eliminating pollution and taking the necessary measures to protect the OSPAR maritime area against the adverse effects of offshore activities so as to safeguard human health, conserve marine ecosystems and, when practicable, restore marine areas which have been adversely affected.

As its timeframe, the Offshore Strategy further declares that the OSPAR Commission will implement this Strategy progressively and, insofar as they apply, following on and consistent with the commitments made in the other OSPAR thematic Strategies.

The Offshore Strategy provides that the OSPAR Commission will keep under review and, where necessary, develop programmes and measures in respect of all phases of the offshore activities, in accordance with the provisions of the OSPAR Convention and the findings of the Quality Status Report 2010.

To this end, the Offshore Strategy requires the OSPAR Commission to continue the annual collection of data on use and discharges of offshore chemicals, emissions to air, spills, and discharges of oil and radioactive substances. Regular reporting is therefore required in order to review progress towards the targets of the Offshore Strategy.

Since 1978, discharges and waste handling from offshore oil and gas installations have been addressed and regularly reported under the former Paris Convention and under the OSPAR Convention. Since the beginning of the 1990s air emissions from these installations have been reported as well. The following measures[1] are relevant for this report:

Operational discharges of oil

- PARCOM Recommendation 86/1 of a 40 mg/l Emission Standard for Platforms;[2]
- OSPAR Reference Method of Analysis for the Determination of the Dispersed Oil Content in Produced Water (OSPAR Agreement number: 2005-15);
- OSPAR Recommendation 2001/1 for the Management of Produced Water from Offshore Installations as amended by OSPAR Recommendation 2006/4 and OSPAR Recommendation 2011/8;

Use and discharge of drilling fluids and cuttings

- OSPAR Decision 2000/3 on the Use of Organic-phase Drilling Fluids (OPF) and the Discharge of OPF-contaminated Cuttings;
- Guidelines for the Consideration of the Best Environmental Option for the Management of OPF-Contaminated Cuttings Residue (OSPAR Agreement number: 2002-8);

Use and discharge of chemicals

- OSPAR Decision 2000/2 on a Harmonised Mandatory Control System for the Use and Reduction of the Discharge of Offshore Chemicals as amended by OSPAR Decision 2005/1;
- OSPAR Recommendation 2010/3 on a Harmonised Offshore Chemical Notification Format (HOCNF)
- OSPAR Recommendation 2016/4 on a Harmonised Pre-Screening Scheme for Offshore Chemicals (which superseded OSPAR Recommendation 2010/4 from 1 January 2017);

and a whole suite of Other Agreements concerning guidance on test methods and completing data sets, and lists of chemicals that will contribute to the implementation of these measures.

1.2 Annual reporting and assessments

In preparation for the Annual OSPAR Reports on Discharges, Spills and Emissions from Offshore Oil and Gas Installations, data are submitted by Contracting Parties, compiled by the Secretariat and, following examination by the relevant subsidiary bodies, published by the OSPAR Commission. At first annual reports were published as part of the OSPAR Commission's general Annual Report, and from 1992 onwards they

[1] All measures referred to in this chapter can be downloaded from the OSPAR website www.ospar.org

[2] PARCOM Recommendation of a 40 mg/l Emission Standard for Platforms, 1986 was revoked for produced water by OSPAR Recommendation 2001/1 for the Management of Produced Water from Offshore Installations. However, this measure is still applicable in relation to ballast water, drainage water and displacement water from offshore installations.

are published in the form of Annual OSPAR Reports on Discharges, Spills and Emissions from Offshore Oil and Gas in the OSPAR maritime area. From 1999 onwards, annual reports also contained a biennial assessment of discharges, spills and emissions, which started in 1999 with the assessment of data reported in 1996 and 1997. With a view to harmonising the way in which data and information on offshore oil and gas activities are being established and reported, the former Programmes and Measures Committee of the OSPAR Commission adopted in 1995 a reporting format and procedures. Over time, the reporting requirements and format for data collection have regularly been reviewed and updated in the light of ongoing work under the OSPAR Commission as regards offshore installations. The reporting format was examined by the Offshore Industry Committee's Expert Assessment Panel in 2012 and revised to bring it in-line with the revised OSPAR Harmonised Mandatory Control System for the Use and Reduction of the Discharge of Offshore Chemicals (i.e. OSPAR Decision 2000/2, and Recommendations 2010/3 and 2016/4). The revised reporting format was adopted by OSPAR in 2012 (OSPAR Agreement 2012-08).

This report presents the discharges, spills and emissions data from offshore installations for 2015 in Part A and cumulative data in Part B.

2. Results

Part A: Report relating to 2015 data

Part B: Cumulative Report

2.1 General information

The continental decimal system is used throughout this report (with a space as 1000 separator and a comma as decimal separator) with one decimal number after the comma.

NI means No Information available, i.e. unknown or missing data (data different from 0).

NA means Not Applicable, i.e. that the criteria is not relevant. For sums and totals, it is equivalent to 0.

2.2 Glossary

OP is the acronym for organic phase.

Organic-phase drilling fluid (OPF) means an organic-phase drilling fluid, which is an emulsion of water and other additives in which the continuous phase is a water-immiscible organic fluid of animal, vegetable or mineral origin.

Base fluid means the water immiscible fluid which forms the major part of the continuous phase of the OPS.

Drilling fluid means base fluid together with those additional chemicals which constitute the drilling system.

Oil-based fluids (OBF) means low aromatic and paraffinic oils and those mineral oil-based fluids that are neither synthetic fluids nor fluids of a class whose use is otherwise prohibited.

Synthetic fluid means highly refined mineral oil-based fluids and fluids derived from vegetable and animal sources.

Cuttings means solid material removed from drilled rock together with any solids and liquids derived from any adherent drilling fluids.

Whole OPF means OPF not adhering to or mixed with cuttings.

WBM is the acronym for water-based muds.

Part A: Report relating to 2015 data

Part B: Cumulative Report

Part A : Report relating to 2015 data

Table 1: Number of installations with emissions and discharges covered by OSPAR measures[a]

Year: 2015

Country	Production		Subsea[d]	Other[e]	Total	Number of wells drilled[f]
	Oil [b]	Gas[c]				
Denmark	20	0	0	0	**20**	10
Germany	1	1	0	0	**2**	2
Ireland	0	1	1	0	**2**	1
Netherlands	9	118	0	0	**127**	22
Norway	50	12	53	0	**115**	248
Spain					**0**	
United Kingdom	90	191	218	1	**500**	98
Total	**170**	**323**	**272**	**1**	**766**	**381**

a. It should be noted that each CP records number of installations in accordance with its own accounting system.
b. Installations which produce oil and gas are considered as "oil installations".
c. Installations which produce gas and condensate are considered as "gas installations".
d. Subsea installations are determined differently by each Contracting Party.
e. Example: offshore underground storage and loading buoys.
f. Number of wells drilled are for wells completed in that calendar year.

Part A : Report relating to 2015 data

Table 2: Produced water and displacement water

This table refers to all waters discharged to the sea (except cooling and sewage water) the quality of which should fit with OSPAR measures (cf. OSPAR

Year: 2015

Table 2a: Produced water[a]

Country	Total number of installations[b]	Annual quantity of water discharged[c] (m^3)	Annual average dispersed[d] oil concentration (mg/l)	Total amount of dispersed[d] oil discharged (tonnes)	Annual average BTEX[e] concentration (mg/l)	Total amount of BTEX[e] discharged (tonnes)	Number of installations injecting water[f]	Annual quantity of water injected[f] (m^3)
Denmark	16	24,175,428	8.0	194.3	6.0	145.2	8	13,497,375
Germany	1	6,238	27.3	0.2	52.5	0.3	1	2,618,572
Ireland	1	827	13.9	0.01	213.2	0.2		
Netherlands	73	2,180,316	25.9	56.5	21.6	47.0	9	7,901,668
Norway	41	148,181,942	12.3	1819.0	15.3	2269.0	21	42,479,952
Spain								
United Kingdom	107	164,689,547	14.6	2412.1	15.2	2508.1	22	36,903,626
Total	**239**	**339,234,298**	**13.2**	**4,482**	**14.7**	**4,970**	**61**	**103,401,193**

a. "Produced water" means water which is produced in oil and/or gas production operations and includes formation water, condensation water and re-produced injection water; it also includes
b. Total number of installations discharging produced water.
c. Total quantity of produced water discharged to the sea during the year.
d. Dispersed oil is, by definition, the oil measured according to the method described in § 7.2 of the OSPAR Recommendation 2006/4 and specified in the OSPAR Agreement 2005-15.
e. BTEX determined according to 1.1 of OSPAR Recommendation 2001/1, as amended by OSPAR Recommendation 2011/8, are considered as dissolved oil.
f. Produced water only (excluding sea water for pressure maintenance).

Part A : Report relating to 2015 data

Table 2: Produced water and displacement water

This table refers to all waters discharged to the sea (except cooling and sewage water) the quality of which should fit with OSPAR measures (cf. OSPAR

Year: 2015

Table 2b: Displacement water[a]

Country	Total number of installations[b]	Annual quantity of water discharged[c] (m^3)	Annual average dispersed[d] oil concentration (mg/l)	Total amount of dispersed[d] oil discharged (tonnes)	Annual average BTEX[e] concentration (mg/l)	Total amount of BTEX[e] discharged (tonnes)	Number of installations injecting water[f]	Annual quantity of water injected[f] (m^3)
Denmark	2	679,842	1.3	0.87	0.2	0.1	0	0
Germany	0							
Ireland	0							
Netherlands	2	375,481	0.69	0.26	2.66	1.0	0	0
Norway	6	33,830,308	1.2	40	NI	NI	0	0
Spain								
United Kingdom	1	596,642	<LoD	<LoD	0.5	0.3	0	0
Total	**11**	**35,482,273**	**1.2**	**41**	**0.04**	**1.4**	**0**	**0**

a. "Displacement water" is the seawater which is used for ballasting the storage tanks of the offshore installations (when oil is loaded into the tanks, the water is displaced, and is discharged to
b. Total number of installations discharging displacement water.
c. Total quantity of displacement water discharged to the sea during the year.
d. Dispersed oil is, by definition, the oil measured according to the method described in § 7.2 of the OSPAR Recommendation 2006/4 and specified in the OSPAR Agreement 2005-15
e. BTEX determined according to 1.1 of OSPAR Recommendation 2001/1, as amended by OSPAR Recommendation 2011/8, are considered as dissolved oil.
f. Displacement water only (excluding sea water for pressure maintenance).

Part A : Report relating to 2015 data

Table 3: Installations which fail to meet the 30 mg/l performance standard for dispersed oil

This table concerns installations for which the average annual oil content of the produced water discharged to the sea exceeds the 30 mg/l performance

Year: 2015

Country/Installation[a]	Type of installation[b]	Quantity of water discharged during the year (1000m^3)	Annual average concentration of dispersed oil[c] (mg/l)	Total amount of dispersed oil discharged (tonnes/yr)	Total amount of dispersed oil during the period exceeding the performance standard[d] (tonnes/yr)
Denmark / Gorm C	Oil	78.5	30.50	2.40	0.08
Denmark / Siri	Oil	21.0	41.50	0.90	0.20
Netherlands / D15-A	Gas	2.3	32.00	0.08	0.01
Netherlands / K2b-A	Gas	4.7	32.00	0.14	0.01
Norway / Sleipner Vest	Gas	4.0	100.67	0.08	0.28
Norway / Sleipner Øst	Gas	3.0	83.68	0.14	0.16
Norway / Oseberg Sør	Oil	50.0	68.00	3.37	1.88
Norway / Oseberg A	Gas	23.0	62.92	1.46	0.76
UK / Clair Phase 1 Platform	Oil	189.6	41.98	7.96	2.27
UK / Foinaven - FPSO Petrojarl	Oil	870.5	36.18	31.49	5.38
UK / Rough AD Platform	Gas	0.3	50.61	0.02	0.01
UK / Rough BD Platform	Gas	0.3	44.78	0.01	0.00
UK / Donan FPSO Global Producer III	Oil	1,066.8	32.42	34.59	2.59
UK / Cleeton CPQ Platform	Gas	0.002	139.19	0.0002	0.0002
UK / Ravenspurn North CPP Platform	Gas	26.3	131.49	3.45	2.67
UK / West Sole WA Main Platform	Gas	3.8	77.36	0.30	0.18
UK / Leman AD1 Platform [SHELL]	Gas	11.3	177.39	2.01	1.67
UK / Ross FPSO Bleo Holm	Oil	851.0	30.14	25.65	0.12
UK / Alwyn North NAB Platform	Oil	38.0	37.13	1.40	0.27
Total		**3,142.6**	**35.66**	**112**	**18.52**

a. Name of the installation where the discharge takes place.

b. Same categories as in table 1: Oil (O), Gas (G), Other (oth) installations

c. The annual average concentration of dispersed oil content should be calculated on the basis of the total weight of oil discharged per year by the installation divided by the

d. To calculate this amount use the following formula: (annual average concentration of dispersed oil minus 30) * volume discharged

Table 3a. Information on installations which fail to meet the 30 mg/l performance standard and discharging more than 2 tonnes of dispersed oil per year

This table concerns installations for which the average annual oil content of the produced water discharged to the sea exceeds the 30 mg/l performance standard

Year: 2015

Country/Installation/Operator[a]	Type of installation	Annual average concentration of dispersed oil (mg/l)[b]	Treatment equipment installed	Reasons for not achieving the standard	Action being taken
Denmark / Gorm C / Maersk Oil and Gas	Oil	30.5	Cyclones, degasser	Upstart of Rolf installation. Very cold and not trimmed separation. Many S/D in the period	Get stable production process
Norway / Oseberg Sør / Statoil	Oil	67.9	Separators, hydrocyclons and degassing	Uptime of reinjection was 98,1% in 2015. The incidents where reinjection stops (causing discharges of produced water to sea) are in most cases caused by irregularities/instabilities in the production/production wells. This implies difficulties in optimal operation of the produced water treatment systems.	The strategy for reducing the amounts of oil to sea is to maintain the highest possible performance of reinjection. CFU has been considered, but has high costs when related to the potential reduction of oil to sea.
UK / Clair Phase 1 Platform / BP	Oil	42.0	HP Separator LP Separator Electrostatic Coalescers Hydrocyclones Produced Water Skimmer Produced Water Filter	A number of issues throughout the year have contributed to the high oil in water results, including a number of trips of the Minox system, which is required to maintain produced water reinjection. It should be noted that the normal route for produced water disposal is reinjection.	Implementation of technical and procedural improvements to increase the uptime of the produced water reinjection system.
UK / Foinaven - FPSO Petrojarl / BP	Oil	36.2	Primary Treatment: Gravity seperation and chemical treatment. Secondary Treatment: Hydrocyclones	Rapidly increasing water cut in the produced fluids has resulted in equipment, including the oil seperation and produced water treatment system, operating outside of its optimum performance envelope.	Changeout of slug catcher, 1st and 2nd Stage seperator and produced water flash drum internals has been completed. Produced Water re-injected when possible.
UK / Donan FPSO Global Producer III / Maersk	Oil	32.4	first stage separator, de-sanding hydrocyclones, deoiling hydrocyclones, Downstream Enhancement Vessel then overboard/reinjected	Poor weather resulting in vessel movement causing poor seperation & issues with PWRI pumps	Work ongoing to improve PWRI uptime
UK / Ravenspurn North CPP Platform / Perenco	Gas	131.5	Ravenspurn Stream: Separator - Oily Water Treatment Vessel - Closed Drains Vessel - CETCO Unit Johnston Stream: 'Mare's tail' coalescer - hydrocyclone package - produced water treatment vessel - Closed Drains Vessel - CETCO Unit	An emulsion formed within the produced water causes separation issues	A bespoke filtration system with coalescer is to be installed Q4 2016 or Q1 2017
UK / Leman AD1 Platform / Shell	Gas	177.4	Separation tank then hydrocyclones	Poor peformance of separation tank due to difficulties managing irregular flow. Small PW discharge and thus small mass emission to sea despite high results.	System has been much more stable since Feb 15.
UK / Ross FPSO Bleo Holm / Talisman	Oil	30.1	Hydrocyclones, Degasser, Slops Tank	During rough seas, vessel motion causes disturbance in slops tanks giving rise to poor OIW separation.	On identification of high OIW, overboard discharge stopped, levels in slops tank allowed to rise until vessel movement, and hence disturbance in slops tanks, subsides. Operator has instigated a produced water improvement programme.

a. Name of the installation where the discharge takes place.
b. The annual average oil content should be calculated on the basis of the total weight of oil discharged per year by the installation, divided by the total volume of produced water discharged during the same period.

Part A : Report relating to 2015 data

Table 3b. Information on installations which fail to meet the 30 mg/l performance standard and discharging less than 2 tonnes of dispersed oil per year

Year: 2015

Country/Installation/Operator [a]	Type of installation [b]	Annual average concentration of dispersed oil mg/l [c]	Treatment equipment installed
Denmark / Siri / DONG E&P	Oil	41.5	Separators (two stages), hydrocyclone
Norway / Sleipner Vest	Gas	100.67	Separators and degassing
Norway / Sleipner Øst	Gas	83.68	Separators and degassing
Norway / Oseberg A	Gas	62.92	Separators and floatation
UK / Rough AD Platform / Centrica	Gas	50.61	Production Separators, Coalescers, Skimmer, Caisson Sump Pump, Hydrocarbon Sump Tank, Bad Oil Tank, Oily Water Separator, Oil Absorption Media Filter
UK / Rough BD Platform / Centrica	Gas	44.78	Inlet Separators, Injection Separators, Test Separator, Off-spec Condensate Vessel, De-sanding Package, Oily Water Separator & Oil Absorption Media Filter
UK / Cleeton CPQ Platform / Perenco	Gas	139.19	Only 1.6m3 produced water discharge from Cleeton in 2015, platform is 100% PWRI as of Q4 2015.
UK / West Sole WA Main Platform / Perenco	Gas	77.36	West Sole Alpha platform direct exporting all produced fluids to Dimlington onshore terminal for processing as of Q4 2016
UK / Alwyn North NAB Platform / Total	Oil	37.13	First stage and Test separator, LP Flash Drum, HP and LP Plate Separators, Flotation Unit Flash drum

a. Name of the installation where the discharge takes place.

b. Same categories as in table 1: Oil (O), Gas (G), Other (oth) installations

c. The annual average oil content should be calculated on the basis of the total weight of oil discharged per year by the installation divided by the total volume of produced water discharged during the same period.

Part A : Report relating to 2015 data

Table 4a: Use and Discharges of Oil Based drilling Fluids (OBF) and cuttings [a]

Year: 2015

Country	Total amount of OBF (fluid only) used (tonnes)	Number of wells drilled with OBF[c]	Cuttings discharged to the sea after treatment				OBF cuttings injected		Cuttings transported to shore (tonnes)
			Number of wells concerned	Amount of cuttings discharged (tonnes)	Average OBF[d] concentration in cuttings (%)	Total amount of OBF discharged[e] (tonnes)	Number of wells concerned	Total amount of cuttings injected[f] (tonnes)	
Denmark	11,952	5	0	0	0	0	4	2,791	608
Germany	2,886	2	0	0	0	0	0	0	4,676
Ireland	0	0	0	0	0	0	0	0	0
Netherlands	23,918	14	0	0	0	0	0	0	12,189
Norway	171,386	162	4	2460	0.37	9	52	36,189	71,299
Spain									
United Kingdom	73,559	97	16	9,780	0.14	13.6	17	10,387	33,189
Total OBF	**283,701**	**280**	**20**	**12,240**	**0.18**	**22.6**	**73**	**49,367**	**121,961**

a. Any use of drilling fluids regulated by OSPAR Decision 2000/3 on the Use of Organic-Phase Drilling Fluids (OPF) and the Discharge of OPF-Contaminated Cuttings should be reported. It concerns all OPF

b. OP is the acronym for organic phase: it means oil in the case of OBF, the organic phase mixture for the other OPFs.

c. Report the estimated amount of OBF discharged to the sea, through the cuttings discharged.

d. As defined in OSPAR Decision 2000/3.

e. Report the amount of cuttings transported to shore, for treatment and/or disposal.

f. Report the estimated amount of cuttings injected into disposal wells, excluding the water added for slurryfication.

Part A : Report relating to 2015 data

Table 4b: Use and Discharges of other Organic Phase drilling Fluids (Other OPF)[b]

Year: 2015

Country	Total amount of OPF (fluid only) used (tnnes)	Number of wells drilled with OPF[c]	Cuttings discharged to the sea after treatment				OPF cuttings injected		Cuttings transported to shore[g] (tonnes)
			Number of wells concerned	Amount of cuttings discharged	Average OP[d] concentration in cuttings (%)	Total amount of OP discharged[e] (tonnes)	Number of wells concerned	Total amount of cuttings injected[f] (tonnes)	
Denmark	7,800	5	0	0	0	0	0	0	3,516
Germany	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0
Spain									
United Kingdom	1,499	1	0	0	0	0	0	0	228
Total non-OBF OPF	**9,299**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**3,744**
Grand Total OBF[h]	**293,000**	**286**	**20**	**12,240**	**0.05**	**22.6**	**73**	**49,367**	**125,704**

a. Any use of drilling fluids regulated by OSPAR Decision 2000/3 on the Use of Organic-Phase Drilling Fluids (OPF) and the Discharge of OPF-Contaminated Cuttings should be reported. It concerns all OPF
b. Other OBF OPF, including synthetics.
c. An OPF well is drilled with at least one section of the well with OPF
d. OP is the acronym for organic phase: it means oil in the case of OBF, the organic phase mixture for the other OPFs.
e. Report the estimated amount of OP discharged to the sea, through the cuttings discharged.
f. Report the estimated amount of cuttings injected into disposal wells, excluding the water added for slurryfication.
g. Report the amount of cuttings transported to shore, for treatment and/or disposal.
h. Total OBF + non-OBF OPF.

Part A : Report relating to 2015 data

Table 5: Accidental spillages

Year: 2015

Table 5a: Accidental spillages of oil [a]

Country	Number of oil spills			Total quantity of oil spills (tonnes)		
	≤ 1 tonne	> 1 tonne	Total number	≤ 1 tonne	> 1 tonne	Total Quantity
Denmark	54	0	54	1.9	0.0	1.9
Germany	0	0	0	0.0	0.0	0.0
Ireland	0	0	0	0.0	0.0	0.0
Netherlands	13	0	13	0.8	0.0	0.8
Norway [(1)]	41	6	47	6.0	34.0	40.0
Spain			0			0.0
United Kingdom	350	8	358	14.1	25.0	39.0
Total	**458**	**14**	**472**	**22.8**	**59.0**	**82**

a. Flaring spillages are included in oil spillages

[(1)] Norway - Reports m^3 rather than tonnes

Table 5b: Accidental spillages of chemicals[a, b]

Country	Number of chemical spillages			Total Quantity of chemicals spilled (tonnes)		
	≤ 1 tonne	> 1 tonne	Total number	≤ 1 tonne	> 1 tonne	Total Quantity
Denmark	38	1	39	1.3	116.0	117.3
Germany	0	0	0	0	0	0
Ireland	0	0	0	0	0	0
Netherlands	5	2	7	0.7	5.6	6.3
Norway [(1)]	130	43	173	16.2	1563.0	1579.2
Spain			0			0
United Kingdom	177	25	202	25.1	424.7	449.8
Total	**350**	**71**	**421**	**43.4**	**2109**	**2,153**

a. Chemical spills include all drilling fluids for all CPs except for the Netherlands in case of the oil in OBF which is reported as an oil spill

b. The total quantity of chemicals spilled are reported in these tables. The total quantities of specific components spilled are reported in Table 7c

[(1)] Norway - Reports m^3 rather than tonnes.

Part A : Report relating to 2015 data

Table 6: Emissions to air

Year: 2015

Country	CO_2[a] (10^3 tonnes)	NO_x[b] (tonnes)	nmVOCs[c] (tonnes)	CH_4[d] (tonnes)	SO_2 (tonnes)
Denmark	1,802	7,643	2,254	3,846	99
Germany	34	62	60	118	0.8
Ireland	33	84.1	1.02	341	0.89
Netherlands	1,928	3,948	3,018	7,880	263
Norway	13,845	46,757	47,344	29,050	736
Spain					
United Kingdom	13,774	52,808	37,312	41,702	2,864
Total	**31,415**	**111,302**	**89,989**	**82,937**	**3,964**

a. CO_2 is carbon dioxide emitted, not the carbon dioxide equivalents of the various greenhouse gases. Carbon monoxide (CO) is not incl

b. NO_x is the sum of nitric oxide (NO) and nitrogen dioxide (NO_2) expressed as NO_2 equivalent. Nitrous oxide (N_20) is not included as a c

c. VOCs (Volatile Organic Compounds) comprise all hydrocarbons, other than methane, released to the atmosphere.

d. CH_4 corresponds to the methane released to the atmosphere, from any source.

Part A : Report relating to 2015 data

Table 7: The use and discharge of offshore chemicals [a, b]

Year: 2015

Table 7a: Quantity of offshore chemicals used in kg/year

Country	Prescreening Category							
	Plonor	LCPA	LC_{50} or EC_{50} < 1 mg/l	Biodegradation < 20 %	Substances meet two of three criteria	Inorganic, LC50 or EC50 > 1 mg/l	Ranking	Total
Denmark	36,612,158	26	13	212,945	10,598	839,636	17,715,363	**55,390,739**
Germany	6,795	0	0	0	863	0	1,808	**9,466**
Ireland	540,229	0	0	375	0	300	23,213	**564,117**
Netherlands	49,608,209	0	0	464,791	114,339	1,009,744	17,814,944	**69,012,027**
Norway [(1) (2)]	311,861,617	0	49,672	2,330,299	1,410,717	N/A	104,211,550	**419,863,856**
Spain								**0**
United Kingdom	211,799,667	88	294	3,504,469	2,064,376	2,494,697	84,134,667	**303,998,259**
Total	**610,428,675**	**114**	**49,980**	**6,512,879**	**3,600,892**	**4,344,378**	**223,901,545**	**848,838,464**

a. According to OSPAR Recommendation 2000/4 on a Harmonised Pre-screening Scheme for Offshore Chemicals (as amended) and the terminology used in this Recommendation.

b. The total quantities of specific components are reported in this table.

(1) Norway has changed classification of NaOCl from Ranking to LC50 or EC5<1mg/l

(2) Norway now reports firefighting chemicals

Part A : Report relating to 2015 data

Table 7b: Quantity of offshore chemicals discharged in kg/year [a, b]

Year: 2015

Country	Prescreening Category							
	Plonor	LCPA	LC_{50} or EC_{50} < 1 mg/l	Biodegradation < 20 %	Substances meet two of three criteria	Inorganic, LC50 or EC50 > 1 mg/l	Ranking	Total
Denmark	9,530,418	0	0	0.05	0	247,663	5,984,427	**15,762,508**
Germany	6,116	0	0	0	0	0	71	**6,187**
Ireland	376,623	0	0	375	0	290	20,987	**398,275**
Netherlands	16,128,611	0	0	1,235	6,656	119,708	460,649	**16,716,860**
Norway [(1) (2)]	94,071,979	0	43,684	14,083	15,868	N/A	14,417,695	**108,563,309**
Spain								**0**
United Kingdom	52,492,691	0	179	294,371	818,122	475,932	11,571,081	**65,652,376**
Total	**172,606,438**	**0**	**43,863**	**310,065**	**840,645**	**843,593**	**32,454,911**	**207,099,514**

a. According to OSPAR Recommendation 2000/4 on a Harmonised Pre-screening Scheme for Offshore Chemicals (as amended) and the terminology used in this Recommendation.

b. The total quantities of specific components are reported in this table.

(1) Norway has changed classification of NaOCl from Ranking to LC50 or EC5<1mg/l

(2) Norway now reports firefighting chemicals

Part A : Report relating to 2015 data

Table 7c: Quantity of offshore chemicals spilled in kg/year [a, b]

Year: 2015

Country	Prescreening Category							
	Plonor	LCPA	LC_{50} or EC_{50} < 1 mg/l	Biodegradation < 20 %	Substances meet two of three criteria	Inorganic, LC50 or EC50 > 1 mg/l	Ranking	Total
Denmark	66,855	0	0	1,500	0	0	37,280	**105,635**
Germany	0	0	0	0	0	0	0	**0**
Ireland	0	0	0	0	0	0	0	**0**
Netherlands	5,168	0	0	1	0	0	49	**5,218**
Norway	540,664	8	0	7,806	5,432	N/A	301,398	**855,309**
Spain								**0**
United Kingdom	231,963	0	0	606	480	242	25,115	**258,406**
Total	**844,650**	**8**	**0**	**9,913**	**5,913**	**242**	**363,841**	**1,224,568**

a. According to OSPAR Recommendation 2000/4 on a Harmonised Pre-screening Scheme for Offshore Chemicals (as amended) and the terminology used in this Recommendation.

b. The total quantities of specific components are reported in this table.

Part A : Report relating to 2015 data

Table 8: Discharges of radioactive substances in produced water in terabecquerel (TBq)

Year: 2015

Country	OSPAR Region	Pb-210	Ra-226	Ra-228
Denmark	II	0.00E+00	2.16E-03	9.81E-04
Ireland	III	1.08E-06	9.63E-07	1.76E-07
Germany	II	2.00E-06	7.10E-05	1.00E-05
Netherlands	II	6.55E-03	9.82E-02	1.01E-01
Norway	I	2.68E-03	5.24E-02	5.32E-02
Norway	II	3.17E-02	3.85E-01	3.38E-01
UK	II	2.05E-02	2.53E-01	1.79E-01
UK [(1)]	III	6.01E-05	8.96E-03	6.26E-03
Total		**0.06**	**0.80**	**0.68**

[(1)] Only two operators reported discharges to OSPAR Region III of Pb-210, Ra-226 and Ra-228.

More information on this data is available in the annual OSPAR Report on draft discharges of radionuclides from the non-nuclear sectors.

Part A : Report relating to 2015 data

Table 9: Country reporting on RBA assessments

Year: 2015

Installation OSPAR Inventory ID	Name or Identifier of Installation	Operator	Predominant Hydrocarbon (Gas/Cond/Oil)	Reassessment? (Y/N)	Produced water assessment (Y/N)				Key substances or group of substances identifed in PW likely to pose the greatest risk to the marine	Field monitoring (Y/N)	Criteria Used to assess risk	Risk adequately controlled (Y/N)	BAT/BEP assessment undertaken (Y/N)	Chemical substitution, measure or technology implemented	Comments
					Chemical Analysis	Whole Effluent Toxicity	Whole Effluent Assessment	Substance Level							
UK0016	Harding	TAQA	Oil & Gas	N	Y	Y	Y	Y	Naturally occurring	N	DREAM	N	N	N	Further management measures to be considered when more results available
UK0541	Cleeton	Perenco	Gas & Condensate	N	Y	Y	Y	Y	Corrosion inhibitor	N	DREAM	N	N	N	Further management measures to be considered when more results available
UK0679	Alwyn	Total	Oil, Gas & Condensate	N	Y	Y	Y	Y	Corrosion inhibitor	N	MIKE & CORMIX	N	N	N	Review Still Underway
UK1123	Voyager Spirit	Premier	Oil & Gas	N	Y	Y	Y	Y	Corrosion inhibitor	N	MIKE & CORMIX	N	N	N	Further management measures to be considered when more results available
UK0705	North Everest	BG	Oil, Gas & Condensate	N	Y	Y	Y	Y	Deoiler	N	DREAM	N	N	N	Review Still Underway
UK0739	Piper Bravo	Repsol Sinopec Resources UK Limited	Oil & Gas	N	Y	Y	Y	Y	Corrosion inhibitor, water clarifier	N	DREAM	N	N	N	Further management measures to be considered when more results available.
UK0747	Tiffany	CNRI	Oil & Gas	N	Y	Y	Y	Y	HS2-scavenger, demulsifier	N	CORMIX & DREAM	N	N	N	Review Still Underway
UK1087	Northern Producer	Enquest Heather Limited	Oil & Gas	N	Y	Y	Y	Y	Corrosion inhibitor	N	MIKE & CORMIX	N	N	N	Review Still Underway
UK0685	Beryl B	Apache Beryl I Limited	Oil, Gas & Condensate	N	Y	Y	Y	Y	Scale inhibitor	N	DREAM	N	N	N	Further management measures to be considered when more results available.
UK098	Triton	Dana	Oil & Gas	N	Y	Y	Y	Y	Corrosion inhibitor	N	CORMIX & DREAM	N	N	N	Review Still Underway
UK1120	Wingate	Wintershall	Gas & Condensate	N	Y	Y	Y	Y	Naturally occurring	N	DREAM	N	N	N	Review Still Underway
UK0708	Forties B	Apache North Sea Limited	Oil & Gas	N	Y	Y	Y	Y	Corrosion inhibitor	N	DREAM	N	N	N	Further management measures to be considered when more results available.
UK0010	Douglas OSI	eLBOC	Oil	N	Y	Y	Y	Y	Corrosion inhibitor	N	MIKE & CORMIX	N	N	N	Further management measures to be considered when more results available.
NO003	Statfjord B	Statoil Petroleum AS	Oil	Y		N	N	Y	Corrosion inhibitor	N	758	N	Y	Optimalisation of process	
NO004	Statfjord C	Statoil Petroleum AS	Oil	Y		N	N	Y	Corrosion inhibitor	N	710	N	Y	Optimalisation of process	
NO504	Valhall PH	BP Norge AS	Oil	N		N	N	N	Biocide	N	326	N	Y	C-Tour, CFU	Large modifications and new process facilities from 2012.
NO469	Alvheim FPSO	Det norske oljeselskap ASA	Oil	Y		N	N	Y	Corrosion inhibitor	Y	262	N	Y	Chemical substitution, optimalisation of process	
NO050	Gullfaks C	Statoil Petroleum AS	Oil	Y		N	N	Y	H2S-scavenger, BTEX	N	191	N	Y	Chemical substitution	
NO089/NO432	Ekofisk J/ Ekofisk M	ConocoPhillips Skandinavia AS	Oil	Y		N	N	Y	BTEX, phenols	N	170	N	Y		Two installations analyses risk as one source
NO146	Norne	Statoil Petroleum AS	Oil	Y		N	N	Y	BTEX, phenols	Y	105	N	Y	Chemical substitution, optimalisation of process	
NO002	Statfjord A	Statoil Petroleum AS	Oil	Y		N	N	Y	BTEX, corrosion inhibitor	N	100	N	Y	Optimalisation of process	
NO030	Snorre A	Statoil Petroleum AS	Oil	Y		N	N	Y	Corrosion inhibitor, H2S-scavenger	N	90	N	Y	Chemical substitution, C-Tour, optimalisation of process	
NO024	Gullfaks B	Statoil Petroleum AS	Oil	Y		N	N	Y	H2S-scavenger, BTEX, naphthalene	N	74	N	Y		

Part A : Report relating to 2015 data

NO099	Troll B	Statoil Petroleum AS	Oil	Y		N	N	Y	PAH	N	60	N	Y		
NO022	Gullfaks A	Statoil Petroleum AS	Oil	Y		N	N	Y	H2S-scavenger	N	57	N	Y		
NO070	Brage	Statoil Petroleum AS	Oil	Y		N	N	Y	H2S-scavenger, BTEX	N	56	N	Y		
NO028	Ula PP	BP Norge AS	Oil	N		N	N	N	Corrosion inhibitor, dispersed oil	N	52	N	Y		
NO139	Jotun A	ExxonMobil Exploration & Production Norway AS	Oil	N		N	N	N	PAH, corrosion inhibitor, biocide	Y	35	N	Y		
NO041	Draugen	A/S Norske Shell	Oil	N		N	N	N	PAH, scale inhibitor	Y	29	N	Y	PWRI	
NO154	Balder FPU	ExxonMobil Exploration & Production Norway AS	Oil	N		N	N	N	Biocide	Y	31	N	Y		
NO547	Skarv FPSO	BP Norge AS	Gas	Y		N	N	Y	NI	Y	29	N	Y	Hydrocyclones, CFU, adsorption filter	New field producing from 2012
NO140	Troll C	Statoil Petroleum AS	Oil	Y		N	N	Y	PAH	N	29	N	Y		
NO068	Veslefrikk	Statoil Petroleum AS	Oil	Y		N	N	Y	BTEX, phenols	N	29	N	Y	Chemical substitution	
NO177	Snorre B	Statoil Petroleum AS	Oil	Y		N	N	Y	BTEX	N	14	N	Y	Optimalisation of process	
NO447	Kristin	Statoil Petroleum AS	Gas	Y		N	N	Y		Y	9	Y	N		
NO001	Oseberg A	Statoil Petroleum AS	Oil	Y		N	N	Y		N	7	Y	N		
NO042	Heidrun	Statoil Petroleum AS	Oil	Y		N	N	Y		Y	6	Y	N		
NO164	Åsgard B	Statoil Petroleum AS	Gas	N		N	N	N		Y	5	Y	N		
NO143	Varg	Talisman Energy Norge AS	Oil	N		N	N	N		Y	4	Y	N		
NO153	Åsgard A	Statoil Petroleum AS	Oil	N		N	N	N		Y	4	Y	N		
NO035	Oseberg C	Statoil Petroleum AS	Oil	Y		N	N	Y		N	1	Y	N		
NO167	Oseberg Sør	Statoil Petroleum AS	Oil	Y		N	N	Y		N	1	Y	N		
NO273	Grane	Statoil Petroleum AS	Oil	Y		N	N	Y		Y	0	Y	N		
NO081	Njord A	Statoil Petroleum AS	Oil	N		N	N	N		Y	0	Y	N		
NO040	Sleipner A	Statoil Petroleum AS	Gas	Y		N	N	Y		Y	0	Y	N		
NO078	Sleipner T	Statoil Petroleum AS	Gas	Y		N	N	Y		Y	0	Y	N		
NO101	Troll A	Statoil Petroleum AS	Gas	Y		N	N	Y		N	0	Y	N		
	Volve	Statoil Petroleum AS		N		N	N	N		Y	0	Y	N		

Part B: Cumulative Report relating to 2015 data

Table 1: Number of installations in the OSPAR maritime area

Table 1a: Number of installations in the OSPAR maritime area with discharges to the sea, or emissions to the air 2005-2015*

Country	2006	2007	2008	2009	2010	2011[3]	2012	2013	2014	2015
Denmark [1]	19	19	18	20	20	18	15	14	20	20
Germany	3	3	3	3	2	2	2	2	2	2
Ireland	1	2	2	1	2	2	2	2	1	2
Netherlands	128	130	132	135	138	128	127	127	127	127
Norway	109	125	128	143	136	103	115	114	114	115
Spain	1	1	1	2	2	2	1	2	0	0
UK [2]	416	444	457	439	484	487	489	496	495	500
Total[5]	**677**	**725**	**741**	**743**	**784**	**742**	**751**	**757**	**759**	**766**

[1] Part of the Danish reports contain the reports on number of installations from Faroe Islands: for 2006: 0,3 installation; for for 2010: 0,3 installation.

[2] UK revised its criteria for counting subsea installations in 2010.

[3] From 2011 drilling activity has been excluded from this total.

* These data are taken from Table 1 of Part A of the report.

Part B: Cumulative Report relating to 2015 data

Table 1 (cont'd): Number of installations in the OSPAR maritime area in accordance with OSPAR Decision 98/3 on the Disposal of Disused Offshore Installations

Table 1b: Total number of installations as detailed in the "Inventory of oil and gas offshore installations in the OSPAR maritime area" (1)

	2003	2005	2007	2009	2011	2013	2015
Total	1167	1131	1281	1340	1495	1545	1751

(1) The total number of installations includes all current and historic infrastructure in the OSPAR maritime area as defined by OSPAR decision 98/3

Part B: Cumulative Report relating to 2015 data

Table 1c: Number of installations by type of installation in the OSPAR maritime area with discharges to the sea, or emissions to the air, 2006-2015*

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Oil Installations	151	154	155	158	169	160	162	162	169	170
Gas Installations	259	274	276	280	318	316	329	330	324	323
Subsea Installations	190	206	220	221	230	262	257	262	265	272
Other Installations	8	11	11	9	9	4	3	3	1	1
Total	**608**	**645**	**662**	**668**	**726**	**742**	**751**	**757**	**759**	**766**

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Drilling[1]	75	85	84	74	57					
Wells[2]	-	-	-	-	-	380	402	416	366	381

[1] From 2011 number of wells drilled is reported rather than 'drilling years' as in previous years

[2] From 2011, the number of wells completed in that calendar year are reported.

* These data are taken from Table 1 of Part A of the report.

Table 1d: Number of installations injecting produced or displacement water, 2006-2015*

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark	6	6	6	6	8	8	8	8	8	8
Germany	1	1	0	0	0	1	0	1	1	1
Ireland	0	0	0	0	0	0	0	0	0	0
Netherlands	5	5	5	5	8	7	8	6	9	9
Norway	18	17	18	22	22	20	22	21	21	21
Spain	1	1	1	0	0	0	0	0	0	0
UK	20	23	24	26	28	28	28	26	24	22
Total	51	53	54	59	66	64	66	62	63	61

* These data are taken from Table 1 of Part A of the report.

Part B: Cumulative Report relating to 2015 data

Table 2: Oily aqueous discharges to the maritime area*

Table 2a: Oil discharged in produced and displacement water (in tonnes), 2006-2015

Country	2006 (IR)	2007 (IR)	2008 (IR)	2009 (IR)	2010 (IR)	2011 (IR)	2012 (IR)	2013 (IR)	2014 (IR)	2015 (IR)
	Dispersed	Dispersed	Dispersed[1]	Dispersed[2]	Dispersed[2]	Dispersed[2]	Dispersed[2]	Dispersed[2]	Dispersed[2]	Dispersed[2]
Denmark	385	386	380	340	NA	NA	NA	NA	NA	NA
Germany	0.13	0.12	0.11	NA	NA	NA	NA	NA	NA	NA
Ireland	0.05	0.03	0.04	0.01	0.01	0.02	0.02	0.02	0.03	NA
Netherlands	114	156	140	54	NA	NA	NA	NA	NA	NA
Norway	2,379	NA	NA	NA	NA	NA	NA	NA	NA	NA
Spain	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UK	4,357	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total	**7,235**	**542**	**520**	**394**	**0.01**	**0.02**	**0.02**	**0.02**	**0.03**	**0.00**

Country	2007 (GC-FID)	2008 (GC-FID)	2009 (GC-FID)	2010 (GC-FID)	2011 (GC-FID)	2012 (GC-FID)	2013 (GC-FID)	2014 (GC-FID)	2015 (GC-FID)
	Dispersed	Dispersed	Dispersed	Dispersed	Dispersed	Dispersed	Dispersed	Dispersed	Dispersed
Denmark	NA	NA	NA	214	165	116	178	162	195
Germany	NA	NA	0.16	0.19	0.29	0.40	0.20	0.10	0.17
Ireland	NA	NA	NA	NA	NA	NA	NA	NA	0.01
Netherlands	NA	NA	54	83	56	75	60	37	57
Norway	1,626	1,627	1,542	1,490	1,529	1,593	1,595	1,805	1,859
Spain	NA	NA	NA	NA	NA	NA	NA	NA	NA
UK	2,960	3,160	2,900	3,008	2,493	2,267	2,176	1,997	2,412
Total	**4,586**	**4,787**	**4,496**	**4,795**	**4,244**	**4,052**	**4,009**	**4,001**	**4,523**

(1) The Netherlands have reported on IR in 2007 and on a mixture of IR and GC in 2009.
(2) The Netherlands went over to the new GC-FID on 1st July 2009.

Part B: Cumulative Report relating to 2015 data

Dissolved from 2006

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	BTEX	BTEX	BTEX	BTEX	BTEX
Denmark	359.53	353.39	202.38	195	216	165	136	89	93	145
Germany	0.952	0.591	0.545	0.395	0.672	0.78	0.8	0.6	0.6	0.3
Ireland	0.004	0.050	0.011	0.025	0.290	0.37	0.3	0.1	0.1	0.2
Netherlands	52.4	72	66.835	61.649	75.59	67.7	64.4	54.5	49	48
Norway	1,711	1,879	1,852	1,954	1,820	1,675	1,855	1,920	1,910	2,269
Spain	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
UK[(1)]	2,756	2,273	3,783	2,619	2,115	2,477	2,178	4,010	2,432	2,508
Total	**4,880**	**4,578**	**5,905**	**4,830**	**4,228**	**4,386**	**4,235**	**6,074**	**4,485**	**4,971**

Please note that the Netherlands are not in favour of splitting Table 2a data from 2007 into IR and GC-FID, as they believe that insufficient evidence is presented.

[(1)] The UK data for 2013 is high due to sampling & analysis error for one installation, however it is not possible to provide corrected data.

*These data are taken from Tables 2a & 2b in Part A.

NI - No Information

NA - Not Applicable

Part B: Cumulative Report relating to 2015 data

Table 2: Oily aqueous discharges to the maritime area *

Table 2b: Annual quantity of produced and displacement water discharged to the sea (in m^3), 2006-2015

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark	27,987,156	27,449,366	30,456,486	27,607,788	26,948,864	26,125,942	25,148,540	24,747,426	25,317,353	24,855,270
Germany	9,572	8,573	8,291	12,139	15,706	18,182	19,182	15,283	9,595	6,238
Ireland	2,147	2,177	1,997	1,286	1,577	1,538	1,696	1,359	1,126	827
Netherlands	9,646,550	38,391	12,607,963	30,373	9,646,665	8,479,610	9,490,079	4,123,842	2,710,189	2,555,797
Norway	186,375,498	203,906,043	185,022,927	166,337,259	162,796,616	155,576,354	162,401,528	159,533,151	174,237,224	182,012,250
Spain	770	992	0	0	0	0	0	0	0	
UK	220,135,884	202,861,251	197,688,091	196,622,027	197,379,720	174,871,616	155,833,156	149,964,142	156,734,693	165,286,189
Total	**444,157,577**	**434,266,793**	**425,785,755**	**390,610,872**	**396,789,148**	**365,073,242**	**352,894,181**	**338,385,203**	**359,010,180**	**374,716,571**

* These data are taken from table 2 of Part A of the report

Comment referencing earlier years removed

Table 2c: Total volume of produced water and displacement water discharged, and produced water injected (in m^3/year), 2006-2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
PW*	398,629,647	401,516,892	385,158,923	365,677,026	361,133,229	335,320,487	318,496,588	304,073,595	323,650,889	339,234,298
DPW**	45,740,777	46,723,197	40,626,832	35,989,804	35,655,541	29,752,755	34,397,593	34,311,608	35,359,291	35,482,273
IPW***	80,185,640	87,721,185	84,083,816	88,027,421	86,744,890	91,006,849	98,399,905	91,227,430	90,182,176	103,401,193
Total	**524,556,064**	**535,961,274**	**509,869,571**	**489,694,251**	**483,533,660**	**456,080,091**	**451,294,086**	**429,612,633**	**449,192,356**	**478,117,764**

* Produced water as mentioned in Table 2a in Part A

** Displacement water as mentioned in Table 2b in Part A

*** Injected produced and displacement water as mentioned in Table 2a & Table 2b in Part A

Part B: Cumulative Report relating to 2015 data

Table 3: Installations which do not meet OSPAR performance standard for dispersed oil in aqueous discharges[a*]

Table 3a[b]: Number of installations with discharges exceeding the 40 mg oil/l performance standard, 2006, and quantity of oil discharged by these installations (in tonnes)

	2006
Total number of installations with	671
Number of installations exceeding	14
Quantity of dispersed oil discharged	469

Table 3b[b]: Number of installations with discharges exceeding the 30 mg oil/l performance standard, valid from 2007 onwards, and quantity of oil discharged

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total number of installations with	730	746	743	811	742	752	756	759	766
Number of installations exceeding	22	31	31	20	20	17	19	16	19
Quantity of dispersed oil discharged	319	297	340	276	101	206	244	94	112

"Dispersed oil", or aliphatics, as measured according to the PARCOM Procedure described in the "Methods of sampling and analysis for implementing the provisional target standard for
a. The performance standard of 40 mg/l is defined on the basis of a monthly average. Most Contracting Parties, however, reported until 2000 only installations which exceeded the 40 mg/l
b. Data in Tables 3a and 3b refer to dispersed oil only.

The figures for Contracting Parties' total amount of oil discharged have been rounded up. The overall total value is the exact figure and may differ slightly from the sum of the Contracting
* These data are taken from table 3 of Part A of the report.

Part B: Cumulative Report relating to 2015 data

Table 3: Installations which do not meet OSPAR performance standard for dispersed oil in aqueous discharges [a*]

Table 3c: Number of installations with discharges exceeding the 40 mg oil/l performance standard, 2006, by Contracting Party and quantity of oil discharged by these installations (in tonnes), in excess of the 40 mg/l performance standard

Country	2006	
	Number of installations	Amount discharged
Denmark	0	0
Germany	0	0
Ireland	0	0
Netherlands	0	0
Norway	3	64
Spain	0	0
UK	11	76
Total	**14**	**140**

a. The performance standard of 40 mg/l is defined on the basis of a monthly average.

* These data are taken from table 3 of Part A of the report.

Part B: Cumulative Report relating to 2015 data

Table 3: Installations which do not meet OSPAR performance standard for dispersed oil in aqueous discharges*

Table 3d: Number of installations with discharges exceeding the 30 mg oil/l performance standard, valid from 2007 onwards and quantity of oil discharged by these installations (in tonnes), in excess of the 30 mg/l performance standard

Country	2007		2008		2009		2010		2011	
	Number of installations	Amount discharged	Number of installations	Amount discharged	Number of installations	Amount discharged	Number of installations	Amount discharged	Number of installations	Amount discharged
Denmark	0	0	0	0	2	7	1	1	0	0
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	0	0
Netherlands	4	0.36	7	0.6	7	4	0	0	3	0.1
Norway	2	4.3	4	12	0	0	3	1.6	4	1.1
Spain	0	0	0	0	0	0	0	0	0	0
UK	16	35.8	20	204.8	22	99.4	16	130.4	13	33.9
Total	**22**	**40**	**31**	**217**	**31**	**110**	**20**	**133**	**20**	**35**

* These data are taken from table 3 of Part A of the report.

Country	2012		2013		2014		2015	
	Number of installations	Amount discharged	Number of installations	Amount discharged	Number of installations	Amount discharged	Number of installations	Amount discharged
Denmark	1	0.3	0	0	1	0.006	2	0.3
Germany	0	0.0	0	0	0	0	0	0
Ireland	0	0.0	0	0	0	0	0	0
Netherlands	1	0.0	2	0.3	0	0	2	0.014
Norway	4	3.0	3	3.3	4	10.5	4	3.1
Spain	0	0.0	0	0.0	0	0	0	0
UK	11	44.1	14	77.3	11	14.5	11	15.2
Total	**17**	**47**	**19**	**81**	**16**	**25**	**19**	**19**

Part B: Cumulative Report relating to 2015 data

Table 4: Use and discharges of organic-phase drilling fluids (OPF) and cuttings

Table 4a: Quantities of oil and other organic-phase fluids discharged via cuttings (in tonnes), 2006-2015*

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
	Total OPF[1]	Total OPF[1]	Total OPF[1]	Total OPF[1]	Total OPF[1]	Total OPF[1]	Total OPF[1]	Total OPF[1]	Total OPF[2]	Total OPF[2]
Denmark	0	0	0	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0	9
Spain	0	0	0	0	0	0	0	0	0	0
UK	0	0	0	0	1	4	5	3	2	14
Total	0.0	0.0	0.0	0.3	1.3	4.1	5.0	3.0	1.9	22.6

[1] Total OPF is the sum of OBF and non-OBF OPF. No oil-based mud contaminated cuttings have been discharged since 1996 except in accordance with OSPAR Decision 2000/3.

* These data are taken from tables 4a & 4b of Part A of the report.

Part B: Cumulative Report relating to 2015 data

Table 4b: Number of wells drilled with OBF & OPF, with discharge of contaminated cuttings to the maritime area, 2006-2015*

Wells for which all cuttings are re-injected or brought to shore are not taken into account in this table.

	2006		2007		2008		2009		2010	
Country	OBF	non-OBF OPF	OBF	non-OBF OPF	OBF	non-OBF OPF	OBF	non-OBF OPF	OBF	non-OBF OPF
Denmark	0	0	0	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	1	0	11	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**11**	**0**

	2011		2012		2013		2014		2015	
Country	OBF	Other OPF	OBF	Other OPF	OBF	Other OPF	OBF	Other OPF	OBF	Other OPF
Denmark	0	0	0	0	1	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	4	0
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	11	0	8	0	9	0	9	0	16	0
Total	**11**	**0**	**8**	**0**	**10**	**0**	**9**	**0**	**20**	**0**

* The data in tables 4b are taken from table 4a of Part A.

Part B: Cumulative Report relating to 2015 data

Table 5: Spillage of oil and chemicals *

Table 5a: Number of oil spills, 2006-2015 - Spills less than 1 tonne (≤ 1 T) and spills above 1 tonne (> 1 T) [a]

Country	2006		2007		2008		2009		2010		2011		2012		2013		2014		2015	
	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T
Denmark [(1)]	46	0	30	1	24	2	23	2	21	0	30	0	42	0	47	1	74	3	54	0
Germany	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ireland	3	0	3	0	1	0	0	0	1	0	1	0	4	0	1	0	0	0	0	0
Netherlands[(2)]	25	0	35	0	20	1	14	1	34	0	13	1	12	0	10	0	17	0	13	0
Norway[(3)]	115	7	155	12	164	9	142	4	133	7	129	1	118	4	112	5	60	8	41	6
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
United Kingdom[(4)]	305	8	270	9	262	8	291	8	265	6	270	10	239	8	299	9	404	6	350	8
Total	**494**	**15**	**493**	**22**	**471**	**20**	**470**	**15**	**454**	**13**	**443**	**12**	**415**	**12**	**469**	**15**	**555**	**17**	**458**	**14**

[(1)] Part of the Danish reports contain the reports on number of oil spills from Faroe Islands: for 2012, 1 spill.

[(2)] Netherlands - oil spills include spills of OBF

[(3)] Norway - Reports m^3 rather than tonnes

[(4)] UK - UK quantity data now includes one incident from 2011 and two incidents in 2012 which had previously been under investigation

* These data are taken from Table 5 in Part A

Part B: Cumulative Report relating to 2015 data

Table 5: Spillage of oil and chemicals *

Table 5b: Total quantity of oil spilled, in tonnes, 2006-2015

Country	2006		2007		2008		2009		2010	
	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T
Denmark	4	0	2	30	2	99	2	4	2	0
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0.04	0	0.2	0	0.004	0	0	0	0.001	0
Netherlands[(1)]	0.7	0	1.2	0	0.7	3	0.6	22	0.1	0
Norway[(2)]	10	95	10	3,805	7.5	156	8	88	6	105
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	23	40	12	47	17	20	15.0	39	9.8	14
Total	**38**	**135**	**25**	**3,882**	**27**	**278**	**26**	**154**	**18**	**119**

Country	2011		2012		2013		2014		2015	
	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T
Denmark	1	0	2	0	0	3	2	43	1.9	0
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0.01	0	0.8	0	0.001	0	0	0	0	0
Netherlands[(1)]	0.1	1	0.4	0	0.7	0	0.3	0	0.8	0
Norway[(2)]	8.7	10	7.0	9	6.2	34	9.4	134	6.0	34
Spain	0	0	0	0	0	0	0	0		
United Kingdom [(3)]	12.8	249	11.4	510	17.3	111	22.5	19	14.1	25
Total	**23**	**260**	**22**	**519**	**24**	**148**	**34**	**196**	**23**	**59**

[(1)] Netherlands - oil spills include spills of OBF

[(2)] Norway - Reports m^3 rather than tonnes.

[(3)] UK - UK quantity data now includes two incidents from 2011 (Gannet 218,19T & Banff 1,57T) and two incidents from 2012 (Elgin 405,3T & Osprey 15,1T) which had previously been under investigation, as well as updated data for 2013.

* These data are taken from table 5a of Part A of the report.

Part B: Cumulative Report relating to 2015 data

Table 7: The use and discharge of offshore chemicals

Year: 2006-2015

Table 7d: Quantity of chemicals on the List of Chemicals for Priority Action (LCPA), used and discharged in kg/year*

Country	Quantity used									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark [1]	0	0	10	0	0	0	0	0	0	26
Germany	0	0	0	0	1,273	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	2	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0
Norway	1,094	497	146	20	6	0	3	6	0	0
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	1,896	2,128	3,773	1,267	974	783	440	496	108	88
Total	**2,990**	**2,625**	**3,929**	**1,287**	**2,253**	**783**	**443**	**504**	**108**	**114**

Country	Quantity discharged									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark [2]	0	0	1	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0
Norway	213	1	0	58	0	0	3	6	0	0
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	141	69	42	89	21	9	0	0	0	0
Total	**354**	**70**	**43**	**147**	**21**	**9**	**3**	**6**	**0**	**0**

* Substance listed in the OSPAR List of Chemicals for Priority Action (LCPA) (including its updates). (Reference number: 2004-12).

[1] Part of the Danish report contains the report on the use of offshore chemicals from Faroe Islands: For 2008: 10 kg.

[2] Part of the Danish reports contains the reports on the discharge of offshore chemicals from Faroe Islands: For 2008: 1 kg.

Part B: Cumulative Report relating to 2015 data

Table 5: Spillage of oil and chemicals *

Table 5c: Number of chemical spills, 2012-2015 - Spills less than 1 tonne (≤ 1 T) and spills above 1 tonne (> 1 T) [a]

Country	2012		2013		2014		2015	
	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T
Denmark [(1)]	26	0	36	4	28	2	38	1
Germany	0	0	0	0	0	0	0	0
Ireland	1	0	2	1	0	0	0	0
Netherlands	7	1	6	1	16	3	5	2
Norway[(2)]	110	38	126	31	203	19	130	43
Spain	0	0	0	0	0	0		
United Kingdom[(3)]	224	49	169	48	182	35	177	25
Total	**368**	**88**	**339**	**85**	**429**	**59**	**350**	**71**

a. Chemical spills include all drilling fluids for all CPs except for the Netherlands where the oil in OBF is reported as an oil spill.

[(1)] Part of the Danish reports contain the reports on number of oil spills from Faroe Islands: for 2012, 1 spill.

[(2)] Norway - Reports m^3 rather than tonnes.

[(3)] UK - UK data now includes data from two incidents in 2012 and one incident in 2014 which had previously been under investigation.

* These data are taken from table 5a of Part A of the report.

Part B: Cumulative Report relating to 2015 data

Table 5: Spillage of oil and chemicals *

Table 5d: Total quantity of chemical spills, in tonnes, 2012-2015

Country	2012		2013		2014		2015	
	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T
Denmark[(1)]	1	0	2	26	2	9	1.33	116
Germany	0	0	0	0	0	0	0	0
Ireland	0.0001	0	0.1	5.1	0	0	0	0
Netherlands	0.9	1.2	13.3	7.7	0.2	3.9	0.7	5.6
Norway[(2)]	15.4	350	18.4	1,267	22.0	736	16.0	1,563
Spain	0	0	0	0	0	0		
United Kingdom[(3)]	32.4	1191.5	29.4	493	41.3	285	25.1	425
Total	**50**	**1543**	**63**	**1799**	**66**	**1,034**	**43**	**2109**

a. Chemical spills include all drilling fluids for all CPs except for the Netherlands where the oil in OBF is reported as an oil spill.

(1) Part of the Danish reports contain the reports on number of oil spills from Faroe Islands: for 2012, 1 spill.

(2) Norway - Reports m^3 rather than tonnes.

(3) UK - UK data now includes two incidents in 2012, and one incident in 2013 and 2014 which had previously been under investigation. One incident in 2014 is still unde

* These data are taken from table 5a of Part A of the report.

Part B: Cumulative Report relating to 2015 data

Table 5e: Total of dispersed oil discharged and oil spilled to the sea, in tonnes

Year: 2006-2015

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark	389	418	481	346	216	166	118	181	207	196.2
Germany	0.01	0.21	0.11	0.2	0.2	0.3	0.4	0.2	0.10	0.2
Ireland	0.09	0.23	0.42	0.01	0.03	0.03	0.80	0.00	0.03	0.01
Netherlands[(1)]	114	157	144	131	83	57	76	61	38	57.30
Norway[(2)]	2,484	5,441	1,791	1,639	1,601	1,548	1,609	1,635	1948	1899.0
Spain	0	0	0	0	0	0	0	0	0	0.0
United Kingdom	4,420	3,019	3,198	2,954	3,031	2,755	2,789	2,304	2038	2451.1
Total	**7,407**	**9,035**	**5,614**	**5,070**	**4,931**	**4,526**	**4,593**	**4,180**	**4,231**	**4,604**

[(1)]Netherlands - oil spills include spills of OBF

[(2)] Norway - Data for spills are supplied in m^3.

These data are taken from Table 2a Part A, Table 2b Part A and Table 5b of Part A.

Part B: Cumulative Report relating to 2015 data

Table 6: Emissions to air, 2006-2015*

CO_2 (in million of tonnes)

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark[(1)]	2.12	2.11	2.07	2.20	1.94	1.76	1.84	1.78	1.77	1.80
Germany	0.05	0.06	0.04	0.04	0.05	0.05	0.05	0.05	0.04	0.03
Ireland	0.06	0.06	0.09	0.04	0.05	0.05	0.05	0.06	0.04	0.03
Netherlands	1.29	1.39	1.40	1.49	1.39	1.54	1.96	2.43	2.27	1.93
Norway	11.56	11.07	13.77	12.44	12.00	12.28	12.44	11.57	12.06	13.85
Spain	0.04	0.04	0.05	0.00	2.00	0.001	0.001	0.001	0.001	
United Kingdom	16.41	16.96	15.60	15.44	15.00	14.02	13.08	13.17	12.59	13.77
Total	**32**	**32**	**33**	**32**	**32**	**30**	**29**	**29**	**29**	**31**

NO_x (in thousand of tonnes)

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark[(1)]	8.10	8.90	8.50	8.10	7.00	6.32	7.22	7.28	7.81	7.64
Germany	0.04	0.03	0.05	0.05	0.05	0.04	0.08	0.05	0.04	0.06
Ireland	0.27	0.25	0.52	0.12	0.21	0.16	0.18	0.58	0.14	0.08
Netherlands	3.86	4.00	3.80	4.17	3.70	5.27	4.97	5.22	4.17	3.95
Norway	54.35	54.00	51.00	50.00	50.00	51.49	50.44	50.45	51.78	46.76
Spain	0.08	0.01	0.11	0.01	0.00	0.01	0.01	0.01	0.01	
United Kingdom	52.00	52.00	52.30	49.50	53.00	47.49	47.01	46.40	46.07	52.81
Total	**119**	**119**	**116**	**112**	**114**	**111**	**110**	**110**	**110**	**111**

nmVOCs (in thousands of tonnes)

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark[(1)]	2.10	2.00	2.25	2.00	2.61	1.22	1.89	1.77	2.17	2.25
Germany	0.68	0.22	0.12	0.12	0.12	0.30	0.39	0.14	0.15	0.06
Ireland	0.10	0.01	0.04	0.001	0.05	0.003	0.00	0.02	0.00	0.00
Netherlands	3.69	4.00	4.68	5.00	4.16	4.12	3.23	5.14	3.67	3.02
Norway[(2)]	79.54	73.00	50.00	45.61	37.00	30.58	33.02	32.76	48.18	47.34
Spain	0.08	0.10	0.11	0.00	0.00	0.01	N/D	0.01	0.01	
United Kingdom	51.00	54.00	40.67	41.30	33.30	35.43	37.96	38.08	38.10	37.31
Total	**137**	**133**	**98**	**94**	**77**	**72**	**76**	**78**	**92**	**90**

* These data are taken from table 6 of Part A of the report.

[(1)] Part of the Danish reports contains the reports on the emissions to air from Faroe Islands: For 2006: 11 000 tonnes of CO_2, 250 tonnes of NOx, 18 tonnes of nmVOC; For 2008: 10 000 tonnes of CO_2, 10 tonnes of NOx, 0,2 tonne of nmVOC; For 2010: 16 000 tonnes of CO_2, 14 tonnes of NOx, 0,3 tonne of nmVOC. For 2012, 15 000 tonnes of CO_2, 0,5 tonne of No_x, 0,002 tonne of nmVOC. For 2014: 6000 tonnes of CO_2, 130 tonnes of NO_x, 9 tonnes of

[(2)] Norway: there was a substantial reduction the last years due to nmVOC recovery requirements on tankers. The Norwegian emissions of CH_4 which were reported for 2009 and 2010 and were incorrect. Therefore the figures presented here do not agree with the reports from these two years.

Part B: Cumulative Report relating to 2015 data

Table 6: Emissions to air, 2006-2015* (cont'd)

CH_4 (in thousand of tonnes)

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark[(1)]	1.50	2.00	3.00	3.00	4.96	3.19	4.11	4.01	3.72	3.85
Germany	3.23	1.06	0.54	3.13	1.34	0.55	0.72	0.24	0.29	0.12
Ireland	2.63	0.79	0.58	0.45	0.37	0.40	0.37	0.36	0.36	0.34
Netherlands	12.06	14.00	15.97	14.48	13.04	12.41	9.67	14.33	12.74	7.88
Norway[(2)]	26.20	25.20	31.00	29.63	28.04	28.58	25.66	23.47	28.25	29.05
Spain	0.31	0.40	0.43	0.00	0.00	0.11	0.14	0.12	0.12	
United Kingdom	37.00	48.00	41.57	45.30	47.90	44.86	44.12	45.69	43.08	41.70
Total	**83**	**91**	**93**	**96**	**96**	**90**	**85**	**88**	**89**	**83**

SO_2 (in tonnes)

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark[(1)]	230	220	200	100	112.0	86.0	92.0	116	145	99
Germany	1.0	0.0	0.40	0.20	0.0	0.0	4.0	0.5	0.3	0.8
Ireland	10.0	14.6	11.80	1.77	6.0	6.9	1.4	29	3	1
Netherlands	170	200	135	103	112	133	253	350	290	263
Norway	696	700	500	500	600	899	822	914	862	736
Spain	0.8	0.0	0.41	0.0	0.0	N/D	N/D	N/D	N/D	
United Kingdom	2,570	1,740	3,290	2,170	2,600	1,923	2,561	2,208	2,241	2,864
Total	**3,678**	**2,875**	**4,138**	**2,875**	**3,430**	**3,048**	**3,733**	**3,617**	**3,540**	**3,964**

(1) Part of the Danish reports contains the reports on the emissions to air from Faroe Islands: For 2006: 8 tonnes SO_2; For 2008: 0,2 tc and 3 tonnes SO_2; For 2010: 0,3 tonne CH_4 and 5 tonnes SO_2. For 2012, 0,005 tonne of SO_2; For 2014: 2 tonnes of SO_2.

(2) The Norwegian emissions of CH4 which were reported for 2009 and 2010 were incorrect. Therefore the figures presented here do the reports from these two years.

Part B: Cumulative Report relating to 2015 data

Table 7: The use and discharge of offshore chemicals

Year: 2006-2015

Table 7a: Quantity of offshore chemicals on the PLONOR* List used and discharged in kg/year

Country	Quantity used									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark [1]	78,932,552	66,356,341	55,035,267	45,732,541	32,364,501	31,661,190	34,759,511	26,031,851	32,965,260	36,612,158
Germany	716,405	710,225	503,527	2,425	1,565,002	478	252,562	1,387	1,522,980	6,795
Ireland	1,549,666	3,876,616	6,274,318	1,020,082	1,904,711	836,841	936,836	2,783,230	878,846	540,229
Netherlands	36,984,151	27,052,063	27,200,803	29,127,105	41,713,369	36,110,148	46,550,994	34,616,138	42,614,129	49,608,209
Norway	227,536,000	253,122,000	259,360,628	289,681,616	286,277,021	273,273,649	282,848,186	346,516,261	322,304,630	311,861,617
Spain	0	0	0	0	0	0	0	0	0	
United Kingdom	243,677,347	294,780,970	252,351,135	255,518,585	188,510,604	155,542,997	189,057,474	207,602,076	185,467,972	211,799,667
Total	**589,396,121**	**645,898,215**	**600,725,678**	**621,082,354**	**552,335,208**	**497,425,302**	**554,405,563**	**617,550,942**	**585,753,816**	**610,428,675**

Country	Quantity discharged									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark [2]	37,853,418	30,919,208	31,370,942	24,603,595	11,838,770	13,966,161	12,334,663	7,978,977	8,694,006	9,530,418
Germany	347,565	342,003	503,282	2,220	1,059,928	478	6,573	1,275	130,691	6,116
Ireland	1,040,761	1,660,002	4,203,349	125,905	754,568	423,274	604,132	1,040,237	673,680	376,623
Netherlands	15,093,836	8,191,288	12,878,422	8,989,344	17,462,642	12,281,563	17,441,780	16,144,242	18,269,435	16,128,611
Norway	63,424,400	73,624,000	76,539,183	111,268,937	111,268,937	99,503,072	104,495,858	114,256,578	107,667,490	94,071,979
Spain	0	0	0	0	0	0	0	0	0	
United Kingdom	102,846,899	104,733,835	110,746,879	113,184,172	69,422,728	52,216,290	56,070,241	70,139,373	58,222,340	52,492,691
Total	**220,606,879**	**219,470,336**	**236,242,057**	**258,174,174**	**211,807,573**	**178,390,838**	**190,953,247**	**209,560,682**	**193,657,642**	**172,606,438**

* Substance on OSPAR List of Substances Used and Discharged Offshore which are Considered to Pose Little or no Risk to the Environment (PLONOR).
(Agreement Number: 2004-10, udpate 2008).

[1] Part of the Danish report contains the report on the use of offshore chemicals from Faroe Islands: For 2006: 1 819 321 kg; For 2008: 2 202 480 kg; For 2010: 1 145 498 kg.
For 2012: 3007 003 kg; For 2014: 977583 kg.

[2] Part of the Danish reports contains the reports on the discharge of offshore chemicals from Faroe Islands: For 2006: 810 434 kg; For 2008: 1 670 557 kg; For 2010: 1 057 980 kg.
For 2012: 1 103 867 kg; For 2014: 654086 kg.

The Netherlands have included 2 575 451 kg of unknown chemicals in their total in 2006.
UK Report only contains a full report for the first ¾ of the year 2006. For the last quarter of 2006 the figures only contain a full report for production installations and not drilling installations.

Part B: Cumulative Report relating to 2015 data

Table 7: The use and discharge of offshore chemicals

Year: 2006-2015

Table 7b: Quantity of inorganic substances with LC50 or EC50 > 1 mg/l used and discharged in kg/year*

Country	Quantity used									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark [1]	16,361,467	7,996,987	14,435,908	11,660,616	3,992,862	2,207,877	1,663,514	1,386,349	2,367,795	839,636
Germany	0	0	0	0	33,406	0	77	0	450	0
Ireland	0	2,252	745	138	3,944	0	0	53,685	0	300
Netherlands	3,066,667	367,282	815,948	817,256	277,442	784,501	459,251	309,021	950,654	1,009,744
Norway [3]	2,654,000	1,860,000	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	949,303	2,326,787	4,150,103	1,657,961	2,478,527	1,181,268	2,313,743	3,146,799	2,116,846	2,494,697
Total	**23,031,437**	**12,553,308**	**19,402,704**	**14,135,971**	**6,786,181**	**4,173,646**	**4,436,585**	**4,895,854**	**5,435,745**	**4,344,377**

Country	Quantity discharged									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark [2]	408,828	169,353	1,484,608	431,845	304,808	146,321	123,525	142,595	522,361	247,663
Germany	0	0	0	0	2,408	0	53	0	0	0
Ireland	0	870	545	110	2,207	0	0	4,697	0	290
Netherlands	364,578	179,066	169,047	105,070	112,448	41,875	79,976	50,794	81,835	119,708
Norway [3]	126,000	143,000	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	376,830	483,930	594,504	594,504	676,648	439,121	384,226	858,274	463,057	475,932
Total	**1,276,236**	**976,219**	**2,248,704**	**1,131,529**	**1,098,519**	**627,317**	**587,780**	**1,056,360**	**1,067,253**	**843,593**

* No data submitted prior to 2004.

[1] Part of the Danish reports contains the report on the use of offshore chemicals from Faroe Islands: For 2008: 178 401 kg; For 2014: 183 977 kg.

[2] Part of the Danish reports contains the reports on the discharge of offshore chemicals from Faroe Islands: For 2008: 168 270 kg; For 2014: 167 804 kg.

[3] Norway - "Inorganic, LC50 or EC50 >1 mg/l" is included in "Ranking".

Part B: Cumulative Report relating to 2015 data

Table 7: The use and discharge of offshore chemicals

Year: 2006-2015

Table 7c: Quantity of ranking substances used and discharged in kg/year*

Country	Quantity used									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark[1]	1,378,038	12,049,738	14,703,054	15,792,136	13,063,744	13,381,005	19,425,435	12,589,045	15,614,440	17,715,363
Germany	127,403	124,599	4,333	2,993	2,318	1,527	3,690	4,471	60,926	1,808
Ireland	150,115	151,051	722,136	358,021	572,265	12,992	88,555	1,509	20,915	23,213
Netherlands	5,490,597	5,443,977	7,572,521	6,388,029	9,901,488	11,563,870	12,289,133	8,731,380	12,819,428	17,814,944
Norway [3]	87,938,000	93,313,000	95,347,550	92,409,851	103,061,375	80,140,772	82,880,656	204,629,459	194,465,840	104,211,550
Spain	0	0	0	0	0	0	0	0	0	
United Kingdom	100,831,149	100,834,384	78,776,917	75,977,678	70,401,312	63,098,455	69,690,462	79,106,416	78,631,851	84,134,667
Total	**195,915,302**	**211,916,749**	**197,126,511**	**190,928,708**	**197,002,502**	**168,198,621**	**184,377,931**	**305,062,281**	**301,613,400**	**223,901,545**

Country	Quantity discharged									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark[2]	4,500,119	4,629,994	3,833,698	4,987,546	1,510,103	4,505,310	4,758,740	5,154,321	4,793,565	5,984,427
Germany	11,223	3,659	52	0	0	24	349	12	1,174	71
Ireland	110,604	61,016	242,717	1,827	8,752	8,534	24,555	1,509	15,577	20,987
Netherlands	254,341	263,184	435,387	584,237	694,870	819,255	955,649	595,553	578,461	460,649
Norway[3]	10,952,000	11,880,000	12,956,914	14,700,303	11,727,338	12,304,885	13,532,911	52,507,255	59,137,480	14,417,695
Spain	0	0	0	0	0	0	0	0	0	
United Kingdom	13,144,219	13,866,642	13,596,227	12,074,628	11,446,089	10,005,461	10,609,116	10,341,731	10,074,380	11,571,081
Total	**28,972,506**	**30,704,495**	**31,064,995**	**32,348,540**	**25,387,152**	**27,643,469**	**29,881,320**	**68,600,380**	**74,600,637**	**32,454,911**

*Includes substances ranked according to OSPAR Recommendation 2000/4 and which do not fulfill the criteria of tables 7 a, b, d, e, f, g

[1] Part of the Danish report contains the report on the use of offshore chemicals from Faroe Islands: For 2006: 120 906 kg; For 2010: 265 277 kg. For 2012: 486 757 kg; For 2014: 74 135 kg.

[2] Part of the Danish reports contains the reports on the discharge of offshore chemicals from Faroe Islands: For 2006: 54 581 kg; For 2010: 113 804 kg. For 2012: 55 910 kg; For 2014: 72 36

[3] For Norway these figures include inorganic chemicals having a LC50 or a EC50 > 1mg/l.

Part B: Cumulative Report relating to 2015 data

Table 7: The use and discharge of offshore chemicals

Year: 2006-2015

Table 7e: Quantity of inorganic substances with LC50 or EC50 < 1 mg/l, used and discharged in kg/year

Country	Quantity used									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark [1]	12,550	9,950	10,502	8,550	0	0	0	0	0	13
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	8	400	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0
Norway	0	20	0	53	0	0	30	92	120	49,672
Spain	0	0	0	0	0	0	0	0	0	
United Kingdom	1,510	910	1,720	856	1,155	365	1,848	253	546	294
Total	**14,060**	**10,880**	**12,222**	**9,459**	**1,155**	**365**	**1,886**	**746**	**666**	**49,980**

Country	Quantity discharged									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark [2]	117	250	2	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	1	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0
Norway	0	1	0	0	0	0	21	0	30	43,684
Spain	0	0	0	0	0	0	0	0	0	
United Kingdom	1,440	864	1,596	0	137	345	1,643	90	79	179
Total	**1,557**	**1,115**	**1,598**	**0**	**137**	**345**	**1,665**	**90**	**109**	**43,863**

(1) Part of the Danish report contains the report on the use of offshore chemicals from Faroe Islands: For 2008: 2 kg.

(2) Part of the Danish reports contains the reports on the discharge of offshore chemicals from Faroe Islands: For 2008: 2 kg.

Part B: Cumulative Report relating to 2015 data

Table 7: The use and discharge of offshore chemicals

Year: 2006-2015

Table 7f: Quantity of substances where the biodegradation is less than 20% during 28 days, used and discharged in kg/year

Country	Quantity used									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark[1]	582,599	302,503	766,936	515,528	538,181	178,803	351,620	110,595	168,585	212,945
Germany	1516	1,400	0	5,906	6,932	0	0	0	19,570	0
Ireland	0	12,319	8,730	3,498	22,790	0	300	2,275	6	375
Netherlands	885,546	3,173,171	303,012	162,510	244,482	349,002	231,545	150,205	203,370	464,791
Norway	2,935,500	3,024,000	3,141,149	2,144,671	2,386,670	1,493,063	1,287,072	1,636,733	1,820,950	2,330,299
Spain	0	0	0	0	0	0	0	0	0	
United Kingdom	6,419,857	3,974,251	3,156,299	2,581,413	1,924,708	2,881,197	1,784,069	2,042,658	1,644,336	3,504,469
Total	**10,825,018**	**10,487,644**	**7,376,126**	**5,413,526**	**5,123,763**	**4,902,065**	**3,654,606**	**3,942,466**	**3,856,817**	**6,512,879**

Country	Quantity discharged									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark[2]	92,047	44,682	56,457	1,061	7,852	4,244	357	42	360	0
Germany	1,458	1,400	0	37	750	0	0	0	1,898	0
Ireland	0	651	0	0	64	0	100	11	6	375
Netherlands	35,123	6,179	5,775	19,730	19,179	4,542	3,627	913	1,094	1,235
Norway	18,661	13,900	10,515	16,318	14,455	6,403	3,600	2,957	5,220	14,083
Spain	0	0	0	0	0	0	0	0	0	
United Kingdom	1577219	660,055	661,647	608,549	404,545	375,566	305,385	576,846	345,846	294,371
Total	**1,724,508**	**726,867**	**734,394**	**645,695**	**446,845**	**390,754**	**313,068**	**580,769**	**354,424**	**310,065**

[1] Part of the Danish report contains the report on the use of offshore chemicals from Faroe Islands: For 2008: 2000 kg; For 2010: 11 596 kg. For 2012: 17 881 kg.

[2] Part of the Danish reports contains the reports on the discharge of offshore chemicals from Faroe Islands: For 2008: 1950 kg; For 2010: 1 207 kg. For 2012: 0 kg.

Part B: Cumulative Report relating to 2015 data

Table 7: The use and discharge of offshore chemicals

Year: 2006-2015

Table 7g: Quantity of substances which meet two of three PBT-criteria* used and discharged in kg/year

Country	Quantity used									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark[1]	1,066,216	575,771	459,550	231,350	270,566	284,938	161,457	31,930	17,654	10,598
Germany	878,855	879,156	6,972	0	0	6,355	5,582	0	24,437	863
Ireland	13,241	604,258	35,612	1,271	3,340	3,317	3,400	815,176	107	0
Netherlands	5,291,265	2,533,475	185,157	979,280	770,136	1,566,448	452,277	531,900	116,197	114,339
Norway	2,761,900	2,363,000	1,182,315	1,061,115	506,942	348,519	1,506,167	1,326,315	1,351,210	1,410,717
Spain	0	0	0	0	0	0	0	0	0	
United Kingdom	1505806	6,056,927	2,712,894	3,142,275	2,862,101	2,685,217	2,370,810	2,826,647	2,204,106	2,064,376
Total	**11,517,283**	**13,012,587**	**4,582,500**	**5,415,291**	**4,413,085**	**4,894,794**	**4,499,693**	**5,531,968**	**3,713,711**	**3,600,892**

Country	Quantity discharged									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark[2]	193,506	76,655	57,512	360	15,020	341	0	0	0	0
Germany	50	50	0	0	0	0	0	0	0	0
Ireland	4,364	880	3,693	391	0	2,917	730	2,945	34	0
Netherlands	13,811	10,182	28,462	37,089	57,636	13,976	22,960	23,195	16,642	6,656
Norway	23,450	9,900	4,579	5,152	1,584	1,710	5,018	3,399	9,040	15,868
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	631877	1,234,498	918,515	1,046,561	930,855	738,516	648,520	896,187	646,476	818,122
Total	**867,058**	**1,332,165**	**1,012,761**	**1,089,553**	**1,005,095**	**757,459**	**677,228**	**925,726**	**672,192**	**840,645**

* The criteria are as follows:

i. (biodegradation in 28 days less than 70% (OECD 301A, 301E) or less than 60% (OECD 301B, 301C, 301F, 306);

ii. bioaccumulation log Pow > 3 or BCF > 100 and considering molecular weight;

iii. toxicity LC50 < 10mg/l or EC50 < 10mg/l.

[1] Part of the Danish report contains the report on the use of offshore chemicals from Faroe Islands: For 2006: 16 kg; For 2010: 15 400 kg.

[2] Part of the Danish reports contains the reports on the discharge of offshore chemicals from Faroe Islands: For 2006: 2 kg; For 2010: 14 717 kg.

Part B: Cumulative Report relating to 2015 data

Table 7h: Quantity of chemicals spilled[a] in kg per year, 2006 - 2015

Prescreening category	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
PLONOR	559,929	1,000,374	895,579	7,251,474	1,001,352	621,219	1,351,550	1,201,755	705,579	844,650
List of Chemicals for Priority Action	6	0	0	1,600	0	0	0	0	0	8
Inorganic LC_{50} or EC_{50} < 1 mg/l	0	0	0	0	863	0	72	0	360	0
Biodegradation < 20%	2,725	7,119	12,800	353,271	2,123	1,590	16,785	9,027	3,361	9,913
Substance meets two of three criteria	11,259	30,516	1,980	244	31,129	1,251	17,223	3,016	3,573	5,913
Inorganic, LC_{50} or EC_{50} > 1 mg/l	90	77	1,661	3,217	108	328	1,014	472	171	242
Ranking	158,470	125,649	163,063	6,330,759	250,475	133,103	1,270,125	1,180,123	220,305	363,842
Total	**732,479**	**1,163,735**	**1,075,083**	**13,940,565**	**1,286,050**	**757,491**	**2,656,769**	**2,394,393**	**933,349**	**1,224,568**

a. All chemical spilled, including those related to accidental spillage of drilling fluids.

Calculate the amount of substances on the basis of §1.6 of Appendix 1 of OSPAR Recommendation 2000/5 on a Harmonised Offshore Chemical Notification Format (HOCNF), including its updates.

Important! To avoid double reporting, the first appropriate category for the substance shall be chosen. This means that the PLONOR substances are chosen first, and the ranking substances are chosen last.

Part B: Cumulative Report relating to 2015 data

Table 8: Discharges of radioactive substances in produced water in terabecquerel (TBq), 2006-2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total alpha	6.9	7.41	6.76	7.4	7.6	7.6	8	6.5	6.1	6.7
Total beta	4.67	4.94	4.54	5.02	4.94	5.03	5.2	4.34	4.1	4.4

The calculations for alpha and beta are estimates of activities discharged, rather than a measured value.
More information on this data is available in the OSPAR Report on discharges of radionuclides from the non-nuclear sectors.

Part B: Cumulative Report relating to 2015 data

Table 9: Total production in oil equivalents, (toeq)

Year: 2006-2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Denmark	25,654,788	25,034,608	25,654,788	21,136,996	19,428,193	17,757,812	16,290,666	13,674,575	13,035,469	12,662,022
Germany	1,890,000	1,724,604	1,468,139	1,323,703	1,142,193	1,245,520	1,129,230	1,158,020	1,099,947	1,043,589
Ireland	514,683	301,455	524,423	392,584	408,678	361,130	367,540	336,618	332,647	288,212
Netherlands	17,752,641	19,051,921	19,601,935	17,931,997	16,562,387	17,160,297	17,147,270	18,176,106	14,725,986	13,415,377
Norway	233,976,120	231,697,250	249,282,000	246,686,000	213,000,000	170,723,267	170,552,545	161,574,251	161,363,160	178,379,964
Spain	37,693	6,628	6,862	0	41,176	39,044	58,115	40,269	16,337	
United Kingdom	149,000,000	143,000,000	134,900,000	121,700,000	125,612,217	99,391,433	86,480,357	78,304,262	78,229,908	80,859,966
Total	**428,825,925**	**420,816,466**	**431,438,147**	**409,171,280**	**376,194,844**	**306,678,503**	**292,025,723**	**273,264,101**	**268,803,454**	**286,649,130**

Norway: The variation in gas production from 2014 and 2015 is within normal variation between years.

Part B: Cumulative Report relating to 2015 data

Table 10: Installations included in the Risk Based Approach

Year: 2014-2015

Country	No. of Installations included within RBA process	No. of Installations Assessed to date	Assessment method [a]	No. of Installations where risk is adequately controlled [b]	No of Installations still awaiting outcome of assessment [c]	No. of Installations where action is to be taken [d]
Denmark [(1)]						
Germany	1	1	S / WET / C	1	0	0
Ireland [(1)]						
Netherlands	85	11	S / WET / C	9	0	2
Norway	41	41	S / WET / WEA / C	20	0	21
Spain [(1)]						
United Kingdom	105	26	S / WET / WEA / C	1	25	ND

[a] For assessment method, C (Chemical), WET (Whole Effluent Toxicity), WEA (Whole Effluent Assessment), S (Substance level).

[b] Determination of whether 'Risk is adequately controlled' is as described in OSPAR Recommendation 2012/5 and according to national criteria.

[c] Outcome of assessment will determine whether further action is needed or the risk is adequately controlled.

[d] Action needed may be chemical substitution, technology or other measure implemented.

[(1)] Denmark, Ireland and Spain have not yet commenced any RBA assessments.

OSPAR COMMISSION

Victoria House
37-63 Southampton Row
London WC1B 4DA
United Kingdom

t: +44 (0)20 7430 5200
f: +44 (0)20 7242 3737
e: secretariat@ospar.org
www.ospar.org

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ISBN 978-1-911458-40-1
Publication Number: 700/2017