



**OSPAR**  
**COMMISSION**

## OSPAR report on discharges, spills and emissions from offshore oil and gas installations in 2012



### **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.

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# Contents

	Executive Summary/Récapitulatif.....	5
1.	Introduction .....	5
1.1	Programmes and measures relevant to this report.....	5
1.2	Annual reporting and assessments .....	7
2.	Results .....	8
2.1	General information.....	8
2.2	Glossary .....	8
	<i>Part A: Report relating to 2012 data .....</i>	<i>9</i>
	Table 1: Number of installations with emissions and discharges covered by OSPAR measures .....	10
	Table 2a: Produced water .....	11
	Table 2b: Displacement water .....	12
	Table 3: Installations exceeding the 30 mg/l performance standard for dispersed oil .....	13
	Table 3a: Information on installations which did not meet the 30 mg/l performance standard and discharging more than 2 tonnes of dispersed oil per year .....	14
	Table 3b: Information on installations which did not meet the 30 mg/l performance standard and discharging less than 2 tonnes of dispersed oil per year .....	16
	Table 4a: Use and discharges of oil-based drilling fluids (OBF) and cuttings .....	17
	Table 4b: Use and discharges of other Organic Phase drilling Fluids (Other OPF) .....	18
	Table 5a: Accidental spillages of oil .....	19
	Table 5b: Accidental spillages of chemicals .....	19
	Table 6: Emissions to air .....	20
	Table 7a: Quantity of offshore chemicals used in kg/year .....	21
	Table 7b: Quantity of offshore chemicals discharged in kg/year .....	22
	Table 7c: Quantity of offshore chemicals spilled in kg/year .....	23
	<i>Part B: Cumulative report .....</i>	<i>24</i>
	Table 1a: Number of installations by type of installation in the OSPAR Maritime Area with discharges to the sea, or emissions to the air, 2003-2012 .....	25
	Table 1b: Total number of installations in the OSPAR Maritime Area as detailed in the offshore inventory, 2000 - 2012 .....	26
	Table 1c: Number of installations by type of installation in the OSPAR Maritime Area with discharges to the sea, or emissions to the air, 2003 - 2012 .....	27
	Table 2a: Oil discharged in displacement and produced water (in tonnes), 2003 - 2012.....	28
	Table 2b: Quantity of displacement and produced water discharged daily to the sea (in m <sup>3</sup> /day), 2003 - 2012 .....	29
	Table 2c: Total volume of produced water and displacement water discharged, and produced water injected (in m <sup>3</sup> /year), 2003 - 2012.....	29
	Table 3a: Number of installations with discharges exceeding the 40 mg oil/l performance standard, 2003 - 2006, and quantity of oil discharged by these installations (in tonnes) .....	30

Table 3b:	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).....	30
Table 3c:	Number of installations with discharges exceeding the 40 mg oil/l performance standard, 2003 - 2006, by Contracting Party, and quantity of oil discharged by these installations (in tonnes).....	31
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 oil/l performance standard .....	32
Table 4a:	Quantities of oil and other organic-phase fluids discharged via cuttings (in tonnes), 2003 - 2012 .....	33
Table 4b:	Number of wells drilled with OPF, with discharge of contaminated cuttings to the Maritime Area, 2003 - 2012.....	34
Table 5a:	Number of spills, 2003 - 2012 – Spills less than 1 tonne ( $\leq 1$ T) and spills above 1 tonne ( $> 1$ T) .....	35
Table 5b:	Quantity of oil spilled, in tonnes, 2003 - 2012 .....	36
Table 5c:	Number of spills of chemicals and amount of chemicals spills in tonnes/year, 2006 - 2012 .....	37
Table 6:	Emissions to air, 2003 – 2012.....	38
Table 7a:	Quantity of offshore chemicals on the PLONOR* List used and discharged in kg/year, 2002 - 2012 .....	40
Table 7b:	Quantity of inorganic substances with $LC_{50}$ or $EC_{50} > 1$ mg/l used and discharged in kg/year, 2004 - 2012 .....	41
Table 7c:	Quantity of ranking substances used and discharged in kg/year, 2003 - 2012.....	42
Table 7d:	Quantity of chemicals on the List of Chemicals for Priority Action (LCPA), used and discharged in kg/year 2004 - 2012.....	43
Table 7e:	Quantity of inorganic substances with $LC_{50}$ or $EC_{50} < 1$ mg/l, used and discharged in kg/year, 2003-2012.....	44
Table 7f:	Quantity of substances where the biodegradation is less than 20% during 28 days, used and discharged in kg/year 2003 - 2012.....	45
Table 7g:	Quantity of substances which meet two of three PBT-criteria, used and discharged in kg/year, 2003 -2012 .....	46
Table 7h:	Quantity of chemicals spilled in kg per year, 2006 - 2012 .....	47
Table 8:	Total spillage of oil and discharges of dispersed, in tonnes, 2003-2012 .....	48
Table 9:	Total production in oil equivalents, in toeq, 2003-2012.....	49
Table 10:	Discharges of radioactive substances in produced water in terabecquerel (Tbq), in 2012.....	50

## 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 2012. 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 2000-2012 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 2012. 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 2000 à 2012, 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<sup>1</sup> are relevant for this report:

***Operational discharges of oil***

- PARCOM Recommendation 86/1 of a 40 mg/l Emission Standard for Platforms;<sup>2</sup>
- 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 2010/4 on a Harmonised Pre-Screening Scheme for Offshore Chemicals;

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<sup>1</sup> All measures referred to in this chapter can be downloaded from the OSPAR website [www.ospar.org](http://www.ospar.org)

<sup>2</sup> 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.

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 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. This year the assessment covers the years 2010, 2011 and 2012 and will be published separately. 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 2010/4). 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 2012 in Part A and cumulative data in Part B.

## 2. Results

Part A: Report relating to 2012 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 2012 data

**Table 1: Number of installations with emissions and discharges covered by OSPAR measures<sup>a</sup>**

**Year: 2012**

Country	Production		Subsea <sup>d</sup>	Other <sup>e</sup>	Total	Number of wells drilled <sup>f</sup>
	Oil <sup>a</sup>	Gas <sup>c</sup>				
Denmark <sup>(1)</sup>	14	0	0	1	15	5,47
Germany	1	1	0	0	2	3
Ireland	0	1	0	1	2	4
Netherlands	9	118	0	0	127	27
Norway	50	12	53	0	115	172
Spain <sup>(2)(3)</sup>	0	1	0	0	1	0
United Kingdom <sup>(4)</sup>	88	196	204	1	489	191
<b>Total</b>	<b>162</b>	<b>329</b>	<b>257</b>	<b>3</b>	<b>751</b>	<b>402</b>

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 CP

e. Example: offshore underground storage and loading buoys.

f. Number of wells drilled are for wells completed in that calendar year.

(1) For Denmark, the Faroe Islands contribute with 0,47 wells drilled.

(2) Spain - Production - Gas: Cluster of wells (POSEIDON NORTH, POSEIDON SOUTH)\_The installation is very close to its exhaustion.

Trials made from 2007 to 2009 have proved not to be suitable for storage, therefore the remaining gas is currently being exploited as production

(4) UK - Number of wells drilled: Includes sidetracks.

## 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 Recommendation 2001/1 for the Management of Produced Water from Offshore Installations). Drainage water is considered so far of such little consequence that there is no reporting requirement for OSPAR.*

**Year: 2012**

**Table 2a: Produced water<sup>a</sup>**

Country	Total number of installations <sup>b</sup>	Annual quantity of water discharged <sup>c</sup> (m <sup>3</sup> )	Annual average dispersed <sup>d</sup> oil concentration (mg/l)	Total amount of dispersed <sup>d</sup> oil discharged (tonnes)	Annual average BTEX <sup>e</sup> concentration (mg/l)	Total amount of BTEX <sup>e</sup> discharged (tonnes)	Number of installations injecting water <sup>f</sup>	Annual quantity of water injected <sup>f</sup> (m <sup>3</sup> )
Denmark	14	23 613 367	4,9	115	5,8	136	8	13 805 970
Germany	1	19 182	22,3	0,4	40,1	0,8	0	2 267 161
Ireland	1	1 696	10,5	0,02	159,8	0,3	0	0
Netherlands	77	8 897 631	9,0	74	5,0	63	8	4 755 369
Norway	45	130 909 973	11,7	1 535	14,2	1 855	22	32 756 572
Spain <sup>(1)</sup>	0	0	0,0	0	0,0	0	0	0
United Kingdom	105	155 054 739	14,6	2 266	14,0	2 175	27	40 810 370
<b>Total</b>	<b>243</b>	<b>318 496 588</b>	<b>12,5</b>	<b>3 990,30</b>	<b>13,3</b>	<b>4 230</b>	<b>65</b>	<b>94 395 442</b>

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 water used for desalting oil (citation from OSPAR Recommendation 2001/1 (as amended), definition of produced water).

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).

<sup>(1)</sup> Spain - There is only one offshore gas storage installation (platform Gaviota) connected to a cluster of three wells (Albatros, Gaviota I, Gaviota II) and one subsea gas production None of them discharge any produced water into the sea, since water is re-injected or treated onshore installation (North Poseidon and South Poseidon). There is no displacement water.

**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 Recommendation 2001/1 for the Management of Produced Water from Offshore Installations). Drainage water is considered so far of such little consequence that there is no reporting requirement for OSPAR.*

**Year: 2012**

**Table 2b: Displacement water<sup>a</sup>**

Country	Total number of installations <sup>b</sup>	Annual quantity of water discharged <sup>c</sup> (m <sup>3</sup> )	Annual average dispersed <sup>d</sup> oil concentration (mg/l)	Total amount of dispersed <sup>d</sup> oil discharged (tonnes)	Annual average BTEX <sup>e</sup> concentration (mg/l)	Total amount of BTEX <sup>e</sup> discharged (tonnes)	Number of installations injecting water <sup>f</sup>	Annual quantity of water injected <sup>f</sup> (m <sup>3</sup> )
Denmark	2	1 535 173	0,5	0,8	0,1	0,1	0	0
Germany	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0
Netherlands	2	592 448	2	1,2	2	1,4	0	0
Norway	6	31 491 555	1,9	58	n.d.	n.d.	0	0
Spain <sup>(1)</sup>	0	0	0	0	0	0	0	0
United Kingdom	1	778 417	1,8	1,4	3,5	2,7	1	4 004 463
<b>Total</b>	<b>11</b>	<b>34 397 593</b>	<b>1,8</b>	<b>61,79</b>	<b>0,12</b>	<b>4,27</b>	<b>1</b>	<b>4 004 463</b>

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 the sea; when oil is downloaded to shuttle tanks, seawater is introduced into the storage tanks to replace the downloaded oil).

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).

<sup>(1)</sup> Spain - There is only one offshore gas storage installation (platform Gaviota) connected to a cluster of three wells (Albatros, Gaviota I, Gaviota II) and one subsea gas production. None of them discharge any produced water into the sea, since water is re-injected or treated onshore installation (North Poseidon and South Poseidon). There is no displacement water.

**Table 3: Installations exceeding 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 standard as defined in OSPAR Recommendation 2001/1 for the Management of Produced Water from Offshore Installations (as amended)*

**Year: 2012**

Country/Installation <sup>a</sup>	Type of installation <sup>b</sup>	Quantity of water discharged during the year (1000m <sup>3</sup> )	Annual average concentration of dispersed oil <sup>c</sup> (mg/l)	Total amount of dispersed oil discharged (tonnes/yr)	Total amount of dispersed oil during the period exceeding the performance standard <sup>d</sup> (tonnes/yr)
Denmark - Siri	Oil	84	34,00	3	0,340
Netherlands - K 9-ab-B	Gas	1	50,00	0,05	0,002
Norway - Oseberg A	Oil	49	49,90	2,42	0,970
Norway - Oseberg Sør	Oil	224	37,42	8,37	1,660
Norway - Sigyn	Gas	2	104,02	0,18	0,130
Norway - Sleipner Øst/Statoil	Gas	3	104,31	0,36	0,260
UK - Bruce PUQ	Gas	2,37	32,52	0,08	0,006
UK - Rough AD	Gas	0,12	258,07	0,03	0,028
UK - Hewett 52/5 A Platform	Gas	0,02	62,50	0,001	0,001
UK - Beatrice AP Platform	Oil	4 230	36,68	155,16	28,264
UK - Thames AP Platform	Gas	20	30,25	0,59	0,005
UK - Tyne Platform	Gas	2	39,94	0,08	0,019
UK - Ross Bleo Holm	Oil	585	39,29	23,00	5,440
UK - Cleeton CPQ Platform	Gas	0,1	173,91	0,02	0,017
UK - Ravenspurn North CPP Platform	Gas	19	517,93	9,72	9,159
UK - West Sole WA Main Platform	Gas	0,5	35,40	0,02	0,002
UK - Alwyn North	Oil	57	49,61	2,85	1,126
<b>Total</b>		<b>5 279,6</b>	<b>39,00</b>	<b>205,9</b>	<b>47,429</b>

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 total volume of produced water discharged during the same period.

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 did not 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 as*

**Year: 2012**

Country/Installation/Operator <sup>a</sup>	Type of installation	Annual average concentration of dispersed oil (mg/l) <sup>b</sup>	Treatment equipment installed	Reasons for not achieving the standard	Action being taken
DK/Siri	Oil	34,0	2 stage separation, hydrocyclones, degasser, produced water reinjection system	Due to structural integrity issues the installation is demanned during specific weather situations. The increased number of shut-downs and start-ups of the installation are a challenge for a stable operation. In addition to the wax production from an unmanned installation tied-in to Siri gives challenges to the separation.	High produced water reinjection to minimize the discharge to sea. Solving the wax problems with increased temperature on heaters and controlling the chemical dosing.
Norway - Oseberg A	Oil	49,9	Separators and floatation	Problems with reinjection	Focusing on increasing re-injection
Norway - Oseberg Sør	Oil	37,4	Separators, 3 hydrocyclones, flocculations and degassing	Problems with reinjection	New re-injections pumps will be installed in Feb 2014
UK/Beatrice AP Platform	Oil	36,6	Wemco units with modifications made to the internal structure.	An increasing water cut has led to an increase in Produced water with specific chemical make-up of Beatrice fluids and unplanned process shutdowns, has led to inefficiencies within the produced water treatment system.	Extensive chemical trials, improvements in platform operations to reduce unplanned shutdowns, re-routing of process pipework and regular cleaning of Wemco internal fouling.
UK/Ross Bleo Holm	Oil	39,3	Three production separators, hydrocyclones and degasser	Oil in water concentration deteriorate in periods of heavy weather. This heavy weather caused the FPSO to roll and disturb solids within the slops tank which caused a deterioration of produced water quality.	Original slops tank have been cleaned out and re-commissioned. These slops tank provide better OIW separating facilities.

Country/Installation/Operator <sup>a</sup>	Type of installation	Annual average concentration of dispersed oil (mg/l) <sup>b</sup>	Treatment equipment installed	Reasons for not achieving the standard	Action being taken
UK/Ravenspurn North CPP Platform	Gas	518	Horizontal 3-phase separator and a mares tail coalescer water treatment package	Sand and proppant fill the treatment vessels, also emulsions are formed that prevent adequate separation in the vessels.	A sand treatment package is being installed, also a new vane package has been installed in the 3-phase separator. Better chemical control is being investigated as are 'end of pipe' treatment packages. A trial treatment unit has been fitted and is undergoing testing.
UK/Alwyn North	Oil	49,6	Gravity separation with oil skimming. Primary disposal is PWRI with overboard as back up route when PWRI is not available. PWRI was online for >95% during 2012.	An increase in Dunbar water production resulting in increased amounts of water being carried over into the produced water system. The corrosion inhibitor used on Dunbar is also suspected to detrimentally affect OIWs.	Chemical trials to improve Dunbar PW quality. Testing of the performance of the produced water plant.

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.

**Table 3b. Information on installations which did not meet the 30 mg/l performance standard and discharging less than 2 tonnes of dispersed oil per year**

**Year: 2012**

Installation/Operator <sup>a</sup>	Type of installation <sup>b</sup>	Annual average concentration of dispersed oil mg/l <sup>c</sup>	Treatment equipment installed
K 9-AB-B/Total	Gas	50,0	HP Filtercoalescer
Norway - Sigyn	Gas	104,02	Producing to Sleipner Øst.
Norway - Sleipner Øst/Statoil	Gas	104,31	Separator leading into the system, test separator, hydrocyclones going out of the first separator. Emulsion breaker and flocculant have been tested, but haven't been effective. Re-injection is the main measure.
Bruce PUQ	Gas	32,5	LP and HP separator, slugcatcher, test separator and degassing Drum. Also PWRI
Rough AD	Gas	258	1. Oil Skimmer 2. Oily Water Separator 3. Oil recovery pump in caisson
Hewett 52/5a Platform	Gas	62,5	PWRI but in the event of PWRI downtime the facility exists to discharge to sea following treatment in a single separator.
Thames AP Platform	Gas	30,3	Chemically assisted gravity separator. Two injection wells.
Tyne Platform	Gas	39,9	3-phase production separator
Cleeton CPQ Platform	Gas	174	3-phase separators and a produced water re-injection package (that operates at greater than 95% up time)
West Sole WA Main Platform	Gas	35,4	Vertical 3-phase separator

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.



**Table 4a: Use and Discharges of Oil Based drilling Fluids (OBF) and cuttings<sup>a</sup>**

**Year: 2012**

Country	Total amount of OBF (fluid only) used (tonnes)	Number of wells drilled with OBF <sup>c</sup>	Cuttings discharged to the sea after treatment				OBF cuttings injected		Cuttings transported to shore (tonnes)
			Number of wells concerned	Amount of cuttings discharged	Average OBF <sup>d</sup> concentration in cuttings (%)	Total amount of OBF discharged <sup>e</sup> (tonnes)	Number of wells concerned	Total amount of cuttings injected <sup>f</sup> (tonnes)	
Denmark	636	1	0	0	0	0	0	0	636
Germany	3 582	3	0	0	0	0	0	0	3 670
Ireland	548	1	0	0	0	0	0	0	348
Netherlands	30 060	27	0	0	0	0	0	0	8 066
Norway	113 162	131	0	0	0	0	31	23 409	65 689
Spain	0	0	0	0	0	0	0	0	0
United Kingdom	62 190	89	8	3 660	1,43	5,2	20	9 004	31 083
<b>Total OBF</b>	<b>210 178</b>	<b>252</b>	<b>8</b>	<b>3 660</b>	<b>1,43</b>	<b>5,2</b>	<b>51</b>	<b>32 413</b>	<b>109 492</b>

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 and includes inter alia Oil Based Fluids (OBF), as defined in OSPAR Decision 2000/3.

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.

**Table 4b: Use and Discharges of other Organic Phase drilling Fluids (Other OPF)<sup>b</sup>****Year: 2012**

Country	Total amount of OPF (fluid only) used (tnnes)	Number of wells drilled with OPF <sup>c</sup>	Cuttings discharged to the sea after treatment				OPF cuttings injected		Cuttings transported to shore <sup>g</sup> (tonnes)
			Number of wells concerned	Amount of cuttings discharged	Average OP <sup>d</sup> concentration in cuttings (%)	Total amount of OP discharged <sup>e</sup> (tonnes)	Number of wells concerned	Total amount of cuttings injected <sup>f</sup> (tonnes)	
Denmark	13 192	3	0	0	0	0	0	0	4 743
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	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0	0
<b>Total non-OBF OPF</b>	<b>13 192</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4 743</b>
<b>Grand Total OBF<sup>h</sup></b>	<b>223 370</b>	<b>255</b>	<b>8</b>	<b>3 660</b>	<b>1,43</b>	<b>5,2</b>	<b>51</b>	<b>32 413</b>	<b>114 235</b>

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 and includes inter alia Oil Based Fluids (OBF), as defined in OSPAR Decision 2000/3.

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.

**Table 5: Accidental spillages****Year: 2012****Table 5a: Accidental spillages of oil<sup>a</sup>**

Country	Number of oil spills		
	≤ 1 tonne	> 1 tonne	Total number
Denmark <sup>(1)</sup>	42	0	42
Germany	0	0	0
Ireland	4	0	4
Netherlands	12	0	12
Norway <sup>(2)</sup>	118	4	122
Spain	0	0	0
United Kingdom <sup>(3)</sup>	239	6	245
<b>Total</b>	<b>415</b>	<b>10</b>	<b>425</b>

Total Quantity of oil spilled (tonnes)		
≤ 1 tonne	> 1 tonne	Total Quantity
2	0	2
0	0	0
0,8	0	0,8
0,4	0	0,4
7,0	9	16,0
0	0	0
11,4	90,0	101
<b>21,5</b>	<b>99,0</b>	<b>121</b>

a. Flaring spillages are included in oil spillages

<sup>(1)</sup> For Denmark, the Faroe Islands contribute with 1 spill <1 tonne and 0,001 tonne.<sup>(2)</sup> Norway - Reports m<sup>3</sup> rather than tonnes<sup>(3)</sup> UK - There are two oil spill incidents which have not been included within this return as they are subject to an ongoing investigation.**Table 5b: Accidental spillages of chemicals<sup>a</sup>**

Country	Number of chemical spillages		
	≤ 1 tonne	> 1 tonne	Total number
Denmark	26	0	26
Germany	0	0	0
Ireland	1	0	1
Netherlands	7	1	8
Norway <sup>(1)</sup>	110	38	148
Spain	0	0	0
United Kingdom <sup>(2)</sup>	224	48	272
<b>Total</b>	<b>368</b>	<b>87</b>	<b>455</b>

Total Quantity of chemicals spilled (tonnes)		
≤ 1 tonne	> 1 tonne	Total Quantity
1	0	1
0	0	0
<0,001	0	<0,001
0,9	1,2	2,1
15,4	350	365,4
0	0	0
32,4	804	837
<b>49,7</b>	<b>1155</b>	<b>1 205</b>

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

<sup>(1)</sup> Norway - Reports m<sup>3</sup> rather than tonnes<sup>(2)</sup> UK: There is one chemical incident which has not been included within this return as it is subject to an ongoing investigation.

**Table 6: Emissions to air**

**Year: 2012**

Country	CO <sub>2</sub> <sup>a</sup> (10 <sup>3</sup> tonnes)	NO <sub>x</sub> <sup>b</sup> (tonnes)	nmVOCs <sup>c</sup> (tonnes)	CH <sub>4</sub> <sup>d</sup> (tonnes)	SO <sub>2</sub> (tonnes)
Denmark <sup>(1)</sup>	1 837	7 222	1 894	4 113	92
Germany	51	77	385	715	4
Ireland	45	0,2	0,01	0,01	0,001
Netherlands	1 964	4 973	3 227	9 671	253
Norway	12 439	50 439	33 022	25 658	822
Spain	1	8	N/D	143	N/D
United Kingdom	13 083	47 018	37 960	44 119	2 561
<b>Total</b>	<b>29 420</b>	<b>109 738</b>	<b>76 488</b>	<b>84 419</b>	<b>3 732</b>

a. CO<sub>2</sub> is carbon dioxide emitted, not the carbon dioxide equivalents of the various greenhouse gases. Carbon monoxide (CO) is not included.

b. NO<sub>x</sub> is the sum of nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>) expressed as NO<sub>2</sub> equivalent. Nitrous oxide (N<sub>2</sub>O) is not included as a component of NO<sub>x</sub>.

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

d. CH<sub>4</sub> corresponds to the methane released to the atmosphere, from any source.

(1) For Denmark, the Faroe Islands contribute with 15 000 tonnes) CO<sub>2</sub>, 0,5 tonne NO<sub>x</sub>, 0,02 tonne nmVOC and 0,005 tonne SO<sub>2</sub>

**Table 7: The use and discharge of offshore chemicals<sup>a</sup>**

**Year: 2012**

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

Country	Prescreening Category							Total
	Plonor	LCPA	LC <sub>50</sub> or EC <sub>50</sub> < 1 mg/l	Biodegradation < 20 %	Substances meet two of three criteria	Inorganic, LC50 or EC50 > 1 mg/l	Ranking	
Denmark <sup>(1)</sup>	34 759 511	0	0	351 620	161 457	1 663 514	19 425 435	<b>56 361 537</b>
Germany	252 562	0	0	0	5 582	77	3 690	<b>261 911</b>
Ireland <sup>(2)</sup>	936 836	0	8	300	3 400	0	88 555	<b>1 029 099</b>
Netherlands	46 550 994	0	0	231 545	452 277	459 251	12 289 133	<b>59 983 200</b>
Norway <sup>(2)</sup>	282 848 186	3	30	1 287 072	1 506 167	0	82 880 656	<b>368 522 114</b>
Spain	0	0	0	0	0	0	0	<b>0</b>
United Kingdom	189 057 474	440	1 848	1 784 069	2 370 810	2 313 743	69 690 462	<b>265 218 847</b>
<b>Total</b>	<b>554 405 563</b>	<b>443</b>	<b>1 886</b>	<b>3 654 607</b>	<b>4 499 692</b>	<b>4 436 585</b>	<b>184 377 931</b>	<b>751 376 708</b>

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.

<sup>(1)</sup> For Denmark the Faroe Islands contribute with 3 007 003 kg PLONOR, 17 881 kg Biodeg < 20% and 486 757 kg Ranking.

<sup>(2)</sup> Norway & Ireland - "Inorganic, LC50 or EC50 >1 mg/l" is included in "Ranking".

**Table 7b: Quantity of offshore chemicals discharged in kg/year<sup>a</sup>**

**Year: 2012**

Country	Plonor	LCPA	Prescreening Category				Ranking	Total
			LC <sub>50</sub> or EC <sub>50</sub> < 1 mg/l	Biodegradation < 20 %	Substances meet two of three criteria	Inorganic, LC50 or EC50 > 1 mg/l		
Denmark <sup>(1)</sup>	12 334 663	0	0	357	0	123 525	4 758 740	<b>17 217 285</b>
Germany	6 573	0	0	0	0	53	349	<b>6 975</b>
Ireland <sup>(2)</sup>	604 132	0	1	100	730	0	24 555	<b>629 518</b>
Netherlands	17 441 780	0	0	3 627	22 960	79 976	955 649	<b>18 503 992</b>
Norway <sup>(2)</sup>	104 495 858	3	21	3 600	5 018	0	13 532 911	<b>118 037 411</b>
Spain	0	0	0	0	0	0	0	<b>0</b>
United Kingdom	56 070 241	0	1 643	305 385	648 520	384 226	10 609 116	<b>68 019 130</b>
<b>Total</b>	<b>190 953 246</b>	<b>3</b>	<b>1 665</b>	<b>313 068</b>	<b>677 228</b>	<b>587 780</b>	<b>29 881 320</b>	<b>222 414 311</b>

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.

<sup>(1)</sup> For Denmark the Faroe Islands contribute with 1 103 867 kg PLONOR and 55 910 kg Ranking.

<sup>(2)</sup> Norway & Ireland - "Inorganic, LC50 or EC50 >1 mg/l" is included in "Ranking".

**Table 7c: Quantity of offshore chemicals spilled in kg/year<sup>a</sup>**

**Year: 2012**

Country	Prescreening Category						Ranking	Total
	Plonor	LCPA	LC <sub>50</sub> or EC <sub>50</sub> < 1 mg/l	Biodegradation < 20 %	Substances meet two of three criteria	Inorganic, LC50 or EC50 > 1 mg/l		
Denmark	79	0	0	0	0	0	112	191
Germany	0	0	0	0	0	0	0	0
Ireland <sup>(1)</sup>	0	0	0	0	0	0	0	0
Netherlands	360	0	0	0	0	0	0	360
Norway <sup>(1)</sup>	159 000	0	69	900	82	0	10 060	170 111
Spain	0	0	0	0	0	0	0	0
United Kingdom	259 283	0	3	294	14 274	548	51 632	326 034
<b>Total</b>	<b>418 722</b>	<b>0</b>	<b>72</b>	<b>1 194</b>	<b>14 356</b>	<b>548</b>	<b>61 804</b>	<b>496 696</b>

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

<sup>(1)</sup>Norway & Ireland - "Inorganic, LC50 or EC50 >1 mg/l" is included in "Ranking".

## Part B: Cumulative Report



**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 2003-2012\***

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011 <sup>6</sup>	2012
Denmark <sup>1</sup>	19	20	17	19	19	18	20	20	18	15
France <sup>2</sup>	0,1	0	0	0	0	0	0	0	0	0
Germany	2	3	4	3	3	3	3	2	2	2
Ireland	1	1	1	1	2	2	1	2	2	2
Netherlands	123	124	129	128	130	132	135	138	128	127
Norway <sup>3</sup>	63	103	108	109	125	128	143	136	103	115
Spain	1	1	1	1	1	1	2	2	2	1
UK <sup>4</sup>	383	396	407	416	444	457	439	484	487	489
<b>Total<sup>5</sup></b>	<b>592</b>	<b>649</b>	<b>666</b>	<b>677</b>	<b>725</b>	<b>741</b>	<b>743</b>	<b>784</b>	<b>742</b>	<b>751</b>

<sup>1</sup> Part of the Danish reports contain the reports on number of installations from Faroe Islands: for 2006: 0,3 installation; for 2008, 0,4 installation; for 2010: 0,3 installation; for 2012: 0,5 installation.

<sup>2</sup> France had 1 exploratory well in in 2003.

<sup>3</sup> Norway started reporting subsea installations in 2004

<sup>4</sup> UK revised its criteria for counting subsea installations in 2010

<sup>5</sup> The increase of the number of installations from year 2002 is mainly due to the change of rules in counting the installations. The numbers given for 2003 and 2004 reflect the current OSPAR database on

<sup>6</sup> From 2011 drilling activity has been excluded from this total

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

## Table 1 (cont'd): Number of installations in the OSPAR maritime area

**Table 1b<sup>1</sup>: Total number of installations in the OSPAR maritime area as detailed in the offshore inventory, 2000-2012**

	2000	2001	2003	2005	2007	2009	2011
Total	717	869	1167	1131	1281	1340	1495

<sup>1</sup> The increase of the number of installations from year 2002 is mainly due to the change of rules in counting the installations. The numbers given for 2003 and 2004 reflect the current OSPAR database on offshore installations set up in accordance with OSPAR Decision 98/3 on the Disposal of Disused Offshore Installations.

**Table 1c: Number of installations by type of installation in the OSPAR maritime area with discharges to the sea, or emissions to the air, 2003-2012\***

	2003	2004	2005	2006	2007	2008	2009	2010	2011 <sup>1</sup>	2012
Oil	146	148	148	151	154	155	158	169	160	162
Gas	254	257	257	259	274	276	280	318	316	329
Subsea	143	179	184	190	206	220	221	230	262	257
Drilling	45	58	71	75	85	84	74	57	-	-
Other	4	11	11	8	11	11	9	9	4	3
<b>Total</b>	<b>592</b>	<b>653</b>	<b>671</b>	<b>683</b>	<b>730</b>	<b>746</b>	<b>742</b>	<b>783</b>	<b>742</b>	<b>751</b>
Wells	-	-	-	-	-	-	-	-	380	402

<sup>1</sup> From 2011 number of wells drilled is reported rather than 'drilling years' as in previous years

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

**Table 2: Oily aqueous discharges to the maritime area\***

**Table 2a: Oil discharged in displacement and produced water (in tonnes), 2003-2012**

Country	2003 (IR)	2004 (IR)	2005 (IR)	2006 (IR)	2007 (IR)	2008 (IR)	2009 (IR)	2010 (IR)	2011 (IR)	2012 (IR)
	Dispersed	Dispersed	Dispersed	Dispersed	Dispersed	Dispersed <sup>(1)</sup>	Dispersed <sup>(2)</sup>	Dispersed <sup>(2)</sup>	Dispersed <sup>(2)</sup>	Dispersed <sup>(2)</sup>
Denmark	358	431	446	385	386	380	340	ND	ND	ND
Germany	0,20	0,20	0,15	0,13	0,12	0,11	0,16	0,19	0,29	0,40
Ireland	ND	0,12	0,02	0,05	0,03	0,04	0,01	0,01	0,02	0,02
Netherlands	114	119	108	114	156	140	54	ND	ND	ND
Norway	2 584	2 653	2 833	2 379	ND	ND	ND	ND	ND	ND
Spain	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
UK	5 276	5 279	4 970	4 357	ND	ND	ND	ND	ND	ND
<b>Total</b>	<b>8 332</b>	<b>8 482</b>	<b>8 357</b>	<b>7 235</b>	<b>542</b>	<b>520</b>	<b>394</b>	<b>0,20</b>	<b>0,31</b>	<b>0,42</b>

Country	2007 (GC-FID)	2008 (GC-FID)	2009 (GC-FID)	2010 (GC-FID)	2011 (GC-FID)	2012 (GC-FID)
	Dispersed	Dispersed	Dispersed	Dispersed	Dispersed	Dispersed
Denmark	ND	ND	ND	214	165	116
Germany	ND	ND	ND	ND	ND	ND
Ireland	ND	ND	ND	ND	ND	ND
Netherlands	ND	ND	54	83	56	75
Norway	1 626	1 627	1 542	1 490	1 529	1 593
Spain	ND	ND	ND	ND	ND	ND
UK	2 960	3 160	2 900	3 008	2 493	2 267
<b>Total</b>	<b>4 586</b>	<b>4 787</b>	<b>4 496</b>	<b>4 795</b>	<b>4 243</b>	<b>4 052</b>

(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.

#### Dissolved from 2003

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	Dissolved	BTEX	BTEX
Denmark	265	292	348	359,53	353,39	202,38	195	216	165	136
Germany	0,50	0,80	0,76	0,952	0,591	0,545	0,395	0,672	0,78	0,8
Ireland	ND	0,38	0,02	0,004	0,050	0,011	0,025	0,290	0,37	0,3
Netherlands	72	76	70	52,4	72	66,835	61,649	75,59	67,7	64,4
Norway	906	1 547	1 524	1 711	1 879	1 852	1 954	1 820	1 675	1 855
Spain	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
UK	3 599	3 276	3 049	2 756	2 273	3 783	2 619	2 115	2 477	2 178
<b>Total</b>	<b>4 843</b>	<b>5 192</b>	<b>4 992</b>	<b>4 880</b>	<b>4 578</b>	<b>5 905</b>	<b>4 830</b>	<b>4 228</b>	<b>4 386</b>	<b>4 235</b>

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.

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

**Table 2: Oily aqueous discharges to the maritime area \***

**Table 2b: Quantity of displacement and produced water discharged daily to the sea (in m<sup>3</sup>/day), 2003-2012**

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark	54 243	67 578	74 522	76 677	75 204	83 442	75 638	73 833	71 578	68 900
Germany	18	22	22	26	23	23	33	43	50	53
Ireland	NI	8	7	9	6	5	4	4	4	5
Netherlands	21 381	23 313	24 275	26 429	38 391	34 542	30 373	26 429	23 232	26 000
Norway	524 910	537 342	533 349	510 618	558 647	506 912	455 719	446 018	426 237	444 936
Spain	0	0	0	2	3	0	0	0	0	0
UK	719 950	690 481	642 967	603 112	555 784	541 611	538 690	540 766	479 100	426 940
<b>Total</b>	<b>1 320 502</b>	<b>1 318 745</b>	<b>1 275 143</b>	<b>1 216 873</b>	<b>1 228 058</b>	<b>1 166 536</b>	<b>1 100 457</b>	<b>1 087 093</b>	<b>1 000 201</b>	<b>966 833</b>

\* 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<sup>3</sup>/year), 2003-2012**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
PW*	419 235 111	422 925 843	413 865 753	398 629 647	401 516 892	385 158 923	365 677 026	361 133 229	335 320 487	318 496 588
DPW**	62 747 873	58 416 126	51 561 436	45 740 777	46 723 197	40 626 832	35 989 804	35 655 541	29 752 755	34 397 593
IPW	58 960 839	74 978 612	76 893 589	80 185 640	87 721 185	84 083 816	88 027 421	86 744 890	91 006 849	98 399 905
<b>Total</b>	<b>540 943 823</b>	<b>556 320 581</b>	<b>542 320 778</b>	<b>524 556 064</b>	<b>535 961 274</b>	<b>509 869 571</b>	<b>489 694 251</b>	<b>483 533 660</b>	<b>456 080 091</b>	<b>451 294 086</b>

\* 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

**Table 3: Installations which do not meet OSPAR performance standard for dispersed oil in aqueous discharges<sup>a</sup>**

**Table 3a<sup>b</sup>: Number of installations with discharges exceeding the 40 mg oil/l performance standard, 2003-2006, and quantity of oil discharged by these installations (in tonnes)**

	2003	2004	2005	2006
Total number of installations with discharges in the Convention area	623	648	671	671
Number of installations exceeding 40 mg/l	22	28	25	14
Quantity of dispersed oil discharged	217	737	1044	469

**Table 3b<sup>b</sup>: 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)**

	2007	2008	2009	2010	2011	2012
Total number of installations with discharges in the Convention area	730	746	743	811	742	752
Number of installations exceeding 30 mg/l	22	31	31	20	20	17
Quantity of dispersed oil discharged	319	297	340	276	101	206

"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 discharges from oil and gas production platforms (OSPAR Reference document OSPAR 1997-16)

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 performance standard on the basis of an annual average. From 2001 onwards, all the data is based on annual averages.

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 Parties' total amount of oil discharged.

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

**Table 3: Installations which do not meet OSPAR performance standard for dispersed oil in aqueous discharges<sup>a\*</sup>**

**Table 3c: Number of installations with discharges exceeding the 40 mg oil/l performance standard, 2003-2006, by Contracting Party and quantity of oil discharged by these installations (in tonnes)**

Country	2003		2004		2005		2006	
	Number of installations	Amount discharged	Number of installations	Amount discharged	Number of installations	Amount discharged	Number of installations	Amount discharged
Denmark	1	52	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0
Ireland	NI	NI	1	0,12	0	0	0	0
Netherlands	4	3	0	0	0	0	0	0
Norway	0	0	3	344	4	468	3	339
Spain	0	0	0	0	0	0	0	0
UK	17	162	23	393	21	576	11	477
<b>Total</b>	<b>22</b>	<b>217</b>	<b>27</b>	<b>737</b>	<b>25</b>	<b>1 044</b>	<b>14</b>	<b>816</b>

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 performance standard on the basis of an annual average. From 2001 onwards, all the data is based on annual averages.

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 Contracting Parties' total amount of oil discharged.

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

**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/performance standard**

Country	2007		2008		2009		2010		2011		2012	
	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	Number of installations	Amount discharged
Denmark	0	0	0	0	2	7	1	1	0	0	1	0,3
Germany	0	0	0	0	0	0	0	0	0	0	0	0,0
Ireland	0	0,0	0	0	0	0	0	0	0	0	0	0,0
Netherlands	4	1,6	7	0,6	7	4	0	0	3	0,1	1	0,0
Norway	2	22	4	12	0	0	3	1,64	4	1,1	4	3,0
Spain	0	0	0	0	0	0	0	0	0	0	0	0,0
UK	16	295	20	204,8	22	99,4	16	130,4	13	33,9	11	44,1
<b>Total</b>	<b>22</b>	<b>319</b>	<b>31</b>	<b>217</b>	<b>31</b>	<b>110</b>	<b>20</b>	<b>133</b>	<b>20</b>	<b>35</b>	<b>17</b>	<b>47</b>

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



# 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), 2003-2012 \*

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
	Total OPF <sup>1</sup>	Total OPF <sup>1</sup>	Total OPF <sup>1</sup>	Total OPF <sup>1</sup>	Total OPF <sup>1</sup>	Total OPF <sup>1</sup>	Total OPF <sup>1</sup>	Total OPF <sup>1</sup>	Total OPF <sup>1</sup>	Total OPF <sup>1</sup>
Denmark	0	0	0	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	NI	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0
Norway	342	425	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0	0
UK	0	0	0	0	0	0	0	1	4	5
<b>Total</b>	<b>342</b>	<b>425</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>5</b>

<sup>1</sup> Total OPF is the sum of OBF and non-OBF OPF. No oil-based mud contaminated cuttings have been discharged since 1996.

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

**Table 4b: Number of wells drilled with OPF, with discharge of contaminated cuttings to the maritime area, 2003-2012\***

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

Country	2003		2004		2005		2006		2007	
	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	NI	0	0	0	0	0	0	0	0
Ireland	NI	NI	0	0	0	0	0	0	0	0
Netherlands	0	0	17	0	0	0	0	0	0	0
Norway	0	7	0	4	0	0	0	0	0	0
Spain	N/A	N/A	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>7</b>	<b>17</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

  

Country	2008		2009		2010		2011		2012	
	OBF	non-OBF OPF	OBF	non-OBF OPF	OBF	non-OBF OPF	OBF	Other OPF	OBF	Other 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	1	0	11	0	11	0	8	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>11</b>	<b>0</b>	<b>8</b>	<b>0</b>

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

Original Table 4b deleted as referred to wells drilled in 2000. Table 4c renamed 4b

## Table 5: Spillage of oil and chemicals \*

Table 5a: Number of oil spills, 2003-2012 - Spills less than 1 tonne ( $\leq 1$  T) and spills above 1 tonne ( $> 1$  T)

Country	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
	$\leq 1$ T	$> 1$ T	$\leq 1$ T	$> 1$ T	$\leq 1$ T	$> 1$ T	$\leq 1$ T	$> 1$ T	$\leq 1$ T	$> 1$ T	$\leq 1$ T	$> 1$ T	$\leq 1$ T	$> 1$ T	$\leq 1$ T	$> 1$ T	$\leq 1$ T	$> 1$ T	$\leq 1$ T	$> 1$ T
Denmark <sup>(1)</sup>	82	2	70	0	44	1	46	0	30	1	24	2	23	2	21	0	30	0	42	0
Germany	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ireland	NI	NI	0	0	0	0	3	0	3	0	1	0	0	0	1	0	1	0	4	0
Netherlands	33	0	31	1	25	0	25	0	35	0	20	1	14	1	34	0	13	1	12	0
Norway <sup>(1)</sup>	121	11	108	10	141	6	115	7	155	12	164	9	142	4	133	7	129	1	118	4
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom <sup>(3)</sup>	366	6	445	13	428	10	305	8	270	9	262	8	291	8	265	6	270	9	239	6
<b>Total</b>	<b>602</b>	<b>19</b>	<b>654</b>	<b>24</b>	<b>638</b>	<b>17</b>	<b>494</b>	<b>15</b>	<b>493</b>	<b>22</b>	<b>471</b>	<b>20</b>	<b>470</b>	<b>15</b>	<b>454</b>	<b>13</b>	<b>443</b>	<b>11</b>	<b>415</b>	<b>10</b>

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

<sup>(2)</sup> Norway - Reports m<sup>3</sup> rather than tonnes

<sup>(3)</sup> UK - UK quantity data excludes two incidents in 2011 and two incidents in 2012 which are still currently under investigation

\* These data are taken from Table 5 in Part A

**Table 5: Spillage of oil and chemicals \***

**Table 5b: Total quantity of oil spilled, in tonnes, 2003-2012**

Country	2003		2004		2005		2006		2007	
	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T
Denmark	12	6,8	6	0	3	3	4	0	2	30
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	NI	NI	0	0	0	0	0,04	0	0,2	0
Netherlands	0,2	0	0,1	1,6	0,2	0	0,7	0,0	1,2	0
Norway <sup>(1)</sup>	47	690	7	58	13	303	10	95	10	3 805
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	21	47	29	47	38	39	23	40	12	47
<b>Total</b>	<b>80</b>	<b>744</b>	<b>42</b>	<b>107</b>	<b>54</b>	<b>345</b>	<b>38</b>	<b>135</b>	<b>25</b>	<b>3 882</b>

Country	2008		2009		2010		2011		2012	
	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T
Denmark <sup>(3)</sup>	2	99	2	4	2	0	1	0	2	0
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0,004	0	0	0	0,001	0	0,01	0	0,8	0
Netherlands	0,7	3	0,6	22	0,1	0	0,1	1,1	0,4	0
Norway <sup>(1)</sup>	7,5	156	8	88	6	105	8,7	10	7,0	9
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom <sup>(2)</sup>	17	20,3	15,0	39,1	9,8	13,6	12,8	29,1	11,4	90,0
<b>Total</b>	<b>27</b>	<b>278</b>	<b>26</b>	<b>154</b>	<b>18</b>	<b>119</b>	<b>23</b>	<b>40</b>	<b>22</b>	<b>99</b>

Deleted previous footnote 1, referring to data in 2001

<sup>(1)</sup> Norway - Reports m<sup>3</sup> rather than tonnes

<sup>(2)</sup> UK - UK quantity data excludes two incidents in 2011 and two incidents in 2012 which are still currently under investigation

<sup>(3)</sup> Part of the Danish reports contain the reports on quantity of oil spilled from Faroe Islands: for 2012, 0,001 tonne.

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

**Table 5c: Number of spills of chemicals and amount of chemical spills in tonnes/year, 2006-2012**

	2006	2007	2008	2009	2010	2011 <sup>(1)</sup>	2012 <sup>(1)</sup>
Number of spills of chemicals	230	307	306	354	348	395	455
Tonnage of spilled chemicals	840	1 181	1 071	14 464	6 898	728	1 205

<sup>(1)</sup> Quantity data for 2011 and 2012 excludes one incident in the UK which is still currently under investigation

**Table 6: Emissions to air, 2003-2012\*****CO<sub>2</sub> (in million of tonnes)**

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(1)</sup>	2,20	2,30	2,10	2,12	2,11	2,07	2,20	1,94	1,76	1,84
Germany	0,02	0,03	0,06	0,05	0,06	0,04	0,04	0,05	0,05	0,05
Ireland	NI	0,07	0,06	0,06	0,06	0,09	0,04	0,05	0,05	0,05
Netherlands	1,27	1,27	1,33	1,29	1,39	1,40	1,49	1,39	1,54	1,96
Norway	11,40	11,34	11,87	11,56	11,07	13,77	12,44	12,00	12,28	12,44
Spain	0,03	0,03	0,06	0,04	0,04	0,05	0,00	2,00	0,001	0,001
United Kingdom	18,79	18,52	18,21	16,41	16,96	15,60	15,44	15,00	14,02	13,08
<b>Total</b>	<b>34</b>	<b>34</b>	<b>34</b>	<b>32</b>	<b>32</b>	<b>33</b>	<b>32</b>	<b>32</b>	<b>30</b>	<b>29</b>

**NO<sub>x</sub> (in thousand of tonnes)**

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(1)</sup>	5,30	7,20	6,80	8,10	8,90	8,50	8,10	7,00	6,32	7,22
Germany	0,08	0,11	0,14	0,04	0,03	0,05	0,05	0,05	0,04	0,08
Ireland	NI	0,16	0,15	0,27	0,25	0,52	0,12	0,21	0,16	0,00
Netherlands	6,60	3,74	3,81	3,86	4,00	3,80	4,17	3,70	5,27	4,97
Norway	50,30	51,60	54,40	54,35	54,00	51,00	50,00	50,00	51,49	50,44
Spain	0,07	0,08	0,13	0,08	0,01	0,11	0,01	0,00	0,01	0,01
United Kingdom	61,25	60,12	59,00	52,00	52,00	52,30	49,50	53,00	47,49	47,01
<b>Total</b>	<b>124</b>	<b>123</b>	<b>124</b>	<b>119</b>	<b>119</b>	<b>116</b>	<b>112</b>	<b>114</b>	<b>111</b>	<b>110</b>

**nmVOCs (in thousands of tonnes)**

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(1)</sup>	8,10	5,10	3,00	2,10	2,00	2,25	2,00	2,61	1,22	1,89
Germany	0,01	0,01	0,29	0,68	0,22	0,12	0,12	0,12	0,30	0,39
Ireland	NI	0,20	0,001	0,10	0,01	0,04	0,001	0,05	0,003	0,00
Netherlands	4,97	3,60	3,74	3,69	4,00	4,68	5,00	4,16	4,12	3,23
Norway <sup>(2)</sup>	165,20	131,60	93,50	79,54	73,00	50,00	45,61	37,00	30,58	33,02
Spain	0,10	0,09	0,13	0,08	0,10	0,11	0,00	0,00	0,01	N/D
United Kingdom	78,96	66,07	49,00	51,00	54,00	40,67	41,30	33,30	35,43	37,96
<b>Total</b>	<b>257</b>	<b>207</b>	<b>150</b>	<b>137</b>	<b>133</b>	<b>98</b>	<b>94</b>	<b>77</b>	<b>72</b>	<b>76</b>

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

<sup>(1)</sup> Part of the Danish reports contains the reports on the emissions to air from Faroe Islands: For 2006: 11 000 tonnes of CO<sub>2</sub>, 250 tonnes of NO<sub>x</sub>, 18 tonnes of nmVOC; For 2008: 10 000 tonnes of CO<sub>2</sub>, 10 tonnes of NO<sub>x</sub>, 0,2 tonne of nmVOC; For 2010: 16 000 tonnes of CO<sub>2</sub>, 14 tonnes of NO<sub>x</sub>, 0,3 tonne of nmVOC. For 2012, 15 000 tonnes of CO<sub>2</sub>, 0,5 tonne of NO<sub>x</sub>, 0,002 tonne of nmVOC.

<sup>(2)</sup> Norway: there was a substantial reduction the last years due to nmVOC recovery requirements on tankers. The Norwegian emissions of CH<sub>4</sub> 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.

**Table 6: Emissions to air, 2003-2012\* (cont'd)**

**CH<sub>4</sub> (in thousand of tonnes)**

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(1)</sup>	7,40	8,20	1,00	1,50	2,00	3,00	3,00	4,96	3,19	4,11
Germany	0,01	0,02	1,16	3,23	1,06	0,54	3,13	1,34	0,55	0,72
Ireland	NI	0,53	0,29	2,63	0,79	0,58	0,01	0,00	0,01	0,00
Netherlands	19,00	11,19	12,34	12,06	14,00	15,97	14,48	13,04	12,41	9,67
Norway <sup>(2)</sup>	31,00	30,80	29,30	26,20	25,20	31,00	29,63	28,04	28,58	25,66
Spain	0,33	0,26	0,39	0,31	0,40	0,43	0,00	0,00	0,11	0,14
United Kingdom	50,76	54,70	41,00	37,00	48,00	41,57	45,30	47,90	44,86	44,12
<b>Total</b>	<b>108</b>	<b>106</b>	<b>85</b>	<b>83</b>	<b>91</b>	<b>93</b>	<b>96</b>	<b>95</b>	<b>90</b>	<b>84</b>

**SO<sub>2</sub> (in tonnes)**

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(1)</sup>	360	480	230	230	220	200	100	112,0	86,0	92,0
Germany	10,0	2,0	2,0	1,0	0,0	0,40	0,20	0,0	0,0	4,0
Ireland	NI	0,8	0,8	10,0	14,6	11,80	1,77	6,0	7,0	0,0
Netherlands	150	130	136	170	200	135	103	112	133	253
Norway	600	600	700	696	700	500	500	600	899	822
Spain	0,0	0,2	0,3	0,8	0,0	0,41	0,0	0,0	N/D	N/D
United Kingdom	2 560	2 940	3 000	2 570	1 740	3 290	2 170	2 600	1 923	2 561
<b>Total</b>	<b>3 680</b>	<b>4 153</b>	<b>4 069</b>	<b>3 678</b>	<b>2 875</b>	<b>4 138</b>	<b>2 875</b>	<b>3 430</b>	<b>3 048</b>	<b>3 732</b>

<sup>(1)</sup> Part of the Danish reports contains the reports on the emissions to air from Faroe Islands: For 2006: 8 tonnes SO<sub>2</sub>; For 2008: 0,2 tonne CH<sub>4</sub>. and 3 tonnes SO<sub>2</sub>; For 2010: 0,3 tonne CH<sub>4</sub> and 5 tonnes SO<sub>2</sub>. For 2012, 0,005 tonne of SO<sub>2</sub>

Footnote regarding Norwegian storage & transportation removed

<sup>(2)</sup> The Norwegian emissions of CH<sub>4</sub> 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.

## Table 7: The use and discharge of offshore chemicals

Year: 2003-2012

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

Country	Quantities of Chemicals Used (kg)									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(1)</sup>	60 382 417	52 667 440	41 208 531	78 932 552	66 356 341	55 035 267	45 732 541	32 364 501	31 661 190	34 759 511
France	526 654	NI	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Germany	1 098 862	977 651	2 138 463	716 405	710 225	503 527	2 425	1 565 002	478	252 562
Ireland	NI	830 542	9 287	1 549 666	3 876 616	6 274 318	1 020 082	1 904 711	836 841	936 836
Netherlands	31 899 171	26 342 421	35 701 161	36 984 151	27 052 063	27 200 803	29 127 105	41 713 369	36 110 148	46 550 994
Norway	237 163 000	226 932 000	228 476 000	227 536 000	253 122 000	259 360 628	289 681 616	286 277 021	273 273 649	282 848 186
Spain	1 272 695	0	0	0	0	0	0	0	0	0
United Kingdom	255 774 970	126 364 612	271 496 796	243 677 347	294 780 970	252 351 135	255 518 585	188 510 604	155 542 997	189 057 474
<b>Total</b>	<b>588 117 769</b>	<b>434 114 666</b>	<b>579 030 238</b>	<b>589 396 121</b>	<b>645 898 215</b>	<b>600 725 678</b>	<b>621 082 354</b>	<b>552 335 208</b>	<b>497 425 302</b>	<b>554 405 563</b>

Country	Quantities of Chemicals Discharged (kg)									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(2)</sup>	38 246 458	30 666 043	28 296 022	37 853 418	30 919 208	31 370 942	24 603 595	11 838 770	13 966 161	12 334 663
France	526 654	NI	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Germany	517 593	761 332	1 036 263	347 565	342 003	503 282	2 220	1 059 928	478	6 573
Ireland	NI	460 057	2 566	1 040 761	1 660 002	4 203 349	125 905	754 568	423 274	604 132
Netherlands	10 920 587	10 946 870	12 104 182	15 093 836	8 191 288	12 878 422	8 989 344	17 462 642	12 281 563	17 441 780
Norway	78 976 000	63 582 000	56 370 000	63 424 400	73 624 000	76 539 183	111 268 937	111 268 937	99 503 072	104 495 858
Spain	976 450	0	0	0	0	0	0	0	0	0
United Kingdom	113 811 824	64 219 437	117 027 290	102 846 899	104 733 835	110 746 879	113 184 172	69 422 728	52 216 290	56 070 241
<b>Total</b>	<b>243 975 566</b>	<b>170 635 739</b>	<b>214 836 323</b>	<b>220 606 879</b>	<b>219 470 336</b>	<b>236 242 057</b>	<b>258 174 174</b>	<b>211 807 573</b>	<b>178 390 838</b>	<b>190 953 247</b>

\* 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, update 2008).

<sup>(1)</sup> 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

<sup>(2)</sup> 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.

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



**Table 7: The use and discharge of offshore chemicals****Year: 2004-2012****Table 7b: Quantity of inorganic substances with LC50 or EC50 > 1 mg/l used and discharged in kg/year\***

Country	Quantity of chemicals used (kg)								
	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(1)</sup>	14 196 383	12 738 121	16 361 467	7 996 987	14 435 908	11 660 616	3 992 862	2 207 877	1 663 514
France	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Germany	0	0	0	0	0	0	33 406	0	77
Ireland	NI	0	0	2 252	745	138	3 944	0	0
Netherlands	2 032 827	1 916 271	3 066 667	367 282	815 948	817 256	277 442	784 501	459 251
Norway <sup>(3)</sup>	NI	2 671 000	2 654 000	1 860 000	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0
United Kingdom	33 542	73 409	949 303	2 326 787	4 150 103	1 657 961	2 478 527	1 181 268	2 313 743
<b>Total</b>	<b>16 262 752</b>	<b>17 398 801</b>	<b>23 031 437</b>	<b>12 553 308</b>	<b>19 402 704</b>	<b>14 135 971</b>	<b>6 786 181</b>	<b>4 173 646</b>	<b>4 436 585</b>

Country	Quantity of chemicals discharged (kg)								
	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(2)</sup>	980 564	138 620	408 828	169 353	1 484 608	431 845	304 808	146 321	123 525
France	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Germany	0	0	0	0	0	0	2 408	0	53
Ireland	NI	0	0	870	545	110	2 207	0	0
Netherlands	240 660	172 416	364 578	179 066	169 047	105 070	112 448	41 875	79 976
Norway <sup>(3)</sup>	NI	137 000	126 000	143 000	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0
United Kingdom	25 964	64 902	376 830	483 930	594 504	594 504	676 648	439 121	384 226
<b>Total</b>	<b>1 247 188</b>	<b>512 938</b>	<b>1 276 236</b>	<b>976 219</b>	<b>2 248 704</b>	<b>1 131 529</b>	<b>1 098 519</b>	<b>627 317</b>	<b>587 780</b>

\* No data submitted prior to 2004

<sup>(1)</sup> Part of the Danish reports contains the report on the use of offshore chemicals from Faroe Islands: For 2008: 178 401 kg.<sup>(2)</sup> Part of the Danish reports contains the reports on the discharge of offshore chemicals from Faroe Islands: For 2008: 168 270 kg.<sup>(3)</sup> Norway - "Inorganic, LC50 or EC50 >1 mg/l" is included in "Ranking".

**Table 7: The use and discharge of offshore chemicals****Year: 2003-2012****Table 7c: Quantity of ranking substances used and discharged in kg/year\***

Country	Quantities of Chemicals Used (kg)									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(1)</sup>	28 646 471	17 001 572	14 093 489	1 378 038	12 049 738	14 703 054	15 792 136	13 063 744	13 381 005	19 425 435
France	3 025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Germany	361 531	424 432	387 282	127 403	124 599	4 333	2 993	2 318	1 527	3 690
Ireland	NI	NI	0	150 115	151 051	722 136	358 021	572 265	12 992	88 555
Netherlands	3 809 425	2 811 406	2 809 975	5 490 597	5 443 977	7 572 521	6 388 029	9 901 488	11 563 870	12 289 133
Norway <sup>(3)</sup>	79 178 000	83 915 000	82 626 000	87 938 000	93 313 000	95 347 550	92 409 851	103 061 375	80 140 772	82 880 656
Spain	16950	0	0	0	0	0	0	0	0	0
United Kingdom	27 483 033	63 147 289	44 840 086	100 831 149	100 834 384	78 776 917	75 977 678	70 401 312	63 098 455	69 690 462
<b>Total</b>	<b>139 498 435</b>	<b>167 299 699</b>	<b>144 756 832</b>	<b>195 915 302</b>	<b>211 916 749</b>	<b>197 126 511</b>	<b>190 928 708</b>	<b>197 002 502</b>	<b>168 198 621</b>	<b>184 377 931</b>

Country	Quantities of Chemicals Discharged (kg)									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(2)</sup>	4 194 417	3 191 761	3 223 911	4 500 119	4 629 994	3 833 698	4 987 546	1 510 103	4 505 310	4 758 740
France	3 025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Germany	19 944	69 099	41 275	11 223	3 659	52	0	0	24	349
Ireland	NI	NI	0	110 604	61 016	242 717	1 827	8 752	8 534	24 555
Netherlands	157 936	157 648	193 412	254 341	263 184	435 387	584 237	694 870	819 255	955 649
Norway <sup>(3)</sup>	10 977 000	10 599 000	10 103 000	10 952 000	11 880 000	12 956 914	14 700 303	11 727 338	12 304 885	13 532 911
Spain	3450	0	0	0	0	0	0	0	0	0
United Kingdom	11 101 380	29 930 079	14 056 179	13 144 219	13 866 642	13 596 227	12 074 628	11 446 089	10 005 461	10 609 116
<b>Total</b>	<b>26 457 152</b>	<b>43 947 587</b>	<b>27 617 777</b>	<b>28 972 506</b>	<b>30 704 495</b>	<b>31 064 995</b>	<b>32 348 540</b>	<b>25 387 152</b>	<b>27 643 469</b>	<b>29 881 320</b>

\*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

<sup>(1)</sup> 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

<sup>(2)</sup> 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.

<sup>(3)</sup> For Norway these figures include inorganic chemicals having a LC50 or a EC50 > 1mg/l

**Table 7: The use and discharge of offshore chemicals**

**Year: 2003-2012**

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

Country	Quantity of chemicals used (kg)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2012
Denmark <sup>(1)</sup>	606	136	0	0	0	10	0	0	0	0
France	0	N/A	0	0	0	0	0	0	N/A	N/A
Germany	0	0	0	0	0	0	0	1 273	0	0
Ireland	NI	NI	0	0	0	0	0	0	0	0
Netherlands	302	0	0	0	0	0	0	0	0	0
Norway	844	800	2 505	1 094	497	146	20	6	0	3
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	2 090	2 285	2 505	1 896	2 128	3 773	1 267	974	783	440
<b>Total</b>	<b>3 842</b>	<b>3 221</b>	<b>5 010</b>	<b>2 990</b>	<b>2 625</b>	<b>3 929</b>	<b>1 287</b>	<b>2 253</b>	<b>783</b>	<b>443</b>

Country	Quantity of chemicals discharged (kg)									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(2)</sup>	60	14	0	0	0	1	0	0	0	0
France	0	N/A	N/A	N/A	0	0	0	0	N/A	N/A
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	NI	NI	0	0	0	0	0	0	0	0
Netherlands	271	0	0	0	0	0	0	0	0	0
Norway	240	200	30	213	1	0	58	0	0	3
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	171	191	191	141	69	42	89	21	9	0
<b>Total</b>	<b>742</b>	<b>405</b>	<b>221</b>	<b>354</b>	<b>70</b>	<b>43</b>	<b>147</b>	<b>21</b>	<b>9</b>	<b>3</b>

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

<sup>(1)</sup> Part of the Danish report contains the report on the use of offshore chemicals from Faroe Islands: For 2008: 10 kg.

<sup>(2)</sup> Part of the Danish reports contains the reports on the discharge of offshore chemicals from Faroe Islands: For 2008: 1 kg.

**Table 7: The use and discharge of offshore chemicals**

**Year: 2003-2012**

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

Country	Quantity of chemicals used (kg)									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>1</sup>	128 622	14 839	8 115	12 550	9 950	10 502	8 550	0	0	0
France	0	0	0	0	0	0	0	0	0	0
Germany	2 000	0	0	0	0	0	0	0	0	0
Ireland	NI	NI	0	0	0	0	0	0	0	8
Netherlands	0	31	0	0	0	0	0	0	0	0
Norway	0	0	1 000	0	20	0	53	0	0	30
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	10 333	1 510	910	1 720	856	1 155	365	1 848
<b>Total</b>	<b>130 622</b>	<b>14 870</b>	<b>19 448</b>	<b>14 060</b>	<b>10 880</b>	<b>12 222</b>	<b>9 459</b>	<b>1 155</b>	<b>365</b>	<b>1 886</b>

Country	Quantity of chemicals used (kg)									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>2</sup>	58 553	1 215	54	117	250	2	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	NI	NI	0	0	0	0	0	0	0	1
Netherlands	0	3	0	0	0	0	0	0	0	0
Norway	0	0	0	0	1	0	0	0	0	21
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	10 306	1 440	864	1 596	0	137	345	1 643
<b>Total</b>	<b>58 553</b>	<b>1 218</b>	<b>10 360</b>	<b>1 557</b>	<b>1 115</b>	<b>1 598</b>	<b>0</b>	<b>137</b>	<b>345</b>	<b>1 665</b>

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

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

**Table 7: The use and discharge of offshore chemicals**

**Year: 2003-2012**

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

Country	Quantities of Chemicals Used (kg)									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(1)</sup>	1 813 142	1 782 941	894 141	582 599	302 503	766 936	515 528	538 181	178 803	351 620
France	0	0	0	0	0	0	0	0	0	0
Germany	3 239	4 333	4100	1516	1 400	0	5 906	6 932	0	0
Ireland	NI	NI	0	0	12 319	8 730	3 498	22 790	0	300
Netherlands	4 279 111	633 725	3 433 667	885 546	3 173 171	303 012	162 510	244 482	349 002	231 545
Norway	3 450 000	3 769 100	3 066 300	2 935 500	3 024 000	3 141 149	2 144 671	2 386 670	1 493 063	1 287 072
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	8 240 728	4 227 698	7 244 942	6 419 857	3 974 251	3 156 299	2 581 413	1 924 708	2 881 197	1 784 069
<b>Total</b>	<b>17 786 220</b>	<b>10 417 797</b>	<b>14 643 150</b>	<b>10 825 018</b>	<b>10 487 644</b>	<b>7 376 126</b>	<b>5 413 526</b>	<b>5 123 763</b>	<b>4 902 065</b>	<b>3 654 606</b>

Country	Quantities of Chemicals Discharged (kg)									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(2)</sup>	163 236	123 729	106 127	92 047	44 682	56 457	1 061	7 852	4 244	357
France	0	0	0	0	0	0	0	0	0	0
Germany	3 104	634	4 100	1 458	1 400	0	37	750	0	0
Ireland	NI	NI	0	0	651	0	0	64	0	100
Netherlands	64 041	77 473	42 716	35 123	6 179	5 775	19 730	19 179	4 542	3 627
Norway	331 000	211 490	62 270	18 661	13 900	10 515	16 318	14 455	6 403	3 600
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	1 547 258	1 734 676	1 889 783	1577219	660 055	661 647	608 549	404 545	375 566	305 385
<b>Total</b>	<b>2 108 639</b>	<b>2 148 002</b>	<b>2 104 996</b>	<b>1 724 508</b>	<b>726 867</b>	<b>734 394</b>	<b>645 695</b>	<b>446 845</b>	<b>390 754</b>	<b>313 068</b>

<sup>(1)</sup> 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

<sup>(2)</sup> 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.

**Table 7: The use and discharge of offshore chemicals**

**Year: 2003-2012**

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

Country	Quantities of Chemicals Used (kg)									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(1)</sup>	1 341 775	1 494 033	1 322 226	1 066 216	575 771	459 550	231 350	270 566	284 938	161 457
France	0	0	0	0	0	0	0	0	0	0
Germany	1 132 505	652 623	2 631 107	878 855	879 156	6 972	0	0	6 355	5 582
Ireland	NI	26	0	13 241	604 258	35 612	1 271	3 340	3 317	3 400
Netherlands	3 918 807	2 097 535	8 972 101	5 291 265	2 533 475	185 157	979 280	770 136	1 566 448	452 277
Norway	4 023 000	4 069 000	3 428 700	2 761 900	2 363 000	1 182 315	1 061 115	506 942	348 519	1 506 167
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	9 836 007	8 014 175	4 630 943	1505806	6 056 927	2 712 894	3 142 275	2 862 101	2 685 217	2 370 810
<b>Total</b>	<b>20 252 094</b>	<b>16 327 392</b>	<b>20 985 077</b>	<b>11 517 283</b>	<b>13 012 587</b>	<b>4 582 500</b>	<b>5 415 291</b>	<b>4 413 085</b>	<b>4 894 794</b>	<b>4 499 693</b>

Country	Quantities of Chemicals Discharged (kg)									
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark <sup>(2)</sup>	206 293	301 211	319 223	193 506	76 655	57 512	360	15 020	341	0
France	0	0	0	0	0	0	0	0	0	0
Germany	1 372	9 429	9 316	50	50	0	0	0	0	0
Ireland	NI	1	0	4 364	880	3 693	391	0	2 917	730
Netherlands	11 368	39 107	16 560	13 811	10 182	28 462	37 089	57 636	13 976	22 960
Norway	293 000	81 900	33 985	23 450	9 900	4 579	5 152	1 584	1 710	5 018
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	1 318 525	4 062 814	1 399 510	631877	1 234 498	918 515	1 046 561	930 855	738 516	648 520
<b>Total</b>	<b>1 830 558</b>	<b>4 494 462</b>	<b>1 778 594</b>	<b>867 058</b>	<b>1 332 165</b>	<b>1 012 761</b>	<b>1 089 553</b>	<b>1 005 095</b>	<b>757 459</b>	<b>677 228</b>

\* 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.

<sup>(1)</sup> 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.

<sup>(2)</sup> 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.

**Table 7h: Quantity of chemicals spilled<sup>a</sup> in kg per year**

Prescreening category	2006	2007	2008	2009	2010	2011	2012
PLONOR	559 929	1 000 374	895 579	7 251 474	1 001 352	620 711	418 722
List of Chemicals for Priority Action	6	0	0	1 600	0	0	0
Inorganic LC <sub>50</sub> or EC <sub>50</sub> < 1 mg/l	0	0	0	0	863	0	72
Biodegradation < 20%	2 725	7 119	12 800	353 271	2 123	1 590	1 194
Substance meets two of three criteria	11 259	30 516	1 980	244	31 129	1 250	14 356
Inorganic, LC <sub>50</sub> or EC <sub>50</sub> > 1 mg/l	90	77	1 661	3 217	108	328	548
Ranking	158 470	125 649	163 063	6 330 759	250 475	132 615	61 804
<b>Total</b>	<b>732 479</b>	<b>1 163 735</b>	<b>1 075 083</b>	<b>13 940 565</b>	<b>1 286 050</b>	<b>756 494</b>	<b>496 696</b>

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.

**Table 8: Total spillage of oil and discharges of dispersed oil, in tonnes****Year: 2003-2012**

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Denmark	377	487	452	389	418	481	346	216	166	118
Germany	0,20	0,20	0,20	0,01	0,21	0,11	0,2	0,2	0,3	0,4
Ireland	NI	0,12	0,02	0,09	0,23	0,42	0,01	0,03	0,03	0,80
Netherlands	114	121	108	114	157	144	124	83	57	76
Norway <sup>(1)</sup>	3 321	2 718	3 149	2 484	5 441	1 791	1 639	1 601	1 548	1 609
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	5 345	5 355	5 047	4 420	3 019	3 198	2 954	3 031	2 535	2 369
<b>Total</b>	<b>9 157</b>	<b>8 681</b>	<b>8 756</b>	<b>7 407</b>	<b>9 035</b>	<b>5 614</b>	<b>5 063</b>	<b>4 931</b>	<b>4 307</b>	<b>4 173</b>

<sup>(1)</sup>Norway - Data for spills are supplied in m<sup>3</sup>

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



**Table 9: Total production in oil equivalents, (toeq)****Year: 2003-2012**

	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Denmark	25 502 326	29 220 320	28 349 771	25 654 788	25 034 608	25 654 788	21 136 996	19 428 193	17 757 812	16 290 666
Germany	1 990 664	2 120 124	1 024 948	1 890 000	1 724 604	1 468 139	1 323 703	1 142 193	1 245 520	1 129 230
Ireland	762 285	1 014 893	592 617	514 683	301 455	524 423	392 584	408 678	361 130	367 540
Netherlands	19 905 219	23 958 559	20 380 637	17 752 641	19 051 921	19 601 935	17 931 997	16 562 387	17 160 297	17 147 270
Norway	245 886 380	264 600 000	245 262 000	233 976 120	231 697 250	249 282 000	246 686 000	213 000 000	170 723 267	170 552 545
Spain	142 355	269 005	119 660	37 693	6 628	6 862	0	41 176	39 044	58 115
United Kingdom	199 000 000	182 000 000	164 000 000	149 000 000	143 000 000	134 900 000	121 700 000	125 612 217	99 391 433	86 480 357
<b>Total</b>	<b>493 189 229</b>	<b>503 182 901</b>	<b>459 729 633</b>	<b>428 825 925</b>	<b>420 816 466</b>	<b>431 438 147</b>	<b>409 171 280</b>	<b>376 194 844</b>	<b>306 678 503</b>	<b>292 025 723</b>

**Table 10: Discharges of radioactive substances in produced water in terabecquerel (TBq), in 2012**

Country	OSPAR Region	Pb-210	Ra-226	Ra-228
Denmark	II	1,29E-02	3,35E-02	1,35E-02
Ireland	III	1,40E-06	2,04E-06	3,56E-07
Germany	II	1,10E-05	4,14E-04	2,60E-05
Netherlands	II	9,20E-03	9,80E-02	1,24E-01
Norway	I	5,39E-03	5,71E-02	4,57E-02
Norway	II	3,71E-02	3,80E-01	3,27E-01
UK	II	1,35E-02	3,82E-01	2,24E-01
UK <sup>(1)</sup>	III	3,00E-04	1,03E-01	4,00E-04
<b>Total</b>		<b>0,08</b>	<b>1,05</b>	<b>0,84</b>

	Total alpha	Total beta
2006	6,9	4,67
2007	7,41	4,94
2008	6,76	4,54
2009	7,4	5,02
2010	7,6	4,94
2011	7,6	5,03
2012	8	5,20

The calculations for alpha and beta are estimates of activities discharged, rather than a measured value.

<sup>(1)</sup> Only two operators reported discharges to OSPAR Region III of Pb-210, Ra-226 and Ra-228.



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