



OSPAR
COMMISSION

OSPAR report on discharges, spills and emissions from offshore oil and gas installations in 2013



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 Tage Andersen (Denmark)
- Mr Emmanuel Garland (France)
- Mr Kurt Machetanz (Germany)
- Ms Margot Cronin (Ireland)
- Mr Ivan Abdoellakhan (the Netherlands)
- Ms Tone Sjørgård (Norway)
- Ms Ingeborg Rønning (Norway)

with the support of the Secretariat of the OSPAR Commission.

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 2013 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 which fail to meet the 30 mg/l performance standard for dispersed oil	13
	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	14
	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	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
	Table 8: Discharges of radioactive substances in produced water in Terabecquerel (TBq) in 2013	24
	<i>Part B: Cumulative report</i>	<i>25</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, 2004-2013	26
	Table 1b: Total number of installations in the OSPAR Maritime Area as detailed in the inventory of oil and gas offshore installations in the OSPAR maritime area, 2003 - 2013	27
	Table 1c: Number of installations by type of installation in the OSPAR Maritime Area with discharges to the sea, or emissions to the air, 2004 - 2013	28
	Table 2a: Oil discharged in displacement and produced water (in tonnes), 2004 - 2013	29
	Table 2b: Quantity of displacement and produced water discharged daily to the sea (in m ³ /day), 2004 - 2013	30
	Table 2c: Total volume of produced water and displacement water discharged, and produced water injected (in m ³ /year), 2004 - 2013	30

Table 3a:	Number of installations with discharges exceeding the 40 mg oil/l performance standard, 2004 - 2006, and quantity of oil discharged by these installations (in tonnes)	31
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).....	31
Table 3c:	Number of installations with discharges exceeding the 40 mg oil/l performance standard, 2004 - 2006, by Contracting Party, and quantity of oil discharged by these installations (in tonnes).....	32
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	33
Table 4a:	Quantities of oil and other organic-phase fluids discharged via cuttings (in tonnes), 2004 - 2013	34
Table 4b:	Number of wells drilled with OPF, with discharge of contaminated cuttings to the Maritime Area, 2004 - 2013.....	35
Table 5a:	Number of spills, 2004 - 2013 – Spills less than 1 tonne (≤ 1 T) and spills above 1 tonne (> 1 T)	36
Table 5b:	Quantity of oil spilled, in tonnes, 2004 - 2013	37
Table 5c:	Number of chemical spills, 2012 – 2013 – Spills less than 1 tonne and spills above 1 tonne.....	38
Table 5d:	Total quantity of chemical spills, in tonnes, 2012-2013	39
Table 5e:	Total spillage of oil and discharges of dispersed oil, in tonnes.....	40
Table 6:	Emissions to air, 2004 – 2013.....	41
Table 7a:	Quantity of offshore chemicals on the PLONOR* List used and discharged in kg/year, 2004 - 2013	43
Table 7b:	Quantity of inorganic substances with LC_{50} or $EC_{50} > 1$ mg/l used and discharged in kg/year, 2004 - 2013	44
Table 7c:	Quantity of ranking substances used and discharged in kg/year, 2004 - 2013.....	45
Table 7d:	Quantity of chemicals on the List of Chemicals for Priority Action (LCPA), used and discharged in kg/year 2004 - 2013.....	46
Table 7e:	Quantity of inorganic substances with LC_{50} or $EC_{50} < 1$ mg/l, used and discharged in kg/year, 2004-2013.....	47
Table 7f:	Quantity of substances where the biodegradation is less than 20% during 28 days, used and discharged in kg/year 2004 - 2013.....	48
Table 7g:	Quantity of substances which meet two of three PBT-criteria, used and discharged in kg/year, 2004 -2013.....	49
Table 7h:	Quantity of chemicals spilled in kg per year, 2006 - 2013	50
Table 8:	Discharges of radioactive substances in produced water in terabecquerel (Tbq), 2006-2013	51
Table 9:	Total production in oil equivalents, in toeq, 2004-2013.....	52

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 2013. 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 2004-2013 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 2013. 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 2004 à 2013, 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 measures¹ 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 2010/4 on a Harmonised Pre-Screening Scheme for Offshore Chemicals;

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.

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. 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 2013 in Part A and cumulative data in Part B.

2. Results

Part A: Report relating to 2013 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 2013 data

Part A : Report relating to 2013 data

Table 1: Number of installations with emissions and discharges covered by OSPAR measures^d

Year: 2013

Country	Production		Subsea ^d	Other ^e	Total	Number of wells drilled ^f
	Oil ^b	Gas ^c				
Denmark	14	0	0	0	14	8
Germany	1	1	0	0	2	4
Ireland	0	1	0	1	2	3
Netherlands	9	118	0	0	127	19
Norway	49	12	53	0	114	254
Spain	0	1	0	1	2	0
United Kingdom	89	197	209	1	496	128
Total	162	330	262	3	757	416

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.

Part A: Report relating to 2013 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 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: 2013

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	14	23 730 068	7,5	177	3,8	89	8	12 446 062
Germany	1	15 283	15,0	0,2	40,8	0,6	1	2 401 532
Ireland	1	1 359	14,6	0,02	63,8	0,1	0	0
Netherlands	77	3 678 521	16,8	59	7,3	53	6	5 138 137
Norway	42	127 305 418	12,1	1 539	8,2	1 920	21	32 098 111
Spain	0	0	0,0	0	0,0	0	0	0
United Kingdom ⁽¹⁾	107	149 342 946	14,6	2 176	26,9	4 008	26	39 143 588
Total	242	304 073 595	13,0	3 951	20,0	6 070	62	91 227 430

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).

⁽¹⁾ UK - The total amount of BTEX discharged is believed to include a sampling or analytical error however it has not been possible to obtain corrected data for this year.

Part A: Report relating to 2013 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 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: 2013

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	1 017 358	0,8	0,78	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	445 321	2	0,89	2	1,5	0	0
Norway	6	32 227 733	1,8	56	n.d.	n.d.	0	0
Spain	0	0	0	0	0	0	0	0
United Kingdom	2	621 196	0,1	0,04	2,6	1,6	0	0
Total	12	34 311 608	1,7	58	0,1	3	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 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).

Part A: Report relating to 2013 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 standard as defined in OSPAR Recommendation 2001/1 for the Management of Produced Water from Offshore Installations (as amended)

Year: 2013

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)
Netherlands - TAQA L11-B	Gas	2	34,00	0,50	0,005
Netherlands - GDF Suez G17d-AP	Gas	8	66,00	1,00	0,288
Norway - Oseberg A	Gas	59	49,60	2,92	1,156
Norway - Oseberg Sør	Oil	603	32,99	20,00	1,803
Norway - Sleipner Øst/Statoil	Gas	3	139,19	0,43	0,335
UK - Alwyn North NAB Platform	Oil	53	45,32	2,40	0,811
UK - Alwyn North NAB Platform	Gas	8	64,41	0,51	0,271
UK -Beatrice AP Platform	Oil	3 700	48,25	178,52	67,531
UK - Clair Phase 1 Platform	Oil	123	30,67	3,76	0,082
UK - Cleeton CPQ Platform	Gas	0,1	149,25	0,02	0,016
UK - Everest North Platform	Other	26	31,83	0,83	0,048
UK - Excalibur A Platform	Gas	1	30,47	0,03	0,001
UK - Foinaven - FPSO Petrojarl	Oil	769	31,75	24,41	1,342
UK - Ravenspurn North CPP Platform	Gas	26	274,04	7,06	6,288
UK - Rough BD Platform	Gas	0,4	257,22	0,10	0,087
UK - Thames AP Platform	Gas	1	366,85	0,41	0,372
UK - Trent Platform	Gas	8	87,84	0,70	0,463
UK - Tyne Platform	Gas	4	38,46	0,16	0,035
UK - West Sole WA Main Platform	Gas	1	36,28	0,02	0,004
Total		5 394,4	45,19	243,8	80,937

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.

PART A: Report relating to 2013 data

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 as

Year: 2013

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
Norway - Oseberg A	Oil	49,6	Separators, 3 hydrocyclones, flocculations and degassing	Problems with reinjection	New re-injection pumps were installed in Feb 2014. Optimising the use of chemicals like flocculating agent and emulsifier. Installation of 3 new oil in water-monitors. Considering additional hydrocyclone
Norway - Oseberg Sør	Oil	32,99	Separators and floatation	Problems with reinjection	Focusing on increasing reinjection. New injection point for flocculating agent to reduce concentration of dispersed oil in water
Total - Alwyn North	Oil	45,317	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 2013.	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 OIW's.	Chemical trials to improve Dunbar PW quality. Testing of the performance of the produced water plant.
Ithaca - Beatrice	Oil	48,254	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.

PART A: Report relating to 2013 data

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
BP - Clair Phase 1	Oil	30,667	HP Separator LP Separator Electrostatic Coalescers Hydrocyclones Produced Water Skimmer Produced Water Filter	<p>In February 2013, wet deluge testing followed by plant instability on production restart led to level build up in the skimmer vessel which resulted in reduced oil in water separation residence time.</p> <p>In November 2013, the production plant was being restarted. Instability in oil in water separation during production plant restart, coupled with a temporary loss of produced water reinjection due to a passing inlet valve, resulted in increased oil in water concentration.</p> <p>These two events caused the annual average oil in water concentration to exceed the permitted level.</p>	<p>Procedures and permits revised to include lessons learnt.</p> <p>The de-oxygenation system inlet valve replaced with improved specification valve reducing risk of future flooding of forward system.</p>
BP - Foinaven	Oil	31,745	Slug Catcher Separators (Test, 2 Trains - 1st stage & 2nd stage) Electrostatic Coalescers Hydrocyclones Produced Water Flash Drum	<p>Due to equipment failure; for the majority of 2013 Foinaven operated with a single gas compression train, topsides control issues and instability within the OIW separation plant.</p> <p>This instability reduced the effectiveness of the 1st stage separation, hydrocyclones and produced water flash drum resulting in increased OIW's and exceeding the permitted level for 2013.</p>	<p>1) Return to service of 2nd gas compression train</p> <p>2) Retuning of topsides control system</p> <p>3) Investigations being conducted to ascertain whether improvements to the separation ability of the slug catcher, 1st stage separator and PWFD, can be made</p> <p>4) Deoiler trials being conducted</p>
Perenco - Ravenspurn North	Gas	274,043	Horizontal 3-phase separator and a mares tail coalescer water treatment package, CETCO oily water unit. Currently commissioning sand handling package.	<p>Whilst the unit works well under steady state, it cannot cope with 'slugs' of liquids that occur during well start ups. Due to the maturity of the wells, they need to be routinely closed in (rested) to build up sufficient pressure to flow.</p>	<p>PWRI is actively being pursued, a candidate well has been identified and tests are planned to see if PWRI is feasible.</p>

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 2013 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: 2013

Installation/Operator ^a	Type of installation ^b	Annual average concentration of dispersed oil mg/l ^c	Treatment equipment installed
Netherlands - TAQA L11-B	Gas	34	Centrifuge
Netherlands - GDF Suez G17d-AP	Gas	66	Skimmer tank, closed drains
Norway - Sleipner	Gas	139,19	3 step separators
UK - E.On - Babbage	Gas	64,41	The Produced Water Treatment system consists of three separate vessels as follows: <ul style="list-style-type: none"> • 44-CE-041 Enhydra Hydrocyclone • 44-VD-042 Enhydra Degasser vessel • 44-VG-044A/B Polishing Filter Unit (2 x filters)
UK - Perenco - Cleeton	Gas	149,254	3-phase separators and a produced water re-injection package (that operates at greater than 95% up time)
UK - BG - Everest North	Other	31,83	3 phase separator and tilted plate separator
UK - Perenco - Excalibur A	Gas	30,466	3 phase separation, caisson recovery pump
UK - Centrica Storage - Rough BD	Gas	257,218	Produced water from off-spec condensate vessel, production separators and test separator flows to de-sanding package and oily water separator, prior to overboard discharge to the caisson via oil absorption media filters
UK - Perenco - Thames AP	Gas	366,848	2 x PW injection wells (available), tilted plate separator (no longer available): Note this platform is being decommissioned and DECC have been notified of cessation of production
UK - Perenco - Trent	Gas	87,842	3 phase separation, to coaleser to skimming from caisson recovery pump
UK - Perenco - Tyne	Gas	38,462	coalescer, gravity separation, periodic skimming from caisson recovery pump
UK - Perenco - West Sole A	Gas	36,278	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.

Part A: Report relating to 2013 data

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

Year: 2013

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	3 986	4	0	0	0	0	3	1 024	2 904
Germany	2 597	4	0	0	0	0	0	0	3 578
Ireland	2 977	1	0	0	0	0	0	0	1 540
Netherlands	20 685	19	0	0	0	0	0	0	12 681
Norway	146 235	173	0	0	0	0	45	37 874	54 433
Spain	0	0	0	0	0	0	0	0	0
United Kingdom	76 013	104	9	5 086	0,05	2,7	18	11 119	38 274
Total OBF	252 492	305	9	5 086	0,05	2,7	66	50 018	113 411

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.

Part A: Report relating to 2013 data

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

Year: 2013

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	4 137	0	0	0	0	0	0	0	3 092
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	1 444	2	0	0	0	0	0	0	867
Spain	0	0	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	0	0	0	0	0
Total non-OBF OPF	5 581	2	0	0	0	0	0	0	3 959
Grand Total OBF^h	258 074	307	9	5 086	0,05	2,7	66	50 018	117 369

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.

Part A: Report relating to 2013 data

Table 5: Accidental spillages

Year: 2013

Table 5a: Accidental spillages of oil^a

Country	Number of oil spills		
	≤ 1 tonne	> 1 tonne	Total number
Denmark	47	1	48
Germany	0	0	0
Ireland	1	0	1
Netherlands	10	0	10
Norway ⁽¹⁾	112	5	117
Spain	0	0	0
United Kingdom ⁽²⁾	299	9	308
Total	469	15	484

Total quantity of oil spills (tonnes)		
≤ 1 tonne	> 1 tonne	Total Quantity
0	3,0	3,0
0	0,0	0,0
0,001	0,0	0,001
0,7	0,0	0,7
6,2	33,8	40,0
0	0	0
17,3	74,0	91,3
24,1	110,8	135

a. Flaring spillages are included in oil spillages

⁽¹⁾ Norway - Reports m³ rather than tonnes

⁽²⁾ 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^a

Country	Number of chemical spillages		
	≤ 1 tonne	> 1 tonne	Total number
Denmark	36	4	40
Germany	0	0	0
Ireland	2	1	3
Netherlands	6	1	7
Norway ⁽¹⁾	126	31	157
Spain	0	0	0
United Kingdom ⁽²⁾	169	48	217
Total	339	85	424

Total Quantity of chemicals spilled (tonnes)		
≤ 1 tonne	> 1 tonne	Total Quantity
2	26	28
0	0	0
0,1	5,1	5,2
13,3	7,7	21
18,4	1 267	1286
0	0	0
29,4	475	505
63,2	1781	1 844

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

⁽¹⁾ Norway - Reports m³ rather than tonnes

⁽²⁾ UK: There is one chemical incident which has not been included within this return as it is subject to an ongoing investigation.

Part A: Report relating to 2013 data

Table 6: Emissions to air

Year: 2013

Country	CO ₂ ^a (10 ³ tonnes)	NO _x ^b (tonnes)	nmVOCs ^c (tonnes)	CH ₄ ^d (tonnes)	SO ₂ (tonnes)
Denmark ⁽¹⁾	1 777	7 283	1 772	4 006	116
Germany	48	52	138	244	0,5
Ireland	64	576	17	7	29
Netherlands	2 428	5 218	5 141	14 332	350
Norway	11 567	50 453	32 764	23 469	914
Spain	1	7	13	115	N/D
United Kingdom	13 170	46 396	38 081	45 687	2 208
Total	29 055	109 986	77 925	87 860	3 617

a. CO₂ is carbon dioxide emitted, not the carbon dioxide equivalents of the various greenhouse gases. Carbon monoxide (CO) is not included.

b. NO_x is the sum of nitric oxide (NO) and nitrogen dioxide (NO₂) expressed as NO₂ equivalent. Nitrous oxide (N₂O) is not included as a component of NO_x.

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

d. CH₄ corresponds to the methane released to the atmosphere, from any source.

Part A: Report relating to 2013 data

Table 7: The use and discharge of offshore chemicals^a

Year: 2013

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

Country	Prescreening Category							Total
	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	
Denmark ⁽¹⁾	26 031 851	0	0	110 595	31 930	1 386 349	12 589 045	40 149 770
Germany	1 387	0	0	0	0	0	4 471	5 858
Ireland	2 783 230	2	400	2 275	815 176	53 685	1 509	3 656 277
Netherlands	34 616 138	0	0	150 205	531 900	309 021	8 731 380	44 338 644
Norway	346 516 261	6	92	1 636 733	1 326 315	0	204 629 459	554 108 866
Spain	0	0	0	0	0	0	0	0
United Kingdom	207 602 076	496	253	2 042 658	2 826 647	3 146 799	79 106 416	294 725 346
Total	617 550 942	504	746	3 942 466	5 531 968	4 895 854	305 062 281	936 984 761

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.

Part A: Report relating to 2013 data

Table 7b: Quantity of offshore chemicals discharged in kg/year^a

Year: 2013

Country	Prescreening Category							Total
	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	
Denmark ⁽¹⁾	7 978 977	0	0	42	0	142 595	5 154 321	13 275 935
Germany	1 275	0	0	0	0	0	12	1 287
Ireland	1 040 237	0	0	11	2 945	4 697	1 509	1 049 399
Netherlands	16 144 242	0	0	913	23 195	50 794	595 553	16 814 696
Norway	114 256 578	6	0,04	2 957	3 399	0	52 507 255	166 770 194
Spain	0	0	0	0	0	0	0	0
United Kingdom	70 139 373	0	90	576 846	896 187	858 274	10 341 731	82 812 500
Total	209 560 682	6	90	580 769	925 726	1 056 360	68 600 380	280 724 012

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.

Part A: Report relating to 2013 data

Table 7c: Quantity of offshore chemicals spilled in kg/year^a

Year: 2013

Country	Prescreening Category							Total
	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	
Denmark	25 008	0	0	1 422	0	0	1 463	27 893
Germany	0	0	0	0	0	0	0	0
Ireland	2 510	0	0	0	2 220	400	0	5 130
Netherlands	256	0	0	0	0	0	224	480
Norway	833 961	0	0	7 505	736	0	1 123 069	1 965 271
Spain	0	0	0	0	0	0	0	0
United Kingdom	339 983	0	0	90	60	62	49 874	390 069
Total	1 201 718	0	0	9 017	3 016	462	1 174 629	2 388 843

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.

Table 8: Discharges of radioactive substances in produced water in terabecquerel (TBq), in 2013

Country	OSPAR Region	Pb-210	Ra-226	Ra-228
Denmark	II	9,00E-06	3,30E-04	2,10E-05
Ireland	III	0,00E+00	1,88E-02	1,18E-02
Germany	II	1,26E-06	1,83E-06	3,19E-07
Netherlands	II	7,00E-03	9,60E-02	1,24E-01
Norway	I	4,08E-03	4,36E-02	4,58E-02
Norway	II	2,67E-02	3,36E-01	2,87E-01
UK	II	1,47E-02	2,89E-01	1,99E-01
UK ⁽¹⁾	III	4,56E-07	8,73E-06	5,91E-06
Total		0,05	0,78	0,67

⁽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 B: Cumulative Report

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 2004-2013*

Country	2004	2005	2006	2007	2008	2009	2010	2011 ⁶	2012	2013
Denmark ¹	20	17	19	19	18	20	20	18	15	14
France ²	0	0	0	0	0	0	0	0	0	0
Germany	3	4	3	3	3	3	2	2	2	2
Ireland	1	1	1	2	2	1	2	2	2	2
Netherlands	124	129	128	130	132	135	138	128	127	127
Norway ³	103	108	109	125	128	143	136	103	115	114
Spain	1	1	1	1	1	2	2	2	1	2
UK ⁴	396	407	416	444	457	439	484	487	489	496
Total⁵	649	666	677	725	741	743	784	742	751	757

¹ 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.

² France had 1 exploratory well in in 2003.

³ Norway started reporting subsea installations in 2004

⁴ UK revised its criteria for counting subsea installations in 2010.

⁵ 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.

⁶ 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

**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 "

	2003	2005	2007	2009	2011	2013	2015
Total	1167	1131	1281	1340	1495	1545	1585

Part B: Cumulative Report

Table 1c: Number of installations by type of installation in the OSPAR maritime area with discharges to the sea, or emissions to the air, 2004-2013*

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Oil	148	148	151	154	155	158	169	160	162	162
Gas	257	257	259	274	276	280	318	316	329	330
Subsea	179	184	190	206	220	221	230	262	257	262
Other	11	11	8	11	11	9	9	4	3	3
Total	595	600	608	645	662	668	726	742	751	757
Drilling ¹	58	71	75	85	84	74	57	-	-	-
Wells ²	-	-	-	-	-	-	-	380	402	416

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.

Part B: Cumulative Report

Table 2: Oily aqueous discharges to the maritime area*

Table 2a: Oil discharged in displacement and produced water (in tonnes), 2004-2013

Country	2004 (IR)	2005 (IR)	2006 (IR)	2007 (IR)	2008 (IR)	2009 (IR)	2010 (IR)	2011 (IR)	2012 (IR)	2013 (IR)
	Dispersed	Dispersed	Dispersed	Dispersed	Dispersed ⁽¹⁾	Dispersed ⁽²⁾	Dispersed ⁽²⁾	Dispersed ⁽²⁾	Dispersed ⁽²⁾	Dispersed ⁽²⁾
Denmark	431	446	385	386	380	340	ND	ND	ND	ND
Germany	0,20	0,15	0,13	0,12	0,11	ND	ND	ND	ND	ND
Ireland	0,12	0,02	0,05	0,03	0,04	0,01	0,01	0,02	0,02	0,02
Netherlands	119	108	114	156	140	54	ND	ND	ND	ND
Norway	2 653	2 833	2 379	ND	ND	ND	ND	ND	ND	ND
Spain	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
UK	5 279	4 970	4 357	ND	ND	ND	ND	ND	ND	ND
Total	8 482	8 357	7 235	542	520	394	0,01	0,02	0,02	0,02

Country	2007 (GC-FID)	2008 (GC-FID)	2009 (GC-FID)	2010 (GC-FID)	2011 (GC-FID)	2012 (GC-FID)	2013 (GC-FID)
	Dispersed	Dispersed	Dispersed	Dispersed	Dispersed	Dispersed	Dispersed
Denmark	ND	ND	ND	214	165	116	178
Germany	ND	ND	0,16	0,19	0,29	0,40	0,20
Ireland	ND	ND	ND	ND	ND	ND	ND
Netherlands	ND	ND	54	83	56	75	60
Norway	1 626	1 627	1 542	1 490	1 529	1 593	1 595
Spain	ND	ND	ND	ND	ND	ND	ND
UK	2 960	3 160	2 900	3 008	2 493	2 267	2 176
Total	4 586	4 787	4 496	4 795	4 244	4 052	4 009

(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 2004

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	Dissolved	Dissolved	Dissolved	Dissolved		Dissolved	Dissolved	BTEX	BTEX	BTEX
Denmark	292	348	359,53	353,39	202,38	195	216	165	136	89
Germany	0,80	0,76	0,952	0,591	0,545	0,395	0,672	0,78	0,8	0,6
Ireland	0,38	0,02	0,004	0,050	0,011	0,025	0,290	0,37	0,3	0,1
Netherlands	76	70	52,4	72	66,835	61,649	75,59	67,7	64,4	54,5
Norway	1 547	1 524	1 711	1 879	1 852	1 954	1 820	1 675	1 855	1 920
Spain	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
UK	3 276	3 049	2 756	2 273	3 783	2 619	2 115	2 477	2 178	4 010
Total	5 192	4 992	4 880	4 578	5 905	4 830	4 228	4 386	4 235	6 074

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

Part B: Cumulative Report

Table 2: Oily aqueous discharges to the maritime area *

Table 2b: Quantity of displacement and produced water discharged daily to the sea (in m³/day), 2004-2013

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark	67 578	74 522	76 677	75 204	83 442	75 638	73 833	71 578	68 900	67 801
Germany	22	22	26	23	23	33	43	50	53	42
Ireland	8	7	9	6	5	4	4	4	5	4
Netherlands	23 313	24 275	26 429	38 391	34 542	30 373	26 429	23 232	26 000	11 298
Norway	537 342	533 349	510 618	558 647	506 912	455 719	446 018	426 237	444 936	437 077
Spain	0	0	2	3	0	0	0	0	0	0
UK	690 481	642 967	603 112	555 784	541 611	538 690	540 766	479 100	426 940	410 861
Total	1 318 745	1 275 143	1 216 873	1 228 058	1 166 536	1 100 457	1 087 093	1 000 201	966 833	927 083

* 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 m³/year), 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
PW*	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	304 073 595
DPW**	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	34 311 608
IPW	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	91 227 430
Total	556 320 581	542 320 778	524 556 064	535 961 274	509 869 571	489 694 251	483 533 660	456 080 091	451 294 086	429 612 633

* 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

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, 2004-2006, and quantity of oil discharged by these installations (in tonnes)

	2004	2005	2006
Total number of installations with discharges in the Convention area	648	671	671
Number of installations exceeding 40 mg/l	28	25	14
Quantity of dispersed oil discharged	737	1044	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 by these installations (in tonnes)

	2007	2008	2009	2010	2011	2012	2013
Total number of installations with discharges in the Convention area	730	746	743	811	742	752	756
Number of installations exceeding 30 mg/l	22	31	31	20	20	17	19
Quantity of dispersed oil discharged	319	297	340	276	101	206	244

"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.

Part B: Cumulative Report

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, 2004-2006, by Contracting Party and quantity of oil discharged by these installations (in tonnes)

Country	2004		2005		2006	
	Number of installations	Amount discharged	Number of installations	Amount discharged	Number of installations	Amount discharged
Denmark	0	0	0	0	0	0
Germany	0	0	0	0	0	0
Ireland	1	0,12	0	0	0	0
Netherlands	0	0	0	0	0	0
Norway	3	344	4	468	3	339
Spain	0	0	0	0	0	0
UK	23	393	21	576	11	477
Total	27	737	25	1 044	14	816

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

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.

Part B: Cumulative 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	1,6	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
Total	22	319	31	217	31	110	20	133	20	35	17	47

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

Country	2013	
	Number of installations	Amount discharged
Denmark	0	0
Germany	0	0
Ireland	0	0
Netherlands	2	0,3
Norway	3	3,3
Spain	0	0,0
UK	14	77,3
Total	19	81

Part B: Cumulative 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), 2004-2013 *

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	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 ¹	Total OPF ¹
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	425	0	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	1	4	5	3
Total	425	0	0	0	0	0	1	4	5	3

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

Table 4b: Number of wells drilled with OBF, with discharge of contaminated cuttings to the maritime area, 2004-2013*

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

Country	2004		2005		2006		2007		2008	
	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	17	0	0	0	0	0	0	0	0	0
Norway	0	4	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	0	0	0	0
Total	17	4	0	0	0	0	0	0	0	0

Country	2009		2010		2011		2012		2013	
	OBF	non-OBF OPF	OBF	non-OBF OPF	OBF	Other OPF	OBF	Other OPF	OBF	Other OPF
Denmark	0	0	0	0	0	0	0	0	1	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	1	0	11	0	11	0	8	0	9	0
Total	1	0	11	0	11	0	8	0	10	0

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

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

Part B: Cumulative Report

Table 5: Spillage of oil and chemicals *

Table 5a: Number of oil spills, 2004-2013 - Spills less than 1 tonne (≤ 1 T) and spills above 1 tonne (> 1 T)

Country	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
	≤ 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⁾	70	0	44	1	46	0	30	1	24	2	23	2	21	0	30	0	42	0	47	1
Germany	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	3	0	3	0	1	0	0	0	1	0	1	0	4	0	1	0
Netherlands	31	1	25	0	25	0	35	0	20	1	14	1	34	0	13	1	12	0	10	0
Norway ⁽¹⁾	108	10	141	6	115	7	155	12	164	9	142	4	133	7	129	1	118	4	112	5
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom ⁽³⁾	445	13	428	10	305	8	270	9	262	8	291	8	265	6	270	9	239	6	299	9
Total	654	24	638	17	494	15	493	22	471	20	470	15	454	13	443	11	415	10	469	15

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

⁽²⁾ Norway - Reports m³ rather than tonnes

⁽³⁾ 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

Part B: Cumulative Report

Table 5: Spillage of oil and chemicals *

Table 5b: Total quantity of oil spilled, in tonnes, 2004-2013

Country	2004		2005		2006		2007		2008	
	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T
Denmark	6	0	3	3	4	0	2	30	2	99
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0,04	0	0,2	0	0,004	0
Netherlands	0,1	1,6	0,2	0	0,7	0,0	1,2	0	0,7	3,0
Norway ⁽¹⁾	7	58	13	303	10	95	10	3 805	7,5	156
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	29	47	38	39	23	40	12	47	17	20,25
Total	42	107	54	345	38	135	25	3 882	27	278

Country	2009		2010		2011		2012		2013	
	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T	≤ 1 T	> 1 T
Denmark ⁽³⁾	2	4	2	0	1	0	2	0	0	3
Germany	0	0	0	0	0	0	0	0	0	0
Ireland	0	0	0,001	0	0,01	0	0,8	0	0,001	0
Netherlands	0,6	22	0,1	0	0,1	1,1	0,4	0	0,7	0
Norway ⁽¹⁾	8	88	6	105	8,7	10	7,0	9	6,2	34
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom ⁽²⁾	15,0	39,1	9,8	13,6	12,8	29,1	11,4	90,0	17,3	74,0
Total	26	154	18	119	23	40	22	99	24	111

⁽¹⁾ Norway - Reports m³ rather than tonnes

⁽²⁾ 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 5a of Part A of the report.

Part B: Cumulative Report

Table 5: Spillage of oil and chemicals *

Table 5c: Number of chemical spills, 2012-2013 - Spills less than 1 tonne (≤ 1 T) and spills above 1 tonne (> 1 T)

Country	2012		2013	
	≤ 1 T	> 1 T	≤ 1 T	> 1 T
Denmark ⁽¹⁾	26	0	36	4
Germany	0	0	0	0
Ireland	1	0	2	1
Netherlands	7	1	6	1
Norway ⁽²⁾	110	38	126	31
Spain	0	0	0	0
United Kingdom ⁽³⁾	224	48	169	48
Total	368	87	339	85

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

⁽²⁾ Norway - Reports m³ rather than tonnes

⁽³⁾ UK - UK data excludes one incident in 2012 and one incident in 2013 which are still currently under investigation

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

Part B: Cumulative Report

Table 5: Spillage of oil and chemicals *

Table 5d: Total quantity of chemical spills, in tonnes, 2012-2013

Country	2012		2013	
	≤ 1 T	> 1 T	≤ 1 T	> 1 T
Denmark ⁽¹⁾	1	0	2	26
Germany	0	0	0	0
Ireland	<0,001	0	0,1	5,1
Netherlands	0,9	1,2	13,3	7,7
Norway ⁽²⁾	15,4	350	18,4	1 267
Spain	0	0	0	0
United Kingdom ⁽³⁾	32,4	804	29,4	475
Total	50	1155	63	1781

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

⁽²⁾ Norway - Reports m³ rather than tonnes

⁽³⁾ UK - UK data excludes one incident in 2012 and one incident in 2013 which are still currently under investigation

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

Part B: Cumulative Report

Table 5e: Total spillage of oil and discharges of dispersed oil, in tonnes

Year: 2004-2013

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark	487	452	389	418	481	346	216	166	118	181
Germany	0,20	0,20	0,01	0,21	0,11	0,2	0,2	0,3	0,4	0,2
Ireland	0,12	0,02	0,09	0,23	0,42	0,01	0,03	0,03	0,80	0,00
Netherlands	121	108	114	157	144	124	83	57	76	61
Norway ⁽¹⁾	2 718	3 149	2 484	5 441	1 791	1 639	1 601	1 548	1 609	1 635
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	5 355	5 047	4 420	3 019	3 198	2 954	3 031	2 535	2 369	2 267
Total	8 681	8 756	7 407	9 035	5 614	5 063	4 931	4 307	4 173	4 144

⁽¹⁾Norway - Data for spills are supplied in m³

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

Part B: Cumulative Report

Table 6: Emissions to air, 2004-2013*

CO₂ (in million of tonnes)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽¹⁾	2,30	2,10	2,12	2,11	2,07	2,20	1,94	1,76	1,84	1,78
Germany	0,03	0,06	0,05	0,06	0,04	0,04	0,05	0,05	0,05	0,05
Ireland	0,07	0,06	0,06	0,06	0,09	0,04	0,05	0,05	0,05	0,06
Netherlands	1,27	1,33	1,29	1,39	1,40	1,49	1,39	1,54	1,96	2,43
Norway	11,34	11,87	11,56	11,07	13,77	12,44	12,00	12,28	12,44	11,57
Spain	0,03	0,06	0,04	0,04	0,05	0,00	2,00	0,001	0,001	0,001
United Kingdom	18,52	18,21	16,41	16,96	15,60	15,44	15,00	14,02	13,08	13,17
Total	34	34	32	32	33	32	32	30	29	29

NO_x (in thousand of tonnes)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽¹⁾	7,20	6,80	8,10	8,90	8,50	8,10	7,00	6,32	7,22	7,28
Germany	0,11	0,14	0,04	0,03	0,05	0,05	0,05	0,04	0,08	0,05
Ireland	0,16	0,15	0,27	0,25	0,52	0,12	0,21	0,16	0,18	0,58
Netherlands	3,74	3,81	3,86	4,00	3,80	4,17	3,70	5,27	4,97	5,22
Norway	51,60	54,40	54,35	54,00	51,00	50,00	50,00	51,49	50,44	50,45
Spain	0,08	0,13	0,08	0,01	0,11	0,01	0,00	0,01	0,01	0,01
United Kingdom	60,12	59,00	52,00	52,00	52,30	49,50	53,00	47,49	47,01	46,40
Total	123	124	119	119	116	112	114	111	110	110

nmVOCs (in thousands of tonnes)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽¹⁾	5,10	3,00	2,10	2,00	2,25	2,00	2,61	1,22	1,89	1,77
Germany	0,01	0,29	0,68	0,22	0,12	0,12	0,12	0,30	0,39	0,14
Ireland	0,20	0,001	0,10	0,01	0,04	0,001	0,05	0,003	0,00	0,02
Netherlands	3,60	3,74	3,69	4,00	4,68	5,00	4,16	4,12	3,23	5,14
Norway ⁽²⁾	131,60	93,50	79,54	73,00	50,00	45,61	37,00	30,58	33,02	32,76
Spain	0,09	0,13	0,08	0,10	0,11	0,00	0,00	0,01	N/D	0,01
United Kingdom	66,07	49,00	51,00	54,00	40,67	41,30	33,30	35,43	37,96	38,08
Total	207	150	137	133	98	94	77	72	76	78

* 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 CO₂, 250 tonnes of NO_x, 18 tonnes of nmVOC; For 2008: 10 000 tonnes of CO₂, 10 tonnes of NO_x, 0,2 tonne of nmVOC; For 2010: 16 000 tonnes of CO₂, 14 tonnes of NO_x, 0,3 tonne of nmVOC. For 2012, 15 000 tonnes of CO₂, 0,5 tonne of NO_x, 0,002 tonne of nmVOC.

⁽²⁾ Norway: there was a substantial reduction the last years due to nmVOC recovery requirements on tankers. The Norwegian emissions of CH₄ 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

Table 6: Emissions to air, 2004-2013* (cont'd)

CH₄ (in thousand of tonnes)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽¹⁾	8,20	1,00	1,50	2,00	3,00	3,00	4,96	3,19	4,11	4,01
Germany	0,02	1,16	3,23	1,06	0,54	3,13	1,34	0,55	0,72	0,24
Ireland	0,53	0,29	2,63	0,79	0,58	0,01	0,00	0,01	0,00	0,01
Netherlands	11,19	12,34	12,06	14,00	15,97	14,48	13,04	12,41	9,67	14,33
Norway ⁽²⁾	30,80	29,30	26,20	25,20	31,00	29,63	28,04	28,58	25,66	23,47
Spain	0,26	0,39	0,31	0,40	0,43	0,00	0,00	0,11	0,14	0,12
United Kingdom	54,70	41,00	37,00	48,00	41,57	45,30	47,90	44,86	44,12	45,69
Total	106	85	83	91	93	96	95	90	84	88

SO₂ (in tonnes)

Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽¹⁾	480	230	230	220	200	100	112,0	86,0	92,0	116
Germany	2,0	2,0	1,0	0,0	0,40	0,20	0,0	0,0	4,0	0,5
Ireland	0,8	0,8	10,0	14,6	11,80	1,77	6,0	6,9	1,4	29
Netherlands	130	136	170	200	135	103	112	133	253	350
Norway	600	700	696	700	500	500	600	899	822	914
Spain	0,2	0,3	0,8	0,0	0,41	0,0	0,0	N/D	N/D	N/D
United Kingdom	2 940	3 000	2 570	1 740	3 290	2 170	2 600	1 923	2 561	2 208
Total	4 153	4 069	3 678	2 875	4 138	2 875	3 430	3 048	3 733	3 617

⁽¹⁾ Part of the Danish reports contains the reports on the emissions to air from Faroe Islands: For 2006: 8 tonnes SO₂; For 2008: 0,2 tonne CH₄.

and 3 tonnes SO₂; For 2010: 0,3 tonne CH₄ and 5 tonnes SO₂. For 2012, 0,005 tonne of SO₂

⁽²⁾ The Norwegian emissions of CH₄ which were reported for 2009 and 2010 were incorrect. Therefore the figures presented here do not agree with the reports from these two years.

Part B: Cumulative Report

Table 7: The use and discharge of offshore chemicals

Year: 2004-2014

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

Country	Quantity of chemicals used (kg)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽¹⁾	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	26 031 851
France	NI	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Germany	977 651	2 138 463	716 405	710 225	503 527	2 425	1 565 002	478	252 562	1 387
Ireland	830 542	9 287	1 549 666	3 876 616	6 274 318	1 020 082	1 904 711	836 841	936 836	2 783 230
Netherlands	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	34 616 138
Norway	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	346 516 261
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	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	207 602 076
Total	434 114 666	579 030 238	589 396 121	645 898 215	600 725 678	621 082 354	552 335 208	497 425 302	554 405 563	617 550 942

Country	Quantity of chemicals discharged (kg)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽²⁾	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	7 978 977
France	NI	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Germany	761 332	1 036 263	347 565	342 003	503 282	2 220	1 059 928	478	6 573	1 275
Ireland	460 057	2 566	1 040 761	1 660 002	4 203 349	125 905	754 568	423 274	604 132	1 040 237
Netherlands	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	16 144 242
Norway	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	114 256 578
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	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	70 139 373
Total	170 635 739	214 836 323	220 606 879	219 470 336	236 242 057	258 174 174	211 807 573	178 390 838	190 953 247	209 560 682

* 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).

⁽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

⁽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.

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

Table 7: The use and discharge of offshore chemicals

Year: 2004-2013

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	2013
Denmark ⁽¹⁾	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	1 386 349
France	N/A	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	0
Ireland	NI	0	0	2 252	745	138	3 944	0	0	53 685
Netherlands	2 032 827	1 916 271	3 066 667	367 282	815 948	817 256	277 442	784 501	459 251	309 021
Norway ⁽³⁾	NI	2 671 000	2 654 000	1 860 000	0	0	0	0	0	0
Spain	0	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	3 146 799
Total	16 262 752	17 398 801	23 031 437	12 553 308	19 402 704	14 135 971	6 786 181	4 173 646	4 436 585	4 895 854

Country	Quantity of chemicals discharged (kg)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽²⁾	980 564	138 620	408 828	169 353	1 484 608	431 845	304 808	146 321	123 525	142 595
France	N/A	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	0
Ireland	NI	0	0	870	545	110	2 207	0	0	4 697
Netherlands	240 660	172 416	364 578	179 066	169 047	105 070	112 448	41 875	79 976	50 794
Norway ⁽³⁾	NI	137 000	126 000	143 000	0	0	0	0	0	0
Spain	0	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	858 274
Total	1 247 188	512 938	1 276 236	976 219	2 248 704	1 131 529	1 098 519	627 317	587 780	1 056 360

* 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.

⁽²⁾ Part of the Danish reports contains the reports on the discharge of offshore chemicals from Faroe Islands: For 2008: 168 270 kg.

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

Part B: Cumulative Report

Table 7: The use and discharge of offshore chemicals

Year: 2004-2013

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

Country	Quantity of chemicals used (kg)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽¹⁾	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	12 589 045
France	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Germany	424 432	387 282	127 403	124 599	4 333	2 993	2 318	1 527	3 690	4 471
Ireland	NI	0	150 115	151 051	722 136	358 021	572 265	12 992	88 555	1 509
Netherlands	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	8 731 380
Norway ⁽³⁾	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	204 629 459
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	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	79 106 416
Total	167 299 699	144 756 832	195 915 302	211 916 749	197 126 511	190 928 708	197 002 502	168 198 621	184 377 931	305 062 281

Country	Quantity of chemicals discharged (kg)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽²⁾	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	5 154 321
France	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Germany	69 099	41 275	11 223	3 659	52	0	0	24	349	12
Ireland	NI	0	110 604	61 016	242 717	1 827	8 752	8 534	24 555	1 509
Netherlands	157 648	193 412	254 341	263 184	435 387	584 237	694 870	819 255	955 649	595 553
Norway ⁽³⁾	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	52 507 255
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	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	10 341 731
Total	43 947 587	27 617 777	28 972 506	30 704 495	31 064 995	32 348 540	25 387 152	27 643 469	29 881 320	68 600 380

*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

⁽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.

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

Part B: Cumulative Report

Table 7: The use and discharge of offshore chemicals

Year: 2004-2013

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	2013
Denmark ⁽¹⁾	136	0	0	0	10	0	0	0	0	0
France	N/A	0	0	0	0	0	0	N/A	N/A	N/A
Germany	0	0	0	0	0	0	1 273	0	0	0
Ireland	NI	0	0	0	0	0	0	0	0	2
Netherlands	0	0	0	0	0	0	0	0	0	0
Norway	800	2 505	1 094	497	146	20	6	0	3	6
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	2 285	2 505	1 896	2 128	3 773	1 267	974	783	440	496
Total	3 221	5 010	2 990	2 625	3 929	1 287	2 253	783	443	504

Country	Quantity of chemicals discharged (kg)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽²⁾	14	0	0	0	1	0	0	0	0	0
France	N/A	N/A	N/A	0	0	0	0	N/A	N/A	N/A
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	200	30	213	1	0	58	0	0	3	6
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	191	191	141	69	42	89	21	9	0	0
Total	405	221	354	70	43	147	21	9	3	6

* 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

Table 7: The use and discharge of offshore chemicals

Year: 2004-2013

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)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ¹	14 839	8 115	12 550	9 950	10 502	8 550	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	0	0	0	0	0	0	0	8	400
Netherlands	31	0	0	0	0	0	0	0	0	0
Norway	0	1 000	0	20	0	53	0	0	30	92
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	0	10 333	1 510	910	1 720	856	1 155	365	1 848	253
Total	14 870	19 448	14 060	10 880	12 222	9 459	1 155	365	1 886	746

Country	Quantity of chemicals discharged (kg)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ²	1 215	54	117	250	2	0	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	0	0	0	0	0	0	0	1	0
Netherlands	3	0	0	0	0	0	0	0	0	0
Norway	0	0	0	1	0	0	0	0	21	0
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	0	10 306	1 440	864	1 596	0	137	345	1 643	90
Total	1 218	10 360	1 557	1 115	1 598	0	137	345	1 665	90

⁽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

Year: 2004-2013

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

Country	Quantity of chemicals used (kg)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽¹⁾	1 782 941	894 141	582 599	302 503	766 936	515 528	538 181	178 803	351 620	110 595
France	0	0	0	0	0	0	0	0	0	0
Germany	4 333	4100	1516	1 400	0	5 906	6 932	0	0	0
Ireland	NI	0	0	12 319	8 730	3 498	22 790	0	300	2 275
Netherlands	633 725	3 433 667	885 546	3 173 171	303 012	162 510	244 482	349 002	231 545	150 205
Norway	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	1 636 733
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	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	2 042 658
Total	10 417 797	14 643 150	10 825 018	10 487 644	7 376 126	5 413 526	5 123 763	4 902 065	3 654 606	3 942 466

Country	Quantity of chemicals discharged (kg)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽²⁾	123 729	106 127	92 047	44 682	56 457	1 061	7 852	4 244	357	42
France	0	0	0	0	0	0	0	0	0	0
Germany	634	4 100	1 458	1 400	0	37	750	0	0	0
Ireland	NI	0	0	651	0	0	64	0	100	11
Netherlands	77 473	42 716	35 123	6 179	5 775	19 730	19 179	4 542	3 627	913
Norway	211 490	62 270	18 661	13 900	10 515	16 318	14 455	6 403	3 600	2 957
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	1 734 676	1 889 783	1577219	660 055	661 647	608 549	404 545	375 566	305 385	576 846
Total	2 148 002	2 104 996	1 724 508	726 867	734 394	645 695	446 845	390 754	313 068	580 769

⁽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

Table 7: The use and discharge of offshore chemicals

Year: 2004-2013

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

Country	Quantity of chemicals used (kg)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽¹⁾	1 494 033	1 322 226	1 066 216	575 771	459 550	231 350	270 566	284 938	161 457	31 930
France	0	0	0	0	0	0	0	0	0	0
Germany	652 623	2 631 107	878 855	879 156	6 972	0	0	6 355	5 582	0
Ireland	26	0	13 241	604 258	35 612	1 271	3 340	3 317	3 400	815 176
Netherlands	2 097 535	8 972 101	5 291 265	2 533 475	185 157	979 280	770 136	1 566 448	452 277	531 900
Norway	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	1 326 315
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	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	2 826 647
Total	16 327 392	20 985 077	11 517 283	13 012 587	4 582 500	5 415 291	4 413 085	4 894 794	4 499 693	5 531 968

Country	Quantity of chemicals discharged (kg)									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark ⁽²⁾	301 211	319 223	193 506	76 655	57 512	360	15 020	341	0	0
France	0	0	0	0	0	0	0	0	0	0
Germany	9 429	9 316	50	50	0	0	0	0	0	0
Ireland	1	0	4 364	880	3 693	391	0	2 917	730	2 945
Netherlands	39 107	16 560	13 811	10 182	28 462	37 089	57 636	13 976	22 960	23 195
Norway	81 900	33 985	23 450	9 900	4 579	5 152	1 584	1 710	5 018	3 399
Spain	0	0	0	0	0	0	0	0	0	0
United Kingdom	4 062 814	1 399 510	631877	1 234 498	918 515	1 046 561	930 855	738 516	648 520	896 187
Total	4 494 462	1 778 594	867 058	1 332 165	1 012 761	1 089 553	1 005 095	757 459	677 228	925 726

* The criteria are as follows:

- (biodegradation in 28 days less than 70% (OECD 301A, 301E) or less than 60% (OECD 301B, 301C, 301F, 306);
- bioaccumulation log Pow > 3 or BCF > 100 and considering molecular weight;
- 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.

Table 7h: Quantity of chemicals spilled^a in kg per year, 2006 - 2013

Prescreening category	2006	2007	2008	2009	2010	2011	2012	2013
PLONOR	559 929	1 000 374	895 579	7 251 474	1 001 352	620 711	418 722	1 201 718
List of Chemicals for Priority Action	6	0	0	1 600	0	0	0	0
Inorganic LC ₅₀ or EC ₅₀ < 1 mg/l	0	0	0	0	863	0	72	0
Biodegradation < 20%	2 725	7 119	12 800	353 271	2 123	1 590	1 194	9 017
Substance meets two of three criteria	11 259	30 516	1 980	244	31 129	1 250	14 356	3 016
Inorganic, LC ₅₀ or EC ₅₀ > 1 mg/l	90	77	1 661	3 217	108	328	548	462
Ranking	158 470	125 649	163 063	6 330 759	250 475	132 615	61 804	1 174 629
Total	732 479	1 163 735	1 075 083	13 940 565	1 286 050	756 494	496 696	2 388 842

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

Table 8: Discharges of radioactive substances in produced water in terabecquerel (TBq), 2006-2013

	2006	2007	2008	2009	2010	2011	2012	2013
Total alpha	6,9	7,41	6,76	7,4	7,6	7,6	8	6,5
Total beta	4,67	4,94	4,54	5,02	4,94	5,03	5,2	4,34

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

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

Year: 2004-2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Denmark	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	13 674 575
Germany	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	1 158 020
Ireland	1 014 893	592 617	514 683	301 455	524 423	392 584	408 678	361 130	367 540	336 618
Netherlands	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	18 176 106
Norway	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	161 574 251
Spain	269 005	119 660	37 693	6 628	6 862	0	41 176	39 044	58 115	40 269
United Kingdom	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	78 304 262
Total	503 182 901	459 729 633	428 825 925	420 816 466	431 438 147	409 171 280	376 194 844	306 678 503	292 025 723	273 264 101



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

**OSPAR's vision is of a clean, healthy and biologically diverse
North-East Atlantic used sustainably**

ISBN: 978-1-909159-89-1
Publication Number: 658/2015

© OSPAR Commission, 2015. Permission may be granted by the publishers for the report to be wholly or partly reproduced in publications provided that the source of the extract is clearly indicated.

© Commission OSPAR, 2015. La reproduction de tout ou partie de ce rapport dans une publication peut être autorisée par l'Editeur, sous réserve que l'origine de l'extrait soit clairement mentionnée.