



Comprehensive  
Atmospheric  
Monitoring  
Programme:

**Deposition of air  
pollutants around the  
North Sea and the  
North-East Atlantic in  
2007**

**OSPAR Commission  
for the Protection of the Marine  
Environment  
of the North-East Atlantic**



NILU: OR 17/2009

NILU: OR 17/2009  
REFERENCE: O-97146  
DATE: February 2009  
ISBN: 978-82-425-2095-1 (printed)  
978-82-425-2096-8 (electronic)

# **Deposition of air pollutants around the North Sea and the North-East Atlantic in 2007**

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## Preface

This report is the report presenting the results of monitoring undertaken by OSPAR Contracting Parties for the Comprehensive Atmospheric Monitoring Programme (CAMP) during 2007. Under the CAMP, OSPAR Contracting Parties are committed to monitoring, on a mandatory basis, the concentrations of a range of heavy metals, organic compounds and nutrients in precipitation and air, and their depositions. The CAMP also encourages OSPAR Contracting Parties to monitor, on a voluntary basis, additional compounds (such as certain persistent organic pollutants). The report gives detailed information on observed atmospheric inputs of selected contaminants to the OSPAR maritime area and its regions during 2007.

Reporting of 2007 was more timely than ever before with respect to the various deadlines. Importantly, methodological improvements behind the observations delivered by some Parties have produced significant improvements in their estimates of deposited pollution. Lowering detection limits has delivered confidence in apparent decline in toxic inputs to the North Sea, whilst simultaneously indicating that levels nevertheless remain above background environmental.

Apparent slight decline in the numbers of observations delivered resulted solely from improvements introduced by one Party which delayed data delivery for 2007 observations. Without this factor, the numbers of observations would have increased. Rather bizarrely, no Party achieved 100% implementation of the pollutants in precipitation programme in 2007, due to data loss for individual samples by all Parties. The airborne pollutant programme continued to show greatest divergence in practice between Parties. Four achieved 100% implementation of the Mandatory programme, one went so far as to deliver observations for over 70 additional non-listed components, whilst three chose not to monitor any airborne components whatsoever, regardless of Mandatory status.



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# Deposition of air pollutants around the North Sea and North-East Atlantic in 2007

## 1 Introduction

This report collates and describes the observations from coastal monitoring stations across the OSPAR region (see Figure 1.1) under the Comprehensive Atmospheric Monitoring Programme (CAMP), this forming one element within the wider Joint Assessment and Monitoring Programme of OSPAR. The CAMP aims to assess, as accurately as appropriate, the atmospheric input of the selected contaminants to the maritime area and regions thereof (Figure 1.1) on an annual basis through monitoring the concentrations of selected contaminants in precipitation and air, and determining their deposition. The monitoring regime employed is set out in the CAMP Principles (OSPAR reference number: 2001-7), describing the relevant substances, sampling approach, locations and frequency, and assessment methodologies.



*Figure 1.1: OSPAR maritime area and regions I: Arctic waters, II: Greater North Sea, III: Celtic Seas, IV: Bay of Biscay, V: Wider Atlantic*

The components of interest to the CAMP are divided into two groups, for measurement on a mandatory basis and for measurement on a voluntary basis. These are listed in Table 1.1.



Table 1.1: Components to be measured under the CAMP

	<b>Mandatory</b>	<b>Voluntary</b>
<b>Precipitation</b>	As, Cd, Cr, Cu, Pb, Hg, Ni, Zn, $\gamma$ -HCH, $\text{NH}_4^+$ , $\text{NO}_3^-$	PCB 28,52,101,118,138,153,180 PAHs: Phenanthrene, anthracene, flouranthene, pyrene, benzo(a)anthracene, chrysene, benzo(a)pyrene, benzo(ghi)perylene, indeno(1,2,3-cd)pyrene
<b>Airborne</b>	$\text{NO}_2$ , $\text{HNO}_3$ , $\text{NH}_3$ , $\text{NH}_4^{+a}$ , $\text{NO}_3^{-a}$	As, Cd, Cr, Cu, Pb, Hg, Ni, Zn, $\gamma$ -HCH, PCB 28,52,101,118,138,153,180, PAHs: Phenanthrene, anthracene, flouranthene, pyrene, benzo(a)anthracene, chrysene, benzo(a)pyrene, benzo(ghi)perylene, indeno(1,2,3-cd)pyrene, NO

<sup>a</sup>) total ammonium ( $\text{NH}_3 + \text{NH}_4^+$ ) and total nitrate ( $\text{HNO}_3 + \text{NO}_3^-$ ) is an alternative

The CAMP Principles call for each Contracting Party bordering the OSPAR maritime area (excluding the EU) to operate at least one monitoring station on the coast and/or offshore as part of the CAMP. Where Parties border more than one region (see Figure 1.1) at least one station should be operating in each. These stations should be so-called background stations, i.e. not directly influenced by local emission sources. The stations should be located not more than 10 km from the coastline.

The data assembled by monitoring stations are reported by Contracting Parties to the Norwegian Institute for Air Research (NILU) on a yearly basis, using a reporting format and according to the time schedule set out in the CAMP Principles. Based on the data received, NILU prepares a CAMP data report on an annual basis for OSPAR to examine.

The present CAMP data report “Pollutant depositions and air quality around the North Sea and the North-East Atlantic in 2007” gives in chapter 2 an overview of reported data and the implementation of the CAMP Principles in 2007. The geographical coverage, the contaminants from the Mandatory and Voluntary lists which have been monitored, and the timeliness of data submission are presented. In chapter 3, an overview is given of the 2007 annual average values of the components subject to mandatory monitoring for the North-East Atlantic. Chapter 4 provides short summaries of observations undertaken of lindane and nitrogen in recent years, as a contribution from the database to the CAMP review. The criteria followed was for summaries suitable for use by OSPAR as a text box, and thus not exceeding 300 words. In this section estimates of depositions calculated using the OSPAR “Method 3a” as laid down in the CAMP Principles are given, providing a point of comparison with purely model based estimates as provided by the CAMP review. Chapter 5 summarises the report’s observations on the reported CAMP data for 2007. The data submitted by Contracting Parties are appended to this report (Appendix 1).

## 2 The OSPAR CAMP Monitoring Programme in 2007

### 2.1 Geographical coverage

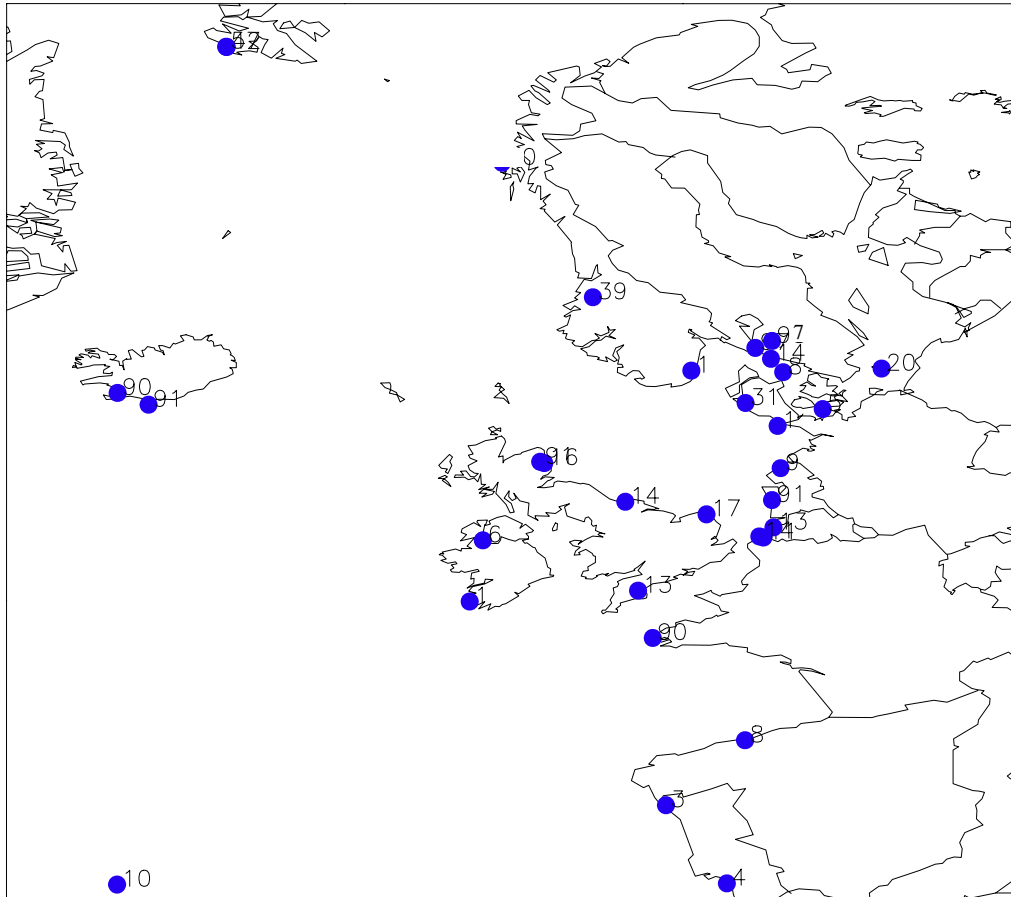


Figure 2.1: Monitoring sites reporting to OSPAR in 2007. Station numbers are the station numbers listed in table 2.1 without the country letters.

The reporting network during 2007 did not change, although there were minor changes in which components were observed at each station. Despite the mandatory label applied to the first column of components in table 1.1, not all stations did report data for all components., as commented in section 2.2. Table 2.1 details the locations of monitoring stations, and indicates the broad nature of monitoring undertaken: observation of the deposition of pollutants in precipitation (p), and/or monitoring of ambient air quality (a).

Table 2.1: Stations reporting to OSPAR in 2007.

Country	Station number	Station name	OSPAR Region	Lat.	Long.	Elev. (m)	Distance to sea (km)	Precip.(p) airborne(a)
Iceland	IS0090R	Irafoss	I	64°08' N	21°54' W	52	1	p
	IS0091R	Storhofdi	I	63°24' N	20°17' W	118	0.5	pa
Norway	NO0057R	Ny-Ålesund	I	78°55' N	11°55' E	8	0.3	p
	NO0042R	Zepellinfjell	I	78°54' N	11°53' E	474	2	a
	NO0039R	Kårvatn	I	62°47' N	8°53' E	210	70	pa
	NO0001R	Birkenes	II	58°23' N	8°15' E	190	20	pa
Belgium	BE0011R	Moerkerke	II	51°15' N	3°21' E	10	12	a
	BE0013R	Houtem	II	51°01' N	2°35' E	0	9	a
	BE0014R	Koksijde	II	51°7' N	2°30' E	7	1.5	pa
Netherlands	NL0009R	Kollumerwaard	II	53°20' N	6°17' E	1	7.5	pa
	NL0091R	De Zilk	II	52°18' N	4°31' E	4	2.5	pa
Germany	DE0001R	Westerland	II	54°56' N	8°19' E	12	0.09	pa
Denmark	DK0005R	Keldsnor	II	54°44' N	10°44' E	10		p
	DK0008R	Anholt	II	56°43' N	11°31' E	40	~0.5	pa
	DK0020R	Pedersker	II	55°01' N	14°57' E	5		p
	DK0031R	Ulborg	II	56°17' N	8°26' E	40	20	pa
Sweden	SE0014R	Råö	II	57°24' N	11°55' E	10	0.1	pa
	SE0097R	Gårdsjön	II	58°03' N	12°01' E	113	12	p
United Kingdom	GB0013R	Yarner Wood	II	50°36' N	3°43' W	119	16.9	pa
	GB0014R	High Muffles	II	54°20' N	0°48' W	267	20.8	pa
	GB0016R	Glen Saugh	II					pa
	GB0091R	Banchory	II	57°05' N	2°32' W	120	23.6	pa
	GB0017R	Heigham Holmes	II	52°43' N	1°37' E	0	4.4	pa
	GB0006R	Lough Navar	III	54°26' N	7°54' W	130	18.8	pa
Ireland	IE0001R	Valentia Island	III	51°56' N	10°15' W	9	0	p
France	FR0090R	Porspoder	II/IV	48°30' N	4°46' W	30	0.5	p
Spain	ES0008R	Niembro	IV	43°26' N	4°51' W	115	~0.5	pa
Portugal	PT0003R	Viana do Castelo	IV	41°42' N	8°48' W	16	4	p
	PT0004R	Monte Velho	IV	38°05' N	8°48' W	43	1.5	p
	PT0010R	Angra do Heroísmo	V	38°40' N	27°13' W	74	1	p

## 2.2 Completion of the observation programmes

The Comprehensive Atmospheric Monitoring Programme (CAMP) can provide ground truth data on atmospheric pollution of OSPAR waters in a coordinated and geographically appropriate manner. The Mandatory programme for observation of pollutants in precipitation was not fully achieved by any Party in 2007 (five had 100% implementation in 2006). Although Belgium, Germany and Sweden undertook measurements of all components, occasional sample loss in sampling and/or analysis reduced data delivery below 100%. The least reported contaminants in precipitation are mercury (7 reporting Parties) and lindane (6 reporting). Lindane has Mandatory status, but non-implementation has been a

deliberate choice by some, this policy decision being stated and explained at INPUT in the past.

The Mandatory Programme for airborne pollutants showed very great divergence in chosen practice between Parties. Full implementation and data delivery by Germany, Norway, Spain and Sweden, and delivery of data by Norway for over 70 components not selected by CAMP for observation contrasted with no observation data delivered for any airborne components by France, Ireland and Portugal regardless of Mandatory or Voluntary status. Non-implementation has been a consistent policy for these Parties.

From the combined numbers of Contracting Parties and of pollutants, the percentage data delivery for the Mandatory contaminant monitoring can be determined, based on the assumption that full completion of the programme would be represented by delivery of 12 monthly averages which pass quality control criteria for each of the listed components. The Mandatory programme for components in precipitation, for example, contains 11 substances and that for airborne concentrations contains at least 3 substances, so that 14 x 12 month averages successfully meeting quality control criteria would be needed to achieve 100% delivery.

Table 2.2: Mandatory monitoring of contaminants in precipitation, 2007. Dots show observations

	As	Cd	Cr	Cu	Pb	Hg	Ni	Zn	$\gamma$ -HCH	NH <sub>4</sub>	NO <sub>3</sub>
Belgium	•	•	•	•	•	•	•	•	•	•	•
Denmark	•	•	•	•	•		•	•		•	•
France	•	•	•	•	•		•	•		•	•
Germany	•	•	•	•	•	•	•	•	•	•	•
Iceland	•	•	•	•	•		•	•	•	•	•
Ireland	•	•	•	•	•	•	•	•		•	•
Netherlands	•	•	•	•	•	•	•	•	•	•	•
Norway	•	•	•	•	•	•	•	•	•	•	•
Portugal		•		•	•		•	•	•	•	•
Spain	•	•	•	•	•		•	•		•	•
Sweden	•	•	•	•	•	•	•	•	•	•	•
United Kingdom	•	•	•	•	•	•	•	•		•	•

Table 2.3: Mandatory monitoring of contaminants in air, 2007. Dots indicate observations

	NO <sub>2</sub>	NO <sub>3</sub> /HNO <sub>3</sub>	NH <sub>x</sub>
Belgium	•		
Denmark	•	•	•
France			
Germany	•	•	•
Iceland		•	
Ireland			
Netherlands	•	•	•
Norway	•	•	•
Portugal			
Spain	•	•	•
Sweden	•	•	•
United Kingdom	•	•	•

Fulfilment of the CAMP programme expressed as a percentage is shown in table 2.4. Fulfilment of the combined precipitation plus airborne mandatory programmes was 75%, down from 76.9% in 2006, and 79.0% in 2005. However, the main cause of the decline was technical: changes to precipitation monitoring by the Netherlands required prolonged quality control such that observations have not yet been released. When available in due course the overall completion rate is anticipated to reach 80%, potentially slightly better than 2006 and back close to 2005 levels. Non-observation of mercury and lindane accounts for much of the remaining fulfilment shortfall. Also, some countries choose not to implement any of the mandatory airborne programme. Occasional loss of data accounts for remaining deficits, e.g. due to sample contamination or loss. Fulfilment of the voluntary programme improved to 36.4% in 2007, up from 26.5% in 2006 and 27.8% in 2005.

Table 2.4: Percentage completion of the CAMP programme 2007.

	Precipitation		Airborne	
	Mandatory	Voluntary	Mandatory	Voluntary
<b>Belgium</b>	91.7	0.0	33.3	34.6
<b>Denmark</b>	81.8	0.0	75.0	48.6
<b>France</b>	83.3	0.0	0.0	0.0
<b>Germany</b>	95.1	100.0	100.0	56.7
<b>Iceland</b>	90.9	43.8	25.0	59.3
<b>Ireland</b>	84.8	0.0	0.0	0.0
<b>Netherlands</b>	16.7	0.0	80.0	23.1
<b>Norway</b>	90.9	43.8	100.0	92.3
<b>Portugal</b>	55.3	0.0	0.0	0.0
<b>Spain</b>	81.8	0.0	100.0	52.6
<b>Sweden</b>	94.7	100.0	100.0	68.0
<b>United Kingdom</b>	90.9	0.0	96.7	94.3
<i>Mean</i>	<i>79.8</i>	<i>24.0</i>	<i>59.2</i>	<i>44.1</i>

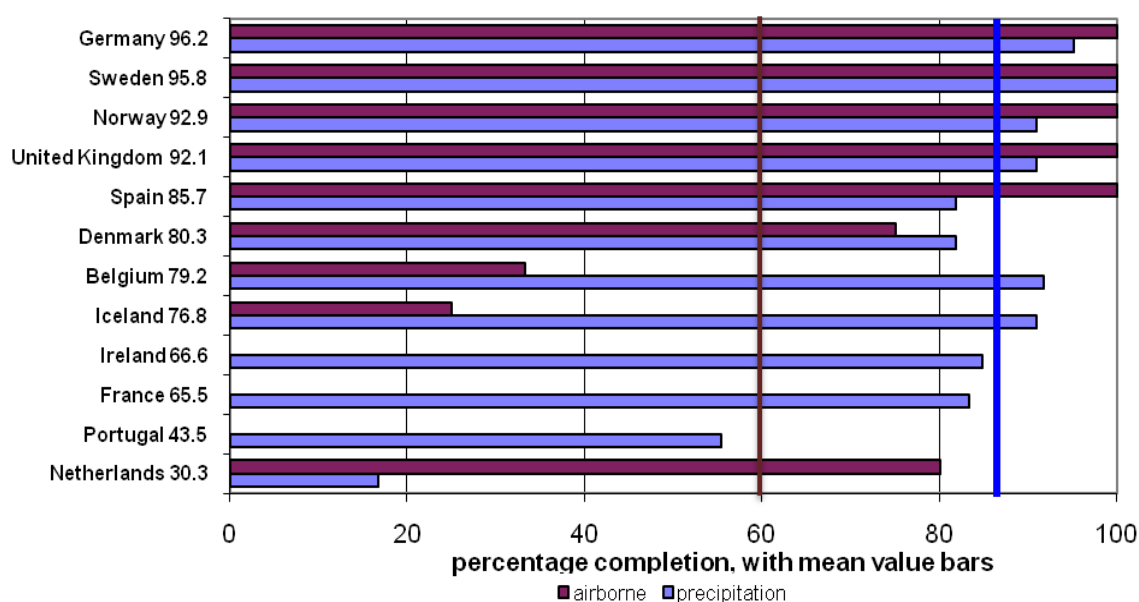


Figure 2.2 Completion of the Mandatory Programmes (100%=12 months x 14 values).

### 2.3 Timeliness of reporting

Reporting of observation data for 2007 was perhaps the most successful of recent years. All bar one country delivered data within the time schedule. Only the UK missed the target date, but even here moved up from 'red' category (no delivery before INPUT/submission of the draft report) to 'pink' category (too late for any data validation, but prior to INPUT) Table 2.6 gives an overview of the actual receipt of national observation reports.

Table 2.5: Timetable for data reporting according to the CAMP Principles

30 <sup>th</sup> June	Call for metadata and data issued from NILU (regarding new data and metadata), with instructions and reference to supporting software (e.g. where to find tools on the NILU website).
30 <sup>th</sup> September	Participants submit data and metadata via email or on diskette, in specified formats.
31 <sup>st</sup> October	NILU returns data and metadata via email or on diskette in the form of a 'validation report' to data originators for verification and signing off by the data originators within <b>two weeks</b> of reception.

Table 2.6: Timeline of reporting of 2007 observations

Contracting Party	Data delivered
<b>June 30 -Deadline for data request issue by NILU</b>	
Belgium	√
Denmark	√
France	√
Germany	√
Iceland	√
Ireland	√
Netherlands	√
Norway	√
Portugal	√
Spain	√
Sweden	√
<b>September 30 - Deadline for receipt of data</b>	
<b>October 31 - Deadline for issue of Validation Reports by NILU</b>	
United Kingdom	√
<b>January 12, 2008 - Reporting to INPUT by NILU</b>	
<b>February 2008 – INPUT, London</b>	

## 2.4 Reporting of additional components

Parties report a wider range of components than is covered by CAMP. This data is managed and stored by the Data Manager in the same way as for the regular data. Table 2.7 lists all components reported by Contracting Parties during 2007 (excluding major ions submitted for quality control, and components of no clear relevance to CAMP), this time divided by precipitation and airborne components. These are colour-coded to indicate their status as mandatory components (green), voluntary components (blue) or additional components (red), and are listed with the country code of Parties concerned.

In the main body of this report description is of observations of the Mandatory components alone. These are both tabulated and shown as maps. In the Appendices all observations from each country are listed, covering the Mandatory components, the Voluntary components, and additional components. Excluded are only the major ions which are reported solely to provide the potential for quality control, and compounds which are a part of other international programmes but which may be expected to lie outside the core interest of OSPAR, e.g. sulphates, ozone, PM measurements.

Precipitation Components		
aldrin	BE,DE	Additional
alpha_HCH	BE,DE,IS,NO	Additional
aluminium	IE,IS	Voluntary
ammonium	BE,DE,DK,ES,FR,IE,IS,NL,NO,SE	Mandatory
anthracene	DE	Additional
arsenic	BE,DE,DK,ES,FR,IE,IS,NL,NO,SE	Mandatory
benz_a_anthracene	DE	Additional
benzo_a_pyrene	DE	Additional
benzo_ghi_perylene	DE	Additional
beta_HCH	IS	Voluntary
cadmium	BE,DE,DK,ES,FR,IE,IS,NL,NO,SE	Mandatory
chromium	BE,DE,DK,ES,FR,IE,IS,NL,NO,SE	Mandatory
cis_CD	IS	Voluntary
cobalt	NO	Additional
copper	BE,DE,DK,ES,FR,IE,IS,NL,NO,SE	Mandatory
dieldrin	BE,DE,IS	Additional
endrin	BE,DE	Additional
fluoranthene	DE	Additional
gamma_HCH	BE,DE,IS,NL,NO,SE	Mandatory
HCB	DE,IS,NO	Additional
heptachlor	BE,DE	Additional
inden_123cd_pyrene	DE	Additional
iron	DE,IS	Additional
lead	BE,DE,DK,ES,FR,IE,IS,NL,NO,SE	Mandatory
manganese	DE,IE,IS,SE	Additional
mercury	BE,DE,DK,FR,IE,IS,NL,NO,SE	Mandatory
nickel	BE,DE,DK,ES,FR,IE,IS,NL,NO,SE	Mandatory
nitrate	BE,DE,DK,ES,FR,IE,IS,NL,NO,SE	Mandatory
op_DDT	DE,IS	Additional
PCB_28	DE,IS,NO	Additional
PCB_31	IS	Voluntary
PCB_52	DE,IS,NO	Additional
PCB_101	DE,IS,NO	Additional
PCB_105	IS	Voluntary
PCB_118	DE,IS,NO	Additional
PCB_138	DE,IS,NO	Additional
PCB_153	DE,IS,NO	Additional
PCB_156	IS	Voluntary
PCB_180	DE,IS,NO	Additional
phenanthrene	DE	Additional
pp_DDD	BE,DE,IS	Additional
pp_DDE	BE,DE,IS	Additional
pp_DDT	BE,DE,IS	Additional
sum_DDT	DE	Additional
pyrene	DE	Additional
trans_CD	IS	Voluntary
trans_NO	IS	Voluntary
txph_26	IS	Voluntary
txph_50	IS	Voluntary
txph_62	IS	Voluntary
vanadium	IE,NO,SE	Additional
zinc	BE,DE,ES,FR	Mandatory

Airborne Components		
acenaphthene	ES,NO	Additional
acenaphthylene	ES,NO	Additional
alpha_HCH	IS,NO	Additional
aluminium	DK,IS	Voluntary
ammonia	DK,ES,NL,NO	Mandatory
ammonium	NL,NO	Additional
sum ammonia & ammonium	DE,DK,ES,NO,SE	Mandatory
anthanthrene	NO	Additional
anthracene	ES,NO,SE	Additional
arsenic	DE,DK,ES,IS,NL,NO	Mandatory
benz_a_anthracene	ES,NO,SE	Additional
benzo_a_fluoranthene	NO	Additional
benzo_a_fluorene	NO	Additional
benzo_a_pyrene	ES,NO,SE	Additional
benzo_b_fluorene	NO	Additional
benzo_bjk_fluoranthenes	ES,NO	Additional
benzo_e_pyrene	NO	Additional
benzo_ghi_fluoranthene	NO	Additional
benzo_ghi_peryene	ES,NO,SE	Additional
beta_HCH	IS	Voluntary
biphenyl	NO	Additional
cadmium	BE,DE,ES,IS,NL,NO	Mandatory
chromium	DK,ES,IS,NO	Mandatory
chrysene	ES,UK	Additional
cis_CD	IS,NO	Additional
cis_NO	NO	Additional
copper	BE,DE,DK,ES,IS,NO	Mandatory
coronene	NO	Additional
cyclopenta_cd_pyrene	NO	Additional
dibenzo_ac_ah_anthracenes	ES,NO	Additional
dibenzo_ae_pyrene	NO	Additional
dibenzo_ah_pyrene	NO	Additional
dibenzo_ai_pyrene	NO	Additional
dibenzofuran	NO	Additional
dibenzothiophene	NO	Additional
dieldrin	IS	Voluntary
fluoranthene	ES	Additional
fluorene	ES,NO	Additional
gamma_HCH	IS,NO,SE	Additional
HCB	IS,NO	Additional
inden_123cd_pyrene	ES,NO,SE	Additional
iron	DE,DK,IS	Additional
lead	BE,DE,DK,ES,IS,NL,NO	Mandatory
manganese	DE,DK,IS	Additional
mercury	BE,ES,IS,NO,SE	Mandatory
N1methylaphtalene	NO	Additional
N1methylphenanthrene	NO	Additional
N2methylanthracene	NO	Additional
N2methylnaphtalene	NO	Additional
N2methylphenanthrene	NO	Additional
N3methylphenanthrene	NO	Additional
N9methylphenanthrene	NO	Additional
naphtalene	ES,NO	Additional
nickel	BE,DE,DK,IS,NL,NO	Mandatory
nitrate	IS,NL,NO	Mandatory
nitric_acid	DE,DK,ES,NO,SE	Mandatory
sum nitric acid & nitrate	DE,DK,ES,NO,SE	Mandatory
nitrogen_dioxide	BE,DE,DK,ES,NL,NO,SE	Mandatory
nitrogen_monoxide	BE,ES,NL	Mandatory
op_DDD	NO	Additional
op_DDE	NO	Additional
op_DDT	IS,NO	Additional
PCB_18	NO	Additional
PCB_28	IS,NO,SE	Additional
PCB_31	IS	Voluntary
PCB_33	NO	Additional
PCB_37	NO	Additional
PCB_47	NO	Additional
PCB_52	IS,NO,SE	Additional
PCB_66	NO	Additional
PCB_74	NO	Additional
PCB_99	NO	Additional
PCB_101	IS,NO,SE	Additional
PCB_105	IS,NO	Additional
PCB_114	NO	Additional
PCB_118	IS,NO,SE	Additional
PCB_122	NO	Additional
PCB_123	NO	Additional
PCB_128	NO	Additional
PCB_138	IS,NO,SE	Additional
PCB_141	NO	Additional
PCB_149	NO	Additional
PCB_153	IS,NO,SE	Additional
PCB_156	IS,NO	Additional
PCB_157	NO	Additional
PCB_167	NO	Additional
PCB_170	NO	Additional
PCB_180	IS,NO,SE	Additional
PCB_183	NO	Additional
PCB_187	NO	Additional
PCB_189	NO	Additional
PCB_194	NO	Additional
PCB_206	NO	Additional
PCB_209	NO	Additional
sum_PCB	NO	Additional
perylene	NO	Additional
phenanthrene	ES,NO,SE	Additional
pp_DDD	IS,NO	Additional
pp_DDE	IS,NO	Additional
pp_DDT	IS,NO	Additional
sum_DDT	NO	Additional
pyrene	ES,NO,SE	Additional
retene	NO	Additional
selenium	DK	Additional
trans_CD	IS,NO	Voluntary
trans_NO	IS,NO	Voluntary
txph_26	IS	Voluntary
txph_50	IS	Voluntary
txph_62	IS	Voluntary
vanadium	DE,IS	Additional
zinc	BE,DE,DK,IS	Mandatory

Legend
<span style="color: green;">■</span> Mandatory
<span style="color: blue;">■</span> Voluntary
<span style="color: red;">■</span> Additional

Table 2.7: All components reported by Contracting Parties in 2007

### 3 Observed pollutant depositions at monitoring stations in 2007

This section describes air pollutant status at coastal stations around the North-East Atlantic in 2007. The annual average concentrations of contaminants subject to mandatory monitoring are listed and mapped, and deposition rates tabulated. Full sea deposition estimates from observations will be supplied in section 4 once data retrieval problems with the database are resolved. Heavy metal concentrations and depositions in precipitation are presented in Tables 3.1-2, illustrated in Figures 3.1-3.7. Data for mercury is in Table 3.3 and Figure 3.8, and lindane in Table 3.4 and Figure 3.9. Nitrogen concentrations and depositions in precipitation are in Table 3.5, and are mapped in Figures 3.10-11. In all figures Portuguese data from the Azores is located below the colour scale. Colour coding in the tabulated results highlights the two highest, and the lowest concentration/depositions.

#### 3.1 Heavy metals (except mercury)

It is curious to note that the Atlantic seabord frequently displays higher concentrations of heavy metals than the North Sea coastline. There may be natural environmental explanations for this, such as resuspension/emission from oceanic waters, and local geothermal activity in the case of Iceland. However, issues with monitoring may also contribute. For example, for all components except arsenic, the highest concentrations are found on the Iberian peninsula, and some of these observations are of such magnitude as to shed some uncertainty. In a similar vein, rather high detection limits characterise observations made in Ireland. The French observations are also above average, and intercomparison between this data supplier and other more regular contributors in Europe would be desirable in establishing the reliability of these observations.

2007		arsenic mg/l	cadmium mg/l	chromium mg/l	copper mg/l	lead mg/l	nickel mg/l	zinc mg/l	precipitation mm
Belgium	BE0014R	0.29	0.05	0.28	3.10	1.42	0.47	11.77	819
Denmark	DK0008K	0.12	0.02	0.13	2.05	0.67	0.25	9.68	639
	DK0020R	0.10	0.05	0.12	1.59	0.99	0.21	4.36	615
	DK0031R	0.07	0.03	0.09	1.09	0.45	0.22	6.91	1007
France	FR0090R	0.10	0.05	0.40	1.08	1.26	1.80	3.35	1225
Germany	DE0001R	0.10	0.02	0.11	0.82	0.60	0.30	7.49	693
Iceland	IS0090R	0.42	0.01	0.47	1.98	0.22	0.67	4.90	1041
	IS0091R	0.05	0.01	0.11	0.54	0.18	0.82	8.48	1883
Ireland	IE0001R	0.50	0.05	0.50	1.72	0.50	0.62	9.60	1347
Netherlands	NL0009R	not delivered							
	NL0091R	not delivered							
Norway	NO0001R	0.10	0.02		0.37	0.67	0.23	2.78	1346
Portugal	PT0003R		0.43		2.60	4.54	0.95	7.77	792
	PT0004R		0.43		0.94	0.74	1.15	8.43	355
	PT0010R		0.43		1.21	0.65	1.24	32.01	977
Spain	ES0008R	0.16	0.07	74.93	14.74	3.55	51.77	80.16	1016
Sweden	SE0097R	0.15	0.03	0.19	1.12	0.59	0.29	5.10	1168
United Kingdom	GB0006R	0.18	0.01	0.08	0.22	0.11	0.20	5.03	1444
Kingdom	GB0013R	0.06	0.01	0.07	0.20	0.26	0.15	1.18	1403
	GB0017R	0.11	0.02	0.06	0.56	0.57	0.22	7.18	586
	GB0091K	0.08	0.01	0.06	0.21	0.21	0.07	1.45	821

■ highest concentrations    ■ second highest concentrations    ■ lowest concentrations

Table 3.1: Reported mean concentrations of heavy metals in precipitation ( $\mu\text{g/l}$ ).



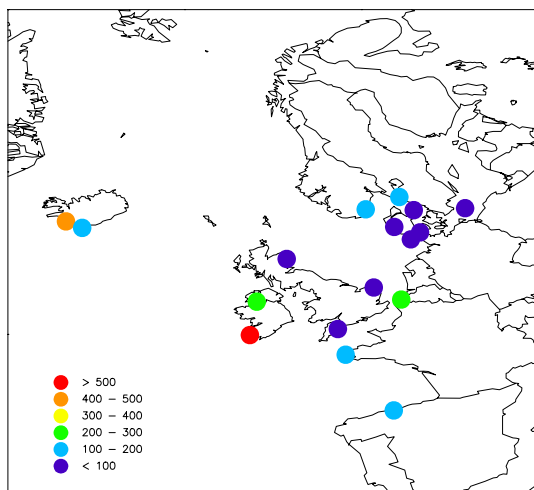


Figure 3.1: As depositions 2007,  $\mu\text{g}/\text{m}^2$  p.a.

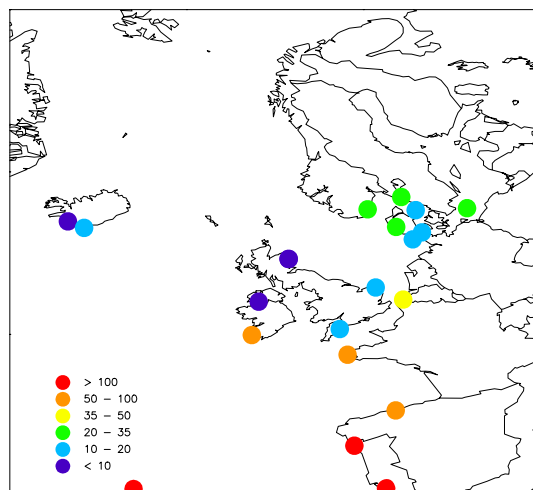


Figure 3.2: Cd depositions 2007,  $\mu\text{g}/\text{m}^2$  p.a.

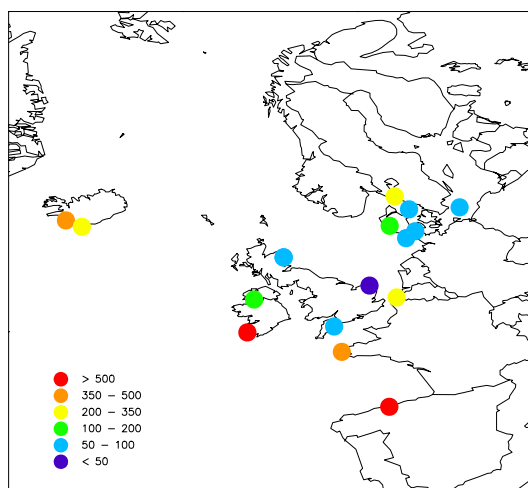


Figure 3.3: Cr depositions 2007,  $\mu\text{g}/\text{m}^2$  p.a.

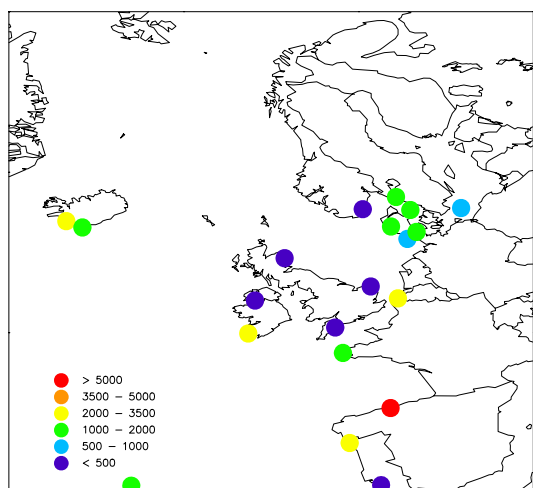


Figure 3.4: Cu depositions 2007,  $\mu\text{g}/\text{m}^2$  p.a.

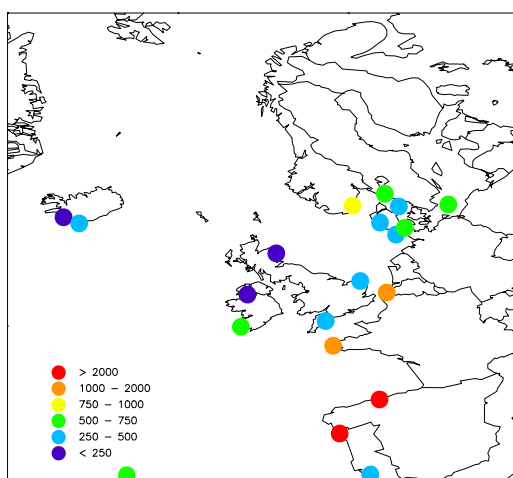


Figure 3.5: Pb depositions 2007,  $\mu\text{g}/\text{m}^2$  p.a.

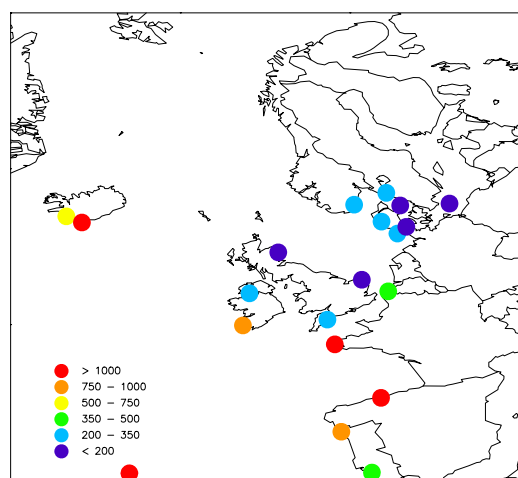


Figure 3.6: Ni depositions 2007,  $\mu\text{g}/\text{m}^2$  p.a.

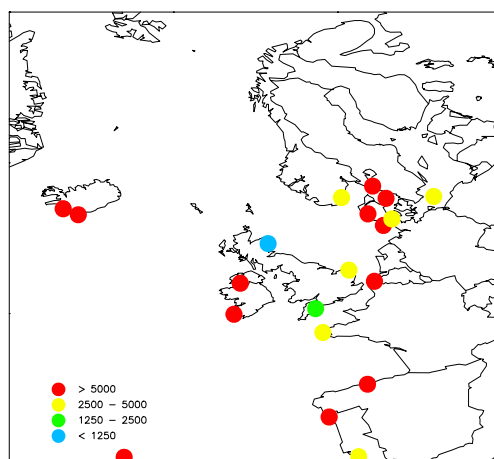


Figure 3.7: Zn depositions 2007,  $\mu\text{g}/\text{m}^2$  p.a.

2007		arsenic $\mu\text{g}/\text{m}^2$	cadmium $\mu\text{g}/\text{m}^2$	chromium $\mu\text{g}/\text{m}^2$	copper $\mu\text{g}/\text{m}^2$	lead $\mu\text{g}/\text{m}^2$	nickel $\mu\text{g}/\text{m}^2$	zinc $\mu\text{g}/\text{m}^2$	precipitation mm
<b>Belgium</b>	BE0014R	236	44	229	2541	1160	381	9638	819
<b>Denmark</b>	DK0008R	78	15	85	1308	426	157	6188	639
	DK0020R	60	32	76	976	611	198	2899	615
	DK0031R	67	31	112	1093	453	217	6950	1007
<b>France</b>	FR0090R	122	66	488	1327	1548	2209	4097	1225
<b>Germany</b>	DE0001R	70	16	74	571	418	211	5960	696
<b>Iceland</b>	IS0090R	435	8	487	2066	229	694	5097	1041
	IS0091R	100	18	211	1013	342	1550	15932	1883
<b>Ireland</b>	IE0001R	673	67	674	2321	673	831	12932	1347
<b>Netherlands</b>	NL0009R	not delivered							
	NL0091R	not delivered							
<b>Norway</b>	NO0001R	133	32		499	900	304	3735	1346
<b>Portugal</b>	PT0003R		337		2057	3598	753	6155	792
	PT0004R		151		332	262	407	2988	355
	PT0010R		415		1186	630	1208	31277	977
<b>Spain</b>	ES0008R	161	83	76156	14984	3605	52621	81471	1016
<b>Sweden</b>	SE0097R	171	31	219	1305	682	343	5944	1168
<b>United Kingdom</b>	GB0006R	257	7	112	323	153	293	7269	1444
	GB0013R	90	11	93	287	370	216	1652	1403
	GB0017R	67	12	34	337	332	127	4210	586
	GB0091R	66	6	52	172	226	60	1201	827

all 12 monthly samples except a=11months, b=10months, c=8months, d=6months

highest depositions      second highest depositions      lowest depositions

Table 3.2: Reported mean annual depositions of heavy metals in precipitation( $\text{mg}/\text{m}^2/\text{a}$ ). precipitation amounts are given in mm. No. months represented according to the key.

### 3.2 Mercury

The broad comparison in observed concentrations and depositions around the southern North Sea, from Norway around the coast to the United Kingdom, provides some reassurance as to the quality of these measurements. Concentrations of this order are broadly typical for the whole North Atlantic region. Whilst natural oceanic emissions could influence Atlantic seaboard concentrations, in the case of western Ireland the high values appear to reflect high detection limits. Indeed, the estimated average concentration has been exactly the same for many years at this site, and is five times greater than at any other reporting site. It is also interesting to see the role of precipitation in delivering airborne concentrations to the sea. For the two UK sites, concentrations in precipitation are very close. However, total depositions are over 8x different due simply to precipitation quantity. This is an illustration of the value of deposition data over concentrations alone.

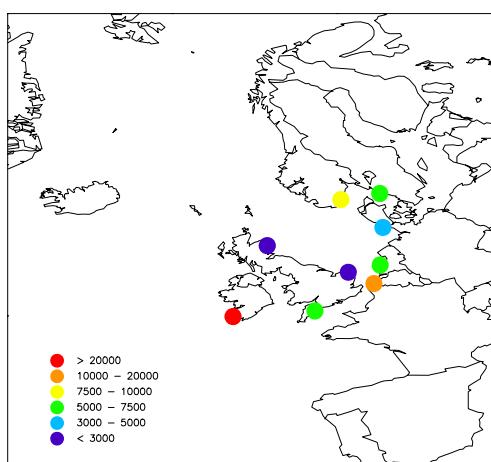


Figure 3.8: Mercury depositions 2007, ng/m<sup>2</sup> p.a

2007		conc ng/l	prec mm	dep ng/m <sup>2</sup>
<b>Ireland</b>	IE0001R	50.00	1347	67350
<b>Belgium</b>	BE0014R	10.64	964	10257
<b>Norway</b>	NO0001R	6.3	1441	9078
<b>Netherlands</b>	NL0091R	9.61	760	7304
<b>Sweden</b>	SE0014R	11	632	6952
<b>Germany</b>	DE0001R	6.29	714	4491
<b>United Kingdom</b>	GB0091R	4.644	1262	5861
	GB0013R	4.021	192	772
<b>Denmark</b>		•		
<b>France</b>		•		
<b>Iceland</b>		•		
<b>Portugal</b>		•		
<b>Spain</b>		•		

•

no data reported

same each year

difference due only to precipitation amount

Table 3.3: Reported depositions of mercury in precipitation (ng/m<sup>2</sup>), 2007, together with associated concentrations (ng/l). Ranked by deposition quantity.

### 3.3 Lindane

Consistency across results affords confidence in much of the lindane data delivered. Most importantly in 2007, the benefits of methodological improvements undertaken by Belgium are revealed. Estimated deposition for recent years are quoted for comparative purposes, and show an apparent fall of around 80% from 2006 to 2007 in depositions on the Belgian coast. In reality, introduction of a revised analytical technique is now revealing depositions to be of similar magnitude to other parts of the North Sea coastline. Improvements in the Netherlands are also expected to yield such benefits in the coming year.

A difference of around one third and more in depositions between 2004 and 2007 is seen reasonably consistently across the region and hence supports the reality of the decline. In Germany, Belgium, and Sweden declines have been steady, despite three different techniques being used. Only Iceland does not show such decline, although depositions are perhaps 20x lower already.

Table 3.4: Reported annual concentrations of  $\gamma$ -HCH in precipitation (ng/l) and deposition ( $\text{ng}/\text{m}^2$ ), plus percentage change 2004-7.

		concentration	precipitation	2007 deposition	2006 deposition	2005 deposition	2004 deposition	% change
		ng/l	mm	$\text{ng}/\text{m}^2$	$\text{ng}/\text{m}^2$	$\text{ng}/\text{m}^2$	$\text{ng}/\text{m}^2$	2004-7
Netherlands	NL0091R-2006	3.34	831.00	2777	3240	5008	4861	-42.9
Germany	DE0001R	0.78	723.00	567	685	798	943	-39.9
Norway	NO0001R	0.40	1423.00	565	850	833	845	-33.1
Belgium	BE0014R	0.39	1223.00	476	2462	4369	3083	-84.6
Sweden	SE0014R wet+dry			103	157	197	299	-65.6
Iceland	IS0091R	0.03	850.00	29	31	29	39	-26.7
Denmark		●						
France		●						
Ireland		●						
Portugal		●						
Spain		●						
United Kingdom		●						
●	no data reported							
●	effect or change in methodology							
●	detection limit likely far greater than environmental concentrations							

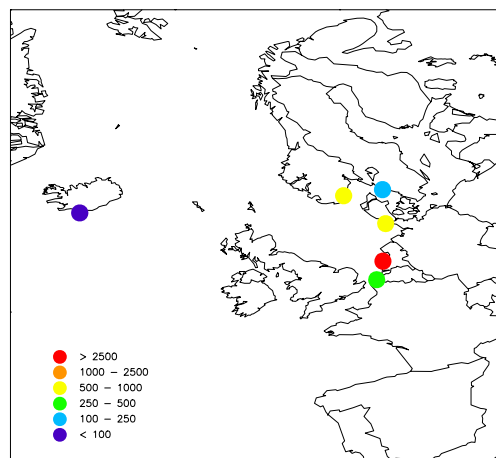
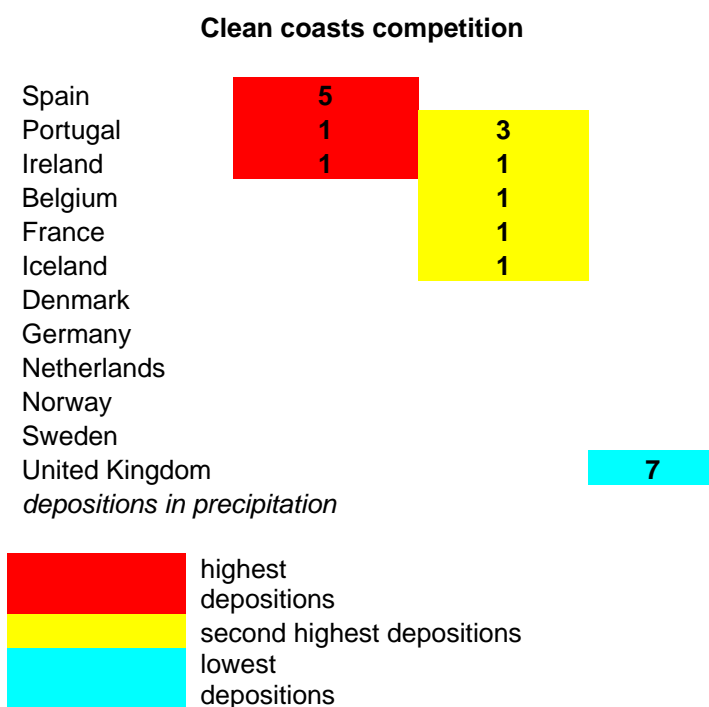


Figure 3.9: Lindane depositions 2007  $\text{ng}/\text{m}^2$

### 3.4 Overview of coastal depositions of toxic substances

Of the Mandatory substances, the metals excluding mercury have been reported by all countries. The depositions of these components in precipitation around the coasts of the OSPAR area can be summarised in terms of their highest and lowest values. In figure 3.10 this has been done. The red indicates in which countries the highest depositions have been observed, the yellow indicates the second highest depositions, and the blue indicates the lowest depositions in precipitation. The numbers indicate the number of pollutants for which the category applies; there being seven metal components in the Mandatory list, each colour is shown on seven occasions.



*Figure 3.10 Simple ranking between countries of the largest and the smallest quantities of metals reported as deposited in precipitation. Numbers refer to the number of components to which the category applies. Only highest, second highest, and lowest depositions are ranked. Remaining mid-range depositions shown in alphabetical order*

The list is not surprising in many ways, considering the basic geography of the OSPAR area. The western extremes receive less metal deposition than the southern North Sea. What is more curious are the very high values in Spain and Ireland. At least a part of this picture is dictated by data quality, with some very high detection limits, and maybe other sampling and analysis problems. That the UK coasts show lowest levels of pollutant depositions for all metals is also curious. To be certain of such quality a review by the UK might confirm that samples are not unintentionally stripped during analysis. However, for all observations there is insufficient information to be categorical.

## Nitrogen

2007		nitrate concentrations mg/l	ammonium concentrations mg/l	precip mm	nitrate depositions mg/m <sup>2</sup>	ammonium depositions mg/m <sup>2</sup>
Belgium	BE0014R	0.36	0.50	819	295	410
Germany	DE0001R	0.49	0.55	719	356	393
Denmark	DK0005R	0.50	0.56	601	301	337
	DK0008R	0.36	0.19	598	215	114
	DK0020R	0.48	0.96	618	297	593
France	FR0090R	0.56	0.16	1225	686	196
Iceland	IS0090R	0.12	0.33	1041	125	344
	IS0091R	0.18	0.69	1883	339	1299
Ireland	IE0001R	0.07	0.14	1347	94	189
Netherlands	NL0009R					
	NL0091R					
Norway	NO0001R	0.33	0.28	1441	476	403
	NO0039R	0.04	0.11	1930	77	212
	NO0057R	0.05	0.12	304	15	36
Portugal	PT0003R	0.08	0.30	792	63	238
	PT0004R	0.26	0.21	355	92	75
	PT0010R	0.04	0.11	977	39	107
Spain	ES0008R	0.51	0.48	575	293	276
Sweden	SE0014R	0.35	0.37	860	301	318
United Kingdom	GB0006R	0.09	0.17	1089	98	185
	GB0013R	0.18	2.48	1201	216	2978
	GB0014R	0.36	0.53	1148	413	608
	GB0016R	0.32	0.50	1198	383	599

highest
  second highest
  lowest

Table 3.5: Mean annual nitrogen concentrations (mg/l) and depositions (mg/m<sup>2</sup>) nitrogen, 2007

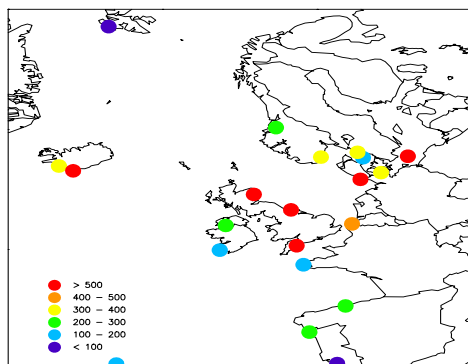


Figure 3.11: NH<sub>4</sub> depositions, mg N/m<sup>2</sup> p.a.

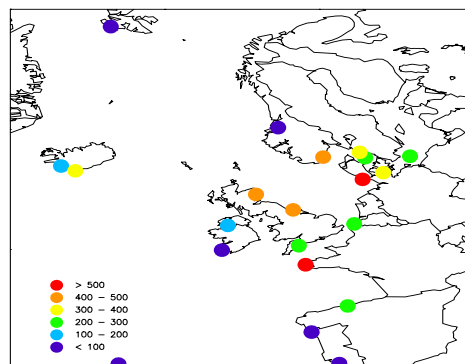


Figure 3.12: NO<sub>3</sub> depositions, mg N/m<sup>2</sup> p.a.

#### 4 Deposition changes in lindane, nitrogen and mercury. Overview contributions to the CAMP review.

The following short overviews are intended as potential text box contributions to the CAMP review. They have been constructed as approximately 300 word pieces with illustrations.

##### 4.1 Lindane: going, going, .....but not quite gone

Lindane is an example of a biocide which has been phased out in Europe, and for which levels now being deposited to the seas has fallen dramatically. The improvement, however, has taken a period of time to be fully evident. OSPAR's Comprehensive Atmospheric Monitoring Programme has been able to track these changes independently of the official expectations.

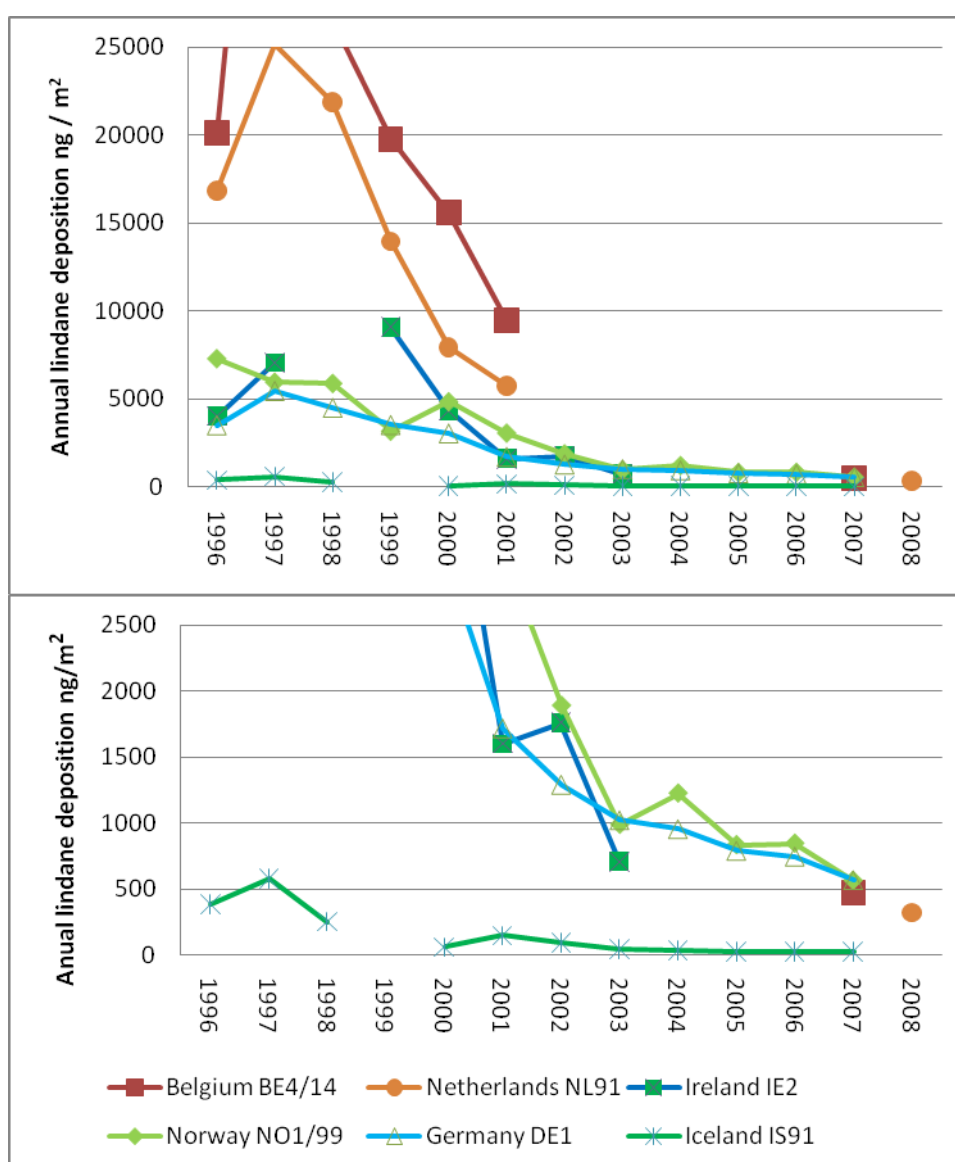


Figure 4.1 Sharp decline in late 1990s continues gently to today. Southern North Sea depositions remain notably above background levels (peaks for BE4/14: 1997=53589; 1998=26560)

During the later 1990s lindane was phased out across Europe, France completing the process in 1999. Observations made by CAMP do show a dramatic decrease in

the quantities being deposited to the coasts in precipitation at this time, yet lindane continued to be observed for several years. Moreover, a clear seasonal pattern persisted with a spring peak to depositions each year. This suggests that lindane was still being used after 1999, for example as stockpiles were rundown.

Although a decline has been seen everywhere there is a clear decrease in observed depositions of lindane with distance from mainland Europe. By 2007, approximately a decade after the peak, observed depositions in the southern North Sea had fallen by a factor of upto 50, as they had also done on the coasts of Iceland. However, during this decade the southern North Sea depositions have only just fallen to the levels seen in Iceland at the peak ten years ago.

Lindane is still found in the atmosphere. Some continued European use is one explanation, as is continental-scale transport from as far as Asia where use continues. Re-release from the environment also occurs, one potential pathway with current topical interest being release as ice melts in the high Arctic.

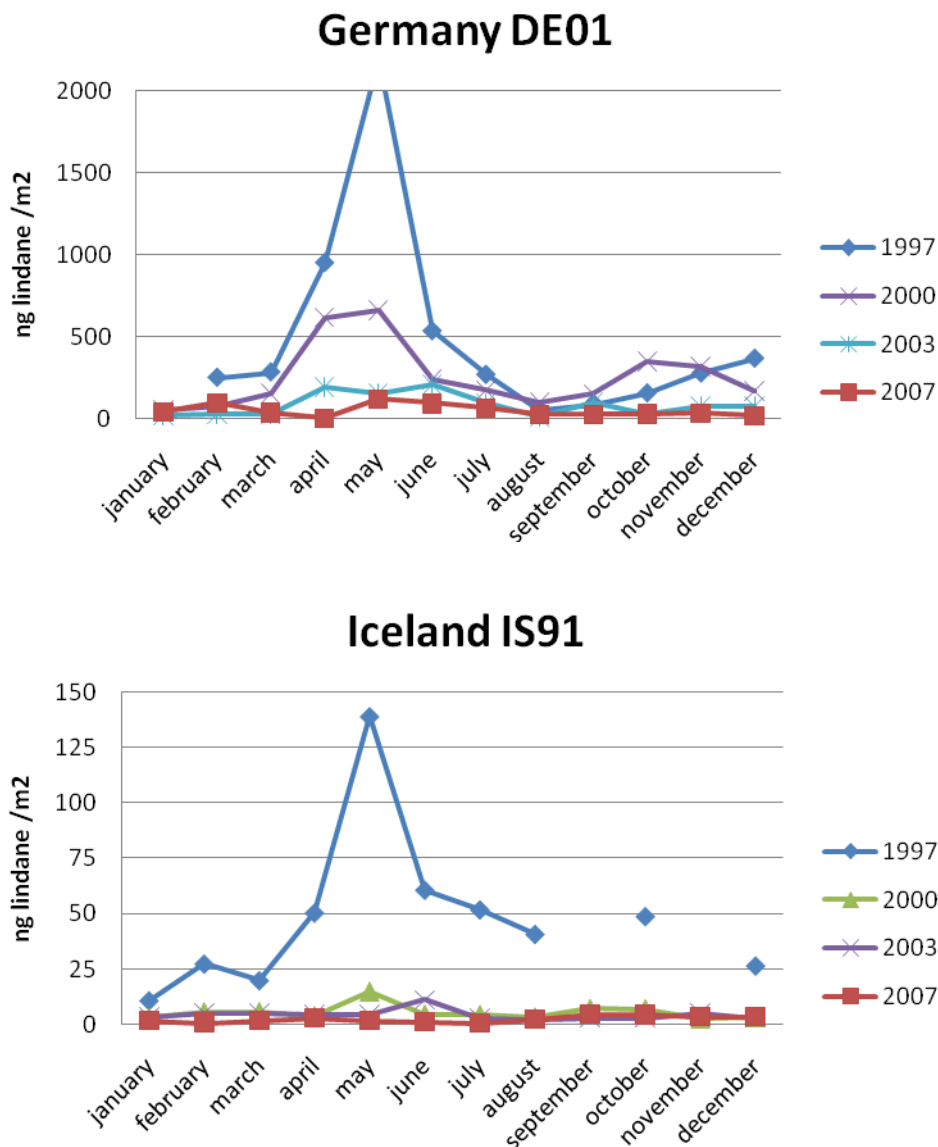


Figure 4.2: The Europe-wide decline in the strength of the spring peak to lindane deposition.



## 4.2 Estimated total depositions of nitrogen to the North Sea in the first years of the 21<sup>st</sup> century

Whilst negotiated international agreements aim to deliver notable reductions in the emissions of nitrogen to the atmosphere, progress has been slower than originally wished for. Although calculated nitrogen emission estimates provided by European countries do largely point downwards, recent evaluations suggest that many countries may not attain targets.

CAMP data offers the opportunity for an independent assessment of progress in reducing nitrogen emissions, given that reductions in final depositions is the desired outcome of the emission reduction policies. Indeed, the CAMP review of monitoring station data does reveal that only a minority of stations are reporting a significant downward trend in nitrogen depositions, even though model calculations suggested a significant downward trend in nitrogen for the North Sea, region II where most stations are located. When the observations are used to derive independent deposition estimates the position becomes more equivocal. The OSPAR Method 3a is essentially an extrapolation technique weighting the multi-station combined series of coastal observations each year according to estimated over-sea deposition patterns. Figure 4.3 suggests that although there may have been a decline since 2000 in total nitrogen depositions to the North Sea, in the past four years depositions have been largely unchanging, with even a hint of an increase.

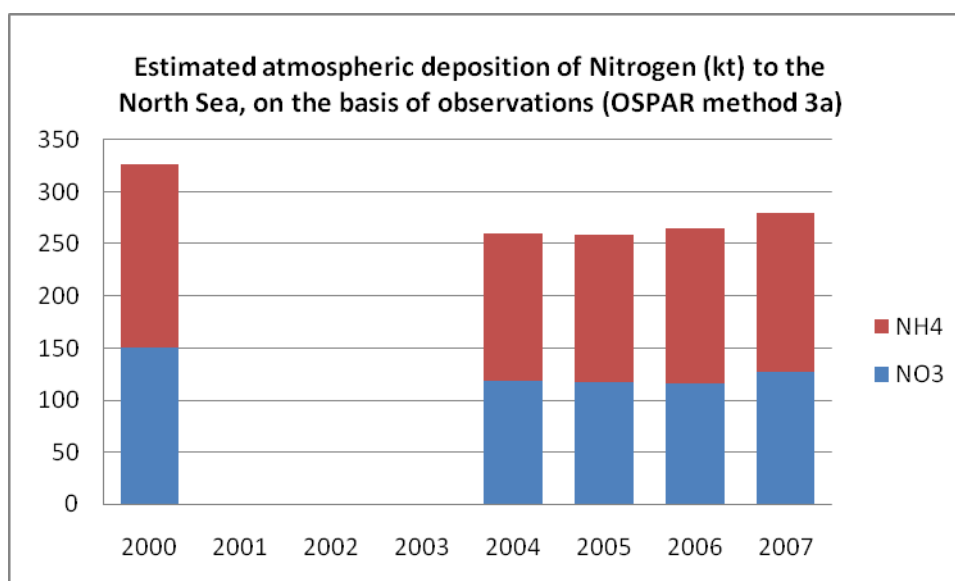


Figure 4.3 Stagnation in the reduction to nitrogen depositions. The OSPAR Method 3a combines and extrapolates multiple site CAMP observations to provide an independent evaluation of predicted deposition changes.

Looking at observations from individual monitoring station provides a variable picture. In figure 4.4 the background nitrate depositions which occur on OSPARs western coasts is illustrated from Ireland, representing an amalgamation of Europe's influence on the wider Atlantic, with the general hemispheric influence

on OSPAR waters. Largely unchanging concentrations on the far coastal margin further suggests that any changes in nitrate deposition that have occurred can be expected to have been quite localised. This fact is illustrated by the Danish record of ammonium deposition on the southern North Sea coast, which shows dramatic inter-annual variations. The higher concentrations result from station proximity to emission sources, and the shorter transport distances of ammonium compared to nitrate. Although meteorological variations will play a significant role here, as far as depositions experienced by the North Sea are concerned once again no marked downward trend is seen.

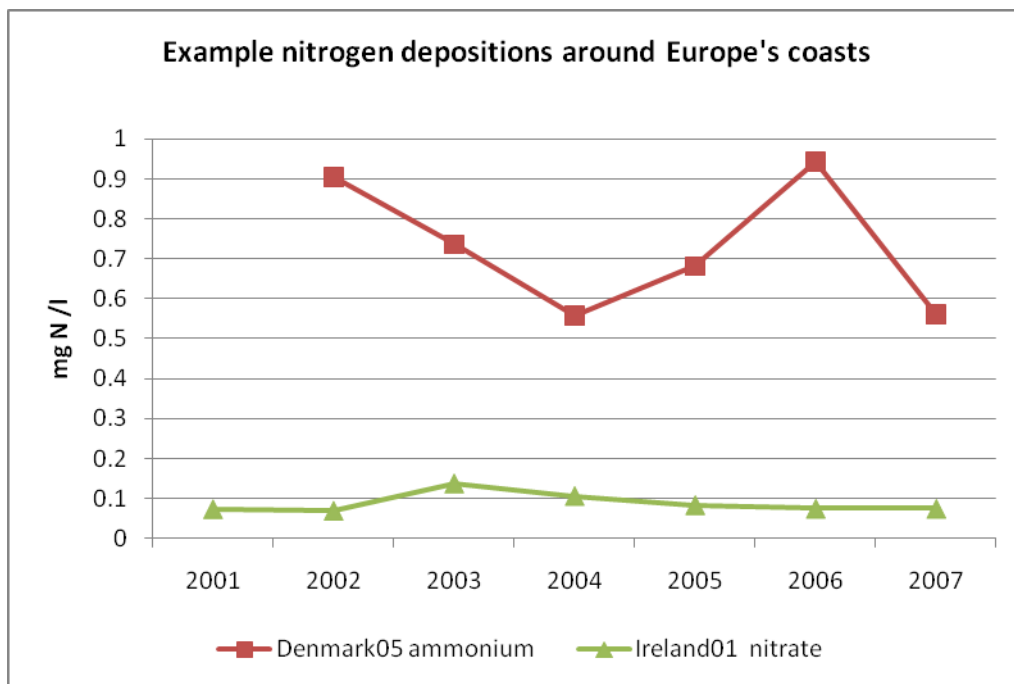


Figure 4.4 Restricted changes to nitrate depositions observed on the Atlantic coastline, whilst sharp inter-annual variations occur to ammonium deposition in the southern North Sea, subject to shorter and variable atmospheric transport.

### 4.3 Mercury in coastal precipitation and in the air

CAMP's observation of mercury levels in precipitation and in the air around its coasts has special relevance now that UNEP has decided to press forward with a global mercury agreement (UNEP Governing Council, February 2009), and that the European Union moving forward with its own mercury policy. These records provide a view of past changes and current state which can inform these policy initiatives and which can provide a benchmark.

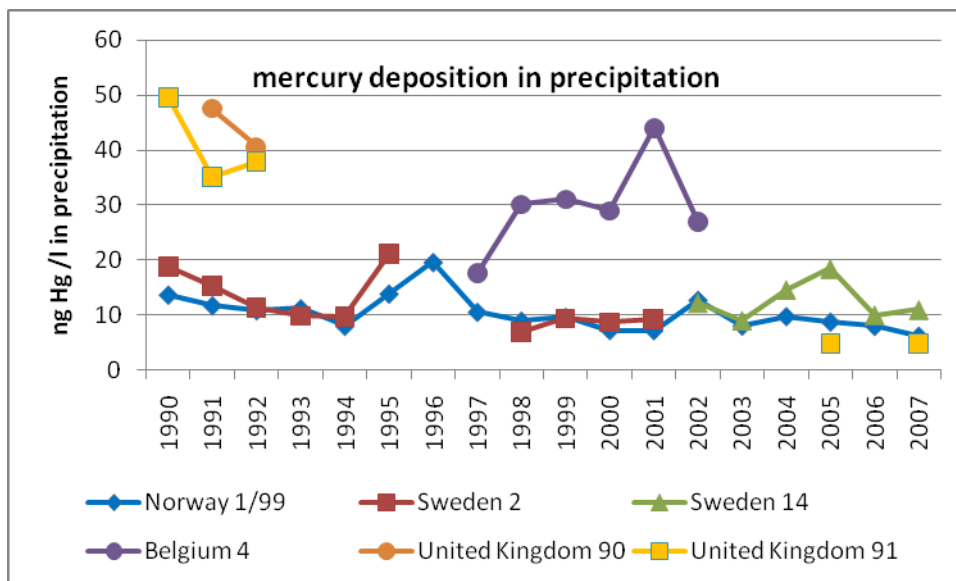


Figure 4.5: All sites have seen a decline in the mercury content to precipitation, changes being greater nearer to Europe's continental heartland. With annual precipitation upto approximately 1400mm, depositions in precipitation are now currently mostly under 10mg Hg /m<sup>2</sup>

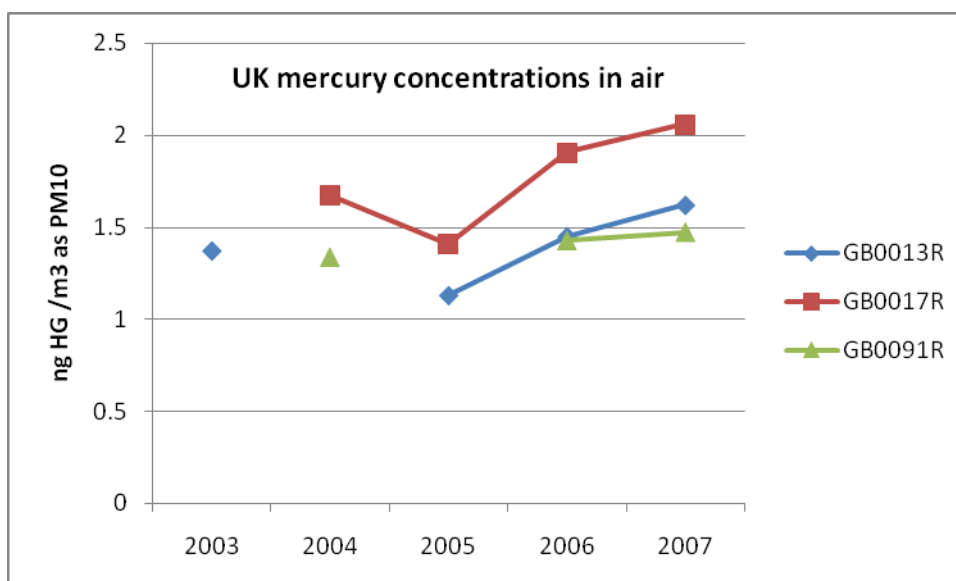


Figure 4.6: Regular reporting of mercury concentrations in air has been relatively recent. Current tendencies do not show a decline, and warrant careful future monitoring.

Observations of the concentrations of mercury found in precipitation provide the longest records held by CAMP. Indeed, for Birkenes/Lista on the southern tip of Norway CAMP holds a continuous record stretching nearly two decades. Records from 1990 are shown in figure 4.5. The reliability of these observations is evidenced by comparable concentrations being observed on the Swedish coast. The CAMP record also indicates the more localised changes which have been seen closer to source regions. Records from Belgium and the United Kingdom reveal much higher concentrations in the beginning and middle of the period, the latter station in 2007 having seen a five-fold fall in precipitation concentrations from its 1990 peak. Scandinavian sites have seen a halving of concentrations, all coastal locations now reporting under 10 ng/l mercury in precipitation.

Observations of mercury in air have only recently been reported under the CAMP, giving a short record over recent years. Figure 4.6 displays the observations made in the United Kingdom at three monitoring sites. Whilst concentrations are low, they have nevertheless crept upwards by about one third over the past four years. It is not possible to exclude meteorological factors as a reason for this, but observations of rising mercury air concentrations on OSPAR coasts does provide a measure to watch carefully in the future.

## 5 Final observations

Reporting of CAMP data for 2007 was more rapid and timely than has been achieved before, with all except one Party delivering observation data before the deadline. This is a dramatic improvement upon 2006 which had been one of the most delayed reporting years.

The rates of data submission for the Mandatory Programmes have been artificially hobbled slightly by extensive quality control work undertaken by the Netherlands following methodological changes at its stations. The depth of this work has simply delayed and will not prevent submission of observations results, but it means that by report compilation reporting of observations was lower than normal. Without this delay, rates of submission would have been expected to be high. Nevertheless, several Parties do not report any data from the Mandatory Programme for airborne concentrations, or from the Voluntary Programmes. This picture is relatively unchanging, and would appear to indicate that the airborne concentration programme simply does not command support. In the precipitation programme it is consistently Mercury and Lindane, which regularly are not fully reported

Important methodological improvements in analysis gave clearly observable benefits in 2007. Indeed, this improvement adds notably weight to the picture of uniformly low and declining rates of deposition across the North Sea for toxic substances. That lindane is largely being deposited from the atmosphere over OSPAR region distances is suggested by the very much lower depositions reported for Iceland compared to the North Sea. Depositions appear to be showing a relatively consistent decline across most monitoring stations. That this decline is continuing seven years after final phase out of lindane in Europe is a demonstration of the benefit in maintaining monitoring programmes beyond timeframes of managerial action. Nevertheless there is evidence of small depositions arriving from very distant sources

Translation of nitrogen observations into estimated depositions indicates no observable improvement in the level of depositions during recent years. The CAMP provides independent verification that actual changes in emissions may be more restricted than had been anticipated when agreements were signed.

Mercury depositions in precipitation fell dramatically since 1990, but in recent years have shown little change. Observations of mercury concentrations in air around OSPAR coasts also suggests no improvement in the last 3 or 4 years.

As in previous years, some countries provided extensive reporting of components not required by CAMP (as mandatory or voluntary component). Some countries reported more non-CAMP than CAMP components.



## **Appendix A**

### **Reported monthly observations of mandatory, voluntary, and additionally reported components**

(Major ions used solely for quality assurance are not listed)

**Belgium  
Denmark  
France  
Germany  
Iceland  
Ireland  
Netherlands  
Norway  
Portugal  
Spain  
Sweden  
United Kingdom**

## BELGIUM

Components in Precipitation														
Mandatory 2007	station	units	month											
			january	february	march	april	may	june	july	august	september	october	november	december
ammonium	BE0014R	mg/l	0.169	0.520	0.293		0.822	0.854	0.376	0.664	0.475	0.266	0.889	0.205
nitrate	BE0014R	mg/l	0.121	0.248	0.298		0.495	0.382	0.280	0.862	0.363	0.270	0.572	0.094
precipitation	<i>nitrogen</i>	mm	66.3	72.2	57.3		49.6	116.8	134.1	94.4	42.5	70.1	36.0	79.7
arsenic	BE0014R	µg/l	0.264	0.265	0.265		0.265	0.265	0.265	0.265	0.265	0.265	0.585	0.265
cadmium	BE0014R	µg/l	0.025	0.025	0.039		0.080	0.050	0.044	0.046	0.101	0.025	0.103	0.116
chromium	BE0014R	µg/l	0.264	0.265	0.265		0.265	0.265	0.265	0.265	0.265	0.265	0.465	0.265
copper	BE0014R	µg/l	0.942	0.861	1.316		2.351	5.916	3.143	7.040	2.388	2.319	1.056	1.907
lead	BE0014R	µg/l	0.993	0.642	0.773		1.692	0.849	1.510	1.546	1.382	1.256	4.115	2.100
mercury	BE0014R	ng/l	11.920	7.361	8.260		12.077	13.277	9.820	14.216	14.016	5.540	8.957	5.857
nickel	BE0014R	µg/l	0.470	0.265	0.430		0.373	0.265	0.452	1.573	0.572	0.265	0.265	0.311
zinc	BE0014R	µg/l	15.542	5.262	6.356		18.473	9.729	15.386	16.589	5.269	20.293	5.267	7.100
precipitation	<i>metals ex. Hg</i>	mm	66.5	81.2	52.0		54.5	151.4	111.6	77.4	38.0	73.4	58.2	50.9
precipitation	<i>mercury</i>	mm	79.1	88.2	65.4		69.5	175.0	129.8	78.9	101.8	29.6	35.1	122.7
g-HCH	BE0014R	ng/l	0.720	0.200	0.200		0.810	0.620	0.490	0.200	0.450	0.200	0.200	0.200
precipitation	<i>g-HCH</i>	mm	55.5	156.0	40.8		88.5	164.1	211.6	134.9	71.8	121.6	148.3	50.4
Percentage completion of mandatory programme														91.7 <i>estimat</i>
<b>Voluntary</b>														
2007														
PCB_28			<i>not reported</i>											
PCB_52			<i>not reported</i>											
PCB_101			<i>not reported</i>											
PCB_118			<i>not reported</i>											
PCB_138			<i>not reported</i>											
PCB_153			<i>not reported</i>											
PCB_180			<i>not reported</i>											
anthracene			<i>not reported</i>											
benzo(a)anthracene			<i>not reported</i>											
benzo(a)pyrene			<i>not reported</i>											
benzo(ghi)perylene			<i>not reported</i>											
chrysene+triphenylene			<i>not reported</i>											
flouranthene			<i>not reported</i>											
indeno(123cd)pyrene			<i>not reported</i>											
phenanthrene			<i>not reported</i>											
pyrene			<i>not reported</i>											
Percentage completion of voluntary programme														0.0
<b>additional non-CAMP components</b>														
2007														
aldrin	BE0014R	ng/l	0.450	0.450	0.450		0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450
alpha_HCH	BE0014R	ng/l	0.350	0.350	0.350		0.350	0.350	0.350	0.350	0.350	0.350	0.350	0.350
dieldrin	BE0014R	ng/l	0.200	0.200	0.200		0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
endrin	BE0014R	ng/l	0.550	0.550	0.550		0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550
heptachlor	BE0014R	ng/l	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
pp_DDD	BE0014R	ng/l	0.500	0.500	0.500		0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
pp_DDE	BE0014R	ng/l	0.700	0.700	0.700		0.700	0.700	0.700	0.700	0.700	0.700	0.700	0.700
pp_DDT	BE0014R	ng/l	0.500	0.500	0.500		0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
precipitation	BE0014R	mm	55.5	156.0	40.8		88.5	164.1	211.6	134.9	71.8	121.6	148.3	50.4
number of additional components reported														8



BELGIUM														
Airborne components														
2007														
Mandatory	station	units	month											
			january	february	march	april	may	june	july	august	september	october	november	december
NO2	BE0011R	µg/m <sup>3</sup>	5.48	7	6.09	7.3	3.96	3.96	3.04	3.65	3.96	7.3	7	8.52
	BE0013R	µg/m <sup>3</sup>	4.26	6.09	5.78	7.61	3.96	3.65	2.43	3.65	3.65	7	5.78	6.7
HNO3			<i>not reported</i>											
NO3			<i>not reported</i>											
HNO3+NO3			<i>not reported</i>											
NH3			<i>not reported</i>											
NH4			<i>not reported</i>											
NH3+NH4			<i>not reported</i>											
<i>Percentage completion of mandatory programme</i>														<b>33.3</b>
Voluntary														
2007														
NO	BE0011R	µg/m <sup>3</sup>	0.93	2.33	1.87	1.4	0.47	0.47	0.47	0.93	0.93	3.27	1.4	8.87
	BE0013R	µg/m <sup>3</sup>	0.93	1.4	1.4	2.33	0.47	0.47	0.47	0.93	0.93	2.33	0.93	7.47
arsenic	BE0014R	ng/m <sup>3</sup>	0.818	1.351	1.416	1.254	0.628	0.647	1.007	0.606	0.649	1.127	0.924	0.727
cadmium	BE0014R	ng/m <sup>3</sup>	0.276	0.389	0.458	0.473	0.202	0.187	0.232	0.173	0.172	0.104	0.13	0.106
chromium	BE0014R	ng/m <sup>3</sup>	4.75	4.36	5.544	4.957	5.176	5.538	6.116	5.245	6.123	7.653	6.947	4.193
copper	BE0014R	ng/m <sup>3</sup>	8.021	9.547	10.699	10.449	6.583	7.037	7.916	11.402	9.762	11.766	9.731	8.598
lead	BE0014R	ng/m <sup>3</sup>	9.15	15.977	14.427	13.129	7.297	6.451	7.083	7.035	7.118	13.691	11.39	10.511
mercury	BE0014R	ng/m <sup>3</sup>	2.009	2.124	2.124	1.752	1.663	1.637	1.487	1.497	1.373	1.654	1.283	1.824
	BE0014R	ng/m <sup>3</sup>	11.92	7.361	8.26	-9999.99	12.077	13.277	9.82	14.216	14.016	5.54	8.957	5.857
nickel	BE0014R	ng/m <sup>3</sup>	4.427	4.824	7.444	12.687	7.385	7.931	5.947	5.786	4.932	8.102	4.633	3.898
zinc	BE0014R	ng/m <sup>3</sup>	41.904	51.852	44.216	43.288	30.323	33.302	55.788	38.396	49.063	44.94	35.451	32.245
PCB_28			<i>not reported</i>											
PCB_52			<i>not reported</i>											
PCB_101			<i>not reported</i>											
PCB_118			<i>not reported</i>											
PCB_138			<i>not reported</i>											
PCB_153			<i>not reported</i>											
PCB_180			<i>not reported</i>											
anthracene			<i>not reported</i>											
benzo(a)anthracene			<i>not reported</i>											
benzo(a)pyrene			<i>not reported</i>											
benzo(ghi)perylene			<i>not reported</i>											
chrysene			<i>not reported</i>											
flouranthene			<i>not reported</i>											
g-HCH			<i>not reported</i>											
indeno(123cd)pyrene			<i>not reported</i>											
phenanthrene			<i>not reported</i>											
pyrene			<i>not reported</i>											
<i>Percentage completion of voluntary programme</i>														<b>34.6</b>

## DENMARK

Components in Precipitation														
2007														
Mandatory	station	units	month											
			january	february	march	april	may	june	july	august	september	october	november	december
ammonium	DK0005R	mg/l	0.408	1.006	1.002	3.163	0.859	0.281	0.379	0.831	0.34		0.506	0.36
	DK0008R		0.14	0.414	0.297	0.533	0.232	0.129	0.099	0.321	0.063	0.274	0.394	0.29
	DK0020R		2.752	0.684	0.94	1.199	1.308	0.306	0.299	0.788	1.301	4.867	0.292	0.197
nitrate	DK0005R	mg/l	0.374	1.112	0.667	3.449	0.804	0.277	0.324	0.491	0.228		0.472	0.495
	DK0008R		0.252	0.679	0.656	0.582	0.528	0.255	0.191	0.387	0.236	0.581	0.749	0.658
	DK0020R		0.401	0.911	0.778	0.812	0.546	0.326	0.256	0.442	0.467	1.252	0.489	0.376
precipitation nitrogen	DK0005R	mm	85.49	62.036	31.931	0.691	59.173	94.086	125.308	54.529	33.689		15.442	40.081
	DK0008R		61.217	48.318	24.745	9.624	35.264	102.899	147.236	42.254	62.695	17.958	13.736	33.759
	DK0020R		65.213	44.565	35.588	13.796	61.707	73.767	114.195	44.732	48.595	15.169	49.927	49.179
arsenic	DK0008R	µg/l	0.099	0.306	0.182	0.398	0.208	0.129	0.057	0.177	0.089	0.106	0.128	0.075
	DK0020R		0.059	0.209	0.138		0.276	0.111		0.061	0.057	0.059	0.029	0.034
cadmium	DK0008R	µg/l	0.018	0.073	0.024	0.06	0.034	0.018	0.016	0.037	0.014	0.027	0.048	0.011
	DK0020R		0.023	0.062	0.055		0.055	0.036		0.032	0.075	0.314	0.048	0.019
chromium	DK0008R	µg/l	0.085	0.17	0.177	0.494	0.523	0.109	0.06	0.173	0.093	0.128	0.16	0.071
	DK0020R		0.075	0.209	0.134		0.223	0.146		0.143	0.123	0.148	0.058	0.065
	DK0031R		0.034	0.038	0.907	0.606	0.135	0.067	0.051	0.091	0.067	0.088	0.065	0.039
copper	DK0008R	µg/l	6.688	3.449	2.846	2.25	2.4	1.419	0.775	1.352	0.695	0.965	2.065	0.848
	DK0020R		6.078	0.826	0.798		1.387	0.785		0.635	1.03	2.86	0.55	0.428
lead	DK0031R		0.682	0.887		3.131	3.449	0.526	0.423	0.6	0.552	6.211	0.341	0.219
	DK0008R	µg/l	0.425	1.623	0.927	1.879	1.262	0.599	0.326	1.067	0.472	0.738	1.472	0.537
	DK0020R		0.614	2.089	1.256		2.012	0.923		0.869	0.809	1.371	0.648	0.449
DK0031R		0.275	0.428	0.735	1.95	0.727	0.304	0.273	0.287	0.228	0.667	0.998	0.542	
mercury			not yet received											
nickel	DK0008R	µg/l	0.222	0.391	0.397	0.892	0.399	0.198	0.124	0.267	0.169	0.22	0.416	0.462
	DK0020R		0.257	0.458	0.794		0.349	0.265		0.25	0.392	0.404	0.222	0.132
	DK0031R		0.186	0.168	0.446	1.448	0.267	0.211	0.182	0.209	0.146	0.197	0.144	0.193
zinc	DK0008R	µg/l	6.939	14.127	8.39	25.514	61.022	7.527	3.228	6.896	5.713	7.239	13.284	3.298
	DK0020R		4.626	9.252	11.932		6.657	6.33		4.515	6.782	22.387	6.565	4.524
	DK0031R		7.23	8.929	21.222	20.975	7.954	7.403	4.018	5.087	4.33	5.159	4.004	3.983
precipitation metals ex. Hg	DK0008R	mm	82.341	28.052	32.438	11.602	35.939	106.354	153.341	45.924	77.172	22.424	9.944	0
	DK0020R		61.922	15.998	40.281	15.234	54.273	57.577	145.804	59.92	38.954	16.138	55.273	51.714
	DK0031R		132.951	86.979	50.696	10.774	83.439	160.162	119.633	36.605	126.082	45.351	56.438	97.492
g-HCH		not yet received												
													Percentage completion of mandatory programme	81.8
<b>Voluntary</b>														
2007														
PCB_28			not reported											
PCB_52			not reported											
PCB_101			not reported											
PCB_118			not reported											
PCB_138			not reported											
PCB_153			not reported											
PCB_180			not reported											
anthracene			not reported											
benzo(a)anthracene			not reported											
benzo(a)pyrene			not reported											
benzo(ghi)perylene			not reported											
chrysene+triphenylene			not reported											
flouranthene			not reported											
indeno(123cd)pyrene			not reported											
phenanthrene			not reported											
pyrene			not reported											
													Percentage completion of voluntary programme	0.0

Airborne components														
Mandatory	station	units	month											
2007			january	february	march	april	may	june	july	august	september	october	november	december
NO2	DK0008R	µg/m <sup>3</sup>	not reported											
HNO3			not reported											
NO3			not reported											
HNO3+NO3	DK0005R	µg/m <sup>3</sup>	0.505	1.093	1.537	1.618	1.045	0.738	0.664	0.814	0.636	0.977	0.681	0.823
	DK0008R	µg/m <sup>3</sup>	0.296	0.546	1	1.066	0.759	0.559	0.419	0.572	0.447	0.683	0.56	0.97
	DK0031R	µg/m <sup>3</sup>	0.24	0.862	1.155	1.13	0.888	0.545	0.428	0.562	0.362	0.858	0.545	0.789
NH3	DK0005R	µg/m <sup>3</sup>	0.231	0.13	0.622	1.296	0.629	0.34	0.338	0.621	0.508	2.557	0.408	0.307
	DK0008R	µg/m <sup>3</sup>	0.059	0.02	0.127	0.434	0.229	0.199	0.186	0.277	0.176	0.115	0.062	0.034
	DK0031R	µg/m <sup>3</sup>	0.159	0.128	0.968	1.733	0.753	1.193	0.274	0.745	0.419	0.46	0.347	0.201
NH4	DK0005R	µg/m <sup>3</sup>	0.603	1.615	2.018	2.054	1.284	1.085	0.93	1.218	0.782	1.4	0.967	1.471
	DK0008R	µg/m <sup>3</sup>	0.287	0.898	1.314	1.275	0.937	0.64	0.465	0.738	0.471	1.03	0.776	1.194
	DK0031R	µg/m <sup>3</sup>	0.22	1.454	1.509	1.442	1.033	0.795	0.586	0.811	0.435	1.215	0.885	1.108
NH3+NH4			not reported											
Percentage completion of mandatory programme														
75.0														
Voluntary														
2007														
NO			not reported											
arsenic	DK0005R	ng/m <sup>3</sup>	0.092	0.437	0.3	0.28	0.19	0.12	0.079	0.256	0.214	0.283	0.311	0.131
	DK0008R	ng/m <sup>3</sup>	0.101	0.293	0.407	0.299	0.205	0.224	0.169	0.208	0.246	0.286	0.237	0.252
	DK0031R	ng/m <sup>3</sup>	0.076	0.317	0.325	0.305	0.16	0.221	0.112	0.212	0.162	0.41	0.404	0.252
cadmium			not reported											
chromium	DK0005R	ng/m <sup>3</sup>	0.162	0.286	0.631	0.131	0.304	0.473	0.167	0.564	0.647	0.641	0.428	0.542
	DK0008R	ng/m <sup>3</sup>	0.149	0.236	0.507	0.037	0.248	0.524	0.128	0.385	-0.034	0.551	0.192	0.556
	DK0031R	ng/m <sup>3</sup>	0.069	0.189	0.495	-0.008	0.189	0.545	0.114	0.265	0.26	0.363	0.031	0.443
copper	DK0005R	ng/m <sup>3</sup>	0.398	1.157	1.249	1.118	0.689	0.879	0.738	1.515	1.417	1.708	1.63	1.706
	DK0008R	ng/m <sup>3</sup>	0.167	0.641	0.914	0.776	0.58	0.726	0.614	1.124	0.97	1.299	0.94	1.013
	DK0031R	ng/m <sup>3</sup>	0.126	0.645	1.021	0.972	0.851	2.806	0.649	1.161	0.578	1.345	0.844	2.432
lead	DK0005R	ng/m <sup>3</sup>	1.227	5.41	4.511	2.971	1.445	2.492	1.234	3.27	2.404	4.055	3.984	4.182
	DK0008R	ng/m <sup>3</sup>	0.428	3.509	3.604	1.693	1.093	1.644	1.031	2.754	1.474	3.431	2.713	2.66
	DK0031R	ng/m <sup>3</sup>	0.483	3.316	3.379	2.161	1.448	1.988	1.269	2.676	1.419	4.247	3.472	3.287
mercury			not reported											
nickel	DK0005R	ng/m <sup>3</sup>	0.538	1.417	2.107	2.471	2.35	2.764	0.969	2.874	1.291	1.54	1.072	1.594
	DK0008R	ng/m <sup>3</sup>	0.353	0.849	1.611	1.556	1.286	1.592	1.147	1.893	1.018	1.301	1.001	1.65
	DK0031R	ng/m <sup>3</sup>	0.179	0.662	1.061	1.024	1.327	1.68	0.926	1.36	0.603	1.01	0.749	1.236
zinc	DK0005R	ng/m <sup>3</sup>	3.414	13.323	14.055	9.142	5.116	9.868	4.341	11.172	7.954	12.533	11.72	13.305
	DK0008R	ng/m <sup>3</sup>	1.172	9.569	10.593	5.662	3.858	8.102	3.854	8.903	6.034	11.562	7.941	10.631
	DK0031R	ng/m <sup>3</sup>	2.281	8.43	9.861	6.877	6.647	22.782	5.706	8.411	6.866	12.742	9.42	10.529
PCB_28			not reported											
PCB_52			not reported											
PCB_101			not reported											
PCB_118			not reported											
PCB_138			not reported											
PCB_153			not reported											
PCB_180			not reported											
anthracene			not reported											
benzo(a)anthracene			not reported											
benzo(a)pyrene			not reported											
benzo(ghi)perylene			not reported											
chrysene			not reported											
flouranthene			not reported											
g-HCH			not reported											
indeno(123cd)pyrene			not reported											
phenanthrene			not reported											
pyrene			not reported											
Percentage completion of voluntary programme														
48.6														
additional non-CAMP components														
2007														
aluminium	DK0005R	ng/m <sup>3</sup>	14.361	41.948	108.812	187.462	127.717	140.93	59.98	146.04	159.63	123.976	130.77	116.545
	DK0008R	ng/m <sup>3</sup>	19.618	54.533	107.511	123.272	119.245	149.2	82.991	157.019	181.523	173.343	146.939	134.432
	DK0031R	ng/m <sup>3</sup>	-62.312	45.103	147.32	199.776	121.559	162.738	83.286	173.165	181.043	113.233	143.789	127.552
iron	DK0005R	ng/m <sup>3</sup>	18.925	40.19	91.611	122.18	70.974	76.294	30.364	88.818	62.72	66.689	52.47	47.203
	DK0008R	ng/m <sup>3</sup>	7.166	32.259	81.397	67.289	42.759	68.795	27.302	78.832	36.572	52.973	30.508	30.299
	DK0031R	ng/m <sup>3</sup>	5.803	20.826	88.926	129.024	41.232	79.855	25.808	80.268	30.958	49.329	28.754	29.158
manganese	DK0005R	ng/m <sup>3</sup>	0.564	1.512	2.694	3.741	2.08	2.395	1.203	3.023	2.057	2.298	1.81	1.696
	DK0008R	ng/m <sup>3</sup>	0.331	1.511	2.671	2.233	1.553	2.599	1.199	2.632	1.27	2.288	1.292	1.578
	DK0031R	ng/m <sup>3</sup>	0.209	1.021	2.915	3.122	1.7	3.246	1.14	2.747	1.209	1.892	1.163	1.674
selenium	DK0005R	ng/m <sup>3</sup>	0.209	0.372	0.378	0.332	0.301	0.337	0.309	0.556	0.44	0.471	0.417	0.465
	DK0008R	ng/m <sup>3</sup>	0.109	0.21	0.299	0.248	0.26	0.233	0.334	0.403	0.335	0.414	0.297	0.353
	DK0031R	ng/m <sup>3</sup>	0.12	0.243	0.35	0.359	0.337	0.304	0.387	0.546	0.337	0.437	0.322	0.365

## FRANCE

Components in Precipitation															
2007															
Mandatory	station	units	month												
			january	february	march	april	may	june	july	august	september	october	november	december	
ammonium	FR0090R	mg/l	0.05	0.05	0.4	0.5	0.1	0.15	0.1	0.15	0.15	0.4	0.25	0.05	
nitrate	FR0090R	mg/l	0.23	0.18	1.2	2.7	0.45	0.23	0.38	0.47	0.79	1.58	0.54	0.18	
precipitation	nitrogen	mm	112.5	164.2	102.1	61.5	122.8	149.1	145	91.2	45.1	25.5	105.3	102	
arsenic	FR0090R	µg/l	0.15	0.05	0.11	0.33	0.08	0.03	0.05	0.05	0.08	0.1	0.06	0.27	
cadmium	FR0090R	µg/l	0.02	0.04	0.15	0.2	0.06	0.01	0.02	0.06	0.03	0.06	0.05	0.04	
chromium	FR0090R	µg/l	0.11	0.19	0.39	0.75	0.24	0.47	0.19	0.33	0.29	0.3	1.35	0.38	
copper	FR0090R	µg/l	0.41	0.38	1.96	4.91	1.23	0.41	0.57	1.11	1.15	1.96	0.98	1.15	
lead	FR0090R	µg/l	0.7	0.49	2.55	4.85	1.85	0.21	0.62	0.65	1.07	2.71	1.64	1.32	
mercury			not reported												
nickel	FR0090R	µg/l	1.81	1.21	2.23	4.2	1.25	1.54	1.57	1.94	1.66	2.01	2.48	1.45	
zinc	FR0090R	µg/l	1.18	0.89	4.34	17.14	2.15	1.35	2.85	5.16	4.28	8.03	4.22	1.29	
precipitation	all metals	mm	112.5	164.2	102.1	61.5	122.8	149.1	145	91.2	45.1	25.5	105.3	102	
g-HCH			not reported												
													Percentage completion of mandatory programme		83.3
Voluntary															
2007															
PCB_28			not reported												
PCB_52			not reported												
PCB_101			not reported												
PCB_118			not reported												
PCB_138			not reported												
PCB_153			not reported												
PCB_180			not reported												
anthracene			not reported												
benzo(a)anthracene			not reported												
benzo(a)pyrene			not reported												
benzo(ghi)perylene			not reported												
chrysene+triphenylene			not reported												
flouranthene			not reported												
indeno(123cd)pyrene			not reported												
phenanthrene			not reported												
pyrene			not reported												
													Percentage completion of voluntary programme		0.0



## GERMANY

## Components in Precipitation

Mandatory 2007	station	units	month											
			january	february	march	april	may	june	july	august	september	october	november	december
ammonium nitrate	DE0001R	mg/l	0.320	0.908	0.302	0.600	0.785	0.535	0.352	0.338	0.240	0.410	1.296	0.366
	DE0001R	mg/l	0.509	0.719	0.399	0.600	0.511	0.369	0.330	0.267	0.416	0.515	0.779	0.517
precipitation nitrogen	DE0001R	mm	96.9	67.7	45.8	1.7	72.4	83.2	79.3	57.3	54.1	32.2	92.6	36.2
arsenic	DE0001R	µg/l	0.137	0.155	0.091	0.132		0.081	0.057	0.083	0.091	0.080	0.120	0.080
cadmium	DE0001R	µg/l	0.012	0.056	0.023	0.033		0.023	0.019	0.022	0.018	0.028	0.014	0.021
chromium	DE0001R	µg/l	0.212	0.206	0.136	0.270		0.115	0.033	0.037	0.046	0.056	0.077	0.062
copper	DE0001R	µg/l	0.385	1.149	0.527	2.780		1.457	0.607	1.117	1.012	0.853	0.544	0.603
lead	DE0001R	µg/l	0.484	1.706	0.537	0.412		0.564	0.400	0.428	0.486	0.672	0.432	0.503
mercury	DE0001R	ng/l	3.294	10.186	6.413	7.000	8.964	8.730	6.017	6.920	6.205	6.842	3.387	3.935
nickel	DE0001R	µg/l	0.375	0.571	0.327	1.720		0.319	0.234	0.232	0.266	0.247	0.159	0.241
zinc	DE0001R	µg/l	9.356	18.035	26.600	29.600		10.114	3.921	5.313	5.520	7.100	2.437	2.500
precipitation metals ex. Hg	DE0001R	mm	97.7	58.6	40.6	1.5	72.6	82.3	77.0	56.8	53.6	32.3	83.6	36.1
precipitation Hg	DE0001R	mm	101.5	58.7	41.0	1.7	70.2	84.6	83.4	58.5	55.3	31.1	91.6	36.8
g-HCH	DE0001R	ng/l	0.480	1.410	0.780	0.940	1.540	1.040	0.750	0.430	0.560	0.860	0.560	0.200
precipitation g-HCH	DE0001R	mm	84.0	68.0	46.0	2.0	76.0	88.0	82.0	59.0	55.0	32.0	53.0	78.0
Percentage completion of mandatory programme														
95.1														

Voluntary  
2007

PCB_28	DE0001R	ng/l	0.079	0.044	0.067	1.530	0.142	0.038	0.041	0.143	0.088	0.081	0.049	0.065
PCB_52	DE0001R	ng/l	0.012	0.014	0.021	0.476	0.034	0.016	0.017	0.065	0.016	0.044	0.027	0.022
PCB_101	DE0001R	ng/l	0.027	0.033	0.084	1.920	0.086	0.039	0.042	0.172	0.061	0.073	0.093	0.043
PCB_118	DE0001R	ng/l	0.007	0.009	0.024	0.541	0.034	0.013	0.014	0.104	0.008	0.064	0.044	0.020
PCB_138	DE0001R	ng/l	0.030	0.040	0.180	4.010	0.380	0.060	0.060	0.220	0.100	0.140	0.090	0.080
PCB_153	DE0001R	ng/l	0.050	0.030	0.140	3.120	0.310	0.050	0.060	0.250	0.090	0.130	0.080	0.060
PCB_180	DE0001R	ng/l	0.013	0.016	0.039	0.899	0.118	0.014	0.015	0.145	0.030	0.047	0.028	0.024
anthracene	DE0001R	ng/l	0.260	1.080	0.570	6.290	0.290	0.430	0.270	0.450	0.300	0.210	0.130	0.120
benzo(a)anthracene	DE0001R	ng/l	0.760	4.070	0.580	3.010	0.520	0.670	0.620	0.900	1.560	1.190	1.130	0.420
benzo(a)pyrene	DE0001R	ng/l	0.290	3.300	0.590	3.000	0.460	0.890	1.050	0.740	1.590	0.870	0.480	0.420
benzo(ghi)perylene	DE0001R	ng/l	0.550	6.100	0.440	4.400	0.640	0.560	0.570	0.760	1.390	1.180	0.550	0.600
chrysene+triphenylene	DE0001R	ng/l	1.600	15.900	1.200	2.800	2.100	2.000	2.000	2.900	3.900	2.600	3.700	1.300
flouranthene	DE0001R	ng/l	4.400	51.000	4.700	8.300	5.600	4.600	4.600	6.200	8.000	6.900	9.500	2.900
indeno(123cd)pyrene	DE0001R	ng/l	0.600	7.250	0.570	2.400	0.440	0.380	0.410	0.770	1.450	1.560	0.710	0.650
phenanthrene	DE0001R	ng/l	8.900	47.100	6.400	25.200	6.000	5.100	5.900	7.700	9.900	6.200	13.300	4.100
pyrene	DE0001R	ng/l	2.800	27.800	2.800	12.800	3.200	2.900	2.700	4.800	5.300	5.000	6.300	1.400
precipitation organics	DE0001R	mm	84.0	68.0	46.0	2.0	76.0	88.0	82.0	59.0	55.0	32.0	53.0	78.0
Percentage completion of voluntary programme														
100.0														

additional non-CAMP components  
2007

antimony	DE0001R	µg/l	0.046	0.172	0.065	0.040		0.129	0.053	0.043	0.066	0.066	0.055	0.067
cobalt	DE0001R	µg/l	0.014	0.022	0.015	0.049		0.017	0.016	0.014	0.024	0.016	0.013	0.013
iron	DE0001R	µg/l	10.478	17.804	29.070	46.400		10.257	9.988	10.996	12.779	18.959	3.391	16.240
manganese	DE0001R	µg/l	0.924	1.171	0.920	3.600		1.701	1.412	1.468	1.963	0.669	0.709	0.563
vanadium	DE0001R	µg/l	0.878	0.592	0.493	0.770		0.506	0.373	0.270	0.473	0.412	0.455	0.560
precipitation metals	DE0001R	mm	97.7	58.6	40.6	1.5	72.6	82.3	77.0	56.8	53.6	32.3	83.6	36.1
aldrin	DE0001R	ng/l	0.002	0.003	0.003	0.069	0.002	0.002	0.003	0.009	0.002	0.017	0.011	0.005
alpha_HCH	DE0001R	ng/l	0.150	0.220	0.150	1.570	0.200	0.180	0.150	0.100	0.190	0.230	0.290	0.050
benzo(b,j,k)flouranthene	DE0001R	ng/l	1.700	19.400	1.200	6.300	2.300	2.700	2.400	2.800	5.200	4.400	2.700	1.900
dibenzo_ah_anthracene	DE0001R	ng/l	0.160	1.180	0.100	2.700	0.190	0.160	0.140	0.160	0.310	0.290	0.130	0.100
dieidrin	DE0001R	ng/l	0.104	0.079	0.076	0.523	0.064	0.051	0.032	0.064	0.054	0.089	0.060	0.030
endrin	DE0001R	ng/l	0.006	0.006	0.008	0.205	0.005	0.005	0.006	0.014	0.004	0.068	0.041	0.012
HCB	DE0001R	ng/l	0.013	0.036	0.017	0.384	0.045	0.027	0.036	0.047	0.021	0.030	0.088	0.010
heptachlor	DE0001R	ng/l	0.004	0.004	0.005	0.122	0.003	0.003	0.004	0.009	0.003	0.020	0.012	0.005
op_DDD	DE0001R	ng/l	0.002	0.008	0.016	0.358	0.005	0.008	0.010	0.016	0.004	0.011	0.016	0.004
pp_DDD	DE0001R	ng/l	0.007	0.013	0.022	0.512	0.010	0.004	0.004	0.013	0.008	0.016	0.010	0.006
op_DDE	DE0001R	ng/l	0.003	0.002	0.006	0.141	0.001	0.002	0.006	0.013	0.004	0.013	0.008	0.004
pp_DDE	DE0001R	ng/l	0.009	0.014	0.020	0.459	0.010	0.006	0.013	0.042	0.022	0.019	0.012	0.009
op_DDT	DE0001R	ng/l	0.005	0.011	0.022	0.298	0.006	0.007	0.007	0.027	0.004	0.018	0.011	0.008
pp_DDT	DE0001R	ng/l	0.002	0.047	0.011	0.249	0.023	0.004	0.024	0.014	0.015	0.009	0.026	0.004
precipitation organics	DE0001R	mm	84.0	68.0	46.0	2.0	76.0	88.0	82.0	59.0	55.0	32.0	53.0	78.0

**Airborne components**

2007

Mandatory	station	units	month											
			january	february	march	april	may	june	july	august	september	october	november	december
NO2	DE0001R	µg/m <sup>3</sup>	3.14	6.458	6.637	1.312	1.068	1.216	0.887	1.06	0.969	1.876	2.709	4.742
HNO3	DE0001R	µg/m <sup>3</sup>	0.102	0.111	0.145	0.223	0.292	0.304	0.157	0.211	0.086	0.164	0.079	0.101
NO3	DE0001R	µg/m <sup>3</sup>	0.216	1.117	1.255	1.157	0.81	0.435	0.587	0.581	0.52	0.788	0.693	1.035
HNO3+NO3	DE0001R	µg/m <sup>3</sup>	0.319	1.222	1.399	1.378	1.102	0.737	0.746	0.79	0.591	0.955	0.766	1.135
NH3	DE0001R	µg/m <sup>3</sup>	0.478	0.455	1.267	2.091	1.19	2.022	1.608	1.833	1.045	1.289	0.806	0.748
NH4	DE0001R	µg/m <sup>3</sup>	0.164	1.457	1.349	1.084	0.492	0.399	0.422	0.612	0.368	0.933	0.745	1.227
NH3+NH4	DE0001R	µg/m <sup>3</sup>	0.621	1.893	2.608	3.175	1.679	2.425	2.023	2.471	1.404	2.221	1.536	1.975
<i>Percentage completion of mandatory programme</i>													<b>100.0</b>	

**Voluntary**

2007

NO			<i>not reported</i>											
arsenic	DE0001R	ng/m <sup>3</sup>	0.290	0.844	0.622	0.478	0.285	0.262	0.151	0.275	0.223	0.399	0.449	0.435
cadmium	DE0001R	ng/m <sup>3</sup>	0.036	0.240	0.294	0.106	0.049	0.078	0.031	0.054	0.048	0.127	0.106	0.122
chromium			<i>not reported</i>											
copper	DE0001R	ng/m <sup>3</sup>	1.225	3.600	2.258	2.563	1.332	1.766	0.770	1.562	1.490	2.997	2.672	3.333
lead	DE0001R	ng/m <sup>3</sup>	2.413	8.082	7.228	4.888	2.093	2.506	1.580	2.148	1.483	3.820	3.850	4.535
mercury			<i>not reported</i>											
nickel	DE0001R	ng/m <sup>3</sup>	1.850	1.943	2.868	2.538	1.955	1.730	1.297	1.144	0.912	2.130	0.930	1.628
zinc	DE0001R		<i>not reported</i>											
PCB_28	DE0001R	pg/m <sup>3</sup>	<i>not reported</i>											
PCB_52	DE0001R	pg/m <sup>3</sup>	<i>not reported</i>											
PCB_101	DE0001R	pg/m <sup>3</sup>	<i>not reported</i>											
PCB_118	DE0001R	pg/m <sup>3</sup>	<i>not reported</i>											
PCB_138	DE0001R	pg/m <sup>3</sup>	<i>not reported</i>											
PCB_153	DE0001R	pg/m <sup>3</sup>	<i>not reported</i>											
PCB_180	DE0001R	pg/m <sup>3</sup>	<i>not reported</i>											
anthracene	DE0001R	pg/m <sup>3</sup>	0.080	0.160	1.190	0.090	0.080	0.080	0.040	0.040	0.030	0.090	0.180	0.210
benzo(a)anthracene	DE0001R	pg/m <sup>3</sup>	0.030	0.110	0.510	0.040	0.020	0.010	0.010	0.010	0.010	0.070	0.060	0.250
benzo(a)pyrene	DE0001R	pg/m <sup>3</sup>	0.030	0.170	0.430	0.050	0.010	0.020	0.010	0.020	0.010	0.080	0.020	0.270
benzo(ghi)perylene	DE0001R	pg/m <sup>3</sup>	0.050	0.290	0.430	0.090	0.040	0.030	0.030	0.030	0.020	0.150	0.100	0.570
chrysene+triphenylene	DE0001R	pg/m <sup>3</sup>	0.110	0.380	1.020	0.140	0.060	0.050	0.040	0.060	0.030	0.170	0.170	0.690
flouranthene	DE0001R	pg/m <sup>3</sup>	0.360	1.530	2.890	1.080	0.670	0.990	0.470	0.370	0.270	0.750	0.500	1.400
g-HCH	DE0001R	pg/m <sup>3</sup>	<i>not reported</i>											
indeno(123cd)pyrene	DE0001R	pg/m <sup>3</sup>	0.050	0.310	0.620	0.110	0.050	0.030	0.030	0.040	0.020	0.140	0.090	0.530
phenanthrene	DE0001R	pg/m <sup>3</sup>	1.310	3.710	5.290	3.780	2.820	2.590	1.320	1.440	0.970	2.340	2.180	3.980
pyrene	DE0001R	pg/m <sup>3</sup>	0.250	0.960	2.130	0.430	0.260	0.410	0.130	0.190	0.120	0.450	0.340	1.040
<i>Percentage completion of voluntary programme</i>													<b>53.8</b>	

**additional non-CAMP components**

antimony	DE0001R	ng/m <sup>3</sup>	0.283	0.950	0.682	0.508	0.713	0.336	0.237	0.292	0.250	0.530	0.484	0.545
cobalt	DE0001R	ng/m <sup>3</sup>	0.021	0.044	0.104	0.080	0.046	0.086	0.039	0.049	0.028	0.069	0.052	0.066
iron	DE0001R	ng/m <sup>3</sup>	17.625	37.900	96.800	103.625	50.075	57.440	24.200	52.120	31.000	70.425	46.520	62.850
manganese	DE0001R	ng/m <sup>3</sup>	1.238	2.103	4.802	4.290	2.118	2.694	1.433	2.246	1.112	3.042	1.792	2.298
vanadium	DE0001R	ng/m <sup>3</sup>	3.590	2.822	4.190	4.743	3.110	3.056	2.403	1.996	1.330	1.655	1.172	2.158
benzo_bjk_fluoranthene	DE0001R	pg/m <sup>3</sup>	0.130	0.730	1.770	0.220	0.080	0.060	0.060	0.080	0.030	0.310	0.240	1.340
dlbenzo_ah_anthracene	DE0001R	pg/m <sup>3</sup>	0.010	0.050	0.130	0.020	0.010	0.000	0.000	0.000	0.000	0.020	0.010	0.070

## ICELAND

Components in Precipitation															
2007															
Mandatory	station	units	month												
			january	february	march	april	may	june	july	august	september	october	november	december	
ammonium	IS0090R	mg/l	0.268	0.36	0.321	2.099	0.259	0.215	0.225	0.111	0.11	0.069	0.178	0.157	
	IS0091R	mg/l	0.005	4.991	0.1	2.95	5.072	0.24	0.234	0.308	0.015	0.024	0.005	0.043	
nitrate	IS0090R	mg/l	0.053	0.085	0.064	0.558	0.147	0.144	0.135	0.054	0.142	0.035	0.069	0.059	
	IS0091R	mg/l	0.831	0.757	0.039	0.148	1.818	0.309	0.166	0.063	0.042	0.037	0.035	0.077	
precipitation	nitrogen	IS0090R	mm	49.01	39.78	136.76	82.55	26.81	25.9	22.8	84.9	144.9	156.3	118.3	153
		IS0091R	mm	98.21	63.13	198.68	215.63	51.02	41.6	23.7	103.1	328.3	288.8	200.5	270.1
arsenic	IS0090R	µg/l	0.382	0.379	0.564	0.283	0.242	0.146	0.034	0.025	0.078	0.197	1.138	0.721	
	IS0091R	µg/l	0.05	0.093	0.073	0.102	0.115	0.087	0.087	0.045	0.012	0.028	0.044	0.06	
cadmium	IS0090R	µg/l	0.007	0.005	0.011	0.016	0.033	0.01	0.006	0.007	0.007	0.005	0.005	0.005	
	IS0091R	µg/l	0.008	0.008	0.008	0.013	0.017	0.02	0.023	0.008	0.006	0.008	0.009	0.013	
chromium	IS0090R	µg/l	0.05	0.129	0.332	0.352	0.441	0.733	0.581	0.222	0.224	0.447	0.877	0.891	
	IS0091R	µg/l	0.071	0.184	0.126	0.076	0.226	0.168	0.503	0.161	0.079	0.052	0.147	0.127	
copper	IS0090R	µg/l	2.503	2.874	3.139	2.452	4.947	5.093	3.873	1.332	0.958	0.975	1.963	1.356	
	IS0091R	µg/l	0.585	0.739	0.493	0.482	0.656	1.109	1.85	0.486	0.304	0.381	0.643	0.723	
lead	IS0090R	µg/l	0.405	0.303	0.241	0.578	0.551	0.554	0.459	0.145	0.09	0.081	0.176	0.119	
	IS0091R	µg/l	0.148	0.165	0.161	0.377	0.436	0.276	0.591	0.127	0.069	0.142	0.175	0.167	
mercury			not reported												
nickel	IS0090R	µg/l	0.276	0.606	1.408	1.164	0.99	1.566	2.062	0.357	0.333	0.397	0.363	0.455	
	IS0091R	µg/l	0.278	1.525	0.189	0.13	0.287	1.257	1.727	0.643	0.283	1.347	1.489	1.51	
zinc	IS0090R	µg/l	16.8	7.312	5.99	7.851	16.856	12.685	8.804	2.329	1.466	2.459	3.758	1.925	
	IS0091R	µg/l	5.226	4.956	9.512	8.057	5.85	15.589	15.275	2.767	7.182	8.387	12.308	9.823	
precipitation	metals	IS0090R	mm	49.01	39.78	136.76	82.55	26.81	25.9	22.8	84.9	144.9	156.3	118.3	153
precipitation	metals	IS0091R	mm	98.21	63.13	198.68	215.63	51.02	41.6	23.7	103.1	328.3	288.8	200.5	270.1
g-HCH	IS0091R	ng/l	0.024	0.037	0.018	0.056	0.066	0.055	0.037	0.035	0.028	0.036	0.04	0.029	
	precipitation	g-HCH	mm	65	22	100	55	25	17	15	61	160	121	90	124
Percentage completion of mandatory programme													90.9		
Voluntary															
2007															
PCB_28	IS0091R	ng/l	0.01	0.018	0.004	0.007	0.016	0.024	0.193	0.048	0.018	0.024	0.055	0.023	
PCB_52	IS0091R	ng/l	0.005	0.009	0.002	0.004	0.008	0.012	0.06	0.015	0.006	0.007	0.01	0.007	
PCB_101	IS0091R	ng/l	0.005	0.009	0.012	0.004	0.008	0.025	0.027	0.007	0.002	0.003	0.004	0.014	
PCB_118	IS0091R	ng/l	0.018	0.015	0.02	0.006	0.008	0.012	0.013	0.003	0.001	0.006	0.005	0.011	
PCB_138	IS0091R	ng/l	0.034	0.06	0.034	0.004	0.031	0.05	0.034	0.003	0.002	0.005	0.009	0.016	
PCB_153	IS0091R	ng/l	0.023	0.03	0.02	0.006	0.008	0.026	0.041	0.003	0.002	0.004	0.006	0.015	
PCB_180	IS0091R	ng/l	0.008	0.014	0.013	0.004	0.008	0.012	0.033	0.003	0.001	0.009	0.002	0.007	
anthracene			not reported												
benzo(a)anthracene			not reported												
benzo(a)pyrene			not reported												
benzo(ghi)perylene			not reported												
chrysene+triphenylene			not reported												
flouranthene			not reported												
indeno(123cd)pyrene			not reported												
phenanthrene			not reported												
pyrene			not reported												
precipitation	voluntary organics	IS0091R	mm												
Percentage completion of voluntary programme													43.8		
additional non-CAMP components															
2007															
aluminium	IS0090R	µg/l	188.788	366.215	298.928	228.408	523.743	618.36	410.695	86.579	45.259	52.338	219.382	101.363	
iron	IS0090R	µg/l	133.089	261.473	245.33	202.874	555.668	561.624	273.421	74.68	46.991	17.934	61.331	10.842	
	IS0091R	µg/l	34.445	211.415	242.369	48.582	145.679	206.237	309.964	129.119	68.053	75.625	153.884	166.84	
manganese	IS0090R	µg/l	2.236	4.324	4.226	3.897	10.857	11.378	5.168	1.512	0.833	0.849	2.833	1.506	
	IS0091R	µg/l	0.64	3.427	4.32	1.071	3.012	3.321	6.846	3.057	1.15	1.352	2.494	2.642	
vanadium	IS0090R	µg/l	2.324	2.686	3.694	2.017	2.38	1.964	0.885	0.298	0.592	0.764	4.676	3.053	
	IS0091R	µg/l	0.144	0.865	0.909	0.266	0.73	1.048	1.317	0.547	0.302	0.358	0.285	0.517	
precipitation	metals	IS0090R	mm	49.01	39.78	136.76	82.55	26.81	25.9	22.8	84.9	144.9	156.3	118.3	153
precipitation	metals	IS0091R	mm	98.21	63.13	198.68	215.63	51.02	41.6	23.7	103.1	328.3	288.8	200.5	270.1
PCB_31	IS0091R	ng/l	0.007	0.014	0.003	0.005	0.012	0.018	0.16	0.039	0.015	0.02	0.04	0.019	
PCB_105	IS0091R	ng/l	0.009	0.015	0.011	0.004	0.008	0.012	0.013	0.003	0.001	0.003	0.002	0.006	
PCB_156	IS0091R	ng/l	0.005	0.009	0.006	0.004	0.008	0.012	0.013	0.003	0.001	0.002	0.002	0.004	
HCB	IS0091R	ng/l	0.017	0.017	0.007	0.007	0.018	0.016	0.007	0.006	0.009	0.005	0.006	0.007	
alpha_HCH	IS0091R	ng/l	0.12	0.133	0.066	0.089	0.2	0.15	0.147	0.116	0.076	0.13	0.108	0.089	
beta_HCH	IS0091R	ng/l	0.009	0.009	0.006	0.009	0.008	0.012	0.013	0.006	0.004	0.005	0.005	0.006	
cis_CD	IS0091R	ng/l	0.004	0.005	0.004	0.004	0.004	0.006	0.013	0.003	0.001	0.003	0.002	0.002	
dieldrin	IS0091R	ng/l	0.045	0.056	0.047	0.035	0.052	0.044	0.037	0.023	0.02	0.038	0.033	0.031	
op_DDT	IS0091R	ng/l	0.005	0.009	0.002	0.004	0.008	0.012	0.013	0.003	0.001	0.002	0.002	0.002	
pp_DDD	IS0091R	ng/l	0.005	0.009	0.004	0.007	0.008	0.012	0.013	0.003	0.001	0.002	0.002	0.002	
pp_DDE	IS0091R	ng/l	0.005	0.009	0.004	0.004	0.008	0.012	0.013	0.003	0.001	0.002	0.002	0.002	
pp_DDT	IS0091R	ng/l	0.005	0.009	0.008	0.008	0.008	0.012	0.02	0.005	0.002	0.002	0.003	0.002	
trans_CD	IS0091R	ng/l	0.004	0.005	0.003	0.003	0.004	0.006	0.013	0.003	0.001	0.002	0.002	0.002	
trans_NO	IS0091R	ng/l	0.006	0.005	0.004	0.004	0.007	0.015	0.013	0.003	0.001	0.002	0.002	0.002	
txph-26	IS0091R	ng/l	0.002	0.005	0.004	0.004	0.007	0.006	0.007	0.002	0.001	0.002	0.002	0.003	
txph-50	IS0091R	ng/l	0.005	0.009	0.004	0.004	0.008	0.012	0.013	0.003	0.001	0.002	0.002	0.002	
txph-62	IS0091R	ng/l	0.01	0.018	0.004	0.007	0.016	0.024	0.013	0.003	0.001	0.002	0.002	0.002	
precipitation	voluntary organics	IS0091R	mm	65	22	100	55	25	17	15	61	160	121	90	124
precipitation_amount_off	IS0090R	mm	63.6	36.6	131.5	62.6	28.1	28.2	29.5	106.9	156.1	171.5	113.1	196.5	
precipitation_amount_off	IS0091R	mm	114.5	72.6	225.6	152.7	56.1	51.9	24.8	105.9	371.1	281	230.6	312.5	
precipitation_amount_off	IS0091R	mm	117	70	226	165	57	41	25	106	372	281	231	313	



Airborne components														
Mandatory 2007	station	units	month											
			january	february	march	april	may	june	july	august	september	october	november	december
NO2			not reported											
HNO3			not reported											
NO3	IS0091R	µg/m <sup>3</sup>	0.02	0.035	0.02	0.08	0.05	0.075	0.059	0.045	0.02	0.015	0.02	0.048
HNO3+NO3			not reported											
NH3			not reported											
NH4			not reported											
NH3+NH4			not reported											
Percentage completion of mandatory programme														25.00
<b>Voluntary 2007</b>														
NO			not reported											
arsenic	IS0091R	ng/m <sup>3</sup>	0.054	0.166	0.05	0.085	0.112	0.1	0.055	0.094	0.085	0.035	0.08	0.084
cadmium	IS0091R	ng/m <sup>3</sup>	0.037	0.022	0.063	0.048	0.016	0.114	0.025	0.03	0.029	0.005	0.009	0.167
chromium	IS0091R	ng/m <sup>3</sup>	5.394	7.527	8.242	18.25	2.313	4.175	1.604	7.546	9.64	7.557	12.516	9.639
copper	IS0091R	ng/m <sup>3</sup>	0.822	1.916	0.511	0.7	1.165	1.23	0.507	1.433	1.925	0.468	0.672	1.027
lead	IS0091R	ng/m <sup>3</sup>	1.123	0.305	1.09	0.755	0.262	0.285	0.212	1.016	0.195	0.135	0.23	0.607
mercury	IS0091R	ng/m <sup>3</sup>	1.188	1.279	0.434	0.73	0.867	2.545	1.248	1.057	0.435	0.24	0.38	0.223
nickel	IS0091R	ng/m <sup>3</sup>	3.053	4.493	4.507	9.625	1.56	3	1.078	4.438	5.795	4.172	7.006	5.745
zinc	IS0091R	ng/m <sup>3</sup>	4.22	5.027	3.989	3.945	3.576	5.555	3.198	11.334	2.87	1.643	2.694	13.28
PCB_28	IS0091R	pg/m <sup>3</sup>	2.172	1.997	2.371	3.017	2.337	4.284	1.765	2.492	1.38	1.331	1.396	1.323
PCB_52	IS0091R	pg/m <sup>3</sup>	1.942	1.43	1.9	2.19	2.177	3.481	2.374	2.326	1.856	1.466	1.533	1.323
PCB_101	IS0091R	pg/m <sup>3</sup>	1.306	1.082	1.633	1.558	1.081	1.283	1.074	1.084	0.783	0.624	0.616	0.544
PCB_118	IS0091R	pg/m <sup>3</sup>	0.115	0.114	0.314	0.396	0.304	0.243	0.12	0.19	0.162	0.092	0.096	0.091
PCB_138	IS0091R	pg/m <sup>3</sup>	0.37	0.37	0.446	0.369	0.17	0.131	0.12	0.153	0.095	0.092	0.096	0.136
PCB_153	IS0091R	pg/m <sup>3</sup>	0.318	0.325	0.357	0.354	0.174	0.131	0.302	0.19	0.095	0.092	0.096	0.091
PCB_180	IS0091R	pg/m <sup>3</sup>	0.19	0.114	0.173	0.201	0.104	0.131	0.12	0.107	0.095	0.092	0.096	0.091
anthracene			not reported											
benzo(a)anthracene			not reported											
benzo(a)pyrene			not reported											
benzo(ghi)perylene			not reported											
chrysene			not reported											
flouranthene			not reported											
g-HCH	IS0091R	pg/m <sup>3</sup>	2.168	1.998	2.476	3.11	3.172	4.224	5.238	4.627	3.385	3.032	2.492	2.228
indeno(123cd)pyrene			not reported											
phenanthrene			not reported											
pyrene			not reported											
Percentage completion of voluntary programme														59.29
<b>additional non-CAMP components 2007</b>														
aluminium	IS0091R	ng/m <sup>3</sup>	70.899	731.701	65.371	65.511	568.633	432.962	137.49	398.415	781.006	160.956	210.24	202.777
iron	IS0091R	ng/m <sup>3</sup>	125.773	1372.193	135.232	168.441	1016.338	696.322	196.707	692.103	1214.686	273.813	382.7	391.831
manganese	IS0091R	ng/m <sup>3</sup>	2.115	25.598	2.228	2.894	17.859	12.639	3.173	12.433	20.963	4.387	6.236	6.711
vanadium	IS0091R	ng/m <sup>3</sup>	0.572	6.346	0.615	0.635	5.153	2.984	0.964	2.733	5.144	1.047	1.567	1.941
PCB_31	IS0091R	pg/m <sup>3</sup>	1.712	1.605	2.059	3.59	2.549	5.508	1.463	1.937	1.142	1.101	1.154	1.096
PCB_105	IS0091R	pg/m <sup>3</sup>	0.115	0.114	0.105	0.105	0.104	0.131	0.12	0.107	0.095	0.092	0.096	0.091
PCB_156	IS0091R	pg/m <sup>3</sup>	0.115	0.114	0.105	0.105	0.104	0.131	0.12	0.107	0.095	0.092	0.096	0.091
PCB	IS0091R	pg/m <sup>3</sup>	8.114	7.503	5.169	5.153	5.512	7.212	3.954	4.4	5.423	5.233	6.537	4.837
alpha_HCH	IS0091R	pg/m <sup>3</sup>	6.001	6.002	5.956	6.811	7.613	8.983	5.659	5.84	7.042	6.701	6.298	5.794
beta_HCH	IS0091R	pg/m <sup>3</sup>	0.276	0.329	0.54	0.599	0.761	0.888	0.394	0.335	0.095	0.092	0.096	0.091
cis_CD	IS0091R	pg/m <sup>3</sup>	0.317	0.413	0.431	0.431	0.315	0.393	0.435	0.399	0.37	0.395	0.378	0.348
dieldrin	IS0091R	pg/m <sup>3</sup>	0.613	0.595	0.747	0.882	0.837	1.051	1.151	0.933	0.84	0.845	0.742	0.687
op_DDT	IS0091R	pg/m <sup>3</sup>	0.115	0.114	0.105	0.105	0.104	0.131	0.12	0.107	0.095	0.092	0.096	0.091
pp_DDD	IS0091R	pg/m <sup>3</sup>	0.115	0.114	0.105	0.105	0.104	0.131	0.12	0.107	0.095	0.092	0.096	0.091
pp_DDE	IS0091R	pg/m <sup>3</sup>	0.226	0.191	0.105	0.105	0.104	0.131	0.12	0.107	0.095	0.092	0.096	0.091
pp_DDT	IS0091R	pg/m <sup>3</sup>	0.115	0.114	0.105	0.105	0.104	0.131	0.12	0.107	0.095	0.092	0.096	0.091
trans_CD	IS0091R	pg/m <sup>3</sup>	0.597	0.467	0.54	0.531	0.42	0.456	0.12	0.107	0.095	0.092	0.096	0.206
trans_NO	IS0091R	pg/m <sup>3</sup>	0.433	0.362	0.45	0.461	0.338	0.353	0.41	0.345	0.29	0.335	0.338	0.334
txph_26	IS0091R	pg/m <sup>3</sup>	0.1	0.057	0.098	0.16	0.051	0.156	0.195	0.175	0.14	0.125	0.096	0.084
txph_50	IS0091R	pg/m <sup>3</sup>	0.115	0.114	0.105	0.105	0.104	0.131	0.12	0.107	0.095	0.092	0.096	0.091
txph_62	IS0091R	pg/m <sup>3</sup>	0.23	0.229	0.212	0.207	0.207	0.267	0.12	0.107	0.095	0.092	0.096	0.091

## IRELAND

Components in Precipitation															
2007															
Mandatory	station	units	month												
			january	february	march	april	may	june	july	august	september	october	november	december	
ammonium	IE0001R	mg/l	0.09	0.05	0.13	0.12	0.63	0.09	0.39	0.06	0.1	0.1	0.08	0.1	
nitrate	IE0001R	mg/l	0.05	0.04	0.04	0.1	0.06	0.08	0.14	0.05	0.05	0.15	0.11	0.07	
precipitation	<i>nitrogen</i>	IE0001R	mm	105.4	201.4	111	50.9	77	153.3	76.3	106	74.4	105.7	98.2	189.4
arsenic	IE0001R	µg/l		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
cadmium	IE0001R	µg/l		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
chromium	IE0001R	µg/l		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
copper	IE0001R	µg/l		0.5	2.1	0.5	0.5	4.6	4.5	2.8	2.7	0.5	0.5	0.5	
lead	IE0001R	µg/l		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
mercury	IE0001R	ng/l		50	50	50	50	50	50	50	50	50	50	50	
nickel	IE0001R	µg/l		0.5	0.5	0.5	0.5	0.5	2.4	0.5	0.5	0.5	0.5	0.5	
zinc	IE0001R	µg/l		1.7	0.5	7.4	19.7	38.5	22.1	9.8	3.7	0.5	5.9	0.5	
precipitation	<i>all metals</i>	IE0001R	mm	105.4	201.4	111	50.9	77	153.3	76.3	106	74.4	105.7	98.2	189.4
g-HCH			<i>not reported</i>												
													Percentage completion of mandatory programme		84.8
<b>Voluntary</b>															
2007															
PCB_28			<i>not reported</i>												
PCB_52			<i>not reported</i>												
PCB_101			<i>not reported</i>												
PCB_118			<i>not reported</i>												
PCB_138			<i>not reported</i>												
PCB_153			<i>not reported</i>												
PCB_180			<i>not reported</i>												
anthracene			<i>not reported</i>												
benzo(a)anthracene			<i>not reported</i>												
benzo(a)pyrene			<i>not reported</i>												
benzo(ghi)perylene			<i>not reported</i>												
chrysene+triphenylene			<i>not reported</i>												
flouranthene			<i>not reported</i>												
indeno(123cd)pyrene			<i>not reported</i>												
phenanthrene			<i>not reported</i>												
pyrene			<i>not reported</i>												
													Percentage completion of voluntary programme		0.0
<b>additional non-CAMP components</b>															
2006															
aluminium	IE0001R	µg/l	25.00	19.10	17.40	38.70	25.00	72.90	25.00	23.60	21.50	16.90	22.90	15.90	
manganese	IE0001R	µg/l	4.20	9.40	4.10	6.90	3.50	13.60	3.40	7.30	2.50	3.20	4.20	2.30	
vanadium	IE0001R	µg/l	0.50	0.50	0.50	0.50	0.50	2.20	0.50	0.50	0.50	0.50	0.50	0.50	

## IRELAND

## Airborne components

Mandatory	station	units	month											
			january	february	march	april	may	june	july	august	september	october	november	december
NO2			<i>not reported</i>											
HNO3			<i>not reported</i>											
NO3			<i>not reported</i>											
HNO3+NO3			<i>not reported</i>											
NH3			<i>not reported</i>											
NH4			<i>not reported</i>											
NH3+NH4			<i>not reported</i>											
													<i>Percentage completion of mandatory programme</i>	<b>0,00</b>

## Voluntary

NO			<i>not reported</i>											
arsenic			<i>not reported</i>											
cadmium			<i>not reported</i>											
chromium			<i>not reported</i>											
copper			<i>not reported</i>											
lead			<i>not reported</i>											
mercury			<i>not reported</i>											
nickel			<i>not reported</i>											
zinc			<i>not reported</i>											
PCB_28			<i>not reported</i>											
PCB_52			<i>not reported</i>											
PCB_101			<i>not reported</i>											
PCB_118			<i>not reported</i>											
PCB_138			<i>not reported</i>											
PCB_153			<i>not reported</i>											
PCB_180			<i>not reported</i>											
anthracene			<i>not reported</i>											
benzo(a)anthracene			<i>not reported</i>											
benzo(a)pyrene			<i>not reported</i>											
benzo(ghi)perylene			<i>not reported</i>											
chrysene			<i>not reported</i>											
flouranthene			<i>not reported</i>											
g-HCH			<i>not reported</i>											
indeno(123cd)pyrene			<i>not reported</i>											
phenanthrene			<i>not reported</i>											
pyrene			<i>not reported</i>											
													<i>Percentage completion of voluntary programme</i>	<b>0,00</b>

## NETHERLANDS

Components in Precipitation														
Mandatory 2007	station	units	month											
			january	february	march	april	may	june	july	august	september	october	november	december
ammonium	NL0009R	mg/l	not reported											
nitrate	NL0091R	mg/l	not reported											
	NL0009R		not reported											
precipitation nitrogen	NL0091R	mm	not reported											
	NL0009R		not reported											
arsenic	NL0009R	µg/l	not reported											
cadmium	NL0091R	µg/l	not reported											
	NL0009R		not reported											
chromium	NL0091R	µg/l	not reported											
	NL0009R		not reported											
copper	NL0091R	µg/l	not reported											
	NL0009R		not reported											
lead	NL0091R	µg/l	not reported											
	NL0009R		not reported											
mercury	NL0091R	ng/l	8.376	8.076	9.468		7.418	15.433	9.916	11.439	6.664	9.355	7.399	7.765
nickel	NL0091R	µg/l	not reported											
	NL0009R		not reported											
zinc	NL0091R	µg/l	not reported											
	NL0009R		not reported											
precipitation metals exc. Hg	NL0009R	mm	not reported											
	NL0091R		not reported											
	Hg		77.4	65.5	67.9		77.2	130.3	101.3	29.6	82.4	18.6	41.1	64.3
g-HCH	NL0091R	ng/l	2.100	2.120	1.920	10.710		5.580	5.220	4.510	2.410	3.044	1.970	4.600
precipitation g-HCH	NL0091R	mm	80.4	140.7	34.9	1.5		98.7	104.9	60.1	62.7	126.6	88.9	31.8
Percentage completion of mandatory programme													16.7	
<b>Voluntary</b>														
2007														
PCB_28			not reported											
PCB_52			not reported											
PCB_101			not reported											
PCB_118			not reported											
PCB_138			not reported											
PCB_153			not reported											
PCB_180			not reported											
anthracene			not reported											
benzo(a)anthracene			not reported											
benzo(a)pyrene			not reported											
benzo(ghi)perylene			not reported											
chrysene+triphenylene			not reported											
fluoranthene			not reported											
indeno(123cd)pyrene			not reported											
phenanthrene			not reported											
pyrene			not reported											
Percentage completion of voluntary programme													0.0	

Airborne components														
2007														
Mandatory	station	units	month											
			january	february	march	april	may	june	july	august	september	october	november	december
NO2	NL0009R	$\mu\text{g}/\text{m}^3$	2.605	4.223	3.404	3.218	2.322	2.009	1.668	2.068	1.596	3.325	4.468	5.164
	NL0091R	$\mu\text{g}/\text{m}^3$	4.113	7.514	6.053	6.504	3.276	3.915	3.174	3.242	2.797	7.062	5.703	7.834
HNO3			not reported											
NO3	NL0009R	$\mu\text{g}/\text{m}^3$	0.244	0.616	0.661	1.278	0.766	0.812	0.392	0.606	0.394	1.070	0.575	0.849
	NL0091R	$\mu\text{g}/\text{m}^3$	0.251	0.700	1.036	1.324	0.646	0.730	0.390	0.499	0.424	1.026	0.538	0.822
HNO3+NO3			not reported											
NH3	NL0091R	$\mu\text{g}/\text{m}^3$	0.217	1.641	1.302	2.720	1.158	0.757	0.717	1.392	0.454	1.496	0.544	0.679
NH4	NL0009R	$\mu\text{g}/\text{m}^3$	0.464	0.872	0.829	1.788	1.018	1.481	0.850	0.991	0.640	1.545	0.873	1.420
	NL0091R	$\mu\text{g}/\text{m}^3$	0.505	0.942	1.475	1.835	0.952	1.509	0.700	0.805	0.653	1.407	0.809	1.411
NH3+NH4			not reported											
Percentage completion of mandatory programme														80.0
<b>Voluntary</b>														
2007														
NO	NL0009R	$\mu\text{g}/\text{m}^3$	0.039	0.544	0.099	0.276	0.124	0.113	0.067	0.029	0.129	0.673	0.801	1.891
	NL0091R	$\mu\text{g}/\text{m}^3$	0.573	2.621	1.437	0.922	0.239	0.343	0.420	0.564	0.607	2.465	1.789	6.923
arsenic	NL0009R	$\text{ng}/\text{m}^3$	0.169	0.339	0.561	0.602	0.290	0.374	0.285	0.398	0.186	0.453	0.381	0.381
cadmium	NL0009R	$\text{ng}/\text{m}^3$	0.065	0.132	0.194	0.170	0.073	0.132	0.063	0.052	0.086	0.112	0.119	0.165
chromium			not reported											
copper			not reported											
lead	NL0009R	$\text{ng}/\text{m}^3$	2.888	6.911	7.050	5.764	2.915	4.370	3.168	3.443	3.462	5.057	4.833	8.632
mercury			not reported											
nickel	NL0009R	$\text{ng}/\text{m}^3$	1.078	1.354	1.832	2.341	1.711	1.718	1.210	1.413	1.463	1.216	1.244	1.604
	NL0009R	$\text{ng}/\text{m}^3$	19.335	28.492	29.014	29.258	11.644	17.683	13.554	12.172	14.513	16.959	18.311	24.022
PCB_28			not reported											
PCB_52			not reported											
PCB_101			not reported											
PCB_118			not reported											
PCB_138			not reported											
PCB_153			not reported											
PCB_180			not reported											
anthracene			not reported											
benzo(a)anthracene			not reported											
benzo(a)pyrene			not reported											
benzo(ghi)perylene			not reported											
chrysene			not reported											
flouranthene			not reported											
g-HCH			not reported											
indeno(123cd)pyrene			not reported											
phenanthrene			not reported											
pyrene			not reported											
Percentage completion of voluntary programme														23.1

## NORWAY

Components in Precipitation															
2007															
Mandatory	station	units	month												
			january	february	march	april	may	june	july	august	september	october	november	december	
ammonium	NO0001R	mg/l	0.12	0.166	0.37	0.533	0.245	0.073	0.191	0.566	0.146	0.944	0.356	0.165	
	NO0039R		0.062	0.19	0.164	0.188	0.178	0.141	0.052	0.055	0.058	0.075	0.221	0.068	
	NO0057R		0.005	0.18	0.025	0.325	0.112	0.08	0.09	0.08	0.408	0.017	0.089	0.362	
nitrate	NO0001R	mg/l	0.172	0.301	0.501	0.624	0.318	0.18	0.207	0.404	0.221	0.841	0.432	0.291	
	NO0039R		0.033	0.046	0.068	0.07	0.11	0.099	0.027	0.035	0.006	0.013	0.039	0.05	
	NO0057R		0.04	0.047	0.043	0.054	0.109	0.04	0.03	0.052	0.097	0.03	0.052	0.041	
precipitation nitrogen	NO0001R	mm	156.9	152.5	86.7	33.4	140.6	118.9	191	152.4	77.3	69.6	100.9	160.8	
	NO0039R		279.6	121.1	94.6	135.8	66.9	52.2	172.9	206.4	257.6	170.4	300.3	72.5	
	NO0057R		16.8	10.5	55.5	16	15	20.1	13	21.5	18.3	62.4	14.9	32.2	
arsenic	NO0001R	µg/l	0.155	0.12	0.169	0.13	0.065	0.051	0.05	0.072	0.057	0.216	0.111	0.075	
cadmium	NO0001R	µg/l	0.005	0.023	0.036	0.024	0.02	0.008	0.025	0.032	0.015	0.087	0.029	0.011	
chromium	NO0001R	µg/l	not reported												
copper	NO0001R	µg/l	0.073	0.314	0.333	0.881	0.372	0.29	0.296	0.394	0.343	0.782	0.729	0.321	
lead	NO0001R	µg/l	0.345	0.738	0.752	0.878	0.636	0.271	0.472	0.751	0.445	2.315	0.888	0.465	
mercury	NO0001R	ng/l	3.984	3.59	5.69	8.44	13.721	13.7	6.082	7.538	2.68	4.32	3.2	2.994	
nickel	NO0001R	µg/l	0.141	0.211	0.456	0.454	0.223	0.131	0.154	0.128	0.2	0.706	0.217	0.182	
zinc	NO0001R	µg/l	1.114	4.131	3.628	4.11	1.991	2.137	2.494	2.703	3.337	6.087	3.905	1.461	
precipitation metals ex. Hg	NO0001R	mm	160.99	113.14	88.57	26.37	110.19	101.83	178.37	145.64	76.52	73.63	116.36	154.33	
precipitation mercury	NO0001R	mm	156.9	152.5	86.7	43.8	130.2	118.9	191	152.4	77.3	69.6	100.9	160.8	
g-HCH	NO0001R	ng/l	0.2	0.16	0.316	0.597	0.61	0.42	0.437	0.522	0.454	0.535	0.402	0.343	
precipitation organics	NO0001R	mm	156.3	134.6	103.2	32.4	142.8	128.1	179.3	152.6	77.2	29.6	125.7	160.8	
													Percentage completion of mandatory programme		90.9
<b>Voluntary</b>															
2007															
PCB_28	NO0001R	ng/l	0.008	0.017	0.007	0.052	0.023	0.121	0.025	0.016	0.013	0.011	0.015	0.022	
PCB_52	NO0001R	ng/l	0.008	0.016	0.006	0.036	0.021	0.075	0.032	0.018	0.02	0.013	0.021	0.033	
PCB_101	NO0001R	ng/l	0.007	0.024	0.014	0.046	0.031	0.041	0.033	0.022	0.029	0.026	0.031	0.063	
PCB_118	NO0001R	ng/l	0.003	0.011	0.009	0.035	0.019	0.304	0.059	0.027	0.026	0.026	0.021	0.025	
PCB_138	NO0001R	ng/l	0.007	0.027	0.018	0.044	0.019	0.682	0.067	0.025	0.035	0.023	0.02	0.035	
PCB_153	NO0001R	ng/l	0.011	0.039	0.026	0.057	0.032	1.413	0.127	0.044	0.062	0.035	0.032	0.066	
PCB_180	NO0001R	ng/l	0.005	0.011	0.014	0.019	0.01	0.348	0.029	0.008	0.021	0.011	0.012	0.022	
anthracene			not reported												
benzo(a)anthracene			not reported												
benzo(a)pyrene			not reported												
benzo(ghi)perylene			not reported												
chrysene+triphenylene			not reported												
flouranthene			not reported												
indeno(123cd)pyrene			not reported												
phenanthrene			not reported												
pyrene			not reported												
precipitation organics	NO0001R	mm	156.3	134.6	103.2	32.4	142.8	128.1	179.3	152.6	77.2	29.6	125.7	160.8	
													Percentage completion of voluntary programme		43.8
<b>additional non-CAMP components</b>															
2007															
cobalt	NO0001R	µg/l	0.01	0.009	0.015	0.042	0.019	0.014	0.011	0.013	0.031	0.036	0.021	0.01	
vanadium	NO0001R	µg/l	0.831	0.47	1.173	1.102	0.771	0.321	0.38	0.458	0.312	1.225	0.624	0.625	
precipitation metals	NO0001R	mm	160.99	113.14	88.57	26.37	110.19	101.83	178.37	145.64	76.52	73.63	116.36	154.33	
HCB	NO0001R	ng/l	0.112	0.27	0.088	1.702	0.295	4.647	0.195	0.083	0.119	0.058	0.043	0.081	
a-HCH	NO0001R	ng/l	0.161	0.095	0.167	0.351	0.224	0.984	0.194	0.218	0.287	0.194	0.193	0.157	
precipitation organics	NO0001R	mm	156.3	134.6	103.2	32.4	142.8	128.1	179.3	152.6	77.2	29.6	125.7	160.8	

Airborne components														
2007														
Mandatory	station	units	month											
			january	february	march	april	may	june	july	august	september	october	november	december
NO2	NO0001R	µg/m <sup>3</sup>	0.21	0.494	0.462	0.37	0.327	0.312	0.2	0.293	0.144	0.242	0.396	0.406
	NO0039R	µg/m <sup>3</sup>	0.173	0.262	0.244	0.248	0.187	0.194	0.15	0.12	0.057	0.151	0.109	
HNO3	NO0001R	µg/m <sup>3</sup>	0.02	0.084	0.087	0.072	0.029	0.051	0.053	0.018	0.024	0.019	0.03	0.029
	NO0042R	µg/m <sup>3</sup>	0.015	0.012	0.048	0.049	0.012	0.018	0.019	0.017	0.014	0.013	0.016	0.016
NO3	NO0001R	µg/m <sup>3</sup>	0.07	0.153	0.245	0.302	0.083	0.054	0.085	0.116	0.116	0.121	0.145	0.072
	NO0039R	µg/m <sup>3</sup>	0.029	0.128	0.051	0.118	0.028	0.034	0.015	0.024	0.017	0.017	0.037	0.052
HNO3+NO3	NO0042R	µg/m <sup>3</sup>	0.036	0.029	0.084	0.095	0.011	0.025	0.015	0.011	0.009	0.012	0.03	0.018
	NO0001R	µg/m <sup>3</sup>	0.09	0.235	0.333	0.375	0.113	0.107	0.138	0.135	0.142	0.143	0.178	0.103
NH3	NO0039R	µg/m <sup>3</sup>	0.044	0.124	0.075	0.17	0.05	0.057	0.038	0.05	0.035	0.032	0.053	0.065
	NO0042R	µg/m <sup>3</sup>	0.052	0.042	0.131	0.147	0.025	0.044	0.035	0.028	0.024	0.026	0.047	0.037
NH4	NO0001R	µg/m <sup>3</sup>	0.279	0.252	0.364	0.356	0.226	0.444	0.272	0.308	0.214	0.241	0.232	0.066
	NO0039R	µg/m <sup>3</sup>	0.467	0.854	0.987	0.895	0.702	1.18	0.775	0.897	0.249	0.724	0.525	0.29
NH3+NH4	NO0042R	µg/m <sup>3</sup>	0.456	0.198	0.296	0.269	0.244	0.352	0.245	0.185	0.186	0.143	0.057	0.07
	NO0039R	µg/m <sup>3</sup>	0.023	0.097	0.061	0.111	0.067	0.113	0.059	0.06	0.025	0.025	0.021	0.036
	NO0042R	µg/m <sup>3</sup>	0.062	0.037	0.079	0.114	0.018	0.02	0.014	0.018	0.006	0.005	0.023	0.035
	NO0001R	µg/m <sup>3</sup>	0.304	0.542	0.699	0.634	0.322	0.628	0.312	0.611	0.304	0.468	0.288	0.145
	NO0039R	µg/m <sup>3</sup>	0.491	0.927	1.048	1.006	0.77	1.292	0.835	0.958	0.274	0.749	0.546	0.326
	NO0042R	µg/m <sup>3</sup>	0.518	0.236	0.376	0.385	0.263	0.374	0.259	0.203	0.193	0.148	0.08	0.105
<i>Percentage completion of mandatory programme</i>													<b>100.0</b>	
Voluntary														
2007														
NO			<i>not reported</i>											
arsenic	NO0001R	ng/m <sup>3</sup>	0.095	0.272	0.343	0.307	0.202	0.233	0.122	0.185	0.113	0.372	0.124	0.132
	NO0042R	ng/m <sup>3</sup>	0.123	0.044	0.067	0.072	0.017	0.011	0.014	0.023	0.01	0.009	0.051	0.169
cadmium	NO0001R	ng/m <sup>3</sup>	0.036	0.072	0.122	0.061	0.027	0.047	0.02	0.039	0.023	0.066	0.026	0.026
	NO0042R	ng/m <sup>3</sup>	0.018	0.008	0.014	0.023	0.004	0.023	0.002	0.009	0.002	0.003	0.01	0.037
chromium	NO0001R	ng/m <sup>3</sup>	0.892	1.012	0.771	0.848	0.409	0.289	0.178	0.406	0.233	0.397	0.188	0.604
	NO0042R	ng/m <sup>3</sup>	0.103	0.044	0.067	0.064	0.034	0.106	0.041	0.121	0.063	0.078	0.066	0.097
copper	NO0001R	ng/m <sup>3</sup>	1.044	0.552	0.67	0.658	0.562	0.682	0.757	1.049	0.582	1.864	0.273	1.068
	NO0042R	ng/m <sup>3</sup>	0.209	0.2	0.224	0.778	0.137	0.705	0.096	0.589	0.117	0.18	0.172	0.275
lead	NO0001R	ng/m <sup>3</sup>	0.9	2.362	2.557	1.528	0.778	1.371	0.481	1.634	0.61	1.616	0.68	1.004
	NO0042R	ng/m <sup>3</sup>	0.664	0.27	0.401	0.65	0.106	0.69	0.032	0.198	0.05	0.06	0.328	1.5
mercury	NO0042R	ng/m <sup>3</sup>	1.611	1.699	1.821	1.416	1.705	1.832	1.636	1.596	1.754	1.77	1.719	1.599
nickel	NO0001R	ng/m <sup>3</sup>	0.312	0.908	0.702	0.913	0.527	0.495	0.347	0.73	0.25	0.502	0.204	1.411
	NO0042R	ng/m <sup>3</sup>	0.053	0.044	0.066	0.148	0.036	0.122	0.027	0.272	0.01	0.031	0.04	0.09
zinc	NO0001R	ng/m <sup>3</sup>	1.892	8.527	7.639	4.759	2.615	5.042	1.774	3.937	2.345	7.113	2.206	3.429
	NO0042R	ng/m <sup>3</sup>	1.093	0.92	1.737	2.985	0.379	0.874	0.204	1.696	0.352	0.372	0.796	2.53
PCB_28	NO0001R	pg/m <sup>3</sup>	0.952		1.555	1.129	1.127	1.924	1.638	1.748	0.938	1.215	1.346	1.128
	NO0042R	pg/m <sup>3</sup>	3.113	2.699	2.855	1.651	1.693	5.207	4.762	3.779	1.77	2.093	2.552	1.628
PCB_52	NO0001R	pg/m <sup>3</sup>	0.843		1.334	1.078	1.184	1.782	1.528	1.556	0.826	1.371	1.372	1.12
	NO0042R	pg/m <sup>3</sup>	1.54	1.216	1.426	1.066	0.812	1.627	1.444	1.135	0.786	0.895	1.035	1.01
PCB_101	NO0001R	pg/m <sup>3</sup>	0.456		0.725	0.654	0.77	1.114	0.989	1.039	0.514	0.846	0.68	0.406
	NO0042R	pg/m <sup>3</sup>	0.896	0.468	0.587	0.491	0.323	0.569	0.541	0.324	0.345	0.398	0.406	0.399
PCB_118	NO0001R	pg/m <sup>3</sup>	0.193		0.261	0.216	0.335	0.627	0.518	0.349	0.18	0.297	0.347	0.116
	NO0042R	pg/m <sup>3</sup>	0.717	0.155	0.207	0.707	0.245	0.186	0.229	0.089	0.122	0.233	0.138	2.589
PCB_138	NO0001R	pg/m <sup>3</sup>	0.26		0.307	0.447	0.442	0.953	0.71	0.482	0.334	0.328	0.302	0.156
	NO0042R	pg/m <sup>3</sup>	0.835	0.136	0.213	1.239	0.326	0.208	0.255	0.086	0.106	0.288	0.128	0.489
PCB_153	NO0001R	pg/m <sup>3</sup>	0.419		0.506	0.818	0.76	1.255	1.349	0.756	0.616	0.505	0.521	0.256
	NO0042R	pg/m <sup>3</sup>	1.301	0.23	0.353	2.614	0.761	0.367	0.448	0.139	0.183	0.499	0.21	1.014
PCB_180	NO0001R	pg/m <sup>3</sup>	0.104		0.12	0.199	0.21	0.303	0.226	0.183	0.18	0.192	0.102	0.063
	NO0042R	pg/m <sup>3</sup>	0.319	0.04	0.076	0.623	0.202	0.128	0.074	0.028	0.041	0.138	0.039	0.14
anthracene	NO0042R	pg/m <sup>3</sup>	0.005	0.002	0.002	0.001	0.001	0.001	0.001	0.002	0.001	0.013	0.006	0.003
benzo(a)anthracene	NO0042R	pg/m <sup>3</sup>	0.02	0.002	0.002	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.002	0.011
benzo(a)pyrene	NO0042R	pg/m <sup>3</sup>	0.015	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.012
benzo(ghi)perylene	NO0042R	pg/m <sup>3</sup>	0.028	0.004	0.003	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.004	0.018
chrysene	<i>not reported</i>													
chrysene+triphenylene	NO0042R	pg/m <sup>3</sup>	0.065	0.009	0.007	0.001	0.002	0.002	0.001	0.002	0.001	0.001	0.01	0.037
flouranthene	NO0042R	pg/m <sup>3</sup>	0.169	0.026	0.038	0.007	0.011	0.011	0.008	0.011	0.01	0.008	0.027	0.106
g-HCH	NO0001R	pg/m <sup>3</sup>	1.918		3.613	4.698	5.186	5.339	6.827	7.453	3.57	4.062	3.281	2.588
	NO0042R	pg/m <sup>3</sup>	1.718	1.488	2.076	2.14	1.58	1.264	1.375	1.43	1.563	1.208	1.541	1.482
indeno(123cd)pyrene	NO0042R	pg/m <sup>3</sup>	0.023	0.003	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.004	0.019
phenanthrene	NO0042R	pg/m <sup>3</sup>	0.267	0.051	0.132	0.024	0.031	0.05	0.043	0.043	0.039	0.045	0.07	0.146
pyrene	NO0042R	pg/m <sup>3</sup>	0.094	0.016	0.014	0.006	0.01	0.01	0.007	0.01	0.007	0.019	0.066	
<i>Percentage completion of voluntary programme</i>													<b>92.3</b>	

additional non-CAMP components														
2007														
PCB_18	NO0042G	pg/m <sup>3</sup>	5.864	4.286	4.88	2.742	2.441	7.278	7.701	6.136	2.447	1.917	2.463	16.339
PCB_31	NO0042G	pg/m <sup>3</sup>	2.977	2.584	2.713	1.54	1.584	4.949	4.585	3.627	1.624	1.849	2.275	1.537
PCB_33	NO0042G	pg/m <sup>3</sup>	2.056	1.911	1.905	1.126	1.164	3.771	3.6	2.774	1.254	1.532	1.804	7.414
PCB_37	NO0042G	pg/m <sup>3</sup>	0.254	0.279	0.252	0.151	0.161	0.502	0.388	0.298	0.208	0.311	0.351	1.106
PCB_47	NO0042G	pg/m <sup>3</sup>	0.641	0.51	0.598	0.465	0.307	0.78	0.702	0.567	0.381	0.552	0.595	0.441
PCB_66	NO0042G	pg/m <sup>3</sup>	0.561	0.325	0.348	0.334	0.204	0.529	0.319	0.231	0.218	0.343	0.34	2.516
PCB_74	NO0042G	pg/m <sup>3</sup>	0.311	0.233	0.236	0.222	0.133	0.306	0.215	0.158	0.145	0.215	0.22	0.227
PCB_99	NO0042G	pg/m <sup>3</sup>	0.595	0.213	0.263	0.407	0.192	0.185	0.202	0.12	0.152	0.215	0.171	0.327
PCB_105	NO0042G	pg/m <sup>3</sup>	0.253	0.046	0.066	0.193	0.059	0.058	0.066	0.028	0.039	0.074	0.045	0.726
PCB_114	NO0042G	pg/m <sup>3</sup>	0.039	0.01	0.012	0.023	0.013	0.01	0.011	0.013	0.017	0.011	0.289	0.097
PCB_122	NO0042G	pg/m <sup>3</sup>	0.017	0.01	0.013	0.01	0.019	0.01	0.01	0.012	0.015	0.01	0.01	0.144
PCB_123	NO0042G	pg/m <sup>3</sup>	0.021	0.01	0.013	0.011	0.01	0.01	0.01	0.012	0.017	0.01	0.01	0.07
PCB_128	NO0042G	pg/m <sup>3</sup>	0.135	0.019	0.032	0.151	0.041	0.032	0.036	0.018	0.028	0.047	0.024	0.458
PCB_141	NO0042G	pg/m <sup>3</sup>	0.127	0.031	0.034	0.035	0.021	0.051	0.049	0.024	0.031	0.027	0.028	0.221
PCB_149	NO0042G	pg/m <sup>3</sup>	0.522	0.261	0.277	0.262	0.16	0.385	0.28	0.156	0.162	0.191	0.178	1.404
PCB_156	NO0042G	pg/m <sup>3</sup>	0.046	0.01	0.016	0.086	0.026	0.016	0.015	0.012	0.014	0.023	0.013	0.208
PCB_157	NO0042G	pg/m <sup>3</sup>	0.013	0.01	0.01	0.021	0.011	0.01	0.01	0.012	0.014	0.01	0.01	0.103
PCB_167	NO0042G	pg/m <sup>3</sup>	0.028	0.01	0.011	0.053	0.019	0.01	0.013	0.012	0.015	0.014	0.01	0.113
PCB_170	NO0042G	pg/m <sup>3</sup>	0.073	0.012	0.021	0.136	0.049	0.043	0.024	0.014	0.02	0.043	0.017	0.232
PCB_183	NO0042G	pg/m <sup>3</sup>	0.105	0.014	0.026	0.156	0.042	0.039	0.024	0.014	0.019	0.031	0.015	0.365
PCB_187	NO0042G	pg/m <sup>3</sup>	0.28	0.038	0.067	0.418	0.067	0.093	0.065	0.029	0.034	0.067	0.035	0.835
PCB_189	NO0042G	pg/m <sup>3</sup>	0.01	0.01	0.013	0.01	0.01	0.01	0.01	0.011	0.015	0.01	0.01	0.01
PCB_194	NO0042G	pg/m <sup>3</sup>	0.019	0.01	0.014	0.04	0.023	0.02	0.011	0.012	0.017	0.019	0.01	0.01
PCB_206	NO0042G	pg/m <sup>3</sup>	0.013	0.01	0.016	0.01	0.01	0.012	0.01	0.014	0.016	0.012	0.01	0.028
PCB_209	NO0042G	pg/m <sup>3</sup>	0.014	0.01	0.01	0.01	0.01	0.01	0.01	0.012	0.018	0.01	0.01	0.017
sum_PCB	NO0042G	pg/m <sup>3</sup>	22.08	22.04	22.48	33.07	61.50	27.71	31.68	21.88	27.19	21.48	26.07	34.47
acenaphthene	NO0042G	pg/m <sup>3</sup>	0.035	0.005	0.008	0.003	0.003	0.003	0.002	0.001	0.002	0.004	0.005	0.01
acenaphthylene	NO0042G	pg/m <sup>3</sup>	0.006	0.001	0.001	0.002	0.002	0.001	0.002	0.001	0.001	0.001	0.001	0.003
alpha_HCH	NO0042G	pg/m <sup>3</sup>	5.007	-9999.99	6.765	6.734	7.9	12.856	10.933	12.645	11.234	9.63	6.5	4.696
anthanthrene	NO0042G	pg/m <sup>3</sup>	0.003	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002
benzo_a_fluoranthene	NO0042G	pg/m <sup>3</sup>	0.005	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.004
benzo_a_fluorene	NO0042G	pg/m <sup>3</sup>	0.009	0.002	0.001	0.008	0.001	0.002	0.001	0.002	0.001	0.001	0.002	0.008
benzo_b_fluorene	NO0042G	pg/m <sup>3</sup>	0.005	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.004	0.004
benzo_bjk_fluoranthenes	NO0042G	pg/m <sup>3</sup>	0.078	0.01	0.008	0.001	0.002	0.001	0.002	0.002	0.002	0.002	0.015	0.068
benzo_e_pyrene	NO0042G	pg/m <sup>3</sup>	0.032	0.004	0.004	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.007	0.024
benzo_ghi_fluoranthene	NO0042G	pg/m <sup>3</sup>	0.02	0.005	0.002	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.002	0.011
biphenyl	NO0042G	pg/m <sup>3</sup>	2.006	0.855	0.843	0.188	0.078	0.055	0.024	0.022	0.093	1.042	0.85	1.253
cis_CD	NO0042G	pg/m <sup>3</sup>	0.825	0.574	0.575	0.457	0.551	0.448	0.657	0.434	0.49	0.527	0.844	0.51
trans_CD	NO0042G	pg/m <sup>3</sup>	0.443	0.319	0.312	0.215	0.124	0.077	0.132	0.093	0.087	0.249	0.318	0.235
coronene	NO0042G	pg/m <sup>3</sup>	0.011	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.006
cyclopenta_cd_pyrene	NO0042G	pg/m <sup>3</sup>	0.006	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.004
dibenzo_ac_ah_anthracenes	NO0042G	pg/m <sup>3</sup>	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002
dibenzo_ae_pyrene	NO0042G	pg/m <sup>3</sup>	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001
dibenzo_ah_pyrene	NO0042G	pg/m <sup>3</sup>	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.148	0.001
dibenzo_ai_pyrene	NO0042G	pg/m <sup>3</sup>	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
dibenzofuran	NO0042G	pg/m <sup>3</sup>	2.191	1.069	1.705	0.263	0.067	0.056	0.035	0.043	0.153	0.308	0.724	1.396
dibenzothiophene	NO0042G	pg/m <sup>3</sup>	0.035	0.015	0.019	0.003	0.002	0.005	0.004	0.003	0.002	0.003	0.01	0.018
op_DDD	NO0042G	pg/m <sup>3</sup>	0.705	0.039	0.075	0.017	0.016	0.085	0.022	0.013	0.015	0.018	0.106	0.057
pp_DDD	NO0042G	pg/m <sup>3</sup>	1.337	0.053	0.082	0.023	0.025	0.278	0.061	0.022	0.022	0.028	0.083	0.087
op_DDE	NO0042G	pg/m <sup>3</sup>	0.2	0.167	0.126	0.068	0.027	0.025	0.022	0.019	0.021	0.038	0.06	0.126
pp_DDE	NO0042G	pg/m <sup>3</sup>	3.967	1.036	1.034	3.367	1.295	0.323	1.52	0.137	0.217	0.971	0.428	1.759
op_DDT	NO0042G	pg/m <sup>3</sup>	0.526	0.362	0.254	0.214	0.086	0.075	0.122	0.077	0.104	0.124	0.234	0.315
pp_DDT	NO0042G	pg/m <sup>3</sup>	0.492	0.127	0.156	0.1	0.047	0.072	0.212	0.037	0.042	0.049	0.073	0.141
sum_DDT	NO0042G	pg/m <sup>3</sup>	7.228	1.784	1.726	8.26	1.497	0.857	1.928	0.305	0.42	1.229	9.266	2.486
fluorene	NO0042R	pg/m <sup>3</sup>	1	0.314	0.49	0.023	0.026	0.037	0.022	0.02	0.044	0.082	0.224	0.613
PCB	NO0042G	pg/m <sup>3</sup>	54.947		63.881	65.946	69.194	60.194	61.506	65.892	62.741	70.037	72.561	55.625
PCB	NO001R	pg/m <sup>3</sup>	66.688	51.146	62.738	68.518	69.415	67.893	72.577	73.646	73.317	69.721	64.646	
alpha_HCH	NO0042G	pg/m <sup>3</sup>	8.296	7.41	7.637	11.553	9.135	8.621	10.223	11.165	12.019	8.898	10.133	9.592
N1methylnaphtalene	NO0042G	pg/m <sup>3</sup>	0.698	0.138	0.11	0.155	0.188	0.038	0.021	0.017	0.019	0.301	0.13	0.243
N1methylphenanthrene	NO0042G	pg/m <sup>3</sup>	0.012	0.005	0.005	0.004	0.003	0.006	0.006	0.006	0.005	0.007	0.007	0.008
N2methylanthracene	NO0042G	pg/m <sup>3</sup>	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.001	0.001	0.001	0.001
N2methylnaphtalene	NO0042G	pg/m <sup>3</sup>	0.932	0.184	0.164	0.298	0.379	0.079	0.041	0.032	0.035	0.51	0.195	0.285
N2methylphenanthrene	NO0042G	pg/m <sup>3</sup>	0.018	0.007	0.01	0.006	0.006	0.012	0.011	0.009	0.007	0.011	0.012	0.013
N3methylphenanthrene	NO0042G	pg/m <sup>3</sup>	0.013	0.005	0.007	0.005	0.005	0.009	0.009	0.007	0.006	0.009	0.01	0.009
N9methylphenanthrene	NO0042G	pg/m <sup>3</sup>	0.01	0.004	0.005	0.005	0.005	0.009	0.008	0.007	0.005	0.009	0.009	0.006
naphtalene	NO0042G	pg/m <sup>3</sup>	3.126	0.734	0.536	0.328	0.519	0.154	0.087	0.087	0.115	1.161	0.536	0.963
cis_NO	NO0042G	pg/m <sup>3</sup>	0.351	0.027	0.03	0.081	0.088	0.067	0.081	0.077	0.079	0.074	0.188	0.042
trans_NO	NO0042G	pg/m <sup>3</sup>	0.942	0.47	0.511	0.523	0.558	0.336	0.377	0.314	0.347	0.453	0.638	0.521
perylene	NO0042G	pg/m <sup>3</sup>	0.003	0.003	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003
retene	NO0042G	pg/m <sup>3</sup>	0.02	0.005	0.005	0.002	0.003	0.005	0.005	0.009	0.006	0.004	0.004	0.01

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## PORTUGAL

Components in Precipitation															
Mandatory 2007	station	units	month												
			january	february	march	april	may	june	july	august	september	october	november	december	
ammonium	PT0003R	mg/l	0.12	0.391	0.16	0.253	0.015								
	PT0004R		0.015	0.018	0.74	0.618	0.342	0.155				0.35	0.13	0.31	0.13
	PT0010R		0.064	0.056	0.087	0.094	0.09	0.272	0.088			0.19	0.044	0.11	0.081
nitrate	PT0003R	mg/l	0.222	0.035	0.03	0.458	0.01								
	PT0004R		0.17	0.035	0.38	0.849	0.35	0.189				1.96	0.26	0.274	0.13
	PT0010R		0.036	0.01	0.077	0.012	0.01	0.073	0.01			0.187	0.02	0.039	0.025
precipitation nitrogen	PT0003R	mm	49.9	205.3	28	33.3	93	132.5	48.4	25.5	47.3	23.4	43.2	62.6	
	PT0004R		19.9	73.5	11.5	22.6	44.8	46.4	0	0	8.9	19.3	57.8	50	
	PT0010R		120.6	120.1	50.8	149.1	7.5	115.8	24.6	3.9	46.5	60.6	151.9	117.5	
arsenic			<i>not reported</i>												
cadmium	PT0003R	µg/l	0.425	0.425	0.425	0.425	0.425								
	PT0004R		0.425	0.425	0.425	0.425	0.425	0.425				0.425	0.425	0.425	0.425
	PT0010R		0.425	0.425	0.425	0.425	0.425	0.425	0.425			0.425	0.425	0.425	0.425
chromium			<i>not reported</i>												
copper	PT0003R	µg/l	1.17	3.363	1.07	2.193	0.509								
	PT0004R		1.53	1.202	3.2	2.262	1.904	0.325				1.63	0.325	0.325	0.325
	PT0010R		0.476	2.654	1.576	3.181	1.12	0.449	2.246			0.325	0.325	0.368	0.325
lead	PT0003R	µg/l	4.629	4.766	0.645	11.378	0.645								
	PT0004R		0.645	0.645	0.645	0.645	1.411	0.645				0.645	0.645	0.645	0.645
	PT0010R		0.645	0.645	0.645	0.645	0.645	0.645	0.645			0.645	0.645	0.645	0.645
mercury			<i>not reported</i>												
nickel	PT0003R	µg/l	2.18	0.775	0.775	0.775	0.775								
	PT0004R		0.775	2.074	0.775	0.775	1.536	0.775				0.775	0.775	0.775	0.775
	PT0010R		3.701	1.195	1.12	0.775	0.775	0.775	0.775			0.775	0.775	0.835	0.775
zinc	PT0003R	µg/l	0.725	9.341	1	21.606	1								
	PT0004R		100	1	20	4.492	4.251	3.301							
	PT0010R		120.83	8.812	2.371	8.976	10	3.343	1						
precipitation all metals	PT0003R	mm	49.9	205.3	28	33.3	93	132.5	48.4	25.5	47.3	23.4	43.2	62.6	
	PT0004R		19.9	73.5	11.5	22.6	44.8	46.4	0	0	8.9	19.3	57.8	50	
	PT0010R		120.6	120.1	50.8	149.1	7.5	115.8	24.6	3.9	46.5	60.6	151.9	117.5	
g-HCH			<i>not reported</i>												
													Percentage completion of mandatory programme	55.3	
<b>Voluntary</b>															
2007															
PCB_28			<i>not reported</i>												
PCB_52			<i>not reported</i>												
PCB_101			<i>not reported</i>												
PCB_118			<i>not reported</i>												
PCB_138			<i>not reported</i>												
PCB_153			<i>not reported</i>												
PCB_180			<i>not reported</i>												
anthracene			<i>not reported</i>												
benzo(a)anthracene			<i>not reported</i>												
benzo(a)pyrene			<i>not reported</i>												
benzo(ghi)perylene			<i>not reported</i>												
chrysene+triphenylene			<i>not reported</i>												
flouranthene			<i>not reported</i>												
indeno(123cd)pyrene			<i>not reported</i>												
phenanthrene			<i>not reported</i>												
pyrene			<i>not reported</i>												
													Percentage completion of voluntary programme	0.0	



## SPAIN

Components in Precipitation															
2007															
Mandatory	station	units	month												
			january	february	march	april	may	june	july	august	september	october	november	december	
ammonium	ES0008R	mg/l	0.117	0.478	0.359	0.338	0.524	0.735	1.023	0.798	0.722	0.521	0.26	0.311	
nitrate	ES0008R	mg/l	0.276	0.64	0.347	0.344	0.553	0.734	1.21	0.733	0.827	0.514	0.425	0.25	
precipitation	<i>nitrogen</i>	mm	41	25	67	90.2	53.8	34.2	17.6	89.4	27.4	62.4	43	23.8	
arsenic	ES0008R	µg/l	0.258	0.088	0.138	0.1	0.152	0.204	0.112	0.128	0.15	0.234	0.055	0.483	
cadmium	ES0008R	µg/l	0.106	0.033	0.023	0.035	0.136	0.193	0.208	0.024	0.055	0.221	0.04	0.128	
chromium	ES0008R	µg/l	55.56	101.65	118.261	130.25	92.412	126.054	102.764	12.192	45.984	10.297	7.714	7.83	
copper	ES0008R	µg/l	32.07	4.434	4.915	8.803	20.006	27.792	26.902	6.66	15.815	26.02	6.522	18.004	
lead	ES0008R	µg/l	3.047	1.356	0.757	9.316	2.608	14.469	7.041	0.517	1.74	2.001	1.015	3.161	
mercury		ng/l	<i>not reported</i>												
nickel	ES0008R	µg/l	21.422	162.487	147.183	21.547	27.527	41.492	31.588	9.615	10.834	6.83	6.889	26.191	
zinc	ES0008R	µg/l	91.953	23.976	30.899	30.933	316.791	91.222	109.164	19.504	64.684	95.786	57.82	55.179	
precipitation	<i>metals</i>	mm	124.21	91.66	154.15	129.29	103.83	58.44	31.45	102.03	40.55	64.69	82.21	33.9	
g-HCH			<i>not reported</i>												
													Percentage completion of mandatory programme		81.8
<b>Voluntary</b>															
PCB_28			<i>not reported</i>												
PCB_52			<i>not reported</i>												
PCB_101			<i>not reported</i>												
PCB_118			<i>not reported</i>												
PCB_138			<i>not reported</i>												
PCB_153			<i>not reported</i>												
PCB_180			<i>not reported</i>												
anthracene			<i>not reported</i>												
benzo(a)anthracene			<i>not reported</i>												
benzo(a)pyrene			<i>not reported</i>												
benzo(ghi)perylene			<i>not reported</i>												
chrysene+triphenylene			<i>not reported</i>												
flouranthene			<i>not reported</i>												
indeno(123cd)pyrene			<i>not reported</i>												
phenanthrene			<i>not reported</i>												
pyrene			<i>not reported</i>												
													Percentage completion of voluntary programme		0.0

Airborne components															
2007															
Mandatory	station	units	month												
			january	february	march	april	may	june	july	august	september	october	november	december	
NO2	ES0008R	µg/m <sup>3</sup>	2.837	2.242	1.888	2.174	1.265	1.096	1.101	1.362	1.516	2.538	2.01	2.56	
HNO3			not reported												
NO3	ES0008R	µg/m <sup>3</sup>	0.5	0.444	0.733	0.896	0.393	0.251	0.168	0.345	0.452	0.405	0.418	0.37	
HNO3+NO3	ES0008R	µg/m <sup>3</sup>	0.769	0.608	0.949	1.707	0.709	0.502	0.425	0.474	0.73	0.7	0.486	0.436	
NH3	ES0008R	µg/m <sup>3</sup>	0.76	0.955	0.748	1.675	0.894	0.925	1.017	1.344	1.082	0.843	0.68	1.275	
NH4			not reported												
NH3+NH4	ES0008R	µg/m <sup>3</sup>	1.778	1.5	1.884	3.91	2.299	1.797	1.583	2.1	2.012	2.161	1.12	1.236	
													Percentage completion of mandatory programme		100.0
Voluntary															
2007															
NO	ES0008R	µg/m <sup>3</sup>	0.364	0.263	0.2	0.212	0.239	0.251	0.289	0.275	0.254	0.32	0.183	0.278	
arsenic	ES0008R	ng/m <sup>3</sup>			0.16	0.38	0.127	0.118	0.065	0.182	0.225	0.347	0.194	0.205	
cadmium	ES0008R	ng/m <sup>3</sup>	0.09	0.1	0.08	0.232	0.07	0.105	0.017	0.055	0.1	0.117	0.06	0.093	
chromium	ES0008R	ng/m <sup>3</sup>			0.775	0.775	1.636	0.775	0.775	0.775	0.989	2.01	0.775	0.775	
copper	ES0008R	ng/m <sup>3</sup>	17.745	27.37	28.377	48.13	80.392	87.778	34.42	52.313	57.99	73.74	29.342	61.898	
lead	ES0008R	ng/m <sup>3</sup>	3	3.67	9.292	14.675	3.294	5.045	2.227	5.16	12.988	9.868	5.496	5.155	
mercury	ES0008R	ng/m <sup>3</sup>											0.005		
nickel	ES0008R	ng/m <sup>3</sup>			1.012	5.319	9.198	1.475	0.524	1.924	1.95	2.043	0.967	1.13	
zinc	ES0008R	ng/m <sup>3</sup>			43.39	44.252	18.248	21.377	6.818	8.653	24.015	20.678	14.274	12.92	
PCB_28			not reported												
PCB_52			not reported												
PCB_101			not reported												
PCB_118			not reported												
PCB_138			not reported												
PCB_153			not reported												
PCB_180			not reported												
anthracene	ES0008R	ng/m <sup>3</sup>			0.005	0.005	0.005								
benzo(a)anthracene			not reported												
benzo(a)pyrene	ES0008R	ng/m <sup>3</sup>	0.021	0.02	0.028	0.019	0.025	0.019	0.018	0.021	0.018	0.027	0.018	0.019	
benzo(ghi)perylene	ES0008R	ng/m <sup>3</sup>	0.025	0.024	0.031	0.024	0.029	0.082	0.024	0.025	0.023	0.029	0.024	0.025	
chrysene	ES0008R	ng/m <sup>3</sup>	0.016	0.016	0.022	0.015	0.018	0.015	0.015	0.015	0.014	0.017	0.014	0.015	
flouranthene			not reported												
g-HCH			not reported												
indeno(123cd)pyrene	ES0008R	ng/m <sup>3</sup>	0.029	0.029	0.03	0.028	0.029	0.028	0.028	0.029	0.028	0.033	0.028	0.029	
phenanthrene	ES0008R	ng/m <sup>3</sup>	0.007	0.007	0.01	0.009	0.009	0.007	0.007	0.006	0.006	0.007	0.006	0.006	
pyrene	ES0008R	ng/m <sup>3</sup>	0.008	0.008	0.014	0.007	0.01	0.006	0.006	0.007	0.007	0.01	0.006	0.007	
													Percentage completion of voluntary programme		52.6
* insufficient for calculation of monthly average															
additional non-CAMP components															
2007															
acenaphthene	ES0008R	ng/m <sup>3</sup>	0.057	0.041	0.06	0.058	0.059	0.058	0.058	0.056	0.057	0.057	0.057	0.057	
acenaphthylene	ES0008R	ng/m <sup>3</sup>	0.024	0.025	0.028	0.026	0.027	0.025	0.025	0.024	0.024	0.024	0.024	0.024	
benzo(b)fluoranthene	ES0008R	ng/m <sup>3</sup>	0.024	0.024	0.031	0.024	0.028	0.02	0.023	0.024	0.022	200.021	0.022	0.024	
benzo(j)fluoranthene	ES0008R	ng/m <sup>3</sup>	0.018	0.018	0.02	0.019	0.019	0.019	0.018	0.018	0.018	0.018	0.017	0.018	
benzo(k)fluoranthene	ES0008R	ng/m <sup>3</sup>	0.011	0.011	0.018	0.009	0.015	0.012	0.01	0.01	0.009	0.017	0.009	0.011	
dibenzo(ah)anthracene	ES0008R	ng/m <sup>3</sup>	0.03	0.03	0.032	0.03	0.031	0.03	0.03	0.03	0.03	0.031	0.03	0.03	
fluorantene	ES0008R	ng/m <sup>3</sup>	0.019	0.02	0.026	0.018	0.023	0.017	0.018	0.019	0.017	0.022	0.017	0.018	
fluorene	ES0008R	ng/m <sup>3</sup>	0.015		0.009	0.006	0.009	0.009	0.007	0.015	0.015	0.015	0.015	0.015	
naphthalene	ES0008R	ng/m <sup>3</sup>	0.006	0.006	0.006	0.007	0.007	0.007	0.007	0.006	0.006	200.003	0.006	0.006	

## SWEDEN

Components in Precipitation															
2007															
Mandatory	station	units	month												
			january	february	march	april	may	june	july	august	september	october	november	december	
ammonium	SE0014R	mg/l	0.187	0.661	0.334	0.404	0.596	0.393	0.216	0.534	0.180	0.992	0.444	0.476	
nitrate	SE0014R	mg/l	0.288	0.824	0.547	0.241	0.430	0.204	0.191	0.327	0.210	0.926	0.730	0.723	
precipitation	<i>nitrogen</i>	SE0014R	mm	74.0	12.5	42.9	33.7	73.8	126.3	169.6	83.0	119.3	24.2	36.2	64.8
arsenic	SE0097R	µg/l		0.270	0.280	0.180	0.150	0.050	0.050	0.180	0.120	0.150	0.250	0.140	
cadmium	SE0097R	µg/l		0.090	0.040	0.020	0.030	0.030	0.010	0.020	0.020	0.040	0.040	0.020	
chromium	SE0097R	µg/l		0.320	0.280	0.340	0.180	0.050	0.130	0.140	0.150	0.170	0.300	0.220	
copper	SE0097R	µg/l		0.670	1.300	0.570	0.540	3.700	0.270	0.500	0.260	0.500	3.300	0.720	
lead	SE0097R	µg/l		1.300	0.860	0.180	0.790	0.310	0.330	0.450	0.350	0.710	1.100	0.690	
mercury	SE0014R	ng/l	8.200	15.300	10.000	9.600	11.100	5.900	21.100	10.500	8.800	13.900	6.900	12.600	
nickel	SE0097R	µg/l		0.420	0.730	0.310	0.250	0.200	0.130	0.170	0.140	0.230	0.370	0.390	
zinc	SE0097R	µg/l		9.500	8.200	3.500	4.400	5.200	1.900	5.900	4.200	5.600	10.000	3.900	
precipitation	<i>all metals</i>	SE0097R	mm		41.0	104.0	46.0	67.0	131.0	148.0	106.0	160.0	45.0	81.0	239.0
precipitation	<i>Hg</i>	SE0014R	mm	46.0	15.0	21.0	23.0	79.0	97.0	98.0	63.0	108.0	16.0	47.0	19.0
g-HCH <sup>+</sup>	SE0014R	ng/m <sup>2</sup> /day	0.690	0.130	0.420	0.160	0.180	0.010	0.710	0.510	0.160	0.260	0.300	0.020	
													Percentage completion of mandatory programme		94.7
<b>Voluntary</b>															
2007															
PCB_28	SE0014R	ng/m <sup>2</sup> /day	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
PCB_52	SE0014R	ng/m <sup>2</sup> /day	0.050	0.005	0.005	0.020	0.040	0.020	0.040	0.040	0.050	0.040	0.040	0.020	
PCB_101	SE0014R	ng/m <sup>2</sup> /day	0.150	0.080	0.090	0.070	0.080	0.090	0.100	0.090	0.090	0.090	0.120	0.040	
PCB_118	SE0014R	ng/m <sup>2</sup> /day	0.150	0.080	0.080	0.050	0.070	0.090	0.130	0.100	0.090	0.070	0.090	0.040	
PCB_138	SE0014R	ng/m <sup>2</sup> /day	0.500	0.250	0.240	0.240	0.210	0.460	0.380	0.370	0.290	0.230	0.310	0.100	
PCB_153	SE0014R	ng/m <sup>2</sup> /day	0.450	0.200	0.200	0.230	0.190	0.530	0.410	0.400	0.300	0.200	0.280	0.090	
PCB_180	SE0014R	ng/m <sup>2</sup> /day	0.310	0.160	0.180	0.150	0.120	0.250	0.250	0.320	0.150	0.150	0.200	0.070	
anthracene	SE0014R	ng/m <sup>2</sup> /day	1.000	2.000	1.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	
benzo(a)anthracene	SE0014R	ng/m <sup>2</sup> /day	4.000	13.000	4.000	2.000	3.000	1.000	1.000	2.000	2.000	1.000	4.000	4.000	
benzo(a)pyrene	SE0014R	ng/m <sup>2</sup> /day	5.000	16.000	5.000	3.000	4.000	1.000	2.000	3.000	3.000	1.000	6.000	4.000	
benzo(ghi)perylene	SE0014R	ng/m <sup>2</sup> /day	1.000	4.000	1.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	1.000	1.000	
chrysene+triphenylene	SE0014R	ng/m <sup>2</sup> /day	15.000	18.000	11.000	10.000	8.000	2.000	4.000	4.000	4.000	2.000	16.000	16.000	
flouranthene	SE0014R	ng/m <sup>2</sup> /day	28.000	61.000	26.000	10.000	11.000	4.000	9.000	8.000	8.000	6.000	30.000	26.000	
indeno(123cd)pyrene	SE0014R	ng/m <sup>2</sup> /day	5.000	15.000	6.000	3.000	4.000	1.000	2.000	2.000	2.000	1.000	6.000	4.000	
phenanthrene	SE0014R	ng/m <sup>2</sup> /day	26.000	44.000	21.000	9.000	9.000	4.000	10.000	6.000	7.000	6.000	21.000	19.000	
pyrene	SE0014R	ng/m <sup>2</sup> /day	18.000	37.000	15.000	7.000	8.000	3.000	7.000	6.000	6.000	4.000	19.000	15.000	
													Percentage completion of voluntary programme		100.0
<b>additional non-CAMP components</b>															
2007															
cobalt	SE0097R	µg/l		0.040	0.040	0.020	0.020	0.020	0.010	0.030	0.020	0.030	0.040	0.030	
manganese	SE0097R	µg/l		2.600	1.000	1.400	1.700	2.800	0.900	2.100	0.900	1.500	1.200	0.600	
vanadium	SE0097R	µg/l		0.700	1.500	0.800	0.700	0.400	0.500	1.100	0.700	0.800	1.400	1.000	
precipitation	<i>metals</i>	SE0097R	mm		41	104	46	67	131	148	106	160	45	81	239
benzo_b_flouranthene	SE0014R	ng/m <sup>2</sup> /day	9	29	8	4	5	1	4	4	3	2	12	12	
benzo_k_flouranthene	SE0014R	ng/m <sup>2</sup> /day	4	10	3	2	2	1	1	2	1	1	5	4	
													number of additional components reported		4

Airborne components															
2007															
Mandatory	station	units	month												
			january	february	march	april	may	june	july	august	september	october	november	december	
NO2	SE0014R	µg/m <sup>3</sup>	1.132	1.164	1.769	1.672	1.211	1.193	0.866	0.985	1.025	1.703	1.827	2.088	
HNO3			not reported												
NO3			not reported												
HNO3+NO3	SE0014R	µg/m <sup>3</sup>	0.285	0.312	0.615	0.785	0.66	0.395	0.321	0.395	0.431	0.582	0.436	0.757	
NH3			not reported												
NH4			not reported												
NH3+NH4	SE0014R	µg/m <sup>3</sup>	0.197	0.705	0.959	1.173	0.87	0.732	0.462	0.785	0.458	0.81	0.543	0.73	
Percentage completion of mandatory programme														100.0	
Voluntary															
2007															
NO			not reported												
arsenic			not reported												
cadmium			not reported												
chromium			not reported												
copper			not reported												
lead			not reported												
mercury	aerosol	SE0014R	ng/m <sup>3</sup>	3.275	9.888	10.656	4.814	6.078	5.844	5.825	5.712	4.156	8.088	6.286	5.433
	air-aerosol	SE0014R	ng/m <sup>3</sup>	1.444	1.725	1.589	1.562	1.522	1.489	1.625	1.533	1.589	1.544	1.55	1.422
nickel			not reported												
zinc			not reported												
PCB_28	SE0014R	pg/m3	0.859	1.045	1.444	1.554	1.419	1.762	1.244	1.879	0.887	1.215	1.13	1.208	
PCB_52	SE0014R	pg/m3	0.993	0.945	1.343	1.661	1.956	2.925	1.692	2.388	1.536	1.411	0.993	1.261	
PCB_101	SE0014R	pg/m3	0.843	0.764	1.129	1.555	2.068	3.41	2.285	3.655	1.454	1.475	0.962	1.131	
PCB_118	SE0014R	pg/m3	0.305	0.273	0.391	0.605	0.764	1.242	0.849	1.369	0.559	0.503	0.353	0.373	
PCB_138	SE0014R	pg/m3	0.495	0.502	0.759	1.118	1.752	2.516	1.46	2.872	0.975	1.162	0.627	0.713	
PCB_153	SE0014R	pg/m3	0.663	0.605	0.927	1.321	2.035	3.077	1.911	3.587	1.178	1.342	0.743	0.881	
PCB_180	SE0014R	pg/m3	0.158	0.202	0.304	0.487	0.868	1.023	0.564	1.275	0.317	0.477	0.24	0.272	
anthracene	SE0014R	pg/m3	0.007	0.065	0.016	0.008	0.005	0.004	0.004	0.003	0.003	0.017	0.018	0.018	
benzo(a)anthracene	SE0014R	pg/m3	0.017	0.179	0.052	0.03	0.007	0.008	0.004	0.005	0.007	0.04	0.076	0.055	
benzo(a)pyrene	SE0014R	pg/m3	0.02	0.183	0.055	0.041	0.007	0.013	0.003	0.005	0.005	0.059	0.088	0.063	
benzo(ghi)perylene	SE0014R	pg/m3	0.023	0.183	0.069	0.052	0.007	0.009	0.004	0.006	0.005	0.066	0.11	0.095	
chrysene+triphenylen	SE0014R	pg/m3	0.055	0.349	0.125	0.098	0.029	0.032	0.012	0.017	0.018	0.071	0.166	0.155	
flouranthene	SE0014R	pg/m3	0.286	1.305	0.49	0.352	0.14	0.125	0.07	0.09	0.08	0.317	0.535	0.579	
g-HCH	SE0014R	pg/m3	2.567	3	2.742	4.7	6.968	6.2	7.613	3.774	3.6	2.548	2.6	0.129	
indeno(123cd)pyrene	SE0014R	pg/m3	0.837	2.865	1.455	0.922	0.405	0.45	0.32	0.355	0.315	0.907	1.345	1.625	
phenanthrene	SE0014R	pg/m3	0.837	2.865	1.455	0.922	0.405	0.45	0.32	0.355	0.315	0.907	1.345	1.625	
pyrene	SE0014R	pg/m3	0.186	0.82	0.325	0.221	0.085	0.07	0.045	0.055	0.05	0.227	0.36	0.351	
Percentage completion of voluntary programme														68.0	
additional non-CAMP components															
benzo_b_fluoranthene	SE0014R	pg/m3	0.036	0.32	0.11	0.087	0.019	0.016	0.008	0.013	0.013	0.098	0.158	0.139	
benzo_k_fluoranthene	SE0014R	pg/m3	0.015	0.143	0.045	0.035	0.006	0.005	0.003	0.005	0.005	0.04	0.067	0.056	
pp_DDD	SE0014R	pg/m3	0.413	0.02	0.025	0.037	0.065	0.065	0.08	0.045	0.065	0.047	0.05		
pp_DDE	SE0014R	pg/m3	1.404	1.955	2.36	1.594	1.275	1.115	1.105	2.045	1.105	2.923	1.92	2.078	
pp_DDT	SE0014R	pg/m3	0.277	0.61	0.75	0.872	0.68	0.825	0.725	1.325	0.44	0.78	0.425	0.452	

## UNITED KINGDOM

United Kingdom														
Components in Precipitation														
Mandatory 2007	station	units	month											
			january	february	march	april	may	june	july	august	september	october	november	december
ammonium	GB0006R	mg/l	0.061	0.306	0.058	0.296	0.503	0.245	0.014	0.072	0.129	0.230	0.252	0.257
	GB0013R	mg/l	0.088	0.198	0.073	26.200	0.589	12.628	5.575	0.070	1.660	0.657	0.078	0.071
	GB0014R	mg/l	0.431	0.640	0.354	2.486	1.224	0.374	0.218	0.524	0.264	0.931	0.506	0.453
nitrate	GB0016R	mg/l	0.232	0.377	0.101	0.101	0.105	0.772	0.158	2.497	1.580	1.670	0.398	0.240
	GB0006R	mg/l	0.030	0.138	0.058	0.134	0.051	0.203	0.053	0.050	0.079	0.123	0.128	0.090
	GB0013R	mg/l	0.096	0.161	0.080	1.560	0.218	0.157	0.141	0.082	0.687	0.565	0.170	0.093
precipitation nitrogen	GB0014R	mg/l	0.329	0.602	0.272	0.950	0.220	0.308	0.236	0.283	0.124	0.802	0.483	0.335
	GB0016R	mg/l	0.159	0.485	0.436	0.155	0.140	0.630	0.130	0.187	0.145	0.126	0.444	0.321
	GB0006R	mm	189.8	79.4	98.6	29.1	89.7	107.7	123.3	86.8	105.6	78.0	57.0	44.6
arsenic	GB0013R	mm	137.9	269.9	80.1	3.4	116.4	180.5	63.9	62.0	43.3	38.9	78.2	126.1
	GB0014R	mm	86.0	147.4	53.1	11.3	105.2	52.0	186.2	93.2	97.2	39.4	155.2	122.4
	GB0016R	mm	60.7	245.7	89.7	28.3	32.5	26.8	197.7	105.2	19.3	4.1	166.3	222.0
cadmium	GB0006R	µg/l	0.186	0.233	0.209	0.186	0.136	0.207	0.148	0.141	0.259	0.211	0.132	0.143
	GB0013R	µg/l	0.060	0.057	0.063	0.265	0.071	0.050	0.046	0.037	0.226	0.140	0.055	0.074
	GB0017R	µg/l	0.071	0.112	0.143	0.126	0.115	0.113	0.087	0.130	0.216	0.216		
chromium	GB00091R	µg/l	0.097	0.096	0.136	0.100	0.096	0.065	0.062	0.049	0.082	0.078	0.055	0.123
	GB0006R	µg/l	0.009	0.007	0.005	0.007	0.004	0.006	0.003	0.002	0.001	0.006	0.004	0.003
	GB0013R	µg/l	0.011	0.006	0.003	0.130	0.015	0.002	0.004	0.001	0.047	0.020	0.004	0.011
copper	GB0017R	µg/l	0.009	0.026	0.033	0.025	0.022	0.021	0.013	0.017	0.015	0.015		
	GB00091R	µg/l	0.006	0.015	0.005	0.008	0.008	0.002	0.004	0.004	0.005	0.005	0.005	0.021
	GB0006R	µg/l	0.088	0.346	0.135	0.074	0.041	0.022	0.020	0.138	0.046	0.020	0.075	0.043
lead	GB0013R	µg/l	0.116	0.087	0.044	0.258	0.084	0.037	0.020	0.041	0.156	0.108	0.045	0.022
	GB0017R	µg/l	0.085	0.048	0.080	0.053	0.040	0.041	0.053	0.077	0.139	0.139		
	GB00091R	µg/l	0.187	0.096	0.126	0.156	0.094	0.024	0.027	0.086	0.064	0.029	0.021	0.076
mercury	GB0006R	µg/l	0.266	0.192	0.424	0.267	0.151	0.191	0.153	0.135	0.411	0.339	0.135	0.114
	GB0013R	µg/l	0.183	0.162	0.150	2.250	0.243	0.188	0.188	0.102	1.090	0.633	0.091	0.152
	GB0017R	µg/l	0.380	0.612	0.699	0.552	0.515	0.530	0.694	0.633	0.879	0.879		
nickel	GB00091R	µg/l	0.321	0.257	0.289	0.390	0.188	0.130	0.200	0.112	0.162	0.199	0.144	0.478
	GB0006R	µg/l	0.123	0.118	0.030	0.211	0.080	0.144	0.082	0.030	0.232	0.212	0.093	0.055
	GB0013R	µg/l	0.166	0.244	0.095	3.227	0.349	0.118	0.118	0.047	1.850	0.857	0.169	0.483
zinc	GB0017R	µg/l	0.399	0.866	0.927	0.504	0.452	0.453	0.487	0.711	0.992	0.992		
	GB00091R	µg/l	0.102	0.509	0.087	0.467	0.265	0.143	0.178	0.113	0.113	0.110	0.162	1.070
	GB0013R	µg/l	5.871	2.800								3.700	3.700	
precipitation metals ex. Hg	GB0017R	µg/l	6.088	5.180	2.000			15.000						
	GB00091R	µg/l	4.815	4.200	5.440	4.734	4.497	4.286	4.831	5.191	11.790	4.970	3.328	3.209
	GB0006R	µg/l	0.894	0.098	0.187	0.076	0.005	0.084	0.111	0.198	0.005	0.005	0.053	0.073
precipitation metals Hg	GB0013R	µg/l	0.170	0.158	0.123	0.433	0.183	0.185	0.179	0.116	0.411	0.281	0.059	0.131
	GB0017R	µg/l	0.189	0.284	0.340	0.248	0.224	0.218	0.141	0.151	0.190	0.190		
	GB00091R	µg/l	0.120	0.126	0.077	0.095	0.059	0.063	0.091	0.029	0.032	0.017	0.033	0.108
g-HCH	GB0006R	mm	28.842	1.174	0.500	0.940	0.500	0.500	0.500	0.500	0.500	0.500	0.500	3.195
	GB0013R	mm	1.172	0.855	0.844	15.500	1.995	0.626	0.659	0.660	5.500	3.109	0.711	1.408
	GB0017R	mm	1.906	3.932	5.120	11.275	11.500	10.822	2.687	3.554	4.450	4.450		
g-HCH	GB00091R	mm	1.184	2.006	1.812	8.200	1.864	0.533	1.046	1.211	0.973	1.692	1.071	3.190
	GB0006R	mm	211.7	70.0	109.9	40.3	121.3	128.1	151.6	117.1	121.7	82.3	133.2	156.1
	GB0013R	mm	156.6	254.6	108.7	11.0	136.1	202.2	103.6	88.0	43.4	41.8	169.0	84.3
g-HCH	GB0017R	mm	64.6	59.3	30.2	61.7	116.7	110.1	77.8	36.3	23.2	6.2	0.0	0.0
	GB00091R	mm	49.0	103.5	22.3	11.4	80.8	165.0	89.4	38.5	50.6	38.1	124.1	54.1
	GB0013R	mm	196.1	162.3	154.8	24.5	77.7	160.7	116.5	84.9	28.5	61.1	70.7	122.4
g-HCH	GB0017R	mm	55.6	23.3	37.5	68.8	71.1	60.1	31.8	31.8	9.2	0.0	0.0	0.0
	GB00091R	mm	40.7	36.1	39.9	60.1	98.7	63.0	42.1	31.7	21.6	29.9	30.6	79.6
Percentage completion of mandatory programme														90.9
<b>Voluntary</b>														
PCB_28			not reported											
PCB_52			not reported											
PCB_101			not reported											
PCB_118			not reported											
PCB_138			not reported											
PCB_153			not reported											
PCB_180			not reported											
anthracene			not reported											
benzo(a)anthracene			not reported											
benzo(a)pyrene			not reported											
benzo(ghi)perylene			not reported											
chrysene+triphenylene			not reported											
flouranthene			not reported											
indeno(123cd)pyrene			not reported											
phenanthrene			not reported											
pyrene			not reported											
Percentage completion of voluntary programme														0.0





REPORT SERIES SCIENTIFIC REPORT	REPORT NO. OR 17/2009	ISBN 978-82-425-2095-1 (printed) ISBN 978-82-425-2096-8 (electronic) ISSN 0807-7207	
DATE	SIGN.	NO. OF PAGES 52	PRICE NOK 150,-
TITLE Deposition of air pollutants around the North Sea and the North-East Atlantic in 2007		PROJECT LEADER Kevin Barrett	
		NILU PROJECT NO. O-97146	
AUTHOR(S) Kevin Barrett		CLASSIFICATION * A	
		CONTRACT REF. Andrea Weiss, OSPAR Secretariate	
REPORT PREPARED FOR OSPAR Commission New Court, 48 Carey Street, London WC2A 2JQ, United Kingdom			
ABSTRACT Report of the observations of airborne pollutants around the OSPAR coastlines, 2007. Displays the estimated deposition of nutrient, heavy metal and organic pollutants around the coast, together with estimates of the total load to the North Sea of pollutants from the atmosphere, and short contributions on lindane, mercury and nitrogen to review of the CAMP.			
NORWEGIAN TITLE Pollutant deposits and air quality around the North Sea and the North East Atlantic in 2007			
KEYWORDS Marine atmospheric pollution			

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                              B    Restricted distribution  
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REFERENCE: O-97146  
DATE: APRIL 2010  
ISBN: 978-82-425-2095-1 (printed)  
978-82-425-2096-8 (electronic)

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