2011 ANNUAL ENVIRONMENTAL STATEMENT FOR SHELL U.K. UPSTREAM OPERATIONS

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Shell U.K. Limited

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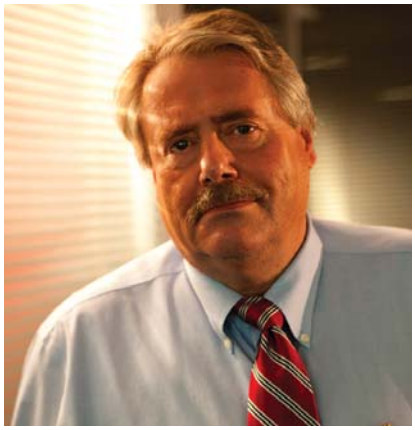
This report has been produced in order to meet the requirements of OSPAR Recommendation 2003/5, as advised by the U.K. Department of Energy and Climate Change.

Where the words "we", "us" and "our" are used in this report they refer specifically to Shell U.K. Limited's upstream business. "Our facilities" or "our installations" refers to facilities or installations which we are appointed to operate on behalf of joint venture partners which own the facilities or installations jointly.

The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate entities. In this report the expressions "Shell" and "Shell group" are sometimes used for convenience where references are made to Shell group companies in general.

INTRODUCTION

BY GLEN CAYLEY, VICE-PRESIDENT TECHNICAL AND HEAD OF UPSTREAM U.K. UPSTREAM INTERNATIONAL EUROPE



> 2011 BROUGHT WITH IT A NUMBER OF CHALLENGES, NOT LEAST THE GANNET SPILL INCIDENT IN AUGUST … BUT WE HAVE SEEN ADVANCES SUCH AS BRINGING OUR OIL IN PRODUCED WATER DISCHARGES BACK IN LINE WITH REGULATORY REQUIREMENTS AND IN THE SUCCESFUL DECOMMISSIONING OF THE INDEFATIGABLE FIELD.

I should like to introduce you to our Annual Environmental Statement, which provides an overview of how the upstream operations of Shell U.K. Limited performed during 2011. This document looks back at our environmental performance, the challenges we faced and how we overcame them.

In Shell we are committed to a number of important goals and ambitions including our commitment to protect the environment, to play a leading role in promoting best practice in our industry, and to use material and energy efficiently to provide our products and services to the market.

But more than that we set targets for improvement. We measure, appraise and report our performance, as well as engage with our many stakeholders.

We know there are areas where we need to improve our performance, and we have learned a lot from the Gannet spill in August when around 218 tonnes of oil leaked into the North Sea. The environmental impact of that spill was ultimately found to be limited, but we know that no spill is acceptable, and we are seeking to improve our performance.

We saw great strides in our work to bring our oil in produced water discharges in line with the regulatory requirements – and by the end of 2011 had brought one of the most challenging Shell platforms into compliance.

We safely completed the decommissioning of the Indefatigable Gas Field removing eight topsides as well as steel substructures weighing almost 13-thousand tonnes, of which we recycled more than 95% of the materials.

I hope you find this document a useful and informative tool, and one that underscores our commitment to engage stakeholders regarding our environmental performance.

Glen Cayley
May 2012

WHAT WE DO

Shell U.K. Limited ("Shell") is a leading operator in the UK sector of the North Sea, where our upstream business explores for and extracts natural gas and crude oil. We are responsible for around 12% of the U.K.'s total gas and oil production.

Gas is becoming an increasingly important part of our business. Almost a third of the UK's gas is supplied through Shell-operated infrastructure. Onshore we operate three gas plants; the St Fergus Gas Terminal and Fife NGL Plant (with Braefoot Bay Marine Terminal) in Scotland, and Bacton in the east of England.

Offshore, Shell has interests in over 50 fields, operates more than 30 platform installations, 30 subsea installations and one Floating Production, Storage and Offtake (FPSO) vessel.

This section provides a snapshot of 4 of our major North Sea installations.

CLICK HERE FOR MORE INFORMATION ON EXPLORATION AND PRODUCTION IN SHELL U.K. LIMITED

TERMINOLOGY IN THIS STATEMENT

Our Environmental Management System (EMS) covers all the upstream activities and locations involved in exploring for, producing, and processing gas and oil in the U.K. and U.K. waters.

Our business is divided into organisational units called Assets and Functions. We use these terms in this report.

Assets are locations or groups of locations supported by onshore teams, and cover all our physical facilities including offshore fields, installations and associated wells, the onshore gas plants, and all associated pipelines. See the map of our U.K. facilities on page 6.

Functions typically provide a service to the Assets. They are entities such as engineering and maintenance, development planning, project planning and execution, logistics for vessels and helicopters, laboratory services, drilling wells, and the management of our offices.

Additionally, acronyms and abbreviations in the text are described in Appendix 4.

WHAT WE DO

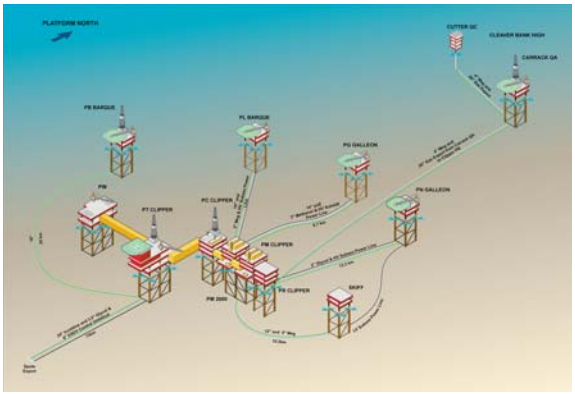
Clipper

The Clipper complex is the main installation for the Sole Pit fields. Situated 72 kilometres north east of the East Anglian coast in the Southern North Sea, the Clipper is made up of four bridge-linked platforms – the wellhead platform, a production platform, a compression platform and a metering platform.

First operational in 1990, the installation produces and processes gas from the wells on wellhead platform and gas is also imported from the satellite platforms, producing from the Barque, Galleon and Skiff fields.

It is then exported through a 24 inch diameter subsea pipeline to the Bacton Gas Terminal in Norfolk.

- Clipper is made up of four bridge linked platforms
- The complex produces and processes gas from the Sole Pit field and exports to the Bacton Gas Terminal

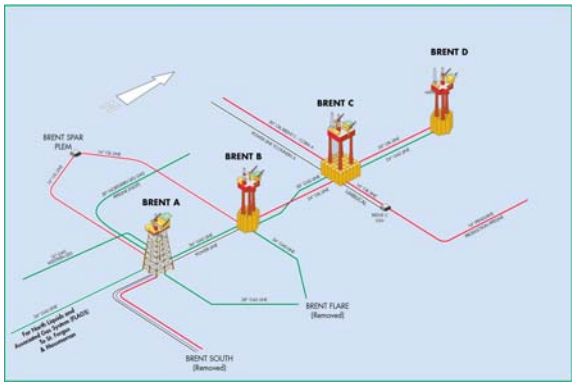


Brent Bravo

Situated over 140 kilometres north east of Shetland Isles, in more than 140 metres of water Brent Bravo is one of the four Brent platforms whose name is synonymous with oil production in the North Sea. Production began on Brent Bravo in 1976, and since then the combined Brent platforms have produced more than two billion barrels of oil – and almost six trillion cubic feet of gas.

Brent Bravo and her sister platforms Brent Alpha and Brent Charlie, are nearing the end of production. Brent Delta was the first of the Brent platforms to go into decommissioning on 31st December, 2011.

- Production began in 1976
- Brent Bravo is part of the Brent Field that has produced more than 2 billion barrels of oil



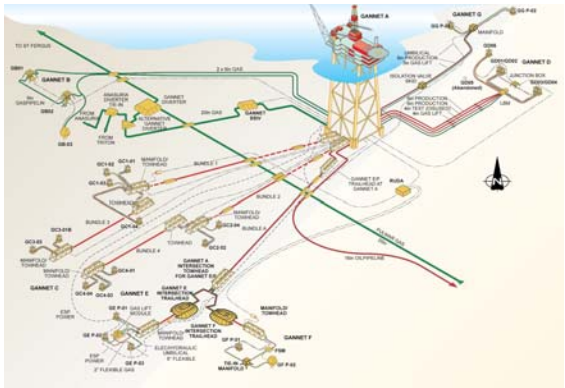
WHAT WE DO

Gannet

The Gannet development consists of seven fields 180 kilometres east of Aberdeen. The fields, which were first discovered in 1973, were estimated to contain 170 million recoverable barrels of oil and 700 billion cubic feet of gas. There are six subsea satellites which are tied back to a central production platform at Gannet A, which processes oil and gas from all of the reservoirs. Oil is exported via Fulmar into the Norpipe line, whilst gas is exported via the Fulmar gas pipeline.

Gannet A was designed to have minimal drilling equipment on deck as a contribution to reducing the weight of the platform topsides. The substructure is a four leg steel jacket which stands in a water depth of 95 metres.

- Gannet was first discovered in 1973
- It is a complex engineering structure with six subsea satellites tied back to a production platform

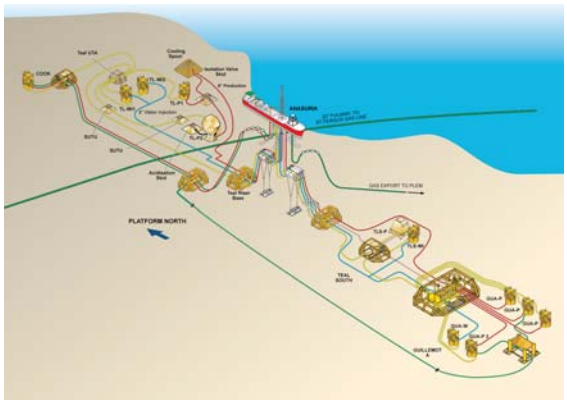


Anasuria FPSO

The Anasuria is a Floating Production, Storage and Offloading Vessel (FPSO) that services the Cook, Teal, Teal South and Guillemot fields. These are produced by subsea facilities tied back to the Anasuria which is located 185 kilometres east of Aberdeen. Oil is then transported from the Anasuria by shuttle tanker and gas is exported via the Fulmar pipeline to St Fergus.

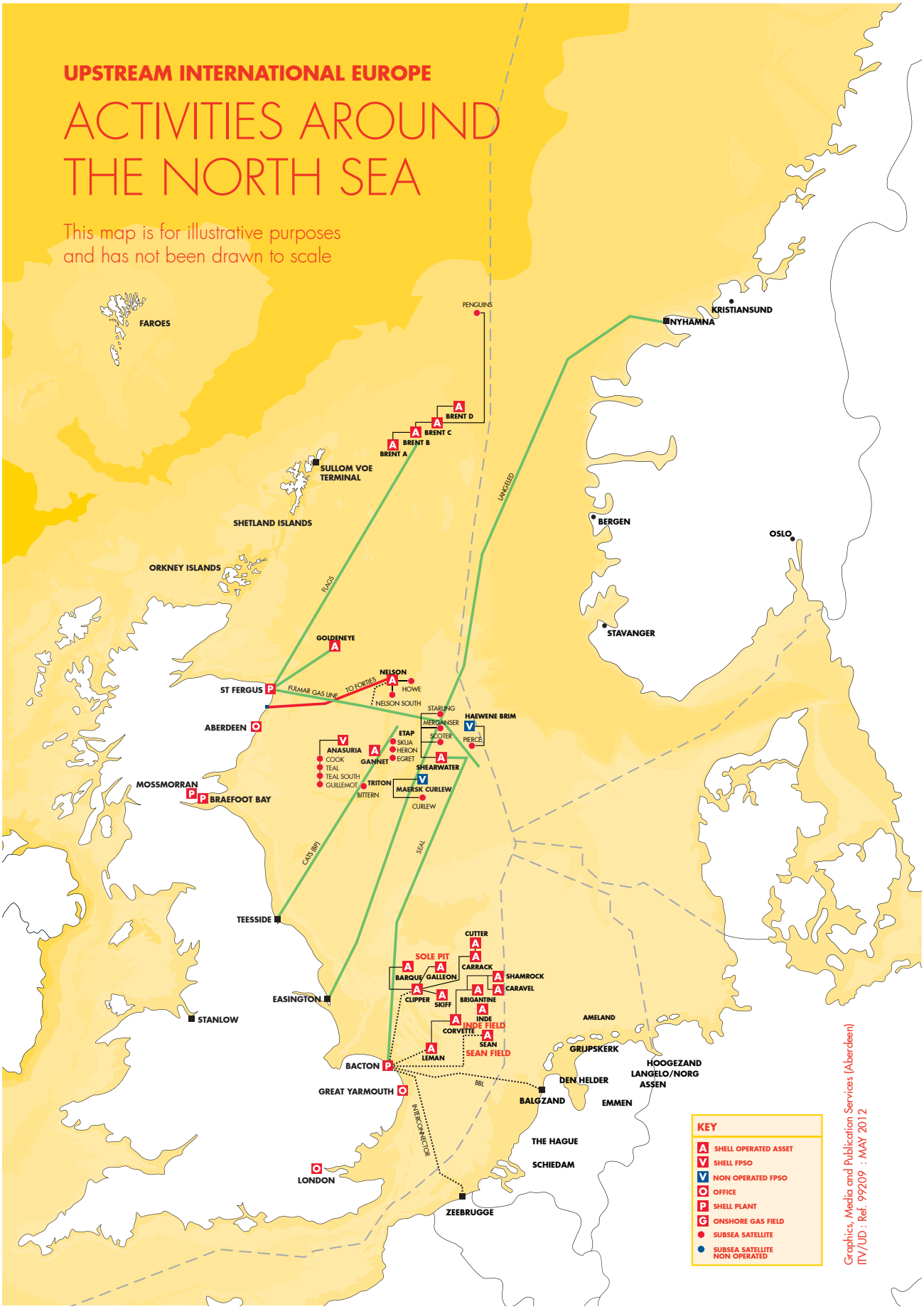
Installed in 1996, the Anasuria was the first purpose-built FPSO to be constructed for Shell in the North Sea. With seven cargo tanks which can store 850,000 barrels equivalent of oil. The topsides were designed as separate modules, and the largest pedal crane in Europe was used to lift them into position.

- First purpose-built FPSO for Shell in the North Sea
- Oil transported by tanker, gas via the Fulmar pipeline to St Fergus



ACTIVITIES AROUND THE NORTH SEA

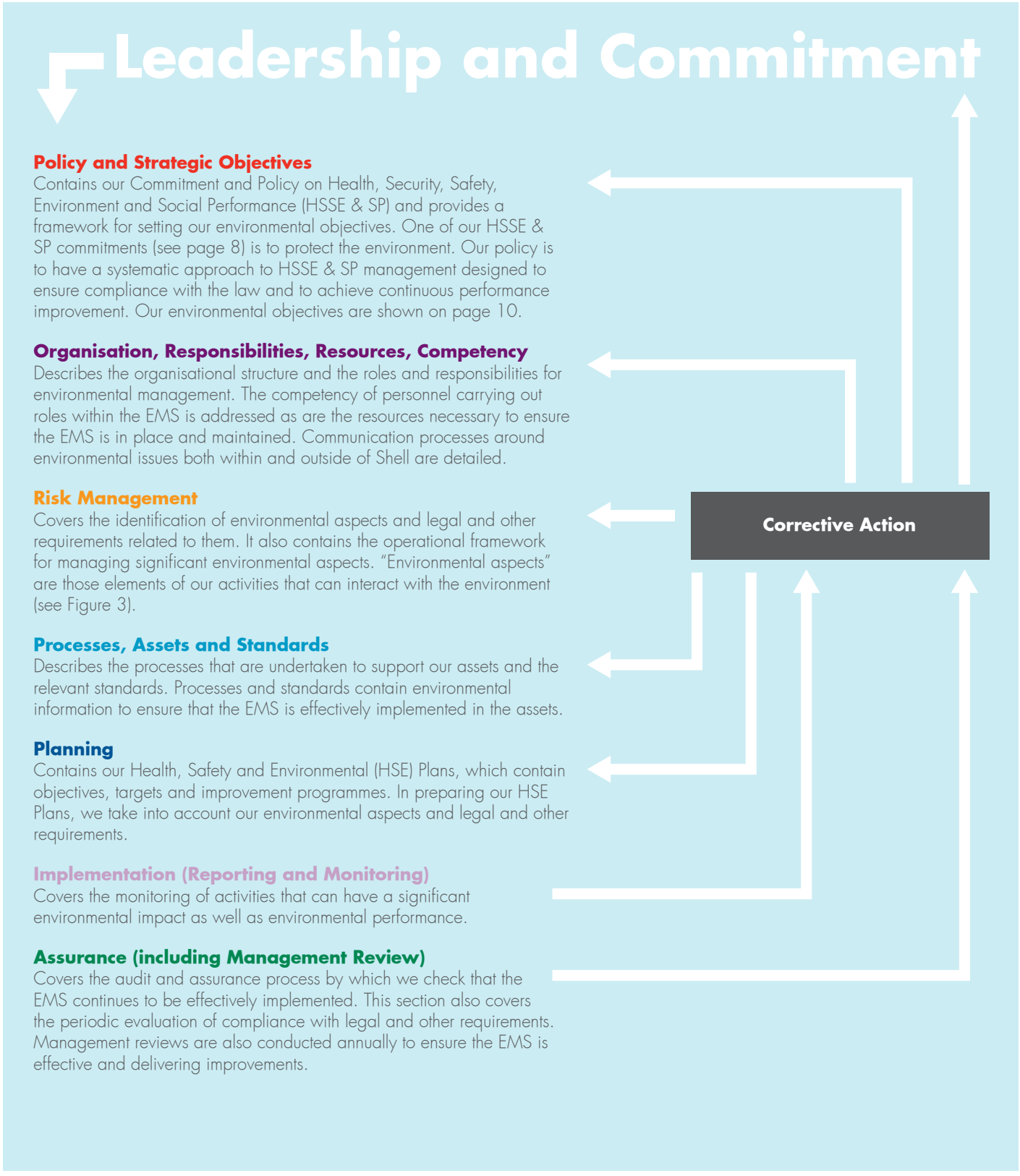
Figure 1 - Shell's U.K. Upstream activities



ENVIRONMENTAL MANAGEMENT

OUR ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

Corporate Management System
In Shell U.K. Limited we use a Corporate Management System (CMS) to document the way we conduct our business. Our Environmental Management System (EMS) is integrated into the CMS and is used to develop and implement our environmental policy and manage activities that can interact with the environment. It consists of the following elements, as shown below.



SHELL COMMITMENT AND POLICY ON HSSE & SP

SHELL COMMITMENT AND POLICY ON HEALTH, SECURITY, SAFETY, THE ENVIRONMENT AND SOCIAL PERFORMANCE

COMMITMENT

In Shell we are all committed to:

- Pursue the goal of no harm to people;
- Protect the environment;
- Use material and energy efficiently to provide our products and services;
- Respect our neighbours and contribute to the societies in which we operate;
- Develop energy resources, products and services consistent with these aims;
- Publicly report on our performance;
- Play a leading role in promoting best practice in our industries;
- Manage HSSE & SP matters as any other critical business activity; and
- Promote a culture in which all Shell employees share this commitment.

In this way we aim to have an HSSE & SP performance we can be proud of, to earn the confidence of customers, shareholders and society at large, to be a good neighbour and to contribute to sustainable development.

POLICY

Every Shell Company:

- Has a systematic approach to HSSE & SP management designed to ensure compliance with the law and to achieve continuous performance improvement;
- Sets targets for improvement and measures, appraises and reports performance;
- Requires contractors to manage HSSE & SP in line with this policy;
- Requires joint ventures under its operational control to apply this policy, and uses its influence to promote it in its other ventures;
- Engages effectively with neighbours and impacted communities; and
- Includes HSSE & SP performance in the appraisal of staff and rewards accordingly.

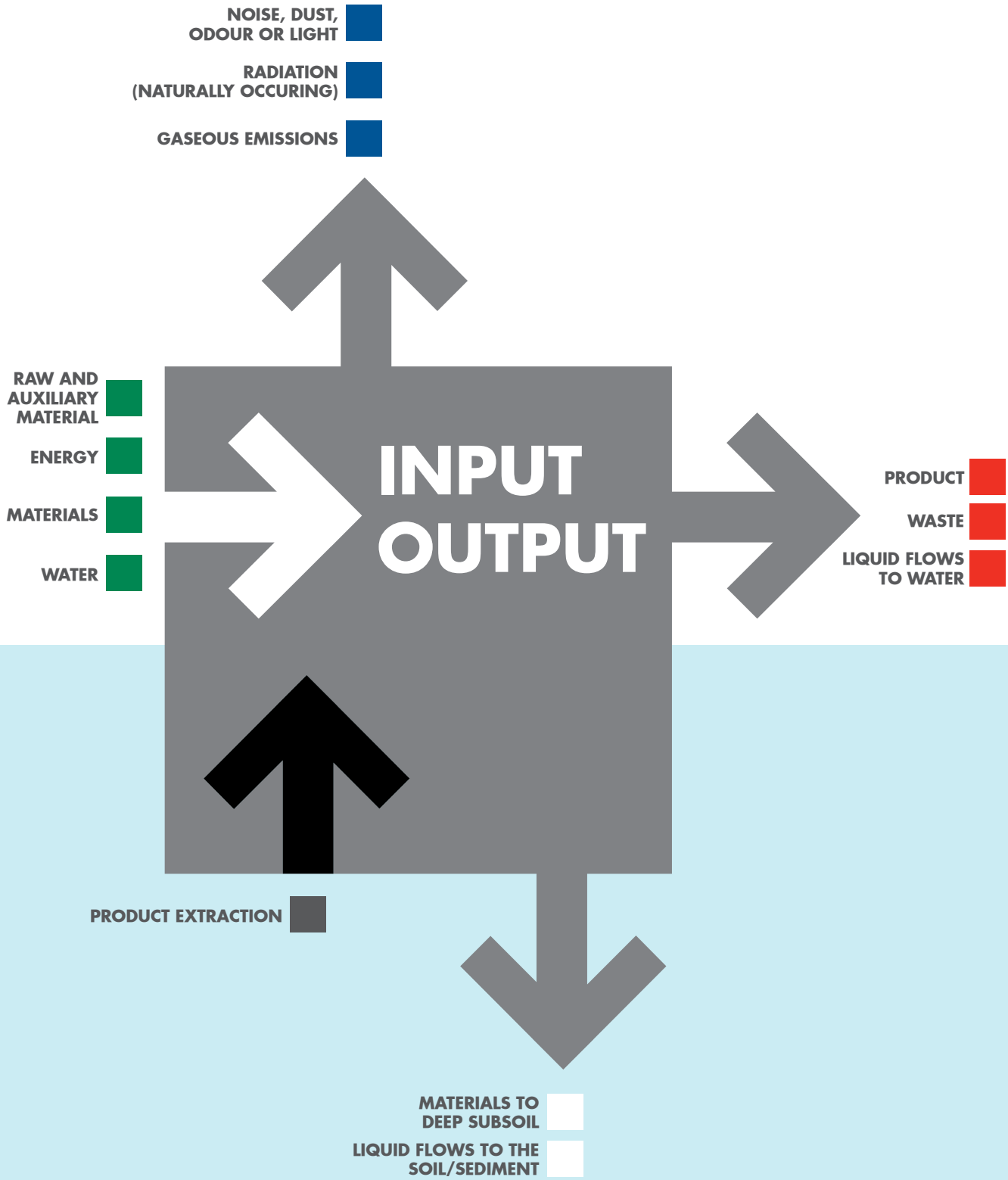
Peter Voser
Chief Executive Officer

Graham van't Hoff
UK Country Chairman
November 2011

Originally published in March 1997 and updated by the Executive Committee December 2009.

ENVIRONMENTAL MANAGEMENT

Figure 3 - Environmental Aspects of Our Operations



ENVIRONMENTAL PERFORMANCE

OUR ENVIRONMENTAL GOALS AND OBJECTIVE

Shell U.K. Limited has implemented an EMS for upstream operations, which is certified to the ISO14001 standard and strives for continual improvement focused on the following policy objectives:

- Protect the environment
- Use material and energy efficiently to provide our products and services
- Set targets for improvement and measure, appraise and report performance
- Play a leading role in promoting best practice in our industries
- Engage effectively with stakeholders

These objectives are translated into relevant programmes and internal targets and limits that drive continual improvement in our U.K. operations.

The main focus area in 2011 was related to oil in produced water management, aimed at delivering compliance with the OSPAR dispersed oil concentration standard for water discharge. Additionally we commenced an initiative to restructure and simplify our environmental management system. This will introduce a user friendly web based interface with links to key management documents and associated records that will improve usability as well as demonstrate how we meet the requirements that are relevant to the ISO14001 standard. We have also improved our GHG reporting systems to secure "reasonable assurance" as defined under ISO14064 for our direct and indirect GHG emissions, and "limited" assurance for our equity share of non-operated assets.

Our achievements in 2011 included:

- Commissioning of a produced water reinjection system on our Sean installation to effectively end over board water discharge
- Improvements made to the produced water system on our Shearwater installation to reduce the concentration of dispersed oil being discharged to the sea to meet the OSPAR standard (30 mg/l)
- Modification to produced water system on our Solepit installation so that discharges are significantly reduced during PWRI down time
- Inde decommissioning completed without major incident and >95% recycling of structures
- Designed and built a well capping device to be used to cap a well in the case of a major drilling incident
- Continued reduction in CO2 emissions per unit of work across the marine fleet
- Initiation of a company-wide waste minimisation project, to take a holistic approach to waste management
- Completed updates of COMAH Cases for three onshore gas plants and Braefoot Bay Marine Terminal
- Both St. Fergus and Fife NGL plants received "excellent" ratings on environmental performance from SEPA
- Continued ISO14001 certification
- Completed and submitted the Goldeneye carbon capture and storage front end engineering design to DECC for the storage of 20Mtonnes of CO2
- Well integrity work was successfully completed on the Shearwater platform in order to eliminate abnormal A annulus pressures recently seen in three of the wells.

The 2011 performance of Shell's upstream operated assets located within the UKCS (this includes the assets managed under CNNS, NSP and ONEgas West) are summarised in the sections below. The figures discussed in this section and elsewhere in this report relate to all major installations operated by Shell and contractors (when Shell holds the environmental permits), and third party fields that produce to them, plus mobile drilling rigs in the U.K. whilst on contract to Shell. Additional environmental data for the years 2007-2011 are provided in Appendix 1. The majority of the data used has been reported to the regulators via the U.K. Environmental Emissions Monitoring System (EEMS), for offshore, and the Pollution Inventory (England) and Scottish Pollutant Release Inventory (Scotland), for onshore.

MANAGING EMISSIONS AND DISCHARGES

Greenhouse Gas (GHG) Management

Shell establishes annual GHG targets and these are translated into internal marks for each asset to measure performance against.

Our major installations (these include offshore oil and gas production platforms and onshore gas processing plants) operate with permits issued under Pollution Prevention and Control (PPC) legislation, Environmental Permitting regulations (England) and Phase II of the mandatory EU Emissions Trading Scheme for CO2 (EU-ETS). This requires us to focus on energy efficiency and maintain our flare and fuel gas metering and measurements to a high standard.

In 2011, direct GHG emissions from our U.K. facilities were approximately 2.2 million tonnes CO2 equivalents (CO2e). This is a decrease of approximately 20% when compared to 2010 (2.75 million tonnes CO2e). This reduction can be attributed to the lower production resulting from extended shut-ins of a number of fields, most notably within the Brent and Central assets. The reduced production volumes leads to a consequential reduction in the energy required for gas compression, oil export and water management, generated from burning fuel gas.

As shown in Figure 4 approximately 80.5 % of our total GHG emissions came from burning gas and diesel for power generation on our locations, with flared and vented gases accounting for the majority of the remaining 19.5%. The difference between 2011 and 2010 (see Figure 5) can be attributed to the changes in plant operation due to the reduced production seen on some installations.

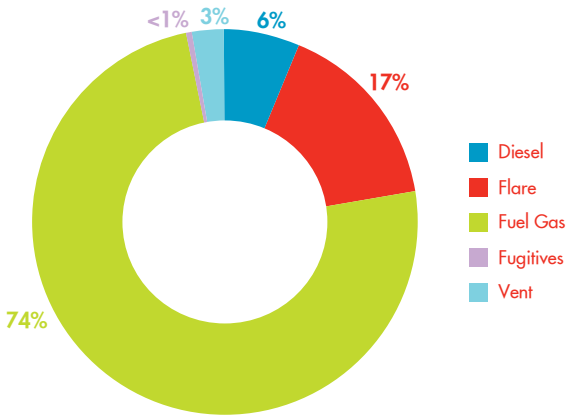


Figure 4: *GHG emissions from each release process between 2011 and 2010*

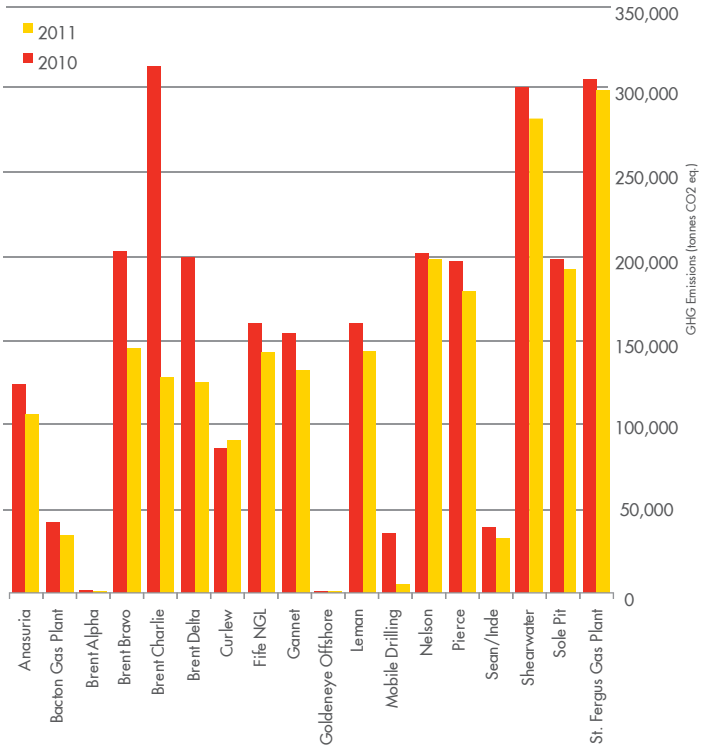


Figure 5: *Comparison of total GHG emissions per installation between 2011 and 2010*

Flaring from our installations is managed under consents obtained from the government; and we complied with the limits contained in these consents. In total we flared gas that resulted in the release of approximately 363,400 tonnes of CO2 (CO2e) across our U.K. installations (Figure 6). This represents a 14 % reduction from 2010, due mainly to reduced production.

Our CNNS assets are designed to have a flare for safety and technical reasons; about half of our flaring is as a result of plant upsets, trips, equipment outage and shut-down/start-up. The remainder is linked to the flare pilot/purge that is required to maintain a small flame to ignite gases should there be a safety need.

As fields near end of life flaring generally increases as a percentage of total production. This is due to lower gas flows and pressures in certain parts of the operations that cannot be handled by the gas compressors. It is generally not viable to modify the existing equipment, or install new equipment, at this late stage of operations. This is the situation for the Brent field as it is starting to enter its decommissioning phase (Brent Delta decommissioning commenced on the 31st December 2011). Also on the Shearwater installation some continuous flaring is required to dispose of acid gas containing minor amounts of H2S scrubbed from the gas before it is exported to shore.

Some of our installations are designed to vent gas for safety and certain operational reasons and we have venting consents from the government to cover this. Our St Fergus gas plant saw an increase in the amount of gas it vented in the latter half of 2011 (Figure 6), which was traced back to a passing valve that has now been fixed, so the venting is expected to be lower in 2012.

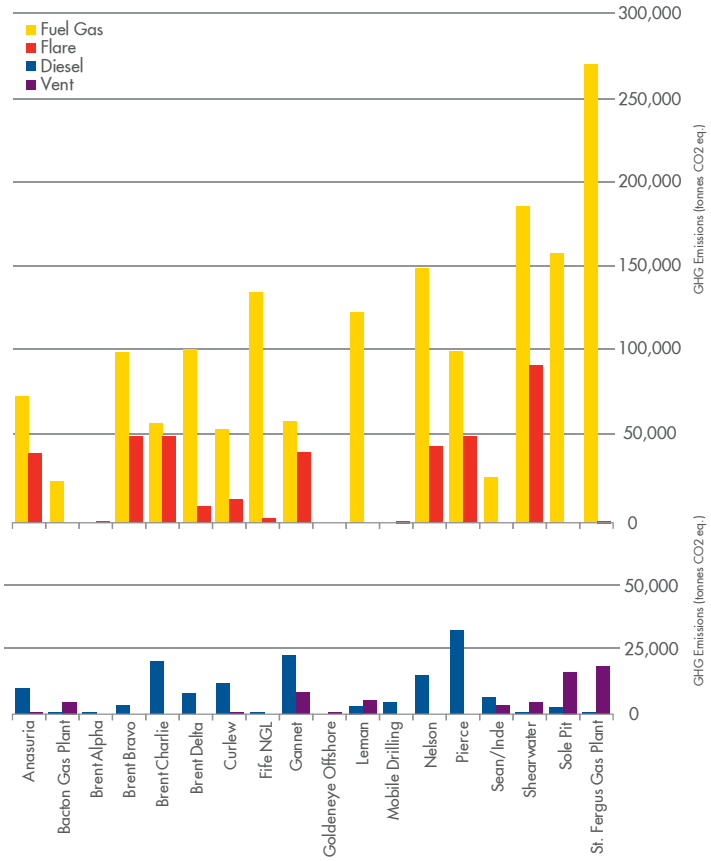


Figure 6: *Breakdown of GHG emissions by release process and installation (tonnes CO2e)*

Oil In Produced Water

Oil in Produced Water discharges are regulated in line with the OSPAR commission recommendations through the Oil Pollution Prevention and Control Regulations (OPPC). Shell aims to maintain the total quantity (tonnes) of oil released, in the produced water discharged into the sea, within the OSPAR target set at 15% below the discharges in the year 2000. We have maintained our total oil discharges below this level since the target was introduced in 2006, and the level has reduced consistently over the past 5 years, see Appendix 1.

Figure 7 shows the amount of oil, in tonnes, discharged to sea in our produced water from our UKCS installations in 2011.

In 2011 total discharges, but not including spills, of oil to sea from our installations reduced by 46%, from 445 tonnes in 2010 to 238 tonnes in 2011. This reduction is due mainly to improved produced water treatment performance on Gannet and Shearwater, the Brent field approaching end of field life with an associated reduction in production (including mass of produced water production) and extended field shut-ins in our CNNS asset.

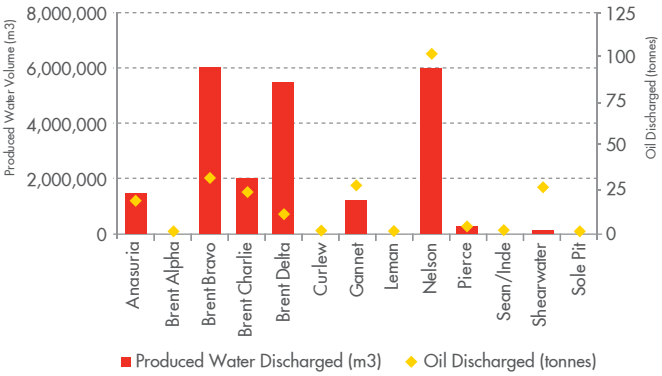


Figure 7: *Total volume of produced water and mass of oil discharged to sea from each Shell U.K. offshore installations*

Five installations encountered challenges meeting the OSPAR 30 mg/l monthly average dispersed oil standard for produced water discharges. Figure 8 shows the annual average concentration of oil in produced water. The annual average for Gannet was 30.1 mg/l, much improved from 2010, and Shearwater was 376 mg/l, however, by the end of the year this was also improved with the monthly average reduced to less than 30 mg/l.

In a number of these cases the total volume of produced water discharged was low, hence the total mass of oil released was also relatively low. It should be noted that in all cases considerable efforts have been made in 2011 to bring the produced water discharges back into compliance with the 30 mg/l monthly average concentration limit.

In 2011 both Gannet and Shearwater installations continued to experience problems with the efficiency of their water treatment plant due to the effect of the corrosion inhibitor, used to protect subsea pipelines, stabilising oil in water emulsions.

Gannet OIPW performance was much improved due to;

- Adjusted chemical treatments, and
- Shutting-in production from some of the subsea fields

Shearwater saw a significant improvement in OIPW performance, due to;

- Bringing in a new strategy to govern how and when wells are brought into production
- The production process configuration being adjusted to suit different producing conditions
- Installation of a produced water treatment skid using oil adsorption technology, and
- On a few occasions the water stream was exported into the Forties Pipeline System.

Additionally, in the Southern North Sea we now have installed produced water re-injection on two installations, Sean and Sole Pit Clipper, therefore produced water is now re-injected to the oil reservoir, rather than being discharged to the sea.

Work is ongoing to further improve performance.

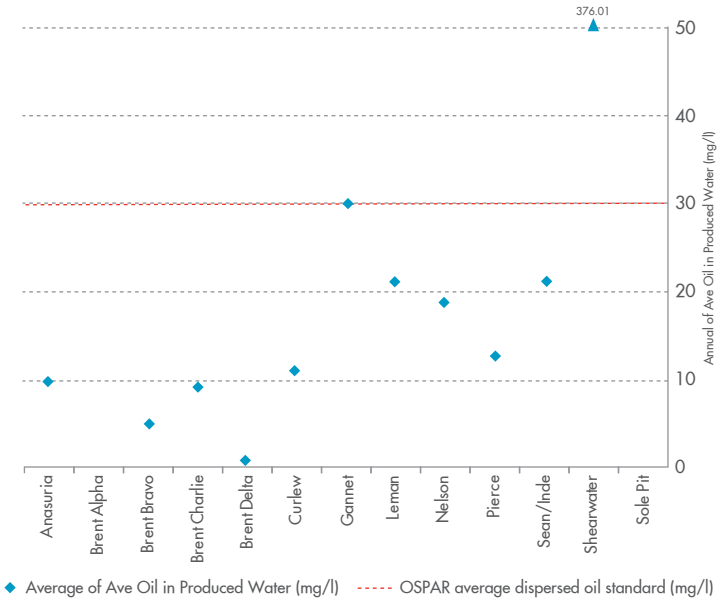


Figure 8: *Annual average dispersed oil concentrations in produced water from each Shell U.K. offshore*

We recognise that the dispersed oil concentration is one important indicator of Produced Water quality and the U.K. regulator, DECC, has been kept informed on performance and our plans for improvement. The mass of oil and presence of other components are also important factors and we are aware that the contracting parties to OSPAR are considering future changes to the way produced water is regulated. These issues will be taken into consideration in developing our future environmental improvement plans.

Operational Spills

We recognise that spills to sea have the potential to occur from our operations and we continually strive to prevent them from occurring. However, in the event that a spill does occur we have plans in place to minimise environmental impacts.

We record and report all oil and chemical spills from our operations to the relevant authorities. In 2011 we reported to the authorities 58 spills to the sea from our U.K. upstream activities, of which 40 were oil and 18 were chemicals (there were an additional 2 PON1s related to discharges from permitted discharge points).

The total number of notified spills (hydrocarbon and chemicals) was similar to 2010 but the total mass spilled, 260 tonnes (hydrocarbon 221 tonnes and chemicals 39 tonnes) was higher

(see Table 1). All spills greater than 2 tonnes are detailed in Appendix 2. 75% (44 spills) had a mass less than 100kg.

The most significant releases from our operations in 2011 included;

- A leak on the 10th August resulting from the failure in a subsea flow line in the Gannet F field. 216 tonnes of crude oil were released into the sea causing a visible sheen on the surface. Shell worked closely with the authorities, and other stakeholders, to stop the leak and mitigate the impacts. The post incident impact assessment completed by Marine Scotland concluded that there was no significant evidence of negative impacts on marine life or birds. We regret this occurrence and have committed to extract learnings from this incident to improve our overall management of asset integrity.
- 15.5 tonnes of hydrocarbons was carried over from the storage cells into one of the platform legs on our Brent Charlie installation that resulted in the release to sea through our produced water discharge outfall. Modifications are being made to how we operate with the aim of preventing this type of discharge being released in the future.

	2007	2008	2009	2010	2011
Number of Oil & Chemical Spills (Includes spills <100kg)	79	83	57	56	58
Mass of Oil & Chemical Spills (tonnes)	319	93	745	26	260

***Table 1**: Number and Mass of Spills to Sea (2007-2011)*

Chemical Management

i) Production Chemicals

Our use and discharge of chemicals in production and drilling operations is controlled by the Offshore Chemicals Regulations (OCR), and Shell's environmental requirements. The type and volume of production chemical use and discharge varies among our installations. Oil installations generally use more chemicals to process crude oil than gas installations use to process gas. This is mainly due to the relatively high quantities of produced water associated with oil production. Table 2 shows the historical use of offshore chemicals across our U.K. Production operations, along with the percentages of those used that were discharged to the sea.

The overall trend in production chemical use has declined over the last 5 years (see Table 2), as has the percentage of those discharged to the sea. This trend is the sum of a number of counteracting pressures;

- Our efforts to use more efficient chemicals that reduce treatment concentrations;
- Having access to more recent partitioning studies that more accurately determine the percentage of chemical being discharged in their respective phases;
- The effects of divesting platforms, and
- Greater consumption due to increasing water production as fields age

Additionally in 2011 there has been an additional reduction in use due to the effects of extended shut ins on some of our installations resulting in lower volumes of produced fluids that required treatment.

	2007	2008	2009	2010	2011
Production Chemical Use (Tonnes)	26,908	9,457	4,831	4,500	3,433
% Discharged	29	61	67	59	56

***Table 2** - Production Chemicals Use and Discharge (2007-2011)*

The regulator (DECC) has highlighted certain hazardous chemicals for phase out from use by means of Substitution Warnings (Sub Warnings). Reducing the use of these chemicals can be challenging, especially for those that have been engineered for specific fields or applications. Approximately 17% of the production chemicals used have Sub Warnings, however their use has declined over the last 5 years in line with our phase out plan (Figure 9).The reductions (and increases) have been achieved through a combination of factors:

1. Replacement of chemicals by less hazardous versions
2. Removal of unused products from permits and
3. Reclassification as chemicals gain or lose the Sub Warning as new data become available, and as hazard thresholds that dictate the warning change

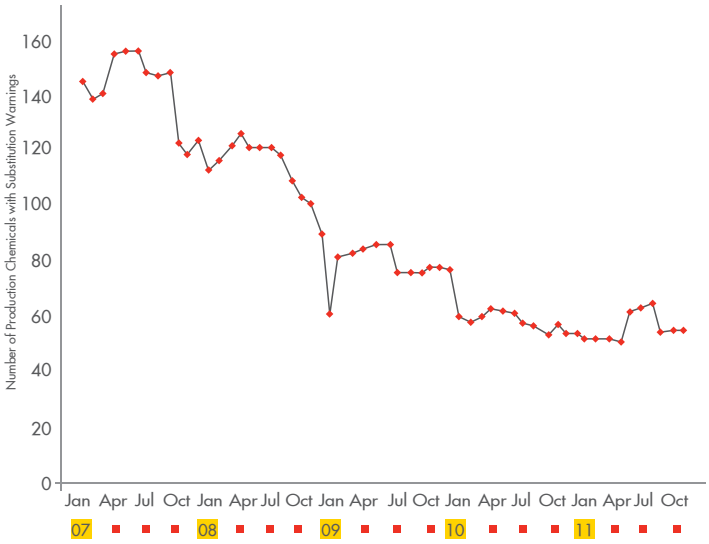


***Figure 9:** Trend in Numbers of Production Chemicals used by Shell with 'Substitution Warnings' (2007-2011)*

ii) Wells Chemicals

In 2011 we used a total of 9,046 tonnes of chemicals in wells activities (see Table 3). Of this figure approximately 15% of chemicals were discharged to the marine environment.

	2007	2008	2009	2010	2011
Well Chemical Use (Tonnes)	35,106	20,424	28,293	9,778	9,046
% Discharged	11	15	25	17	15

***Table 3** – Wells Chemicals Use and Discharge (2007-2011)*

These figures are similar to those of 2010, mainly due to low wells activity in the UKCS, only two wells were drilled during 2011.

The Plug and Abandonment campaigns that are part of the Brent Decommissioning account for approximately 13% of the total wells chemicals used in 2011. This type of well activity generally results in a lower proportion of chemicals being discharged, in this case less than 7% of the total discharge figure.

There are only a few chemicals with Sub Warnings in the Wells sector because most drilling mud is made of naturally occurring or non-hazardous components. In 2011 approximately 1% of total chemicals used had Sub Warnings (see Table 4). Well fluids are more standardised than production chemicals though the proportions of chemicals used are varied according to each well's requirements. This means that the general effort in substitution is shared across the industry and thus we introduce new chemicals with lower environmental impact as they become proven and readily available on the market.

The use and discharge of chemicals with Sub Warnings in the Brent Decommissioning plug and abandonment operations account for around 19% of the total used and 31% of the total discharge. It should be noted that in relation to the percentage discharged figure the only product with a Sub Warning discharged in 2011 was a rigwash that subsequently had the Sub Warning removed by CEFAS.

	A	B	C	D	E	Gold	Silver	White
Percentage of Total Chemicals Used	0.02	0.3	6.9	0.2	80.8	6.4	5.4	0
Percentage of Total Chemicals Discharged	0.00	0.00	0.00	0.7	67.1	23.7	8.5	0

***Table 4** – Percentage of Used and Discharged by HQ/OCNS*

USE OF ENERGY, RESOURCES AND WASTE MINIMISATION

Energy Use and Resource Management

The efficient use of energy and the minimisation of unplanned flaring is an integral part of our Operational Excellence philosophy to reduce waste from our operations and conserve natural resources.

To improve the use of energy in our U.K. operations, and better manage GHG emissions, our GHG Strategy focuses on reliability and integrity in operations and improving energy efficiency within projects.

When developing new reserves, our focus is on making best use of existing infrastructure (Shell and third party) so we use resources more efficiently and disturbance to the environment is minimised.

Most of our energy use is from power generation on our offshore installations where we burn fuel gas or diesel to run pumps, compressors, engines, heaters and general platform services. The energy intensity of our operations are generally increasing due to the maturity of our fields, which produce and process more associated water and require only marginally less energy to export reducing hydrocarbon volumes. Additionally in 2011 the extended shut-in of some of our fields affected the energy intensity of our U.K. operations, as the associated installations still needed to keep parts of their operations running.

Of note in respect to our marine fleet (including standby vessels, supply boats, diving support vessels, etc.) 2011 saw continued reductions in CO2 emissions. Overall emissions of CO2 per unit of work across our operations were less than 2010, which in turn was a reduction on 2009. Additionally two generators on our Leman installation were replaced with new more efficient units that will reduce CO2 emissions over the installations lifetime.

Waste Management

Waste is closely controlled across all our U.K. operations with our installations actively segregating their waste streams to ensure legal compliance and allow for more environmentally acceptable routes of disposal. Local Waste Minimisation Plans created for all installations to help drive improvements in waste management activities were reviewed and updated in 2011. Actions and KPIs were added to improve focus in key areas and track improvements for the next three years. The actions in the waste minimisation plans aim to either, directly reduce wastes, or move waste streams up the waste hierarchy, for example, to ensure grit blast, used to remove paint from structures, is segregated offshore so it can be recycled instead of disposed off as general waste. Additionally in 2011 waste minimisation plans were developed to cover our onshore offices in Aberdeen.

The total volume of waste generated from our U.K. upstream operations in 2011 increased by approximately 4000 tonnes (9%) compared with 2010 (see Table 5). The rise seen in 2011 was mainly due to activities at three locations, Brent Bravo is one of these and is in the process of abandoning wells. Well abandonment results in the generation of larger volumes of waste, predominantly scrap metal and sludges. The other two main contributors were Bacton Gas Plant and Fife Natural Gas Liquids (FNGL) Mossmorran;

- Bacton sent production water offsite for disposal, this waste stream should cease once the new water treatment plant is commissioned
- Mossmorran had to dispose of water removed from two gasoline tanks during maintenance.

Hazardous waste, which includes some drilling mud and cuttings from our drilling activities (Mobile Drilling),

	2007	2008	2009	2010	2011
Hazardous Waste (tonnes)	36,117	32,606	24,818	27,625	28,085
Non-Hazardous Waste (tonnes)	11,390	9,275	12,684	15,550	19,047
Total Waste (tonnes)	47,507	41,881	37,502	43,174	47,132

***Table 5**: Mass (tonnes) of wastes (hazardous and non hazardous) generated by our U.K. upstream operations between 2007 and 2011*

contaminated water and sludge from onshore and offshore operations, waste oil, paint and chemicals, increased by approximately 400 tonnes compared to 2010. The main contributor was an increase in process water removed from Bacton Gas Plant which is categorised as hazardous waste and is treated and recycled off site (see Figure 10). Brent Bravo well abandonment and Brent Delta decommissioning activities also contributed.

Non-hazardous waste, which includes scrap metals, wood, paper, plastics, cans and general waste, also increased in 2011 by approx 3,400 tonnes, this increase is attributed to a number of one off activities that included; water removed from the Mossmorran gasoline tanks, scrap metal that was recycled from Brent Bravo well abandonment activities and soil and sand recycled from Bacton waste water system redevelopment project.

It is notable that two installations (Shearwater and St Fergus) decreased their waste production in 2011. St Fergus halved their total, with a reduction seen in chemicals and non-hazardous sludges .

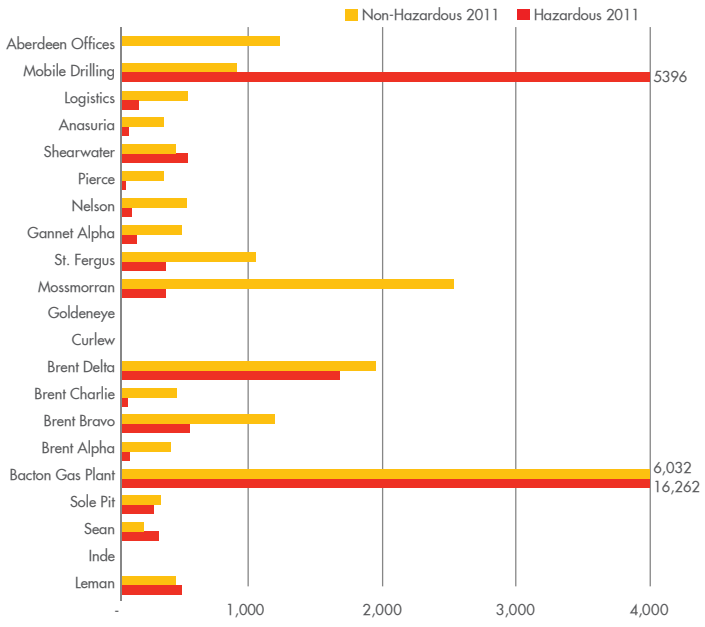


***Figure 10**: Mass (tonnes) of wastes generated by location in 2011*

In summary, despite the increased total mass of waste in 2011, the amount disposed via landfill has reduced (Figure 11) while recycling has increased by approximately 4,000 tonnes this was mainly due to the soil generated from the Bacton re-juvenation project. Disposal of process water from our Bacton gas plant was the largest waste stream in 2011, as in 2010, accounting for approximately 50% of the total Shell U.K. waste (Figure 11). The new site water treatment plant is expected to be brought into operation in 2013 thus eliminating this waste stream.

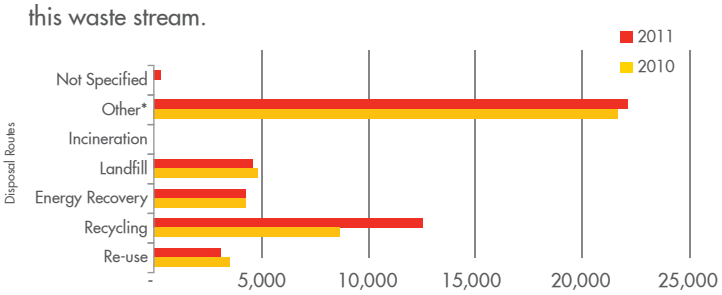


***Figure 11**: Difference of mass of waste disposed to various routes between 2011 and 2010*
**NB: Mainly Bacton's waste water disposal treatment off site*

BIODIVERSITY AND SENSITIVE AREAS

U.K. regulations and Shell's HSSE & SP control framework sets standards for managing risks to biodiversity and ecosystems arising from our activities. Biodiversity is a key consideration in our environmental impact assessments for new projects and significant modifications to existing facilities. An example of this is the Fram gas export route habitats assessment that identified several confirmed and potential Annex I habitats made by naturally occuring gas seeps in the seabed. This study has informed selection and design of the Fram gas export pipeline route, to minimise potential impacts on these unusual ecosystem.

Assessment of impacts is particularly important for activities in or close to proposed (candidate) or established areas of high biodiversity value, for example Special Areas of Conservation (SAC). Some of our infrastructure is located in or near the candidate offshore SACs: "North Norfolk Sandbanks and Saturn Reef" and "Haisborough, Hammond and Winterton". In 2011 we have carried out detailed habitat investigations in one of these areas to support potential project activities. This work helps us, and the government, understand and evaluate the impact that proposed activities could have on habitats and species protected by law, such as biogenic reefs formed by Sabellaria spinulosa (Figure 12) and sandbanks. With this information we can support the management of such areas and inform consultations with relevant local and national agencies.

MONITORING SEABED IMPACTS

We believe it is important for us to have scientific evidence to evaluate the environmental impacts, around our installations and especially those in proposed or established conservation areas. We have a programme of environmental seabed surveys agreed with DECC and JNCC to monitor the impacts of our

activities, as there is the potential for contaminants to accumulate in seabed sediments. We monitor the sediment chemistry and health of seabed-dwelling (benthic) organisms around our installations to understand the effect we may be having on the environment near to the installations. We use this evidence to support assessments of actual and potential environmental impacts when applying for licences and permits.

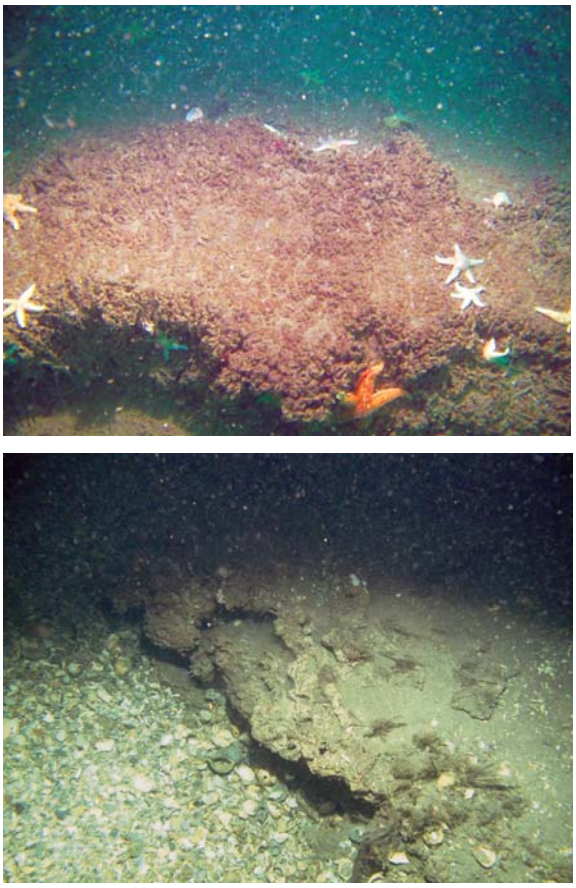


Figure 12: *View of a biogenic reef (top) and a structure formed by leaking gases (bottom), from the Clipper-Carrack and Fram pipeline habitat investigations respectively.*

In 2011 we completed two environmental seabed surveys, these surveys were carried out at our Sean P and Galleon fields in the Southern North Sea with the aim of evaluating temporal changes in the benthic environment and communities. In addition, several baseline seabed surveys were undertaken to support new project activities at Skua, Puffin and Denver. In general, results of monitoring seabed surveys for the past five years indicate a reduction in contaminant levels around the installations and an improvement in biological diversity indicators. This shows that the seabed begins to recover after wells have been drilled. The raw data from the surveys is reported into the U.K. Benthos database, maintained by the U.K. government.

Figure 13: *Brent versus the Eiffel Tower*

PLATFORM DECOMMISSIONING

Brent Decommissioning

The decommissioning of the Brent field and facilities is one of the most significant projects in the North Sea and is likely to span over a decade. Shell began decommissioning studies in 2006, well before cessation of production, and communication and engagement with a wide range of stakeholders has continued since 2007. Our stakeholders include local and national environmental groups, fishermen's associations, key government agencies, national and local government, unions, industry bodies and academics. Through the consultation process, we aim to identify the optimal technical solution for the future of the Brent facilities, driven by what is safe, technically achievable, environmentally sound, and financially responsible.

The most recent Brent stakeholder dialogue events were held in Aberdeen and London in September 2011, addressing the conclusions from our studies to date and our current thinking of likely decommissioning options for the Brent field.

Brent Delta ceased production on December 31st 2011. The next regulatory milestone is expected to be the submission of the Decommissioning Programme in 2012. In July 2010 the first major contract was awarded, the Brent Delta decommissioning services contract, to Aberdeen-based company Wood Group PSN.

The Environmental Impact Assessment (EIA) process, that supports the overall Brent field decommissioning programme, is underway and the EIA scoping report is now available to stakeholders to read. This scoping report represents the first stage in the preparation of the detailed Environmental Impact Assessment for the project. It defines the scope of the project, describes the environments in which activities may take place, outlines the options which the project is considering and identifies the potential environmental impacts that should be evaluated in more detail in the EIA.

Indefatigable Decommissioning

The Indefatigable (Inde) Decommissioning project was completed in 2011. The Inde field, in the Southern North Sea,

had produced gas for the U.K. for more than 30 years. Offshore decommissioning activities commenced in February 2009 and all platforms were removed by July 2011.

We plugged and abandoned 26 wells, removed equipment from the 'topsides', cleaned and detached pipelines and umbilical lines from the platforms without any environmental incidents. The decommissioned Indefatigable platforms (topsides and jackets) were lifted by the heavy lift barge STANISLAV YUDIN (see Figure 14) and transported on several barges to the Swan Hunter (Wallsend) yard in Newcastle.

Nearly 13,000 tonnes of equipment and steel from eight topsides and steel substructures (jackets) were removed to shore for re-use, recycling or if no other suitable route could be found for final disposal. Veolia Environmental Services Ltd. are recycling the structures, with the creation of 35 jobs in the area. The project has seen a recycling rate of more than 95% of the materials received onshore.

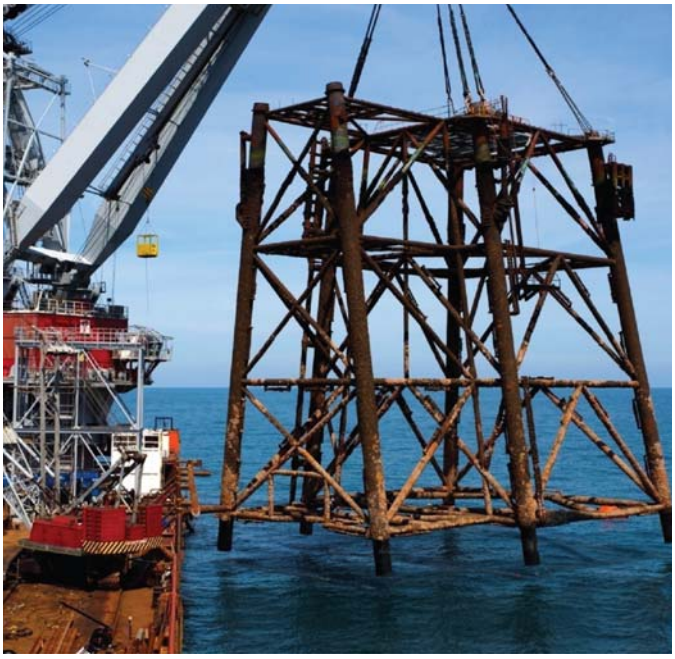


Figure 14: *Indefatigable Lima Jacket Lift*

LATERAL LEARNING AND COOPERATION

We participate in various stakeholder, government and industry forums. These include contributions to government consultation processes, both individually and as part of the industry associations such as Oil and Gas U.K. (OGUK). We have the chair of the OPEP group within Oil Spill Management Forum, the Joint Industry Project for Decommissioning and Co-Chair of Step Change in Safety with a focus on reducing hydrocarbon leaks, membership of the Well Fluids Working Group within OGUK and contribute to the Upstream Environment Group of the Energy Institute (EI), as well as membership and representation on local advisory bodies such as the St Fergus Coastal Environment Committee.

In addition we jointly fund, with government and industry, research and technology programmes. Research supported by Shell in 2011 included; OGUK, OGP and EI projects, the SERPENT (Scientific and Environmental ROV Partnership using Existing iNdustrial Technology) programme through provision of access to remotely operated vehicles and working with the North Sea Bird Club on data gathering on migratory birds.

CONTACT INFORMATION

This report summarises our environmental performance in relation to our HSSE & SP policy, goals and objectives in Shell U.K. Limited's upstream operations and activities.

This report is updated and published annually on our external website at **www.shell.co.uk**

For further information, please call the Shell office in Aberdeen on **01224 882000** and ask for the Communications department.

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APPENDIX 1

SUMMARY OF ENVIRONMENTAL DATA (2007-2011)

	2007	2008	2009	2010	2011
GHG (tonnes CO_2 equivalent)	3,510,783	3,417,602	2,786,884	2,748,043	2,189,794
Total Fuel Gas (tonnes)	906,955	937,147	739,173	789,908	580,049
Total Diesel (tonnes)	66,558	71,732	30,381	31,781	38,243
Total Flare* (tonnes)	300,875	216,482	186,382	177,074	154,939
Oil to Sea (tonnes) (discharged in produced water)	868	865	506	445	238
Hazardous Waste (tonnes)	36,177	32,606	24,818	27,625	28,085
Non-Hazardous Waste (tonnes)	11,390	9,275	12,684	15,550	19,047
Production Chemical Use (tonnes)	26,908	9,457	4,831	4,500**	3,433
% Discharge	29	61	67	59**	56
Wells Chemical Use (tonnes)	35,106	20,424	28,293	9,778	9,046
% Discharge	11	15	25	17	15

The figures shown above relate to all offshore installations operated by Shell U.K. Limited, and 3rd Party fields that produce to them, plus onshore plants and mobile rigs in the U.K. – all as reported by Shell to the U.K. Environmental Emissions Monitoring System EEMS.

*Total mass of gas to flare, including hydrocarbon and CO2.

**Please note that these data have been revised from those quoted in the 2010 report. Revision has been reported to EEMS database.

APPENDIX 2

OIL AND CHEMICAL SPILLS WITH ADDITIONAL DETAILS OF SPILLS GREATER THAN 2 TONNES

Notifiable (PON 1) Oil and Chemical Spills - Number	58
Notifiable (PON1) Oil and Chemical Spills - Total Mass (tonnes)	260

Incidents and Response* *Oil and Chemical Spills > two tonnes	**tonnes**
Incident: Gannet - Oil leak from Gannet F subsea flowline bundle. **Response:** Immediate response to reduce pressure in the line and riser. Check valves on the bundle closed. Gas removed from bundle and the flowline was taken out of use.	218
Incident: Haewene Brim - Castrol Transaqua HT2 loss from the annulus master valve on a subsea tree. **Response:** The tree is to be replaced, and in the interim there has been a reduction in valve openings to significantly reduce losses.	20.7
Incident: Anasuria - Water based hydraulic fluid entered the sea via a produced water stream. **Response:** Internal leak repaired and action across asset to raise awareness of the event.	7
Incident: Noble Hans Deul at Shearwater – Tie-down bolt ejected from Riser resulting in breached pressure integrity envelope below BOP and OBM discharged to Sea. **Response:** Change of design, replacing the circ-clip with a threaded boss for a positive stop.	6
Incident: Brent Delta - Accidental overboard discharge of cement during operations to install well abandonment barrier. **Response:** Overboard discharge line locked closed.	3.6
Incident: Brent Charlie (PON1 related to a Permitted Discharge non compliance), 15.5 tonnes of liquid HC was released with 27714 m3 of produced water due to oil incursion in Column 1. **Response:** The installation was shut down and the remedial works were carried out to prevent reccurrence.	15.5

PON 1 = Petroleum Operations Notice No.1

We are required to notify the relevant authorities of all visible sheens and accidental/unplanned discharges or spills of oil or chemicals to sea, regardless of volume, using a PON1 to:

- Nearest Coastguard Station
- Department of Business, Enterprise and Regulatory Reform; DECC
- Joint Nature Conservation Committee (JNCC)
- Any relevant Statutory Nature Conservation Agency

The list of spills above shows only those greater than 2 tonnes.

APPENDIX 3

WELL ACTIVITIES IN 2011

Wells Drilled in 2011

Installation / Rig	Shell Well Name	Well Start Date	DECC Permit Reference
Sedco 711	Bittern A3z*	18 October 2010	PON15B/426
Sedco 711	Pierce A11	13 January 2011	PON15B/464
Sedco 711	Pierce C1**	28 October 2011	PON15B/538

*Although started in 2010, this operation was not completed until 2011 and thus is entered on the 2011 EEMS Return.
** Although started in 2011, this operation was not completed until 2012 and thus is entered on the 2012 EEMS Return.

Production Wells Abandoned in 2011

Installation	Shell Well Name	Completed/ Abandonment Date	DECC Permit Reference
Brent Delta	BD45s2	18 March 2011	PON15F/337
Brent Delta	BD38s2	6 April 2011	PON15F/337
Brent Bravo	BB30s4	9 April 2011	PON15F/321
Brent Bravo	BB23s1	20 May 2011	PON15F/321
Brent Delta	BD44s1	26 May 2011	PON15F/337
Brent Delta	BD29	11 June 2011	PON15F/337
Brent Delta	BD25	21 June 2011	PON15F/337
Brent Delta	BD03s1	3 August 2011	PON15F/337
Brent Bravo	BB37s2	10 August 2011	PON15F/321
Brent Delta	BD04s2	7 September 2011	PON15F/337
Brent Delta	BD02s1	25 September 2011	PON15F/337
Brent Delta	BD13	2 November 2011	PON15F/337
Brent Delta	BD08s2	24 November 2011	PON15F/337
Brent Delta	BD06s5	2 December 2011	PON15F/337
Brent Delta (d31)	BD29	7 January 2011	3743 / Section 1
Brent Delta (d16)	BD42s4	3 February 2011	3731 / Section 1
Brent Delta (d68y)	BD34	17 February 2011	53158 / Section 3
Brent Delta	BD31s1	17 April 2011	PON15F/337
Brent Delta	BD25	21 June 2011	PON15F/337
Brent Bravo	BB35s1	24 June 2011	PON15F/321
Noble Hans Deul	SW07	01 September 2011	PON15F/306
Noble Hans Deul	SW05	30 September 2011	PON15F/306
Brent Delta	BD06s5	2 December 2011	PON15F/337
Noble Hans Deul	SW08	19 December 2011	PON15F/306

APPENDIX 4

ABBREVIATIONS AND TERMINOLOGY

Asset	Used internally in Shell to describe a collection of locations and supporting services; also includes onshore plants and interconnecting pipelines.
Associated Gas	Gas liberated from oil as the pressure is reduced from subsurface conditions to the surface separation facilities.
Benthos / Benthic	Flora (plants) and fauna (animals) found at the bottom of ocean, sea or lake.
Bentonite	Natural clay used to thicken well engineering and completion fluids.
CCS	Carbon Capture and Storage
CEFAS	Centre for Environment, Fisheries & Aquaculture Science
CFC	Chloro-Fluoro-Carbon. A substance containing chlorine, fluorine and carbon, used in refrigeration systems.
CI	Corrosion Inhibitor
CMS	Corporate Management System
CNNS	Central and Northern North Sea Assets
COMAH	Control of Major Accident Hazards Regulation
CoP	Cessation of Production
DECC	Department of Energy and Climate Change (formerly BERR)
De-oiler	Chemical used in the production process to promote separation of oil from produced water
EEMS	Environmental Emissions Monitoring System (Oil & Gas U.K.)
EMS	Environmental Management System
EP	Exploration and Production
EPR	Environmental Permitting Regulations (England and Wales)
EU ETS	Council Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading with the community
F-Gas	Fluorinated greenhouse gases
FPSO	Floating Production, Storage and Offloading vessel
GHG	Greenhouse gases (mainly carbon dioxide, methane, nitrous oxide and HFC's)
HCFC	Hydro-Chloro-Fluoro-Carbon. A substance containing hydrogen, chlorine, fluorine and carbon, used in refrigeration systems.
HSSE & SP	Health, Safety, Security, Environment and Social Performance
HQ	Hazard Quotient
IPPC	Integrated Pollution Prevention and Control (Scotland)
ISO14001	International Standard Specification for Environmental Management Systems.
KPI	Key Performance Indicator

ABBREVIATIONS AND TERMINOLOGY (CONTINUED)

JNCC	Joint Nature Conservation Committee. Public body that advises the U.K. Government and devolved administrations on nature conservation
MEG	MonoEthylene Glycol
NUI	Normally Unmanned Installation
NSP	Northern Systems and Plant
OCNS	Offshore Chemical Notification Scheme
OGUK	Oil and Gas U.K., U.K. offshore oil industry association
OIPW	Oil in Produced Water
OPEP	Oil Pollution Emergency Plan
OPPC	Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2005
OSPAR	Convention for the Protection of the Marine Environment of the North-East Atlantic. In 1998 this replaced the Oslo Convention (for the Prevention of Marine Pollution by Dumping from Ships and Aircraft) and the Paris Convention (for the Prevention of Marine Pollution from Land-Based Sources).
PON1	Petroleum Operations Notice type 1. DECC requires Operators to report any oil or chemical spills, sheens, or excessive discharges to their Offshore Inspectorate using a PON1 form available on their website at **https://www.og.berr.gov.uk/regulation/pons/index.htm**
PPC	Pollution Prevention and Control Act 1999 and Offshore Combustion Installations (Prevention and Control of Pollution) Regulations 2001
PWRI	Produced Water Re-Injection
SAC	Special Area of Conservation
SEPA	Scottish Environmental Protection Agency
SERPENT	Scientific and Environmental ROV Partnership using Existing iNdustrial Technology
SICI	Scale Inhibitor/Corrosion Inhibitor
SNS	Southern North Sea Assets
SP	Social Performance
TEG	TriEthylene Glycol (antifreeze)
UKCS	United Kingdom Continental Shelf
WBM	Water Base Mud

CAUTIONARY STATEMENT

The companies in which Royal Dutch Shell plc directly and indirectly owns investments are separate entities. In this publication "Shell", "Shell group" and "Royal Dutch Shell" are sometimes used for convenience where references are made to Royal Dutch Shell plc and its subsidiaries in general. Likewise, the words "we", "us" and "our" are also used to refer to subsidiaries in general or to those who work for them. These expressions are also used where no useful purpose is served by identifying the particular company or companies. "Subsidiaries", "Shell subsidiaries" and "Shell companies" as used in this publication refer to companies in which Royal Dutch Shell either directly or indirectly has control, by having either a majority of the voting rights or the right to exercise a controlling influence. The companies in which Shell has significant influence but not control are referred to as "associated companies" or "associates" and companies in which Shell has joint control are referred to as "jointly controlled entities". In this publication, associates and jointly controlled entities are also referred to as "equity-accounted investments". The term "Shell interest" is used for convenience to indicate the direct and/or indirect (for example, through our 23% shareholding in Woodside Petroleum Ltd.) ownership interest held by Shell in a venture, partnership or company, after exclusion of all third-party interest. This publication contains forward-looking statements concerning the financial condition, results of operations and businesses of Royal Dutch Shell. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements.

Forward-looking statements are statements of future expectations that are based on management's current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in these statements. Forward-looking statements include, among other things, statements concerning the potential exposure of Royal Dutch Shell to market risks and statements expressing management's expectations, beliefs, estimates, forecasts, projections and assumptions. These forward-looking statements are identified by their use of terms and phrases such as "anticipate", "believe", "could", "estimate", "expect", "goals", "intend", "may", "objectives", "outlook", "plan", "probably", "project", "risks", "seek", "should", "target", "will" and similar terms and phrases. There are a number of factors that could affect the future operations of Royal Dutch Shell and could cause those results to differ materially from those expressed in the forward-looking statements included in this publication, including (without limitation): (a) price fluctuations in crude oil and natural gas; (b) changes in demand for Shell's products; (c) currency fluctuations; (d) drilling and production results; (e) reserves estimates; (f) loss of market share and industry competition; (g) environmental and physical risks; (h) risks associated with the identification of suitable potential acquisition properties and targets, and successful negotiation and completion of such transactions; (i) the risk of doing business in developing countries and countries subject to international sanctions; (j) legislative, fiscal and regulatory developments including regulatory measures addressing climate change; (k) economic and financial market conditions in various countries and regions; (l) political risks, including the risks of expropriation and renegotiation of the terms of contracts with governmental entities, delays or advancements in the approval of projects and delays in the reimbursement for shared costs; and (m) changes in trading conditions. All forward-looking statements contained in this publication are expressly qualfied in their entirety by the cautionary statements contained or referred to in this section. Readers should not place undue reliance on forward-looking statements. Additional factors that may affect future results are contained in Royal Dutch Shell's 20-F for the year ended December 31, 2011 (available at www shell.com/investor and www.sec.gov). These factors also should be considered by the reader. Each forward-looking statement speaks only as of the date of this publication, May 2012. Neither Royal Dutch Shell nor any of its subsidiaries undertake any obligation to publicly update or revise any forwardlooking statement as a result of new information, future events or other information. In light of these risks, results could differ materially from those stated, implied or inferred from the forward-looking statements contained in this publication. U.S. Investors are urged to consider closely the disclosure in our Form 20-F, File No 1-32575, available on the SEC website www.sec.gov. You can also obtain these forms from the SEC by calling 1-800-SEC-0330.