Environmental Values 2014

Public Environmental Report

Chevron North Sea Limited

21 May 2015

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1.0 Introduction

I am pleased to introduce our Environmental Report covering Chevron North Sea Limited's activities in our United Kingdom (UK) operations. This report shares our offshore environmental performance data for 2014, highlights how we demonstrate our values and reinforces our mission to continually improve our performance and reduce any potential impacts from our operations.

Ingrained in The Chevron Way is our commitment to protecting people and the environment, which includes developing energy safely, reliably and responsibly. We strive to develop a culture in which everyone believes that all incidents are preventable and that "zero incidents" is achievable. Our priorities every day are to ensure the safety of our employees and contractors and to protect the environment.

We have four environmental principles that define our commitment to operating in an environmentally responsible manner: these are 1) to include environmental considerations in decision making, 2) to minimise our environmental footprint, 3) to operate responsibly and 4) to steward our sites. We incorporate these principles into our business through our Operational Excellence Management System (OEMS). This process is designed to identify and manage potentially significant environmental impacts and assess our activities, with the aim of improving performance. At Chevron, Operational Excellence (OE) is integral to how we run our business to achieve our vision of success.

During 2014, we made progress with a number of our environmental management activities across our assets, including improvements to our production and produced water processes at the Alba Field, enhanced energy efficiency measures at the Captain Field, and improved waste recycling and emissions inspection at the Erskine Field. We have also worked closely with our service providers to identify further opportunities for waste management and recycling improvements across all of our offshore assets. In addition, in September 2014, our management system attained recertification for International Standard (ISO) 14001.

At Chevron, we are committed to achieving our goal of zero incidents and will continue to focus on achieving world-class performance in all measures of safety and environmental stewardship. We hope you find the information in this report to be informative and useful. You can learn more about our corporate responsibility efforts online at: www.chevronunitedkingdom.com

Craig May
Managing Director
Chevron Upstream Europe

2.0 About Chevron

Chevron is one of the world's leading integrated energy companies. Our success is driven by our people and their commitment to get results the right way—by operating responsibly, executing with excellence, applying innovative technologies and capturing new opportunities for profitable growth. We are involved in virtually every facet of the energy industry. We explore for, produce and transport crude oil and natural gas; refine, market and distribute transportation fuels and lubricants; manufacture and sell petrochemical products; generate power and produce geothermal energy; invest in profitable renewable energy and energy efficiency solutions; and develop the energy resources of the future, including researching advanced biofuels.

3.0 Chevron's 2014 Activities

Chevron Upstream Europe (CUE) is a strategic business unit of Chevron's Europe, Eurasia and Middle East (EEME) Operating Company, and is headquartered in Aberdeen, Scotland.

In Europe, CUE is engaged in supporting a diverse portfolio of upstream activities across Denmark, Greenland, Norway and the United Kingdom. Net daily oil-equivalent production of 80,000 barrels during 2014 in this region represented approximately 3 percent of the company world-wide total.

UK

Figure 1 - Chevron Upstream Europe Portfolio

Chevron has working interests in nine offshore producing fields, including three operated fields (Alba 23.4 percent; Captain, 85 percent; and Erskine, 50 percent and five non-operated fields (Brodgar, 25 percent; Callanish, 16.5 percent; Clair, 19.4 percent; Elgin/Franklin, 3.9 percent; and Jade; 19.9 percent). Chevron also has a 32.4 percent interest in the Britannia field, operated by Britannia Operator Limited, a company jointly owned by Chevron and ConocoPhillips.

Net daily production in 2014 from the fields averaged 32,000 barrels of liquids and 88 million cubic feet of natural gas. Most of the production was from three fields; the Captain Field, with net average daily production of 18,000 barrels of liquids and 3 million cubic feet of natural gas; the Britannia Field, with net average daily production of 2,000 barrels of liquids and 51 million cubic feet of natural gas; and the Alba Field, with net average daily production of 4,000 barrels of liquids.

The company continues to implement projects designed to sustain production and increase recovery at Captain, Britannia and Alba. At Captain, continued development drilling is expected through 2028.

At Britannia, work to install a low-pressure compression module to increase field recovery was completed in third quarter 2014. At Alba, development drilling is expected to continue beyond 2022.

Alder, the 73.7 percent-owned and operated Alder high-pressure high-temperature gas condensate discovery is located 17 miles (27 km) to the west of the Britannia Field in the North Sea. The field is planned to be developed via a single subsea well tied back to the existing Britannia platform. Fabrication of the topside and subsea equipment progressed in 2014, and first production is expected in 2016. The project has a design capacity of 14,000 barrels of condensate and 110 million cubic feet of natural gas per day. Proved reserves have been recognised for this project.

Captain Enhanced Oil Recovery (EOR), Chevron holds an 85 percent-owned and operated interest in the Captain Field. Captain EOR is the next development phase and is designed to increase field recovery by injecting polymerised water into the Captain reservoir. The selected concept is a fixed platform bridge-linked to the existing Captain facilities, combined with an extensive injection well drilling campaign. Captain EOR entered FEED in fourth quarter 2014, and a final investment decision is scheduled for 2016. At the end of 2014, proved reserves had not been recognised for Captain EOR.

Clair Ridge, Chevron holds a 19.4 percent non-operated working interest in the Clair Ridge Project, located 47 miles (75 km) west of the Shetland Islands. Clair Ridge is the second development phase of the Clair Field. Procurement and fabrication activities continued during 2014. The design capacity of the project is 120,000 barrels of crude oil and 100 million cubic feet of

natural gas per day. Production is scheduled to begin in 2017. The project is estimated to provide incremental potentially recoverable oil-equivalent resources in excess of 600 million barrels. Proved reserves have been recognised for the Clair Ridge Project. The Clair Field has an estimated production life until 2050.

The Rosebank Field is 80 miles (129 km) northwest of the Shetland Islands in 3,700 feet (1.115m) of water. Chevron operates and holds a 40 percent interest in the project. During 2014, the company continued to assess alternatives for the Rosebank Field and significant progress was made in optimising the Rosebank development plan. The design capacity of the project is 100,000 barrels of crude oil and 80 million cubic feet of natural gas per day. At the end of 2014, proved reserves had not been recognised for this project.

Exploration West of the Shetland Islands, activities included acquisition and interpretation of 3-D seismic data. In the central North Sea, an exploration well previously drilled to delineate the southern extension of the Jade Field was successfully tied back, and first production was achieved.

4.0 Operational Excellence

Operational Excellence (OE) is the systematic management of safety, health, environment, reliability and efficiency to achieve world class performance. Chevron North Sea Limited (CNSL) and Chevron globally place the highest importance on OE – it is fundamental to the company's success and supports our commitment to protecting people and the environment.

Chevron's OE objectives are to:

- Achieve an incident and injury-free work place;
- Promote a healthy workforce and mitigate significant workplace health risks;
- Identify and mitigate environmental and process safety risks;
- Operate incident-free with industry leading asset integrity and reliability; and
- Efficiently use natural resources and assets.

The Operating Excellence Management System (OEMS) is Chevron's standard approach for achieving world-class performance and is applied by CNSL. The OEMS consists of three parts:

Leadership Accountability – Leadership is the single largest factor for success in OE. Leaders establish the vision and set objectives that challenge the organisation to achieve world-class results. They direct the Management System Process, setting priorities and monitoring progress on plans that focus on the highest-impact items. Leaders visibly demonstrate their commitment through personal engagement with the workforce, showing concern and care for the health and safety of every individual.

Management System Process – is a systematic approach that is used to drive progress toward world-class performance. The Management System Process (MSP) is linked to the business planning process, and begins with defining a vision of success and setting objectives. Gaps between current performance and these objectives are uncovered during the assessment phase, then plans are developed to close the gaps, the plan is implemented and a review of plan implementation and performance is completed.

OE Expectations – Corporate expectations for OE are detailed under 13 Elements. The expectations are met through processes and programmes put in place by local management. Many expectations are supported by corporate standard OE processes. Environmental issues are covered under Element 7: Environmental Stewardship, the objective of which is to strive to continually improve environmental performance and reduce impacts from our operations.

Operational Excellence Policy

Operational Excellence Policy

Chevron Upstream Europe's Operational Excellence vision is to be recognised and admired by industry and the communities in which we operate as world-class performers in process safety, personal safety & health, environment, reliability and efficiency.

We will systematically manage OE in order to:

- **Achieve an incident and injury-free work place;**
- **Promote a healthy workplace and mitigate significant health risks;**
- **Identify and mitigate environmental and process safety risks;**
- **Operate incident-free with industry leading asset integrity and reliability; and,**
- **Efficiently use natural resources and assets.**

The organisation and responsibilities for Operational Excellence (OE) are defined within the Operational Excellence Management System (OEMS). This structured and documented system ensures that all personnel working on Chevron facilities are effectively implementing the OE Policy. Leaders and supervisors direct the OEMS, setting objectives, priorities, metrics and targets, and monitoring progress. They visibly demonstrate their commitment through personal engagement with the workforce.

Through consistent application of the OEMS we will achieve the following:

- **Stop Work Authority.** We always follow the Tenets of Operation and as an employee or contractor are authorised and responsible for stopping any work that does not comply with these Tenets; with the understanding that there will be no repercussions.
- **Manage Safe Working.** We will operate and maintain facilities to prevent injuries, illness, and incidents and sustain mechanical integrity.
- **Security of Personnel & Assets.** We will provide a secure environment in which business operations may be successfully conducted.
- **Facilities Design & Construction.** We will design and construct facilities to prevent injury, illness and incidents and to operate reliably, efficiently and in an environmentally sound manner.
- **Management of Change.** We will manage both permanent and temporary changes to prevent incidents.
- **Reliability & Efficiency.** We will operate and maintain wells and facilities to ensure asset integrity and prevent incidents. And we will maximize the efficiency of operations and conserve natural resources.
- **Contractor HES Management.** We will work with our Business Partners to achieve superior performance through systematic alignment of goals and conformance to Operational Excellence.
- **Environmental Stewardship.** We will strive to continually improve environmental performance and reduce impacts from our operations.
- **Incident Investigation & Reporting.** We will investigate and identify root causes of incidents to reduce or eliminate systemic causes to prevent future incidents.
- **Community & Stakeholder Engagement.** We will reach out to the community and the workforce to engage in open dialogue to build trust and long-term positive relationships.
- **Emergency Management.** Whilst prevention is the first priority, we will be prepared for an emergency and mitigate any incident quickly and effectively.
- **Compliance Assurance.** We will comply with company policy and government regulations and ensure that employees and contractors understand their OE-related responsibilities.
- **Legislative & Regulatory Advocacy.** We will work ethically and constructively to influence proposed laws and regulations, and debate on emerging issues.
- **Process Safety.** Appropriately designing, constructing, operating and maintaining facilities that process or handle potentially hazardous materials or energy to prevent releases of flammable or toxic fluids or energy.

This policy applies to all offices and facilities operated by Chevron in the Upstream Europe Business Unit.
Every individual has a duty to ensure that they ***always*** comply with, and hold others accountable for compliance with, this policy and prevent harm to themselves and others, and to the environment. This policy is applicable without distinction between Chevron employees and contractors working for Chevron.

Craig May, President and Managing Director
Chevron Upstream Europe, February 2014

5.0 Environmental Stewardship

Environmental Stewardship Plan

The objective of Chevron's Environmental Stewardship process is to continually improve environmental performance and reduce impacts from our operations. To achieve this, Chevron has implemented a step-wise process to be followed on an annual basis. First, an inventory of all emissions, releases, wastes and potentially impacted natural resources is prepared. This is followed by a procedure to identify, assess, mitigate and manage any significant risks and impacts to the environment associated with operations, emissions, releases and wastes. The outcome is an annually updated Environmental Stewardship Plan. CNSL have been preparing plans using the Environmental Stewardship process since 2010. The management system is independently certified to the international standard (ISO) 14001 and requires CNSL to engage independent auditors who verify that our onshore and offshore operations meet requirements.

The Environmental Stewardship Plan includes objectives and targets for environmental performance, details of improvement implementation programmes (including the resources required and key milestones to be met) and the process for tracking progress in meeting environmental objectives. The Environmental Stewardship Plan is approved by senior management and is aligned with other business and OE plans.

All of CNSL operations and projects have the potential to impact on the environment and they are all subject to strict environmental regulatory controls which require CNSL to prepare and submit regulatory applications to gain approval before activities begin and during the ongoing operational activities. We monitor and report our ongoing emissions, discharges and waste streams to ensure we meet regulatory requirements and do not cause significant impact on the environment. In the event of an unplanned release/spill to sea, or a non-compliance with regulatory requirements, notification would be made to the appropriate regulatory authorities and action taken to respond to any threat of or actual pollution. Investigations of incidents are conducted to gain any learnings or actions to prevent recurrence.

The Environmental Stewardship process is used to help provide assurance that we are protecting the environment and meeting our internal and regulatory requirements and obligations.

Green Teams

CNSL's Green Teams have made a significant contribution to our continued environmental performance since 2005, when the first Green Team was formed offshore in the Captain Field. Since then, all of our UK operated assets have active Green Teams.

The teams' objectives are simple: to improve awareness of environmental issues both at work and home, to identify areas for improvement in environmental performance, to provide a focal point for environmental issues in the workplace and to create a network for sharing information.

Green Team activities in 2014 included ongoing improvements in waste reduction and recycling assisted by analysing data from general waste 'skip audits' (see Wastes section below for further information). Various offshore Green weekends were held on the main installations aimed at improving awareness of environmental issues amongst all staff and contractors. Since 2012, CNSL has been actively involved in the annual cross-industry E-Reps forum, and sponsored the awards section of the event since it was started in 2014. The forum is a chance to share ideas and learnings on a range of environmental issues relating to the oil and gas industry.

6.0 2014 Environmental Performance Summary

Performance Metrics

Chevron is committed to continually improving environmental performance. This is achieved by integrating environmental objectives and targets into the Environmental Stewardship Plan and regularly evaluating progress to make adjustments if needed. On an annual basis, we set performance targets for key environmental aspects (produced water, oil releases/spills, waste and air emissions) to achieve our OE Objectives.

CNSL performance against targets for key 2014 environmental focus areas is summarised in **Table 1** below.

Table 1 – CNSL 2014 Performance Metrics

		CNSL[1]	
	Units	**Result**	**Target**
Oil spill volume rate	Bbls/MMbbls produced	2.11	1
Energy efficiency	Chevron Energy Intensity[2]	286	289
Greenhouse Gas Emission rate	tonnes CO_2 equivalent (tCO_2e)/MBOE	28	24
CO_2 emissions	tonnes	351,789[3]	N/A
Oil-in-produced water mass	tonnes	129.13[4]	N/A
ISO 14001 certification maintained	Yes/No	Yes	N/A
Environmental audits completed	Percent	100[5]	N/A
Production operations waste recycling/reuse	Percent	79[6]	70

[1] CNSL = Chevron North Sea Ltd

[2] The Chevron Energy Intensity metric is the ratio of current energy use (MMBTU/D) per unit of production (MBOE/D). Lower actual figures are better.

[3] For the 2014 period, CNSL surrendered a total of 350,584 tonnes of CO_2 in allowances and credits under the EU Emission Trading System (ETS). The total represented here includes relatively small additional emissions from Erskine and fugitive, oil loading and venting emissions from Alba and Captain, all of which are out of scope for the EU ETS.

[4] Refers to oil-in-produced water discharged from Alba field with target reflecting permitted regulatory limit.

[5] 5 of 5 UK audits completed.

[6] This metric relates to the proportion of waste from UK production operations for which waste recycling is possible. It therefore excludes drilling-related wastes and waste generated from occasional operations for which there is no current alternative but disposal in accordance with applicable law. Such disposed waste streams are tracked and reported. The metric is set this way to allow meaningful comparison of year on year performance in managing our routine waste streams.

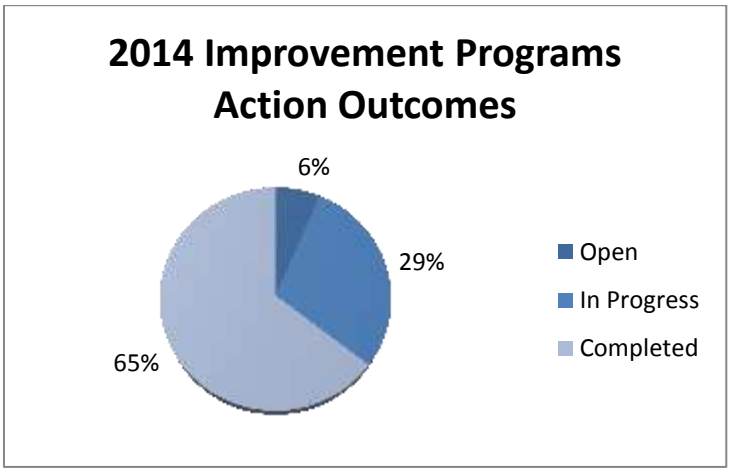
7.0 Environmental Stewardship Improvement Program

As part of the preparation of the annual Environmental Stewardship (ES) Plan, improvement opportunities were identified by CNSL. These actions were grouped into Improvement Plans for the UK assets (Alba, Captain, and Erskine) and for mobile offshore drilling unit (MODU) activity.
The improvement opportunities centered around strengthening arrangements associated with prevention of and response to incidents and releases; produced water management; reduction of air emissions and management of waste. Progress in completing these actions was tracked throughout the year and was used as a leading measure of continual environmental performance improvement.
A summary of the 2014 year-end status of these actions is provided in **Table 2** and **Figure 2** below.

Table 2 – CNSL 2014 ES Plan Status, Year End

	UK
Completed	20
In Progress	9
Open	2
Total	31

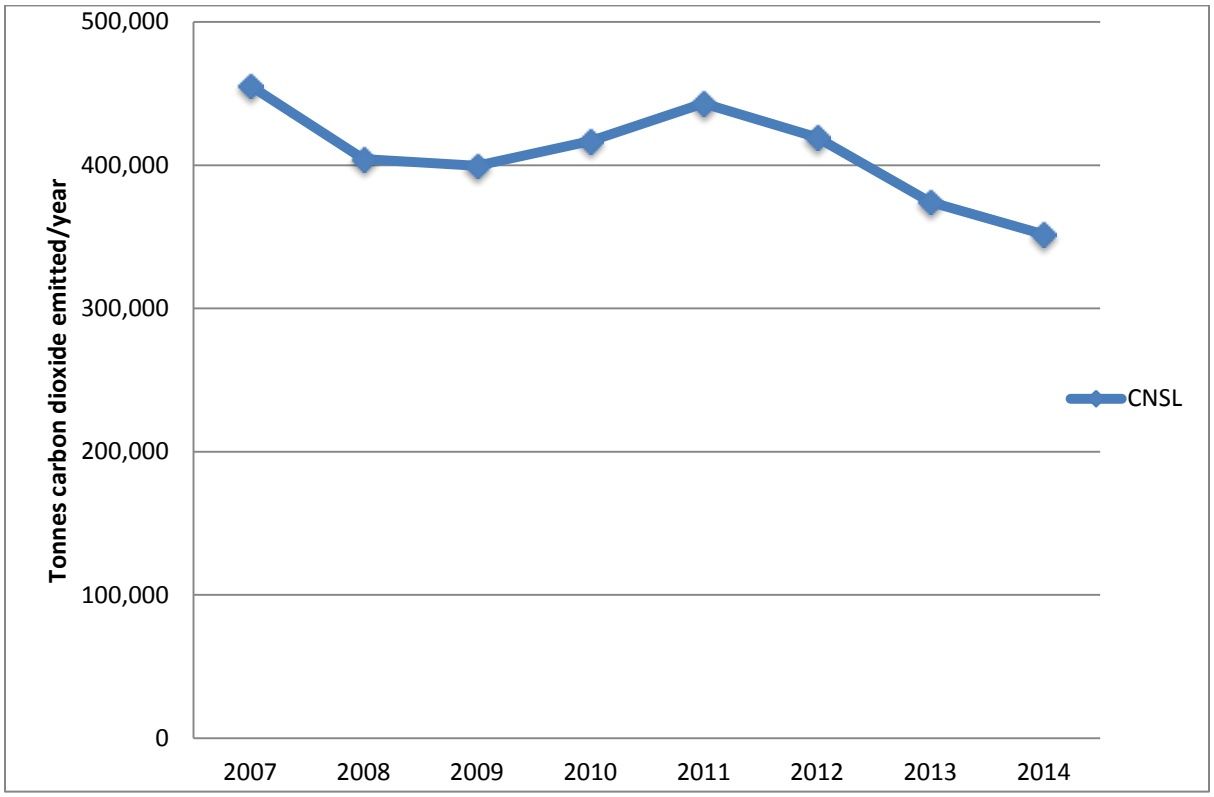
Figure 2 – CNSL 2014 ES Plan Status, Year End



In progress or open actions are reviewed and included within the 2015 plan where applicable. In addition to improvement opportunities raised directly via the Environmental Stewardship process there are also arrangements in place to drive continual improvement in response to compliance audits; regulatory inspections/changes; and/or ongoing operational excellence and asset work scopes.

8.0 Emissions and Energy Efficiency

Figure 3 – CNSL Annual CO_2 Emissions 2007 – 2014



Note: Includes emissions from Chevron operated fields (Alba, Captain and Erskine) with atmospheric emissions only.

Emissions

The potential environmental impacts of atmospheric emissions from our type of operations include acid rain formation from oxides of nitrogen and sulphur, photochemical smog from the reaction of sunlight with nitrogen oxides and volatile organic compounds (VOCs), and the potential for climate change associated with greenhouse gases from combustion of fossil fuels.

In the UK, we monitor and measure the atmospheric emissions arising from all our major sources and report these annually either as part of our engagement in the European Union (EU) Emissions Trading System (ETS) or in our detailed annual atmospheric reports submitted to the regulator each year. Atmospheric emissions from UK assets during 2014 are shown in **Table 3** below.

In January 2014, Chevron entered Phase III of the EU ETS. Like all UK offshore operators, this has meant that our free allocation of CO_2 emissions has been reduced by a significant margin. Our carbon costs have increased as we have to purchase more credits in the carbon market.

Emissions of carbon dioxide (CO_2) from our activities are mainly as a result of hydrocarbon combustion in power generation and some gas flaring from our Captain and Alba installations. In 2014, we continued to strive to reduce the CO_2 emissions arising from our operations, with reduced flaring activity and better fuel gas utilisation on both Captain and Alba.

In addition during 2014, we optimised the import of fuel gas at Alba from the nearby Britannia field. Importing of gas reduced our reliance on diesel, which reduces our emissions of CO_2, sulphur oxides and VOCs. We also reduced flaring on both Captain and Alba, which further reduces our emissions of CO_2. In 2015 we plan to replace a pressure control valve to further reduce flaring. On Erskine, a leak detection and repair program was executed that found no emissions leaks.

Table 3 – CNSL 2014 Atmospheric Emissions Data

	Source	CO_2 (tonnes)	NO_x (tonnes)	N_2O (tonnes)	SO_2 (tonnes)	CO (tonnes)	CH_4 (tonnes)	VOC (tonnes)	HFC[1] (tonnes)
Alba Northern Platform (ANP)	Diesel Consumption	16,136.25	87.21	1.11	10.12	4.65	0.17	1.49	0.00
	Fugitives	0.24	0.00	0.00	0.00	0.00	10.55	1.03	0.00
	Gas Consumption	114,419.20	253.20	9.31	40.42	126.95	38.93	1.52	0.00
	Gas Flaring	44,771.00	20.23	1.37	16.28	112.95	401.90	33.80	0.00
	Gas Venting	15.59	0.00	0.00	0.00	0.00	580.40	61.53	0.00
	HVAC[2] Systems	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
Alba Floating Storage Unit (FSU)	Diesel Consumption	5,983.80	73.60	0.41	3.75	19.43	0.22	2.43	0.00
	Oil Loading	201.04	0.00	0.00	0.00	0.00	69.53	46.91	0.00
	HVAC[2] Systems	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Captain Wellhead Protector Platform (WPP)	Diesel Consumption	9,645.43	52.13	0.67	6.05	2.78	0.10	0.89	0.00
	Fugitives	0.17	0.00	0.00	0.00	0.00	5.56	0.01	0.00
	Gas Consumption	53,908.59	182.31	4.52	0.06	61.62	18.90	0.74	0.00
	Gas Flaring	32,939.28	15.30	1.03	0.04	85.40	329.67	0.33	0.00
	Gas Venting	0.70	0.00	0.00	0.00	0.00	18.08	0.03	0.00
	HVAC[2] Systems	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Captain Floating Production Storage & Offloading (FPSO)	Diesel Consumption	58,188.41	786.06	4.01	36.48	207.61	2.37	26.12	0.00
	Gas Consumption	6,207.31	5.66	0.52	0.01	1.42	0.21	0.02	0.00
	Gas Flaring	8,382.05	3.82	0.26	0.01	21.33	71.75	4.51	0.00
	Oil Loading	310.33	0.00	0.00	0.00	0.00	191.72	2.52	0.00
	HVAC[2] Systems	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Erskine Platform	Diesel Consumption	680.01	12.62	0.05	0.43	3.34	0.04	0.43	0.00
Total	-	**351,789.39**	**1,492.14**	**23.26**	**113.64**	**647.48**	**1,740.10**	**184.31**	**0.08**

Notes:
1 HFC = Hydrofluorocarbon. No halogenated compounds emitted other than HFCs.
2 HVAC = Heating, Ventilation and Air Conditioning.

Energy Efficiency

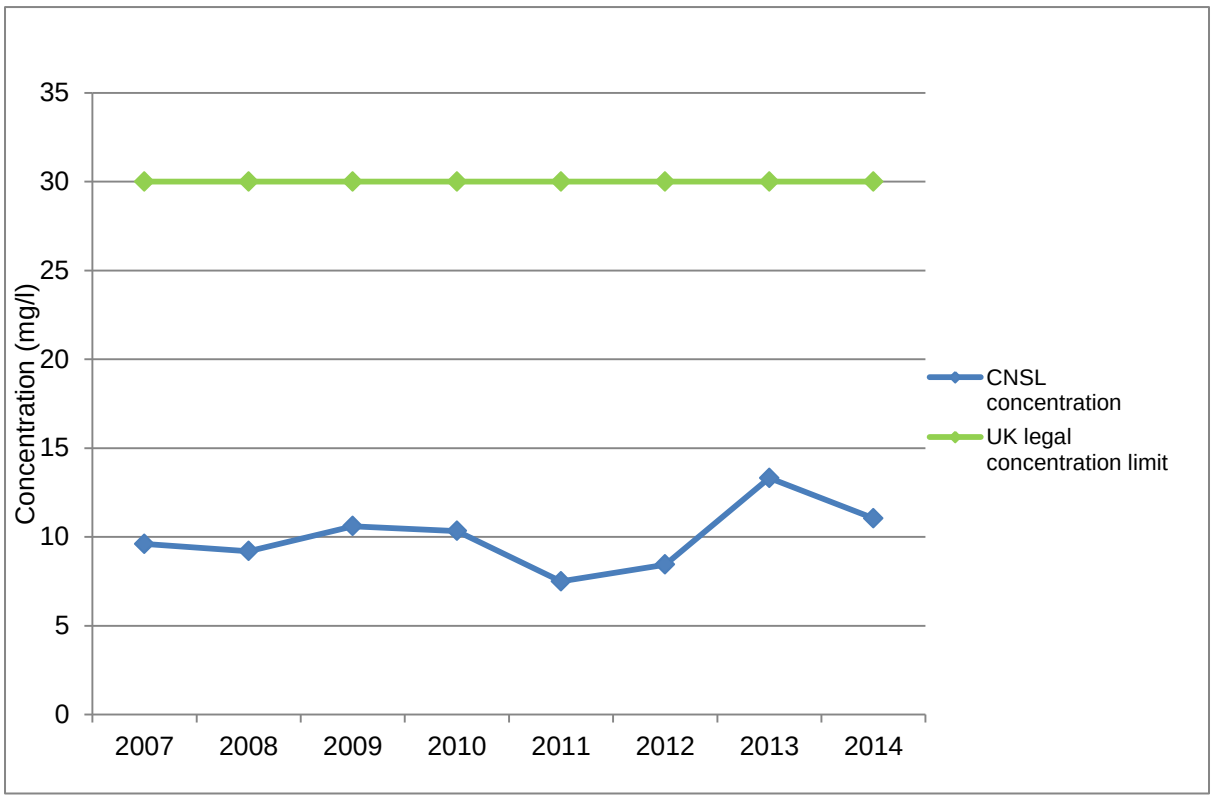
Our global operations require a significant amount of energy and result in various atmospheric emissions, therefore improving energy efficiency is good environmental and business practice. The Chevron Upstream Energy Intensity (UEI) metric is a measure of total actual energy used (MMBTU/D) divided by actual gross operated production (MBOE/D).

Continuous improvement requires constant focus on energy efficiency opportunities, such as designing energy efficiency into capital projects, keeping existing equipment efficient through proper maintenance and upgrading and auditing and benchmarking progress. Energy efficiency and conservation are the most immediate and cost-effective sources of 'new' greenhouse gas-free energy. Chevron undertakes a variety of actions to reduce emissions and improve the energy efficiency of its operations. In the UK during 2014 our focus area continued to be those installations regulated under the EU Emissions Trading System (ETS).

In 2014, the CNSL UEI was 286 against a target value of 289. This value reflects improved fuel gas utilisation at Captain and ongoing optimisation of the import gas system at Alba to reduce diesel use. We are committed to optimising energy efficiency across our UK operations. In 2014, we included turbine, fuel gas and flare management as discussion topics in daily operational calls with our assets and are revisiting a suite of potential efficiency improvement projects to establish their potential for CO_2 reduction and viability.

9.0 Oil in Produced Water

Figure 4 – CNSL Annual Average Oil-in-Water Concentration 2007 – 2014



Oil extraction results in the co-production of produced water containing hydrocarbons, some naturally-occurring materials and other substances and residues of the chemicals used in the offshore production process.

In the Captain Field, all produced water is re-injected back into the reservoir with none being discharged to sea. In the Alba field, produced water is treated to remove residual oil before being discharged to sea. Both these activities are regulated under the provisions of a permit issued by the environmental Regulator DECC.

In 2014, CNSL re-injected approximately 50 percent (12 million tonnes) of total produced water. A total of 129.13 tonnes of oil in produced water was discharged into the sea at an average oil-in-water concentration of 11.04 mg/l from the Alba field. See **Table 4** below for more information.

Produced water handling remains a key challenge at Alba because the volume of water co-produced with the oil is rising as the field matures. During 2014, several engineering projects were identified and progressed to help maintain and improve oil-in-produced water management and treatment. Further initiatives and projects are being pursued through the 2015 Environmental Stewardship Plan.

In addition to the oil-in-water challenge, increasing quantities of sand are also produced with the water at Alba. A consequence is that Alba oil and water separators fill with sand which in turn compromises oil-in-produced water quality. To help manage this in 2014 one of Alba Northern Platforms separators was taken offline and all sand was removed. At the same time the density profilers were upgraded to improve the accuracy of determining the oil/water interface levels.

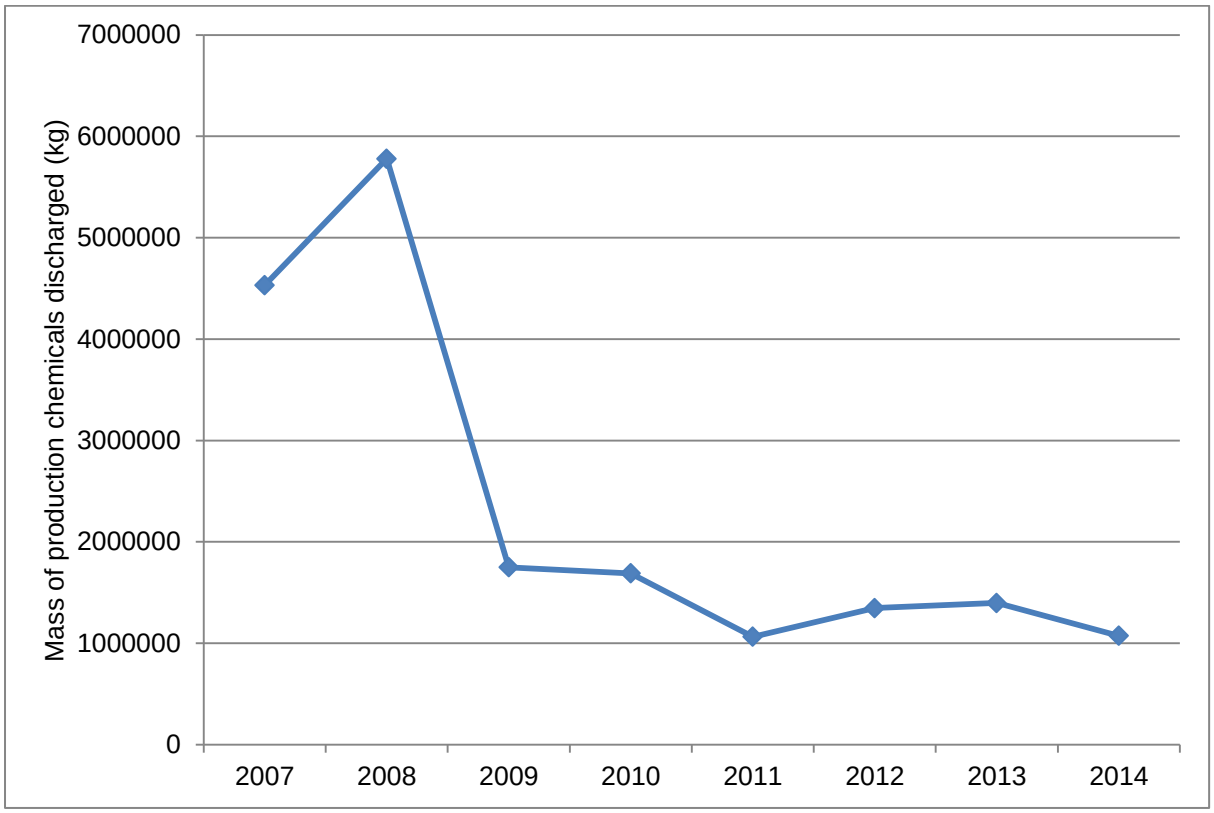
Table 4 – CNSL 2014 Oil-in-Produced Water Data

Facility	Oil-in produced water discharge concentration (mg/l)	Oil discharged (t)	Water discharged (t)	Water injected (t)
Captain Wellhead Protector Platform (WPP)	N/A	None	None	11,950,506
Alba Floating Storage Unit (FSU)	9.1	0.117	9,916	N/A
Alba Northern Platform (ANP)	11.04	129.01	12,019,438	N/A
Total	**11.04**[1]	**129.13**	**12,029,354**	**11,950,506**

[1] This figure is not the direct average of the FSU and ANP discharge concentrations, but is weighted to capture the fact that there is relatively much more produced water discharge on ANP than on the FSU. Hence, the overall figure closely matches that of the ANP individually.

10.0 Chemicals

Figure 5 – CNSL Annual Mass of Production Chemicals Discharged 2007 – 2014



Note: Graph shows production chemicals discharged only. Drilling activity varies considerably from year to year so inclusion of this data does not allow meaningful comparison of data.

The chemicals used in drilling and production processes may result in effluent discharges to sea. Many different types of chemical are used in drilling and production operations – primarily to control corrosion, inhibit bacterial growth, assist with the production process, and assist with the drilling process. Chemical use and discharge is regulated and a permit is required before any use or discharge of a production or drilling chemical can take place.

In 2014, approximately 13 percent of the production chemicals used were discharged to sea, most of which were low hazard - that is chemicals classed E or banded Gold under the regulated Offshore Chemical Notification Scheme. A breakdown of CNSL chemical use by operation is provided in **Table 5** below, with a breakdown of discharge by chemical type provided in **Table 6** below.

CNSL continues to focus on replacement of higher hazard chemicals with less hazardous substitutes where this is technically feasible. Discharge of chemicals is affected significantly by increased water production at CNSL's Alba field as it matures. Since 1998, all water produced from CNSL's Captain Field reservoir has been used either as reinjection water for reservoir pressure maintenance or as power water for downhole hydraulic pumps; chemical discharges at this field are therefore already minimal.

CNSL discharged 1,923 tonnes of chemicals from our drilling operations during 2014, approximately 25 percent of the total chemicals used in these activities. Most of these chemicals were low hazard chemicals.

All chemical use and discharge are subject to strict regulatory controls and are managed in accordance with internal procedures and processes.

Table 5 – CNSL 2014 Chemical Use & Discharge

Facility/operation	Mass Used (kg)	Mass Discharged (kg)
Alba Floating Storage Unit (FSU) Production Operations[1]	217.85	21597.65
Alba Northern Platform (ANP) Production Operations	1993510.94	973862.35
ANP Drilling Operations	5484470	187250
Captain Field Drilling Operations[2]	1231303	996297
Captain Floating Production Storage & Offloading (FPSO) Production Operations	6186316.81	78066.02
Captain Wellhead Protection Platform (WPP) Drilling Operations	1021375	739807
Erskine Production Operations[3]	78796.21	0
Pipeline Works	1	0.1
Total	**15,995,990.81**	**2,996,880.12**

[1] No processing occurs at the FSU, therefore little chemical is used there. The apparent discrepancy in FSU chemical use and discharge figures is as a result of the FSU receiving processed crude from the ANP, from which water which requires discharging settles out, therefore some chemicals applied at the ANP get discharged at the FSU.

[2] Captain Field drilling involved the GSF Arctic III MODU, which was active in the field during the summer of 2014.

[3] Erskine fluids are processed at Lomond (operated by BG), therefore discharge of chemicals used at Erskine occurs there. These chemical discharges are covered on, and reported against, BG's chemical permit for Lomond.

Table 6 – 2014 Chemical Use & Discharge (Detailed)

Facility/operation	(kg)	A	B	C	D	E	F	Blue	White	Silver	Gold	Total
Alba Floating Storage Unit (FSU) production operations[2]	**Used**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	217.85	217.85
	Discharged	0.00	0.00	0.00	0.00	0.00	0.00	16,678.00	0.00	0.00	4,919.65	21,597.65
Alba Northern Platform (ANP) production operations	**Used**	0.00	0.00	0.00	0.00	258,664.10	0.00	18,848.00	0.00	649.00	1,715,349.84	1,993,510.94
	Discharged	0.00	0.00	0.00	0.00	69,049.09	0.00	1,617.13	0.00	649.00	902,547.13	973,862.35
ANP drilling operations	**Used**	0.00	14,305.00	251,035.67	55,764.00	5,067,112.00	0.00	0.00	0.00	1,393.00	94,861.00	5,484,470.67
	Discharged	0.00	0.00	0.00	0.00	185,707.00	0.00	0.00	0.00	0.00	1,543.00	187,250.00
Captain Field drilling operations	**Used**	1.00	0.00	0.00	5,720.00	1,087,650.00	0.00	0.00	0.00	0.00	137,932.00	1,231,303.00
	Discharged	1.00	0.00	0.00	4,930.00	884,874.00	0.00	0.00	0.00	0.00	106,492.00	996,297.00
Captain Floating Production Storage & Offloading (FPSO) production operations	**Used**	0.00	0.00	0.00	0.00	106,262.08	0.00	0.00	4,771,762.11	229,162.63	1,079,129.99	6,186,316.81
	Discharged	0.00	0.00	0.00	0.00	74,335.06	0.00	0.00	0.00	37.20	3,693.76	78,066.02
Captain Wellhead Protection Platform (WPP) drilling operations	**Used**	0.00	0.00	0.00	135.00	990,804.00	0.00	0.00	0.00	0.00	30,436.00	1,021,375.00
	Discharged	0.00	0.00	0.00	0.00	725,847.00	0.00	0.00	0.00	0.00	13,960.00	739,807.00
Erskine production operations[3]	**Used**	0.00	0.00	0.00	0.00	18,164.70	0.00	0.00	0.00	0.00	60,631.51	78,796.21
	Discharged	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pipeline works	**Used**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
	Discharged	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10
Total	**Used**	**1.00**	**14,305.00**	**251,035.67**	**61,619.00**	**7,528,656.88**	**0.00**	**18,848.00**	**4,771,762.11**	**231,204.63**	**3,118,559.19**	**15,995,991.48**
	Discharged	**1.00**	**0.00**	**0.00**	**4,930.00**	**1,939,812.15**	**0.00**	**18,295.13**	**0.00**	**686.20**	**1,033,155.64**	**2,996,880.12**

Oil and Chemical Releases/Spills to Sea

Table 7 – CNSL 2014 Oil & Chemical Releases/Spills to Sea

Facility	Number of PON1s[1]	Oil Released (kg)	Chemical Released (kg)
Captain Floating Production Storage & Offloading (FPSO)	4	0.00048	0.00
Captain Wellhead Protector Platform (WPP)	9	0.025098	3,148
Alba Northern Platform (ANP)	3	7,500	1,193
Alba Floating Storage Unit (FSU)	1	0.000005	0.00
Erskine	0	0	0
GSF Arctic III	1	0.00	309.75
Total	**18**	**7,500.02**	**4,650.75**

Notes:
1. CNSL data includes accidental releases of oil to sea only. Excludes oil discharged within produced water and reported through Permitted Discharge Notifications.
2. 2007 - 2014 CNSL data includes the maximum reported quantity released, i.e. a worst case scenario. Since 2007, PON1 reports have required a maximum and minimum release quantity to be reported.

A summary of 2014 oil and chemical releases to sea by asset is provided in **Table 7** above. **Figure 6** shows CNSL Annual Quantity of Oil Released to Sea 2007 – 2014.

CNSL failed to meet its internal performance metric on oil releases/spills to sea as a result of a single incident which occurred on the Alba Northern Platform on the 11 September 2014. During this event a worst case of 7.5 tonnes of diesel was released to sea and reported to the regulatory authorities.

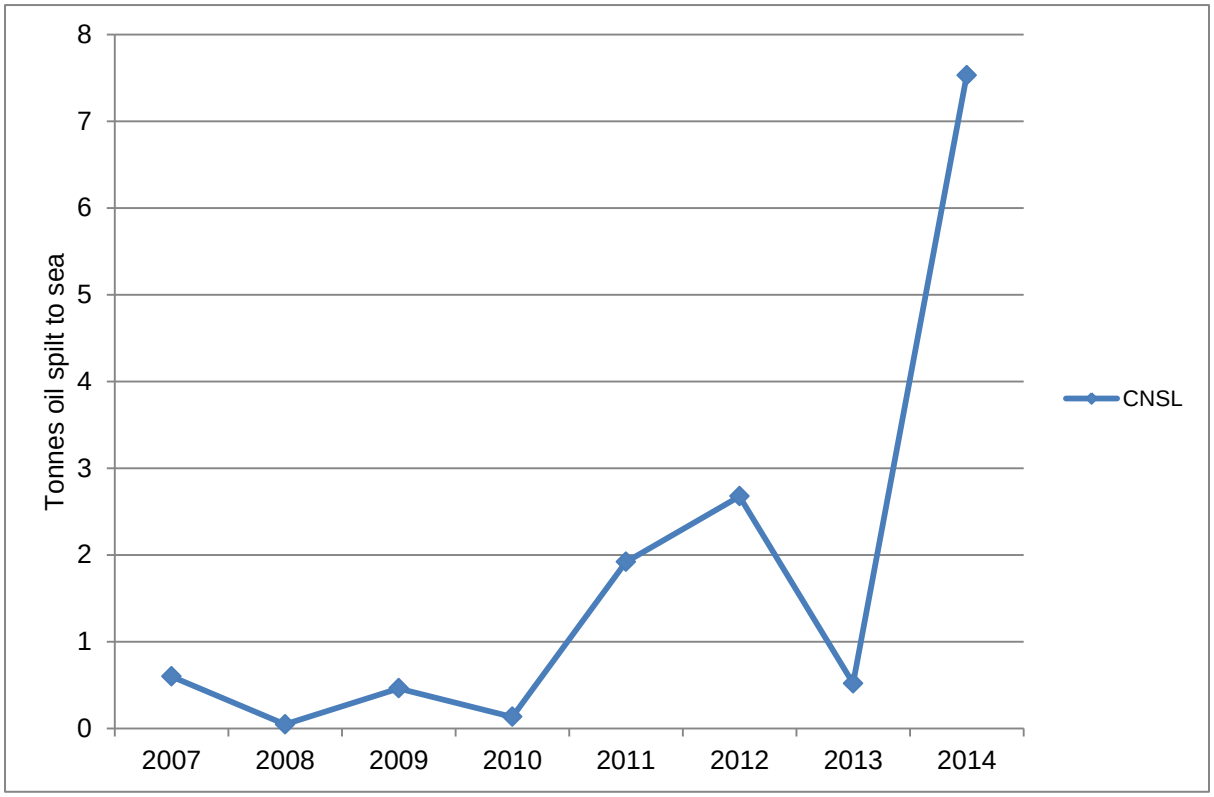
The release of diesel occurred as the result of the overfilling of the B fire pump diesel day tank. Further to the incident the platform Oil Pollution Emergency Plan was implemented with the diesel diluting and dispersing naturally. An investigation was carried out by CNSL to identify the root cause of the incident and actions that could be taken to prevent recurrence. An investigation was also conducted by the environmental regulator, DECC, which resulted in an Enforcement Notice being issued by DECC to CNSL on the 12 November 2014. Throughout the investigation CNSL cooperated fully with DECC and maintained close liaison to ensure requirements associated with the Enforcement Notice were managed, complied with and communicated.

CNSL's largest chemical release to sea in 2014 occurred in the Captain Field. The release was hydraulic fluid from a subsea control system and was first identified on 10 October 2014. Due to the location of the subsea release a dive support vessel had to be contracted to establish the precise location on the subsea control equipment. Hydraulic isolations were completed on 31 October 2014 stopping the release. Under normal operating conditions the hydraulic fluid, called HW540E, is permitted under the Regulatory regime to be discharged to sea.

CNSL has approved Oil Pollution Emergency Plans (OPEPs) in place for each fixed asset and robust procedures for reporting and investigating all accidental releases that occur to sea, regardless of size.

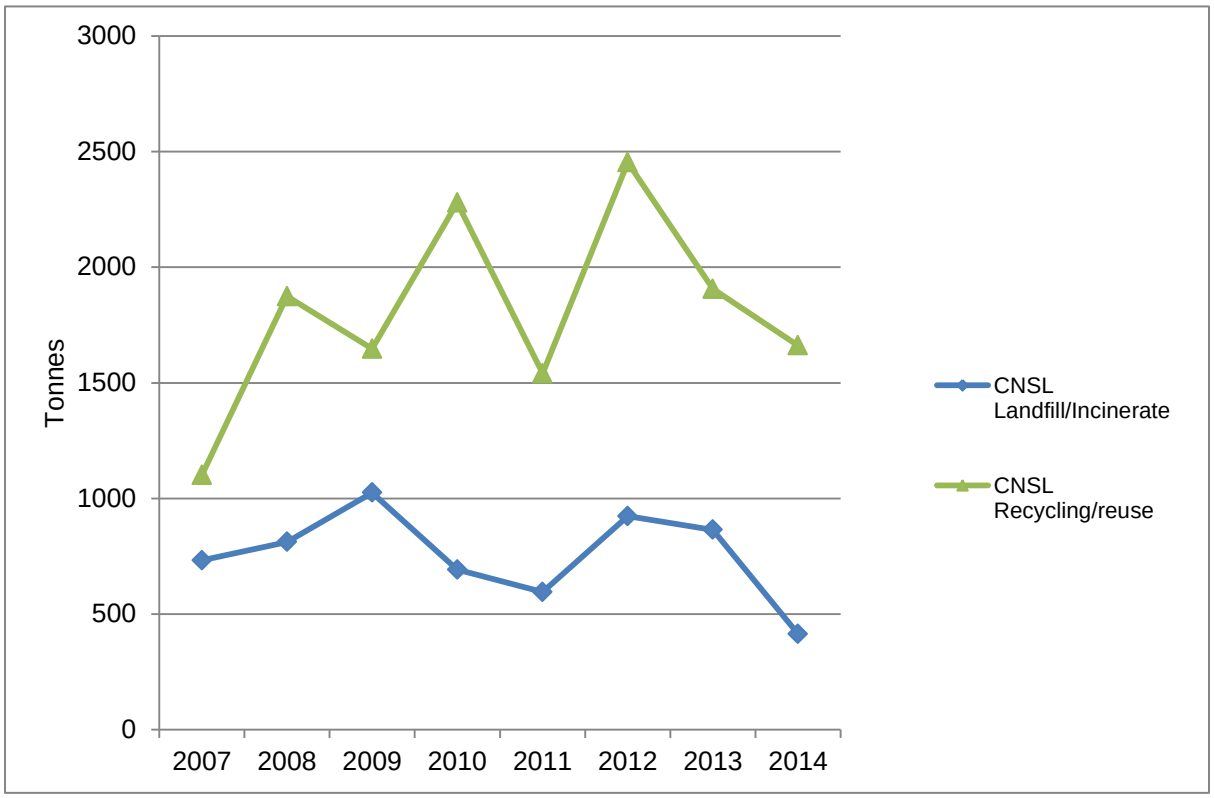
[1] Oil and chemical releases only. Excludes Permitted Discharge Notifications, which are discussed in in the Oil-in-Produced Water section above.

Figure 6 – CNSL Annual Quantity of Oil Released to Sea 2007 – 2014



11.0 Wastes

Figure 7 – Annual Mass of Waste 2007 – 2014



Note: Excludes drilling related waste and tank washings which distort data from a relative performance assessment perspective.

Our offshore operations produce a variety of waste streams which include packaging, scrap metal and redundant chemicals. Chevron works actively both to reduce the amount of waste that it produces and to reuse or recycle what remains. Improvements in the proportion being recycled or reused have been identified – for example, wooden storage pallets are used for chipboard and plastic drums are shredded for recycling and reuse. Waste which isn't reused or recycled is mainly sent to landfill with small amounts being incinerated. **Figure 7** above provides details of the annual mass of waste produced together with disposal routes.

CNSL works with our waste management contractor to continuously improve waste management and minimise landfill volumes. CNSL's 2014 waste production by asset is shown in **Table 8** below.

In 2014, CNSL exceeded its target of recycling 70 percent of the recyclable waste in its production and office operations (see 2014 Performance Metrics in Table 1 above). This target was achieved through numerous initiatives at each of our installations and by the individual efforts of members of the offshore workforce, in particular those involved in the installation Green Teams. During 2014, we also directed our waste contractors to perform quarterly 'skip audits' and document opportunities for us to improve waste management. Skip audit reports include photographic evidence and are shared with the offshore Green Team community.

Table 8 – 2014 Reported Total Waste Data

Category	Recycle (t)	Landfill (t)	Waste to Energy/ Incinerate (t)	Other (t)	Total (t)
Special/Hazardous Waste	207.06	4,830.44	0	1,851.2	**6,888.7**
Non-Hazardous Waste	1,624.97	400.13	0	0	**2025.1**
Other	0	0	2.61	0	**2.61**
Total	**1,832.03**	**5,230.57**	**2.61**	**1,851.2**	**8,916.41**

For the purpose of relative annual performance tracking, we do not include the drilling-related and tank washings waste streams in our target as they are extremely variable and operationally dependent, meaning their inclusion would not allow for long-term performance tracking. These are often our biggest contributors to landfill volumes (as they were in 2014) and as a result we are working to reduce the quantities and potential hazards of these wastes too. The use of non-aqueous (oily) drilling fluids can be necessary when drilling long horizontal wells. All oily contaminated drill cuttings were shipped to shore for disposal during 2014 with none being discharged to sea. Tank washing disposals are being reduced through the application of two techniques to reduce the water used in the process: new nozzles for the water jetting cleaning system and recycling of the water being used in the process.

12.0 Glossary

ANP	Alba Northern Platform
bbl	Barrel
BG	BG Group (was British Gas)
BLP	Bridge-linked Platform
BOE	Barrels of oil equivalent
BTU	British Thermal Units
CEI	Chevron Energy Index
CH_4	Methane
CNSL	Chevron North Sea Limited
CO	Carbon monoxide
CO_2	Carbon dioxide
CPP	Central Processing Platform
CUE	Chevron Upstream Europe
DECC	Department of Energy & Climate Change
ECE	Environmentally Critical Element
ES	Environmental Stewardship
ETS	Emissions Trading System
EU	European Union
FID	Final Investment Decision
FPSO	Floating, Production, Storage and Offloading
FSU	Floating Storage Unit
HFC	Hydroflurocarbon
HVAC	Heating, Ventilation & Air Conditioning
MSP	Management System Process
N_2O	Nitrous oxide
NOGEPA	The Netherlands Oil and Gas Exploration and Production Association
NO_x	Oxides of nitrogen
OE	Operational Excellence
OEMS	Operational Excellence Management System
OSPRAG	Oil Spill Prevention and Response Advisory Group
SO_2	Sulphur dioxide
t	tonnes
UEI	Upstream Energy Intensity
UK	United Kingdom
VOCs	Volatile Organic Compounds
WPP	Wellhead Protector Platform