
Maersk Oil UK Environmental Performance Report 2014

"An ongoing commitment to legal compliance, continual improvement,
and prevention of pollution in our UK operations"





Maersk Oil North Sea UK Limited
**Health , Safety & Environment
 (HSE) Statement**

In support of the Maersk Oil Health, Safety & Environment (HSE) Policy, Maersk Oil UK recognises that the health, safety and security of everyone who works for us, the security of the wider business, and the protection of the environment, are fundamental to the management of our activities and form an integral part of achieving continual improvement in our business performance.

Maersk Oil UK commits to comply with all applicable, health, safety, security and environmental legislation and where practicable embrace industry best practice, including the requirements of the Maersk Oil Corporate Management System.

We will strive for business excellence through continual improvement in HSE performance, by adopting an approach of "Constant Care" in all our activities in order to identify and minimise hazards and risks.

We believe that incident-free operations is an achievable goal, and it is the responsibility of every individual to work towards the highest standards of health, safety, security and environmental performance, and quality of delivery.

In pursuit of this, Maersk Oil UK will:

- Demonstrate leadership throughout the organisation to promote a culture that empowers all personnel to understand and contribute to the implementation of this Statement;
- Maintain a Business Management System which reflects the requirements of our HSE Statement, and provides adequate guidance and instruction to meet organisational objectives;
- Ensure all personnel have suitable competency to conduct our business safely, securely and responsibly, and with minimum impact on the environment;
- Establish an annual HSE plan with clear objectives and supporting targets;
- Strive for compliance against the HSE plan and delivery of improved performance will be monitored via an active audit and review programme;
- Investigate all accidents and near miss incidents, acknowledge the lessons learned and take appropriate actions to prevent recurrence;
- Optimise all activities and resources such that we minimise environmental impact and ensure the long term sustainability of our business.

Details of how we are organised to deliver excellence in HSE performance are contained in the Maersk Oil UK HSE Policy.

Martin Rune Pedersen Managing Director, Maersk Oil North Sea UK Limited, February 2013



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On an annual basis, this environmental performance report is produced to communicate the performance of the previous year.

The strategic direction for the year ahead is summarised in the Maersk Oil UK HSSEQ Programme 2015.

Managing Director's Introduction



I am pleased to introduce the 2014 Environmental Performance Report for Maersk Oil UK. The purpose of this document is to report to all our stakeholders on the environmental performance of our offshore operations.

We are committed to minimising risks and continually improving performance in the areas of Health, Safety, Security, Environment and Quality across the whole organisation with the aim of achieving incident-free operations.

Our environmental aspirations include:

- minimising harmful discharges from our installations and activities;
- raising environmental awareness and engagement within the workforce;
- maintaining standards in improving environmental performance; and
- meeting or exceeding legal and other environmental requirements.

Maersk Oil UK successfully maintained an ISO14001 certified Environmental Management System through 2014. Whilst legal requirements have been fulfilled and initiatives for continuous improvement undertaken, we also achieved a reduction in avoidable environmental incidents over 2013. The setting of ambitious internal targets which exceeded regulatory compliance limits in 2014 have resulted in good performance for oil in produced water concentrations, chemicals discharged to sea and total emissions to air.

We welcome comments and questions on the content of this publication.

Martin Rune Pedersen
Managing Director, Maersk Oil UK

Our Operations

Maersk Oil UK has had a presence in the UKCS since 2005. The company operates nine fields: Gryphon, Tullich, Maclure, Janice, James, Affleck, Donan (Dumbarton), Lochranza and Balloch. Exploration activities continue in the UK sector and are an important part of the company's growth strategy.

Three operated North Sea assets located within the United Kingdom Continental Shelf (UKCS):

- Janice Alpha FPU
- Gryphon Alpha FPSO
- Global Producer III FPSO

During the 2014 reporting period, Maersk Oil UK's activities included an active drilling programme involving 3 contracted drilling rigs working on 8 wells, 7 of which were completed with 1 continuing into 2015.

Operated Production and Drilling Activity

Total Operated Production (MMBOE)

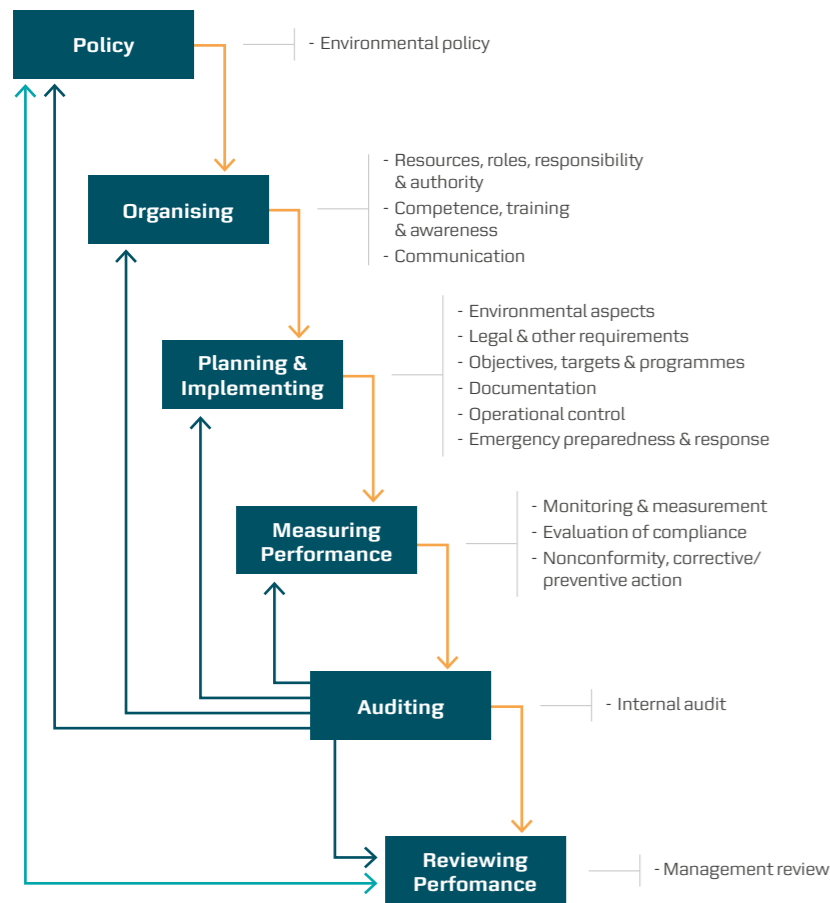
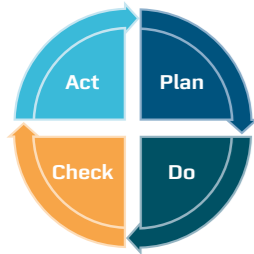


Wells Programme



Maersk Oil UK Environmental Management System

Within all our international operating units, Maersk Oil UK has established a clear framework for the effective management of HSSEQ issues involving exploration, drilling and production activities. Maersk Oil UK regards environmental management as being an integral part of our overall management responsibility, the fundamental aims being to support environmental protection, prevent pollution and comply with legislation and regulations.



The principles of the International Standard for Environmental Management Systems (ISO14001:2004) are incorporated within the Maersk Oil UK Business Management System (BMS).

The BMS provides the framework for a 'Plan-Do-Check-Act' approach to HSSEQ management, which actively promotes continual improvement in all aspects of the organisation's activities.

In 2010 Maersk Oil UK successfully secured certification of the Environmental Management System (EMS) to the International Standard ISO14001:2004. The scope of certification for Maersk Oil UK is "Extraction and production of oil and natural gas on Maersk Oil UK operated UKCS Fields and onshore support activities, including planning and organisation of development and exploration for all UK operated blocks, carried out at Maersk House". Throughout 2014 we have successfully maintained ISO14001 certification.

Environmental Aspects



Environmental Performance

We are committed to a process of continual improvement and pollution prevention with the intention to minimise discharges and emissions from all our installations and activities. Strenuous efforts are made to prevent incidents, but accidental spillages do happen. All accidental/unplanned discharges of oil or chemicals to sea, regardless of volume, must be reported to the Department of Energy and Climate Change (DECC), the Maritime and Coastguard Agency (MCA) and the Joint Nature Conservation Committee (JNCC). An approved Oil Pollution Emergency Plan (OPEP) needs to be in place for each offshore installation.



Atmospheric Emissions

Atmospheric emissions generated from our offshore operations come from:

- Fuel combustion by turbines and generators for power generation;
- Flaring of hydrocarbons;
- Venting of unburned hydrocarbons from cargo tanks and cargo transfer; and
- Use of propane gas cylinders.

These activities lead to emissions of carbon dioxide (CO₂), nitrogen oxides (NO_x), sulphur oxides (SO_x), methane (CH₄) and other Volatile Organic Compounds (VOCs). CO₂ emitted from these activities is regulated by the European Union Emissions Trading Scheme (EU ETS). Phase III of the EU ETS runs from the 1st January 2013 to 31st December 2020 which introduces additional procedural and emissions management requirements. Under EU ETS, we report annual CO₂ emissions with a view to reducing emissions year on year. Non-CO₂ emissions from our installations are regulated under the Offshore Combustion Installation (Prevention and Control of Pollution) (PPC) Regulations.



Discharges to Sea - Produced Water

Produced Water (PW) is a by-product of oil production and processing. Oil-in-Produced-Water (OiPW) refers to the trace amounts of oil still remaining in the water phase following PW treatment. In the UK, discharge of PW to sea is regulated under the Offshore Petroleum Activities (Oil Pollution Prevention and Control) (OPPC) Regulations. Maersk Oil UK is required to monitor and report PW discharges to sea in particular, the quality (in mg/l) and total volume of oil.

It is the produced water management strategy on all Maersk Oil UK installations to re-inject produced water when re-injection capabilities are available thereby minimising the volume of oil discharged to sea. When produced water oil concentration discharged to sea is increased for any reason the strategy remains to minimise the volume of oil discharged to sea by re-injection rather than discharge overboard to reduce monthly average oil in produced water concentrations.



Discharges to Sea - Chemical Management

Chemicals are used for a wide variety of purposes in the offshore industry, e.g. to optimise production, aid separation and for protection against corrosion and bacterial growth. Chemical use and discharge is regulated in the UK through the Offshore Chemicals Regulations (OCR). Maersk Oil UK aims to minimise the negative impact of chemicals by reducing the use of products with selected harmful, substitution components. Chemical permits must be in place before chemicals can be used or discharged during drilling, workovers, production and pipeline operations.







Waste Management

A variety of solid, liquid, hazardous and non-hazardous wastes are produced from our offshore operations, including: waste chemicals, waste oil, paper, scrap metal, glass and wood. The Merchant Shipping (Prevention of Pollution by Garbage) Regulations prohibits overboard discharge of offshore waste. All offshore waste is segregated and the majority is disposed of onshore via a variety of disposal routes, including recycling, landfill and incineration. Maersk Oil UK aims to continue reducing the volume of waste produced by our operations, and minimising volume sent to landfill.

2014 Environmental Performance Summary

The mapping and monitoring of discharges, emissions and wastes arising from our drilling and production activities is a long established practice within Maersk Oil UK. This information is used for regulatory reporting purposes and helps inform our strategy to improve our environmental performance. Data relating to key Environmental Performance Indicators (EPIs) based on internal targets for 2014 is summarised below.

Issue	Maersk Oil UK 2014 Objectives	2014 Internal Targets	2014 Performance
 Environmental Performance	Take all reasonable steps to prevent pollution	Zero spills	Production Operations 7 x Releases to Sea Drilling 2 x Releases to Sea
	Ensure Maersk Oil UK's compliance with relevant environmental legislative requirements	Full compliance with permits and consents	Production Operations 14 x Permit Non-Compliances
	Systematically identify and manage environmental risks through a fully functioning EMS which aims to drive continual improvement	Maintenance of the certified EMS to ISO14001 across all locations and within scope	Certification maintained
	Deliver a robust (risk based) internal and third party (contractor) environmental auditing programme	100% audit completion against plan	100% completion against plan
 Atmospheric Emissions	Continue to improve understanding of atmospheric emissions management and where possible reduce GHG emissions in line with permit conditions and operational demands	Production Operations Annual target of 199,000 tonnes CO ₂ – Flaring	145,654 tonnes
		Production Operations Annual target of 180,000 tonnes CO ₂ derived from combustion activities	204,246 tonnes
 Discharges to sea - produced water	Continue to investigate, evaluate and prioritise measures to improve the management of oil in produced water and where possible reduce oil and chemical discharges in line with permit conditions and operational demands	UK Production Operations YE Target 33.4 tonnes oil to sea	Actual 35.23 tonnes
		UK Production Operations Internal Target - OiPW 25 mg/l	Actual 24.53 mg/l
 Discharges to sea - chemical management	Reduce the use and discharge of chemicals with SUB warnings	Production Operations - Target 9 chemicals with SUB warnings by end of year	Actual 7
		Drilling - <10,000 kg SUB chemicals discharged	305 kg
 Waste Management	Promote waste management practices in line with the principles of the waste management hierarchy	Annual target greater than 57% recycling rate from offshore production facilities	49%
		Annual target >80% recycling rate related to drilling activities (excluding waste sent for onshore treatment)	89%

Environmental Performance Summary

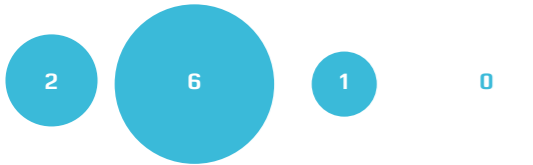
Janice Alpha

- Floating Production Unit (FPU)
- Location: 156 miles south east of Aberdeen in Block 30/17a
- Currently produces from the Janice, James and Affleck fields



Environmental Performance

PON1 OPPC NCN OCR NCN PPC NCN

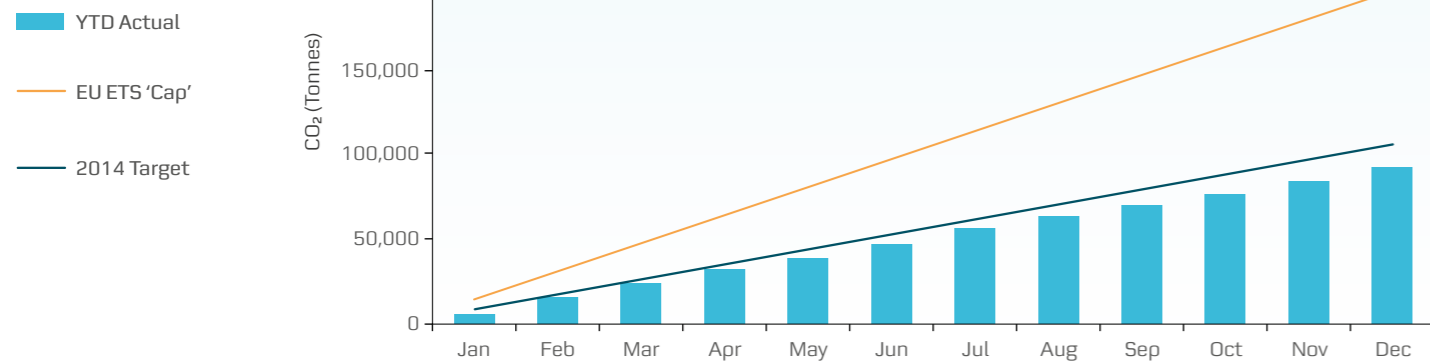


- **Two PON1s:**
 - Pinhole leak on the Open Hazardous Drain pump discharge line. No single spill was greater than 0.01 tonnes.
- **Six OPPC NCNs:**
 - Five monthly average produced water discharges >30 mg/l (three from primary sampling point) due to a lack of re-injection capabilities during plant start up. The philosophy is to re-inject wherever possible in order to reduce overall environmental impact rather than reduce oil to sea averages.
 - OPPC non-conformance for discharging over the annual permitted quantity from a secondary discharge point.

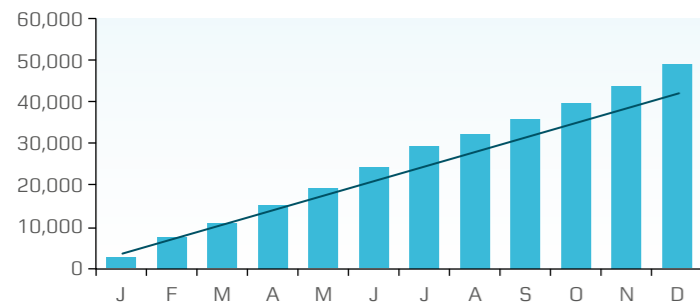
Janice OPPC compliance performance is a result of the Maersk Oil UK PW Management Strategy as described on page 7 discharges to sea – produced water.

Atmospheric Emissions

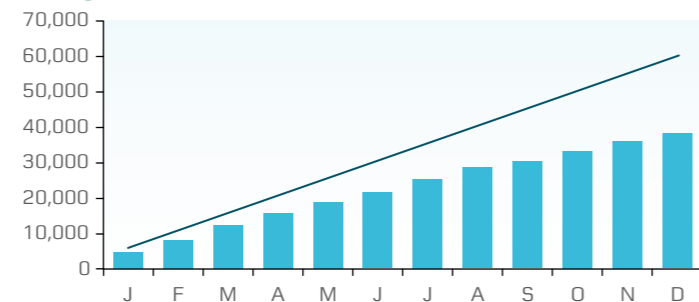
Total CO₂ Emissions (Tonnes)



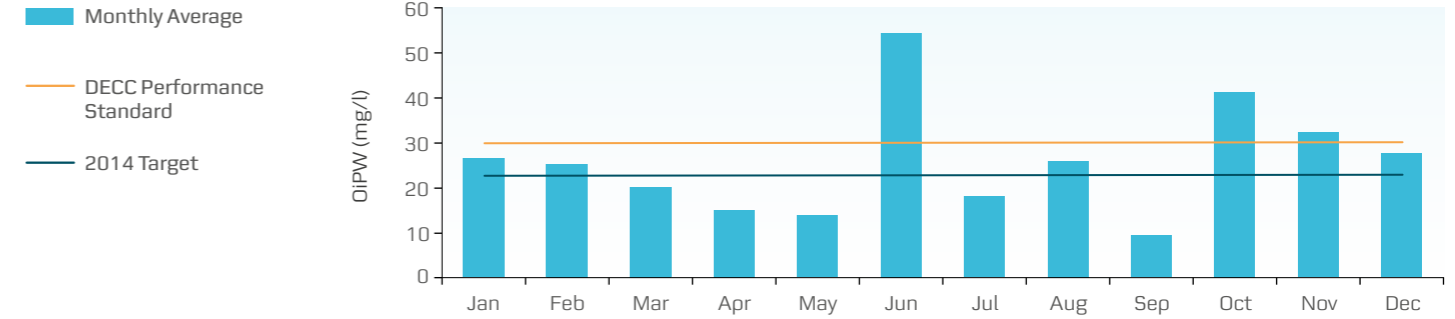
Combustion CO₂ Emissions (Tonnes)



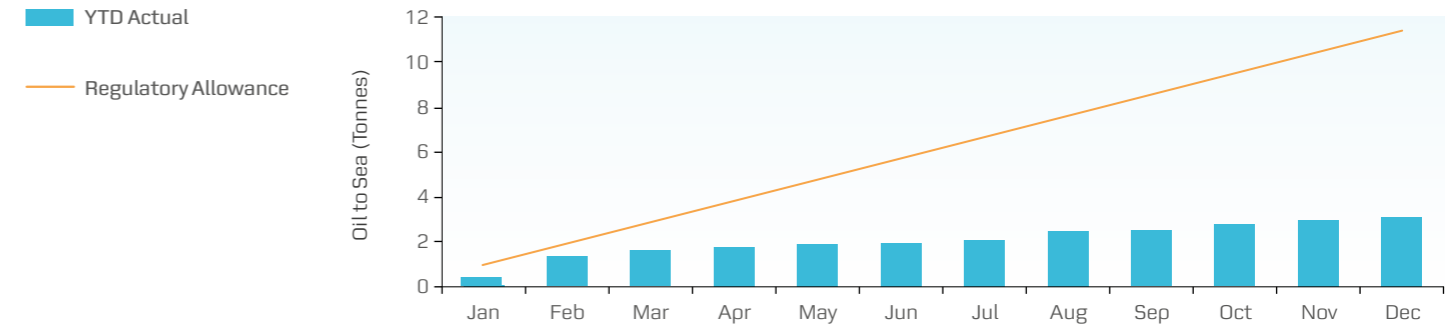
Flaring CO₂ Emissions (Tonnes)



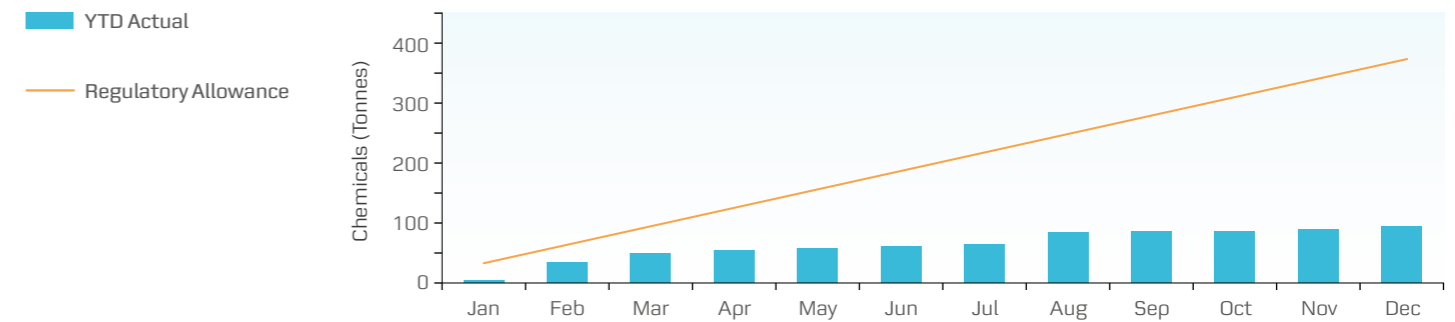
Monthly Average OiPW (mg/l)



Oil Discharge to Sea (Tonnes)

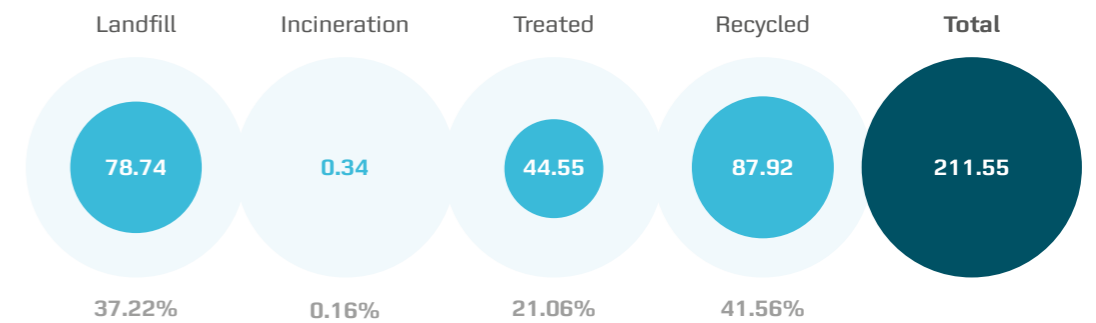


Chemical Discharge to Sea (Tonnes)



Waste Management

Waste Generated (Tonnes):



There has been a significant reduction in oil in produced water discharged to sea and emissions to air from flaring when compared with the 2013 data. However the overall average oil in produced water concentration was higher than in 2013, this was primarily due to a high number of process trips throughout the year. Although CO₂ emission from combustions are above the internal target, total CO₂ emissions for 2014 were well under the EU ETS Cap target due to reduced flaring.

Environmental Performance Summary Gryphon Alpha

- Floating Production, Storage and Offloading Vessel (FPSO)
- Location: 175 miles north east of Aberdeen in Block 9/18b
- Currently produces from the Gryphon, Tullich and Maclure fields



Environmental Performance

PON1 OPPC NCN OCR NCN PPC NCN

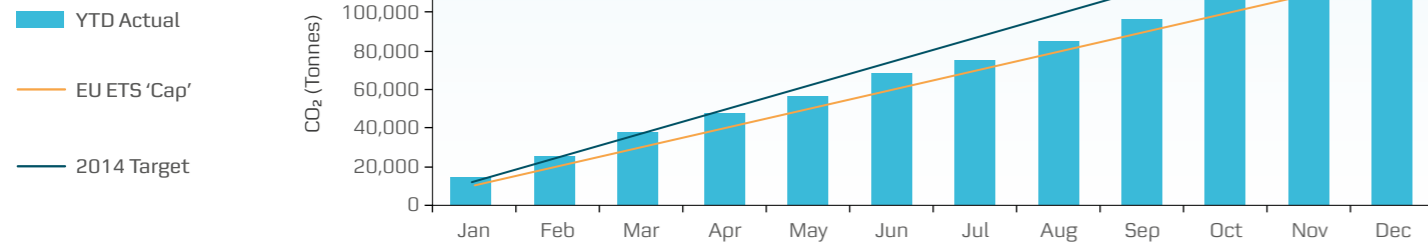
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One OPPC Non-Compliance Notification:

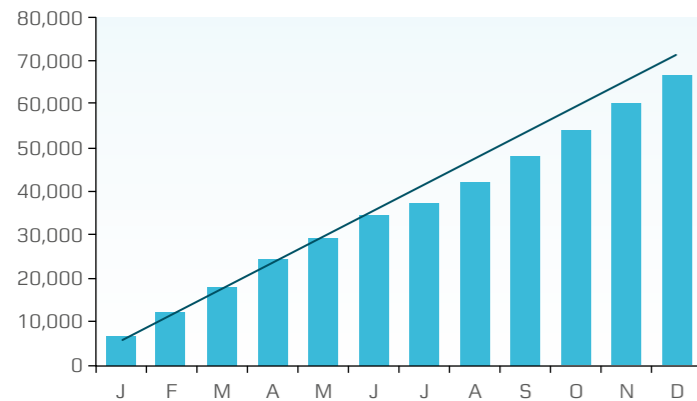
- Use of an alternative produced water sample point due to safety issues during adverse weather, where the permitted sample point was not accessible.

Atmospheric Emissions

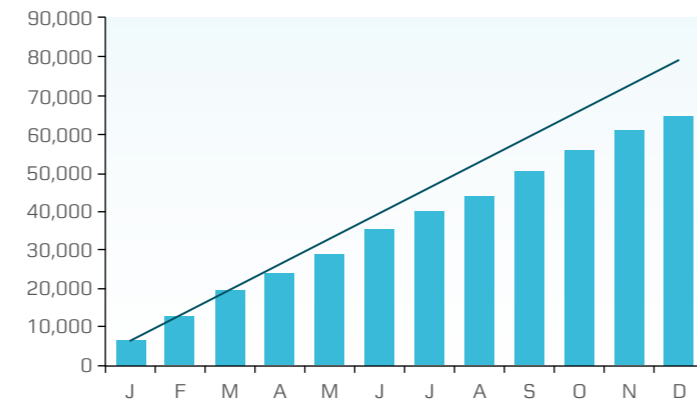
Total CO₂ Emissions (Tonnes)



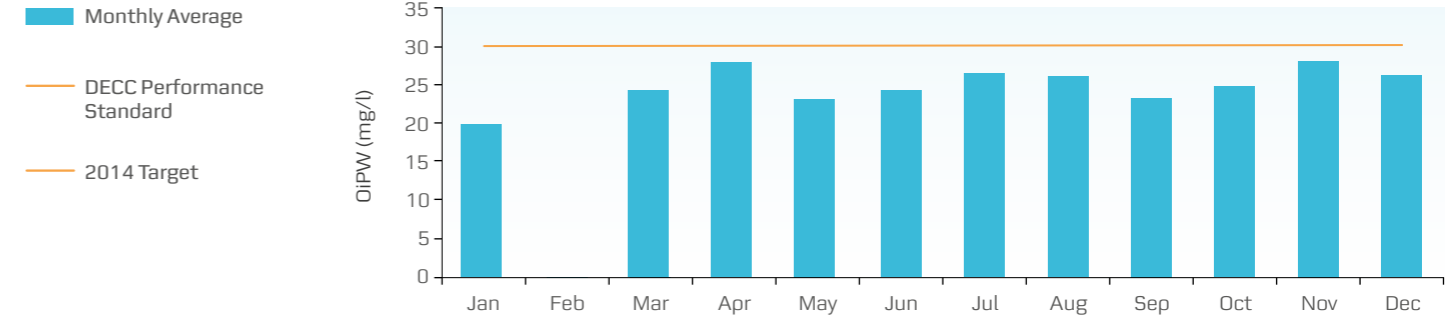
Combustion CO₂ Emissions (Tonnes)



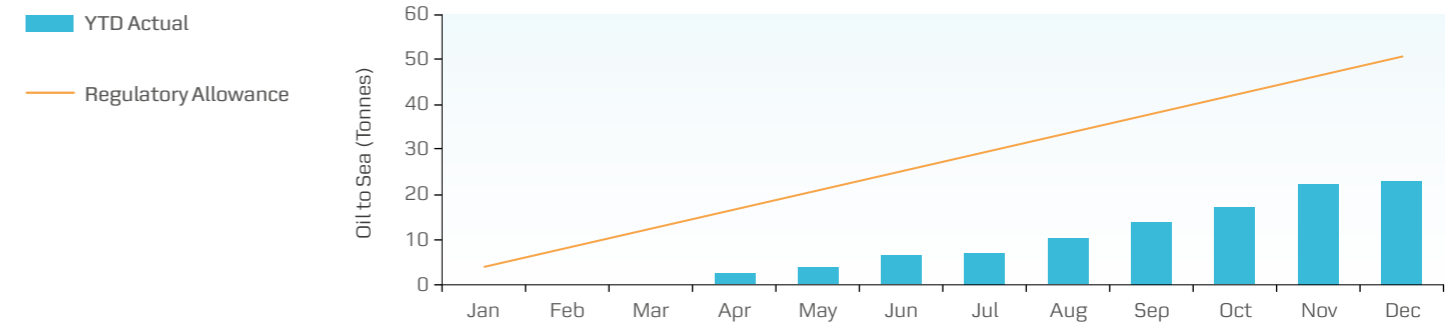
Flaring CO₂ Emissions (Tonnes)



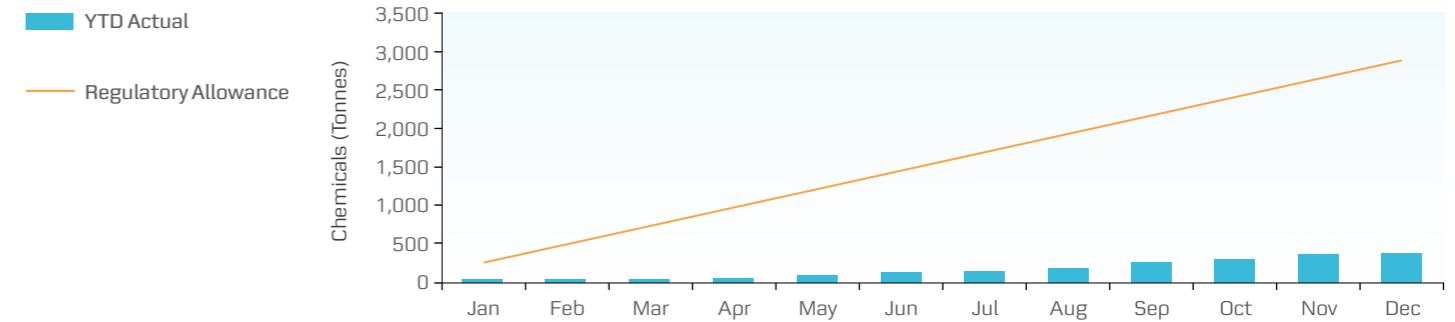
Monthly Average OiPW (mg/l)



Oil Discharge to Sea (Tonnes)

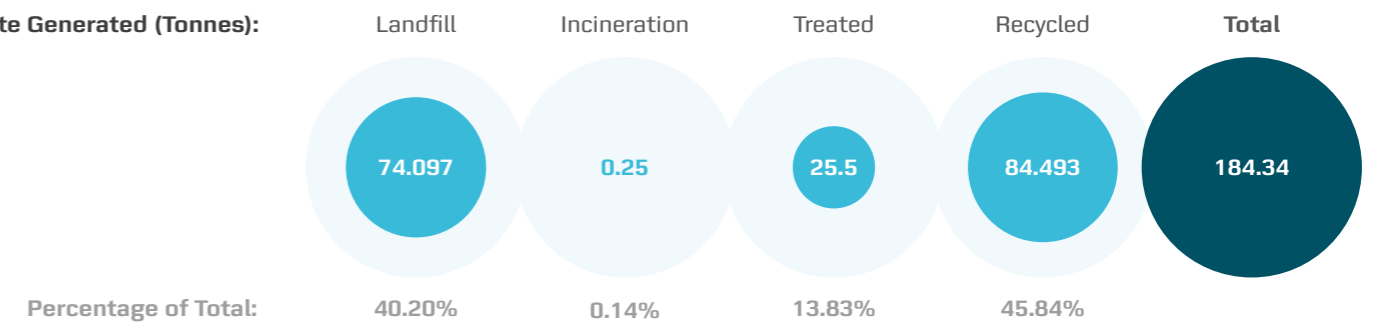


Chemical Discharge to Sea (Tonnes)



Waste Management

Waste Generated (Tonnes):



Gryphon Alpha came back online in June 2013 following being off station since February 2011 after sustaining damage during a storm. Gryphon has been focussed on maintaining stable operations and the tie-in of a number of a new production wells.

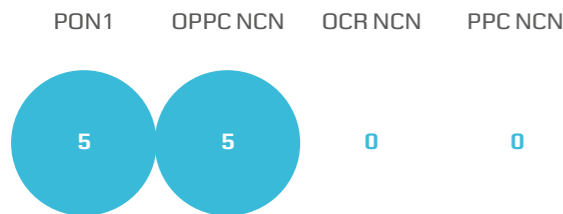
Overall environmental performance during 2014 remained stable and below internal targets.

Environmental Performance Summary Global Producer III

- Floating Production, Storage and Offloading Vessel (FPSO)
- Location: 137 miles north east of Aberdeen and 25 miles west of the transboundary line in Block 15/20a and 15/20b
- Currently produces from the Donan (Dumbarton), Lochranza and Balloch fields.



Environmental Performance



Five PON 1s:

- Leak from heating medium system
- Perforation of diesel hose
- Hydraulic leak from valve on crane boom buffer ram
- Methanol leak from DCC methanol injection line

Five accidental releases to sea were recorded during 2014. Although the overall quantity was small and assessed as of negligible impact to the marine environment, any loss of containment is an unwanted event. Focus on preventing accidental releases to sea will continue to remain a high priority throughout 2015.

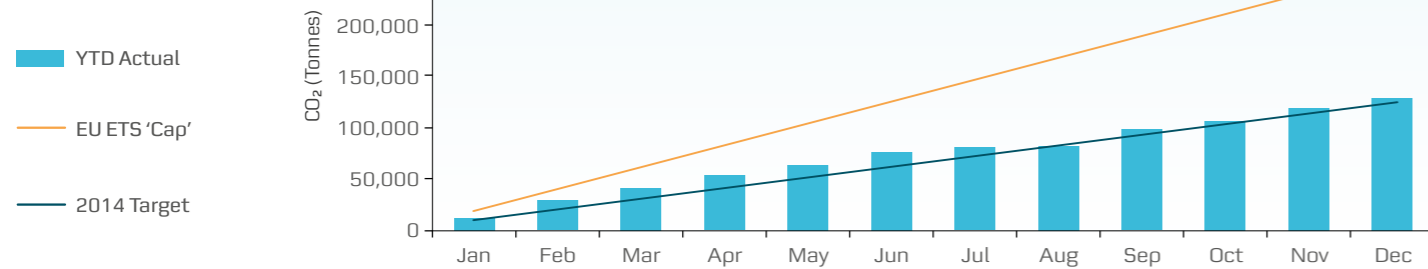
Five OPPC NCNs:

- Four OPPC NCN's - Average monthly oil in water concentration >30 mg/l
- One for an unpermitted discharge of residual hydrocarbons during a well tie-in.

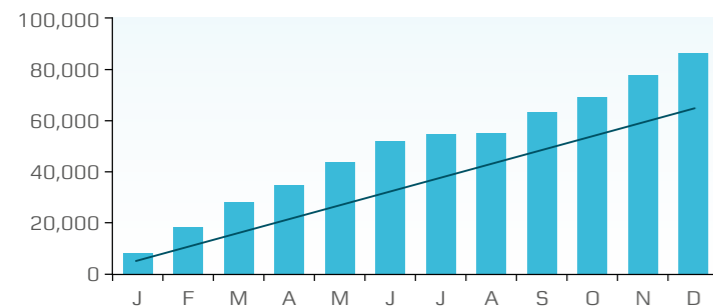
GPIII OPPC compliance performance is a result of the Maersk Oil UK Produced Water Management Strategy as described on page 7 discharges to sea - produced water.

Atmospheric Emissions

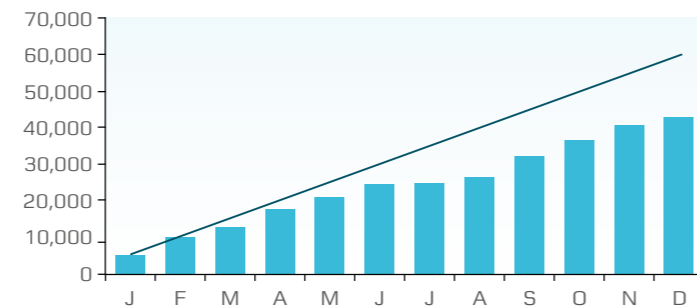
Total CO₂ Emissions (Tonnes)



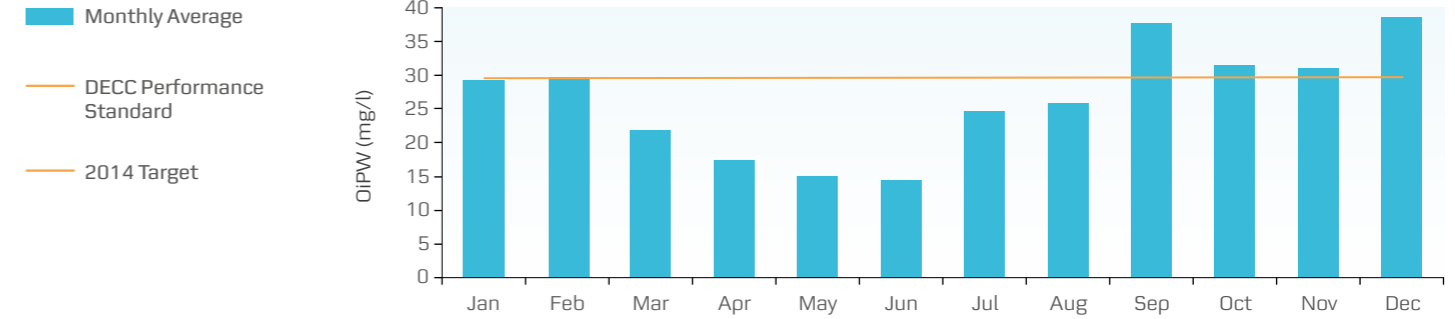
Combustion CO₂ Emissions (Tonnes)



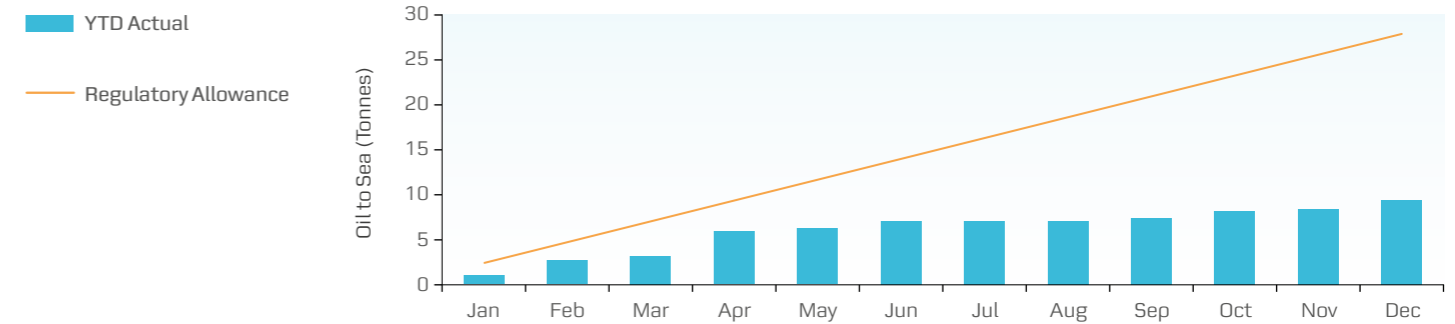
Flaring CO₂ Emissions (Tonnes)



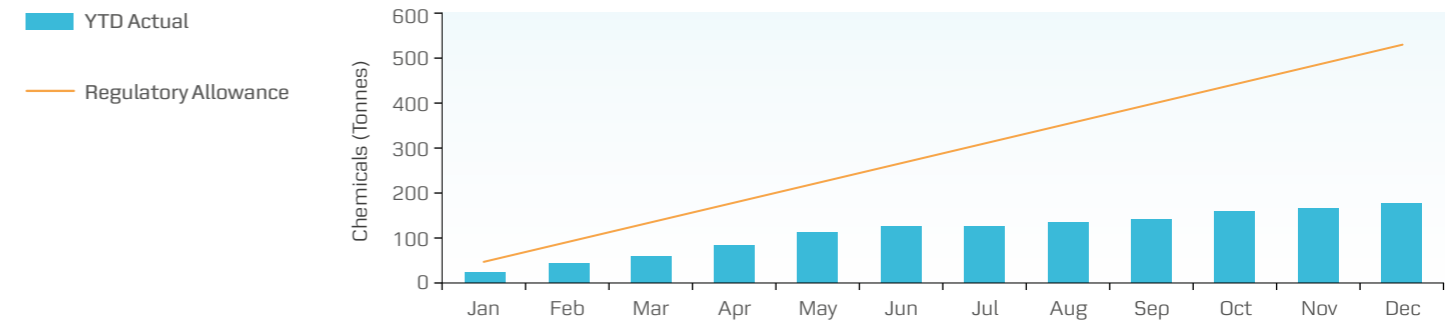
Monthly Average OiPW (mg/l)



Oil Discharge to Sea (Tonnes)

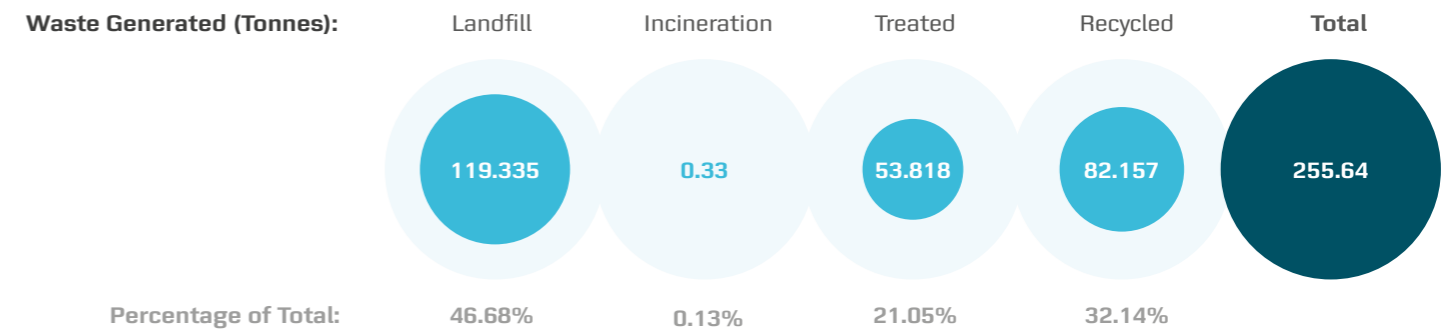


Chemical Discharge to Sea (Tonnes)



Waste Management

Waste Generated (Tonnes):



GPIII has shown an overall reduction in the monthly average oil in produced water quality and total emissions to air from flaring. However, the total oil in produced water discharged to sea has increased from 2013, this is primarily due to increased production from new well tie-ins. CO₂ emissions from combustion are above target due to adverse weather, which required diesel use for station keeping.

Environmental Performance Summary

Drilling Operations



Environmental Performance

PON1s & NCNs: PON1 OPPC NCN OCR NCN



- Two PON1's:
 - Loss of quick fitting connection resulting in a spill of hydraulic oil
 - Diesel spill during bunkering operations

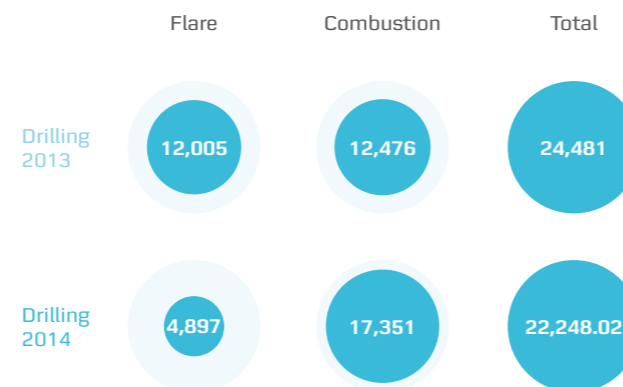
Environmental Performance

During the 2014 reporting period, Maersk Oil UK's activities included an active drilling programme in the UKCS, involving three contracted drilling rigs conducting operations over eight wells with seven being completed and one carrying over into 2015. 2014 has seen a commitment to challenging environmental key performance indicators to maintain our commitment to continual improvement in reducing our impact on the environment during drilling operations.

Atmospheric Emissions

The majority of atmospheric emissions associated with drilling operations result from diesel combustion for power generation. Diesel use quantities depend upon the number of active rigs, well complexity and the time spent drilling. During 2014 the TCCR Rotomill drill cuttings recovery, treatment and disposal unit continued to be deployed on all drilling rigs and as a result atmospheric emissions associated with cuttings transport to shore for treatment remained low. Three well tests were completed in 2014 – CO₂ emissions from flaring were 4,897 tonnes, representing a decrease over 2013's flare emissions. During 2014, overall diesel consumption has increased, accounting for the increased emissions from combustion activities over 2013, however total CO₂ emissions have decreased.

CO₂ Emissions (Tonnes)



Discharges to Sea - Target not achieved

Two accidental releases to sea were recorded during 2014. Although the overall quantity was small and assessed as of negligible impact to the marine environment, any loss of containment is an unwanted event. Focus on preventing accidental releases to sea will continue to remain a high priority throughout 2015.

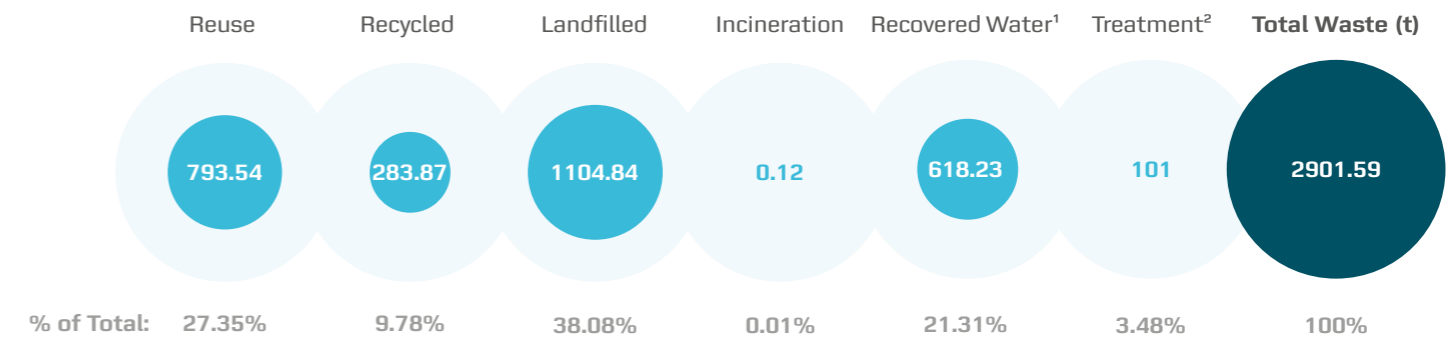
All discharges of produced water associated with well test operations were carried out as per the conditions of our OPPC permits. All discharges were below 30 mg/L.

Waste Management - Target achieved

During drilling operations, several varied and complex waste streams are produced ranging from day to day living and galley wastes to contaminated cuttings and bulk liquid or 'slops' wastes. The number of wells and the complexity of those wells determine the type and quantity of waste generated. Sustainable management of complex streams presents a significant challenge. However, 2014 saw 89% of operational waste (excluding waste sent for further treatment onshore) over all drilling operations recycled.

Drilling Rig Waste

Generated Waste* (Tonnes):



¹ Water recovered from the waste fluids and cuttings sent for onshore treatment. This is discharged to industrial sewer for further treatment.

² - Hazardous wastes sent for further treatment onshore (paints, chemicals, etc)

ISO 14001

Certificate of Registration

This is to certify that

Maersk Oil North Sea UK Limited

at

Maersk House
Crawpeel Road
Altens
Aberdeen
AB12 3LG

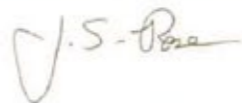
has been registered to ISO 14001:2004 for

Extraction and production of oil and natural gas at the following Maersk operated installations on the UKCS

- Block 15 Donan, Lochranza and Balloch Fields;
- Block 09 Gryphon, Tullich and Maclure Fields; and
- Block 30 Janice, James and Affleck field

and onshore support activities, including planning and organization of development and exploration for all UK operated blocks, carried out at Maersk House in Altens, Aberdeen

Signed on behalf of ERM CVS by:



Jeff Rose
Head of Certification

ERM Certification and Verification Services

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Exchequer Court
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Certificate Number: 507
Initial Issue Date: 18 January 2014
Revision Date: 9 July 2014
Expiry Date: 17 July 2017
Version #: 2



This certificate is the property of ERM Certification and Verification Services Ltd and is issued subject to ERM CVS' Standard Terms and Condition of Business. Its validity may be confirmed by contacting ERM CVS as set out above.

ERM CVS is an independent member of the world-wide Environmental Resources Management Group of Companies

Independent Assurance Statement to Maersk North Sea UK Ltd

ERM Certification and Verification Services (ERM CVS) was engaged by Maersk North Sea UK Ltd to provide assurance in relation to the information set out below.

Engagement Summary

Scope:

Whether the 2014 data in the 2014 Environmental Performance Report (the Report) are fairly presented, in all material respects, in accordance with the reporting criteria. The Report is produced to meet the requirements of the OSPAR Recommendation 2003/5 To Promote the Use and Implementation of Environmental Management Systems by the Offshore Industry.

Reporting Criteria:

Regulatory reporting requirements for the North Sea Oil and Gas Industry and Maersk internal reporting guidelines.

Assurance Standard:

ERM CVS' assurance methodology based on the International Standard on Assurance Engagements (ISAE 3000) Assurance Engagements other than Audits or Reviews of Historical Financial Information.

Assurance level:

Limited assurance.

Respective responsibilities:

Maersk is responsible for preparing the 2014 Environmental Performance Report and for the collection and presentation of the information within it.
ERM CVS's responsibility is to provide a conclusion on the agreed scope based on the assurance activities as described below and exercising our professional judgement.

Our assurance activities

- Discussions with responsible staff at Maersk North Sea UK headquarters in Aberdeen in order to:
 - understand and evaluate (changes to) the relevant systems used for collecting and reporting the data, together with the associated internal review processes;
 - verify underlying source data, on a sample basis;
 - review relevant calculations and the aggregation of the data up to the end of October 2014.
- Assessing the consistency of the data for offshore fuel use and flaring with the results of the work undertaken by ERM CVS conducted in relation to the 2014 EU ETS verification.
- Subsequent office based review of the full year data for 2014 as well as assessing selected additional evidence, in January and March 2015.

The limitations of our engagement

The reliability of the assured data is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. It is important to understand our assurance conclusion in this context.

Our conclusion

Nothing has come to our attention to indicate that the 2014 data in the Report are not fairly presented, in all material respects, with the reporting criteria.



Jennifer Iansen-Rogers
Head of Report Assurance

11 March 2015

ERM Certification and Verification Services, London



ERM CVS is a member of the ERM Group. The work that ERM CVS conducts for clients is solely related to independent assurance activities and auditor training. Our processes are designed and implemented to ensure that the work we undertake with clients is free from bias and conflict of interest. ERM CVS and the staff that have undertaken work on this assurance exercise provide no consultancy related services to Maersk North Sea UK Ltd in any respect.



For further information or to provide comments about this report, contact:

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