

Chrysaor Limited

Environmental Management System Annual Public Statement

2015

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1. INTRODUCTION

Chrysaor is a privately owned UK oil and gas exploration operator established in 2007, with offices in both London and Aberdeenshire and a focus on the United Kingdom offshore continental shelf.

Chrysaor's mission is to be a leading independent exploration and production company that delivers exceptional returns to its stakeholders in a way that it can be proud of.

Additional information on the company is available from: www.chrysaor.com. This document presents Chrysaor's (The Chrysaor) Annual Public statement for offshore operations in 2015, in line with the objectives of OSPAR Recommendation 2003/5 to Promote the Use and Implementation of Environmental Management Systems (EMS) by the Offshore Industry. The Department of Energy and Climate Change (DECC) implement the OSPAR Recommendation 2003/5 in the UK, with all operators of seaward licences required to have an accredited EMS, and to produce an annual public statement relating to UK offshore operations undertaken in the previous calendar year.

This report provides a high level summary of Chrysaor's UK offshore activities, a brief description of their EMS, Chrysaor's environmental policy, objectives and targets, and finally a summary of Chrysaor's performance in 2015 in relation to their environmental policy, objectives, targets and prevailing legislative requirements.

Important Note: The Mustard exploration well was drilled during the transition period relating to the implementation of the new UKCS regulatory regime based on the requirements of the Offshore Safety Directive; 2013/30/EU (OSD) concerning the safety of offshore oil and gas operations.

The operations safety case for the selected drilling rig, the Sedco 712 was not due to be resubmitted until early 2016 therefore all permit applications, regulatory consents and compliance documentation were, with the permission of the Offshore Safety Directive Regulator, based on pre OSD regulatory regime requirements.

Publicly available copies of this Statement are available for viewing on the DECC website as follows: https://www.gov.uk/guidance/oil-and-gas-ospar-ems-recommendation#ems-public-statements

2. UK OFFSHORE OPERATIONS

All UK offshore operations are co-ordinated from both the London and Banchory offices.

Chrysaor is the operator of two northern North Sea (P2146 and P1977) licenses and three West of Shetland (P1932, P2074 and P2140) licences within the United Kingdom Continental Shelf (UKCS). Figure 2.1 illustrates the location of the licences that Chrysaor operate in the UKCS, while Table 2.1 summarises the operatorship and the percentage of interest Chrysaor has in each licence.

Operations in 2015 have been focussed on the Mustard exploration area West of Shetland (Figure 2.1) of which Chrysaor hold 50% of the licence and are the operator (INEOS Breagh hold 25% and Origo hold 25%) and two seismic surveys undertaken on licences P1932 and P1977 / P2146.

Table 2.1: Chrysaor licence interests in the UKCS.

Equity Holder	Block/ Subarea	Interest	Operator	Licence
Chrysaor Limited	8/23	100%	Chrysaor Limited	P2146
	8/28a	100%	Chrysaor Limited	P1977
	202/4a	50%	Chrysaor Limited	P1932
	202/5a	50%	Chrysaor Limited	P1932
	203/1a	50%	Chrysaor Limited	P1932
	205/26c	10%	Chrysaor Limited	P2074
	205/27	10%	Chrysaor Limited	P2074
	205/26a	Chrysaor hold a net profit & royalty interest only in this block	Premier Oil PLC	P164
Chrysaor CNS Limited	204/28d	100%	Chrysaor CNS Limited	P2140
	204/29a	100%	Chrysaor CNS Limited	P2140
	205/26c	40%	Chrysaor CNS Limited	P2074
	205/27	40%	Chrysaor CNS Limited	P2074

During 2015, Chrysaor's UK offshore activities consisted of exploration drilling operations at the Mustard exploration well in Block 205/27, a 3D seismic survey on licence P1932 and a 2D seismic survey on licences P1977 & 2146. Block 205/27 is covered by the licence P2074. The drilling operation was defined in the Portal Electronic Tracking System (PETS) Master Application Template (MAT) DRA/268. The Mustard exploration well is located on the West of Shetland continental shelf, approximately 95 km to the West of the Shetland Islands (Figure 2.1). The drilling operations were undertaken by Transocean's Sedco 712 semi-submersible drilling rig, from July to September 2015.

The primary objectives of the Mustard exploration well (Well 205/27-3), which were achieved, was to reach the Solan sand, successfully locate a commercial sand layer and drill a directional side-track (205/27-3z) to confirm the extent of the reservoir. The well main bore and side track were subsequently suspended according to the Oil and Gas UK guidelines, with the wellhead, tree and well head protection structure left in place on the seabed.

Chrysaor's 2015 well operations are the subject of this annual public statement. The environmental performance relating to these activities is summarised in Section 4.

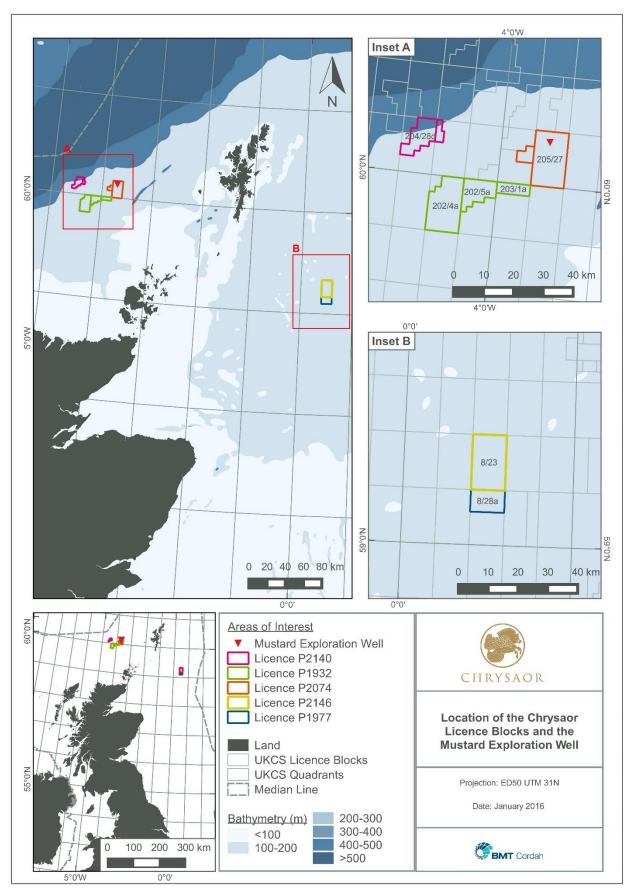


Figure 2.1: Location of the Chrysaor licence blocks and the Mustard exploration well

3. ENVIRONMENTAL MANAGEMENT SYSTEM

Chrysaor is committed to conducting all its operations in an environmentally responsible manner. The Chrysaor integrated Health, Safety, Environmental and Quality Management System (HSEQ MS) has been developed to meet the requirements of the following national and international standards: HS (G) 65; ISO 14001:2015; OHSAS 18001:2007; ISO 9001:2015 and OSCR 2015 with respect to the requirements for a CMAPP (Corporate Major Accident Prevention Policy) and a SEMS (Safety & Environmental Management System). The system has been externally and independently verified against the requirements of OSPAR Recommendation 2003/5 & ISO 14001:2015. The framework ensures:

- Clear assignment of responsibilities.
- Excellence in environmental, health and safety performance.
- Sound risk management, planning and decision making.
- Efficient and cost effective planning and conduct of operations.
- Legislative compliance throughout all operations.
- A systematic approach to critical business activities.
- Continuous improvement.

Chrysaor's HSEQ MS is based upon a goal setting philosophy built around a series of performance standards and expectations. It aims to establish a framework or context in which Chrysaor employees, contractors, suppliers and other third parties are expected to perform.

3.1 Environmental Policies

The company's commitment to the environment is summarised in the Chrysaor Health, Safety, and Environmental Policy (Figure 3.3) and the Chrysaor Quality Policy (Figure 3.4).

3.2 Environmental Management System

The HSEQ MS has a hierarchical document structure as shown below in Figures 3.1 & 3.2.



Figure 3.1 Chrysaor HSEQ MS Hierarchical Structure

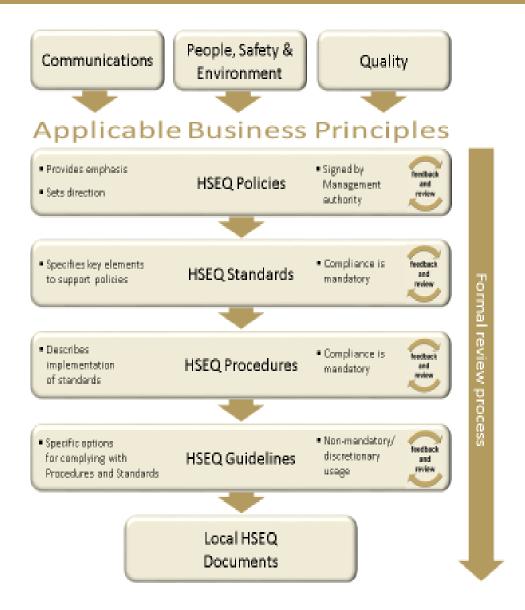


Figure 3.2 Chrysaor HSEQ MS Hierarchical Structure

The HSEQ MS is fully integrated into Chrysaor business processes. Each Chrysaor project develops and publishes an HSEQ plan taking account of the elements of the HSEQ MS and the specific nature of the work. Additionally, and in parallel, suitable and sufficient risk assessments are undertaken to ensure that appropriate controls are in place for the project specific work scope.



Chrysaor Health, Safety and Environmental Policy

Chrysaor will conduct its operations in such a way as not to harm people and minimise the impact on the environment. Chrysaor is fully committed to continuously improve its health, safety and environmental performance by the successful implementation of this policy.

Chrysaor commits it will

- Ensure compliance with all applicable legislation and standards;
- Ensure an effective management organisation is in place and all personnel and contractors are aware of their health, safety and environmental responsibilities;
- Create a safe and healthy working environment for our employees and contractors [and all other persons who could be affected by its activities];
- Identify, evaluate and control the risks and impacts associated with its activities, particularly where the potential exists for major accident events;
- · Ensure that energy and resource management are an integral part of the business;
- Promote resource and energy conservation, waste minimisation and pollution prevention;
- Recognise and respond to employee and community concerns regarding the health, safety and environmental aspect of the company's operations;
- Ensure all employee and contractors are competent to perform their health, safety and environmental roles; and
- Achieve continuous improvement of its business processes through the implementation
 of its Values and Business Principles.

Chrysaor will ensure that the necessary resources are provided to fully support this Policy and will ensure that it is subject to audit and review as part of the Management System goal of continuous improvement in performance.

Phil Kirk Chief Executive

October 2015

Figure 3.3 Chrysaor Health, Safety and Environment Policy Statement



Chrysaor Quality Policy

Chrysaor seeks to create significant value for its Stakeholders by building a development led business to be proud of and is focused on bringing incremental and dormant hydrocarbon reserves to market quickly and safely.

Chrysaor will:

- · Demonstrate management commitment to quality in its projects and operations;
- Establish and review quality objectives and implement quality plans to meet these objectives;
- Ensure an effective management organisation is in place and all personnel and contractors are aware of the Company's quality expectations;
- · Foster pride in its work and demonstrate its Values and Business Principles in its output.

Chrysaor is fully committed to continuously improving its corporate performance by the successful implementation of this policy and will ensure that the necessary resources are provided to support it.

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Phil Kirk Chief Executive

October 2015

Figure 3.4 Chrysaor Quality Policy Statement

The Chrysaor HSEQ MS process is structured around four steps 'Organise, Plan, Implement and Review', to assure continual improvement in performance. It consists of a number of standards and procedures which are relevant throughout the lifecycle activities of an exploration and production company. The HSEQ MS framework is illustrated in Figure 3.5.

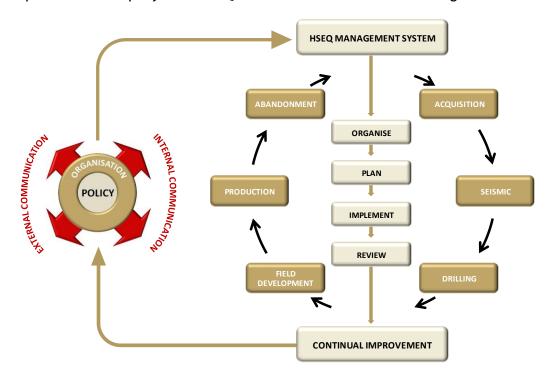


Figure 3.5: HSEQ Management Framework

3.3 Contractor HSEQ MS Requirements

Contractors form a significant and important element within the overall project delivery team both on and offshore. It is crucial to the technical success and the achievement of the projects risk management and regulatory compliance objectives that selected contractors are technically competent and aligned with Chrysaor's culture. The delivery of a safe and efficient project must be a demonstratively shared objective. Chrysaor communicates its requirements in writing and through project specific team presentations as appropriate.

All contractors, whether contracted directly by Chrysaor or otherwise, are required to have suitable HSEQ Policy(s) and appropriate HSEQ MS(s). Consideration of contractors' ability to effectively manage HSEQ risk and regulatory compliance is an integral part of the contractor selection process. This includes review of the contractor's policies and management systems. In instances where the contractor is undertaking operations offshore or in other major accident hazard potential environments then this will include detailed contractor audits and inspections at corporate and operational levels as part of the overall contractor selection process. Chrysaor has a well-established HSEQ audit programme which is an integral part of the annual HSEQ plan. In addition to the requirement to audit the Chrysaor HSEQ MS the audit schedule is extended to record audits of the HSEQ MS of key contractors at both corporate and operational levels.

The outcomes of the detailed audits undertaken prior to the commencement of the Mustard exploration well project were made available to DECC Environmental Inspectorate as part of the approval process leading to the successful acceptance of Transocean as the drilling contractor.

3.4 Environmental Aspects and Impacts

All activities undertaken by Chrysaor which may impact on the natural environment have been documented in the Chrysaor Environmental Aspects and Impacts Register. Each potential environmental interaction is assessed for its significance in order to identify those that require suitable management controls to avoid or minimise any adverse impacts. In order to ensure it is consistent with the current scope of Chrysaor's operations, the Environmental Aspects and Impacts Register is reviewed and updated regularly as part of the planning process prior to the commencement of operations.

3.5 2015 Environmental Objectives and Targets

Tables 3.1 to 3.3 set out the HSEQ Goals and Objectives applicable to the offshore activities undertaken in 2015.

Table 3.1: Chrysaor Holdings Limited Goals & Objectives

Description of G & O	Description of the Required Activities
HSEQ Plans & Performance Reporting	By 31st January develop, publish and implement a Chrysaor Holdings Ltd 2015 HSEQ Plan.
	By 31 st January develop, publish and implement a 2015 HSEQ performance reporting barometer.
Regulatory Assurance	During second & third quarter develop and publish an OSD/OSCR 2015 compliant Framework Document including:
	 A Corporate Major Accident Prevention Policy (CMAPP);
	2. A set of OH&S lifesaving rules.
Contingency Management	During second quarter review, revise and republish the CHRY I&CMP documents.
	During second quarter in support of planned company operations develop a 2015 emergency response exercise & training programme.
Audit & Review	By 31st January develop, publish and implement a Chrysaor Holdings Ltd 2015 HSEQ MS Audit Plan & Revise the MS as necessary
	Undertake a first & third quarter HSEQ MS Review.

Table 3.2: Mustard 205/27-3 Exploration Well Goals & Objectives

Description of G & O	Description of the Required Activities
HSEQ Plans & Interface Documents	By second quarter develop and publish the following documents in conjunction with the Drill Rig Duty Holder:
	 Undertake a project HAZID/ENVID/SPILLID and build a risk management plan;
	2.Drilling Operations HSEQ Plan; 3.HSEQ KPI's;
	4. HSEQ bridging document.
Training, Competency Assurance & Resources	During first quarter identify and appoint a competent environmental support organisation to assist with the development of statutory submissions and project risk assessments.
	During second quarter ensure that the applicable Chrysaor Staff members obtain certification to permit their travel offshore.
	Prior to the appointment of the candidate Chrysaor offshore Drilling Supervisor undertake and document a competency review and the agreement of a position description for the role.
	During second quarter develop and publish a set of competency assurance booklets for key role holders involved in the Mustard Exploration Well.
Regulatory Assurance	By end first quarter develop and implement a PLANC Register to manage the development and submission of project related statutory permit & consent applications.
	Within first quarter arrange and undertake a project briefing meeting with DECC.
	Prior to appointment of the drilling contractor, and as part of the contractor review process, ensure that verification and assurance is current for safety and environmentally critical elements.
	Prior to arrival on location of the drill rig assist Duty Holder to facilitate DECC inspections of the unit.
Contingency Management	By second quarter develop and publish an emergency response bridging document for the works.
	Prior to the commencement of drilling operations hold suitable ER exercises to ensure the planned ER arrangements are effective.

Audit & Review	Prior to the appointment of the drilling contractor undertake contractor assessment activities including a rig Duty Holder evaluation process in accordance with the Chrysaor HSEQ MS standards and procedures.
	During the course of the planned works undertake regular reviews to ensure that the HSEQ and operational performance meets the agreed and published targets.
	Prior to commencement of the drilling works ensure the readiness and availability of the following business systems: 1. EM-TRAX; 2. Formalised HSEQ performance data gathering arrangements.
	During the course of the planned works undertake in conjunction with the Duty Holder a pre-planned programme of on and offshore audits.

Table 3.3: UKCS South Solan and Dutch Bank Basin Survey Work Goals & Objectives (Where Chrysaor are the principal)

Description of G & O	Description of the Required Activities
HSEQ Plans & Interface Documents	By second quarter develop and publish the following documents in conjunction with the Survey Company: 1.Undertake a project HAZID/ENVID and build a risk management plan; 2.Survey Operations HSEQ Plan; 3.HSEQ KPI's; 4.HSEQ bridging document.
Training, Competency Assurance & Resources	During first quarter identify and appoint a competent environmental support organisation to assist with the development of statutory submissions and project risk assessments.
Regulatory Assurance	By end first quarter develop and implement a PLANC Register to manage the development and submission of applicable statutory permits & consents.
	Within first quarter arrange and undertake a project briefing meeting with DECC.
Audit & Review	Prior to the appointment of the survey contractor undertake contractor assessment activities in accordance with the Chrysaor HSEQ MS standards and procedures.

During the course of the planned works undertake regular reviews to ensure that the HSEQ and operational performance meets the agreed and published targets.
Prior to commencement of the survey works ensure the readiness and availability of the following business systems: 1. Formalised HSEQ performance data gathering arrangements.
During the course of the planned works undertake in conjunction with the Survey Contractor a preplanned audit.

4. SUMMARY OF 2015 ENVIRONMENTAL PERFORMANCE

As described in Section 2, Chrysaor's 2015 UK offshore activities consisted of drilling and seismic survey operations. The Mustard exploration well was drilled in Block 205/27a. The drilling operations were undertaken by Transocean's Sedco 712 semi-submersible drilling rig, from July to September 2015.

The environmental performance relating to these operations is summarised in the following sections. The 2015 environmental performance data for the Mustard exploration well operations covering discharges of oil under Oil Pollution Prevention and Control (OPCC) permits and chemicals use and discharge were derived from the UK Environmental and Emissions Monitoring Systems (EEMS).

Chrysaor are pleased to report that all 2015 activities were undertaken without accident, incident or regulatory non-conformance. Additionally, the 2015 Environmental Objectives and Targets set out in section 3.5 were successfully completed.

4.1 Chemical use and discharge into the marine environment

In line with the Offshore Chemical Regulations 2002 (as amended), chemical permit applications were submitted and approved in advance for the planned use and discharge of chemicals during the Mustard exploration well drilling operations.

Within the Mustard exploration well drilling operations chemical permit application, each chemical use and discharge was carefully risk assessed to ensure there were no known significant impacts to the marine environment.

The Offshore Chemical Regulations 2002 (as amended) introduced the OSPAR Harmonised Mandatory Control Scheme for the use of chemicals offshore. Within this scheme, all chemicals are ranked according to a hazard quotient (HQ) calculated using the Chemical Hazard and Risk Management (CHARM) model. The HQ ranking is divided into six colour bands from least to most hazardous (gold, silver, white, blue, orange and purple, respectively).

There are some chemicals to which the CHARM model cannot be applied, e.g. inorganic substances. In such cases, chemicals are assigned a grouping under the Offshore Chemical Notification Scheme (OCNS) based on their toxicity characteristics from most toxic to least (A to E, respectively). Chemicals which are environmentally benign in seawater are termed as 'Poses Little or No Risk' (PLONOR). All PLONOR products are given an 'E' rating (least hazardous).

In this report, the use and discharge of chemicals and sub chemicals by Chrysaor from the Sedco 712 have been ranked and reported using the OCNS Lists of Notified and Ranked Products dated 12th January 2016.

Certain chemical components are marked with a 'substitution warning' (SUB) as they are listed on the OSPAR list of chemicals for priority action or due to characteristics such as high toxicity or poor biodegradation potential. The UK National Plan has set interim targets for these chemicals to be replaced with more environmentally friendly products, with priority given to those with the highest toxicity. Where technically possible, Chrysaor actively seeks to minimise

the number of chemicals with substitution warnings to be used when planning offshore operations.

Table 4.1 presents the chemicals permitted to be used and discharged under Subsidiary Application Template (SAT) Chemical Permit (CP) number CP/723 from the Sedco 712 during the Mustard exploration well drilling operations. The majority of chemicals used and discharged were ranked 'E'. During 2015, a total of 94 chemicals were permitted to be used and discharged during the Mustard well drilling operations. Of these 94 chemicals, 13 chemicals had a SUB warning chemical label, while 41 were labelled as PLONOR.

Table 4.1: Chrysaor's 2015 permitted chemical use and discharge from the Sedco 712, as reported in EEMS 2015

Chemical HQ or OCNS category	Amount of chemical used (kg)	Amount of chemical discharged (kg)		
Gold	22,302.89	2,777.97		
Silver	425.10	0.00		
White	0.00	0.00		
Α	0.00	0.00		
В	1.00	0.00		
С	5,700.00	0.00		
D	1,804.025	98.00		
Е	1,381,729.70	361,068.87		

4.2 Solid Waste Generation and Disposal Methods

4.2.1 Operational waste

Operational waste generated from the activities onboard the Sedco 712 drilling rig was closely controlled to ensure regulatory compliance and waste minimisation. Segregation takes place on the drilling rig before being transferred onshore to appropriate disposal or recycling facilities. Operational waste generated offshore falls into three Groups as ranked by the DECC EEMS reporting system:

- Group I Special Waste (chemicals/ paints, drums/ containers, sludges, liquids and tank washings).
- Group II General (scrap metal, segregated recyclables and general waste).
- Group III Other (clinical)

Operational waste products generated by Chrysaor on the Sedco 712 during the Mustard exploration well 2015 drilling activities totalled 47.710 tonnes and are summarised in Table 4.2. 46% of wastes were sent for recycling (Table 4.2).

Table 4.2: Operational waste products generated on the Sedco 712, as reported in EEMS 2015

	Tonnes of waste generated							
Waste Group	Reuse	Recycling	Waste to Energy	Incineration	Landfill	Other	Total	
Group I Special	0.000	7.902	4.353	0.012	0.000	4.630	16.897	
Group II General	0.030	14.139	0.000	0.000	9.117	7.507	30.793	
Group III Other	0.000	0.000	0.000	0.020	0.000	0.000	0.020	
Total Operational Waste	0.030	22.041	4.353	0.032	9.117	12.137	47.710	

4.2.2 Drilling waste

Drilling waste generated offshore falls into EEMS reporting Group IV Back loaded Cuttings (oil-based, synthetic or water based muds).

Drilling waste products generated by Chrysaor on the Sedco 712 during the Mustard exploration well 2015 drilling activities totalled 679.158 tonnes and are summarised in Table 4.3. The majority of cuttings waste generated was returned onshore for reprocessing. Approximately 79% was sent to landfill and 21% recovered for reuse.

Table 4.3: Drilling waste products generated on the Sedco 712, as reported in EEMS 2015

	Tonnes of waste generated								
Waste Group	Reuse	Recycling	Waste to Energy	Incineratio n	Landfill	Other	Total		
Group IV Back loaded Cuttings	143.198	0.000	0.000	0.000	535.960	0.000	679.158		
Total Drilling Waste	143.198	0.000	0.000	0.000	535.960	0.000	679.158		

4.2.3 Decommissioning waste

Decommissioning waste relates to any waste resulting from activities authorised under a DECC authorised decommissioning programme and its associated permitted operations. Chrysaor did not conduct any decommissioning activities during the Mustard exploration well operations in 2015. Therefore, no decommissioning waste was generated.

4.3 Atmospheric Emissions

Atmospheric emissions generated during drilling operations are regulated by the Offshore Combustion Installation (Prevention and Control of Pollution) Regulations 2013. Sources of atmospheric emissions on the Sedco 712 during the Mustard exploration well drilling activities include:

- Diesel consumption; and
- Halogens

There were no flaring activities during the well operations.

4.3.1 Diesel consumption

Atmospheric emissions generated from the consumption of diesel fuel by the Sedco 712 engines, during the Mustard exploration well drilling operations are presented in Table 4.4.

Table 4.4: Atmospheric emissions generated by diesel consumption on the Sedco 712, as reported in EEMS 2015

Source	Diesel	Atmospheric emissions (tonnes)							
Source	(tonnes)	CO ₂	CO	CH₄	VOC	N ₂ O	NO _x	SO ₂	Total
Diesel consumption on Sedco 712 diesel engines	638	2,041.60	3.83	0.11	1.28	0.14	8.61	2.55	2,058.12
Total atmospheric emissions from diesel consumption on Sedco 712		2,041.60	3.83	0.11	1.28	0.14	8.61	2.55	2,058.12

4.3.2 Halogens

Fluorinated greenhouse gases (F-gases) are man-made gases that are used in a variety of industrial sectors developed to replace ozone depleting substances such as CFCs, HCFCs, FCs and HFCs. They are typically found in refrigeration and air conditioning equipment. F-gases are also found in firefighting equipment and the electronics sector. Although F-gases do not damage the ozone layer (unlike the CFCs that they were designed to replace) they are long-lived powerful greenhouse gases. In 2006, the EU adopted the Fluorinated Greenhouse Gases Regulations 2015, which aims to reduce the emissions of these substances through responsible handling, recycling, recovery and reporting. Offshore drilling and production installations track F-gases and report both the on facility and the emitted quantities to DECC. Table 4.5 presents the halogens that were on board the Sedco 712 during the Mustard exploration well drilling operations.

Table 4.5: Halogen on the Sedco 712, as reported in EEMS 2015

Halogen compound	Quantity on facility (kg)	Quantity emitted (Kg)
HFC-404a	26.8	0.00
HFC-407c	103.8	0.00
Total Halogens	130.60	0.00

4.4 Accidental Releases

Under the Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Conventions) (amended) Regulations 2015, all offshore installations must have an approved Oil Pollution Emergency Plan (OPEP). The OPEP sets out procedures for responding to oil spills that cause or may cause pollution to the marine environment. The OPEP also sets out prevention and reduction methods that Chrysaor can use to minimise the likelihood and potential impact. In the event of an accidental oil or chemical spill an electronic petroleum operations notice 1 (EPON1) must be submitted to DECC.

The Mustard exploration well was drilled without any reports of oil or chemical releases and non-permitted discharges from offshore activities. As there were no accidental releases during the operations no PON1 submissions were made by or on behalf of Chrysaor during 2015.

4.5 Reservoir hydrocarbon discharges

Reservoir hydrocarbon discharges are regulated in line with the OSPAR Recommendation 2001/1 through the Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulation 2005 (as amended). These Regulations prohibit the discharge of reservoir hydrocarbons into the sea, other than within the terms of a permit issued to cover such discharges. Chrysaor obtained

consents from DECC in preparation for the 2015 Mustard exploration well drilling operations, for oil bearing discharges of reservoir water that may have been discharged during well clean up and testing operations.

An oil discharge permit was submitted to DECC for possible produced water discharge during the Mustard exploration well test, with Chrysaor permitted to discharge 318 m³ of wellbore clean-up fluid and a permitted maximum concentration of 100 mg/l of base oil (Table 4.6).

Well testing did not take place during the Mustard exploration well drilling operations. Therefore, no produced water was discharged as a result of the drilling operations. Chrysaor did however, discharged wellbore clean-up fluid during the Mustard exploration well clean-up processes. A total volume of 182.84 m³ and a maximum concentration of 6.5 mg/l of base oil was discharged overboard from the Sedco 712 (Table 4.6). During the Mustard exploration well drilling operations, the permitted maximum discharge weight of base oil was 32 kg. Chrysaor discharged 1.233 kg of base oil from the Sedco 712 drilling rig during the Mustard exploration well drilling operations (Table 4.6).

Table 4.6: Chrysaor waste stream discharges from the Sedco 712, as reported in EEMS 2015

Wellbore clean-up fluid	Permitted (maximum)	Discharged (actual)
Volume of waste stream	316 m ³	182.8 m ³
Concentration of base oil	100 mg/l	6.5 mg/l
Weight of base oil	32 kg	1.223 kg

4.5.3 Drilling discharges

As is typical with mobile drilling operations, the upper two sections of the Mustard exploration well were drilled with water-base mud, with a total of 290.6 tonnes of water-base mud and cuttings discharged directly at the seabed.

Oil-based drilling fluids were used to drill the lower three sections of the Mustard exploration well. The oil based drill cuttings from the lower three well sections were returned to the drilling rig, where they were contained and later shipped to shore for safe recycling and / or disposal.

Details of well drill cuttings disposal can be found in Table 4.3.

4.6 Non-compliances

There were no permit or other regulatory non-compliances submitted to Regulator by Chrysaor in 2015.