## ANNUAL PUBLIC STATEMENT ENVIRONMENTAL MANAGEMENT SYSTEM 2023

Petrofac Facilities Management Limited



# INTRODUCTION

This is Petrofac Facilities Management Limited's 2023 annual public statement for environmental management, covering our UKCS operations.

Prepared in line with the reporting requirements of the UK's Department for Energy Security and Net Zero, it meets the requirements of the Oslo Paris (OSPAR) Convention Recommendation 2003/5. It outlines our Environmental Management System (EMS) and our 2023 environmental performance.

#### WORKING RESPONSIBLY

Our EMS was developed alongside our Health, Safety, Security and Environment framework and the ISO 14001 standard for environmental management. It enables us to manage the environmental impacts arising from our activities and is based on the internationally approved 'Plan-Do-Check-Act' process. This ensures we have the philosophy, procedures and methods in place to manage significant environmental risks throughout the life cycle of our projects.

As a provider of managed solutions to our clients in the UK's Continental Shelf we fulfil the role of 'Operator' on behalf of the asset owner. As a result, our EMS has been designed to support our operating responsibilities:

- The environmental goals for the prevention and elimination of pollution from offshore sources and the protection and conservation of the maritime area against other adverse effects of offshore activities
- Provision of trained emergency and oil spill responders and specialist emergency response facilities
- Continual improvement in environmental performance



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Our vision is to reach Horizon Zero; a future with no safety incidents

## THINKING DIFFERENTLY ABOUT DELIVERY

As a leading provider of services to the global energy industry, we design, build, operate and maintain energy facilities.

We think differently about delivery. By providing standalone or integrated services we align our approach to meet our clients' operating strategies and project objectives, unlocking significant value.

One example of this is our innovative Operator model, which has evolved from the Duty Holder service we pioneered in 1997, where we take responsibility for the Safety Case on behalf of a client.



## OUR JOURNEY TO NET ZERO

Never before have we had such awareness of the importance of sustainability. Petrofac has a duty of care to do all we can to put this awareness into action and support our clients to accelerate the energy transition.

We are committed to reaching Net Zero in our Scope 1 and 2 emissions by 2030\* and are working to influence our supply chain to set their own reduction targets.

Our Net Zero strategy of 'Reduce, Transform, Enable' will focus the business on three areas:

- **Reduce** cut our emissions by implementing energy efficiencies and low carbon strategies on sites and operations, optimising our operations and methods of construction, and advancing flare and venting reduction and carbon abatement plans
- Transform adopt new technologies such as phasing in hybrid and electric vehicles on site, decarbonising our heating and cooling systems by switching to renewable electricity where available, and fitting smart building technology in our offices to maximise energy efficiency
- **Enable** support our clients, partners and suppliers in their lower carbon ambitions, enable flexible and agile working practices, continue to embed emission reduction targets in management scorecards, and incentivise our staff to be advocates for net zero

## PETROFAC LIMITED ENVIRONMENTAL POLICY

#### Vision

Petrofac will be recognised as a company that maximises energy efficiency, minimises greenhouse gas emissions from its activities and conducts business in an environmentally responsible manner.

#### Commitment

The Petrofac Board of Directors has ultimate responsibility for environmental performance and is committed to the achievement of environmental excellence. Petrofac and its business units are therefore committed to:

- conducting its business in an environmentally responsible manner, consistent with its 'Horizon Zero' initiative which aims to eliminate all incidents within the company;
- promoting a strong culture of leadership in environmental matters;
- encouraging all employees to share our environmental commitments and take personal responsibility for protecting the environment;
- complying with all applicable environmental laws, regulations, relevant standards, and compliance obligations;
- minimising our impact on the environment through pollution pre vention, minimising waste and emissions and the efficient use of energy and other natural resources;
- support international and national initiatives to address climate change and taking actions to reduce greenhouse gas emissions;
- transparency in the reporting of the Company's environmental performance and sharing of knowledge; and
- setting objectives and targets for continual improvement with auditing and monitoring of

#### **Responsibility and implementation**

#### **Objectives**

To meet this commitment at Group level, Petrofac will:

- develop and maintain Petrofac minimum standards and expectations;
- publish regular performance reports and openly discuss our environmental performance with internal and external stakeholders; and
- periodically review the suitability and effectiveness of this policy, our management systems, targets and objectives.

Each Petrofac business unit will:

- provide suitable resources for the protection of the environment;
- develop and maintain environmental management systems that comply with ISO 14001, the International Standard for Environmental Management Systems;
- provide appropriate training to all employees to enable them to carry out their work with due respect and care for the environment; and
- engage with clients, contractors and suppliers to deliver a high standard of environmental performance.

Environmental protection is a line responsibility that starts with the Group Chief Executive and flows down through the line management structure to front line employees performing work. Every leader at Petrofac is responsible for proactively leading the management of risks to the environment with their teams. Every Petrofac employee is responsible for making themselves aware of the risks to the environment in their work area and to proactively play their part in reducing these risks. All employees are empowered to speak up if they have any environmental concerns.

Tareq Kawash Group Chief Executive

# OUR OPERATOR MODELS

Following the introduction of the 2015 Safety Case Regulations, our outsourced Duty Holder model evolved to incorporate Installation Operator (including Duty Holder) responsibility, to manage the environmental aspects of an installation.

Responsibility for wells and pipelines (Well Operator and Pipeline Operator) can be combined within one outsourced model called Service Operator.

#### WELL OPERATOR

IOG, NEO, Prax and Serica Energy

During 2023, we were appointed Well Operator for multiple well operation campaigns across the UKCS, covering new development drilling and abandonment activities.

In addition Petrofac are the appointed Well Operator for multiple producing and suspended wells (Ithaca and Anasuria Hibiscus UK).

#### **INSTALLATION OPERATOR**

Hewett, Irish Sea Pioneer, Kittiwake platforms

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During 2023, our Installation Operator portfolio included the Hewett Complex, the Irish Sea Pioneer, and Kittiwake.

## OUR OFFSHORE OPERATIONS

On behalf of their owners, we currently operate a range of platforms and undertake offshore oil and gas production activities including:

- Non-producing intervention
  vessel operation
- Oil and gas production platform operation
- Late-life platform operations
- Drilling activities with third-party rig provision
- Asset decommissioning

Under the requirements of this disclosure, the UKCS Operator responsibilities and UKCS assets highlighted within this statement include:

- Service Operator (including Installation Operator) – Irish Sea Pioneer, Hewett, and Kittiwake.
- Well Operator IOG, NEO, Prax, Serica Energy, Ithaca and Anasuria Hibiscus UK



### WELL OPERATOR



**Shelf Drilling Perseverance** 

Petrofac was the appointed Well Operator, on behalf of Licensee IOG, for the Blythe H2 well in the Southern North Sea.

The jack-up drilling rig, owned by Shelf Drilling, carried out the work in the Blythe field in 2023.



Transocean Paul B Loyd Junior (PBLJ)

Petrofac was the appointed Well Operator, on behalf of the licensee NEO Energy, for a two well drilling campaign in the Central North Sea.

The Paul B Loyd Junior, owned by Transocean, carried out the work in the Finlaggan and Leverett fields.

### SERVICE OPERATOR (INCLUDING INSTALLATION OPERATOR)



#### Hewett

Located in the Southern North Sea, there are four platforms: The Hewett Complex (48/29Q, AP and A-FTP), 48/29 B, 48/29 C and 52/5A.

The Hewett field ceased the export of natural gas at the end of December 2020. Since this cessation, the process of decommissioning the assets has begun in preparation for their removal for disposal onshore.



#### Irish Sea Pioneer

Petrofac has been Installation Operator of the Irish Sea Pioneer since 2015, prior to which Petrofac had been Duty Holder of the asset since 2006.

The non-producing mobile platform is owned by ENI, Liverpool Bay and provides intervention services to the ENI operations in the Liverpool Bay area of operations.



**Normand Jarstein** 

Petrofac was the appointed Well Operator, on behalf of the licensee IOG, for wellhead severance work in the Southern North Sea.

The Normand Jarstein, an offshore subsea construction vessel, carried out the work at the Elland Well.



#### Kittiwake

The Kittiwake Alpha is a fixed steel jacket platform in the Central North Sea owned by EnQuest.

Petrofac have been the Duty Holder for the Kittiwake Alpha since 2004, in June 2017 Petrofac became Installation Operator and assumed responsibility for the environmental performance for asset.



## ENVIRONMENTAL MANAGEMENT SYSTEM



Our EMS is flexible enough to maintain continuity with existing practices during the transfer of platforms to the Petrofac system, whilst taking on board best practice where identified which is then shared across other assets.

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## MANAGING OUR IMPACT ON THE ENVIRONMENT

Specific areas of our offshore operations require daily focus to ensure their impact on the environment is managed effectively. These include:

#### **DISCHARGES TO SEA**

#### OIL IN WATER

Water is extracted from wells, along with oil and gas. The water, known as produced water, is then separated from the oil and treated. Although treatment removes most of the oil from the water, residual traces are still discharged. These traces are regulated and released under permitted conditions.

#### DRILL CUTTINGS DISCHARGE

Drill cuttings and fluids discharged from drilling operations can also contain residual oil associated with the formation.

#### CHEMICAL DISCHARGES

Prior to approval and discharge for use offshore, chemicals are subjected to a risk assessment. The potential impact from chemical discharges is graded using the ranking systems (Chemical Hazard And Risk Management- CHARM and The OCNS Grouping):



#### **ATMOSPHERIC EMISSIONS**

The combustion of diesel and gas to generate power and the burning of flare gas creates atmospheric emissions of Carbon Dioxide (CO<sub>2</sub>) and other combustion products including:

- Nitrous oxides
- Sulphurous oxides
- Carbon Monoxide (CO)
- Methane (CH<sub>4</sub>)
- Other Volatile Organic Compounds (VOCs)

During activities on the assets, refrigerant gases are used offshore, primarily to support living conditions and equipment cooling. This activity is regulated and reported on annually.

#### WASTE MANAGEMENT

Waste generated offshore is managed to allow maximum reuse or recycling of materials before being treated, incinerated or disposed to landfill. Petrofac follows the waste management hierarchy below:



### PETROLEUM OPERATIONS NOTICE AND NON-COMPLIANCE REPORTING

All notices and non-compliance are recorded within Petrofac's incident management system, detailing the circumstances, investigation, outcomes and actions. The system is also used for lesson sharing and incident trending to assist with continuous improvement.

#### PETROLEUM OPERATIONS NOTICE

Any spill to sea of oil or chemical is reported to the Department for Energy Security and Net Zero (DESNZ) using the Integrated Reporting Service (IRS) PON 1 form.

The loss of any objects to sea which may have an impact on the environment or sea users are reported to DESNZ using PON2 form via the IRS.

#### NON-COMPLIANCE

A non-compliance against any of the permit conditions is reported using the appropriate form in the IRS.

## ENVIRONMENTAL OBJECTIVES AND TARGETS

2023 OBJECTIVES	2023 ACHIEVEMENTS
Maintain and further develop emissions and sustainability dashboard to enable effective tracking of environmental performance and visibility of data	Continuous improvement of use of digital tools providing transparency on energy, GHG emissions, waste, and environmental incidents.
Establish Environmental Response Support Team within Emergency Response process	Creation and several exercises of ERST cell (Including Tier 3 "SOSREP" exercise) within larger emergency response incidents that can support several projects.
Provision of low carbon design options in bids and tenders based on technology and raw material intensity	Continuous focus on sustainable and low carbon solutions- engineering design optimizing energy/ material requirements and designing out waste, operating combustion equipment at efficiencies stated by the manufacturers, use of renewable hybrid power, monitoring energy consumption and setting up targets.
Engagement with supply chain to encourage and promote circular economy	Focus on circular economy application throughout the life cycle of the projects has been maintained
Integration to one ISO14001 certificate across relevant business units	Successful integration of ISO14001 certificates through effective environmental management application, robust processes and focused communication.
CONTINUOUS IMPROVEMENT	

Maintain ISO 14001 Certification across all operated assets and extend into new areas as operational changes require

Follow Net Zero strategy and focus on sustainability with aiming for low carbon solutions and energy efficiency where applicable

**Deliver ESOS report on time** 

Conduct operations with minimal impact on the environmental

Reduce waste and follow circular economy philosophy



## HEWETT

The environmental permits in place for the Hewett Field Complex – Blocks 48/29AP, 48/29B, 48/29C and 52/5A are associated with oily water discharges to sea, offshore chemical use and discharge, and atmospheric emissions from power generation and venting.

Block 48/29AP still have all the relevant permits in place. Meanwhile Block 48/29B ('Consent to Locate'), 52/5A ('Consent to Locate') have had chemical and oil discharge permits surrendered in preparation to enter lighthouse mode (LHM). 48/29C has a Chemical Permit retained until flushing of interfield pipeline PL85 is complete, the oil discharge permit has been surrendered. All other permits for these blocks have been surrendered as decommissioning of the field progresses.

#### **DISCHARGES TO SEA**

#### OIL IN PRODUCED WATER

No produced water was discharged to sea in 2023. Fluids from production for fuel gas only, are reinjected into the platform wells. During preparations for decommissioning, fluids from cleaning and flushing activities across the platforms were injected into the platform wells (some of these were done under the owner permits rather than Petrofac as the operator).

#### CHEMICAL USE AND DISCHARGE

There was no chemical use or discharge on the Hewett platforms in 2023. Chemical permits remain in place on some platforms (i.e., 48/29AP and C) for future decommissioning activities and contingency purposes for planned activities.

#### **DISCHARGES TO ATMOSPHERE**

Power generation is the main source of atmospheric emissions, with the other sources comprising of venting gas. 3,773 tonnes of  $CO_2$  emissions were verified for greenhouse gas reporting purposes. Other emissions were reported through the Environmental Emissions Monitoring System.



#### EMISSIONS BY SOURCE



There are four hydrochlorofluorocarbon (HCFC) refrigerant and two non-HCFC refrigerant compound in use on the Hewett Complex. The inventory and emission details are monitored and reported opposite:

Compound	On facility (kg)	Emitted (kg)	CO <sub>2</sub> equivalent factor (kg)	CO <sub>2</sub> equivalent (t)
HFC-134a	5.87	0.00	1,430	N/A
HFC-227ea	7.6	0.00	1,774	N/A
HFC-407c	6.50	0.00	2,729	N/A
HFC-422d	2.86	0.00	3	N/A
HC-600a (Isobutane)	0.10	0.00	3	N/A
R290	0.22	0.00	3	N/A

#### WASTE MANAGEMENT

264 tonnes of waste were managed onshore. The disposal routes are charted below:



#### **REPORTS AND NOTIFICATION**

During 2023 there were two unpermitted releases of chemical reported (PON1) and closed out through the Integrated Reporting Service (IRS). There were no unpermitted releases of oil reported.

#### PON 1 Notification details

Activity	Oil/Chemical type	Discharge (t)
Failure of hydraulic hose on submersible pump, used as a seawater lift for flushing operations.	Hydraulic oil	0.13
Failure of ROV control line hose during Dive Support Vessel (DSV) Operations. This case has been categorised as not work related because Petrofac were not in direct control of the operation and the vessel was not inside the 500m safety zone.	Hydraulic oil	0.2

During 2023 there were two PON2 notifications raised which were closed out through the Integrated Reporting Service (IRS).

#### PON 2 Notification details

Activity	Oil/Chemical type	Discharge (t)
During an integrity inspection of a known anomaly on the 52/5A, a section of corrod- ed support beam detached and was lost to sea. The section weighed approximately 3kgs and fell directly to sea.	Metal (Corroded Support Beam)	0.003
During seawater pumping activities on the 48/29C, the metal filter basket & end plate from submersible pump were lost to sea.	Metal (Submersible Pump)	0.005

During 2023, there were eight non-compliances with the consent to locate permit (PON10) which were closed out through the Integrated Reporting Service (IRS).

#### PON 10 Notification details

#### Incident Description

48/29C - 05/12/2023 - Fault with Main Light Driver.

52/5A – 03/11/2023 – Main light only. It was required to isolate the primary white light, to facilitate change over to new AtoN system.

48/29A – 08/09/2023 – Fault with navaid synchronisation unit means the main lights on the 48/29A-P and 48/29A-FTP are operating dim, not meeting the required range.

48/29C – 18/08/2023 – Power failure - Generation trip due to mechanical issue. 48/29C – 27/06/2023 – Power failure – Crane card failed and unable to bunker diesel. Platform ESD due to low diesel level.

48/29C – 07/05/2023 - Power failure – Generation trip and subsequent total loss of navaids.

48/29C – 02/04/2023 – Power failure – Generation trip due to mechanical issue and subsequent total loss of navaids.

48/29B – 24/01/2023 – Power failure - Platform ESD due to low diesel level and subsequent SCADA communication issue.

# **IRISH SEA PIONEER (ISP)**

The environmental permits in place for 2023 are associated with atmospheric emissions from power generation.

#### **DISCHARGES TO ATMOSPHERE**

Power generation is the only source of atmospheric emissions on the ISP, emitting 2,597 tonnes of CO<sub>2</sub> Other combustion emissions reported through the Environmental Emissions Monitoring System are described on the right.



	VOCs	$CH_4$	CO	SOx	NOx	
Flare	0.00	0.00	0.00	0.00	0.00	
Diesel	1.62	0.15	12.74	0.00	48.21	
Fuel Gas	0.00	0.00	0.00	0.00	0.00	
Vent	0.00	0.00	0.00	0.00	0.00	

There are two hydrochlorofluorocarbon (HCFC) refrigerant components in use on the ISP. The inventory and emission details are monitored and reported:

Compound	On facility (kg)	Emitted (kg)	CO <sub>2</sub> equivalent factor (kg)	CO <sub>2</sub> equivalent (t)
HFC-134a	50.00	2	1,430	3
HFC-404a	24.00	5	3,922	20
Total	74.00	7	-	23

#### WASTE MANAGEMENT

60 tonnes of waste were managed onshore. The disposal routes are charted below:



#### **REPORTS AND NOTIFICATION**

During 2023 there was one unpermitted release of chemical reported (PON1) which was closed out through the Integrated Reporting Service (IRS). There were no other releases reported.

#### PON 1 Notification details

Activity	Oil/Chemical type	Discharge (t)
Defective seal on jacking gearbox. Minor leak of lube oil from seal caused by over-	Lube oil	0.000081
heating in hot weather (poor seal design).		

During 2023 there was one non-compliance with the consent to locate permit (PON10) which was closed out through the Integrated Reporting Service (IRS). There were no other permit non-compliances reported.

#### PON 10 Notification details

Incident Description

Loss of Port Aft Primary 'U' Light.

mg/l

# **KITTIWAKE**

The Petrofac environmental permits in place for the Kittiwake are those associated with oily water discharges to sea, offshore chemical use and discharge and atmospheric emissions from power generation.

#### **DISCHARGES TO SEA**

#### OIL IN PRODUCED WATER

Water discharges are monitored and reported in accordance with the Oil Pollution, Prevention and Control Permit.

The average oil in water concentration for the period was 37.6 mg/l.

The total volume of water and mass of oil discharged over the period of operation was 1,568,781 m<sup>3</sup> and 58,983 kgs of oil respectively.



**OIL IN WATER DISCHARGE CONCENTRATION** 

Limit — OIW mg/l

#### CHEMICAL USE AND DISCHARGE

The majority of chemicals in use on Kittiwake are Gold category.

Ongoing chemical management aims to continue to minimise the impact of chemicals on the environment.



#### **DISCHARGES TO ATMOSPHERE**

Power generation is the main source of atmospheric emissions. Other sources are flaring and venting gas.

65,311 tonnes of CO<sub>2</sub> emissions were verified for greenhouse gas reporting purposes. Other emissions were reported through the Environmental Emissions Monitoring System.



EMISSIONS BY SOURCE



There are four hydrofluorocarbons (HFC) refrigerant compounds, two hydrocarbon (HC) refrigerant compound and one other non-hydrocarbon compound in use on Kittiwake. The inventory and emission details are monitored and reported below:

Compound	On facility (kg)	emitted (kg)	CO <sub>2</sub> equivalent factor (kg)	CO <sub>2</sub> equivalent (t)
HFC-134a	3	0.00	1,430	N/A
HFC-404a	3	1	3,922	5
HFC-407c	45	0.00	2,729	N/A
HFC-417a	32	0.00	2,346	N/A
HC-600a	0.2	0.00	3	N/A
HC-290	0.1	0.00	3	N/A
R717	0.00	0.00	0.00	N/A

#### WASTE MANAGEMENT

144 tonnes of waste was managed onshore. The disposal routes are charted below:



#### **REPORTS AND NOTIFICATION**

During 2023 there were two accidental releases of oil to sea and, fourteen oily discharge permit non-compliant events related to threshold exceedances. All incidents were managed out through the IRS system.

Permit	Non-Compliance	No.
OPPC (Oil Pollution	Oil in water 30mg/l monthly threshold excursion	9
Prevention and Control Reg 2005)	Oil in water 100mg/l threshold excursion	5

# SHELF DRILLING PERSEVERANCE

The Shelf Drilling Perseverance is a Jack-up drilling rig which completed the Blythe H2 well drilling campaign in the Southern North Sea between March and July 2023.

#### **DISCHARGES TO SEA**

### WELL TEST / CLEAN UP FLUIDS DISCHARGE

A total of 91.425m<sup>3</sup> of fluids were discharged to sea during well testing operations. The total oil discharged associated with the fluid was 0.00175 tonnes, with an average concentration of oil in the fluids of 19.14mg/l.

A total of 12m<sup>3</sup> of fluids were discharged during the well clean up. The total oil discharged associated with the fluids was <0.00000t with an average concentration of <0.00mg/l.

	Well Test	Well Clean Up
Total volume of water / clean up	91.425	12
fluids discharged (m <sup>3</sup> )		
Total oil discharged (t)	0.00175	0.00000
Average concentration (mg/l)	19.14	0.00



The majority of chemicals in use during the Shelf Drilling Perseverance campaign were in the least harmful Gold, E categories.

Ongoing chemical management aims to continue to minimise the impact of chemicals on the environment.



#### **DISCHARGES TO ATMOSPHERE**

Emissions to atmosphere generated from drilling activities are associated with power generation using diesel-fuelled engines and flaring from well testing.

The main combustion product is carbon dioxide (CO<sub>2</sub>). A total of 4,910 tonnes of CO<sub>2</sub> was emitted from the sources described on the right:



#### EMISSIONS BY SOURCE

Vent



0.00

0.00

0.00

0.00

#### WASTE MANAGEMENT

A total of 1,732 tonnes of waste was brought onshore for disposal from the Shelf Drilling Perseverance during its activities in 2023. A large proportion of this waste was tank washings (1,234 tonnes) which included special wastes and required further treatment prior to disposal under licence.



#### **REPORTS AND NOTIFICATION**

0.00

During its activities for Petrofac in 2023, no non-compliance or other environmental regulatory notifications were submitted for the Shelf Drilling Perseverance drilling rig.

# **NORMAND JARSTEIN**

The Normand Jarstein undertook a wellhead severance operation in the Southern North Sea in March 2023.

#### **DISCHARGES TO SEA**

N/A

CHEMICAL USE AND DISCHARGE

N/A

#### **DISCHARGES TO ATMOSPHERE**

Emissions to atmosphere generated from well intervention activities are associated with power generation using diesel fuelled engines.

The main combustion product is carbon dioxide  $(CO_2)$ . A total of 192 tonnes of  $CO_2$  was emitted from the sources described on the right:



#### EMISSIONS BY SOURCE



# PAUL B LOYD JUNIOR

The Paul B Loyd Junior semi-submersible drilling rig completed two drilling campaign in the Central North Sea between February 2023 and February 2024.

#### **DISCHARGES TO SEA**

#### Well Test / Clean Up Fluids Discharge

A total of 327.35m<sup>3</sup> of fluids were discharged to sea during well testing and well clean up operations on the Leverett well. The total oil discharged associated with the fluid was 0.0073 tonnes, with an average concentration of oil in the fluids of 22.3mg/l

A total of 14.628m<sup>3</sup> of fluids were discharged to sea during well testing operations on the Finlaggan F3 well. The total oil discharged with the fluid was 0.00018 tonnes with an average concentration of oil in the fluids of 12.31mg/l.

Leverett	Well Test	Well Clean Up
Total volume of water / clean up	95.39	231.96
fluids discharged (m <sup>3</sup> )		
Total oil discharged (t)	0.0014	0.0059
Average concentration (mg/l)	14.68	25.44

Finlaggan F3	Well Test	Well Clean Up
Total volume of water / clean up	14.628	N/A
fluids discharged (m <sup>3</sup> )		
Total oil discharged (t)	0.00018	N/A
Average concentration (mg/l)	12.31	N/A



The majority of chemicals in use during the PBLJ campaign were in the Gold and E categories.

Ongoing chemical management aims to continue to minimise the impact of chemicals on the environment.



#### **DISCHARGES TO ATMOSPHERE**

Emissions to atmosphere generated from drilling activities are associated with power generation using diesel-fuelled engines and flaring from well testing.

The main combustion product is carbon dioxide ( $CO_2$ ). A total of 4,910 tonnes of  $CO_2$  was emitted from the sources described on the right:



#### EMISSIONS BY SOURCE

Fuel gas

Vent



0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

#### WASTE MANAGEMENT

A total of 422.623 tonnes of waste was brought onshore for disposal from the PBLJ during its activities. A large proportion of this waste was tank washings and sludges (259 tonnes) which included special wastes and required further treatment prior to disposal under licence.



#### **REPORTS AND NOTIFICATION**

0.00

0.00

During its activities for Petrofac, four PON1s, two non-compliances and three PON2s were submitted – details below;

PON1		Oil/Chemical type		Quantity (t)
BOP Control fluid release from KT ring during bad weather		Stack-Magic ECO-F V2 Glycol		0.0004
Oil release from thruster		Mineral oil		0.000021
Hydraulic oil release from ROV hose parted		Hydraulic oil		0.00086
Oil release from thruster		Mineral oil		<0.00001
Non-Compliance Permit			Comments	
OCR (Offshore Chemical Regulations 2002	Chemical Permit		Tracer chemicals not included on chemical permit. 0.0017kg of unper- mitted chemical discharged	
PON10	Consent to Locate		Failure of port fog horn. Starboard fog horn remained operational. Part sourced and issue resolved.	
Notification	Details		Comments	
PON2	Escape to Sea Ladder lost to sea during back weather		Recovered by ROV	
PON2	Rubber fenders lost to sea during bad		Two of the three fenders recovered by ROV	

weather

lic failure

VX Gasket dropped by

ROV following hydrau-

Mounting plate from

Fugro subsea beacon

PON2

PON2

ROV unable to locate / recover

ROV unable to locate / recover



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