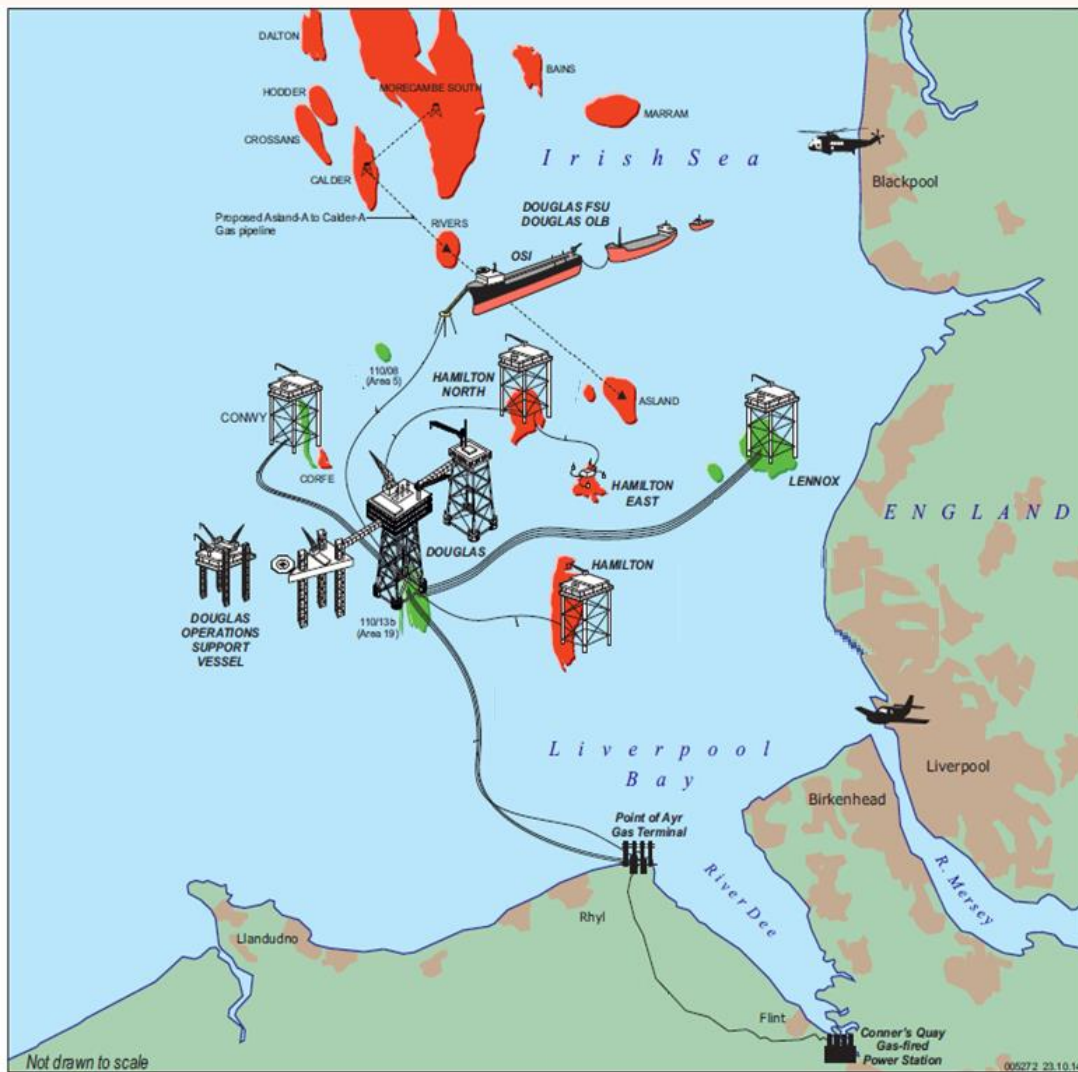




## Eni UK Liverpool Bay Asset

### 2018 Environmental Statement



# Eni UK HSE Policy



Policy  
Health, safety and the environment

**T**he safety and health of Eni's people, of the community and of its partners, and the protection of the environment are top priorities for Eni in all its activities.

Eni UK conducts its activities in accordance with all compliance obligations in the countries where it works and with all other applicable requirements and standards concerning the safeguarding of the health and safety of workers and of the environment.

Eni UK manages HSE protection and risk in an integrated and systematic manner, in accordance with the principles of precaution, prevention, protection and continual improvement.

Eni UK maintains and implements its HSE Management System, assigning clear responsibilities to all levels of personnel in the company and ensuring that required competencies and resources are available. Eni UK's top management performs an active role in setting direction and improvement objectives, fostering trust and promoting a positive HSE culture, with the active involvement from the entire workforce.

Eni UK considers the protection of health a fundamental requisite and promotes the psychological and physical well-being of its people.

Eni UK adopts good practices in relation to HSE matters and supports active engagement with relevant industry associations, with the aim of developing and improving standards of HSE management and performance.

Eni UK designs, develops, manages and decommissions its tangible assets ensuring the safeguarding of workforce health and safety, the minimisation of environmental impacts, the prevention of pollution and the optimisation of natural resources and energy use.

Eni UK selects and manages its contractors to ensure that they have the necessary capability and competence to meet its expectations in relation to HSE management and protection.

Eni UK communicates to its stakeholders, in a transparent manner, the objectives and results that have been achieved in relation to HSE management and promotes long term cooperation, with the aim of achieving mutual sustainable development.




Eni UK endorses Eni SpA 'Health, Safety and Environment' Policy and commits to adopt it in all its operations



Francesca Rinaldi  
Managing Director Eni UK

June 2017

## Eni UK ISO14001

## Certificate of Registration



### Certificate of Approval

This is to certify that the Management System of:

**Eni UK Ltd**  
Liverpool Bay Asset, Llaneurgain House, Northop Country Park, Mold, CH7 6WD, United Kingdom

has been approved by LRQA to the following standards:  
ISO 14001:2015



David Derrick - Area Operations Manager UK & Ireland  
Issued by: Lloyd's Register Quality Assurance Limited

This certificate forms part of the approval identified by approval number: 0002135

Current issue date: 1 January 2019      Original approval(s):  
Expiry date: 31 December 2021      ISO 14001 – 13 December 2000  
Certificate identity number: 10182539

Approval number(s): ISO 14001 – 0002135-001

The scope of this approval is applicable to:  
Activities including and associated with oil and gas operations at the following Liverpool Bay offshore facilities: Douglas, Oil Storage Installation (OSI), Lennox, Hamilton, Hamilton North and Hamilton East. The processing of raw gas at the Point of Ayr Gas Terminal and associated support services at Llaneurgain House.



001

Lloyd's Register Quality Assurance Limited, its offices and subsidiaries, including Lloyd's Register Quality Assurance Limited (LRQA), and their respective officers, employees or agents are, individually and collectively, referred to in this document as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or for any other reason, unless that person has agreed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and that person has accepted any responsibility or liability to exclusively on the terms and conditions set out in that contract.

Issued by: Lloyd's Register Quality Assurance Limited, 1 Trinity Park, Stockley Park, Uxbridge, Middlesex UB11 1AA, United Kingdom

Page 1 of 1

# Introduction

This is the 2018 Environmental Statement for Eni UK Liverpool Bay, for the period 1<sup>st</sup> January to 31<sup>st</sup> December 2018, hereafter called the reporting period. This statement reports the environmental performance of both offshore and onshore operations to our stakeholders, and to the public, in accordance with the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) Guidance and Reporting Requirements, in relation to OSPAR Recommendation 2003/5.

## 1.0 Liverpool Bay Operations

### Oil and Gas Production

Process plant on the offshore platforms separates oil, gas and water produced from the oil and gas reservoirs. Once the oil has been separated from the water, it is pumped to the Oil Storage Installation (OSI) via pipeline. Oil is periodically transferred from the OSI to export tankers, for shipment to customers. Oil from Tailwind Mistral's Conwy field also flows to Eni UK's offshore facilities for processing.

Produced gas is treated onshore at the Point of Ayr (POA) Gas Terminal, where it is dried and sweetened. A small portion of the gas produced is used to generate power, some of which is then exported to the national grid. The remaining gas processed is exported via onshore pipeline to Connah's Quay Power Station.

### 1.1 Offshore Facilities

#### Douglas

The Douglas field contains low sulphur, 44° American Petroleum Institute (API) black oil. The oil has a low gas to oil ratio. The Douglas Complex is located approximately 23km off the North Wales and English coastlines. It consists of an accommodation unit, a processing platform and a wellhead tower, all bridge linked (Photo 1).

Photo 1 – Douglas Complex



The layout of the Douglas Complex is designed with the objective of separating the potentially hazardous production plant and well facilities from the living quarters and control centre. The three platforms are orientated to provide the smallest target to passing ship movements. Water depth at the location is 29 metres.

#### Lennox

Lennox is a satellite platform (Photo 2). The Lennox Field consists of a thin layer of oil underlying a normally pressured gas cap.

Photo 2 – Lennox Platform



Lennox produces both gas and condensate, together with formation water. These reservoir fluids are routed to the Douglas Complex for separation. Lennox lies approximately 8 km off the Sefton coast. The Lennox Platform is a two level, 12 well slot structure with an underdeck. Water depth at the location is 7m.

#### Hamilton Fields

There are two (almost identical) producing Hamilton gas platforms; Hamilton and Hamilton North (Photo 3). The connected Hamilton East subsea gas well is no longer in production.

Photo 3 - Hamilton Platform





These platforms are two-level, normally unmanned structures with an underdeck. Produced gas, together with condensate and formation water, is transported via subsea pipeline to Douglas for further processing.

### **Oil Storage Installation (OSI)**

The stabilised export crude oil from the Douglas Complex is piped 17km north to the OSI (Photo 4). The OSI is a purpose-built barge that is permanently moored. Its location was chosen to avoid shipping lanes.

The OSI is 207 metres long, 44.5 metres wide and has three deck levels and a helipad. The vessel has 10 oil compartments (plus two slop tanks) surrounded by 4.8 metre wide seawater ballast tanks. The cargo tanks have a total storage capacity of 146,290m<sup>3</sup> (approximately 860,000 bbls usable volume).

*Photo 4 - Oil Storage Installation*



### **1.2 Onshore Facilities**

#### **Point of Ayr (POA) Gas Terminal**

The onshore gas processing terminal (Photo 5) is located at Point of Ayr in Flintshire, North Wales. It treats all of the gas produced from Liverpool Bay offshore facilities.

*Photo 5 - POA Gas Terminal*



The POA location is bound to the east by the sea wall and the Dee Estuary, and to the southeast and south by the site of the former Point of Ayr Colliery and the Chester to Holyhead railway line.

The POA Gas Terminal site covers an area of approximately 37 hectares. Eni UK also owns a further approximate 110 hectares of dunes, warren and farmland adjacent to the Gas Terminal, designated as a Site of Special Scientific Interest (SSSI). It is managed for conservation benefit under land management agreements regulated by Natural Resources Wales (NRW).

## **2.0 Environmental Management**

Eni UK Liverpool Bay Asset's Environmental Management System (EMS) is certified to ISO 14001:2015 by Lloyds Register Quality Assurance (LRQA), see certificate on Page 2. This certification involves biannual surveillance audits.

### **2.1 Objectives and Targets**

Eni UK Liverpool Bay Asset maintains environmental improvement objectives, progress against which is monitored by the Health, Safety and Environment Team. These objectives are linked to the significant environmental aspects, 2018 focus areas were:

- Chemical substitution to OSPAR schedule.
- Improve environmental awareness of staff.
- Improve effectiveness of internal audits.
- Update HSE management system to meet revised ISO14001 requirements.

### **2.2 Permits and Consents**

Oil and gas production operations are regulated by a variety of onshore and offshore environmental permits and consents namely:

- Pollution Prevention Control (PPC) permit for Douglas.
- Environmental Permit for POA Gas Terminal.
- Oil discharge permits for Douglas, OSI, Hamilton and Hamilton North.
- Consolidated Oil Pollution Emergency Plan.
- Consents to Vent and Flare Gas for offshore installations and onshore Gas Terminal.
- Douglas/OSI/Lennox/Hamilton and Hamilton North production chemical permits and annual chemical permits for well intervention operations.

- European Union Emissions Trading Scheme (EUETS) permits for Douglas, OSI and POA Gas Terminal.
- Consents to Locate for offshore fixed installations and support jack-up vessels.

### 2.3 Compliance

Certification to ISO14001 requires external audits to be conducted, during which a small number of minor issues requiring corrective action were identified during 2018. These have been closed in a manner acceptable to management.

Regulatory environmental inspections, conducted by the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED, the offshore environmental regulator) and by Natural Resources Wales (NRW, the onshore environmental regulator) also identified minor items requiring attention. Corrective actions for these were set by management and communicated to these environmental regulators in action plans.

## 3.0 Offshore Performance

### 3.1 Production

Offshore oil and gas production during the reporting period is presented in Figures 3.1 and 3.2.

Figure 3.1 - Oil/Condensate Production

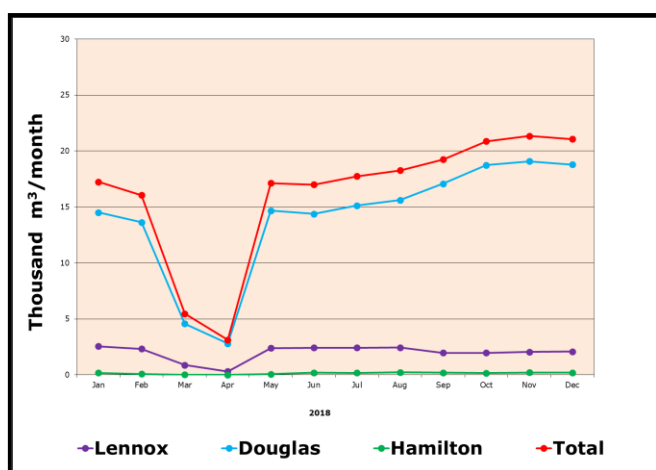
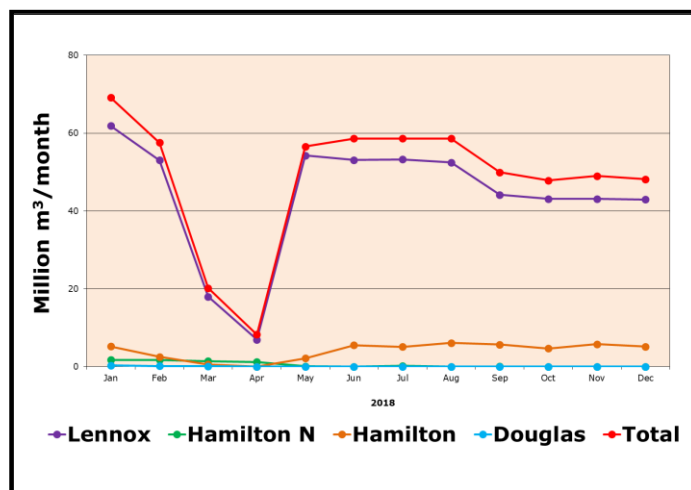


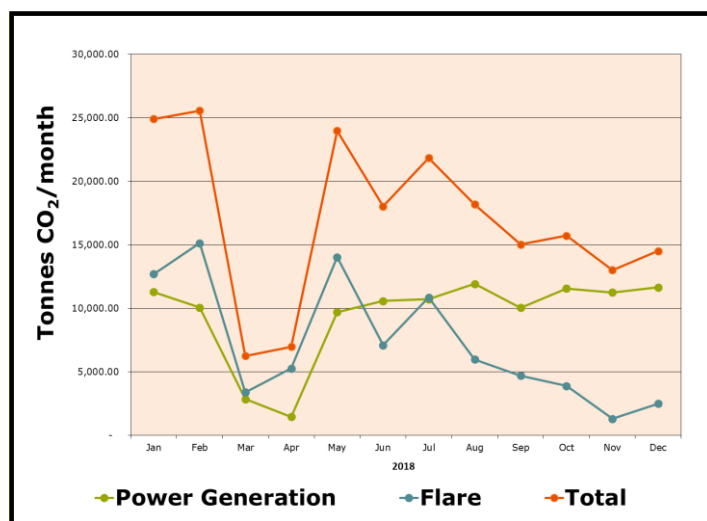
Figure 3.2 - Gas Production



### 3.2 Emissions and Energy Use

CO<sub>2</sub> emissions arise from power generation and flaring, demand for which is governed by production levels. Figure 3.3 shows CO<sub>2</sub> emissions arising from offshore power generation and flaring during the reporting period.

Figure 3.3 - Offshore CO<sub>2</sub> Emissions



### 3.3 Water Discharges

Permitted discharges of produced water containing low concentrations of oil and chemicals occur from offshore installations. These have the potential to affect sea water and sediment quality.

Figure 3.4 shows the amount of oil entrained in produced water discharged from Douglas and OSI during the reporting period. Overboard discharge of produced water at Douglas increased in quarter 1 due to the failure of one of the produced water re-injection pumps.

Figure 3.4 – Oil in Produced Water

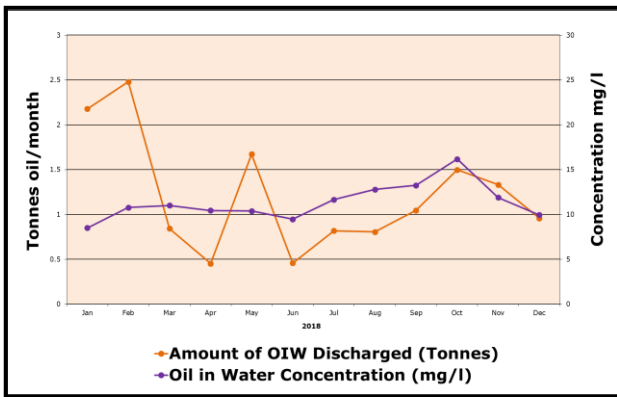
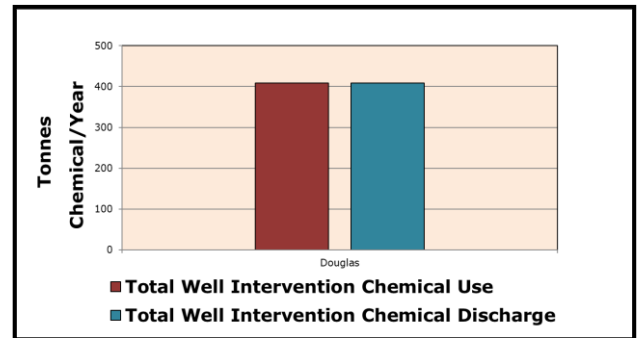


Figure 3.6 - Well Intervention Chemical Use and Discharge



### 3.4 Chemical Use and Discharge

Chemicals are used in production and well workover operations, therefore chemical permits for the offshore use/discharge of process chemicals are in place.

Offshore production chemical consumption and discharge for Douglas, Satellites and OSI for the reporting period are presented in Figure 3.5 below. Figure 3.6 shows well intervention chemical use and discharge during the 2018 Douglas well intervention operations.

There were a total of seven chemical/oil releases offshore in 2018 (one each from OSI, Hamilton and Lennox, three from Douglas and one from the Irish Sea Pioneer jack-up vessel whilst located at Douglas), the eventual fate of which were to sea (via platform processes). There were 3 oil releases (totalling 0.11Kg) and 4 chemical releases (totalling 1,670.3Kg). These losses were reported to OPRED via the PON1 process, all were assessed to be minor with negligible environmental impact.

### 3.5 Spill Contingency

In 2018, field support vessel services continued to be supplied by the VOS fleet. The Tier 2 local oil spill responder continued to be Ambipar Response with aerial surveillance/dispersant application services and Tier 3 oil spill response being provided by Oil Spill Response Ltd (OSRL).

### 3.6 Wastes

Waste generated fluctuates depending on the activities ongoing at sites. Figure 3.7 shows offshore waste generated in 2018.

Figure 3.5 - Offshore Chemical Use and Discharge

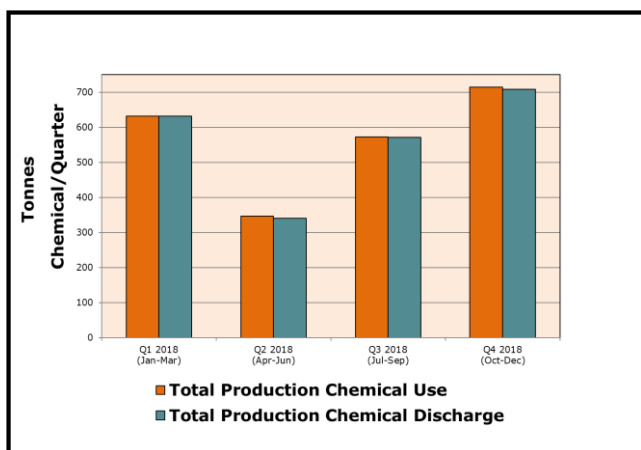
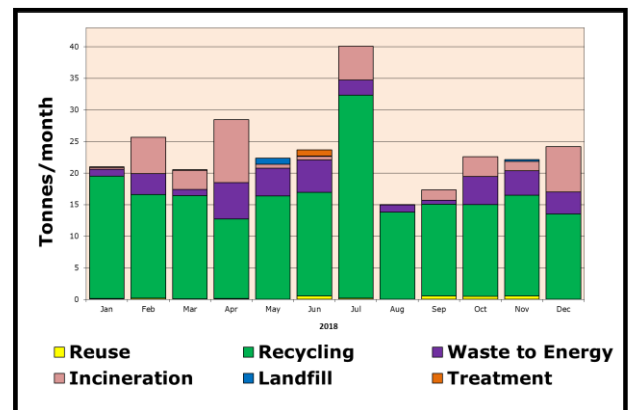


Figure 3.7 - Offshore Waste Management

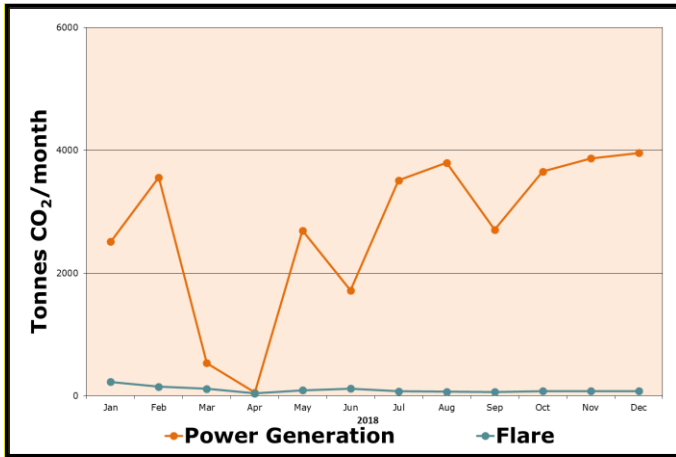


## 4.0 Onshore Performance

### 4.1 Emissions and Energy Use

CO<sub>2</sub> emissions mainly arise from flaring and power generation activities at POA, refer to Figure 4.1.

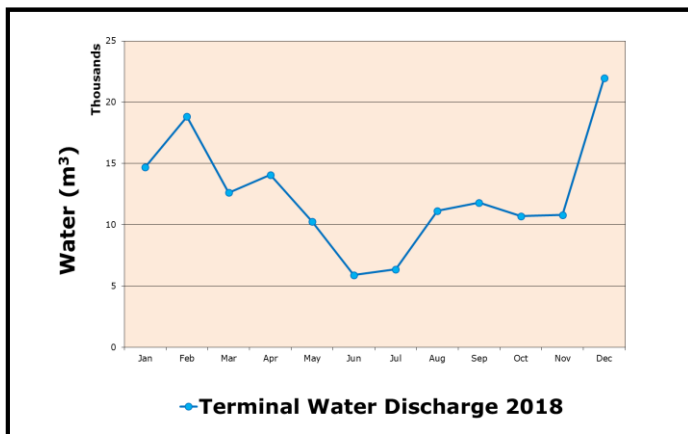
Figure 4.1 – Onshore CO<sub>2</sub> Emissions



### 4.2 Water Discharges

Water discharge from the POA Terminal site is largely dependent on rainfall, as almost all site waste water is generated by land drainage rather than from the plant processes. Water quality is monitored prior to discharge, to ensure that it meets prescribed standards. Figure 4.2 shows waste water generation during the reporting period.

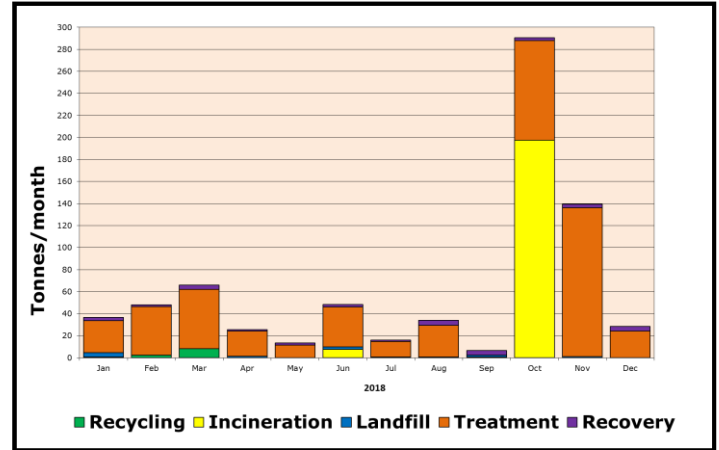
Figure 4.2 – Onshore Water Discharge



### 4.3 Onshore Waste

Waste generated fluctuates depending on the activities ongoing at POA site. Figure 4.3 shows onshore waste generated in 2018.

Figure 4.3 – Onshore Waste Management



### 4.4 Onshore Land Management

Eni UK-owned land inside and outside the POA Terminal boundary continues to be managed in accordance with approved Land Management Plans as regulated by NRW. These plans form part of a legally binding Land Management Agreement between Eni UK and NRW that has been in place since 1996 when the license to operate was first granted and planning permission was obtained.



If further information is required please contact  
Cerys Percival  
External Affairs and Community Adviser  
Telephone: 01352 842 206