



Eni UK Limited - OSPAR Public Statement

2022 Environmental Performance

Hewett Field and Liverpool Bay Area



1. Introduction

This is the Environmental Statement for Eni UK Limited (hereafter referred to as 'Eni'), for the period 1st January to 31st December 2022, hereafter called the reporting period. This statement reports the environmental performance of offshore 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. This statement covers all 2022 Eni UK offshore operational oil and gas activities, which are decommissioning operations in the Hewett Field and production operations in the Liverpool Bay area.

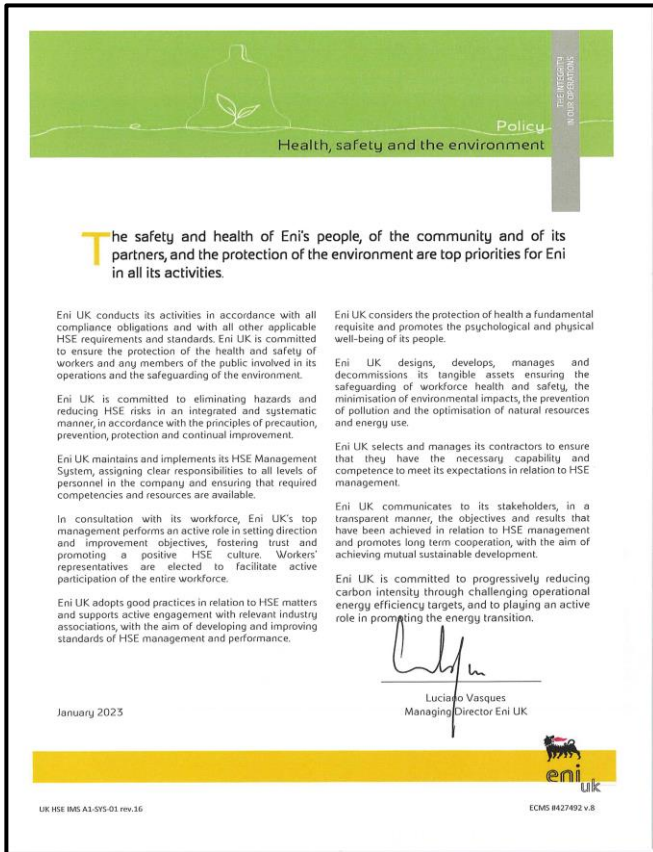
During 2022 Eni UK continued to progress decarbonisation initiatives relating to carbon capture and storage (CCS), hydrogen production and electrification, amongst other opportunities, as well as supporting ongoing work to reduce the emissions from existing operations. Such projects are outside of the normal scope of an OSPAR public statement but are summarised in Section 6 below because of their relevance to Eni's energy transition in support of our net-zero emissions target.

2. HSE Management System

Eni UK maintains a HSE policy (below), the commitments within which are implemented through management systems and operational controls across all Eni UK operations. Eni UK is committed to minimising environmental impact via an environmental management system (EMS) which is certified to ISO 14001:2015 by Lloyds Register Quality Assurance (LRQA), certificate below. This certification involves biannual surveillance audits.

Appropriate interface arrangements are in place between Eni UK management systems and those of third-party service companies such as Petrofac, the Hewett Installation operator, and Valaris, the drilling contractor.

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Eni UK HSE Policy



LRQA ISO 14001 Certificate

3. HSE Improvement Objectives

Eni UK 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. 2022 focus areas were:

- Maintenance of ISO 14001 EMS certification.
- Completion of all planned audits, inspections and emergency response exercises.
- Chemical substitution to OSPAR schedule.
- Work with industry groups on greenhouse gas reduction opportunities.
- Eni Process Safety Fundamentals roll out.

4. Hewett Field Area

The Hewett Field infrastructure comprises six installations, 32 platform wells, and a further eight subsea wells tied back to the platforms, as well as a number of pipelines.

On 1st January 2018, the responsibility for the Hewett Field Installations, including related environmental management and regulatory requirements, was transferred to Petrofac Facilities Management Ltd. (Petrofac) through their appointment as the Hewett Field Installation Operator. Petrofac is responsible for reporting the environmental performance of the Hewett Field installations and their associated

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production operations. A documented HSE Management System Interface Plan is in place between Eni UK and Petrofac, to manage the implementation of Eni requirements.

Eni UK is the Hewett Field Well Operator. In Q3 2021 a change of Well Operatorship was completed from Eni Hewett Limited, (a wholly owned subsidiary of Eni UK) to Eni UK.

This statement therefore covers the environmental performance of Hewett Field Wells only.

The Hewett Field is located in the Southern North Sea, approx. 22km from the Norfolk coast, and 85km west of the UK/Netherlands median line, in Blocks 48/29, 48/30, 52/05, in a water depth between 20-40 meters. Hewett Field lies within and overlaps a network of offshore Marine Protected Areas (MPAs) and Eni UK is proactively addressing the challenges of decommissioning infrastructure within these protected sites.

4.1. Well Plug and Abandonment (P&A) and Pipeline Cutting Operations

The Hewett Field is coming to the end of its productive life. Cessation of Production for 52/5A (2020) allowed for the well plug-and-abandonment (P&A) work on 52/5A to start in 2021. In 2022, Eni UK has continued to progress with its P&A activities and enabling activities, including cutting or disconnecting pipelines, to allow rig access. Eni UK has a contract with Valaris for its jack-up rig, Valaris 72 to carry out the well P&A work throughout 2022. A contract between Eni UK and Boskalis is in place for carrying out pipeline work supporting P&A with the Boskalis Diving and Support Vessel (DSV) and other support vessel fleet. To meet NSTA and HSE requirements, Eni UK will ensure all wells have been permanently abandoned by placing verified barriers to isolate rock formations that have flow potential from the surface.

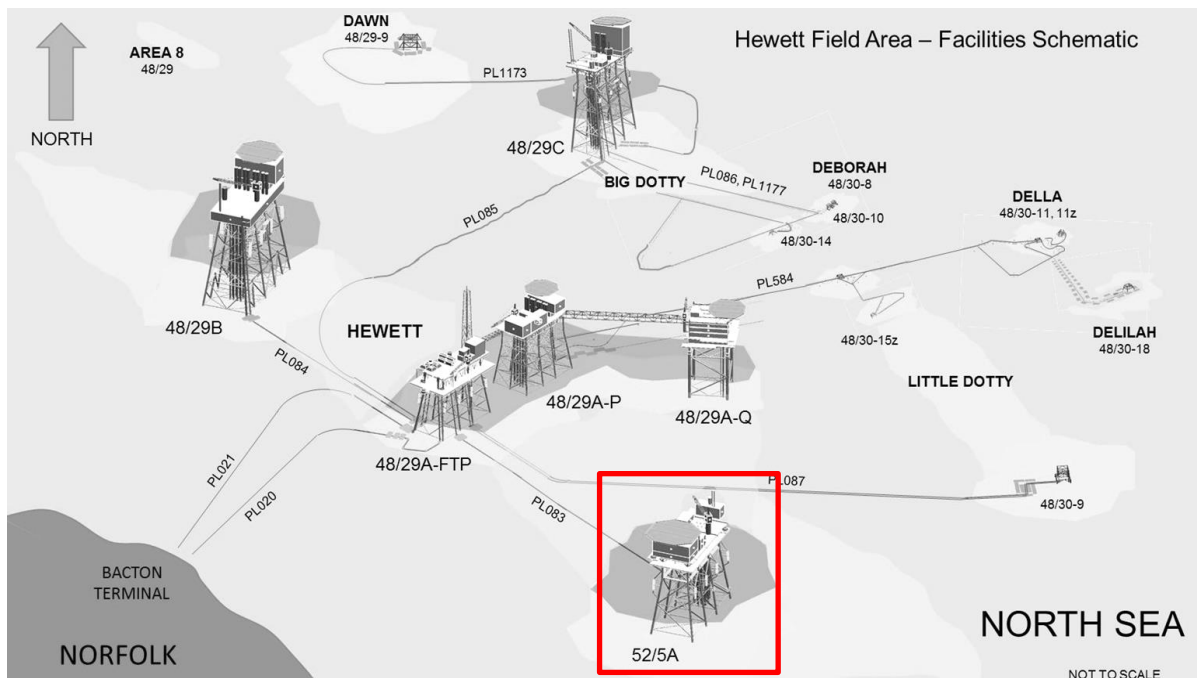


Figure 1: Hewett Field Facilities Schematic showing 2022 P&A activities in colour.



Figure 2: Valaris 72 Jackup alongside 52/5-A Platform

4.2. Decommissioning Programmes

Eni UK has received approval for its decommissioning programmes and environmental appraisals for Platform Installations (2021) and Subsea Installations (2022) and is working towards obtaining approvals for its Pipelines decommissioning programmes and environmental appraisals. The majority of the materials and components that make up the Hewett Field infrastructure and topsides will be recycled. The small proportion of materials remaining after reuse and recycling will be disposed of appropriately in accordance with Eni UK policies and the relevant regulatory requirements, including waste management, environmental, health and safety expectations. There are no drill cuttings in the scope of these decommissioning programmes.

4.3. Hewett Field Decommissioning Environmental Performance

During 2022, well P&A work was performed at the following locations:

- 52/5-A platform (continues into 2023, data associated with this campaign will be reported in 2024 for 2023)

For more details, see Figure 1: Hewett Field Facilities Schematic showing 2022 P&A activities in colour.

4.3.1. Chemicals

The use and discharge of chemicals is subject to rigorous control under 'The Offshore Chemicals Regulations 2002 (as amended)'. This requires regulatory approval following an assessment of the predicted environmental impacts of any proposed chemical discharges. In addition, only chemicals that

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have been registered by the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) may be used.

During the 2022 Hewett Field P&A campaign, the vast majority of the chemicals used were PLONOR (pose little or no risk to the environment). The quantity of substitution warning chemicals used was approximately 52.4 tonnes, of which zero tonne was discharged to sea. *Figure 3* shows the use and discharge of Hewett well-related decommissioning operations. Eni UK makes best endeavours to limit fluid discharge by reinjection of fluids back to the reservoir as much as possible. Furthermore, chemicals used in well operations are subject to continual review and Eni UK will continue to pursue suitable alternatives, where appropriate.

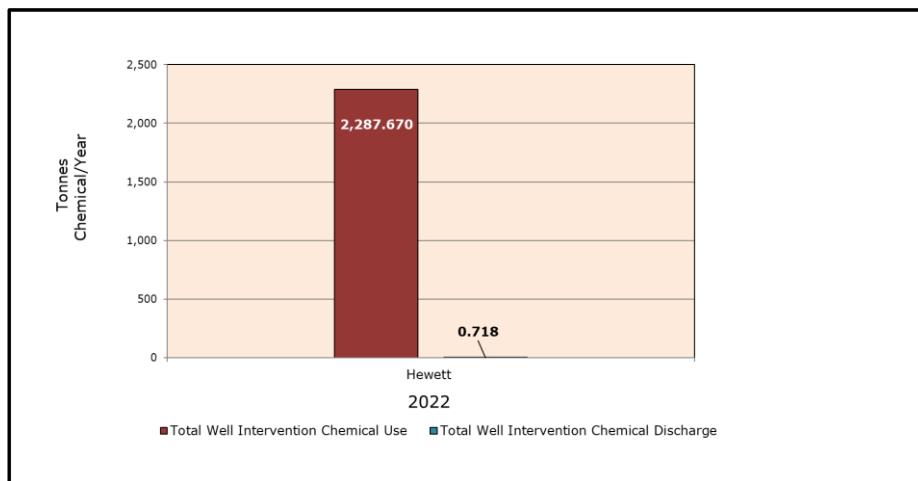


Figure 3: Chemical Use and Discharge

4.3.2. Oil in Water

Management of fluids associated with Hewett production operations (including produced and process water), and any related discharges, are reported within the scope of the Petrofac Facilities Management Ltd OSPAR Statement for the Hewett Field Installations.

Eni UK strives to re-inject most of its decommissioning-related fluids, however in 2022 an increased amount of cements and swarf was returned to shore for treatment due to having no donor wells (see Figure 4).

4.3.3. Reportable Incidents

During 2022, one Petroleum Operations Notice (IRS/2022/1369/PON1) was submitted to OPRED via the Integrated Reporting Service, for the maximum release of 0.000056 tonnes of Oily Waste from an internal waste oil transfer line passing through sea water surge tank. This incident has now been closed with no further action required.

4.3.4. Waste

The waste generated as part of the Hewett Field P&A campaign is shown in Figure 4, split by waste type. Eni UK continues to work with waste service companies to maximise recycling and treatment to minimise waste sent to landfill. The large proportions of treated waste was due to cements and swarf been returned to shore for treatment, as there were no donor wells available on 52/5A to re-inject these fluids from the 52/5A P&A works.

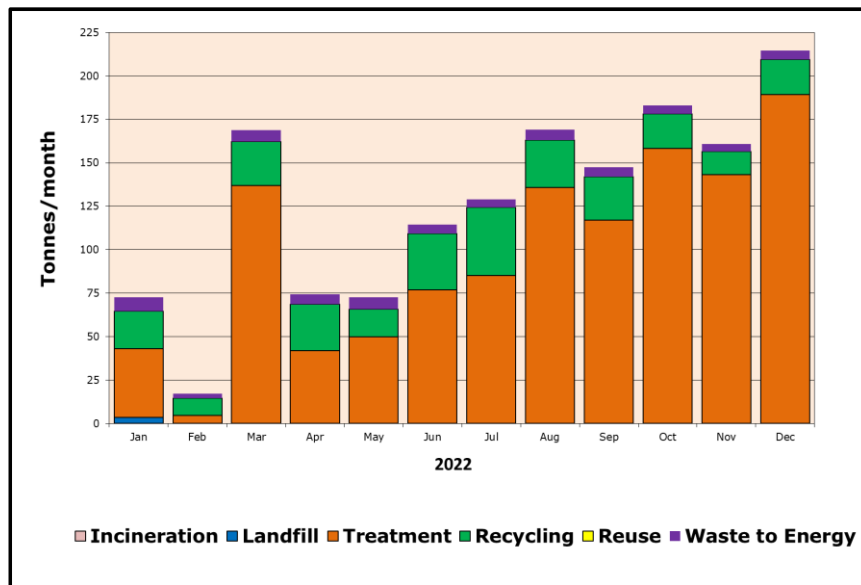


Figure 4: Well Abandonment Operations Waste Management

4.3.5. Atmospheric Emissions

During 2022, direct emissions associated with Hewett Field P&A well operations were limited to: vented gas and fuel used by Jackup rig and DSV vessel (see Table 4.3.5-1).

Table 4.3.5-1: Hewett Well Operations - Atmospheric Emissions

Source of emissions	Total (tonnes)	CO2e
Well P&A Operations - Hydrocarbon Gas Venting	0.1543	4
Valaris 72 - Diesel Usage	2,047	6,695
DSV vessel - Diesel Usage	381	1,246
Total	n/a	7,945

5. Liverpool Bay Asset

Eni UK is both the installation and well operator for the Liverpool Bay Field, which produces oil and gas.

5.1. 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.

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.

5.2. Offshore Facilities

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

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.

There are 4 unmanned satellite installations, the reservoir fluids from which are routed to the Douglas Complex for separation.

- Lennox lies 8 km off the Sefton coast in 7m water depth and produces both gas and condensate, together with formation water.
- The Hamilton and Hamilton North are (almost identical) platforms also producing both gas and condensate, together with formation water.
- Conwy is located 33 kilometres from the North Wales coast and produces oil which flows to the Douglas Complex via a 12 kilometre, 8 inch diameter subsea pipeline. Eni UK purchased the Conwy Field from Tailwind Mistral in July 2021.

The stabilised export crude oil from the Douglas Complex is piped 17km north to the Oil Storage Installation (OSI). The OSI is a purpose-built barge that is permanently moored in a location selected 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 146,290m³.



Douglas (left) and Lennox (right)



Hamilton (left) and Oil Storage Installation (right)



Hamilton North (left) and Conwy (right)

5.3. Liverpool Bay Assets – Environmental Performance

Permitted discharges of produced water containing low concentrations of oil and chemicals occur from offshore installations. These have the potential to negatively impact the marine environment.

Figure 5 shows the amount of oil entrained in produced water discharged from Douglas and OSI during the reporting period.

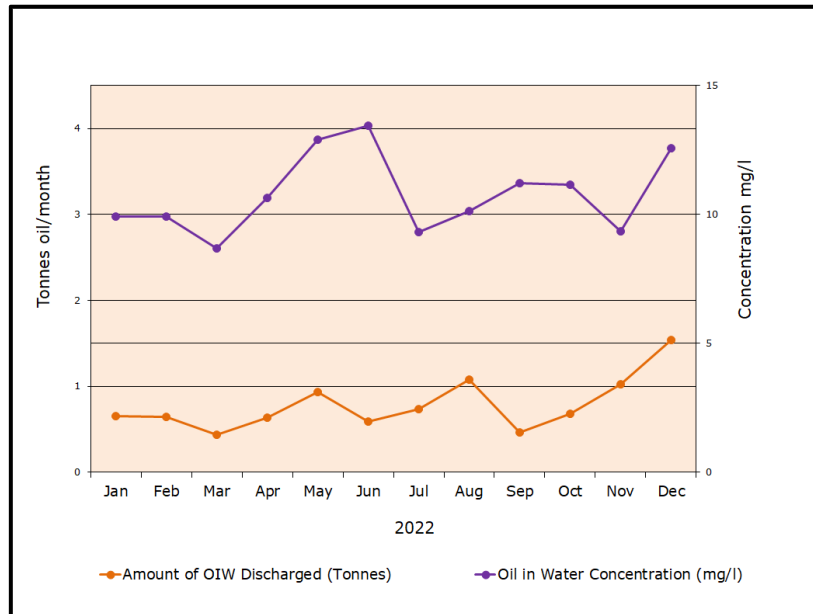


Figure 5: Offshore Oil in Produced Water

Atmospheric emissions arise from power generation and flaring, demand for which is governed by production levels. Figure 6 shows Carbon Dioxide (CO₂) emissions arising from offshore power generation and flaring during the reporting period. The August and November peaks in flare CO₂ emissions were due to offgas system process commissioning.

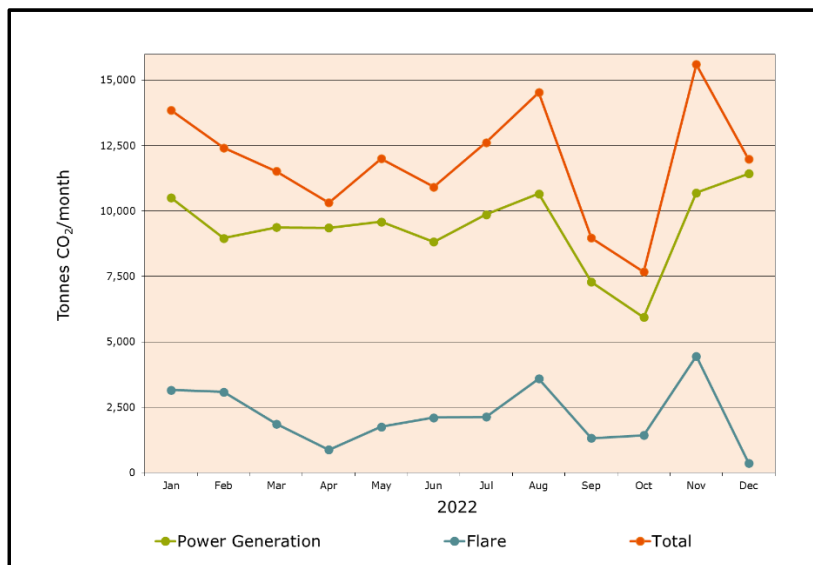


Figure 6: Offshore CO₂ Emissions

Chemical permits are in place for the offshore use/discharge of process chemicals in production and well workover operations. Offshore production chemical consumption and discharge for the reporting period is presented in Figure 7.

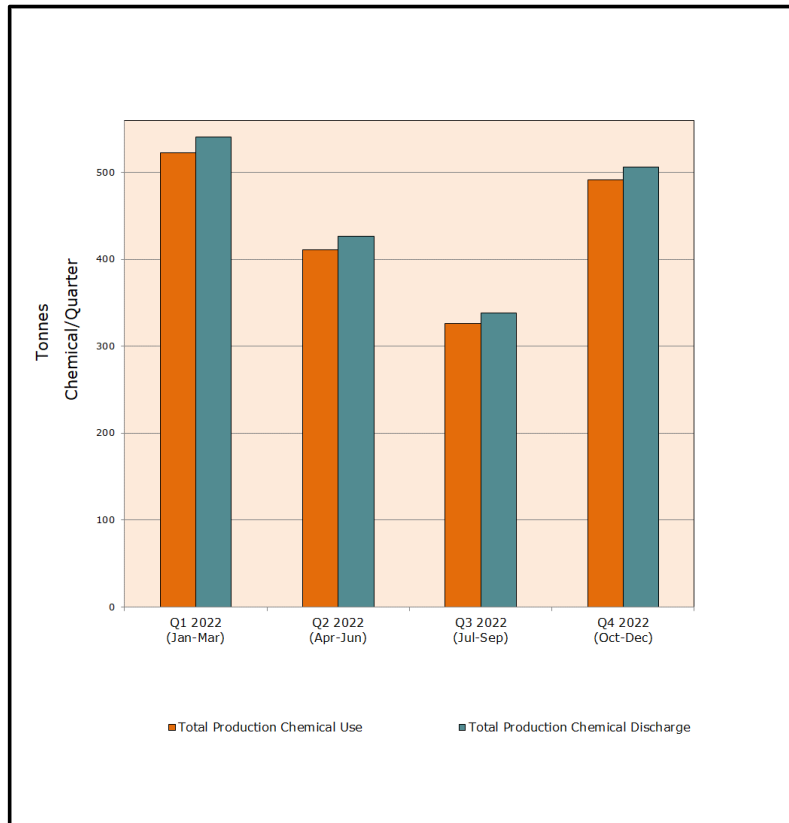


Figure 7: Offshore Production Operations Chemicals Use and Discharge

During 2022 Douglas Well Intervention Operations, Sodium Chloride Brine (99.5%) was used for pressure testing activities and discharged to the marine environment. Sodium Chloride Brine is a PLONOR (poses little or no risk to the environment) chemical and hence the impact from this discharge was insignificant. Figure 8 details 2022 Douglas Well Operations Chemicals Use and Discharge.

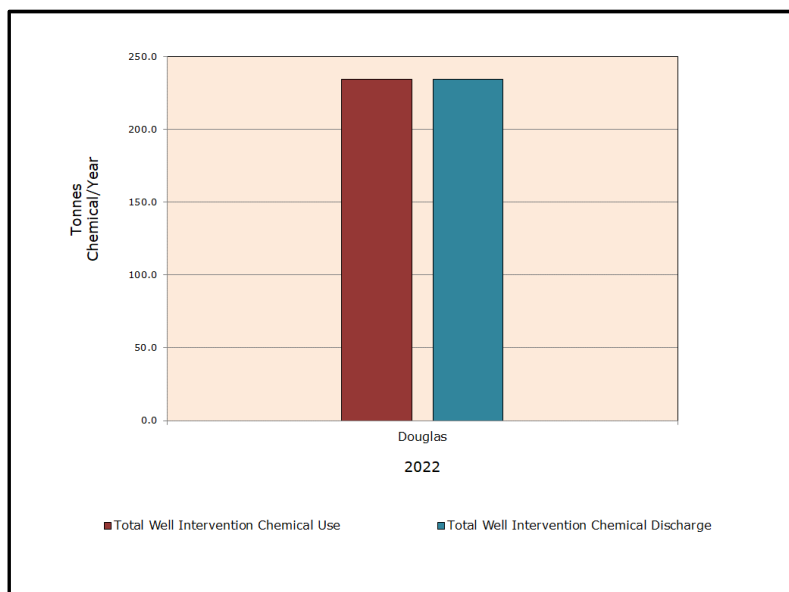


Figure 8: Douglas Well Operations Chemicals Use and Discharge

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There were two releases to sea in 2022, both of which were reported to OPRED via a PON1 notification, see *Figure 9*:

- February – A subsea failure of the Conwy to Douglas pipeline resulted in a 12,190Kg oil release to sea. Emergency response procedures were immediately implemented, and all regulators, stakeholders and oil spill response support organisations engaged. Less than 10Kg of oil residue reached the shoreline. The defective pipeline has now been taken out of service. Eni UK demonstrated that there were no long-term environmental impacts arising from this event via a comprehensive benthic survey (scope agreed with regulators/stakeholders) and polycyclic aromatic hydrocarbons/total hydrocarbons content analysis of starfish.
- May – 434 litres Sodium Hypochlorite release to sea from the Douglas Platform via a loose hose connection, assessed to have minor environmental impact.

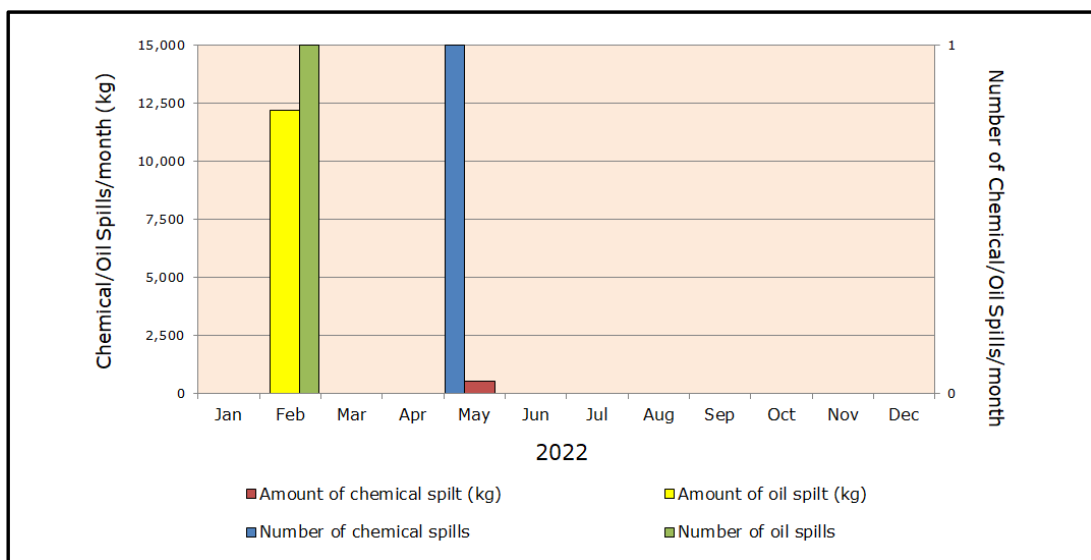


Figure 9: Releases to Sea (PON 1 Reports)

Waste generated offshore fluctuates depending on the activities ongoing at sites. *Figure 10* shows offshore waste generated in 2022 as well as the fate of each waste type.

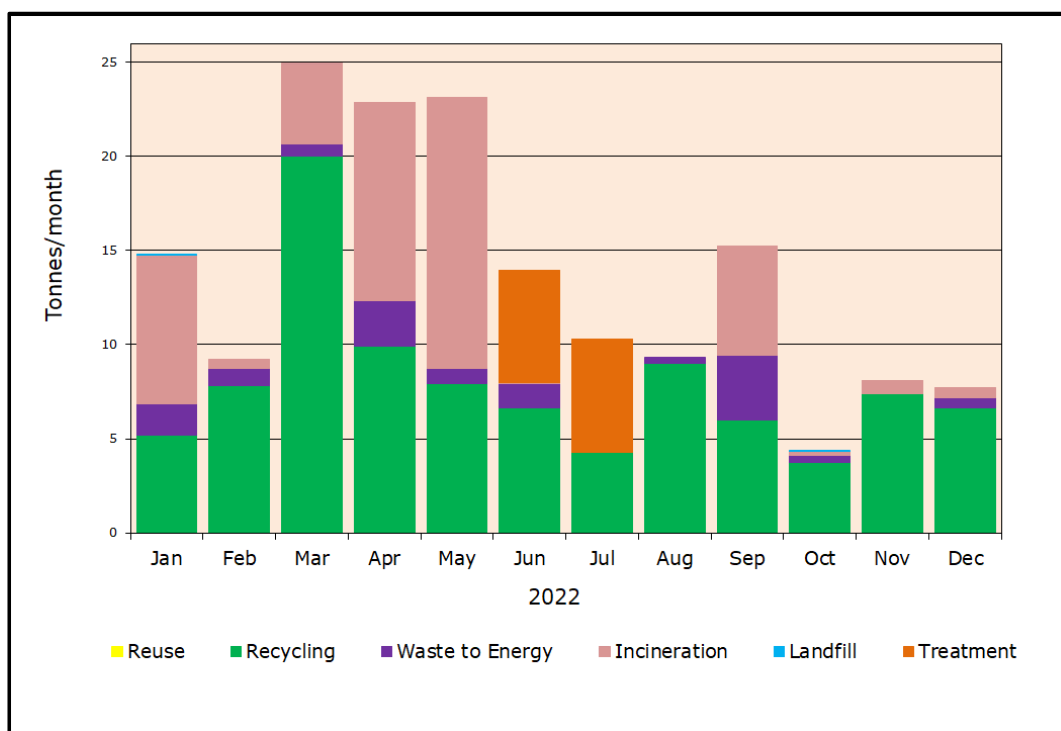


Figure 10: Liverpool Bay Offshore Waste Management

6. Energy Transition – Net Zero

Eni UK’s strategy towards Net Zero is supported by an industrial transformation plan that encompasses the whole value chain, including an optimisation and enhancement of the upstream portfolio through progressive decarbonisation, combined with the expansion of bio, renewable and circular economy businesses and with the offer of new energy solutions and services.

6.1. Eni UK Carbon Capture and Storage (CCS)

6.1.1. Liverpool Bay

As described above, Eni UK operates a number of gas fields in Liverpool Bay, which are approaching the end of their productive lives. These fields have an estimated carbon dioxide (CO₂) storage capacity of around 200 million tonnes, and a 2016 study by the Energy Technologies Institute cited one of these fields, the Hamilton Gas Field, as the lowest cost UK CCS option, on the basis of the overall project life.

Eni’s CCS plans foresee the reutilisation of three of the Liverpool Bay depleted gas fields as CO₂ reservoirs for injection and storage (the Hamilton, Hamilton North and Lennox Gas Fields). This proposed CCS development will be an integral part of the wider HyNet North West energy project, designed to put the North West England and North Wales region at the forefront of the UK’s journey to a Net Zero future. It will use a combination of hydrogen energy, in place of fossil fuel gas, and CCS to meet the challenge of reducing emissions of greenhouse gases from industry, homes and transport by 2050, starting in the mid-2020s.

In October 2020, Eni UK was awarded a CO₂ appraisal and storage license in Liverpool Bay to develop a CO₂ storage site and in October 2021 the HyNet North West Cluster was selected by the UK Government

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as one of the two priority projects (Track 1 projects) out of five competing in the CCUS Cluster Sequencing Process.

In February 2022, Eni UK announced that a number of companies are interested in the opportunity to have their emissions captured, transported and stored in Eni UK's depleted hydrocarbon reservoirs as part of the HyNet North West project. A total of 19 companies had signed agreements at this stage, demonstrating the outstanding interest that UK industry has shown for the decarbonisation potential offered by the project. HyNet will benefit from the expertise and ideal location of Eni UK's infrastructure for transportation and storage.

This project will provide important support to the UK's decarbonisation process by contributing between a third and a half of the UK's storage capacity target of 20-30 million tonnes of CO₂ captured per year by 2030, and 40% of the UK Government's 2030 low carbon hydrogen production target.

The agreements signed to date include hard-to-abate sectors and will play a crucial role enabling decarbonisation initiatives in the North West of England and North Wales industrial cluster.

6.1.2. Hewett

The reuse of the Hewett Field platforms and infrastructure, including pipelines, has been considered for a future carbon capture and storage (CCS). Cement used for wells decommissioning on the main reservoir is CO₂ resistant, facilitating the reservoir's use as part of a potential CCS project in the future. As such, a Carbon Storage Licence Application was submitted to the NSTA in September 2022.



If further information is required please contact:
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