

The Greater Kittiwake Area

Location

The Kittiwake platform is located 160km East of Aberdeen, in Licence block 21/18. The platform coordinates are; latitude 57°28'6"N, longitude 00°30'43"E. The platform stands in a water depth of 85m.

Kittiwake Installation

The Kittiwake platform was installed in 1990 and is a fixed steel platform situated over the Kittiwake field. The Kittiwake field itself is no longer on production, but the platform processes production from a number of subsea tie-backs. These tie-backs are Goosander, Grouse, Gadwall and Mallard (collectively known as the Greater Kittiwake Area, with EnQuest and Dana Petroleum as 50/50 coventurers) and Scolty and Crathes (with EnQuest and MOL as 50/50 coventurers).

The living quarters have a maximum POB of 79. Petrofac is the current duty-holder.

The platform no longer has drilling facilities which were decommissioned in 2009.

Installation systems

Produced oil flows through a four stage crude stabilisation system. Mallard and Gadwall, and Scolty and Crathes each have their own dedicated first stage separator in parallel, before the oil is co-mingled upstream of the second stage separator.

Stabilised oil is metered, then exported using the oil export pumps to the Forties Pipeline System via the 33km 10" Kittiwake-Unity Pipeline to the Ineos-operated Forties Unity platform, and thence into the Forties Pipeline System. Produced gas is compressed and used for fuel and gas lift. The surplus gas is exported via a 4" export line to the SEGAL gas pipeline. Produced water is cleaned and discharged overboard to the sea.

Infrastructure Information

Description:	Fixed steel jacket platform
Arrival Conditions:	<p>V-1010 – First stage separator (Kittiwake, Grouse and Goosander) Design Pressure: FV / 28barg Design Temperature: -6 to 112°C</p> <p>V-1200 – First stage separator (Mallard and Gadwall) Design Pressure: FV / 40barg Design Temperature: -50 to 102°C</p> <p>V-91003 – First stage separator (Scolty and Crathes) Design Pressure: FV / 28barg Design Temperature: -46 to 120°C</p> <p>Material of construction are NACE MR-0175 compliant</p> <p>H₂S: 50ppm max CO₂: 7.0mol% max</p>
Exit Specification:	Forties Pipeline Specs for oil & SEGAL Pipeline Specs for gas
Outline details of Primary separation processing facilities:	Four stage crude oil stabilisation
Outline details of gas treatment facilities:	Three stage centrifugal compressors (known as A-gas compressors) with an additional reciprocating compressor (known as E-gas compressor) to meet the gas export / gas lift pressure requirements. Gas Dehydration facilities are located between the A & E gas systems. H ₂ S scavenger facilities for topside and subsea injection and available.

High Level Capacity Information

The basic capacity information is portrayed by colour coded 'traffic lights' that reflect thresholds of availability over the next five years

>25% capacity available	
5-25% capacity available	
<5% capacity available	

Processing Facility	Capacity	2019	2020	2021	2022	2022	Comments
Separation capacity	40,000bopd						Based on nameplate capacity and residence time calculations
Gas compression capacity	14mmscfd						3 x fixed speed centrifugal compressors & 1 x reciprocating compressor for gas export and gas lift requirements.
Gas export capacity	12mmscfd						
Produced water handling capacity	60,000bwpd						Based on degasser vessel nozzle dimensions
Water Injection capacity	49,800 bwpd						2 x 100% WI pumps.
H ₂ S / CO ₂ treatment	N/A						No unit operations for acid gas removal. H ₂ S export specification is achieved by H ₂ S Scavenger injection.
Power	17.4MW						3 x Siemens SGT-200's capable of 5.8MW each. Currently run in a 2 out of 3 arrangement.
Oil Export	27,000 bopd						2 x 100% MOL pumps.



Contact Information

For further enquiries, please contact Adrian McBurnie, CNS Commercial Lead, at +44 1224 975254 or adrian.mcburnie@enquest.com.

Disclaimer

All the above information is provided by EnQuest PLC (for itself, and other EnQuest group companies);

- In good faith and without any liability
- Without warranty, implied or express to its accuracy or relevance of use to any other party
- That in any agreement or arrangement with EnQuest PLC its use shall be "Subject to Contract"
- EnQuest PLC reserves the right to update and change the data at any time

Updated

March 2019