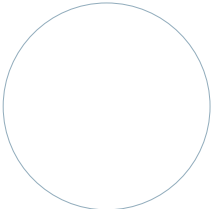
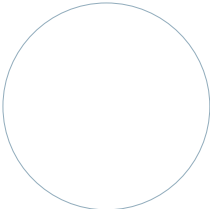
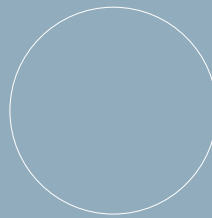
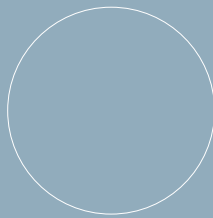


bluewater

Bleo Holm FPSO

Ross, Parry & Blake fields, North Sea





Bleo Holm FPSO

The “Bleo Holm” is the sixth Bluewater designed, built, owned and operated Floating Production, Storage and Offloading Unit (FPSO). The vessel commenced operations in the first half of 1999 at the Ross & Parry Fields for Talisman Energy (UK) Ltd.

Production was suspended in March 2001 to allow onshore topsides modifications to the Bleo Holm. These modifications were completed and the vessel returned to the field for offshore hook-up ahead of the project schedule, allowing production to resume on Ross & Parry fields near the end of June and to initiate first oil from the Blake field just two days later. The Blake field, operated by BG International (NSW) Ltd., is located approximately 10 km from the Ross & Parry fields.

Main functionality

The Bleo Holm’s main functions are:

- Receipt of fluids from subsea wells
- Control of the subsea wells
- Processing of the incoming fluids for separation into crude, water and gas
- Storage of the stabilised crude oil and maintaining it at the required temperature
- Treatment of effluent for discharge of water to the sea
- Chemical injection
- Export of produced gas to the Frigg pipeline, part of the gas is utilized as fuel
- Offloading of crude into “tandem moored” shuttle tankers
- Power generation for process, gas export, offloading and utilities
- Provide accommodation for operating and maintenance personnel
- Provide helideck for helicopter operations

All systems are designed for a minimum annual average production up-time of 95%.

Vessel data

Length	242.3 m
Breadth moulded	42 m
Depth moulded	21.2 m
Dead weight tonnage	105,000 dwt
Deck area	7,985 m ²
Accommodation	90 persons

Location

Field name	Ross, Parry & Blake (UKCS)
Blocks	13/28a, 13/28c, 13/29a, 13/24
Water depth	105-110 m
Design sea state	12.0 m significant
Wind gust	33.9 m/s (65 knots)
Current	0.79 m/s (1.5 knots)

Performance data

Storage capacities

Exportable crude	109,000 m ³ (689,472 bbls)
Slop tanks	7,602 m ³ (41,838 bbls)
Fuel oil	2,900 m ³ (19,430 bbls)

Processing capacities

Fluid capacity	140,000 bpd
Crude	100,000 bopd
Produced water (max)	135,000 bwpd
Oil content water discharged	≤ 30 ppm
Gas (max)	58 MMscfd at 2,500 psia
Offloading (max)	33,000 bbls/hr

Stabilised crude

RVP	10-12 psia
H ₂ S	0 ppm
BS&W	≤ 1.0%

Water injection

Capacity (max)	140,000 bwpd
Design pressure	3,500 psia
Oxygen content (max)	10 ppb

Gas lift

Design pressure	2,900 psia
Operating temperature	45°C
Flowrate	58 MMscfd

Power

Main generators	2x gas turbine, 1x diesel
Capacity	2x 10 MW + 1x 5.3 MW
Emergency generator	1x 0.5 MW diesel

Offloading

Parcel size	500,000 bbls
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Gas export

Flowrate (max)	40 MMscfd
Pressure	1,750 psia