

BUZZARD INSTALLATION

DESCRIPTION OF INFRASTRUCTURE



The Buzzard complex comprises four separate platforms each supported by steel jackets interconnected by three bridges. The four platforms are the wellhead platform W, the production platform P, the utilities/living quarter platform QU and the production sweetening platform PS.



- The W platform is a four-leg jacket supporting an integrated deck with conductors, wellhead trees, allowance for a potential modular drilling unit, and access to the wells and wellheads for heavy duty jack-up drilling rigs.
- The P platform is a four-leg jacket supporting an integrated deck with well fluid processing to export/import gas and oil quality standards including acid gas removal, well water injection pumps, HP & LP flare, and lift gas compression. All export and injection risers plus spare risers for future expansion are also located on the P platform.
- The QU platform is a four-leg jacket supporting an integrated deck with living quarters, the main control room, offices and workshops, lifeboats, helideck, main and emergency power generation and utilities including seawater lift pumps and sulphate removal.
- The PS platform carries the oil stripper facilities to remove H₂S from the oil to meet the Forties entry specification. The PS platform also includes spare risers for future expansion.

ENTRY SPECIFICATION

The entry specification for any third party tie back to the Buzzard Platform for offshore processing would be assessed on an individual basis. The existing facilities process sour well stream fluids.

EXIT SPECIFICATION

Crude oil is exported via the Forties Pipelines System (FPS). The export stream meets contractual FPS entry specifications.

Gas is processed on the Buzzard facilities to meet the contractual FRIGG entry specifications and is exported via the FRIGG system to St Fergus where natural gas and natural gas liquids are separated. The natural gas is sent to the National Transmission System (NTS) and the natural gas liquids are either sent on to FPS or to the SEGAL natural gas liquids pipeline for further processing into specification products.

PRIMARY SEPARATION PROCESSING FACILITIES

The Buzzard process systems are designed to process well stream fluids from the Buzzard reservoirs and export the separated oil and gas to shore. These primary separation facilities include a single, two-stage, three-phase, separation train, water injection and produced water disposal/re-injection.

GAS TREATMENT FACILITIES

The Buzzard gas is compressed and passed through a mercury removal bed before an acid gas removal unit to remove H₂S and CO₂. The gas then undergoes further H₂S polishing, dehydration, hydrocarbon dewpointing and further compression for gas lift and export.

INDICATIVE SYSTEM CAPACITIES

Entry Specification	Sour Crude Oil
Exit Specification	Crude Oil exported via FPS. Gas exported via FRIGG.
Oil Export	216,000 bopd
Gas Compression	75 MMscfd
Gas Export	40 MMscfd
Gas Lift	60 MMscfd
Produced Water Handling	320,000 bwpd
H ₂ S Removal	500 ppm by wt in the incoming well fluids
Dehydration	75 MMscfd
Treated Seawater	250,000 bwpd
Water Injection	480,000 bwpd

ULLAGE	2019	2020	2021	2022	2023
Oil Export	G	G	G	G	G
Gas Compression	R	R	R	R	R
Gas Export	G	G	G	G	G
Gas Lift	R	R	R	R	R
Produced Water Handling	R	R	R	R	R
Gas Dehydration	R	R	R	R	R
Water Injection	R	R	R	A	A
Treated Sea Water	R	R	A	G	G

R	<5% Ullage
A	5% to < 25%
G	> 25%

ADDITIONAL INFORMATION

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