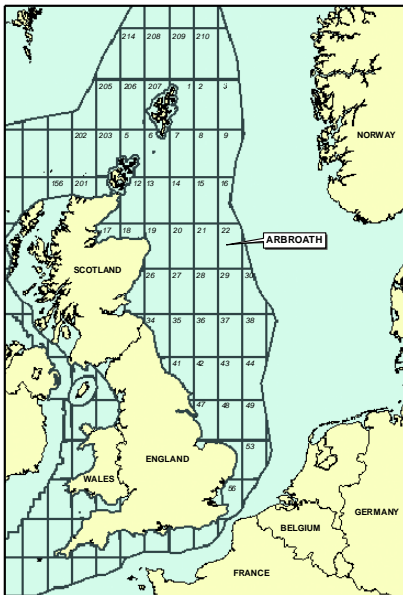


ARBROATH



Last Updated:

July 2019

The Arbroath platform is a production platform located in Block 22/17s of the United Kingdom Continental Shelf. The platform stands in 92.7 m (304 ft) of water, approximately 210 km (130 miles) east of Aberdeen in the Central North Sea and is located at latitude 57° 22' 29.84" north, longitude 01° 22' 59.36" east.

The Arbroath platform was installed in 1989 and commenced production drilling from a cantilever jack-up rig positioned alongside the installation in early 1990, with production start-up following later in 1990. The Arbroath platform is supported by a conventional cross-braced steel jacket piled into the seabed above the Arbroath reservoir. Production is from the Palaeocene sandstone at a depth of approximately 8100ft TVDSS and Fulmar Jurassic formation at a depth of approximately 11000ft TVDSS.

The Godwin field is the latest addition to production. The Godwin field development is made up of one extended reach platform well tied back to the Arbroath platform (first oil July 2015). There are two sub-sea manifolds and other installations in the vicinity of the Arbroath platform, including the Arkwright subsea development which is approximately 11.5 km (7.2 miles) south-south-east and the Brechin subsea development which is approximately 3.6 km (2.3 miles) east-south-east of the Arkwright manifold. The Montrose A platform lies 8 km (5 miles) to the north west of Arbroath and acts as a processing hub for the Montrose and Arbroath platforms.

OPERATIONAL INFORMATION

Licence	P.019, P.020, P.291, P292
Licensees	Repsol Sinopec Resources UK Limited (Op) 58.974360% Marubeni Oil & Gas (U.K.) Limited 41.025640%
Platform Type	Tubular steel structure cross braced with a centre post. The tapered structure has four legs, each of which is supported by two piles driven into the seabed.
Platform Weight	Topsides: 3,225 Tonnes Jacket: 3,861 Tonnes
Drilling	Drilling Slot: 21
Wells	Production: 12 (including Godwin well) Injection: 0
Nearest Installations	Montrose: 5 miles north west Forties field: 35 miles north west

CAPACITY AND ULLAGE PROJECTION

The platform process system is nominally designed for the following quantities:

Arbroath							
Description	Unit	Max. Cap.	Projected Ullage (% of maximum capacity)				
			2019	2020	2021	2022	2023
Production Separator	BPD	50,000	●	●	●	●	●
Arkwright Separator	BPD	13,500	●	●	●	●	●
Water/Oil Export	BPD	46,000	●	●	●	●	●

No dedicated H2S facilities installed

Available Capacities	
●	>25%
●	5% to 25%
●	<5%

PIPELINES

Oil Export	10-inch crude oil export pipeline to the Montrose platform
Oil Import	8-inch crude oil import pipeline from the Arkwright manifold
Gas Export	16-inch gas export pipeline to the Montrose platform
Gas Import	8-inch lift gas import pipeline from the Montrose platform
Water Injection	10-inch water injection import pipeline from the Montrose platform (not used)

ENTRY SPECIFICATION

Subject to discussion and negotiation

EXIT SPECIFICATION

Oil Export	No specification as processed on Montrose
Gas Export	No specification as processed on Montrose
Produced Water	No produced water as all fluids sent to Montrose