

**General information**

Wellbore name	6507/5-9 A
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Discovery	6507/5-9 S (Shrek)
Well name	6507/5-9
Seismic location	PGU18301-2006-HR / PGU18301-4014-HR
Production licence	838
Drilling operator	PGNiG Upstream Norway AS
Drill permit	1790-L
Drilling facility	DEEPSEA NORDKAPP
Drilling days	18
Entered date	28.09.2019
Completed date	15.10.2019
Plugged and abandon date	15.10.2019
Release date	15.10.2021
Publication date	10.11.2021
Purpose - planned	APPRAISAL
Reentry	NO
Content	OIL/GAS
Discovery wellbore	NO
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	FANGST GP
2nd level with HC, age	EARLY JURASSIC
2nd level with HC, formation	BÅT GP
Kelly bushing elevation [m]	32.5
Water depth [m]	358.0
Total depth (MD) [m RKB]	2230.0
Final vertical depth (TVD) [m RKB]	2167.0
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	BÅT GP
Geodetic datum	ED50
NS degrees	65° 39' 35.84" N
EW degrees	7° 38' 50.85" E
NS UTM [m]	7282861.20



EW UTM [m]	437797.13
UTM zone	32
NPDID wellbore	8899

Wellbore history



General

Well 6507/5-9 A is located approximately 5 km south of the Skarv Field in the Norwegian Sea. The main objectives of the well were to appraise the 6507/5-9 S (Shrek) discovery in the western downfaulted segment of the structure, prove additional commercial volumes in Fangst Group sandstones and secure necessary data to enable a full evaluation of the discovery.

Operations and results

Well 6507/5-9 A was entered with the semi-submersible rig Deepsea Nordkapp. The mainbore well 6507/5-9 S (Shrek) was drilled deviated to a depth of 2317 m in the Båt group and plugged back. The well 6507/5-9 A well was then side-tracked from below the 13 3/8" casing at a depth of 1106 m on 28 September 2019 and drilled to TD at 2230 (2166 m TVD) in the Early Jurassic Åre Formation. The mainbore well was drilled down to 456.5 m with seawater and sweeps and from 456.5 to 1103 m with seawater, hi-vis, and KCl/Glycol water-based mud. The side-tracked was drilled with Innovert oil-based mud down to TD.

The well 6507/5-9 A encountered the top of Fangst Group, Garn Formation, at 2108 m (2011.9 m TVD MSL) where the Garn Formation consists of sandstone. The Not Formation was penetrated at 2148 m (2051.8 m TVD MSL) and consists of sandstone and claystone, in parts silty. The Båt Group was encountered at 2156 m (2059.8 m TVD MSL) and comprises of the Tilje (2156 m, 2059.8 m TVD MSL) and Åre formations (2169 m, 2072.8 m TVD MSL) where both formations consist of sandstone with a thin coal layer. A 62.7 m hydrocarbon column was proved in the Fangst and Båt groups, 23.7 m of gas column was found in the Garn Formation and 39 m column of oil in the Garn, Not, Tilje and Åre formations. Forty-five meters of the column was in sandstone with mainly good to very good reservoir quality. The gas-oil contact (GOC) was determined from pressure gradient analysis at 2130.7 m (2034.6 m TVD MSL) and the oil-water contact (OWC) calculated from the pressure plot to be at 2169.7 m (2073.6 m TVD MSL). Both contacts came in at equivalent depth as in the discovery well. The Net-to-Gross ratio of the HC zone is calculated to be at 77.8 %. MDT fluid samples were taken at 2119 m (2022.9 m TVD MSL, gas), 2141.5 m (2045.3 m TVD MSL, oil) and 2186 m (2089.9 m TVD MSL, water). No cores were taken in the side-track, but 3 cores were cut from the primary target Garn in the mainbore.

The well was permanently plugged and abandoned on 15 October 2019 as an oil and gas appraisal well.

Testing

No drill stem test was performed.

**Cuttings at the Norwegian Offshore Directorate**

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1120.00	2230.00

Cuttings available for sampling?	YES
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Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
392	NORDLAND GP
1333	UNDIFFERENTIATED
1552	KAI FM
1791	HORDALAND GP
1791	BRYGGE FM
1886	ROGALAND GP
1886	TARE FM
1979	TANG FM
1995	SHETLAND GP
1995	SPRINGAR FM
1999	NISE FM
2068	VIKING GP
2068	MELKE FM
2108	FANGST GP
2108	GARN FM
2148	NOT FM
2156	BÅT GP
2156	TILJE FM
2169	ÅRE FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
LWD - DGR ALD ADR CTN XB PWD DIR	2075	2230
LWD - DGR EWR P4 XB PWD DIR	456	1103
LWD - DIR	391	456
LWD - GEOTAP PWD DIR	1103	2075



LWD - GP DGR EWR P4 ALD CTN XB	1103	2075
NGI PPC MSIP GR	2069	2231
USIT CBL VDL GR	2119	2206
XLR GR	2084	2186
ZAIT NEXT PEX HNGS GR	2069	2231

Casing and leak-off tests

Casing type	Casing diam. [inch]	Casing depth [m]	Hole diam. [inch]	Hole depth [m]	LOT/FIT mud eqv. [g/cm3]	Formation test type
INTERM.	9 5/8	2005.0	12 1/4	2011.0	1.67	LOT
OPEN HOLE		2166.0	8 1/2	2166.0	0.00	