



General information

Wellbore name	32/4-3 S
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	32/4-3
Seismic location	Seismic 3D survey CGG17M01 Inline 9677. Xline 22271
Production licence	921
Drilling operator	Equinor Energy AS
Drill permit	1791-L
Drilling facility	WEST HERCULES
Drilling days	34
Entered date	23.09.2019
Completed date	26.10.2019
Plugged and abandon date	26.10.2019
Release date	01.04.2020
Publication date	10.11.2021
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	31.0
Water depth [m]	292.0
Total depth (MD) [m RKB]	2017.0
Final vertical depth (TVD) [m RKB]	2000.0
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	LUNDE FM
Geodetic datum	ED50
NS degrees	60° 30' 37.59" N
EW degrees	4° 9' 8.11" E
NS UTM [m]	6708971.96
EW UTM [m]	563278.33
UTM zone	31
NPDID wellbore	8900



Wellbore history

General

Well 32/4-3 S is the replacement well for 32/4-3. It was drilled to test the Gladsheim prospect on the Horda Platform in the Stord Basin Area. The prospect is located approximately 25 km east of Troll East and 30 km from shore. The primary objective was to prove oil migration into the Sognefjord Formation and establish the corresponding fluid contacts. Secondary objective was to test the gas potential in Mid- and Early Jurassic Brent Group, Johansen Formation and Statfjord Group. A tertiary objective was to verify Late Jurassic shales sealing capacity and acquire data to confirm CO2 storage potential and to extend the well into the Lunde Formation for this reason.

Operations and results

The well had a shallow gas Class 1, based on the shallow gas experience from the main well NO 32/4-2. Acoustic logs in 32/4-2 indicated gas at a depth between 440-510 m.

Wildcat well 32/4-3 S was spudded with the semi-submersible installation West Hercules on 23 September 2019. After setting the conductor at 372.40 m, an 8 ½" pilot hole was drilled to 461 m and the well was visually flow checked and observed stable. Well was then displaced to displacement mud and the BHA lubricated to 361 m when gas bubbles were observed. The BHA was run back to TD and well displaced back to sea water and flow checked again. An increasing amount of gas was observed before displacing back to 1.30 sg mud. No water flow was observed. With a stable well the BHA was lubricated out of hole. The pilot hole was then cemented back, and a 26" section drilled to seal off the shallow gas zone with a 20" Casing. BOP was set and drilling commenced without further significant issues. TD was reached at 2017 m (2000 m TVD) m in the Late Triassic Lunde Formation. The well was drilled with sea water and hi-vis sweeps down to 435 m and with Glydril mud from 435 m to TD.

The well found no hydrocarbons in any of the targets, and all sands proved water filled. The primary target, the Sognefjord Formation, had a gross thickness of 167 m and with good reservoir properties. Apart from the shallow gas flow, gas levels were generally low throughout the well and there were no shows in the sands drilled.

Two cores were cut from 1196 to 1197.6 m and 1202.6 to 1209.5 m in the Draupne Formation to evaluate the cap rock properties and sealing capacity. Wireline logging including the Schlumberger XPT pressure tool was performed in the 8 ½" section. Water gradients were confirmed in all targets. No wire line fluid samples were taken.

The well was permanently abandoned on 25 October 2019 as a dry well.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
440.00	2017.00

Cuttings available for sampling?	YES
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**Lithostratigraphy**

Top depth [mMD RKB]	Lithostrat. unit
323	NORDLAND GP
323	UNDIFFERENTIATED
537	NORDLAND GP
537	BALDER FM
554	SHETLAND GP
554	HARDRÅDE FM
603	KYRRE FM
630	TRYGGVASON FM
720	SVARTE FM
744	CROMER KNOLL GP
744	UNDIFFERENTIATED
1101	VIKING GP
1101	DRAUPNE FM
1237	HEATHER FM
1248	SOGNEFJORD FM
1415	FENSEFJORD FM
1551	KROSSFJORD FM
1645	BRENT GP
1645	ETIVE FM
1669	DUNLIN GP
1669	DRAKE FM
1746	JOHANSEN FM
1797	AMUNDSEN FM
1823	STATFJORD GP
1823	UNDIFFERENTIATED
1847	HEGRE GP
1847	LUNDE FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CMR XPT	1192	2001
FMI SS	820	2017
HRLA PEX HNGS	1192	2017



MWD LWD - PD ARC TELE	600	1193
MWD LWD - TELE	323	374
MWD LWD - TELE ARC	374	600
MWD LWD - TELE ARC	1193	2017
MWD LWD - TELE ARC SS	374	461
VSI4 GR	598	2017
XLR	1237	1975

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
CONDUCTOR	36	372.0	42	375.0	0.00	
SURF.COND.	20	433.0	26	435.0	1.19	FIT
INTERM.	13 3/8	593.0	17 1/2	600.0	1.32	FIT
LINER	9 5/8	1192.0	12 1/4	1193.0	1.43	LOT
OPEN HOLE		2017.0	8 1/2	2017.0	0.00	