

**General information**

Wellbore name	7219/12-1 A
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	BARENTS SEA
Discovery	7219/12-1 (Filicudi)
Well name	7219/12-1
Seismic location	WG0901: Inline 986 crossline 3779
Production licence	533
Drilling operator	Lundin Norway AS
Drill permit	1650-L
Drilling facility	LEIV EIRIKSSON
Drilling days	41
Entered date	19.01.2017
Completed date	28.02.2017
Plugged date	28.02.2017
Plugged and abandon date	29.01.2018
Release date	28.02.2019
Publication date	04.04.2019
Purpose - planned	APPRAISAL
Reentry	NO
Content	OIL/GAS
Discovery wellbore	NO
1st level with HC, age	EARLY JURASSIC
1st level with HC, formation	TUBÅEN FM
2nd level with HC, age	EARLY JURASSIC
2nd level with HC, formation	NORDMELA FM
Kelly bushing elevation [m]	25.0
Water depth [m]	322.0
Total depth (MD) [m RKB]	2026.0
Final vertical depth (TVD) [m RKB]	1825.0
Maximum inclination [°]	45.2
Bottom hole temperature [°C]	61
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	FRUHOLMEN FM
Geodetic datum	ED50



NS degrees	72° 12' 44.21" N
EW degrees	19° 46' 38.32" E
NS UTM [m]	8019294.63
EW UTM [m]	662747.70
UTM zone	33
NPDID wellbore	8105

Wellbore history

General

Well 7219/12-1 A is an appraisal of the 7219/12-1 Filicudi oil and gas discovery in Late Triassic sandstones of the Tubåen Formation. The objective of the appraisal was to test the hydrocarbon potential and reservoir properties of the Early Jurassic Nordmela Formation and the Upper Triassic Tubåen Formation in the fault block to the East of the main Filicudi prospect. The appraisal should confirm pressure communication and similar hydrocarbon types and contacts as in the main wellbore.

Operations and results

Appraisal well 7219/12-1 A kicked off at 670 m from main wellbore 7119/12-1 on 19 January 2017. It was drilled with the semi-submersible installation Leiv Eriksson to TD at 2026 m (1825 m TVD) m in the Late Triassic Fruholmen Formation. Operations proceeded without significant problems. The well was drilled with Performadril water-based mud (3.2 – 3.6 % glycol) from kick-off to TD.

Top target reservoir, Early Jurassic Nordmela Formation sandstone, was encountered at 1699 m (1516.3 m TVD), overlying Late Triassic to Early Jurassic sandstone of the Tubåen Formation. The sandstones were gas and oil bearing with GOC at 1756.5 m (1568.5 m TVD) and the OWC between 1818 m to 1823.5 m (1624.5 m to 1630 m TVD). Two gas gradients were seen, the upper interval, above ca 1735 m is 2 bar less than the lower interval. The oil is heavy, with stock tank density 0.956 to 0.959 g/cm³.

Weak shows were seen in 2 SWCs in claystones at 1682 m and 1688.4 m above the reservoir. Below the reservoir cuttings had shows down to 1871 m (direct and cut fluorescence), while SWC's had oil shows down to 1910 m. The SWC shows down to 1850 were described as weak hydrocarbon odour, 30% bleeding dark brown staining, 50% patchy, moderately, orange direct fluorescence, moderately, streaming to blooming, moderate bluish white cut fluorescence, good, 90% bluish white fluorescence residue, 5% - 30% pale yellow residue. Below 1850 weaker shows without odour or stain were described.

Three cores were cut in succession from 1699 m to 1815 m with close to 100% total recovery. MDT fluid samples were taken at 1712.29 m (Gas), 1729.91 m (gas), 1751.46 m (gas), 1751.5 m (gas), 1767.2 m (oil), 1790.8 m (oil), 1796.6 m (oil), 1812.0 m (oil), 1817.2 m (water), 1817.5 m (water), 1827.2 m (water), and 1878.0 m (water).

The well was temporary abandoned on 28 February as an oil and gas appraisal.

Testing

The testing equipment on the rig was not capable of handling the heavy oil found in the well. Therefore, no DST was carried out. The well was temporary abandoned for possible testing at a later stage.

**Cuttings at the Norwegian Offshore Directorate**

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
670.00	2027.00

Cuttings available for sampling?	YES
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Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	1699.0	1723.4	[m]
2	1724.0	1760.6	[m]
3	1760.6	1814.8	[m]

Total core sample length [m]	115.1
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
347	NORDLAND GP
485	SOTBAKKEN GP
485	TORSK FM
1673	ADVENTDALEN GP
1673	KOLJE FM
1699	KAPP TOSCANA GP
1699	NORDMELA FM
1747	TUBÅEN FM
1907	FRUHOLMEN FM
1907	KRABBE MBR
2015	REKE MBR

Logs

Log type	Log top depth [m]	Log bottom depth [m]
FMI MSIP GR JAR	347	2027



HRLA PEX HNGS GR JAR	1632	2027
MDT	1712	1751
MDT	1796	1817
MSCT	1695	2000
MWD	1764	1887
MWD - NBINC RES PWD GR DIR	643	1632
MWD - PWD RES GR DIR DEN CAL N A	1552	2026
XL ROCK	1650	1740
XPT CMR ECS GR JAR	1660	1900

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	30	414.9	36	414.9	0.00	
SURF.COND.	20	654.5	26	662.0	1.36	LOT
PILOT HOLE		662.0	9 7/8	662.0	0.00	
INTERM.	9 5/8	1632.8	12 1/4	1640.0	1.40	FIT
LINER	7	2024.8	8 1/2	2026.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
460	1.03	1.0		SW	
560	1.22	16.0		KCL/Gem/Polymer	
635	1.15	13.0		Performadril	
635	1.16	12.0		Performadril	
659	1.20	14.0		Performadril	
1237	1.15	11.0		Performadril	
1336	1.20	22.0		Performadril	
1342	1.21	16.0		KCL/Gem/Polymer	
1680	1.20	23.0		Performadril	
1722	1.22	25.0		Performadril	
1724	1.21	27.0		Performadril	
1760	1.20	26.0		Performadril	
2026	1.21	15.0		KCL/Gem/Polymer	
2026	1.20	26.0		Performadril	

