



General information

Wellbore name	16/5-7
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	16/5-7
Seismic location	3D inline 2141. crossline 3265-LN12M02R16
Production licence	502
Drilling operator	Equinor Energy AS
Drill permit	1768-L
Drilling facility	TRANSOCEAN SPITSBERGEN
Drilling days	31
Entered date	12.06.2019
Completed date	12.07.2019
Plugged and abandon date	12.07.2019
Release date	12.07.2021
Publication date	10.11.2021
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	40.0
Water depth [m]	106.0
Total depth (MD) [m RKB]	2028.0
Final vertical depth (TVD) [m RKB]	2028.0
Oldest penetrated formation	BASEMENT
Geodetic datum	ED50
NS degrees	58° 42' 12.13" N
EW degrees	2° 31' 8.81" E
NS UTM [m]	6507272.11
EW UTM [m]	472133.50
UTM zone	31
NPDID wellbore	8762



Wellbore history

General

Well 16/5-7 was drilled on the Klaff prospect on the basement high just west of the southern edge of the Johan Sverdrup field in the North Sea. The objective was to prove petroleum in graben fill of pre-Cretaceous age, with potential reservoir of Late Jurassic, Triassic or Permian age, or fractured and weathered basement.

Operations and results

Wildcat well 16/5-7 was spudded with the semi-submersible installation Transocean Spitsbergen on 12 June 2019 and drilled to TD at 2028 m, 112 m into basement rock. Operations proceeded without significant problems. The well was drilled with seawater and hi-vis pills down to 1128 m and with KCl/polymer/GEM mud from 1128 to TD.

The Jurassic section was absent. Base of the Early Cretaceous Åsgard Formation rests unconformably on fractured and weathered basement rock at 1916 m. No shows were observed on drilled cuttings from well 16/5-7. Good oil shows (with fluorescence, cut, oil odour and stains) were observed from 1918 to 1940 m in the core chips from the first three cores. The log readings in Basement are hard to interpret as the granite is rather tight. Pressure points indicate an oil gradient, but fluid samples showed that the formation was water bearing. The measured gas was very low throughout the well, with less than 1% recorded.

Four cores were cut in the interval 1911 to 1949 m with 86.2% overall recovery. RCX fluid samples were taken at 1926 m (water), and 1934 m (water).

The well was permanently abandoned on 12 July 2019 as a well with shows.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1130.00	2028.00

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	1911.0	1921.4	[m]
2	1926.3	1933.7	[m]
3	1933.7	1940.3	[m]
4	1940.6	1948.9	[m]



Total core sample length [m]	32.8
Cores available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1130.0	[m]	DC	CGG
1190.0	[m]	DC	CGG
1250.0	[m]	DC	CGG
1310.0	[m]	DC	CGG
1370.0	[m]	DC	CGG
1430.0	[m]	DC	CGG
1480.0	[m]	DC	CGG
1500.0	[m]	DC	CGG
1520.0	[m]	DC	CGG
1540.0	[m]	DC	CGG
1560.0	[m]	DC	CGG
1580.0	[m]	DC	CGG
1600.0	[m]	DC	CGG
1720.0	[m]	DC	CGG
1760.0	[m]	DC	CGG
1780.0	[m]	DC	CGG
1800.0	[m]	DC	CGG
1820.0	[m]	DC	CGG
1855.0	[m]	DC	CGG
1858.0	[m]	DC	CGG
1861.0	[m]	DC	CGG
1864.0	[m]	DC	CGG
1867.0	[m]	DC	CGG
1870.0	[m]	DC	CGG
1873.0	[m]	DC	CGG
1876.0	[m]	DC	CGG
1879.0	[m]	DC	CGG
1882.0	[m]	DC	CGG
1885.0	[m]	DC	CGG
1888.0	[m]	DC	CGG
1891.0	[m]	DC	CGG
1894.0	[m]	DC	CGG
1897.0	[m]	DC	CGG



1900.0	[m]	DC	CGG
1903.0	[m]	DC	CGG
1906.0	[m]	DC	CGG
1909.0	[m]	DC	CGG

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
146	NORDLAND GP
779	UTSIRA FM
938	HORDALAND GP
1025	SKADE FM
1095	UNDIFFERENTIATED
1493	ROGALAND GP
1493	BALDER FM
1506	SELE FM
1531	LISTA FM
1561	VÅLE FM
1573	SHETLAND GP
1573	EKOFISK FM
1681	TOR FM
1771	HOD FM
1822	BLODØKS FM
1826	SVARTE FM
1841	CROMER KNOLL GP
1841	RØDBY FM
1906	SOLA FM
1908	ÅSGARD FM
1916	BASEMENT

Logs

Log type	Log top depth [m]	Log bottom depth [m]
FTX DSL FLX MRX	1700	2025
DSL CN ZDL XMAC RX MLL	100	2026
GR STAR HD UXPL	1840	2020
MWD LWD - DGR ADR PWC PCDC	1592	2028
MWD LWD - DGR EWR P4 PWD ABG PCD	1128	1592



MWD LWD - DGR EWR P4 PWD PCDC	212	1128
RCX EXL SP	1920	1934
VSP	70	1945

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	208.2	42	212.0	0.00	
SURF.COND.	13 3/8	1122.8	17 1/2	1128.0	1.58	FIT
LINER	9 5/8	1591.0	12 1/4	1592.0	1.55	FIT
OPEN HOLE		2028.0	8 1/2	2028.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1592	1.20	14.0		KCl/Polymer/GEM	
1635	1.21	13.0		KCl/Polymer/GEM	
1837	1.16	11.0		KCl/Polymer/GEM	
1911	1.28	16.0		KCl/Polymer/GEM	
1911	1.16	13.0		KCl/Polymer/GEM	
1926	1.28	15.0		KCl/Polymer/GEM	
1940	1.30	17.0		KCl/Polymer/GEM	
2028	1.30	18.0		KCl/Polymer/GEM	