



General information





Wellbore name	16/2-17 B
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Field	JOHAN SVERDRUP
Discovery	16/2-6 Johan Sverdrup
Well name	16/2-17
Seismic location	inline 4273 & crossline 3224(On 3D cube LN0902STR11)
Production licence	265
Drilling operator	Statoil Petroleum AS
Drill permit	1448-L
Drilling facility	OCEAN VANGUARD
Drilling days	28
Entered date	20.05.2013
Completed date	16.06.2013
Release date	16.06.2015
Publication date	16.06.2015
Purpose - planned	APPRAISAL
Reentry	NO
Content	SHOWS
Discovery wellbore	NO
1st level with HC, age	PRE-DEVONIAN
Kelly bushing elevation [m]	22.0
Water depth [m]	111.0
Total depth (MD) [m RKB]	2200.0
Final vertical depth (TVD) [m RKB]	1937.0
Maximum inclination [°]	36
Oldest penetrated formation	BASEMENT
Geodetic datum	ED50
NS degrees	58° 48' 15.92" N
EW degrees	2° 31' 46.03" E
NS UTM [m]	6518520.01
EW UTM [m]	472811.62
UTM zone	31
NPDID wellbore	7175



Wellbore history

General

Well 16/2-17 B is a geological sidetrack to well 16/2-17 S. The sidetrack targeted the Cliffhanger South prospect on the western side of the main western bounding fault on the Johan Sverdrup Discovery. The primary objective of 16/2-17 B was to investigate whether the Intra-Draupne Formation sandstone is present west of the main bounding fault. A secondary objective was to investigate the hydrocarbon potential of the Basement, which is expected to be directly beneath the Jurassic reservoir.

Operations and results

Appraisal sidetrack well 16/2-17 B was drilled with the semi-submersible installation Ocean Vanguard. It was kicked off from 600 m in the primary well bore on 20 May 2013 and drilled to TD at 2200 m (1937 m TVD) in pre-Devonian granitic basement. No significant problem was encountered in the operations. The well was drilled with XP-07 oil based mud.

This well did not encounter any Jurassic strata, nor any sands with potential reservoir properties. The top of the Basement was encountered at 2133 m, which was 23 m TVD deeper than prognosed. The granitic Basement contained hydrocabons; however, the fractured top was disappointing concerning reservoir properties. Apart from the shows in top of the granitic basement, no oil shows above the oil-based mud were recorded in the well.

Three cores were cut through the target prospect, from 2087 in the Rødby Formation to 2144.5 m in the Basement. The basement core recovered 70.5% (including ca 7.6 m of the basement); the two others had 100% recovery. MDT pressure evaluation was attempted at four depths in the top of the basement without success due to tight rock. No fluid samples were taken.

The well was permanently abandoned on 16 May 2013 as a dry 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]
620.00	2200.00

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	2087.0	2114.5	[m]



2	2114.5	2130.5	[m]
3	2130.5	2140.5	[m]

Total core sample length [m]	53.5
Cores available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
650.0	[m]	DC	FUGRO
660.0	[m]	DC	FUGRO
670.0	[m]	DC	FUGRO
680.0	[m]	DC	FUGRO
690.0	[m]	DC	FUGRO
700.0	[m]	DC	FUGRO
710.0	[m]	DC	FUGRO
720.0	[m]	DC	FUGRO
730.0	[m]	DC	FUGRO
740.0	[m]	DC	FUGRO
750.0	[m]	DC	FUGRO
760.0	[m]	DC	FUGRO
770.0	[m]	DC	FUGRO
780.0	[m]	DC	FUGRO
790.0	[m]	DC	FUGRO
800.0	[m]	DC	FUGRO
810.0	[m]	DC	FUGRO
820.0	[m]	DC	FUGRO
830.0	[m]	DC	FUGRO
840.0	[m]	DC	FUGRO
850.0	[m]	DC	FUGRO
860.0	[m]	DC	FUGRO
870.0	[m]	DC	FUGRO
880.0	[m]	DC	FUGRO
890.0	[m]	DC	FUGRO
900.0	[m]	DC	FUGRO
910.0	[m]	DC	FUGRO
920.0	[m]	DC	FUGRO
930.0	[m]	DC	FUGRO
940.0	[m]	DC	FUGRO



950.0 [m]	DC	FUGRO
960.0 [m]	DC	FUGRO
970.0 [m]	DC	FUGRO
980.0 [m]	DC	FUGRO
990.0 [m]	DC	FUGRO
1000.0 [m]	DC	FUGRO
1010.0 [m]	DC	FUGRO
1020.0 [m]	DC	FUGRO
1030.0 [m]	DC	FUGRO
1040.0 [m]	DC	FUGRO
1050.0 [m]	DC	FUGRO
1060.0 [m]	DC	FUGRO
1070.0 [m]	DC	FUGRO
1080.0 [m]	DC	FUGRO
1090.0 [m]	DC	FUGRO
1100.0 [m]	DC	FUGRO
1110.0 [m]	DC	FUGRO
1120.0 [m]	DC	FUGRO
1130.0 [m]	DC	FUGRO
1140.0 [m]	DC	FUGRO
1150.0 [m]	DC	FUGRO
1160.0 [m]	DC	FUGRO
1170.0 [m]	DC	FUGRO
1190.0 [m]	DC	FUGRO
1210.0 [m]	DC	FUGRO
1230.0 [m]	DC	FUGRO
1250.0 [m]	DC	FUGRO
1270.0 [m]	DC	FUGRO
1290.0 [m]	DC	FUGRO
1310.0 [m]	DC	FUGRO
1330.0 [m]	DC	FUGRO
1350.0 [m]	DC	FUGRO
1370.0 [m]	DC	FUGRO
1390.0 [m]	DC	FUGRO
1410.0 [m]	DC	FUGRO
1430.0 [m]	DC	FUGRO
1450.0 [m]	DC	FUGRO
1470.0 [m]	DC	FUGRO
1490.0 [m]	DC	FUGRO
1510.0 [m]	DC	FUGRO



1530.0 [m]	DC	FUGRO
1550.0 [m]	DC	FUGRO
1570.0 [m]	DC	FUGRO
1590.0 [m]	DC	FUGRO
1610.0 [m]	DC	FUGRO
1630.0 [m]	DC	FUGRO
1650.0 [m]	DC	FUGRO
1670.0 [m]	DC	FUGRO
1690.0 [m]	DC	FUGRO
1710.0 [m]	DC	FUGRO
1730.0 [m]	DC	FUGRO
1750.0 [m]	DC	FUGRO
1770.0 [m]	DC	FUGRO
1870.0 [m]	DC	FUGRO
2087.0 [m]	C	FUGRO
2091.5 [m]	C	FUGRO
2095.8 [m]	C	FUGRO
2100.0 [m]	C	FUGRO
2103.8 [m]	C	FUGRO
2106.1 [m]	C	FUGRO
2106.2 [m]	C	FUGRO
2111.0 [m]	C	FUGRO
2114.5 [m]	C	FUGRO
2118.0 [m]	C	FUGRO
2124.0 [m]	C	FUGRO
2125.3 [m]	C	FUGRO

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
133	NORDLAND GP
814	UTSIRA FM
830	UNDIFFERENTIATED
920	NO FORMAL NAME
971	HORDALAND GP
1033	SKADE FM
1099	UNDIFFERENTIATED
1140	NO FORMAL NAME
1220	UNDIFFERENTIATED



1642	ROGALAND GP
1642	BALDER FM
1679	SELE FM
1712	LISTA FM
1757	VÅLE FM
1775	SHETLAND GP
1775	EKOFISK FM
1777	TOR FM
1916	HOD FM
2028	BLODØKS FM
2038	SVARTE FM
2069	CROMER KNOLL GP
2069	RØDBY FM
2130	ÅSGARD FM
2133	BASEMENT

Logs

Log type	Log top depth [m]	Log bottom depth [m]
HNGS PEX ONMI2 UBI	1780	2196
MDT PR MINIDST	2133	2140
MSIP AIT	1321	2205
MWD - PD ARCVRES6	2087	2200
MWD - PD GVR6 ARCVRES6	1784	2087
MWD - PD X6 GR RES ECD DIR	616	1784

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.	13 3/8	600.0		0.0	0.00	
INTERM.	9 5/8	1780.0	12 1/4	1784.0	0.00	
OPEN HOLE		2200.0	8 1/2	2200.0	0.00	

Drilling mud



Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
613	1.35	20.0		XP-07 - Yellow	
1208	1.45	40.0		XP-07 - Yellow	
1761	1.22	16.0		XP-07 - Yellow	
1787	1.20	14.0		XP-07 - Yellow	
1800	1.22	17.0		XP-07 - Yellow	
2136	1.21	20.0		XP-07 - Yellow	
2200	1.20	23.0		XP-07 - Yellow	