



General information

Wellbore name	7121/7-2
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	BARENTS SEA
Field	SNØHVIT
Discovery	7121/7-2 (Albatross Sør)
Well name	7121/7-2
Seismic location	ST 8412 - 320 SP. 520
Production licence	100
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	520-L
Drilling facility	ROSS ISLE
Drilling days	37
Entered date	07.07.1986
Completed date	12.08.1986
Release date	12.08.1988
Publication date	11.02.2005
Purpose - planned	WILDCAT
Reentry	NO
Content	GAS
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	STØ FM
Kelly bushing elevation [m]	22.0
Water depth [m]	325.0
Total depth (MD) [m RKB]	2156.0
Final vertical depth (TVD) [m RKB]	2155.0
Maximum inclination [°]	2.8
Bottom hole temperature [°C]	74
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	FRUHOLMEN FM
Geodetic datum	ED50
NS degrees	71° 26' 37.91" N
EW degrees	21° 3' 21.42" E
NS UTM [m]	7927117.40
EW UTM [m]	501987.36



UTM zone	34
NPDID wellbore	881

Wellbore history

General

Well 7121/7-2 was drilled on the Beta structure on Tromsøflaket, 3.4 km south of well 7121/7-1. It was designed to test the hydrocarbon potential in Middle to Lower Jurassic sandstones. Planned total depth was in rocks of Triassic age.

Operations and results

Wildcat well 7121/7-2 was spudded with the semi-submersible installation Ross Isle on 7 July 1986 and drilled to TD at 2156 m in the Late Triassic Fruholmen Formation. At 871 m in the 17 1/2" section the string parted and 9.5 hours was spent fishing to retrieve the lost equipment. At 1698 m, TD in the 17 1/2" section a H₂S alarm occurred with 28 ppm H₂S in the mud gas. The problem was cured by placing spud mud with a concentration of 15 kg/m³ of ZnCO₃ behind 13-3/8" casing to prevent H₂S growing in mud. The well was drilled with spud mud down to 667 m and with polymer/"Shale-Trol" mud from 667 m to TD. The well acted as a pilot well for testing this mud on Tromsøflaket. The main reason for using this mud system was that it was expected to stable the hole through sections that from previous experience had proven to cause tight-hole problems. The mud performed better than the ordinary gypsum/polymer mud previously used in the area, but total costs were higher and it was thus not considered a success.

Hydrocarbon bearing Middle Jurassic sandstones (Stø Formation) were encountered at 1881.5 m. The gas/water contact in this well was recognized at 1914.4 m, ca 12 m deeper than in the 7120/9-1 Albatross Discovery. The gas zone, 1881.5 m to 1914.4 m, consists of an interbedded silt, shale and very fine sandstone sequence with good reservoir properties. Two cores were cut in the Stø Formation over the interval 1903 m to 1939 m, (1889 m to 1935 m, loggers depth). Three FMT samples were collected, one at 1884.5 m and two at 1899 m.

The well was permanently abandoned as a gas discovery on 12 August 1986.

Testing

The interval 1881.8 m to 1889.9 m was perforated and production tested. The test produced on average 527000 Sm³ gas and 28 Sm³ condensate pr day through a 15.8 mm choke during the main flow. This gives a GOR of ca 18800 Sm³/Sm³. The CO₂ content was 8 %. No H₂S was detected.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
430.00	2160.00

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	1903.0	1927.2	[m]
2	1928.5	1939.5	[m]

Total core sample length [m]	35.2
Cores available for sampling?	YES

Core photos


1903-1908m



1908-1913m



1913-1918m



1918-1923m



1923-1927m



1928-1933m



1933-1938m



1938-1939m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
909.0	[m]	SWC	GEAR
925.0	[m]	SWC	GEAR
926.5	[m]	SWC	GEAR
1007.0	[m]	SWC	GEAR
1034.0	[m]	SWC	GEAR
1091.0	[m]	SWC	GEAR
1149.2	[m]	SWC	GEAR
1176.0	[m]	SWC	GEAR
1291.0	[m]	SWC	GEAR
1349.5	[m]	SWC	GEAR
1379.5	[m]	SWC	GEAR



1405.0 [m]	SWC	GEAR
1433.0 [m]	SWC	GEAR
1461.0 [m]	SWC	GEAR
1519.0 [m]	SWC	GEAR
1550.0 [m]	SWC	GEAR
1556.0 [m]	SWC	GEAR
1615.9 [m]	SWC	GEAR
1722.5 [m]	SWC	GEAR
1729.0 [m]	SWC	GEAR
1732.0 [m]	SWC	GEAR
1807.0 [m]	SWC	GEAR
1812.0 [m]	SWC	GEAR
1817.0 [m]	SWC	GEAR
1824.0 [m]	SWC	GEAR
1831.0 [m]	SWC	GEAR
1841.0 [m]	SWC	GEAR
1848.0 [m]	SWC	GEAR
1858.0 [m]	SWC	GEAR
1862.0 [m]	SWC	GEAR
1868.0 [m]	SWC	GEAR
1877.0 [m]	SWC	GEAR
1895.8 [m]	SWC	GEAR
1911.0 [m]	SWC	GEAR
1914.2 [m]	SWC	GEAR
1915.6 [m]	SWC	GEAR
1918.8 [m]	SWC	GEAR
1921.5 [m]	SWC	GEAR
1924.6 [m]	SWC	GEAR
1929.3 [m]	SWC	GEAR
1932.7 [m]	SWC	GEAR
1934.4 [m]	SWC	GEAR
1991.0 [m]	SWC	GEAR
1999.0 [m]	SWC	GEAR
2048.0 [m]	SWC	GEAR
2062.0 [m]	SWC	GEAR
2087.0 [m]	SWC	GEAR
2110.5 [m]	SWC	GEAR
2114.0 [m]	SWC	GEAR
2119.0 [m]	SWC	GEAR
2124.0 [m]	SWC	GEAR



2143.0	[m]	SWC	GEAR
2149.0	[m]	SWC	GEAR

Oil samples at the Norwegian Offshore Directorate

Test type	Bottle number	Top depth MD [m]	Bottom depth MD [m]	Fluid type	Test time	Samples available
DST	DST1	2180.00	2153.00		07.08.1986 - 00:00	YES
FMT		0.00	1899.00		01.08.1986 - 00:00	YES
MDT		0.00	0.00			YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
347	NORDLAND GP
430	SOTBAKKEN GP
430	TORSK FM
889	NYGRUNNEN GP
889	KVEITE FM
923	ADVENTDALEN GP
923	KOLMULE FM
1578	KOLJE FM
1728	KNURR FM
1806	HEKKINGEN FM
1880	FUGLEN FM
1882	KAPP TOSCANA GP
1882	STØ FM
1938	NORDMELA FM
2028	TUBÅEN FM
2073	FRUHOLMEN FM

Composite logs

Document name	Document format	Document size [MB]
881	pdf	0.18



**Geochemical information**

Document name	Document format	Document size [MB]
881_1	pdf	0.26

Documents - older Norwegian Offshore Directorate WDSS reports and other related documents

Document name	Document format	Document size [MB]
881_01_WDSS_General_Information	pdf	0.24
881_02_WDSS_completion_log	pdf	0.19

Documents - reported by the production licence (period for duty of secrecy expired)

Document name	Document format	Document size [MB]
881_7121_7_2_COMPLETION_REPORT_AND_LOG	pdf	17.56

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	1882	1899	15.9

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0		14.000		

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	28	527000	0.775	0.780	18800

Logs





Log type	Log top depth [m]	Log bottom depth [m]
ACBL VDL	345	1677
ACBL VDL	1264	1400
ACBL VDL	1671	1925
CDL DNL GR CAL	1677	2154
COREGUN	875	1615
COREGUN	1712	2150
DIFL BHC AC CDL GR SP CAL	654	1628
DIFL BHC AC GR SP CAL	345	675
DIFL BHC AC GR SP CAL	1600	2155
DLL MLL GR	1870	2004
FMT	1882	2068
FMT	1899	1899
FMT	1899	1899
HR DIP	1677	2154
MWD - GR RES	428	674
RLL - GR RES	1680	2028
VSP	405	2140

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	422.0	36	426.0	0.00	LOT
SURF.COND.	20	654.0	26	675.0	1.74	LOT
INTERM.	13 3/8	1680.0	17 1/2	1698.0	1.53	LOT
INTERM.	9 5/8	2156.0	12 1/4	2156.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
425	1.08			WATER BASED	
678	1.10	1100.0		WATER BASED	
795	1.11	1500.0		WATER BASED	
1296	1.14	21.0		WATER BASED	
1680	1.20	2000.0		WATER BASED	
1850	1.26	1500.0		WATER BASED	



1939	1.25	1800.0		WATER BASED	
2114	1.26	1800.0		WATER BASED	
2156	1.25	1800.0		WATER BASED	

Pressure plots

The pore pressure data is sourced from well logs if no other source is specified. In some wells where pore pressure logs do not exist, information from Drill stem tests and kicks have been used. The data has been reported to the NPD, and further processed and quality controlled by IHS Markit.

Document name	Document format	Document size [MB]
881 Formation pressure (Formasjonstrykk)	pdf	0.25

