

**General information**

Wellbore name	7120/12-4
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	BARENTS SEA
Well name	7120/12-4
Seismic location	NH 8003-412 SP.448 & NH 8003-204 SP.1477
Production licence	061
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	404-L
Drilling facility	TREASURE SCOUT
Drilling days	59
Entered date	18.02.1984
Completed date	16.04.1984
Release date	16.04.1986
Publication date	11.02.2005
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	23.0
Water depth [m]	152.0
Total depth (MD) [m RKB]	2199.0
Final vertical depth (TVD) [m RKB]	2198.0
Maximum inclination [°]	2.5
Bottom hole temperature [°C]	51
Oldest penetrated age	LATE CARBONIFEROUS
Oldest penetrated formation	UGLE FM
Geodetic datum	ED50
NS degrees	71° 3' 1.13" N
EW degrees	20° 42' 32.16" E
NS UTM [m]	7883245.96
EW UTM [m]	489450.11
UTM zone	34
NPDID wellbore	99



Wellbore history

General

Wildcat well 7120/12-4 is located on the northern margin of the Finmark Platform ca 9 km south of the 7120/12-2 gas discovery. The primary objective of the well was to test a sandstone reservoir of Late Permian age on the platform area. The reservoir prospect was seen as merging of two shale/limestone units separated by the reservoir sandstone. These shale units were seen on the seismic as the "platform" event and the "sub crop" event at 1160 ms and 1260 ms respectively. The sub crop event was interpreted as a carbonate shelf edge and the reservoir as being composed of shallow marine sandstones. The cap rock was the massive overlying Triassic shale and the trap was sourced by migration from mature Late Triassic and Permian shales in the Hammerfest basin. Basement was prognosed at 2430 m.

Operations and results

Well 7120/12-4 was spudded with the semi-submersible installation Treasure Scout on 18 February 1984 and drilled to TD at 2199 m in the Late Carboniferous Ugle Formation. No significant problems occurred during operations. The well was drilled with seawater and hi-vis pills down to 666 m and with KCl/polymer/gypsum mud from 666 m to TD.

The well penetrated an interval of Quaternary to Tertiary age sediments, which directly overlay rocks of Middle to Late Triassic age (Snadd Formation) at 435 m. A Late Permian succession was penetrated from 1366 m to 2118 m and consisted of alternating beds of claystone/siltstone/sandstone (Ørret Formation) and cherty limestone (Røye Formation). The "platform" event was penetrated at 1469 m and correlate with a 33 m thick Røye sequence. The prognosed reservoir was encountered at 1502 m and was composed of fine to occasionally very coarse-grained sandstone belonging to the Ørret Formation. The reservoir was water bearing with a gross interval of 56 m and net sand was 55 m. Average calculated porosity was 18 %. The sub crop event was a second Røye sequence at 1648 m. The Permian succession rests unconformably on the Late Carboniferous Ugle Formation at 2118 m. No hydrocarbons were seen on the logs and no shows were recorded. Geochemical studies indicate that the sediments are immature down to somewhere between 1500 m to 1700 m where Tmax reaches values in the range 430 °C to 435 °C and vitrinite reflectance readings are in the range 0.5 to 0.6 %Ro. All shale samples from the interval 1740 m to 1900 m have TOC values in the range 1.3% to 2.2% and this is the potentially most prolific source rock interval in the well. The hydrogen index in these shales is moderate: 68 to 168 mg HC/g TOC. All in all, the source rocks penetrated in well position are regarded as gas prone and with moderate potential, at best. A total of three conventional cores were taken in the well for lithological and reservoirs studies. One was cut in the reservoir interval between 1514 m and 1532 m, one in the "platform event" limestone and the final core was cut at TD. No RFT's were run in the well, and thus no fluid sample taken.

The well was permanently abandoned as dry on 16 April 1984.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate



Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
240.00	2198.00

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	1514.0	1532.0	[m]
2	1654.0	1661.1	[m]
3	2182.0	2199.0	[m]

Total core sample length [m]	42.1
Cores available for sampling?	YES

Core photos

1514-1519m



1519-1524m



1524-1529m



1529-1532m



1654-1658m



1658-1661m



2182-2186m



2186-2191m



2191-2196m



2196-2199m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
400.0	[m]	DC	OD
440.0	[m]	DC	OD
450.0	[m]	DC	OD
470.0	[m]	DC	OD
490.0	[m]	DC	OD



500.0	[m]	DC	OD
520.0	[m]	DC	OD
540.0	[m]	DC	OD
565.0	[m]	DC	OD
580.0	[m]	DC	OD
600.0	[m]	DC	OD
620.0	[m]	DC	OD
640.0	[m]	DC	OD
660.0	[m]	DC	OD
685.0	[m]	DC	OD
690.0	[m]	DC	OD
708.0	[m]	DC	OD
730.0	[m]	DC	OD
745.0	[m]	DC	OD
770.0	[m]	DC	OD
790.0	[m]	DC	OD
810.0	[m]	DC	OD
820.0	[m]	SWC	OD
850.0	[m]	DC	OD
860.0	[m]	SWC	OD
880.0	[m]	SWC	OD
890.0	[m]	DC	OD
921.0	[m]	SWC	OD
955.0	[m]	SWC	OD
970.0	[m]	DC	OD
1000.0	[m]	SWC	OD
1050.0	[m]	DC	OD
1090.0	[m]	SWC	OD
1150.0	[m]	DC	OD
1196.0	[m]	SWC	OD
1210.0	[m]	DC	OD
1216.0	[m]	SWC	OD
1240.0	[m]	SWC	OD
1250.0	[m]	DC	OD
1275.0	[m]	SWC	OD
1290.0	[m]	DC	OD
1315.0	[m]	SWC	OD
1330.0	[m]	DC	OD
1342.0	[m]	SWC	OD
1350.0	[m]	DC	OD



1370.0 [m]	DC	OD
1380.0 [m]	SWC	OD
1390.0 [m]	DC	OD
1416.0 [m]	SWC	OD
1428.0 [m]	SWC	OD
1430.0 [m]	DC	OD
1470.0 [m]	DC	OD
1510.0 [m]	DC	OD
1532.0 [m]	C	OD
1562.0 [m]	SWC	OD
1570.0 [m]	DC	OD
1630.0 [m]	DC	OD
1657.2 [m]	C	OD
1690.0 [m]	DC	OD
1695.0 [m]	SWC	OD
1724.0 [m]	SWC	OD
1730.0 [m]	DC	OD
1750.0 [m]	DC	OD
1778.0 [m]	SWC	OD
1790.0 [m]	DC	OD
1810.0 [m]	DC	OD
1815.0 [m]	SWC	OD
1830.0 [m]	DC	OD
1850.0 [m]	DC	OD
1870.0 [m]	DC	OD
1890.0 [m]	DC	OD
1930.0 [m]	DC	OD
1950.0 [m]	DC	OD
1990.0 [m]	DC	OD
2030.0 [m]	DC	OD
2060.0 [m]	SWC	OD
2070.0 [m]	DC	OD
2110.0 [m]	DC	OD
2152.0 [m]	SWC	OD
2170.0 [m]	DC	OD

Lithostratigraphy



Top depth [mMD RKB]	Lithostrat. unit
175	NORDLAND GP
435	KAPP TOSCANA GP
435	SNADD FM
485	SASSENDALEN GP
485	KOBBE FM
685	KLAPPMYSS FM
992	HAVERT FM
1366	TEMPELFJORDEN GP
1366	ØRRET FM
1469	RØYE FM
1502	ØRRET FM
1648	RØYE FM
1688	ØRRET FM
1700	RØYE FM
1728	ØRRET FM
2003	RØYE FM
2118	GIPSDALEN GP
2118	UGLE FM

Composite logs

Document name	Document format	Document size [MB]
99	pdf	0.43

Geochemical information

Document name	Document format	Document size [MB]
99_1	pdf	3.92

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

Document name	Document format	Document size [MB]
99_01_WDSS_General_Information	pdf	0.16





99 02 WDSS completion log	pdf	0.24
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Documents - reported by the production licence (period for duty of secrecy expired)

Document name	Document format	Document size [MB]
99 01 Completion Report	pdf	6.01
99 02 Completion log	pdf	1.66

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL	438	1177
CST	673	1196
CST	1205	1440
CST	1453	1960
CST	1488	2167
ISF LSS GR SP	150	2200
LDT CNL GR CAL	237	664
LDT CNL NGT CAL	652	2201
SHDT	652	2205
VELOCITY	440	2195

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	237.0	36	237.0	0.00	LOT
SURF.COND.	20	653.0	26	666.0	2.40	LOT
INTERM.	13 3/8	1185.0	17 1/2	1199.0	2.43	LOT
OPEN HOLE		2199.0	12 1/4	2199.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
450	1.09	59.0		WATER BASED	
600	1.12	57.0		WATER BASED	





800	1.16	49.0		WATER BASED	
1205	1.27	44.0		WATER BASED	
1775	1.20	46.0		WATER BASED	

Thin sections at the Norwegian Offshore Directorate

Depth	Unit
2182.70	[m]
1516.95	[m]
2190.20	[m]
1520.50	[m]
1530.02	[m]
1531.52	[m]
2183.27	[m]
1519.95	[m]
1525.88	[m]
1654.65	[m]
1657.95	[m]
1661.05	[m]
1514.10	[m]
1515.32	[m]
1518.60	[m]
1517.80	[m]
1525.90	[m]
1532.00	[m]
1654.75	[m]
1655.70	[m]