



General information

Wellbore name	10/5-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	10/5-1
Seismic location	
Production licence	015
Drilling operator	Conoco Norway Inc.
Drill permit	156-L
Drilling facility	NORJARL
Drilling days	27
Entered date	31.05.1976
Completed date	26.06.1976
Release date	26.06.1978
Publication date	22.04.2005
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	24.0
Water depth [m]	98.0
Total depth (MD) [m RKB]	1843.0
Maximum inclination [°]	0.75
Bottom hole temperature [°C]	52
Oldest penetrated age	PRE-DEVONIAN
Oldest penetrated formation	BASEMENT
Geodetic datum	ED50
NS degrees	57° 34' 51.9" N
EW degrees	5° 35' 25" E
NS UTM [m]	6385172.72
EW UTM [m]	654878.47
UTM zone	31
NPDID wellbore	306

**Wellbore history****General**

Well 10/5-1 was designed to test a tilted fault block with an overlying pinch out trap in the eastern part of the Norwegian-Danish basin. The primary objective was Rotliegendes sands. A probable 460 m gross thickness was anticipated. A secondary objective was Middle Jurassic sandstones with an estimated gross thickness of 61 metres. Other possible objectives were the Early Cretaceous sandstones and Basal Zechstein carbonates.

The well is Illustration Well for the Børglum Unit of the BoknFjord Group.

Operations and results

Exploration well 10/5-1 was spudded with the semi-submersible installation Norjarl on 31 May 1976 and drilled to TD at 1843 m in crystalline granite dated by the potassium-argon method to apparently 689 ± 21 My (Late Precambrian). After drilling the 36" section to 189 m the hole had washed out under the temporary guide base. The guide base sank 26 feet below the mud line and the 30" casing could not be stabbed through the guide base. The rig was moved 38 m and the hole was respudded. The well was drilled with seawater / gel down to 501 m, with Inpac polymer mud from 501 m to 1768.2 m, and with lignosulphonate mud from 1768.2 m to TD.

The well penetrated a gross thickness of 67 metres of Middle Jurassic (Sandnes Formation) sandstones from 1472 m to 1539 m. Porosity was good, but there were no hydrocarbon indications while drilling, and subsequent log analysis confirmed that the objective horizons were water wet. Triassic sandstones were also encountered, but these were extremely shaley, and had no clean sandstone sections. Rotliegendes sandstones were not present at the 10/5-1 location. The base of the Zechstein interval was represented by a clear, white, light brown, hard, very angular sandstone, cemented with siliceous cement and extremely tight. Organic geochemical analyses found fair to rich TOC (1 - 5%) in the Early Cretaceous and Late Jurassic and possibly in some Permian shales. The Permian TOC could be caved Late Jurassic material. Rock-Eval pyrolysis of the high-TOC samples gave low S₂ yields, so the kerogen has low hydrocarbon potential and is most likely gas prone. The entire well was found to be immature. Minor amounts of migrant hydrocarbons were detected by the geochemical analyses in the late Jurassic and the Cretaceous.

A junk basket core was recovered from 533.4 m to 534.3 m. No conventional core was cut. Thirty sidewall cores were attempted over the interval 1250 m to 1812 m. Eighteen of these were recovered. No fluid samples were taken.

The well was permanently abandoned on 26 June 1976 as a dry hole.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
192.00	1842.00

Cuttings available for sampling?	NO
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**Lithostratigraphy**

Top depth [mMD RKB]	Lithostrat. unit
122	NORDLAND GP
190	HORDALAND GP
270	ROGALAND GP
270	BALDER FM
290	LISTA FM
327	VÅLE FM
335	SHETLAND GP
335	EKOFISK FM
428	TOR FM
535	HOD FM
1025	BLODØKS FM
1040	HIDRA FM
1046	CROMER KNOLL GP
1046	RØDBY FM
1093	SOLA FM
1139	ÅSGARD FM
1275	BOKNEFJORD GP
1275	FLEKKEFJORD FM
1335	SAUDA FM
1396	BØRGLUM UNIT
1472	VESTLAND GP
1472	SANDNES FM
1490	BRYNE FM
1524	NO GROUP DEFINED
1524	GASSUM FM
1539	NO GROUP DEFINED
1539	SKAGERRAK FM
1561	SMITH BANK FM
1597	ZECHSTEIN GP
1818	BASEMENT

Composite logs

Document name	Document format	Document size [MB]
306	pdf	0.19





Geochemical information

Document name	Document format	Document size [MB]
306_1	pdf	1.57
306_2	pdf	1.80

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

Document name	Document format	Document size [MB]
306_01_WDSS_General_Information	pdf	0.28

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

Document name	Document format	Document size [MB]
306_01_Final_well_report	pdf	5.40
306_02_Composite_well_log	pdf	1.62
306_03_Results_of_Potassium_Argon_Dating_1976	pdf	2.10
306_04_The_Biostratigraphy_of_the_Interval_186-1842m	pdf	2.95

Logs

Log type	Log top depth [m]	Log bottom depth [m]
BHCS GR	184	497
CST	533	534
FDC CNL CAL	1222	1838
HDT	1222	1842
ISF SONIC GR SP	450	1234
ISF SONIC GR SP	1222	1844
VELOCITY	350	1817

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	183.0	36	185.0	0.00	LOT
SURF.COND.	20	488.0	26	490.0	0.00	LOT
INTERM.	13 3/8	1221.0	17 1/2	1222.0	0.00	LOT
OPEN HOLE		1843.0	12 1/4	1843.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
189	1.07			spud mud	
500	1.15	40.0		water based	
1136	1.24	40.0		water based	
1768	1.37	45.0		water based	