General information

Wellbore name	6407/12-1
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Field	DRAUGEN
Discovery	6407/9-1 Draugen
Well name	6407/12-1
Seismic location	SH 9002- INLINE 414 & X-LINE 412
Production licence	176
Drilling operator	A/S Norske Shell
Drill permit	958-L
Drilling facility	MÆRSK JUTLANDER
Drilling days	9
Entered date	07.07.1999
Completed date	15.07.1999
Release date	15.07.2001
Publication date	29.05.2002
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	NO
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	ROGN FM
Kelly bushing elevation [m]	23.0
Water depth [m]	289.0
Total depth (MD) [m RKB]	1805.0
Final vertical depth (TVD) [m RKB]	1802.9
Maximum inclination [°]	2.1
Bottom hole temperature [°C]	69
Oldest penetrated age	MIDDLE JURASSIC
Oldest penetrated formation	GARN FM
Geodetic datum	ED50
NS degrees	64° 14' 23.44'' N
EW degrees	7° 42' 7.98'' E
NS UTM [m]	7124559.46
EW UTM [m]	437067.41

UTM zone	32
NPDID wellbore	3781

Wellbore history

General

Exploration well 6407/12-1 is located on the western edge of the Trøndelag Platform in PL176, some 13 km South of the Draugen platform. It was drilled to test the hydrocarbon potential of the Upper Jurassic sands of the Rogn Formation, which is the main reservoir unit in the Draugen Field. The second objective was to log and sample the upper 20 m of the Middle Jurassic Garn Formation.

Operations and results

The well was spudded on 7 July 1999 with the semi-submersible installation "Mærsk Jutlander" and drilled to a total depth of 1805 m in sandstone of the Garn Formation. It was drilled with sea water and Hi-vis bentonite pills to 714 m and with BARASILC silicate mud from 714 m to TD. The well found 2.3 m of oil-bearing sands in good quality reservoirs of the Rogn Formation. The Rogn Formation in the well is in pressure communication with the Rogn Formation reservoir of the Draugen Field. An oil MDT sample was acquired from 1660.7 m in the Rogn Formation. Sampling occurred extremely slowly despite a recorded mobility of 249 md/cp and a high porosity indicated from the density log. This suggests potential plugging of the probe due to the unconsolidated nature of the Rogn sandstone. The Garn Formation came in at 1763 m. No conventional core was cut in the well. The well was plugged and abandoned on 15 July 1999.

Testing

No drill stem test was performed

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
970.00	1805.00

Cuttings available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
970.0	[m]	DC	RRI
990.0	[m]	DC	RRI
1010.0	[m]	DC	RRI
1030.0	[m]	DC	RRI
1050.0	[m]	DC	RRI

1070.0	[m]	DC	RRI
1080.0	[m]	DC	RRI
1100.0	[m]	DC	RRI
1120.0	[m]	DC	RRI
1140.0	[m]	DC	RRI
1160.0	[m]	DC	RRI
1180.0	[m]	DC	RRI
1190.0	[m]	DC	RRI
1210.0	[m]	DC	RRI
1210.0	[m]	DC	FUGRO
1230.0	[m]	DC	FUGRO
1230.0	[m]	DC	RRI
1240.0	[m]	DC	RRI
1240.0	[m]	DC	FUGRO
1260.0	[m]	DC	FUGRO
1260.0	[m]	DC	RRI
1280.0	[m]	DC	RRI
1280.0	[m]	DC	FUGRO
1290.0	[m]	DC	FUGRO
1300.0	[m]	DC	FUGRO
1300.0	[m]	DC	RRI
1305.0	[m]	DC	FUGRO
1310.0	[m]	DC	FUGRO
1315.0	[m]	DC	RRI
1320.0	[m]	DC	FUGRO
1330.0	[m]	DC	RRI
1340.0	[m]	DC	FUGRO
1350.0	[m]	DC	RRI
1360.0	[m]	DC	FUGRO
1370.0	[m]	DC	RRI
1380.0	[m]	DC	FUGRO
1390.0	[m]	DC	RRI
1400.0	[m]	DC	FUGRO
1410.0	[m]	DC	RRI
1420.0	[m]	DC	FUGRO
1430.0	[m]	DC	RRI
1440.0	[m]	DC	FUGRO
1450.0	[m]	DC	RRI
1460.0	[m]	DC	FUGRO
1470.0	[m]	DC	RRI

1490.0	[m]	DC	RRI
1509.0	[m]	DC	RRI
1527.0	[m]	DC	RRI
1539.0	[m]	DC	RRI
1548.0	[m]	DC	RRI
1563.0	[m]	DC	RRI
1578.0	[m]	DC	RRI
1584.0	[m]	DC	RRI
1587.0	[m]	DC	RRI
1590.0	[m]	DC	RRI
1596.0	[m]	DC	RRI
1611.0	[m]	DC	RRI
1617.0	[m]	DC	RRI
1620.0	[m]	SWC	RRI
1622.0	[m]	SWC	RRI
1623.0	[m]	DC	PETROSTR
1632.0	[m]	DC	PETROS
1632.0	[m]	DC	RRI
1635.0	[m]	DC	RRI
1635.0	[m]	SWC	RRI
1645.0	[m]	SWC	RRI
1647.0	[m]	DC	RRI
1647.0	[m]	DC	PETROSTR
1655.0	[m]	SWC	RRI
1656.0	[m]	DC	RRI
1660.0	[m]	SWC	RRI
1661.0	[m]	SWC	RRI
1662.0	[m]	SWC	RRI
1662.0	[m]	DC	PETROSTR
1665.0	[m]	SWC	RRI
1668.0	[m]	SWC	RRI
1672.5	[m]	SWC	RRI
1679.0	[m]	SWC	RRI
1680.0	[m]	DC	PETROSTR
1688.0	[m]	SWC	RRI
1689.0	[m]	DC	PETROSTR
1700.0	[m]	SWC	RRI
1707.0	[m]	DC	RRI
1707.0	[m]	DC	PETROSTR
1715.0	[m]	SWC	RRI

1719.0	[m]	DC	PETROSTR
1722.5	[m]	DC	RRI
1725.0	[m]	DC	PETROS
1725.0	[m]	DC	RRI
1725.0	[m]	SWC	RRI
1730.5	[m]	SWC	RRI
1731.0	[m]	DC	RRI
1731.0	[m]	DC	PETROSTR
1740.0	[m]	DC	RRI
1746.0	[m]	DC	RRI
1752.0	[m]	DC	RRI
1758.0	[m]	DC	RRI
1761.0	[m]	DC	RRI
1761.0	[m]	DC	PETROSTR
1768.5	[m]	SWC	RRI
1776.0	[m]	DC	RRI
1782.0	[m]	DC	RRI
1785.0	[m]	DC	RRI
1791.0	[m]	DC	RRI
1797.0	[m]	DC	RRI
1805.0	[m]	DC	RRI

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
314	NORDLAND GP
1282	ROGALAND GP
1282	TARE FM
1412	TANG FM
1542	SHETLAND GP
1542	NISE FM
1579	KVITNOS FM
1591	CROMER KNOLL GP
1591	LANGE FM
1614	LYR FM
1625	VIKING GP
1625	SPEKK FM
1659	ROGN FM
1721	SPEKK FM

1731	MELKE FM
1763	FANGST GP
1763	GARN FM

Composite logs

Document name	Document format	Document size [MB]
3781	pdf	0.13

Geochemical information

Document name	Document format	Document size [MB]
3781_1	pdf	0.92

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

Document name	Document format	Document size [MB]
3781_6407_12_1_COMPLETION_LOG	.pdf	1.46
3781_6407_12_1_COMPLETION_REPORT	.pdf	44.13

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CST	1580	1768
MDT	1660	1771
MWD LWD DIR	311	1805
PEX/DSI HALS MCFL TLD HNGS	1558	1802
VSP	400	1800

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	373.0	36	375.0	0.00	LOT

INTERM.	9 5/8	1805.0	12 1/4	1805.0	1.85	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
963	1.20	9.0		SPUD MUD	
1805	1.35	26.0		BARASILC	
1805	1.35	26.0		BARASILC	

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]
3781_Formation_pressure_(Formasjonstrykk)	pdf	0.23