General information

Wellbore name	6608/10-6
Type	EXPLORATION
Purpose	WILDCAT
Status	SUSPENDED
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Field	URD
Discovery	6608/10-6 Svale
Well name	6608/10-6
Seismic location	ST 9301- INLINE 2448 & CROSSLINE 2344
Production licence	128
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	971-L
Drilling facility	WEST NAVION
Drilling days	76
Entered date	29.02.2000
Completed date	14.05.2000
Release date	14.05.2002
Publication date	29.05.2002
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	INTRA MELKE FM SS
2nd level with HC, age	EARLY JURASSIC
2nd level with HC, formation	ÅRE FM
Kelly bushing elevation [m]	36.0
Water depth [m]	378.0
Total depth (MD) [m RKB]	2115.0
Final vertical depth (TVD) [m RKB]	2115.0
Maximum inclination [°]	1.2
Bottom hole temperature [°C]	75
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	ÅRE FM
Geodetic datum	ED50
NS degrees	66° 3' 55.95'' N

EW degrees	8° 15' 26.07'' E
NS UTM [m]	7327600.50
EW UTM [m]	466374.20
UTM zone	32
NPDID wellbore	3260

Wellbore history

General

Well 6608/10-6 is located in the SE part of the block 6608/10. The main objective of the well was to prove hydrocarbons in Middle and Lower Jurassic sandstones.

Operations and results

The well was spudded on of February 29, 2000 with "West Navion" in a water depth of 414 m and drilled to a total depth of 2115 m in the Åre Formation. It was drilled with seawater and bentonite with hi-vis pills down to 1410 m, and with water based "Glydrill" mud (with 5% glycols) from 1410 m to TD.

The well penetrated rocks of Quaternary, Tertiary, Cretaceous and Jurassic ages. TD is in rocks of Early Jurassic age (Åre Formation). Neither the Garn, Ile nor the Tofte Formations were encountered. Two good reservoir zones were penetrated, the Melke Sandstone and the Åre Formation A sandy Not Formation was also encountered, but did not have the same reservoir quality as the two previously mentioned. The reservoir sequence proved to be oil bearing. This was verified both by shows on cuttings and cores, logs, samples and laboratory studies of the cores. The main part of the oil bearing reservoir zone was cored. One MDT oil sample was retrieved from 1826.7 m in the Melke formation. Two MDT oil samples and a water sample were retrieved from 1910.5 m, 1940.5 m, and 1994.8 m, respectively, in the Åre Formation. The oil-water contact was encountered at 1994 m. The well was completed with a 7" liner through the reservoir to be able to perform a DST on a later stage. The well was suspended as an oil discovery.

The well was re-entered (6608/10-6 R) November 2000 with "West Navion". The 7" liner was perforated in two 4 m intervals in the Åre Formation. Four sets of independent pressure- and temperature gauges were installed above the perforated intervals. The objective of installing these gauges was to measure any possible communication between the water zones down flanks in the 6608/10-7 explorations well and the reservoir in well 6608/10-6R. The well was suspended 2 December 2000.

The well was again re-entered (6608/10-6 R 2) in August 2001 with "Borgland Dolphin". The pressure- and temperature gauges were retrieved and communication between 6608/10-7 and 6608/10-6 was verified. A production test was performed in the Melke Formation. The well then was permanently plugged and abandoned.

Testing

A production test was performed in the interval 1810 m to 1842 m in the Melke Formation. The produced fluid was characterized as oil and the final rate was 42 Sm3/d.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1410.00	2115.00

Cuttings available for sampling?	YES

Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	1827.0	1834.0	[m]
2	1838.0	1839.9	[m]
3	1843.0	1862.3	[m]
4	1862.3	1877.1	[m]
5	1878.0	1892.8	[m]
6	1897.0	1898.3	[m]
7	1900.0	1923.3	[m]
8	1923.3	1935.2	[m]
9	1936.0	1954.2	[m]
10	1956.0	1971.5	[m]

Total core sample length [m]	127.8
Cores available for sampling?	YES

Core photos


1827-1832m


1832-1834m


1838-1840m


1843-1848m


1848-1853m


1853-1858m


1858-1862m


1862-1867m


1867-1872m


1872-1877m


1877-1877m


1878-1883m


1883-1888m


1888-1893m


1897-1898m


1900-1905m


1905-1910m


1910-1915m


1915-1920m


1920-1923m


1923-1928m


1928-1933m


1933-1935m


1936-1941m


1941-1946m


1946-1951m


1951-1954m


1956-1961m


1961-1966m


1966-1971m


1971-1972m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1410.0	[m]	DC	GEOSTR
1425.0	[m]	DC	GEOSTR
1435.0	[m]	DC	GEOSTR

1450.0	[m]	DC	GEOSTR
1465.0	[m]	DC	GEOSTR
1480.0	[m]	DC	GEOSTR
1495.0	[m]	DC	GEOSTR
1505.0	[m]	DC	GEOSTR
1520.0	[m]	DC	GEOSTR
1535.0	[m]	DC	GEOSTR
1550.0	[m]	DC	GEOSTR
1565.0	[m]	DC	GEOSTR
1580.0	[m]	DC	GEOSTR
1595.0	[m]	DC	GEOSTR
1610.0	[m]	DC	GEOSTR
1625.0	[m]	DC	GEOSTR
1640.0	[m]	DC	GEOSTR
1655.0	[m]	DC	GEOSTR
1670.0	[m]	DC	GEOSTR
1685.0	[m]	DC	GEOSTR
1700.0	[m]	DC	GEOSTR
1704.0	[m]	DC	GEOSTR
1704.0	[m]	DC	UOSHE
1707.0	[m]	DC	GEOSTR
1710.0	[m]	DC	GEOSTR
1710.0	[m]	DC	UOSHE
1713.0	[m]	DC	GEOSTR
1716.0	[m]	DC	GEOSTR
1716.0	[m]	DC	UOSHE
1719.0	[m]	DC	GEOSTR
1722.0	[m]	DC	GEOSTR
1722.0	[m]	DC	UOSHE
1725.0	[m]	DC	GEOSTR
1728.0	[m]	DC	GEOSTR
1728.0	[m]	DC	UOSHE
1731.0	[m]	DC	GEOSTR
1737.0	[m]	DC	GEOSTR
1737.0	[m]	DC	UOSHE
1740.0	[m]	DC	GEOSTR
1743.0	[m]	DC	GEOSTR
1743.0	[m]	DC	UOSHE
1746.0	[m]	DC	GEOSTR
1749.0	[m]	DC	GEOSTR

1749.0	[m]	DC	UOSHE
1752.0	[m]	DC	GEOSTR
1755.0	[m]	DC	GEOSTR
1755.0	[m]	DC	UOSHE
1758.0	[m]	DC	GEOSTR
1761.0	[m]	DC	GEOSTR
1761.0	[m]	DC	UOSHE
1764.0	[m]	DC	GEOSTR
1767.0	[m]	DC	GEOSTR
1767.0	[m]	DC	UOSHE
1770.0	[m]	DC	GEOSTR
1776.0	[m]	DC	GEOSTR
1776.0	[m]	DC	UOSHE
1779.0	[m]	DC	GEOSTR
1782.0	[m]	DC	GEOSTR
1782.0	[m]	DC	UOSHE
1785.0	[m]	DC	GEOSTR
1788.0	[m]	DC	GEOSTR
1788.0	[m]	DC	UOSHE
1791.0	[m]	DC	GEOSTR
1794.0	[m]	DC	GEOSTR
1794.0	[m]	DC	UOSHE
1797.0	[m]	DC	GEOSTR
1800.0	[m]	DC	GEOSTR
1800.0	[m]	DC	UOSHE
1803.0	[m]	DC	GEOSTR
1803.0	[m]	DC	UOSHE
1806.0	[m]	DC	UOSHE
1806.0	[m]	DC	GEOSTR
1809.0	[m]	DC	GEOSTR
1809.0	[m]	DC	UOSHE
1812.0	[m]	DC	UOSHE
1812.0	[m]	DC	GEOSTR
1815.0	[m]	DC	GEOSTR
1815.0	[m]	DC	UOSHE
1818.0	[m]	DC	UOSHE
1818.0	[m]	DC	GEOSTR
1821.0	[m]	DC	GEOSTR
1821.0	[m]	DC	UOSHE
1824.0	[m]	DC	UOSHE

1824.0	[m]	DC	GEOSTR
1827.0	[m]	DC	GEOSTR
1827.0	[m]	DC	UOSHE
1827.3	[m]	C	WESTLB
1830.8	[m]	C	WESTLB
1838.5	[m]	C	WESTLB
1839.7	[m]	C	WESTLB
1843.2	[m]	C	WESTLB
1843.8	[m]	C	WESTLB
1846.9	[m]	C	WESTLB
1849.9	[m]	C	WESTLB
1852.9	[m]	C	WESTLB
1862.0	[m]	C	WESTLB
1862.7	[m]	C	WESTLB
1864.6	[m]	C	WESTLB
1864.9	[m]	C	WESTLB
1866.3	[m]	C	WESTLB
1867.9	[m]	C	WESTLB
1870.0	[m]	C	WESTLB
1873.9	[m]	C	WESTLB
1876.3	[m]	C	WESTLB
1878.7	[m]	C	WESTLB
1879.5	[m]	C	WESTLB
1880.2	[m]	C	WESTLB
1882.7	[m]	C	WESTLB
1884.9	[m]	C	WESTLB
1886.6	[m]	C	WESTLB
1891.5	[m]	C	WESTLB
1897.7	[m]	C	WESTLB
1900.9	[m]	C	WESTLB
1903.9	[m]	C	WESTLB
1905.0	[m]	C	WESTLB
1907.6	[m]	C	WESTLB
1910.7	[m]	C	WESTLB
1913.8	[m]	C	WESTLB
1916.9	[m]	C	WESTLB
1919.9	[m]	C	WESTLB
1922.9	[m]	C	WESTLB
1923.6	[m]	C	WESTLB
1924.6	[m]	C	WESTLB

1927.9	[m]	C	WESTLB
1931.9	[m]	C	WESTLB
1936.8	[m]	C	WESTLB
1940.6	[m]	C	WESTLB
1942.5	[m]	C	WESTLB
1947.3	[m]	C	WESTLB
1950.0	[m]	C	WESTLB
1953.9	[m]	C	WESTLB
1956.5	[m]	C	WESTLB
1961.9	[m]	C	WESTLB
1964.6	[m]	C	WESTLB
1967.7	[m]	C	WESTLB
1968.8	[m]	C	WESTLB
1970.8	[m]	C	WESTLB
1974.0	[m]	DC	UOSHE
1980.0	[m]	DC	UOSHE
1986.0	[m]	DC	UOSHE
1992.0	[m]	DC	UOSHE
1998.0	[m]	DC	UOSHE
2004.0	[m]	DC	UOSHE
2010.0	[m]	DC	UOSHE
2016.0	[m]	DC	UOSHE
2022.0	[m]	DC	UOSHE
2028.0	[m]	DC	UOSHE
2034.0	[m]	DC	UOSHE
2040.0	[m]	DC	UOSHE
2046.0	[m]	DC	UOSHE
2052.0	[m]	DC	UOSHE
2058.0	[m]	DC	UOSHE
2064.0	[m]	DC	UOSHE
2070.0	[m]	DC	UOSHE
2076.0	[m]	DC	UOSHE
2082.0	[m]	DC	UOSHE
2088.0	[m]	DC	UOSHE
2094.0	[m]	DC	UOSHE
2100.0	[m]	DC	UOSHE
2106.0	[m]	DC	UOSHE
2112.0	[m]	DC	UOSHE
2115.0	[m]	DC	UOSHE

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		0.00	0.00	OIL		YES
MDT		1910.50	0.00	OIL	01.01.2000 - 00:00	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
414	NORDLAND GP
1382	KAI FM
1527	HORDALAND GP
1527	BRYGGE FM
1585	ROGALAND GP
1585	TARE FM
1678	TANG FM
1700	SHETLAND GP
1700	SPRINGAR FM
1717	CROMER KNOLL GP
1717	LYR FM
1794	VIKING GP
1794	MELKE FM
1814	INTRA MELKE FM SS
1850	MELKE FM
1859	FANGST GP
1859	NOT FM
1873	BÅT GP
1873	ÅRE FM

Composite logs

Document name	Document format	Document size [MB]
3260	pdf	0.30

Geochemical information

Document name	Document format	Document size [MB]
3260_1	pdf	0.10
3260_2	pdf	1.94
3260_3	pdf	2.93
3260_4	pdf	1.95
3260_5	pdf	1.93
3260_6	pdf	1.95
3260_7	pdf	1.55

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

Document name	Document format	Document size [MB]
3260_6608_10_6_COMPLETION_LOG	.pdf	2.00
3260_6608_10_6_COMPLETION_REPORT	.PDF	30.55

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL GR	1520	2065
FMI DSI	1395	2108
MDT GR	1815	2071
MWD MPR LITE-DIR	477	1827
MWD MPR LITE-DIR	1973	2115
PEX HALS CMR	1380	2111
VSP GR	484	2061

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	475.0	36	475.0	0.00	LOT
INTERM.	20	1398.0	26	1410.0	1.76	LOT
LINER	7	2115.0	8 1/2	2115.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
482	1.03			DUMMY	
570	1.03			DUMMY	
636	1.03			DUMMY	
1220	1.03			DUMMY	
1408	1.30			DUMMY	
1550	1.30	19.0		KCL/GLYCOL/POLY	
1695	1.30	18.0		KCL/GLYCOL/POLY	
1827	1.30	18.0		KCL/GLYCOL/POLY	
1838	1.30	19.0		KCL/GLYCOL/POLY	
1843	1.30	19.0		KCL/GLYCOL/POLY	
1862	1.30	18.0		KCL/GLYCOL/POLY	
1878	1.30	17.0		KCL/GLYCOL/POLY	
1898	1.30	16.0		KCL/GLYCOL/POLY	
1936	1.30	19.0		KCL/GLYCOL/POLY	
1956	1.30	19.0		KCL/GLYCOL/POLY	
1973	1.30	20.0		KCL/GLYCOL/POLY	
2115	1.30	15.0		KCL/GLYCOL/POLY	

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]
3260_Formation_pressure_(Formasjonstrykk)	pdf	0.27