General information

Wellbore name	35/9-2
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	GJØA
Discovery	35/9-2
Well name	35/9-2
Seismic location	NH 8902 - ROW 816 & KOL. 1229
Production licence	153
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	663-L
Drilling facility	VILDKAT EXPLORER
Drilling days	92
Entered date	01.01.1991
Completed date	03.04.1991
Release date	03.04.1993
Publication date	15.12.2006
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL/GAS
Discovery wellbore	YES
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	SOGNEFJORD FM
2nd level with HC, age	MIDDLE JURASSIC
2nd level with HC, formation	FENSFJORD FM
Kelly bushing elevation [m]	25.0
Water depth [m]	367.0
Total depth (MD) [m RKB]	2885.0
Final vertical depth (TVD) [m RKB]	2877.0
Maximum inclination [°]	14
Bottom hole temperature [°C]	100
Oldest penetrated age	PRE-DEVONIAN
Oldest penetrated formation	BASEMENT
Geodetic datum	ED50
NS degrees	61° 20' 8.62'' N
EW degrees	3° 56' 16.74'' E

NS UTM [m]	6800705.66
EW UTM [m]	550196.62
UTM zone	31
NPDID wellbore	1600

Wellbore history

General

Well 35/9-2 was designed to drill on the A-Structure in block 35/9 which is located in the northern part of the Horda Platform, in the footwall of the Sogn Graben boundary fault system. The well was drilled as a combined appraisal/wildcat well. The primary objective of the well was to appraise the hydrocarbon potential in the Late Jurassic Sognefjord and Fensfjord Formations, found oil and gas bearing in the 35/9-1 well. Secondary objective was to test the Middle -Early Jurassic sequence.

The total depth of the well was prognosed to 2830 m RKB, approximately 30 m into the Caledonian basement.

Operations and results

Wildcat/Appraisal well 35/9-2 was spudded with the semi-submersible installation Vildkat Explorer on 1 January 1991 and drilled to TD at 2885 m in Caledonian basement. Due to hole angle problems, the well had to be re-spudded twice before drilling proceeded. No shallow gas or boulders were observed while drilling. In order to penetrate the target within the given tolerances, a kick-off was made at 1039 m. This resulted in a deviation of up to 14 deg. at 1287 m and TVD 8 m less than measured depth at final TD. The well was drilled with seawater and hi-vis pills down to 1018 m and with KCl/polymer from 1018 m to TD.

The well encountered oil and gas bearing sandstones from 2095 m in the Late Jurassic reservoirs. The gas/oil contact was found at 2324 m and oil was found down to 2341 m in the Fensfjord "C" Formation. Net pay gas zone was calculated to 171.26 m and net oil pay zone calculated to 13.13 m. The oil/water contact was not seen, but from extrapolation of RFT pressure gradients the OWC was estimated at 2367 m in the Fensfjord Formation. The best reservoir sand was found in the Sognefjord Formation. The Middle and Early Jurassic formations were penetrated and found water bearing. Above the Late Jurassic reservoirs only two weak shows were recorded in cuttings from thin sandstone stringers in the Tryggvason Formation. Weak patchy shows were recorded in the Fensford Formation at 2366 m to 2379 m, otherwise no shows were seen below OWC of the Late Jurassic reservoirs.

Nine cores were cut in the Viking Group, 3 in the Brent Group and 5 in the Dunlin Group. RFT fluid samples were taken at 2368.6 m (water and filtrate with small volume of gas), and at 2331.5 m (6.5 l oil and 0.81 Sm3 gas).

The well was permanently abandoned on 3 April 1991 as a gas/oil discovery.

Testing

Four production tests were performed in the Late Jurassic Formations, one oil test and three gas tests. Production test data quoted below refer to maximum rates at the specified choke sizes.

Production test No. 1 was performed in the interval 2329.9 - 2342.4 m in the Fensfjord "C" Formation. It flowed oil at 289 Sm3/d and gas at 206300 Sm3/d on a 12.7 mm choke. The GOR was 714 Sm3/Sm3. The oil gravity was 0.826 g/cc and the gas gravity

was 0.608 (air=l). The wellhead pressure was 144.4 bars with a wellhead temperature of 44.6 deg C. The well produced 0.6% CO2 and no H2S. Bottom hole temperature was 83.8 deg C.

Production test No. 2 was performed in the interval 2295.5 - 2310.5 in the Fensfjord "C" Formation. It flowed condensate at 206. Sm3/d and gas at 881000 Sm3/d on a 25.4 mm choke. The GOR was 4276 Sm3/Sm3. The condensate density was 0.720 g/cc and the gas gravity was 0.668 (air=l). The wellhead pressure was 112.7 bars and the temperature was 47.3 deg C. The well produced 0.5% CO2 and no H2S. Bottom hole temperature was 83.2 deg C.

Production test No. 3 was performed in the interval 2187.2 - 2211.2 Fensfjord "D" Formation. It flowed condensate at 206 Sm3/d and gas at 803000 Sm3/d on a 25.4 mm choke. The GOR was 3897 Sm3/Sm3. The condensate density was 0.732 g/cc and the gas gravity was 0.664 (air=l). The wellhead pressure was 106.6 bars and the temperature was 43.3 deg C. The well produced 0.5% CO2 and no H2S. Bottom hole temperature was 79.3 deg C.

Production test No. 4 was performed in the interval 2100.6 - 2130.6 m in the Sognefjord Formation. It flowed condensate at 202 Sm3/d and gas at 954000 Sm3/d on a 25.4 mm choke. The GOR was 4717 Sm3/Sm3. The condensate density was 0.726 g/cc and the gas gravity was 0.664 (air=l). The wellhead pressure was 118.8 bars and the temperature was 43.8 deg C. The well produced 0.5% CO2 and no H2S. Bottom hole temperature was 76.7 deg C.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1020.00	2885.00

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	2110.5	2111.2	[m]
2	2114.0	2141.9	[m]
3	2271.0	2299.0	[m]
4	2299.0	2327.0	[m]
5	2327.0	2350.2	[m]
6	2365.0	2391.9	[m]
7	2393.0	2421.0	[m]
8	2483.0	2520.6	[m]
9	2520.6	2554.3	[m]
10	2621.0	2638.6	[m]
11	2638.6	2665.6	[m]
12	2666.0	2694.0	[m]

13	2694.0	2722.3	[m]
14	2722.3	2759.0	[m]
15	2759.8	2763.0	[m]
16	2764.5	2778.0	[m]
17	2778.3	2784.0	[m]

Total core sample length [m]	394.1
Cores available for sampling?	YES

Core photos


2110-2111m


2114-2119m


2119-2124m


2124-2129m


2129-2134m


2134-2139m


2139-2141m


2271-2276m


2276-2281m


2281-2286m


2286-2291m


2291-2296m


2296-2299m


2299-2304m


2304-2309m


2309-2314m


2314-2319m


2319-2324m


2324-2327m


2327-2332m


2332-2337m


2337-2342m


2342-2347m


2347-2350m


2365-2370m


2370-2375m


2375-2380m


2380-2385m


2385-2390m


2390-2391m


2393-2398m


2398-2403m


2403-2408m


2408-2413m


2413-2418m


2418-2421m


2483-2488m


2488-2493m


2493-2498m


2498-2503m


2503-2508m


2508-2513m


2513-2518m


2518-2510m


2520-2525m


2525-2530m


2530-2535m


2535-2540m


2540-2545m


2545-2550m


2550-2554m


2621-2626m


2626-2631m


2631-2636m


2636-2638m


2638-2643m


2643-2648m


2648-2653m


2653-2658m


2658-2663m


2663-2665m


2666-2671m


2671-2676m


2676-2681m


2681-2686m


2686-2691m


2691-2694m


2694-2699m


2704-2709m


2709-2714m


2714-2719m


2719-2722m


2722-2727m


2727-2732m


2732-2737m


2737-2742m


2742-2747m


2747-2752m


2752-2757m


2757-2759m


2759-2763m


2764-2769m


2769-2774m


2774-2778m


2778-2783m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1020.0	[m]	DC	RRI
1035.5	[m]	SWC	HYDRO
1050.0	[m]	DC	RRI
1100.0	[m]	DC	RRI
1110.0	[m]	DC	RRI
1130.0	[m]	DC	RRI
1140.0	[m]	DC	RRI
1150.0	[m]	SWC	HYDRO
1170.0	[m]	DC	RRI
1190.0	[m]	DC	RRI
1230.0	[m]	DC	RRI
1250.0	[m]	DC	RRI
1260.5	[m]	SWC	HYDRO
1273.0	[m]	SWC	HYDRO
1290.2	[m]	SWC	HYDRO
1304.2	[m]	SWC	HYDRO
1310.5	[m]	SWC	HYDRO
1321.0	[m]	SWC	HYDRO
1329.5	[m]	SWC	HYDRO
1337.5	[m]	SWC	HYDRO
1348.5	[m]	SWC	HYDRO
1359.5	[m]	SWC	HYDRO
1380.0	[m]	DC	RRI
1400.0	[m]	DC	RRI
1410.0	[m]	DC	RRI
1430.0	[m]	DC	RRI
1440.0	[m]	DC	RRI
1460.0	[m]	DC	RRI
1470.0	[m]	DC	RRI

1490.0	[m]	DC	RRI
1498.6	[m]	SWC	HYDRO
1520.0	[m]	DC	RRI
1530.0	[m]	DC	RRI
1550.0	[m]	DC	RRI
1560.0	[m]	DC	RRI
1580.0	[m]	DC	RRI
1590.0	[m]	DC	RRI
1605.0	[m]	DC	RRI
1620.0	[m]	DC	RRI
1635.0	[m]	DC	RRI
1650.0	[m]	DC	RRI
1665.0	[m]	DC	RRI
1680.0	[m]	DC	RRI
1700.0	[m]	SWC	HYDRO
1710.0	[m]	DC	RRI
1730.0	[m]	DC	RRI
1740.0	[m]	DC	RRI
1755.0	[m]	DC	RRI
1770.0	[m]	DC	RRI
1785.0	[m]	DC	RRI
1800.0	[m]	DC	RRI
1815.0	[m]	DC	RRI
1830.0	[m]	SWC	HYDRO
1845.0	[m]	DC	RRI
1878.8	[m]	SWC	HYDRO
1890.0	[m]	SWC	HYDRO
1892.0	[m]	SWC	HYDRO
1910.5	[m]	SWC	HYDRO
1926.2	[m]	SWC	HYDRO
1937.0	[m]	DC	RRI
1945.0	[m]	SWC	HYDRO
1952.0	[m]	DC	RRI
1970.0	[m]	SWC	HYDRO
1984.0	[m]	SWC	HYDRO
1990.0	[m]	SWC	HYDRO
2010.0	[m]	SWC	HYDRO
2013.0	[m]	SWC	HYDRO
2020.5	[m]	SWC	HYDRO
2025.0	[m]	DC	RRI

2030.0	[m]	SWC	HYDRO
2035.0	[m]	DC	RRI
2042.5	[m]	SWC	HYDRO
2047.0	[m]	DC	RRI
2050.0	[m]	SWC	HYDRO
2053.0	[m]	SWC	HYDRO
2057.0	[m]	DC	RRI
2063.0	[m]	SWC	HYDRO
2067.0	[m]	SWC	HYDRO
2085.0	[m]	SWC	HYDRO
2088.0	[m]	SWC	HYDRO
2094.0	[m]	SWC	HYDRO
2110.5	[m]	C	RRI
2128.0	[m]	C	RRI
2129.0	[m]	C	RRI
2138.0	[m]	C	RRI
2141.0	[m]	C	RRI
2159.0	[m]	SWC	HYDRO
2170.0	[m]	DC	RRI
2174.0	[m]	SWC	FUGRO
2179.0	[m]	SWC	HYDRO
2187.5	[m]	SWC	HYDRO
2190.0	[m]	DC	FUGRO
2192.0	[m]	DC	FUGRO
2195.0	[m]	DC	FUGRO
2197.0	[m]	DC	FUGRO
2197.0	[m]	SWC	FUGRO
2197.0	[m]	SWC	HYDRO
2200.0	[m]	DC	FUGRO
2202.0	[m]	DC	FUGRO
2205.0	[m]	DC	FUGRO
2205.0	[m]	SWC	FUGRO
2205.0	[m]	SWC	HYDRO
2207.0	[m]	DC	FUGRO
2210.0	[m]	DC	FUGRO
2212.0	[m]	DC	FUGRO
2212.5	[m]	C	FUGRO
2212.5	[m]	SWC	HYDRO
2215.0	[m]	DC	FUGRO
2217.0	[m]	DC	FUGRO

2220.0	[m]	DC	FUGRO
2222.0	[m]	DC	FUGRO
2225.0	[m]	DC	FUGRO
2227.0	[m]	DC	FUGRO
2228.0	[m]	SWC	HYDRO
2230.0	[m]	DC	FUGRO
2232.0	[m]	DC	FUGRO
2235.0	[m]	DC	FUGRO
2237.0	[m]	DC	FUGRO
2240.0	[m]	DC	FUGRO
2242.0	[m]	DC	FUGRO
2243.5	[m]	C	FUGRO
2245.0	[m]	DC	FUGRO
2246.0	[m]	C	FUGRO
2246.0	[m]	SWC	HYDRO
2247.0	[m]	DC	FUGRO
2250.0	[m]	DC	FUGRO
2252.0	[m]	DC	FUGRO
2255.0	[m]	DC	FUGRO
2257.0	[m]	DC	FUGRO
2257.5	[m]	C	FUGRO
2257.5	[m]	SWC	HYDRO
2260.0	[m]	DC	FUGRO
2262.0	[m]	DC	FUGRO
2265.0	[m]	DC	FUGRO
2267.0	[m]	DC	FUGRO
2270.0	[m]	DC	FUGRO
2272.0	[m]	C	ROBERTSO
2282.6	[m]	C	FUGRO
2287.0	[m]	C	ROBERTSO
2287.1	[m]	C	FUGRO
2292.0	[m]	C	FUGRO
2302.8	[m]	C	FUGRO
2304.0	[m]	C	ROBERTSO
2306.4	[m]	C	FUGRO
2310.9	[m]	C	FUGRO
2315.0	[m]	C	ROBERTSO
2316.7	[m]	C	FUGRO
2319.5	[m]	C	FUGRO
2322.8	[m]	C	FUGRO

2323.0	[m]	C	ROBERTSO
2325.6	[m]	C	FUGRO
2326.7	[m]	C	FUGRO
2329.7	[m]	C	FUGRO
2332.9	[m]	C	FUGRO
2333.0	[m]	C	ROBERTSO
2338.8	[m]	C	FUGRO
2340.0	[m]	C	ROBERTSO
2349.0	[m]	C	ROBERT
2349.9	[m]	C	FUGRO
2365.0	[m]	C	ROBERTSO
2369.7	[m]	C	FUGRO
2373.0	[m]	C	ROBERTSO
2380.5	[m]	C	FUGRO
2382.0	[m]	C	ROBERTSO
2387.7	[m]	C	FUGRO
2388.0	[m]	C	ROBERTSO
2390.9	[m]	C	ROBERTSO
2392.0	[m]	C	ROBERT
2398.0	[m]	C	ROBERTSO
2398.3	[m]	C	FUGRO
2399.5	[m]	C	FUGRO
2401.3	[m]	C	FUGRO
2408.0	[m]	C	ROBERTSO
2408.6	[m]	C	FUGRO
2411.8	[m]	C	FUGRO
2415.3	[m]	C	FUGRO
2418.9	[m]	C	FUGRO
2420.0	[m]	C	ROBERTSO
2420.6	[m]	C	FUGRO
2422.0	[m]	DC	FUGRO
2425.0	[m]	DC	FUGRO
2427.0	[m]	DC	FUGRO
2430.0	[m]	DC	FUGRO
2432.0	[m]	DC	FUGRO
2435.0	[m]	DC	FUGRO
2437.0	[m]	DC	FUGRO
2437.0	[m]	C	FUGRO
2437.0	[m]	SWC	HYDRO
2440.0	[m]	DC	FUGRO

2442.0	[m]	DC	FUGRO
2445.0	[m]	DC	FUGRO
2447.0	[m]	DC	FUGRO
2450.0	[m]	DC	FUGRO
2452.0	[m]	DC	FUGRO
2455.0	[m]	DC	FUGRO
2457.0	[m]	DC	FUGRO
2457.0	[m]	C	FUGRO
2457.0	[m]	SWC	HYDRO
2460.0	[m]	DC	FUGRO
2462.0	[m]	DC	FUGRO
2465.0	[m]	DC	FUGRO
2467.0	[m]	DC	FUGRO
2470.0	[m]	DC	FUGRO
2472.0	[m]	DC	FUGRO
2475.0	[m]	DC	FUGRO
2477.0	[m]	DC	FUGRO
2477.0	[m]	C	FUGRO
2480.0	[m]	DC	FUGRO
2482.0	[m]	DC	FUGRO
2484.0	[m]	C	ROBERTSO
2485.0	[m]	DC	FUGRO
2487.0	[m]	DC	FUGRO
2487.1	[m]	C	FUGRO
2489.0	[m]	C	ROBERTSO
2489.2	[m]	C	FUGRO
2490.0	[m]	DC	FUGRO
2498.6	[m]	C	FUGRO
2501.0	[m]	C	ROBERTSO
2502.2	[m]	C	FUGRO
2511.0	[m]	C	ROBERTSO
2511.2	[m]	C	FUGRO
2514.5	[m]	C	FUGRO
2515.3	[m]	C	FUGRO
2516.2	[m]	C	FUGRO
2517.6	[m]	C	FUGRO
2519.2	[m]	C	FUGRO
2520.5	[m]	C	FUGRO
2521.0	[m]	C	HYDRO
2524.0	[m]	C	ROBERTSO

2536.0	[m]	C	ROBERT
2541.0	[m]	C	ROBERT
2548.0	[m]	C	ROBERT
2554.3	[m]	C	ROBERT
2562.0	[m]	DC	FUGRO
2565.0	[m]	DC	FUGRO
2567.0	[m]	DC	FUGRO
2567.5	[m]	C	FUGRO
2567.5	[m]	SWC	HYDRO
2570.0	[m]	DC	ROBERTSO
2572.0	[m]	DC	FUGRO
2575.0	[m]	DC	FUGRO
2577.0	[m]	DC	FUGRO
2578.0	[m]	SWC	HYDRO
2580.0	[m]	DC	FUGRO
2582.0	[m]	DC	FUGRO
2585.0	[m]	DC	FUGRO
2587.0	[m]	DC	FUGRO
2588.0	[m]	SWC	HYDRO
2590.0	[m]	DC	FUGRO
2590.0	[m]	DC	ROBERTSO
2592.0	[m]	DC	FUGRO
2595.0	[m]	DC	FUGRO
2600.0	[m]	DC	FUGRO
2600.0	[m]	DC	ROBERTSO
2602.0	[m]	DC	FUGRO
2605.0	[m]	DC	FUGRO
2606.5	[m]	SWC	HYDRO
2607.0	[m]	DC	FUGRO
2610.0	[m]	DC	FUGRO
2612.0	[m]	DC	FUGRO
2613.0	[m]	C	FUGRO
2613.0	[m]	SWC	HYDRO
2615.0	[m]	DC	FUGRO
2617.0	[m]	DC	FUGRO
2620.0	[m]	DC	FUGRO
2621.8	[m]	C	HYDRO
2624.6	[m]	C	HYDRO
2627.1	[m]	C	HYDRO
2629.9	[m]	C	HYDRO

2630.0	[m]	DC	ROBERTSO
2632.7	[m]	C	HYDRO
2633.9	[m]	C	HYDRO
2634.5	[m]	C	HYDRO
2636.1	[m]	C	HYDRO
2640.0	[m]	DC	ROBERTSO
2654.1	[m]	C	HYDRO
2657.2	[m]	C	HYDRO
2662.6	[m]	C	HYDRO
2663.1	[m]	C	HYDRO
2664.8	[m]	C	HYDRO
2667.7	[m]	C	HYDRO
2670.9	[m]	C	HYDRO
2672.9	[m]	C	HYDRO
2674.8	[m]	C	HYDRO
2676.8	[m]	C	HYDRO
2679.6	[m]	C	HYDRO
2682.5	[m]	C	HYDRO
2682.6	[m]	C	HYDRO
2685.5	[m]	C	HYDRO
2688.5	[m]	C	HYDRO
2690.0	[m]	DC	ROBERTSO
2691.6	[m]	C	HYDRO
2694.4	[m]	C	HYDRO
2694.4	[m]	C	HYDRO
2697.3	[m]	C	HYDRO
2699.2	[m]	C	HYDRO
2700.0	[m]	DC	ROBERTSO
2700.1	[m]	C	HYDRO
2702.4	[m]	C	HYDRO
2712.5	[m]	C	HYDRO
2712.6	[m]	C	HYDRO
2716.5	[m]	C	HYDRO
2719.8	[m]	C	HYDRO
2720.4	[m]	C	HYDRO
2724.3	[m]	C	HYDRO
2733.4	[m]	C	HYDRO
2740.0	[m]	DC	ROBERTSO
2742.6	[m]	C	HYDRO
2750.0	[m]	DC	ROBERTSO

2750.6	[m]	C	HYDRO
2759.9	[m]	C	HYDRO
2770.0	[m]	DC	ROBERTSO
2772.0	[m]	DC	ROBERT
2776.7	[m]	C	HYDRO
2779.5	[m]	C	HYDRO
2783.7	[m]	C	HYDRO
2785.0	[m]	DC	ROBERTSO
2789.5	[m]	SWC	HYDRO
2789.5	[m]	SWC	HYDRO
2805.0	[m]	SWC	HYDRO
2813.0	[m]	SWC	HYDRO

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	TEST-1	2342.00	2330.00		23.02.1991 - 02:45	YES
DST	TEST-2	2295.50	2310.50		11.03.1991 - 03:55	YES
DST	TEST-3	2187.20	2211.20	CONDENSATE	19.03.1991 - 02:25	YES
DST	TEST- 4	2130.00	2100.00	CONDENSATE	27.03.1991 - 16:00	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
392	NORDLAND GP
573	HORDALAND GP
573	NO FORMAL NAME
658	ROGALAND GP
658	BALDER FM
692	SELE FM
785	LISTA FM
931	NO FORMAL NAME
960	LISTA FM
1281	VÅLE FM

1305	SHETLAND GP
1305	JORSALFARE FM
1385	KYRRE FM
2016	CROMER KNOLL GP
2016	ÅSGARD FM
2058	VIKING GP
2058	DRAUPNE FM
2095	INTRA DRAUPNE FM SS
2109	SOGNEFJORD FM
2132	HEATHER FM
2188	FENSFJORD FM
2481	KROSSFJORD FM
2512	HEATHER FM
2615	BRENT GP
2615	NESS FM
2640	ETIVE FM
2646	RANNOCH FM
2680	DUNLIN GP
2680	DRAKE FM
2694	UNDIFFERENTIATED
2754	STATFJORD GP
2856	BASEMENT

Geochemical information

Document name	Document format	Document size [MB]
1600_1	pdf	2.72

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

Document name	Document format	Document size [MB]
1600_01_WDSS_General_Information	pdf	0.67
1600_02_WDSS_completion_log	pdf	0.18

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

Document name	Document format	Document size [MB]
1600_35_9_2_COMPLETION_REPORT_AND_LOG	pdf	24.25

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	2330	2342	12.7
2.0	2295	2310	25.4
3.0	2187	2211	25.4
4.0	2100	2130	25.4

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0	14.400			83
2.0	11.200			
3.0	10.600			
4.0	11.900			

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	289	2063000	0.826	0.608	714
2.0	206	881000	0.720	0.668	4276
3.0	205	803000	0.732	0.664	3897
4.0	202	954000	0.726	0.664	4717

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CST GR	1035	1952
CST GR	1962	2813
DIL BHC GR SP	1003	1950
DIL DITE GR SP AMS	1937	2884
DIL GR SP	392	614
DLL MSFL GR SP AMS	2075	2400
DSI NGS	1895	2887
FMS4 GR	1937	2887

LDL CNL GR	1937	2884
LDL GR	1003	1950
MWD LWD - GR RES DIR	392	2885
RFT AMS	2103	2835
RFT AMS	2367	2368
VSP GR	1280	2870

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	477.0	36	479.0	0.00	LOT
INTERM.	13 3/8	1003.0	17 1/2	1018.0	1.37	LOT
INTERM.	9 5/8	1939.0	12 1/4	1953.0	1.40	LOT
LINER	7	2434.0	8 1/2	2885.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
464	1.20	1.0	1.0	WATER BASED	03.01.1991
477	1.20	1.0	1.0	WATER BASED	07.01.1991
477	1.20	1.0	1.0	WATER BASED	03.01.1991
478	1.05	1.0	1.0	WATER BASED	08.01.1991
478	1.05	1.0	1.0	WATER BASED	09.01.1991
479	1.05	1.0	1.0	WATER BASED	11.01.1991
1018	1.05	1.0	1.0	WATER BASED	14.01.1991
1018	1.11	19.0	14.0	WATER BASED	14.01.1991
1018	1.12	19.0	14.0	WATER BASED	14.01.1991
1060	1.12	10.0	7.0	WATER BASED	15.01.1991
1297	1.13	11.0	11.0	WATER BASED	16.01.1991
1310	1.14	10.0	11.0	WATER BASED	17.01.1991
1336	1.18	11.0	10.0	WATER BASED	18.01.1991
1646	1.19	8.0	12.0	WATER BASED	21.01.1991
1759	1.20	15.0	11.0	WATER BASED	21.01.1991
1918	1.20	15.0	11.0	WATER BASED	21.01.1991
1953	1.22	14.0	10.0	WATER BASED	23.01.1991
1953	1.22	16.0	11.0	WATER BASED	25.01.1991
2106	1.22	14.0	11.0	WATER BASED	25.01.1991

2111	1.23	15.0	9.0	WATER BASED	29.01.1991
2142	1.22	16.0	11.0	WATER BASED	29.01.1991
2181	1.22	10.0	6.0	WATER BASED	26.03.1991
2181	1.22	10.0	6.0	WATER BASED	26.03.1991
2181	1.22	10.0	6.0	WATER BASED	27.03.1991
2181	1.22	10.0	6.0	WATER BASED	26.03.1991
2272	1.22	13.0	12.0	WATER BASED	29.01.1991
2293	1.22	9.0	8.0	WATER BASED	18.03.1991
2293	1.22	9.0	8.0	WATER BASED	18.03.1991
2293	1.22	10.0	6.0	WATER BASED	20.03.1991
2293	1.22	10.0	6.0	WATER BASED	20.03.1991
2293	1.22	10.0	6.0	WATER BASED	21.03.1991
2293	1.22	10.0	6.0	WATER BASED	22.03.1991
2293	1.22	10.0	6.0	WATER BASED	26.03.1991
2311	1.22	10.0	7.0	WATER BASED	15.03.1991
2311	1.22	10.0	7.0	WATER BASED	18.03.1991
2311	1.22	10.0	7.0	WATER BASED	15.03.1991
2311	1.22	10.0	7.0	WATER BASED	13.03.1991
2311	1.22	10.0	7.0	WATER BASED	14.03.1991
2327	1.22	13.0	11.0	WATER BASED	30.01.1991
2350	1.22	13.0	10.0	WATER BASED	30.01.1991
2382	1.22	10.0	8.0	WATER BASED	05.03.1991
2382	1.22	8.0	8.0	WATER BASED	05.03.1991
2382	1.22	9.0	7.0	WATER BASED	05.03.1991
2382	1.22	9.0	7.0	WATER BASED	06.03.1991
2382	1.22	8.0	7.0	WATER BASED	07.03.1991
2382	1.22	8.0	7.0	WATER BASED	08.03.1991
2393	1.22	12.0	10.0	WATER BASED	31.01.1991
2421	1.22	15.0	10.0	WATER BASED	01.02.1991
2434	1.22	12.0	8.0	WATER BASED	19.02.1991
2434	1.22	12.0	6.0	WATER BASED	19.02.1991
2434	1.22	12.0	6.0	WATER BASED	20.02.1991
2436	1.22	13.0	5.0	WATER BASED	19.02.1991
2436	1.22	13.0	5.0	WATER BASED	19.02.1991
2436	1.22	10.0	8.0	WATER BASED	01.03.1991
2483	1.22	11.0	9.0	WATER BASED	05.02.1991
2537	1.22	12.0	8.0	WATER BASED	05.02.1991
2564	1.22	12.0	9.0	WATER BASED	05.02.1991
2621	1.22	13.0	8.0	WATER BASED	05.02.1991
2666	1.22	12.0	10.0	WATER BASED	06.02.1991

2694	1.22	12.0	11.0	WATER BASED	07.02.1991
2732	1.22	13.0	10.0	WATER BASED	08.02.1991
2732	1.22	13.0	10.0	WATER BASED	08.02.1991
2765	1.22	13.0	9.0	WATER BASED	12.02.1991
2778	1.22	11.0	11.0	WATER BASED	12.02.1991
2856	1.22	12.0	11.0	WATER BASED	12.02.1991
2885	1.22	13.0	10.0	WATER BASED	12.02.1991
2885	1.22	13.0	10.0	WATER BASED	13.02.1991
2885	1.22	13.0	10.0	WATER BASED	14.02.1991
2885	1.22	12.0	10.0	WATER BASED	15.02.1991
3436	1.22	12.0	6.0	WATER BASED	21.02.1991
3436	1.22	12.0	6.0	WATER BASED	22.02.1991
3436	1.22	12.0	6.0	WATER BASED	26.02.1991
3436	1.22	12.0	6.0	WATER BASED	26.02.1991
3436	1.22	11.0	6.0	WATER BASED	26.02.1991
3436	1.22	11.0	6.0	WATER BASED	26.02.1991
3436	1.22	10.0	8.0	WATER BASED	27.02.1991
3436	1.22	10.0	8.0	WATER BASED	28.02.1991

Thin sections at the Norwegian Offshore Directorate

Depth	Unit
2508.46	[m]
2506.50	[m]
2490.45	[m]
2380.23	[m]
2366.49	[m]
2334.50	[m]
2326.48	[m]
2306.25	[m]
2301.50	[m]
2282.75	[m]
2273.50	[m]
2132.42	[m]
2127.72	[m]
2111.05	[m]
2278.50	[m]
2639.28	[m]
2698.10	[m]
2707.08	[m]

2715.62	[m]

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]
1600_Formation_pressure_(Formasjonstrykk)	pdf	0.23