General information

Wellbore name	34/7-20
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	34/7-20
Seismic location	E-86-3D: REKKE 540 & KOLONNE 1219
Production licence	089
Drilling operator	Saga Petroleum ASA
Drill permit	736-L
Drilling facility	TREASURE SAGA
Drilling days	41
Entered date	18.07.1992
Completed date	27.08.1992
Release date	27.08.1994
Publication date	28.02.2008
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL SHOWS
Discovery wellbore	NO
Kelly bushing elevation [m]	26.0
Water depth [m]	295.0
Total depth (MD) [m RKB]	3177.0
Final vertical depth (TVD) [m RKB]	3177.0
Maximum inclination [°]	2.9
Bottom hole temperature [°C]	100
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	LUNDE FM
Geodetic datum	ED50
NS degrees	61° 26' 39.65'' N
EW degrees	2° 1' 49.98'' E
NS UTM [m]	6812829.08
EW UTM [m]	448299.25
UTM zone	31
NPDID wellbore	1967

Wellbore history

General

Exploration well 34/7-20 is located between the Snorre and the Statfjord Nord Field on Tampen Spur in the Northern North Sea. The well is positioned up-dip on a gently west-dipping structure that includes a supposed thin Late Jurassic sand interval. The primary objective was this Late Jurassic sand in a pinch-out trap. A secondary objective was to test the Brent Group, and if water-bearing, make a pressure test in order to evaluate possible communication to the Vigdis West Field.

Operations and results

Wildcat well 34/7-20 was spudded with the semi-submersible installation Treasure Saga on 18 July 1992 and drilled to TD at 3177 m in the Late Triassic Lunde Formation. The 12 1/4" section was drilled with slow penetration rates, frequent wiper trips, and frequent change of drill bits. After a bit change, the new BHA went stuck at 2724 m while running in the hole, and had to be worked free with 110 tons overpull. The well was drilled with spud mud down to 419 m, with gel mud from 419 m to 1220 m, and with KCl mud from 1220 m to TD. Indications of shallow gas were seen at 557 -558 m and at 620 - 621 m.

Down to Base Cretaceous the well penetrated mainly claystones. An exception to this was the sandy Utsira Formation between 961 and 1040 m. The Jurassic interval comprised the prognosed Late Jurassic sandstone and Heather Formation, the Middle Jurassic Brent Group and the Early Jurassic Dunlin Group.

The top of the primary target Late Jurassic reservoir was penetrated at 2578 m, 7 meter shallower than prognosed. Only 3 meter of Late Jurassic sand was penetrated and proved water bearing with oil-shows. These were the only shows reported in the well.

Pressure tests in the Brent and Viking Groups in well 34/7-20 indicated communication between the sandstones of the Late Jurassic and Brent Groups. These sandstone units are probably in contact further up-dip, which is, most likely, the explanation to why the well was dry. The Brent Group pressure tests indicated, when compared to the tests from well 34/7-13, a communication within the Brent Group between the NW-Area and the Vigdis West Field. A relatively low pressure in well 34/7-20 indicated pressure depletion from the Statfjord Field. The pressure tests carried out in the Statfjord Formation were compared to the oil pressure tests in wells 34/7-7 and P-33 in the Snorre Field. The results of this comparison indicated a significantly deeper OWC in the Snorre Field than stated prior to the completion of well 34/7-20.

A total of 3 cores were cut from 2576 m in the lowermost Cromer Knoll Group down to 2637 m in the Ness Formation. An RFT segregated fluid sample was taken at 2579.5 m. The 2 3/4 gallon chamber contained 2 l water and filtrate with an oil film.

The well was permanently abandoned on 27 August 1992 as a dry well with shows.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
430.00	3177.00

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	2576.0	2579.9	[m]
2	2581.0	2606.7	[m]
3	2608.5	2636.0	[m]

Total core sample length [m]	57.1
Cores available for sampling?	YES

Core photos

2576-2579m

2581-2585m

2585-2589m

2589-2593m

2593-2597m

2597-2601m

2601-2605m

2605-2607m

2608-2612m

2612-2616m

2616-2620m

2620-2624m

2624-2628m

2628-2632m

2632-2636m

2636-2637m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
430.0	[m]	DC	PALEO
460.0	[m]	DC	PALEO
490.0	[m]	DC	PALEO
520.0	[m]	DC	PALEO
550.0	[m]	DC	PALEO
580.0	[m]	DC	PALEO
610.0	[m]	DC	PALEO
640.0	[m]	DC	PALEO
670.0	[m]	DC	PALEO
700.0	[m]	DC	PALEO
730.0	[m]	DC	PALEO
760.0	[m]	DC	PALEO
790.0	[m]	DC	PALEO
820.0	[m]	DC	PALEO
850.0	[m]	DC	PALEO
880.0	[m]	DC	PALEO
910.0	[m]	DC	PALEO
940.0	[m]	DC	PALEO
970.0	[m]	DC	PALEO
1000.0	[m]	DC	PALEO
1030.0	[m]	DC	PALEO
1060.0	[m]	DC	PALEO
1090.0	[m]	DC	PALEO
1120.0	[m]	DC	PALEO
1150.0	[m]	DC	PALEO
1180.0	[m]	DC	PALEO
1210.0	[m]	DC	PALEO
1240.0	[m]	DC	PALEO
1270.0	[m]	DC	PALEO

1300.0	[m]	DC	PALEO
1330.0	[m]	DC	PALEO
1360.0	[m]	DC	PALEO
1380.0	[m]	DC	PALEO
1410.0	[m]	DC	PALEO
1440.0	[m]	DC	PALEO
1470.0	[m]	DC	PALEO
1500.0	[m]	DC	PALEO
1530.0	[m]	DC	PALEO
1560.0	[m]	DC	PALEO
1590.0	[m]	DC	PALEO
1620.0	[m]	DC	PALEO
1650.0	[m]	DC	PALEO
1680.0	[m]	DC	PALEO
1710.0	[m]	DC	PALEO
1740.0	[m]	DC	PALEO
1770.0	[m]	DC	PALEO
1800.0	[m]	DC	PALEO
1840.0	[m]	DC	PALEO
1860.0	[m]	DC	PALEO
1895.0	[m]	DC	PALEO
1925.0	[m]	DC	PALEO
1955.0	[m]	DC	PALEO
1985.0	[m]	DC	PALEO
2015.0	[m]	DC	PALEO
2045.0	[m]	DC	PALEO
2075.0	[m]	DC	PALEO
2105.0	[m]	DC	PALEO
2135.0	[m]	DC	PALEO
2165.0	[m]	DC	PALEO
2195.0	[m]	DC	PALEO
2225.0	[m]	DC	PALEO
2255.0	[m]	DC	PALEO
2285.0	[m]	DC	PALEO
2315.0	[m]	DC	PALEO
2325.0	[m]	DC	PALEO
2375.0	[m]	DC	PALEO
2405.0	[m]	DC	PALEO
2435.0	[m]	DC	PALEO
2465.0	[m]	DC	PALEO

2495.0	[m]	DC	PALEO
2525.0	[m]	DC	PALEO
2555.0	[m]	DC	PALEO
2565.0	[m]	DC	PALEO
2575.0	[m]	DC	PALEO
2576.0	[m]	C	PALEO
2583.0	[m]	C	PALEO
2588.0	[m]	C	PALEO
2598.0	[m]	C	PALEO
2608.5	[m]	C	PALEO
2618.5	[m]	C	PALEO
2628.5	[m]	C	PALEO
2646.0	[m]	DC	PALEO
2661.0	[m]	DC	PALEO
2676.0	[m]	DC	PALEO
2691.0	[m]	DC	PALEO
2706.0	[m]	DC	PALEO
2721.0	[m]	DC	PALEO
2736.0	[m]	DC	PALEO
2751.0	[m]	DC	PALEO
2766.0	[m]	DC	PALEO
2781.0	[m]	DC	PALEO
2796.0	[m]	DC	PALEO
2811.0	[m]	DC	PALEO
2826.0	[m]	DC	PALEO
2841.0	[m]	DC	PALEO
2856.0	[m]	DC	PALEO
2871.0	[m]	DC	PALEO
2886.0	[m]	DC	PALEO
2901.0	[m]	DC	PALEO
2916.0	[m]	DC	PALEO
2931.0	[m]	DC	PALEO
2946.0	[m]	DC	PALEO
2976.0	[m]	DC	PALEO
2991.0	[m]	DC	PALEO
3006.0	[m]	DC	PALEO
3021.0	[m]	DC	PALEO
3036.0	[m]	DC	PALEO
3045.0	[m]	DC	PALEO
3057.0	[m]	DC	PALEO

3066.0	[m]	DC	PALEO
3078.0	[m]	DC	PALEO
3099.0	[m]	DC	PALEO
3108.0	[m]	DC	PALEO
3120.0	[m]	DC	PALEO
3129.0	[m]	DC	PALEO
3141.0	[m]	DC	PALEO
3150.0	[m]	DC	PALEO
3162.0	[m]	DC	PALEO
3177.0	[m]	DC	PALEO

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
321	NORDLAND GP
1114	UTSIRA FM
1124	HORDALAND GP
1308	NO FORMAL NAME
1330	NO FORMAL NAME
1682	ROGALAND GP
1682	BALDER FM
1732	LISTA FM
1881	SHETLAND GP
1881	JORSALFARE FM
2138	KYRRE FM
2572	CROMER KNOLL GP
2572	MIME FM
2578	VIKING GP
2578	INTRA DRAUPNE FM SS
2581	HEATHER FM
2613	BRENT GP
2613	TARBERT FM
2630	NESS FM
2649	ETIVE FM
2695	RANNOCH FM
2785	DUNLIN GP
2785	DRAKE FM
2882	COOK FM
2919	BURTON FM

2947	AMUNDSEN FM
3046	STATFJORD GP
3128	HEGRE GP
3128	LUNDE FM

Geochemical information

Document name	Document format	Document size [MB]
1967_1	pdf	0.32
1967_2	pdf	4.56

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

Document name	Document format	Document size [MB]
1967_01_WDSS_General_Information	pdf	0.47
1967_02_WDSS_completion_log	pdf	0.19

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

Document name	Document format	Document size [MB]
1967_34_7_20_COMPLETION_REPORT_AND_LOG	pdf	14.30

Logs

Log type	Log top depth [m]	Log bottom depth [m]
ATE	350	1000
CST GR	1890	3175
DSI GR AMS VDL	2530	3172
MSFL DLL LSS LDL CNL GR AMS SP	1828	2815
MWD CDR - GR RES DIR TEMP	422	3177
PI MSFL LDL CNL GR AMS SP	2550	3178
PI MSFL SLS LDL GR AMS SP	1201	1831
RFT GR AMS	2583	2779
RFT GR AMS	3047	3152

SHDT GR AMS	1824	3179
VELOCITY	980	3170

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	418.0	36	419.0	0.00	LOT
INTERM.	20	1204.0	26	1207.0	1.59	LOT
INTERM.	13 3/8	1824.0	17 1/2	1845.0	1.79	LOT
OPEN HOLE		3177.0	12 1/4	3177.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
392	1.24			WATER BASED	
419	1.03	13.0		WATER BASED	
880	1.12	10.0		WATER BASED	
1220	1.14	7.0		WATER BASED	
1223	1.35	16.0		WATER BASED	
1716	1.45	36.0		WATER BASED	
1845	1.48	38.0		WATER BASED	
2017	1.60	31.0		WATER BASED	
2250	1.64	34.0		WATER BASED	
2364	1.60	38.0		WATER BASED	
2480	1.64	36.0		WATER BASED	
2572	1.64	37.0		WATER BASED	
2582	1.64	37.0		WATER BASED	
2936	1.60	33.0		WATER BASED	
3029	1.60	40.0		WATER BASED	
3169	1.60	39.0		WATER BASED	
3177	1.60	40.0		WATER BASED	