Generell informasjon

Brønnbane navn	34/7-33
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Brønn navn	34/7-33
Seismisk lokalisering	inline1924-x-line 6202&3 D SG9701 STR05 PSDM
Utvinningstillatelse	089
Boreoperatør	StatoilHydro ASA
Boretillatelse	1193-L
Boreinnretning	OCEAN VANGUARD
Boredager	61
Borestart	16.08.2008
Boreslutt	15.10.2008
Frigitt dato	15.10.2010
Publiseringsdato	15.10.2010
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	SHOWS
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	22.0
Vanndybde ved midlere havflate [m]	233.0
Totalt målt dybde (MD) [m RKB]	2615.0
Totalt vertikalt dybde (TVD) [m RKB]	2611.0
Maks inklinasjon [°]	9.6
Temperatur ved bunn av brønnbanen [°C]	86
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	DRAKE FM
Geodetisk datum	ED50
NS grader	61° 19' 2.5'' N
ØV grader	2° 5' 46.4'' E
NS UTM [m]	6798634.03
ØV UTM [m]	451605.51
UTM sone	31
NPDID for brønnbanen	5917

Brønnhistorie

General

Well 34/7-33 was drilled in the Vigdis/Tordis area on Tampen Spur in the Northern North Sea. The primary objective was to test the potential for oil in the sandstones of the Brent Group in the M5 Sør prospect. The secondary target of the well was to acquire data to clarify the potential of the Sele /Lista interval, if reservoir with hydrocarbon was present and to acquire data over the Utsira Formation Sandstones in order to evaluate the potential for future injection of produced water from the Tordis Field sub-sea separator.

Operations and results

An 8 1/2" pilot hole, well 34/7-U-17, was drilled to evaluate for shallow gas and to log the Utsira Formation. Based on MWD/LWD and ROV indications shallow gas was observed in intervals from 336 to 340 m and between 548 to 550 m. No indications of shallow gas were however observed in the subsequent 36" and 26" hole in well 34/7-33.

Wildcat well 34/7-33 was spudded with the semi-submersible installation Ocean Vanguard on 16 August 2008 and drilled to TD at 2615 m in the Early Jurassic Drake Formation. Due to flash setting of the cement when cementing the 9 5/8" casing the well was side-tracked (34/7-33 T2), with KOP at 1592 m. The well was drilled with spud mud down to 1053 m, with KCl/polymer mud from 1053 m to 1690 m, with HP/WBM mud from 1690 m to 2260 m, and with KCL/Polymer/glycol mud from 2260 m to TD.

The well penetrated rocks of Quaternary, Tertiary, Cretaceous, and Jurassic age. The well proved approximately 10 meters oil bearing sandstones in the Lista Formation. Cores were taken and good shows were recorded in the sand beds in these cores. Well results suggest that only 1 of the 10 meters sandy interval had properties as a producible reservoir. Gas peaks with a full range of C1 to C5 were recorded in the Balder and Lista Formation, and in the underlying Shetland Group increased gas levels (2-3%) with C1 to C5 were recorded in the interval 2150 to 2220 m. The well further proved, unexpectedly, the presence of Early Cretaceous and Heather age sands resting directly on the Brent Group Ness Formation. The uppermost Tarbert Formation of the Brent Group was not seen in the 34/7-33 T2 well. The reservoir sections in the Brent Group had excellent reservoir properties, as expected, but were water wet with only weak shows at 2392 to 2402 m and 2506 to 2522 m.

Two cores were cut before sidetracking from 1772 m to 1825 m in the Lista Formation. MDT pressure points were attempted before sidetracking in the Lista Formation but only three were obtained due to the thin sandstones encountered. A reliable gradient could not be established. Oil samples were taken at 1801.8 m but due to high drawdown the fluids obtained were not representative. A Mini DST was also attempted in the thin Lista Formation sands, but was not successful. A second MDT run in the sidetrack in the Viking and Brent groups obtained high quality pressure points. Several pressure barriers were indicated by these data. Good water samples were obtained at 2333 m.

The well was permanently abandoned on 15 October as a well with good shows.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1060.00	2250.00

Borekaks tilgjengelig for prøvetaking?	YES

Borekjerner i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	1772.0	1798.0	[m]
2	1798.0	1825.0	[m]

Total kjerneprøve lengde [m]	53.0
Kjerner tilgjengelig for prøvetaking?	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
255	NORDLAND GP
1023	UTSIRA FM
1029	HORDALAND GP
1669	ROGALAND GP
1669	BALDER FM
1710	LISTA FM
1842	SHETLAND GP
2322	NO FORMAL NAME
2355	VIKING GP
2355	HEATHER FM
2372	BRENT GP
2372	NESS FM
2470	ETIVE FM
2499	RANNOCH FM
2561	BROOM FM
2587	DUNLIN GP
2587	DRAKE FM

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
MDT GR	1790	1850
MDT GR	2325	2538
MWD LWD - ARC	1059	1720
MWD LWD - GVR ARC	1720	1772
MWD LWD - POWERPULSE ARC	1583	2271
MWD LWD - VSONIC6	255	1110
PEX HRLA DSI	1420	2245
PEX HRLA DSI	1555	2607
VSP	955	2560

Foringsrør og formasjonsstyrketester

Type utforing	Utforing diam. [tommer]	Utforing dybde [m]	Brønnbane diam. [tommer]	Brønnbane dyp [m]	LOT/FIT slam eqv. [g/cm3]	Type formasjonstest
CONDUCTOR	30	315.0	36	315.0	0.00	LOT
SURF.COND.	20	1053.0	26	1053.0	1.53	LOT
INTERM.	13 3/8	1715.0	17 1/2	1720.0	1.64	LOT
LINER	9 5/8	2261.0	12 1/4	2261.0	1.69	LOT
OPEN HOLE		2615.0	8 1/2	2615.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
1062	1.39	22.0		KCl/Polymer/Glycol	
1200	1.39	24.0		KCl/Polymer/Glycol	
1430	1.50	30.0		KCl/Polymer/Glycol	
1581	1.50	32.0		KCl/Polymer/Glycol	
1616	1.50	31.0		HPWBM	
1704	1.50	30.0		HPWBM	
1720	1.52	32.0		KCl/Polymer/Glycol	
1772	1.50	29.0		KCl/Polymer/Glycol	
1786	1.50	30.0		HPWBM	
2108	1.50	37.0		HPWBM	
2138	1.52	34.0		HPWBM	

2255	1.52	33.0		HPWBM	
2264	1.50	36.0		HPWBM	
2269	1.58	26.0		KCl/Polymer/Glycol	
2569	1.58	24.0		KCl/Polymer/Glycol	
2615	1.58	25.0		KCl/Polymer/Glycol	