

**General information**

Wellbore name	34/5-1 A
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Discovery	34/5-1 S
Well name	34/5-1
Seismic location	inline 4451 & xline 2305 at top Cook
Production licence	374 S
Drilling operator	BG Norge AS
Drill permit	1305-L
Drilling facility	BREDFORD DOLPHIN
Drilling days	26
Entered date	16.03.2010
Completed date	10.04.2010
Release date	10.04.2012
Publication date	10.04.2012
Purpose - planned	APPRAISAL
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	25.0
Water depth [m]	387.0
Total depth (MD) [m RKB]	4416.0
Final vertical depth (TVD) [m RKB]	3731.0
Maximum inclination [°]	55.8
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	BURTON FM
Geodetic datum	ED50
NS degrees	61° 44' 35.19" N
EW degrees	2° 35' 55.37" E
NS UTM [m]	6845792.02
EW UTM [m]	478803.99
UTM zone	31
NPDID wellbore	6352



Wellbore history

General

The 34/5-1 A exploration sidetrack was planned to test an eastern segment of the Blåbær prospect in Tampen North, ca 9 km to the southwest of the 34/3-1 S Jordbær discovery. The primary well bore 34/5-1 S well proved a hydrocarbon bearing column within the Cook Formation in 64 m TVD of interbedded sandstones and siltstones, and the Cook Formation was the target for the sidetrack as well.

Operations and results

Appraisal well 34/5-1 A was drilled with the semi-submersible installation Bredford Dolphin. It was kicked off on 16 March 2010, at 2137 m from primary well 34/5-1 S and drilled to TD at 4416 m (3731 m TVD) in the Early Jurassic Burton Formation. No significant problems were encountered in the operations. The well was drilled with XP-07 oil based mud from kick-off to TD.

Top Cook Formation (Late Pliensbachian) reservoir came in 27.6 m shallower than the prediction at 4274 m (3602 m TVD). The Cook Formation sandstones had an average porosity of 18.3% and 20 m of net sand based on 50% Vsh cut-and 10% porosity cut-off. As in 34/5-1 S the Upper and Lower Cook had markedly different reservoir properties. Generally the reservoir properties of the 34/5-1 A were worse than the well 34/5-1 S in both units. A very weak residual(?) show was observed in a sandstone sample at 4275 m. Otherwise, no hydrocarbon shows were observed in the well. Mudstone in the lower part of the Drake Formation showed source rock properties with elevated gamma ray above 150 deg API, TOC around 2 %wt, and average Hydrogen Index around 300 with peak HI up to 450 mg HC/g TOC.

Due to dry well no cores were cut and no wire line fluid samples were taken.

The well was permanently abandoned on 10 April 2010 as a dry well.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
2160.00	4416.00

Cuttings available for sampling?	YES
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Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
412	NORDLAND GP
1333	UTSIRA FM



1435	NO FORMAL NAME
1450	HORDALAND GP
1561	NO FORMAL NAME
1568	NO FORMAL NAME
1890	ROGALAND GP
1890	BALDER FM
1922	LISTA FM
2010	SHETLAND GP
2010	JORSALFARE FM
2241	KYRRE FM
3802	TRYGGVASON FM
4070	CROMER KNOLL GP
4070	MIME FM
4082	VIKING GP
4082	HEATHER FM
4129	NO GROUP DEFINED
4152	DUNLIN GP
4152	DRAKE FM
4274	COOK FM
4356	BURTON FM

Geochemical information

Document name	Document format	Document size [MB]
6352_01_34_5_1S&A_gch_transfer_1	txt	0.00
6352_02_34_5_1S&A_gch_results_1	txt	0.32

Logs

Log type	Log top depth [m]	Log bottom depth [m]
LWD - ALD CTN MILF FTWD BAT	4231	4234
LWD - ALD CTN MILF FTWD BAT	4234	4416
LWD - EWR BAT ALD ALDPINGER CTN	2137	4231
LWD - GABI DIR EWR DGR PWD	4234	4416
LWD - GABI DIR EWR DGRPWD	4231	4234
LWD - GABI DIR PWD AGR DDSM5 -	2137	4231
MSCT	4230	4354





VSI-4	2005	4409
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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
INTERM.	13 3/8	2125.0	17 1/2	2135.0	0.00	LOT
INTERM.	9 5/8	4221.0	12 1/4	4231.0	0.00	LOT
OPEN HOLE		4416.0	8 1/2	4416.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
2050	1.60	30.0		XP-07	
2156	1.39	18.0		XP-07	
2272	1.60	30.0		XP-07	
2529	1.39	21.0		XP-07	
2805	1.50	26.0		XP-07	
3972	1.60	31.0		XP-07	
4098	1.60	25.0		XP-07	
4220	1.85	32.0		XP-07	
4231	1.60	31.0		XP-07	
4257	1.85	38.0		XP-07	
4416	1.85	39.0		XP-07	