

**General information**

Wellbore name	34/4-14 S
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	34/4-11 (Beta)
Well name	34/4-14
Seismic location	SUN13001-inline 7351 & xline 4004
Production licence	375
Drilling operator	Suncor Energy Norge AS
Drill permit	1564-L
Drilling facility	BORGLAND DOLPHIN
Drilling days	78
Entered date	03.03.2015
Completed date	19.05.2015
Release date	19.05.2017
Publication date	19.05.2017
Purpose - planned	APPRAISAL
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	31.0
Water depth [m]	385.0
Total depth (MD) [m RKB]	4822.0
Final vertical depth (TVD) [m RKB]	4563.0
Maximum inclination [°]	29.8
Bottom hole temperature [°C]	154
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	LUNDE FM
Geodetic datum	ED50
NS degrees	61° 40' 51.05" N
EW degrees	2° 7' 19.42" E
NS UTM [m]	6839104.08
EW UTM [m]	453534.31
UTM zone	31
NPDID wellbore	7660



Wellbore history

General

Well 34/4-14 S was drilled to appraise the 34/4-11 Beta discovery. The discovery was proven in 2010 and is located approximately 20 km northwest of the Snorre field in the North Sea. The reservoir is in the Brent and Statfjord groups. The objective was to evaluate the presence of hydrocarbons at a commercial level, down-dip from the existing discovery and appraisal locations.

Operations and results

Appraisal well 34/4-14 S was spudded with the semi-submersible installation Borgland Dolphin on 3 March 2015 and drilled to TD at 4822 m, (4563 m TVD) in the Late Triassic Lunde Formation. A 9 7/8" Pilot Hole was initially drilled to a depth of 797 m, being evaluated by LWD gamma ray, resistivity and sonic. No shallow gas, water flows, hydrates or boulders were present. The main well was drilled directionally with kick-off from the vertical at 2103 m and a sail angle below 2748 m of ca 28°/30°. The 8 1/2" section was drilled under High-Pressure-High-Temperature procedures. No significant problem was encountered in the operations. The well was drilled with seawater and hi-vis sweeps down to 1490 m, and with XP-07 oil-based mud from 1490 m to TD.

The well encountered a reservoir in the Statfjord group from the Early Jurassic Age and proved 11 m of net sandstone of good quality. The well is dry. No oil shows above the oil-based mud were recorded in the well.

No cores were cut. MDT water samples were taken at 4642 m. Wireline logging at TD was hampered by poor hole conditions.

The well was permanently abandoned on 19 May 2015 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]
1500.00	4822.00

Cuttings available for sampling?	YES
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Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
416	NORDLAND GP
1175	UTSIRA FM



1331	HORDALAND GP
1805	ROGALAND GP
1805	BALDER FM
1860	SELE FM
1906	LISTA FM
1980	SHETLAND GP
1980	JORSALFARE FM
2193	KYRRE FM
3357	TRYGGVASON FM
4072	SVARTE FM
4157	CROMER KNOLL GP
4157	RØDBY FM
4227	SOLA FM
4250	MIME FM
4265	VIKING GP
4265	DRAUPNE FM
4310	HEATHER FM
4344	BRENT GP
4344	TARBERT FM
4350	RANNOCH FM
4417	DUNLIN GP
4417	DRAKE FM
4494	COOK FM
4519	BURTON FM
4538	AMUNDSEN FM
4640	STATEJORD GP
4640	NANSEN FM
4658	EIRIKSSON FM
4723	RAUDE FM
4754	HEGRE GP
4754	LUNDE FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
EMA HNGS MDT	4239	4800
LWD - DGR EWR P4 PWD DIR	498	1490
LWD - DIR	416	502
LWD - EWR P4 DGR PWD DIR	416	797



LWD - GP ABG DIR GM EWR P4 PWD Q	4287	4822
LWD - GP DIR DGR EWR P4 PWD XBAT	2850	4287
LWD - GP DIR DGR EWR PWD SON	1490	2848
MDT GR	4642	4657
QAIT GPIT PPC MSIP APS LDS HNGS	416	4800
USIT DCBL VDL GR	1330	2835

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	495.0	36	498.0	0.00	
PILOT HOLE		797.0	9 7/8	797.0	0.00	
SURF.COND.	20	1485.0	26	1490.0	0.00	
		1493.0		1493.0	1.69	LOT
INTERM.	13 3/8	2838.0	17 1/2	2848.0	0.00	
		2850.0		2850.0	1.95	LOT
LINER	9 7/8	4277.0	12 1/4	4287.0	2.14	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
447	1.02	2.0		XP-07	
1490	1.44	23.0		XP-07	
2834	1.59	29.0		XP-07	
2848	1.44	20.0		XP-07	
2850	1.59	29.0		XP-07	
4072	1.94	34.0		XP-07 HPHT	
4110	1.67	31.0		XP-07	
4287	1.66	32.0		XP-07	
4441	1.86	26.0		XP-07 HPHT	
4589	1.94	32.0		XP-07 HPHT	
4695	1.94	34.0		XP-07 HPHT	
4822	1.94	31.0		XP-07 HPHT	

