

**General information**

Wellbore name	34/10-54 A
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Discovery	34/10-54 A
Well name	34/10-54
Seismic location	ST09M01-inline 1909 & xline 3163
Production licence	050 ES
Drilling operator	Statoil Petroleum AS
Drill permit	1470-L
Drilling facility	TRANSOCEAN LEADER
Drilling days	69
Entered date	11.02.2014
Completed date	18.04.2014
Release date	18.04.2016
Publication date	18.04.2016
Purpose - planned	WILDCAT
Reentry	NO
Content	GAS/CONDENSATE
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	BRENT GP
2nd level with HC, age	EARLY JURASSIC
2nd level with HC, formation	COOK FM
3rd level with HC, age	EARLY JURASSIC
3rd level with HC, formation	STATFJORD GP
Kelly bushing elevation [m]	23.5
Water depth [m]	140.0
Total depth (MD) [m RKB]	4656.0
Final vertical depth (TVD) [m RKB]	4270.0
Maximum inclination [°]	42.5
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	RAUDE FM
Geodetic datum	ED50
NS degrees	61° 7' 32.7" N



EW degrees	2° 18' 35.5" E
NS UTM [m]	6777151.11
EW UTM [m]	462819.52
UTM zone	31
NPDID wellbore	7254

Wellbore history

General

Well 34/10-54 A is a geological sidetrack to well 34/10-54 S. The wells were drilled to test the Valemon Nord prospect on the Tjalve Terrace in the North Sea. The prospect is situated north of the Valemon Field, between the Gullfaks South, and the Kvitebjørn fields. The primary objective of well 34/10-54 A was to prove commercial hydrocarbon volumes in the Early Jurassic Statfjord Group.

Operations and results

Wildcat well 34/10-54 A was kicked off from 2813 m in the primary well on 11 February 2014. It was drilled with the semi-submersible installation Transocean Leader to TD at 4656 m (4270 m TVD) in the Early Jurassic Raude Formation. A well influx occurred during coring at 4515 m. The flow was circulated out with the driller's method. Further drilling to TD was hampered by hole problems and sticking of drill string. The well was drilled with XP-07 oil based mud from kick-off to TD.

The Brent Group, although not prognosed, came in at 4076 m (3838 m TVD) underlying only 7.5 m Heather Formation. The Brent Group was gas bearing. The primary target Statfjord Group at 4466 m (4129 m). The well proved a gas/condensate column throughout the Brent Group with an additional gas/condensate column in the Statfjord Group. Gas/condensate was also found in the Cook Formation. Pressure sampling in both wells identified different pressure systems through the sand intervals and show most likely initial reservoir pressures. Pressures were lower than expected, below HP definition. No hydrocarbon/water contacts could be found in the Brent or Cook, and challenging well conditions caused an early TD in the Raude Formation, which is most likely hydrocarbon filled at TD.

A total of 67.2 meters of core was cut and 60.25 meters recovered (88.34% recovery) in five cores from the interval 4252 m in the Cook Formation to 4522 m in the Statfjord Group. MDT gas/condensate samples were recovered from 4147.56 m, 4260.23 m, 4494.98 m, 4501.52 m, and 4565.3 m.

The well was permanently abandoned on 18 April 2014 as gas/condensate discovery.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
2820.00	4655.00



Cuttings available for sampling?	YES
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Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	4252.0	4265.6	[m]
2	4468.0	4474.9	[m]
3	4481.0	4497.7	[m]
4	4498.0	4515.0	[m]
5	4515.1	4521.5	[m]

Total core sample length [m]	60.5
Cores available for sampling?	YES

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
MDT		4147.50	0.00	CONDE NSATE	07.08.2014 - 00:00	YES
MDT		4565.30	0.00	CONDE NSATE	08.08.2014 - 00:00	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
164	NORDLAND GP
164	UNDIFFERENTIATED
940	UTSIRA FM
994	UNDIFFERENTIATED
1052	HORDALAND GP
1052	UNDIFFERENTIATED
1857	ROGALAND GP
1857	BALDER FM
1924	SELE FM
1930	LISTA FM
2068	VÅLE FM
2081	SHETLAND GP



2081	JORSALFARE FM
2408	KYRRE FM
3328	TRYGGVASON FM
3563	SVARTE FM
3825	CROMER KNOLL GP
3825	RØDBY FM
3920	SOLA FM
4030	ÅSGARD FM
4066	VIKING GP
4066	HEATHER FM
4076	BRENT GP
4076	TARBERT FM
4146	NESS FM
4182	ETIVE FM
4191	RANNOCH FM
4203	DUNLIN GP
4203	DRAKE FM
4238	COOK FM
4299	BURTON FM
4359	AMUNDSEN FM
4467	STATFJORD GP
4467	NANSEN FM
4512	EIRIKSSON FM
4635	RAUDE FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
AIT PEX HNGS GR	4015	4655
CMR GR	4060	4657
MDT GR	4068	4617
MDT MRPA	4147	4495
MDT MRPA	4260	4565
MDT MRPA	4521	4521
MSCT GR	4067	4634
MWD-TELE675 ARC6 PDX5	4453	4571
MWD-TELE675 ARC6 PDX5 GVR6	4024	4468
MWD-TELE675 ARC6 PDX5 STETH	4065	4656
MWD-TELE825 ARC8 PDX5 900	2795	4024



NGI	4040	4600
TLD CMR GR	4015	4651
VSP VSI-4	1700	4655

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.	14	2795.0	17 1/2	3012.0	1.83	LOT
INTERM.	9 7/8	4014.6	12 1/4	4024.0	2.02	FIT
OPEN HOLE		4656.0	8 1/2	4656.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
360	1.72	40.0		OBM-Low ECD	
2825	1.72	36.0		OBM-Low ECD	
3442	1.72	35.0		OBM-Low ECD	
3684	1.72	33.0		OBM-Low ECD	
3715	1.72	38.0		OBM-Low ECD	
3715	1.83	40.0		OBM-Low ECD- HTHP	
3715	1.83	42.0		OBM-Low ECD- HTHP	
3724	1.72	31.0		OBM-Low ECD	
3915	1.84	40.0		OBM-Low ECD- HTHP	
3918	1.72	34.0		OBM-Low ECD	
4024	1.82	33.0		OBM-Low ECD- HTHP	
4030	1.85	32.0		OBM-Low ECD- HTHP	
4468	1.85	37.0		OBM-Low ECD- HTHP	
4515	1.90	39.0		OBM-Low ECD- HTHP	
4656	1.86	37.0		OBM-Low ECD- HTHP	
4656	1.83	36.0		OBM-Low ECD- HTHP	



4656	1.90	38.0		OBM-Low ECD- HTHP	
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