



General information





Wellbore name	6407/1-7 A
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Discovery	6407/1-7 (Solberg)
Well name	6407/1-7
Seismic location	ST0614WIR10 inline 8016&xline3002
Production licence	475
Drilling operator	Wintershall Norge AS
Drill permit	1516-L
Drilling facility	BORGLAND DOLPHIN
Drilling days	29
Entered date	22.03.2014
Completed date	20.04.2014
Release date	20.04.2016
Publication date	20.04.2016
Purpose - planned	APPRAISAL
Reentry	NO
Content	GAS/CONDENSATE
Discovery wellbore	NO
1st level with HC, age	LATE CRETACEOUS
1st level with HC, formation	NO FORMAL NAME
Kelly bushing elevation [m]	31.0
Water depth [m]	281.0
Total depth (MD) [m RKB]	3602.0
Final vertical depth (TVD) [m RKB]	3342.0
Maximum inclination [°]	52
Oldest penetrated age	EARLY CRETACEOUS
Oldest penetrated formation	LANGE FM
Geodetic datum	ED50
NS degrees	64° 57' 44.68" N
EW degrees	7° 14' 6.28" E
NS UTM [m]	7205608.56
EW UTM [m]	416659.43
UTM zone	32
NPDID wellbore	7436



Wellbore history

General

Well 6407/1-7 A is a geological sidetrack to the 6407/1-7 Solberg well in the southern part of the Grinda Graben in the Norwegian Sea. The 6407/1-7 well bores were drilled to test the continuation of the 6407/1-6 S Rodrigues Lange discovery. The primary well 6407/1-7 proved gas condensate in intra-Lange Formation sandstone. The objective of sidetrack 6407/1-7 A is to investigate the continuation of these sandstones to a position where the seismic amplitude anomaly is weaker.

Operations and results

Wildcat well 6407/1-7 A was kicked off from 6407/1-7 at 2519 m on 22 March 2014. It was drilled with the semi-submersible installation Borgland Dolphin to TD at 3602 m (3342 m TVD) in the Early Cretaceous Lange Formation. Drilling to TD and logging proceeded without significant problems but during plugging back for P&A BOP problems and WOW caused some NPT. The well was drilled with Carbosea oil based mud from kick-off to TD.

6407/1-7 A was drilled 500 m west of the main bore and penetrated an intra-Lange Formation sandstone between 3442.5 to 3459.5 (3235.6 to 3246.8 m TVD). The net thickness of the reservoir is 8 m with a porosity of 15.1% and a water saturation of 19.4%. The permeability varies from poor to excellent, with a range from below one mD to several hundred mD. The fluid in 6407/1-7 and -7 A is similar to what was found in the 6407/1-6 S. However, the pressure data shows that there is a 3.2 bar difference between Lange Formation sandstones in 6407/1-6 S and 6407/1-7/6407/1-7 A. No oil shows above the OBM was described in 6407/1-7 A.

One core was cut from 3443 to 3462 m with 97% recovery. No fluid sample was taken.

The well was permanently abandoned on 20 April 2014 as a gas/condensate appraisal well.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
2530.00	3602.00

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	3443.0	3461.4	[m]



Total core sample length [m]	18.4
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
312	NORDLAND GP
541	NAUST FM
1414	KAI FM
1825	HORDALAND GP
1825	BRYGGE FM
2125	ROGALAND GP
2125	TARE FM
2212	TANG FM
2270	SHETLAND GP
2270	SPRINGAR FM
2424	NISE FM
2663	KVITNOS FM
3033	CROMER KNOLL GP
3033	LYSING FM
3066	LANGE FM
3443	NO FORMAL NAME
3461	LANGE FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
DSL CN ZDL ORIT XMAC HDIL	2511	3602
MWD LWD - DIR	312	510
MWD LWD - DIR GR RES SON ND	3462	3602
MWD LWD - GR RES DIR	390	510
MWD LWD - GR RES DIR SON	510	2511

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
OPEN HOLE		3602.0	8 1/2	3602.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1637	1.69	57.0		Carbosea OBM	
2535	1.67	48.0		Carbosea OBM	
2900	1.69	37.0		Carbosea OBM	
3462	1.69	42.0		Carbosea OBM	
3602	1.68	56.0		Carbosea OBM	
3602	1.69	57.0		Carbosea OBM	