



Generell informasjon

Brønnbane navn	6407/1-6 S
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORWEGIAN SEA
Funn	6407/1-6 S
Brønn navn	6407/1-6
Seismisk lokalisering	ST0614WIR10 inline 7685-xline 2781
Utvinningstillatelse	475
Boreoperatør	Wintershall Norge AS
Boretillatelse	1420-L
Boreinnretning	TRANSOCEAN ARCTIC
Boredager	48
Borestart	07.12.2012
Boreslutt	24.01.2013
Frigitt dato	24.01.2015
Publiseringsdato	13.04.2015
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	GAS/CONDENSATE
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	LATE CRETACEOUS
1. nivå med hydrokarboner, formasjon.	LANGE FM
Avstand, boredekk - midlere havflate [m]	24.0
Vanndybde ved midlere havflate [m]	291.0
Totalt målt dybde (MD) [m RKB]	4250.0
Totalt vertikalt dybde (TVD) [m RKB]	4075.0
Maks inklinasjon [°]	38.7
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	ROR FM
Geodetisk datum	ED50
NS grader	64° 56' 25.66" N
ØV grader	7° 8' 36.8" E
NS UTM [m]	7203286.76



ØV UTM [m]	412266.84
UTM sone	32
NPDID for brønnbanen	7086

Brønnhistorie

General

Well 6407/1-6S was drilled on the Rodriguez prospect on the Halten Terrace in the Norwegian Sea. The primary objective was to test the Garn Formation with upside potential in the Ile Formation. Secondary objective was to test high amplitudes observed in the Lange Formation and to improve the regional understanding of the Cretaceous play.

Operations and results

Wildcat well 6407/6-1 S was spudded with the semi-submersible installation Transocean Arctic on 7 December 2012 and drilled to TD at 4250 m (4075 m TVD). A 12 1/4" pilot hole was drilled from 393 m to 1003 m without any indication of shallow gas. The well was drilled with an S-shaped path that is vertical down to 2330 m, deviated from there to ca 3830 m and vertical again to TD. No significant problem was encountered in the operations. The well was drilled with spud mud down to 396 m, with KCl mud from 396 m to 1003 m, with Performadril mud from 1003 m to 3091 m, and with oil based XP-07 mud from 3091 m to TD.

Gas/condensate was encountered in several overpressured intra Lange sandstones in the interval 3460 m to 3530 m. No water contact was found. The sandstones had an average porosity of 18% using a porosity cut-off of 8%. The reservoir has a net to gross of 0.171 and an average Sw of 0.276. The Middle Jurassic Garn Formation and Ile Formation were dry with no shows and gas readings of approximately 0.4%. The Garn Formation was 119 m thick, 29 m thicker than prognosed.

No cores were cut in the well. The RCX tool was run for pressure and fluid samples. In the Intra Lange Sandstones, the pressure was 511 bar and two fluid samples were taken at 3463.65 m and 3461.5 m. The samples showed gas-condensate with a GCR of 1852-2188 Sm³/Sm³ and 1.5% CO₂. Pressure measurements in the Garn Formation proved a water gradient close to hydrostatic pressure. The maximum temperature at well TD was 150 °C, measured on wireline 23 hrs after last circulation.

The well was permanently abandoned on 24 January 2013 as a gas/condensate discovery.

Testing

No drill stem test was performed.

Borekaks i Sökkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1000.00	4250.00

Borekaks tilgjengelig for prøvetaking?	YES
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Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
315	NORDLAND GP
315	NAUST FM
1427	KAI FM
1858	HORDALAND GP
1858	BRYGGE FM
2147	ROGALAND GP
2147	TARE FM
2227	TANG FM
2288	SHETLAND GP
2288	SPRINGAR FM
2440	NISE FM
2568	KVITNOS FM
3099	CROMER KNOLL GP
3099	LYSING FM
3141	LANGE FM
3460	NO FORMAL NAME
3565	LANGE FM
3717	VIKING GP
3717	SPEKK FM
3792	MELKE FM
3914	FANGST GP
3914	GARN FM
4032	NOT FM
4077	ILE FM
4195	BÅT GP
4195	ROR FM

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
MWD - DIR	315	396
MWD - DIR	396	998
MWD - DIR GR RES DEN NEU PWD	396	1003
MWD - DIR GR RES DEN NEU SON PWG	1985	4250



MWD - DIR GR RES SON	998	1985
RCI	3100	3523
RCI	3921	4085
VSP	1701	4236
XMAX SON CBL	1950	4240

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	395.0	36	398.0	0.00	
SURF.COND.	20	556.0	26	562.0	1.82	
PILOT HOLE		703.0	12 1/4	703.0	0.00	
LINER	16	1164.0	17 1/2	1199.0	1.90	
INTERM.	13 3/8	1976.0	14 3/4	2015.0	0.00	
INTERM.	9 5/8	3766.0	12 1/4	3773.0	1.61	
LINER	7	4175.0	8 1/2	4177.0	0.00	

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
315	1.04	20.0		Spud mud	
396	1.59	20.0		Displacement mud.	
412	1.32	20.0		KCL MUD	
824	1.48	28.0		PERFORMADRIL	
1003	1.33	23.0		PERFORMADRIL	
1003	1.29	23.0		PERFORMADRIL	
1268	1.42	31.0		PERFORMADRIL	
1919	1.53	40.0		PERFORMADRIL	
1985	1.55	35.0		PERFORMADRIL	
3091	1.69	37.0		XP-07 Yellow	
3834	1.70	35.0		XP/07 Yellow	
3924	1.19	17.0		XP/07 Yellow	
4250	1.20	18.0		XP-07 Yellow	

Trykkplott





Porertrykksdataene kommer fra logging i brønnen hvis ingen annen kilde er oppgitt. I noen brønner der trykk ikke er logget, er det brukt informasjon fra formasjonstester eller brønnspar. Trykkdataene er rapportert inn til Oljedirektoratet og videre prosessert og kvalitetssikret av IHS Markit.

Dokument navn	Dokument format	Dokument størrelse [KB]
7086 Formation pressure (Formasjonstrykk)	pdf	0.23

