



Generell informasjon

Brønnbane navn	6506/9-3
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORWEGIAN SEA
Felt	ÅSGARD
Funn	6506/9-3 (Smørbukk Nord)
Brønn navn	6506/9-3
Seismisk lokalisering	ST9905R04:inline 4190/xline1673.Depth target 4231 mTVD
Utvinningstillatelse	479
Boreoperatør	Statoil Petroleum AS
Boretillatelse	1455-L
Boreinnretning	TRANSOCEAN LEADER
Boredager	73
Borestart	16.06.2013
Boreslutt	27.08.2013
Frigitt dato	27.08.2015
Publiseringsdato	27.08.2015
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	GAS/CONDENSATE
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	GARN FM
2. nivå med hydrokarboner, alder	MIDDLE JURASSIC
2. nivå med hydrokarboner, formasjon	ILE FM
Avstand, boredekk - midlere havflate [m]	23.5
Vanndybde ved midlere havflate [m]	302.0
Totalt målt dybde (MD) [m RKB]	4692.0
Totalt vertikalt dybde (TVD) [m RKB]	4691.0
Maks inklinasjon [°]	5
Temperatur ved bunn av brønnbanen [°C]	170



Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	ÅRE FM
Geodetisk datum	ED50
NS grader	65° 15' 5.03" N
ØV grader	6° 54' 15.61" E
NS UTM [m]	7238280.29
ØV UTM [m]	402114.39
UTM sone	32
NPDID for brønnbanen	7207

Brønnhistorie

General

Well 6506/9-3, was drilled on the Smørbukk Nord prospect on the Halten Terrace in the Norwegian Sea. The primary objective was to prove petroleum in the Middle - Early Jurassic Garn, Ile and Tofte formations. The secondary objective was to prove petroleum in the Early Jurassic Ror, Tilje and Åre formations. A third objective was to test for possible hydrocarbon bearing sands in Early Cretaceous intra-Lange Formation sandstones.

Operations and results

Wildcat well 6506/9-3 was spudded with the semi-submersible installation Transocean Leader on 16 June 2013 and drilled to TD at 4692 m in the Early Jurassic Åre Formation. There were no gas warnings at the location and no shallow gas was seen. Operations proceeded without significant problems. The well was drilled with seawater and hi-vis sweeps down to 1171 m and with XP-07 oil based mud from 1171 m to TD.

Thin, partially calcite cemented sand stringers with fair gas saturation were penetrated in the Lange Formation between 3723 m and 3885 m. The well encountered a gas/condensate column of 47 metres in the Garn and upper Not formations with a down-to contact at 4284 m. The reservoir characteristics are good in the Garn and upper Not formations, while they are somewhat poorer than expected in the Ile formation. The Ile Formation proved gas condensate in the MDT sample at 4305.7 and oil in the sample at 4346 m. Geochemical analysis of the cores indicate a gas-oil contact at 4346 m and an oil down to at 4348 m. The deeper Tofte and Tilje formations contain some gas in a tight reservoir; the Åre Formation is water-wet.

A total of 132.6 m core was recovered in two cores from the interval 4241 m to 4385 m in the Garn, Not and Ile formations. The core to log depth shift was +4.5 m for core 1 and +4.0 m for core 2. MDT fluid samples were taken at 4250.9 m (gas condensate), 4305.7 m (gas condensate), and at 4346 m (water and oil). All samples were highly contaminated with mud filtrate.

The well was permanently abandoned on 27 August 2013 as a gas/condensate discovery.

Testing

No drill stem test was performed.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1180.00	4692.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	4241.0	4292.8	[m]
2	4304.0	4384.8	[m]

Total kjerneprøve lengde [m]	132.6
Kjerner tilgjengelig for prøvetaking?	YES

Oljeprøver i Sokkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
MDT		4250.90	0.00	CONDE NSATE	16.08.2013 - 00:00	YES
MDT		0.00	4305.70	CONDE NSATE	16.08.2013 - 00:00	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
326	NORDLAND GP
326	NAUST FM
1426	KAI FM
1806	HORDALAND GP
1806	BRYGGE FM
2108	ROGALAND GP
2108	TARE FM
2190	TANG FM
2250	SHETLAND GP



2250	SPRINGAR FM
2471	NISE FM
2692	KVITNOS FM
3153	CROMER KNOLL GP
3153	LYSING FM
3230	LANGE FM
4000	LYR FM
4025	VIKING GP
4025	SPEKK FM
4032	MELKE FM
4237	FANGST GP
4237	GARN FM
4273	NOT FM
4302	ILE FM
4386	BÅT GP
4386	ROR FM
4431	TOFTE FM
4492	TILJE FM
4656	ÅRE FM

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
AIT MSIP LDS APS GR	3700	4696
CMR ECS HNGS	4153	4690
MDT	4238	4373
MDT	4250	4628
MDT	4333	4333
MDT MINIDST VIT	4346	4346
MWD - ARC TELE	391	1171
MWD - GVR ECO TELE	4151	4692
MWD - PDX5 ARC SAD TELE	1171	4151
SBT GR CCL	1774	4075
VSP	311	4412

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	388.5	36	391.0	0.00	
SURF.COND.	20	1163.0	26	1171.0	1.68	FIT
INTERM.	14	2194.3	17 1/2	2201.0	1.83	FIT
INTERM.	9 5/8	4150.0	12 1/4	4151.0	1.98	FIT
OPEN HOLE		4692.0	8 1/2	4692.0	0.00	

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
485	1.40	13.0		XP-07 - Yellow	
600	1.60	39.0		XP-07 - Yellow	
602	1.41	10.0		XP-07 - Yellow	
1596	1.45	32.0		XP-07 - Yellow	
1857	1.82	49.0		OBM-Low ECD-HTHP	
2201	1.60	38.0		XP-07 - Yellow	
2310	1.72	29.0		XP-07 - Yellow	
2950	1.82	47.0		OBM-Low ECD-HTHP	
3925	1.82	45.0		OBM-Low ECD-HTHP	
3995	1.72	33.0		XP-07 - Yellow	
4151	1.72	34.0		XP-07 - Yellow	
4297	1.82	35.0		OBM-Low ECD-HTHP	
4692	1.82	38.0		OBM-Low ECD-HTHP	