



Generell informasjon

Brønnbane navn	6507/3-7
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORWEGIAN SEA
Felt	IDUN NORD
Funn	6507/3-7 Idun Nord
Brønn navn	6507/3-7
Seismisk lokalisering	BPN0501-innline1001 & crossline 613
Utvinningstillatelse	159 D
Boreoperatør	StatoilHydro Petroleum AS
Boretillatelse	1250-L
Boreinnretning	OCEAN VANGUARD
Boredager	51
Borestart	02.06.2009
Boreslutt	22.07.2009
Frigitt dato	22.07.2011
Publiseringsdato	22.07.2011
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	GAS
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	FANGST GP
Avstand, boredekk - midlere havflate [m]	22.0
Vanndybde ved midlere havflate [m]	377.0
Totalt målt dybde (MD) [m RKB]	3855.0
Totalt vertikalt dybde (TVD) [m RKB]	3854.5
Maks inklinasjon [°]	3.47
Temperatur ved bunn av brønnbanen [°C]	145
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	ÅRE FM
Geodetisk datum	ED50



NS grader	65° 49' 24.3" N
ØV grader	7° 43' 8.1" E
NS UTM [m]	7301009.43
ØV UTM [m]	441454.51
UTM sone	32
NPDID for brønnbanen	6123

Brønnhistorie

**General**

Well 6507/3-7 Idun Nord was drilled on the Eastern side of the Dønna Terrace in the Norwegian Sea, just north of the 6507/3-3 Idun Discovery. The main objective of the well was to prove hydrocarbons in the Middle Jurassic Fangst Group (Garn, Not and Ile Formation sandstones) and in the Early Jurassic Båt Group (Tilje and Åre Formation sandstones). A secondary target for the well was to test the hydrocarbon potential of the Cretaceous Intra Lange Formation sandstones.

Operations and results

Prior to spudding the main well, a 9 7/8" pilot hole 6507/3-U-2 was drilled approximately 15m east of this main wellbore 6507/3-7 location, to check for presence of shallow gas. No shallow gas was observed by the ROV at the wellhead and there were no indication on LWD, but the LWD confirmed thin water filled sands at 578 m, 648 m, 791 m, and 1142 m. Wildcat well 6507/3-7 was spudded with the semi-submersible installation Ocean Vanguard on 2 June 2009 and drilled to TD at 3855 m in the Early Jurassic Åre Formation. No LWD logs were run in the 36" and 26" sections of the main well bore. After drilling 3.5 m of the 8 1/2" section below the 9 5/8" shoe, a kick occurred. The pore pressure prognosis indicated 1.09 g/cm³ at top of the reservoir. The shut in well pressure estimated a pore pressure of 1.39 g/cm³. The kick was circulated out by driller's method and the mud weight increased from 1.25 g/cm³ to 1.45 g/cm³. The well was drilled with spud mud and hi-vis sweeps down to 1203 m, with Performadrill WBM from 1203 m to 2205 m, with Enviromul OBM (yellow class) from 2205 m to 3540 m, and with Performadrill WBM from 3540 m to TD.

6507/3-7 penetrated rocks of Quaternary, Tertiary, Cretaceous and Jurassic age. Top Garn Formation was encountered at 3545 m, top Not Formation at 3580 m, while the Early Jurassic Tilje Formation was encountered at 3687 m. The presence of gas bearing sandstones was proven in the Garn and Not Formations. The reservoir permeability ranged from 1240 md in Garn Formation to 1 - 7 md in Not Formation. The porosity in the Garn Formation was 16 - 20 %, while in the Not Formation it was 12 - 19 %. No gas/water contact was proven in the well, but from logs and formation pressure there is gas down to at least 3597 m and water up to at least 3622 m. The only significant shows in the well were seen on the cores from the reservoir. Apart from elevated gas readings and a minor show on one cutting sample from 2904 m no hydrocarbon indications were seen in the secondary target Lange Formation sandstones.

Two cores were cut. Core one was cut at 3546 - 3600 m (3546 m - 3601.4 m is marked depth on the core) in the Garn and Not Formations, core 2 was cut at 3600 ? 3654 m (3601.4 m - 3654 m is marked depth on the core) in the Not, Ile and Ror Formations. MDT fluid samples were taken at 3546.5 m in the Garn Formation (gas), at 3596 m in the Not Formation (gas and water), and at 3702 m in the Tilje Formation (water). Pressure points were taken in Garn, Not, Ile, Ror, Tilje and Åre. There is a 1 m difference between MWD/LWD depth and wire line logging depth in the 8 1/2" section.

The well was permanently abandoned on 22 July 2009 as a gas discovery.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1210.00	3855.00



Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	3546.0	3601.4	[m]
2	3601.4	3653.0	[m]

Total kjerneprøve lengde [m]	107.0
Kjerner tilgjengelig for prøvetaking?	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
399	NORDLAND GP
670	NAUST FM
1367	KAI FM
1709	HORDALAND GP
1709	BRYGGE FM
1967	ROGALAND GP
1967	TARE FM
2021	TANG FM
2047	SHETLAND GP
2047	SPRINGAR FM
2718	CROMER KNOLL GP
2718	LANGE FM
3344	VIKING GP
3344	SPEKK FM
3363	MELKE FM
3545	FANGST GP
3545	GARN FM
3580	NOT FM
3622	ILE FM
3639	BÅT GP
3639	ROR FM
3687	TILJE FM
3785	ÅRE FM



Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CMR ECS	3541	3854
FMI PPC MSIP PPC	3541	3855
HRLA PEX HNGS	3541	3855
MDT PACKER	3605	3632
MDT PRE	3546	3832
MWD LWD - PP	399	463
MWD LWD - PP ARCRES	399	1205
MWD LWD - PP ARCRES	463	2205
MWD LWD - PP ARCRES GVR	2205	3855
VSP	891	3848

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	459.0	36	463.0	0.00	LOT
SURF.COND.	20	1198.0	26	1203.0	1.54	LOT
INTERM.	13 3/8	2200.0	17 1/2	2205.0	1.87	LOT
INTERM.	9 5/8	3539.0	12 1/4	3540.0	2.00	LOT
OPEN HOLE		3855.0	8 1/2	3855.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
1203	1.26	35.0		Performadril	
1544	1.37	39.0		Performadril	
1730	1.37	44.0		Performadril	
1900	1.48	51.0		Performadril	
2025	1.45	25.0		Spud Mud	
2068	1.48	41.0		Performadril	
2205	1.50	36.0		Performadril	
2705	1.47	26.0		Spud Mud	
3215	1.56	36.0		Enviromul Yellow	



3540	1.25	20.0		Performadril	
3540	1.56	34.0		Enviromul Yellow	
3600	1.45	23.0		Performadril	
3654	1.45	23.0		Performadril	
3855	1.45	26.0		Performadril	

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 brønnspark. Trykkdataene er rapportert inn til Oljedirektoratet og videre prosessert og kvalitetssikret av IHS Markit.

Dokument navn	Dokument format	Dokument størrelse [KB]
6123 Formation pressure (Formasjonstrykk)	PDF	0.28

