



Generell informasjon

Brønnbane navn	15/12-18 S
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Funn	15/12-18 S (Storskrynten)
Brønn navn	15/12-18
Seismisk lokalisering	2004: inline 1166 & crossline 2860
Utvinningstillatelse	337
Boreoperatør	Det norske oljeselskap ASA (old)
Boretillatelse	1150-L
Boreinnretning	MÆRSK GIANT
Boredager	64
Borestart	05.09.2007
Boreslutt	07.11.2007
Frigitt dato	07.11.2009
Publiseringsdato	07.11.2009
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	PALEOCENE
1. nivå med hydrokarboner, formasjon.	TY FM
Avstand, boredekk - midlere havflate [m]	43.0
Vanndybde ved midlere havflate [m]	90.5
Totalt målt dybde (MD) [m RKB]	3520.0
Totalt vertikalt dybde (TVD) [m RKB]	3310.0
Maks inklinasjon [°]	36
Temperatur ved bunn av brønnbanen [°C]	86
Eldste penetrerte alder	LATE PERMIAN
Eldste penetrerte formasjon	ZECHSTEIN GP
Geodetisk datum	ED50
NS grader	58° 12' 53.07" N



ØV grader	1° 46' 40.43" E
NS UTM [m]	6453416.52
ØV UTM [m]	428194.30
UTM sone	31
NPDID for brønnbanen	5607

Brønnhistorie

General

Well 15/12-18 S is located between the Sleipner Øst and Varg fields in the North Sea. The well was designed to test three prospects in different stratigraphic intervals, referred to as Grid (Eocene), Storskrynten (Paleocene) and Grytkollen (Triassic Hugin/Skagerrak Formation). The Storskrynten reservoir was the primary objective of the three. If hydrocarbons were discovered bore, a sidetrack would be evaluated to prove the vertical extension of the column. All prospects were based on up doming effects along the main migration routes from the Maureen area.

Operations and results

Well 15/12-18 S was spudded with the jack-up installation Mærsk Giant on 5 September 2007 and drilled to TD at 3520 m (3310 m TVD) in the Late Permian Zechstein Group. It was drilled vertical down to 1700 m, building angle up to ca 35 deg at ca 2550 m. The deviation was kept within 36 to 24 deg for the remaining well path down to TD. The drilling operation was executed with several down-hole problems. Major delays were due to logging problems and lost circulation in the Cretaceous. The well was drilled with seawater down to 474 m, with KCl/polymer mud from 474 m to 1173 m, with mineral oil - based mud (Carbo-Sea) from 1173 m to 2773 m, and with Enviromul oil based mud from 2773 m to TD.

Twenty-two m of Grid sandstones were found water bearing. The Paleocene Ty Formation at 2670 m (2589 m TVD) was found hydrocarbon bearing. The OWC was from pressure data set to 2687.5 m (2602.5 m TVD). From the resistivity logs, however, the OWC would be set at 2691 m (2605.8 m TVD). This gives a vertical oil column of 16.8 m. Shows were recorded down to 2722 m. After evaluation of the Ty Formation reservoir, drilling continued into Hugin Formation at 3420 m (3219 m TVD), where 9 m of sandstone was encountered, but with no hydrocarbons. Shows were recorded on limestone at 2960 to 2970 m, in marl/claystone in the interval 3053 to 3175 m, and in shales of the Draupne and Heather Formations from 3270 to 3320 m.

No core was cut. Oil was sampled during the MDT runs at depths of 2671.9 m and 2683.6 m. Water was sampled at 2705 m. A mini-DST was attempted but aborted due to packer problems.

The well was completed on 7 November 2007 as an oil discovery. A side track (15/12-18 A) was initiated to appraise the discovery.

Testing

No drill stem test was performed.



Borekaks i Sökkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1180.00	3520.00

Borekaks tilgjengelig for prøvetaking?	YES
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Palynologiske preparater i Sökkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
2239.0	[m]	DC	APT
2254.0	[m]	DC	APT
2263.0	[m]	DC	APT
2275.0	[m]	DC	APT
2290.0	[m]	DC	APT
2400.0	[m]	DC	APT
2420.0	[m]	DC	APT
2440.0	[m]	DC	APT
2450.0	[m]	DC	APT
2460.0	[m]	DC	APT
2470.0	[m]	DC	APT
2490.0	[m]	DC	APT
2530.0	[m]	DC	APT
2645.0	[m]	SWC	APT
2650.0	[m]	SWC	APT
2655.0	[m]	SWC	APT
2664.0	[m]	SWC	APT
2667.0	[m]	SWC	APT
2699.0	[m]	SWC	APT
2700.0	[m]	SWC	APT
3330.0	[m]	DC	APT
3350.0	[m]	DC	APT
3370.0	[m]	DC	APT
3390.0	[m]	DC	APT
3410.0	[m]	DC	APT
3428.0	[m]	DC	APT
3434.0	[m]	DC	APT
3437.0	[m]	DC	APT
3449.0	[m]	DC	APT
3458.0	[m]	DC	APT
3467.0	[m]	DC	APT



3473.0	[m]	DC	APT
3476.0	[m]	DC	APT
3503.0	[m]	DC	APT
3512.0	[m]	DC	APT

Oljeprøver i Sokkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
MDT		0.00	2683.60	OIL		NO

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
134	NORDLAND GP
963	UTSIRA FM
1096	HORDALAND GP
2250	GRID FM
2274	NO FORMAL NAME
2450	ROGALAND GP
2450	BALDER FM
2468	SELE FM
2530	LISTA FM
2635	VÅLE FM
2670	TY FM
2712	SHETLAND GP
2712	TOR FM
2900	HOD FM
3013	BLODØKS FM
3058	HIDRA FM
3138	CROMER KNOLL GP
3138	RØDBY FM
3180	SOLA FM
3201	ÅSGARD FM
3210	VIKING GP
3210	DRAUPNE FM
3351	HEATHER FM



3420	VESTLAND GP
3420	HUGIN FM
3443	SLEIPNER FM
3468	ZECHSTEIN GP

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
MDT GR CAL	2258	2720
MDT MINI-DST GR	2672	0
MINI-DST GR SAMPLE-QP	2683	2705
MSCT GR	2645	2722
MWD LWD - AGR EWR DIR PWD	476	1173
MWD LWD - AGR EWR DIR PWD CTN AL	1173	3175
MWD LWD - DIR	25	239
MWD LWD - DWD	239	476
MWD LWD - EWR DGR PWD DIR BAT	3175	3520
MWD LWD - GR EWR DIR PWD	239	476

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	230.0	36	232.0	0.00	LOT
SURF.COND.	20	469.0	24	474.0	0.00	LOT
INTERM.	13 3/8	1168.0	17 1/2	1173.0	2.04	LOT
INTERM.	9 5/8	2770.0	12 1/4	2773.0	0.00	LOT
LINER	7	3175.0	8 1/2	3175.0	1.58	LOT
OPEN HOLE		3520.0	6	3520.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
158	1.05	110.0		WATER BASED	
239	1.20			WATER BASED	
474	1.20	17.0		WATER BASED	



476	1.20			WATER BASED	
702	1.12			WATER BASED	