



Generell informasjon

Brønnbane navn	7120/1-3
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	BARENTS SEA
Funn	7120/1-3 (Gohta)
Brønn navn	7120/1-3
Seismisk lokalisering	LN11M07 inline4730 & crossline 3311
Utvinningstillatelse	492
Boreoperatør	Lundin Norway AS
Boretillatelse	1457-L
Boreinnretning	TRANSOCEAN ARCTIC
Boredager	84
Borestart	16.07.2013
Boreslutt	07.10.2013
Frigitt dato	07.10.2015
Publiseringsdato	07.10.2015
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	PERMIAN
1. nivå med hydrokarboner, formasjon.	RØYE FM
Avstand, boredekk - midlere havflate [m]	24.0
Vanndybde ved midlere havflate [m]	342.0
Totalt målt dybde (MD) [m RKB]	2542.0
Totalt vertikalt dybde (TVD) [m RKB]	2539.0
Maks inklinasjon [°]	8
Temperatur ved bunn av brønnbanen [°C]	98
Eldste penetrerte alder	PERMIAN
Eldste penetrerte formasjon	RØYE FM
Geodetisk datum	ED50
NS grader	71° 54' 10.37" N



ØV grader	20° 16' 10.85" E
NS UTM [m]	7978470.11
ØV UTM [m]	474678.91
UTM sone	34
NPDID for brønnbanen	7210

Brønnhistorie

General

Well 7120/1-3 was drilled on the Gotha prospect on the southern end of the Loppa High in the Barents Sea, ca 1.8 km south-west from well 7120/1-1. An 8 ½" pilot hole was drilled from seabed at 366 m to 665 m to check for shallow gas, which was not observed. The primary objective was to test the reservoir properties and hydrocarbon potential in sandstones of the Snadd Formation and in karstified carbonate at the top of the Permian Røye Formation. The secondary objective was to test a 10 m sandstone sequence at the top of the Kobbe Formation.

Operations and results

Wildcat well 7120/1-3 was spudded with the semi-submersible installation Transocean Arctic on 16 July 2013 and drilled to TD at 2542 m in the Permian Røye Formation. The well was drilled with seawater and hi-vis sweeps down to 665 m and with KCl/Polymer/GEM water based mud from 665 m to TD.

The well encountered sandstones in the Gotha Snadd target, but the reservoir proved water filled and the reservoir properties were found to be on the low side. The expected Kobbe Formation sandstone was poorly developed with only a tight siltstone present. Permian karstified carbonates were penetrated at 2281 m. These carbonates contained a gas column of 34 meters (GOC at 2310.3 m) and an oil column of 75 meters (OWC at 2389 m).

First oil show was observed in a sandstone at 700 m in the Fruholmen Formation. A second interval in the Fruholmen Formation, from 770 to 780 m also had weak oil shows. Weak oil shows were described from 1758 to 1835 m in the Snadd Formation. The Røye Formation had oil shows throughout the petroleum-bearing reservoir. Oil shows (fluorescence, but no stain or odour) continued below the OWC down to TD in the well.

A total of 50.15 m core (86% recovery) was recovered in six successive cores in the interval 2288.5 to 2346.8 m in the karstified carbonates. The core to log depth shifts for cores 1 to 6 were -3.25 m, -3.57 m, -3.67 m, -4.53 m, -4.91 m, and -4.91 m, respectively. RCI fluid samples were taken at 2305.5 m (gas), 2315.7 m (oil), 2361.6 m (oil), and 2477.5 m (water).

The well was permanently abandoned on 7 October 2013.

Testing

A drill stem test was conducted over the interval 2336.8 to 2377.3 m in the Røye Formation carbonates. The DST produced after acid treatment of the formation approximately 683 Sm³ oil and 220000 Sm³ gas /day through a 44/64" The GOR was 322 Sm³/Sm³. The DST temperature at 2349 m was 91.2 °C. This was the first successful DST in Permian carbonates on the Norwegian Continental Shelf. The main flow of the reservoir was stable over 24 hours and confirmed good production properties of the reservoir.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
670.00	2542.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerter i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2288.5	2292.2	[m]
2	2293.5	2293.9	[m]
3	2293.9	2307.7	[m]
4	2310.0	2336.1	[m]
5	2336.5	2341.7	[m]
6	2344.0	2345.2	[m]

Total kjerneprøve lengde [m]	50.3
Kjerner tilgjengelig for prøvetaking?	YES

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
670.0	[m]	DC	ROBERTSO
680.0	[m]	DC	ROBERT
700.0	[m]	DC	ROBERT
720.0	[m]	DC	ROBERT
740.0	[m]	DC	ROBERT
760.0	[m]	DC	ROBERT
780.0	[m]	DC	ROBERT
800.0	[m]	DC	ROBERT
820.0	[m]	DC	ROBERT
840.0	[m]	DC	ROBERT
860.0	[m]	DC	ROBERT
880.0	[m]	DC	ROBERT
900.0	[m]	DC	ROBERT
920.0	[m]	DC	ROBERT



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 19.5.2024 - 22:00

940.0 [m]	DC	ROBERT
960.0 [m]	DC	ROBERT
980.0 [m]	DC	ROBERT
1000.0 [m]	DC	ROBERT
1020.0 [m]	DC	ROBERT
1040.0 [m]	DC	ROBERT
1060.0 [m]	DC	ROBERT
1080.0 [m]	DC	ROBERT
1100.0 [m]	DC	ROBERT
1120.0 [m]	DC	ROBERT
1140.0 [m]	DC	ROBERT
1160.0 [m]	DC	ROBERT
1180.0 [m]	DC	ROBERT
1200.0 [m]	DC	ROBERT
1220.0 [m]	DC	ROBERT
1240.0 [m]	DC	ROBERT
1260.0 [m]	DC	ROBERT
1280.0 [m]	DC	ROBERT
1300.0 [m]	DC	ROBERT
1320.0 [m]	DC	ROBERT
1340.0 [m]	DC	ROBERT
1360.0 [m]	DC	ROBERT
1380.0 [m]	DC	ROBERT
1400.0 [m]	DC	ROBERT
1420.0 [m]	DC	ROBERT
1440.0 [m]	DC	ROBERT
1460.0 [m]	DC	ROBERT
1480.0 [m]	DC	ROBERT
1500.0 [m]	DC	ROBERT
1520.0 [m]	DC	ROBERT
1540.0 [m]	DC	ROBERT
1560.0 [m]	DC	ROBERT
1580.0 [m]	DC	ROBERT
1600.0 [m]	DC	ROBERT
1620.0 [m]	DC	ROBERT
1640.0 [m]	DC	ROBERT
1661.0 [m]	DC	ROBERT
1679.0 [m]	DC	ROBERT
1700.0 [m]	DC	ROBERT
1718.0 [m]	DC	ROBERT



1736.0 [m]	DC	ROBERT
1754.0 [m]	DC	ROBERT
1772.0 [m]	DC	ROBERT
1790.0 [m]	DC	ROBERT
1808.0 [m]	DC	ROBERT
1826.0 [m]	DC	ROBERT
1844.0 [m]	DC	ROBERT
1862.0 [m]	DC	ROBERT
1880.0 [m]	DC	ROBERT
1898.0 [m]	DC	ROBERT
1916.0 [m]	DC	ROBERT
1934.0 [m]	DC	ROBERT
1952.0 [m]	DC	ROBERT
1970.0 [m]	DC	ROBERT
1988.0 [m]	DC	ROBERT
2006.0 [m]	DC	ROBERT
2024.0 [m]	DC	ROBERT
2042.0 [m]	DC	ROBERT
2060.0 [m]	DC	ROBERT
2078.0 [m]	DC	ROBERT
2096.0 [m]	DC	ROBERT
2114.0 [m]	DC	ROBERT
2132.0 [m]	DC	ROBERT
2150.0 [m]	DC	ROBERT
2168.0 [m]	DC	ROBERT
2186.0 [m]	DC	ROBERT
2216.0 [m]	DC	ROBERT
2222.0 [m]	DC	ROBERT
2240.0 [m]	DC	ROBERT
2258.0 [m]	DC	ROBERT
2273.0 [m]	DC	ROBERT
2276.0 [m]	DC	ROBERT
2285.0 [m]	DC	ROBERT
2289.0 [m]	C	APT
2290.1 [m]	C	APT
2299.7 [m]	C	APT
2302.7 [m]	C	APT
2334.5 [m]	C	APT
2340.3 [m]	C	APT



Oljeprøver i Sokkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
DST		2315.70	0.00	OIL	04.09.2013 - 00:00	YES
DST		2361.60	0.00	OIL	04.09.2013 - 00:00	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
366	NORDLAND GP
366	UNDIFFERENTIATED
436	SOTBAKKEN GP
436	TORSK FM
689	KAPP TOSCANA GP
689	FRUHOLMEN FM
1101	SNADD FM
2203	SASSENDALEN GP
2203	KOBBE FM
2244	KLAPPMYSS FM
2281	TEMPELFJORDEN GP
2281	RØYE FM

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	2336	2377	17.5

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0				41



Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstyngde rel. luft	GOR [m3/m3]
1.0	683	220000			322

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CN ZDL RTEK MLL GR	2133	2525
MAXCOR GR	1620	2164
MREX FLEX GR	2175	2525
MWD - PWD GR RES NEU DEN SON DIR	345	2538
PCOR GR	2195	2495
RCX GR	2204	2478
RCX GR	2300	2482
RCX GR 6CAL	1719	1826
STAR UXPL XMAC GR	2172	2524
VSP GR	1065	2510

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	430.0	36	435.0	0.00	
SURF.COND.	20	660.0	26	665.0	1.35	FIT
INTERM.	9 5/8	1613.0	12 1/4	1622.0	1.32	LOT
LINER	7	2175.0	8 1/2	2177.0	1.34	LOT
LINER	5	2449.0	6	2542.0	1.51	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
378	1.03	1.0		Water Based	
398	1.03	1.0		Water Based	
487	1.03	1.0		Water Based	
665	1.11	10.0		Water Based	
1276	1.16	12.0		Water Based	



Faktasider

Brønnbane / Leting

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1622	0.00	16.0		Water Based	
2010	0.00	18.0		Water Based	
2177	1.21	22.0		Water Based	
2221	1.27	26.0		Water Based	
2449	1.14	13.0		Water Based	
2449	1.11	13.0		Water Based	
2542	0.00	13.0		Water Based	