



Generell informasjon

Brønnbane navn	7219/8-2
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	BARENTS SEA
Funn	7219/8-2 (Iskrystall)
Brønn navn	7219/8-2
Seismisk lokalisering	3D survey WG0901:inline 641 & xline 4671
Utvinningstillatelse	608
Boreoperatør	Statoil Petroleum AS
Boretillatelse	1464-L
Boreinnretning	WEST HERCULES
Boredager	77
Borestart	16.07.2013
Boreslutt	30.09.2013
Frigitt dato	30.09.2015
Publiseringsdato	30.09.2015
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	GAS
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	STØ FM
2. nivå med hydrokarboner, alder	MIDDLE JURASSIC
2. nivå med hydrokarboner, formasjon	NORDMELA FM
Avstand, boredekk - midlere havflate [m]	31.0
Vanndybde ved midlere havflate [m]	344.0
Totalt målt dybde (MD) [m RKB]	3425.0
Totalt vertikalt dybde (TVD) [m RKB]	3413.0
Maks inklinasjon [°]	9.9
Temperatur ved bunn av brønnbanen [°C]	122
Eldste penetrerte alder	LATE TRIASSIC



Eldste penetrerte formasjon	FRUHOLMEN FM
Geodetisk datum	ED50
NS grader	72° 19' 17.55" N
ØV grader	19° 35' 21.28" E
NS UTM [m]	8030952.00
ØV UTM [m]	655422.85
UTM sone	33
NPDID for brønnbanen	7225

Brønnhistorie

**General**

Well 7219/8-2 was drilled on the Iskrystall prospect in the Bjørnøyrenna Fault Complex southeast of the Johan Castberg Field in the Barents Sea. The primary objective was to prove hydrocarbons in the Stø, Nordmela and Tubåen formations and to prove the hydrocarbon-water contact observed in the seismic data.

Operations and results

Wildcat well 7219/8-2 was spudded with the semi-submersible installation West Hercules on 16 July 2013 and drilled to TD at 3425 m (3413 m TVD) in the Late Triassic Fruholmen Formation. No shallow gas was observed neither in the pilot hole nor main hole. From new data received while drilling it seemed possible to drill into a faulted zone in top of the reservoir. This led to a decision of deviating the well through the Kolmule formation, so that the reservoir would be encountered outside the faulted zone. The well path was then built to 6.85 degrees through the Kolmule Formation. The well was drilled with seawater and hi-vis sweeps down to 1167 m, with KCl/Polymer/Glycol mud from 1167 m to 2681 m, and with Low Sulphate/KCl/Polymer/Glycol mud from 2681 m to TD down to TD.

In the overburden, the well penetrated Tertiary and Cretaceous claystones and limestone stringers as well as Jurassic claystones. In the reservoir, the well penetrated sandstone, siltstone and claystones of Jurassic and Late Triassic age. The target reservoir, top Stø Formation, was penetrated at 2898 m. A 132 m gas column was proven in the Stø and Nordmela formations. No oil zone was encountered. The gas-water contact (GWC) was not seen in the well, but there was a gas down-to (GDT) in the lower shaly part of Nordmela Formation at 3106 m (3098 m TVD). Based on the gas and water gradients GWC was estimated to be at 3135 m (3127 m TVD). The reservoir quality was poorer than predicted due to extensive quartz cementation. There were no oil shows in the well and only condensate-like liquid hydrocarbons were observed by organic geochemical analyses of rock and fluid samples from the reservoir section. A thin gas sand was penetrated below the GWC at 3342 m in the Fruholmen Formation.

Five cores were cut in the well. A shale core was taken in the Kolmule Formation from 2231 to 2239 m and four cores were cut in the target reservoir from 2903 to 3049.5 m. The overall core recovery was close to 100%. MDT fluid samples were taken in the Stø Formation at 2951.2 m (gas), in the Nordmela Formation at 3101.0 m (gas), in the Tubåen Formation at 3225.0 m (water), and in the Fruholmen Formation at 3342.5 m (gas).

The well was permanently abandoned on 30 September 2013 as a gas discovery.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1170.00	3425.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
2	2903.5	2939.1	[m]
3	2939.2	2996.4	[m]
4	2997.0	3042.2	[m]
5	3042.2	3050.7	[m]

Total kjerneprøve lengde [m]	146.5
Kjerner tilgjengelig for prøvetaking?	YES

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
1170.0	[m]	DC	ROBERTSO
1200.0	[m]	DC	ROBERT
1230.0	[m]	DC	ROBERT
1260.0	[m]	DC	ROBERT
1290.0	[m]	DC	ROBERT
1320.0	[m]	DC	ROBERT
1350.0	[m]	DC	ROBERT
1380.0	[m]	DC	ROBERT
1410.0	[m]	DC	ROBERT
1440.0	[m]	DC	ROBERT
1470.0	[m]	DC	ROBERT
1500.0	[m]	DC	ROBERT
1530.0	[m]	DC	ROBERT
1560.0	[m]	DC	ROBERT
1590.0	[m]	DC	ROBERT
1620.0	[m]	DC	ROBERT
1650.0	[m]	DC	ROBERT
1680.0	[m]	DC	ROBERT
1710.0	[m]	DC	ROBERT
1740.0	[m]	DC	ROBERT
1760.0	[m]	DC	ROBERT
1800.0	[m]	DC	ROBERT
1830.0	[m]	DC	ROBERT
1860.0	[m]	DC	ROBERT
1890.0	[m]	DC	ROBERT



1920.0	[m]	DC	ROBERT
1950.0	[m]	DC	ROBERT
1980.0	[m]	DC	ROBERT
2010.0	[m]	DC	ROBERT
2040.0	[m]	DC	ROBERT
2070.0	[m]	DC	ROBERT
2100.0	[m]	DC	ROBERT
2130.0	[m]	DC	ROBERT
2160.0	[m]	DC	ROBERT
2190.0	[m]	DC	ROBERT
2220.0	[m]	DC	ROBERT
2250.0	[m]	DC	ROBERT
2280.0	[m]	DC	ROBERT
2310.0	[m]	DC	ROBERT
2340.0	[m]	DC	ROBERT
2370.0	[m]	DC	ROBERT
2400.0	[m]	DC	ROBERT
2430.0	[m]	DC	ROBERT
2460.0	[m]	DC	ROBERT
2490.0	[m]	DC	ROBERT
2520.0	[m]	DC	ROBERT
2540.0	[m]	DC	ROBERT
2580.0	[m]	DC	ROBERT
2610.0	[m]	DC	ROBERT
2640.0	[m]	DC	ROBERT
2670.0	[m]	DC	ROBERT
2693.0	[m]	DC	ROBERT
2699.0	[m]	DC	ROBERT
2705.0	[m]	DC	ROBERT
2711.0	[m]	DC	ROBERT
2717.0	[m]	DC	ROBERT
2723.0	[m]	DC	ROBERT
2729.0	[m]	DC	ROBERT
2735.0	[m]	DC	ROBERT
2741.0	[m]	DC	ROBERT
2747.0	[m]	DC	ROBERT
2753.0	[m]	DC	ROBERT
2759.0	[m]	DC	ROBERT
2765.0	[m]	DC	ROBERT
2771.0	[m]	DC	ROBERT



2777.0 [m]	DC	ROBERT
2783.0 [m]	DC	ROBERT
2789.0 [m]	DC	ROBERT
2792.0 [m]	DC	ROBERT
2795.0 [m]	DC	ROBERT
2801.0 [m]	DC	ROBERT
2807.0 [m]	DC	ROBERT
2813.0 [m]	DC	ROBERT
2819.0 [m]	DC	ROBERT
2825.0 [m]	DC	ROBERT
2831.0 [m]	DC	ROBERT
2837.0 [m]	DC	ROBERT
2843.0 [m]	DC	ROBERT
2852.0 [m]	DC	ROBERT
2855.0 [m]	DC	ROBERT
2861.0 [m]	DC	ROBERT
2867.0 [m]	DC	ROBERT
2873.0 [m]	DC	ROBERT
2879.0 [m]	DC	ROBERT
2885.0 [m]	DC	ROBERT
2891.0 [m]	DC	ROBERT
2897.0 [m]	DC	ROBERT
2903.9 [m]	C	ROBERT
2910.2 [m]	C	ROBERT
2915.2 [m]	C	ROBERT
2920.8 [m]	C	ROBERT
2926.7 [m]	C	ROBERT
2929.6 [m]	C	ROBERT
2932.9 [m]	C	ROBERT
2935.5 [m]	C	ROBERT
2941.0 [m]	C	ROBERT
2947.9 [m]	C	ROBERT
2954.2 [m]	C	ROBERT
2961.9 [m]	C	ROBERT
2967.9 [m]	C	ROBERT
2972.6 [m]	C	ROBERT
2977.4 [m]	C	ROBERT
2982.9 [m]	C	ROBERT
2985.6 [m]	C	ROBERT
2988.6 [m]	C	ROBERT



2993.9	[m]	C	ROBERT
2997.4	[m]	C	ROBERT
3002.7	[m]	C	ROBERT
3005.7	[m]	C	ROBERT
3009.6	[m]	C	ROBERT
3015.2	[m]	C	ROBERT
3022.0	[m]	C	ROBERT
3027.7	[m]	C	ROBERT
3034.8	[m]	C	ROBERT
3037.0	[m]	C	ROBERT
3042.7	[m]	C	ROBERT
3047.9	[m]	C	ROBERT
3050.6	[m]	C	ROBERT
3053.0	[m]	C	ROBERT
3059.0	[m]	DC	ROBERT
3065.0	[m]	DC	ROBERT
3071.0	[m]	DC	ROBERT
3077.0	[m]	DC	ROBERT
3083.0	[m]	DC	ROBERT
3089.0	[m]	DC	ROBERT
3095.0	[m]	DC	ROBERT
3101.0	[m]	DC	ROBERT
3107.0	[m]	DC	ROBERT
3113.0	[m]	DC	ROBERT
3119.0	[m]	DC	ROBERT
3125.0	[m]	DC	ROBERT
3131.0	[m]	DC	ROBERT
3137.0	[m]	DC	ROBERT
3143.0	[m]	DC	ROBERT
3149.0	[m]	DC	ROBERT
3155.0	[m]	DC	ROBERT
3161.0	[m]	DC	ROBERT
3167.0	[m]	DC	ROBERT
3173.0	[m]	DC	ROBERT
3179.0	[m]	DC	ROBERT
3185.0	[m]	DC	ROBERT
3191.0	[m]	DC	ROBERT
3197.0	[m]	DC	ROBERT
3203.0	[m]	DC	ROBERT
3209.0	[m]	DC	ROBERT



3215.0 [m]	DC	ROBERT
3221.0 [m]	DC	ROBERT
3227.0 [m]	DC	ROBERT
3233.0 [m]	DC	ROBERT
3239.0 [m]	DC	ROBERT
3245.0 [m]	DC	ROBERT
3251.0 [m]	DC	ROBERT
3260.0 [m]	DC	ROBERT
3269.0 [m]	DC	ROBERT
3278.0 [m]	DC	ROBERT
3287.0 [m]	DC	ROBERT
3296.0 [m]	DC	ROBERT
3304.0 [m]	DC	ROBERT
3305.0 [m]	DC	ROBERT
3314.0 [m]	DC	ROBERT
3323.0 [m]	DC	ROBERT
3332.0 [m]	DC	ROBERT
3341.0 [m]	DC	ROBERT
3350.0 [m]	DC	ROBERT
3359.0 [m]	DC	ROBERT
3368.0 [m]	DC	ROBERT
3377.0 [m]	DC	ROBERT
3386.0 [m]	DC	ROBERT
3395.0 [m]	DC	ROBERT
3413.0 [m]	DC	ROBERT
3425.0 [m]	DC	ROBERT

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
375	NORDLAND GP
375	UNDIFFERENTIATED
497	SOTBAKKEN GP
497	TORSK FM
1753	ADVENTDALEN GP
1753	KOLMULE FM
2531	KOLJE FM
2723	KNURR FM
2789	HEKKINGEN FM



2798	FUGLEN FM
2898	KAPP TOSCANA GP
2898	STØ FM
2985	NORDMELA FM
3143	TUBÅEN FM
3283	FRUHOLMEN FM

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CMR ECS HNGS	2679	3408
FMI MSIP GR	1950	3412
HRLA PEX GR	2677	3414
MDT GR	2901	3343
MSCT GR	2792	3382
MWD - ARCVRES TELE	1167	3425
MWD - PDX5 ARCVRES TELE	2616	2681
ZOVSP GR	1708	3400

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	36	426.0	42	429.0	0.00	
SURF.COND.	20	1158.0	26	1167.0	1.23	FIT
PILOT HOLE		1160.0	9 7/8	1160.0	0.00	
INTERM.	13 3/8	2200.0	17 1/2	2206.0	1.59	LOT
INTERM.	9 5/8	2679.0	12 1/4	2681.0	1.63	LOT
OPEN HOLE		3425.0	8 1/2	3425.0	0.00	

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
1116	1.13	17.0		KCl/Polymer/Glycol	
2020	1.13	19.0		KCl/Polymer/Glycol	
2212	1.14	20.0		KCl/Polymer/Glycol	
2332	1.16	22.0		KCl/Polymer/Glycol	



2610	1.22	24.0		Low Sulphate/KCl/Polymer/Glycol	
2681	1.17	23.0		KCl/Polymer/Glycol	
2681	1.20	30.0		Low Sulphate/KCl/Polymer/Glycol	
2681	1.16	26.0		KCl/Polymer/Glycol	
2681	1.16	25.0		KCl/Polymer/Glycol	
2684	1.17	21.0		KCl/Polymer/Glycol	
2726	1.20	26.0		Low Sulphate/KCl/Polymer/Glycol	
2990	1.22	31.0		Low Sulphate/KCl/Polymer/Glycol	
3425	1.22	32.0		Low Sulphate/KCl/Polymer/Glycol	