



Generell informasjon

Brønnbane navn	7120/2-2
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	BARENTS SEA
Brønn navn	7120/2-2
Seismisk lokalisering	NH8904 - 005 SP 470
Utvinningstillatelse	109
Boreoperatør	Norsk Hydro Produksjon AS
Boretillatelse	665-L
Boreinnretning	POLAR PIONEER
Boredager	56
Borestart	27.01.1991
Boreslutt	23.03.1991
Frigitt dato	23.03.1993
Publiseringsdato	18.05.2004
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL SHOWS
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	23.0
Vanndybde ved midlere havflate [m]	336.5
Totalt målt dybde (MD) [m RKB]	2794.0
Totalt vertikalt dybde (TVD) [m RKB]	2794.0
Maks inklinasjon [°]	12
Temperatur ved bunn av brønnbanen [°C]	87
Eldste penetrerte alder	MIDDLE JURASSIC
Eldste penetrerte formasjon	STØ FM
Geodetisk datum	ED50
NS grader	71° 50' 23.99" N
ØV grader	20° 36' 3.59" E
NS UTM [m]	7971348.28
ØV UTM [m]	486119.44
UTM sone	34
NPDID for brønnbanen	1690

**Brønnhistorie****General**

Well 7120/2-2 was designed to test the Mesozoic rocks on a down-faulted position, south of the Loppa High. Well 7120/1-2 about 12.5 km to the southwest had tested minor amounts of oil in the Early Cretaceous. This was a new play concept on the Barents Shelf related to structural/stratigraphic combination traps as a result of wedge sedimentation in conjunction with the Kimmeridgian tectonic phase. The main objectives of the well were to test the prospectivity of the Early Cretaceous fan systems (wedge I and II) in an optimal position, and to test the prospectivity of the Middle Jurassic Stø Formation. The pore pressure was expected to be normal throughout the well. Shallow gas warnings were given for two levels down to 1437 m. A fault with displacement less than 10 m was seen at the planned well location at depth ca 565 m.

Operations and results

Wildcat well 7120/2-2 was spudded with the semi-submersible rig Polar Pioneer on 27 January 1991 and drilled to TD at 2800 m in Early Jurassic sandstones of the Stø Formation. The well was drilled with spud mud down to 800 m and with KCl polymer mud from 800 m to TD. No shallow gas intervals were penetrated. No major problems were experienced while drilling the hole.

The first wedge, in the Kolmule Formation, was penetrated at 1712 m. The second wedge, expected to be sandstones of the Knurr Formation, was penetrated at 2125 m. Oil shows, mostly weak, were recorded from the top of this wedge and down to ca 2700 m. The strongest shows were recorded on a core from 2393 m to 2403 m. Geochemical analyses proved a ten metre claystone sequence with excellent source rock potential at 2120 m on top of the wedge; around 6% TOC and Hydrogen Index around 480 mg HC/g TOC. Vitrinite reflectance in the sequence is in the range 0.55 to 0.60 % Ro and Tmax around 434 deg C, corresponding to early oil window maturity. A second excellent source interval was penetrated in the Late Jurassic Hekkingen Formation at 2503 m. This sequence is 154 m thick and contain from 3 to 12% TOC with Hydrogen Index from 180 to 250 mg HC / g TOC. Vitrinite reflection was measured in the range 0.51 to 0.71 and Tmax in the range 442 deg C to 446 deg C, the latter indicating distinctly higher maturity in Hekkingen compared to Knurr. An RFT segregated sample was taken at 2501 m. It recovered water, oil and some gas. Geochemical analyses of the gas verified a light isotopic composition in all hydrocarbon components, indicating an early mature gas. The oil biomarkers indicated a maturity of the RFT oil corresponding to %Ro in the range 0.6 to 0.9. A total of six conventional cores were cut in the well: core 1 from 1895 m to 1923 m in the upper wedge/Kolmule Formation, core 2, 3, and 4 in the interval 2163 m to 2403 m in the lower wedge/Knurr Formation, core 5 from 2636 m to 2646 m in the Lower Hekkingen Formation, and core 6 from 2720 to 2724 m in the Stø Formation. A total of 120 sidewall cores were attempted and 97 were recovered.

The well was permanently plugged and abandoned on 21 March 1991 as a dry hole with minor shows in Cretaceous and Jurassic siltstones and sandstones.

Testing

No drill stem test was performed

Borekaks i Sokkeldirektoratet



Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
810.00	2799.30

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	1895.0	1922.7	[m]
2	2163.0	2163.5	[m]
3	2180.0	2201.5	[m]
4	2393.0	2400.9	[m]
5	2636.0	2645.8	[m]
6	2720.0	2723.5	[m]

Total kjerneprøve lengde [m]	70.9
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



1895-1900m



1900-1905m



1905-1910m



1910-1915m



1915-1920m



1920-1922m



2163-2164m



2180-2185m



2185-2190m



2190-2195m





2195-2200m 2200-2201m 2393-2398m 2398-2400m 2636-2641m



2641-2645m



2710-2723m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
810.0	[m]	DC	HALIB
830.0	[m]	DC	HALIB
850.0	[m]	DC	HALIB
870.0	[m]	DC	HALIB
890.0	[m]	DC	HALIB
910.0	[m]	DC	HALIB
930.0	[m]	DC	HALIB
960.0	[m]	DC	HALIB
970.0	[m]	DC	HALIB
990.0	[m]	DC	HALIB
1010.0	[m]	DC	HALIB
1030.0	[m]	DC	HALIB
1050.0	[m]	DC	HALIB
1070.0	[m]	DC	HALIB
1090.0	[m]	DC	HALIB
1110.0	[m]	DC	HALIB
1130.0	[m]	DC	HALIB
1150.0	[m]	DC	HALIB
1170.0	[m]	DC	HALIB
1190.0	[m]	DC	HALIB
1210.0	[m]	DC	HALIB
1230.0	[m]	DC	HALIB
1250.0	[m]	DC	HALIB
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1310.0	[m]	DC	HALIB
1330.0	[m]	DC	HALIB



1350.0 [m]	DC	HALIB
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1390.0 [m]	DC	HALIB
1410.0 [m]	DC	HALIB
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1580.0 [m]	DC	HALIB
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1872.0 [m]	DC	HALIB



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1895.0 [m]	DC	HALIB
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1908.5 [m]	C	FUGRO
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Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 15.5.2024 - 01:40

2072.0	[m]	DC	HALIB
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Faktasider

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2390.0	[m]	DC	HALIBURT
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2639.7	[m]	C	ICHRON
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2790.0	[m]	DC	HALIBURT
2796.0	[m]	SWC	HYDRO
2799.3	[m]	DC	HALIBURT



Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
360	NORDLAND GP
437	SOTBAKKEN GP
437	TORSK FM
1443	NYGRUNNEN GP
1443	KVITING FM
1450	ADVENTDALEN GP
1450	KOLMULE FM
1948	KOLJE FM
2120	KNURR FM
2503	HEKKINGEN FM
2656	FUGLEN FM
2692	KAPP TOSCANA GP
2692	STØ FM

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
1690	pdf	0.37

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
1690_1	pdf	5.18
1690_2	pdf	5.19
1690_3	pdf	6.86

Dokumenter - eldre Sjøkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
1690_01_WDSS_General_Information	pdf	0.64
1690_02_WDSS_completion_log	pdf	0.16





Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
1690_7120_2_2_COMPLETION_REPORT_AND_LOG	pdf	14.59

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CST GR	1810	2783
CST GR	2326	2796
DIL LSS LDL CNL SP GR AMS	786	1268
DIL SDT LDL CNL SP NGT AMS	1785	2796
FMS GR AMS	1785	2798
MSFL DLL GR	2100	2798
MWD - GR RES DIR	359	1801
MWD - GR RES DIR	1974	2795
RFTA HP AMS	2483	2766
RFTB HP AMS	2134	2693
RFTB HP AMS	2395	2640
RFTB HP AMS	2395	2501
VSP	1065	2790

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	460.0	0.00	LOT
INTERM.	18 5/8	785.0	24	788.0	1.44	LOT
INTERM.	13 3/8	1785.0	17 1/2	1790.0	1.29	LOT
OPEN HOLE		2794.0	12 1/4	2794.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
360	1.08			WATER BASED	29.01.1991
380	1.14	16.0	9.0	WATER BASED	20.03.1991





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421	1.08			WATER BASED	29.01.1991
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459	1.08			WATER BASED	31.01.1991
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720	1.14	9.0	12.0	WATER BASED	21.03.1991
800	1.08			WATER BASED	05.02.1991
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800	1.05	18.0	15.0	WATER BASED	08.02.1991
800	1.05	18.0	15.0	WATER BASED	12.02.1991
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1497	1.09	13.0	7.0	WATER BASED	13.02.1991
1544	1.08	13.0	9.0	WATER BASED	14.02.1991
1662	1.10	14.0	10.0	WATER BASED	15.02.1991
1685	1.14	16.0	9.0	WATER BASED	20.03.1991
1786	1.12	15.0	11.0	WATER BASED	19.02.1991
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1886	1.14	15.0	8.0	WATER BASED	26.02.1991
1895	1.14	15.0	8.0	WATER BASED	26.02.1991
1923	1.14	17.0	8.0	WATER BASED	26.02.1991
1933	1.14	17.0	8.0	WATER BASED	27.02.1991
2050	1.14	18.0	10.0	WATER BASED	28.02.1991
2162	1.14	16.0	9.0	WATER BASED	01.03.1991
2163	1.14	18.0	9.0	WATER BASED	05.03.1991
2180	1.14	18.0	11.0	WATER BASED	05.03.1991
2201	1.14	20.0	9.0	WATER BASED	05.03.1991
2205	1.14	19.0	10.0	WATER BASED	05.03.1991
2337	1.14	20.0	10.0	WATER BASED	06.03.1991
2402	1.15	18.0	7.0	WATER BASED	07.03.1991
2461	1.15	16.0	9.0	WATER BASED	08.03.1991
2568	1.14	19.0	9.0	WATER BASED	11.03.1991



2636	1.14	18.0	10.0	WATER BASED	11.03.1991
2646	1.14	17.0	9.0	WATER BASED	11.03.1991
2720	1.15	16.0	8.0	WATER BASED	12.03.1991
2726	1.14	15.0	8.0	WATER BASED	13.03.1991
2795	1.14	17.0	9.0	WATER BASED	14.03.1991
2800	1.14	16.0	12.0	WATER BASED	18.03.1991
2800	1.14	16.0	10.0	WATER BASED	18.03.1991
2800	1.14	15.0	9.0	WATER BASED	18.03.1991
2800	1.14	18.0	9.0	WATER BASED	15.03.1991
2800	1.14	18.0	9.0	WATER BASED	15.03.1991

Tynnslip i Sokkeldirektoratet

Dybde	Enhet
2163.00	[m]
2181.25	[m]
2184.25	[m]
2190.75	[m]
2393.25	[m]

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]
1690 Formation pressure (Formasjonstrykk)	PDF	0.27

