



Generell informasjon





Brønnbane navn	7220/6-1
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	BARENTS SEA
Brønn navn	7220/6-1
Seismisk lokalisering	NH0352-inline 8352 & x-line 5106
Utvinningstillatelse	225
Boreoperatør	Norsk Hydro Produksjon AS
Boretillatelse	1088-L
Boreinnretning	EIRIK RAUDE
Boredager	69
Borestart	20.01.2005
Boreslutt	29.03.2005
Frigitt dato	29.03.2007
Publiseringsdato	17.09.2007
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL SHOWS
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	368.0
Totalt målt dybde (MD) [m RKB]	1540.0
Totalt vertikalt dybde (TVD) [m RKB]	1540.0
Maks inklinasjon [°]	1.4
Temperatur ved bunn av brønnbanen [°C]	46
Eldste penetrerte alder	PRE-DEVONIAN
Eldste penetrerte formasjon	BASEMENT
Geodetisk datum	ED50
NS grader	72° 33' 12.56" N
ØV grader	20° 59' 26.86" E
NS UTM [m]	8060886.89
ØV UTM [m]	700186.92
UTM sone	33
NPDID for brønnbanen	5039



Brønnhistorie

General

Well 7220/6-1 is located on the Loppa High in the Barents Sea. The primary objective was to test reservoir properties and moveable hydrocarbons in the Permian and Carboniferous carbonates and mixed carbonates and clastics of the Gipsdalen Group (A3 prospect). Secondary objective was to evaluate the Triassic (Carnian) interval (A1 Lead), a high-risk oil leg down-flank from a major gas anomaly. The gas anomaly would not be penetrated by the well.

Operations and results

Wildcat well 7220/6-1 was spudded with the semi-submersible installation on 20 January 2005 and drilled to TD at 1540 m in pre-Carboniferous basement rock. The well was drilled with seawater and hi-vis pills down to 480 m, with Glydril mud from 480 m to 1130 m, with a water based bentonite mud (Drilplex) from 1130 m to 1428 m, and with Drilplex treated with Glydril from 1428 m to TD.

The main result of well 7220/6-1 was the confirmation of the prognosed reservoir levels and the source/migration concept. The actual depths within the Triassic and Palaeozoic sections were encountered somewhat shallower than the prognosis. None of the target formations contained economical amounts of hydrocarbons. Even though the well did not prove commercial hydrocarbons, residual hydrocarbons and good oil shows were obtained in carbonates of the Gipsdalen Group, Ørn Formation from 1138 m and down to 1430 m. The gross reservoir thickness and basic lithology were as prognosed, whereas the fracture density was less than expected. Some intervals in the Paleozoic section were indicated by the logs to be source rocks (high gamma ray readings). These were analysed geochemically and found to be non-source rocks (TOC from 0.27 to 0.69 %). The whole well was thermally immature/very early mature (vitrinite reflection in the range 0.4 - 0.6 %).

Three conventional cores were cut, covering the upper part of the Ørn Formation. The cores showed variable reservoir quality, but contained several zones with good reservoir quality and good oil shows. A total of 50 rotary sidewall cores were recovered from the well section. MDT water samples were taken at 1151.5m, 1184.5 m, 1338 m, and at 1377.1 m. Traces of oil (10 ml) was noted in the sample from 1184.5 m. The oil had, after 3 weeks exposure to atmospheric conditions, a measurable gravity of 29 deg API and was found to be mildly biodegraded.

The well was permanently abandoned on 29 March as a dry well with shows.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
480.00	1537.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	1149.0	1166.5	[m]
2	1167.0	1197.5	[m]
3	1197.4	1204.4	[m]

Total kjerneprøve lengde [m]	55.0
Kjerner tilgjengelig for prøvetaking?	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
394	NORDLAND GP
476	KAPP TOSCANA GP
476	SNADD FM
1138	GIPSDALEN GP
1138	ØRN FM
1436	FALK FM
1483	BASEMENT

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
5039	pdf	0.21

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
5039_1	pdf	0.39
5039_2	pdf	0.56

Logger





Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
AIT PEX	1123	1537
CMR GR	1123	1536
DSI GR	550	1123
FMI DSI GR	1123	1537
FMI GR	1123	1196
MDT	1139	1192
MDT DP	1150	1481
MSCT	1205	1485
MWD LWD MPR DCP - RES GR	394	1130
MWD LWD OTK - RES GR	1130	1540
PEX	1123	1196
UBI HNGS	1123	1534
VSP	729	1503

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	391.0	36	0.0	0.00	LOT
CONDUCTOR	30	454.0	36	454.0	0.00	LOT
SURF.COND.	20	476.0	26	479.0	1.15	LOT
INTERM.	13 3/8	543.0	17 1/2	546.0	1.39	LOT
INTERM.	9 5/8	1124.0	12 1/4	1130.0	2.05	LOT
OPEN HOLE		1540.0	8 1/2	1540.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
470	1.09	13.0		WATER BASED	
547	1.09	14.0		WATER BASED	
664	1.20	14.0		WATER BASED	
749	1.21	14.0		WATER BASED	
1130	1.21	14.0		WATER BASED	
1197	1.13	14.0		WATER BASED	
1204	1.13	15.0		WATER BASED	
1428	1.13	12.0		WATER BASED	



1540	1.20	11.0		WATER BASED	
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Tynnslip i Sokkeldirektoratet

Dybde	Enhet
1149.70	[m]
1149.95	[m]
1150.50	[m]
1153.25	[m]
1155.95	[m]
1156.60	[m]
1161.40	[m]
1168.80	[m]
1169.90	[m]
1191.55	[m]
1199.90	[m]
2136.75	[m]
1143.45	[m]
1150.95	[m]
1154.80	[m]
1160.70	[m]
1162.45	[m]
1172.82	[m]
1176.24	[m]
1176.52	[m]
1176.87	[m]
1190.36	[m]
1190.50	[m]
1191.92	[m]
1194.95	[m]
1195.87	[m]
1140.00	[m]
1145.00	[m]
1207.00	[m]
1210.00	[m]
1215.00	[m]
1220.00	[m]
1225.00	[m]
1230.00	[m]
1235.00	[m]



1240.00	[m]
1245.00	[m]
1250.00	[m]
1255.00	[m]
1260.00	[m]
1265.00	[m]
1270.00	[m]
1275.00	[m]
1280.00	[m]
1285.00	[m]
1290.00	[m]
1295.00	[m]
1300.00	[m]
1305.00	[m]
1310.00	[m]
1315.00	[m]
1320.00	[m]
1325.00	[m]
1330.00	[m]
1335.00	[m]
1340.00	[m]
1345.00	[m]
1350.00	[m]
1355.00	[m]
1360.00	[m]
1365.00	[m]
1370.00	[m]
1375.00	[m]
1380.00	[m]
1385.00	[m]
1390.00	[m]
1397.00	[m]
1400.00	[m]
1405.00	[m]
1412.00	[m]
1415.00	[m]
1420.00	[m]
1425.00	[m]
1427.00	[m]
1435.00	[m]



1440.00	[m]
1445.00	[m]
1450.00	[m]
1455.00	[m]
1460.00	[m]
1465.00	[m]
1470.00	[m]
1477.00	[m]
1480.00	[m]
1482.00	[m]
1155.86	[m]
1160.82	[m]
1169.76	[m]
1170.95	[m]
1179.75	[m]
1185.82	[m]
1183.72	[m]
1196.24	[m]
1202.45	[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]
5039 Formation pressure (Formasjonstrykk)	pdf	0.21

