Generell informasjon

Brønnbane navn	6610/3-1
Type	EXPLORATION
Formål	WILDCAT
Status	SUSPENDED
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORWEGIAN SEA
Brønn navn	6610/3-1
Seismisk lokalisering	ST 9104-437& SP. 335
Utvinningstillatelse	177
Boreoperatør	Den norske stats oljeselskap a.s
Boretillatelse	748-L
Boreinnretning	DEEPSEA BERGEN
Boredager	112
Borestart	29.10.1992
Boreslutt	17.02.1993
Frigitt dato	17.02.1995
Publiseringsdato	27.06.2005
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	SHOWS
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	23.0
Vanndybde ved midlere havflate [m]	309.0
Totalt målt dybde (MD) [m RKB]	3126.0
Maks inklinasjon [°]	3.3
Temperatur ved bunn av brønnbanen [°C]	144
Eldste penetrerte alder	LATE CRETACEOUS
Eldste penetrerte formasjon	LANGE FM
Geodetisk datum	ED50
NS grader	66° 55' 29.7'' N
ØV grader	10° 54' 6.28'' E
NS UTM [m]	7424470.29
ØV UTM [m]	583170.04
UTM sone	32
NPDID for brønnbanen	1864

Brønnhistorie

General

Wildcat well 6610/3-1 is located ca 80 km southwest of the Røst Island in the Lofoten archipelago of Northern Norway. The main objective was to test the hydrocarbon potential in the Early Jurassic (Tilje Formation) sandstones. A secondary objective was to test the possibility of development of sandy fans from Early Tertiary (Paleocene) to Early Cretaceous.

Operations and results

Wildcat well 6610/3-1 was spudded with the semi-submersible installation Deepsea Bergen on 29 October 1992 and drilled to TD at 3126 m in the Late Cretaceous, Lange Formation. Caving bridges caused wire line tools to hang-up and the severe weather conditions magnified the hole stability problems by the rig being disconnected several times. Due to long periods of wait on weather and upcoming drilling restrictions the decision was made to temporarily plug and abandon. No logs exist from seabed to 402 m. The intervals 402 m to 919 m and 2877.5 m to 3126 m were logged with MWD only. The well was drilled with seawater and hi-vis pills down to 938 m and with gypsum/pac mud from 938 m to TD

The well encountered sandy fans of Paleocene and Late Cretaceous age. Shows were recorded in Intra Nise Sandstone at 2282 m to 2320 m, in Lysing sandstone from 2661 m to 2680 m, and in thin limestone stringers in the Lange Formation at 3073 m and at 3167 m. FMT pressure points gave water gradients in all reservoir sequences. Organic geochemical analyses confirm good, scattered oil shows in Intra Nise sandstone from 2293.75 m to 2309.45 m. The shows were characterised as severely biodegraded stains in an irregular pattern with no obvious relation to lithology. The other shows recorded while drilling were not confirmed by these analyses, but they revealed an additional weak show on a sample from an intra Tang Formation sandstone at 1675 m as well as a trace of oil in the FMT water sample from 1645 m. The thin claystones encountered in the Top Intra-Nise Sandstone exhibit the best source rock potential in the well. These claystones contain dominantly terrigenous organic matter, with fair to good potential, for generation of light oil, or gas/condensate. Maturity indicators showed that the well was immature down to ca 2600 m to 2700 m, and in the early oil window from this level to TD.

Eight conventional cores were cut in the well bore. Two of these were cut in intra Tang Formation sandstones, three in intra-Nise Formation sandstones, and three in Lysing Formation sandstones. Segregated formation fluid samples were taken with the FMT tool at 1645 m and at 2664 m. Both contained water and mud filtrate.

The well was suspended on 17 February 1993 as a well with shows.

Testing

No drill stem test was conducted in this well bore.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
940.00	3124.00

Borekaks tilgjengelig for prøvetaking?	YES

Borekjerner i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	1580.0	1584.8	[m]
2	1708.0	1714.7	[m]
3	2292.0	2301.2	[m]
4	2301.2	2305.3	[m]
5	2305.5	2313.9	[m]
6	2514.0	2531.5	[m]
7	2661.0	2668.1	[m]
8	2668.1	2692.5	[m]

Total kjerneprøve lengde [m]	82.2
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder


1580-1584m


1584-1585m


1708-1712m


1712-1714m


2292-2296m


2296-2300m


2300-2301m


2301-2305m


2305-2306m


2305-2309m


2309-2313m


2313-2313m


2514-2518m


2518-2522m


2522-2526m


2526-2530m


2530-2531m


2661-2665m


2665-2668m


2668-2672m


2672-2676m


2676-2680m


2680-2684m


2684-2688m


2688-2692m


2692-2693m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
460.0	[m]	SWC	OD
480.0	[m]	SWC	OD
502.0	[m]	SWC	OD
525.0	[m]	SWC	OD
555.0	[m]	SWC	OD
555.0	[m]	SWC	STATOIL
585.8	[m]	SWC	STATOI
611.0	[m]	SWC	STATOI
643.0	[m]	SWC	STATOI
684.0	[m]	SWC	STATOI
715.0	[m]	SWC	STATOI
733.0	[m]	SWC	STATOI
942.5	[m]	SWC	STATOI
977.0	[m]	SWC	STATOI
1012.5	[m]	SWC	STATOI
1070.0	[m]	SWC	STATOI

1097.0	[m]	SWC	STATOI
1121.0	[m]	SWC	STATOI
1138.5	[m]	SWC	STATOI
1150.0	[m]	SWC	STATOI
1170.0	[m]	DC	STATOI
1190.0	[m]	DC	STATOI
1202.0	[m]	C	STATOI
1217.0	[m]	DC	STATOI
1240.0	[m]	C	STATOI
1259.0	[m]	SWC	STATOI
1275.0	[m]	SWC	STATOI
1290.0	[m]	DC	STATOI
1310.0	[m]	DC	STATOI
1330.0	[m]	DC	STATOI
1345.0	[m]	SWC	STATOI
1357.5	[m]	SWC	STATOI
1378.0	[m]	SWC	STATOI
1393.0	[m]	SWC	STATOI
1423.0	[m]	SWC	STATOI
1440.0	[m]	SWC	STATOI
1456.0	[m]	SWC	STATOI
1475.0	[m]	SWC	STATOI
1480.0	[m]	SWC	STATOI
1488.0	[m]	SWC	STATOI
1502.0	[m]	SWC	STATOI
1516.0	[m]	SWC	STATOI
1532.0	[m]	SWC	STATOI
1547.5	[m]	SWC	STATOI
1580.4	[m]	SWC	STATOI
1584.8	[m]	C	STATOI
1630.0	[m]	SWC	STATOI
1640.0	[m]	SWC	STATOI
1647.0	[m]	SWC	STATOI
1664.0	[m]	SWC	STATOI
1708.4	[m]	C	STATOI
1730.0	[m]	DC	STATOI
1750.0	[m]	DC	STATOI
1770.0	[m]	DC	STATOI
1807.5	[m]	SWC	STATOI
1815.0	[m]	SWC	STATOI

1830.0	[m]	SWC	STATOI
1841.0	[m]	SWC	STATOI
1849.5	[m]	SWC	STATOI
1866.0	[m]	SWC	STATOI
1884.5	[m]	SWC	STATOI
1904.0	[m]	SWC	STATOI
1915.0	[m]	SWC	STATOI
1930.0	[m]	SWC	STATOI
1982.0	[m]	SWC	STATOI
2000.0	[m]	SWC	STATOI
2027.0	[m]	SWC	STATOI
2062.0	[m]	SWC	STATOI
2081.5	[m]	SWC	STATOI
2102.0	[m]	SWC	STATOI
2128.0	[m]	SWC	STATOI
2162.0	[m]	SWC	STATOI
2176.0	[m]	SWC	STATOI
2212.0	[m]	SWC	STATOI
2238.0	[m]	SWC	STATOI
2267.0	[m]	SWC	STATOI
2281.0	[m]	SWC	STATOI
2293.4	[m]	C	STATOI
2296.5	[m]	C	STATOI
2300.3	[m]	C	STATOI
2306.6	[m]	C	STATOI
2309.5	[m]	C	STATOI
2313.9	[m]	C	STATOI
2318.0	[m]	SWC	STATOI
2339.0	[m]	SWC	STATOI
2365.0	[m]	SWC	STATOI
2378.0	[m]	SWC	STATOI
2400.0	[m]	SWC	STATOI
2417.0	[m]	SWC	STATOI
2428.5	[m]	SWC	STATOI
2451.0	[m]	SWC	STATOI
2463.5	[m]	SWC	STATOI
2482.0	[m]	SWC	STATOI
2502.0	[m]	SWC	STATOI
2515.2	[m]	C	STATOI
2520.9	[m]	C	STATOI

2525.5	[m]	C	STATOI
2530.4	[m]	C	STATOI
2545.0	[m]	DC	STATOI
2560.0	[m]	DC	STATOI
2575.0	[m]	DC	STATOI
2590.0	[m]	DC	STATOI
2605.0	[m]	DC	STATOI
2620.0	[m]	DC	STATOI
2635.0	[m]	DC	STATOI
2650.0	[m]	DC	STATOI
2661.1	[m]	C	OD
2662.8	[m]	C	OD
2664.2	[m]	C	OD
2666.8	[m]	C	STATOIL
2667.7	[m]	C	OD
2673.7	[m]	C	OD
2673.7	[m]	C	STATOIL
2673.7	[m]	C	STATOI
2676.4	[m]	C	OD
2678.7	[m]	C	OD
2679.2	[m]	C	OD
2679.2	[m]	C	STATOIL
2680.1	[m]	C	STATOI
2680.2	[m]	C	OD
2682.5	[m]	C	OD
2685.7	[m]	C	OD
2685.7	[m]	C	STATOIL
2686.6	[m]	C	OD
2688.7	[m]	C	OD
2691.4	[m]	C	OD
2692.0	[m]	C	OD
2710.0	[m]	DC	STATOIL
2725.0	[m]	DC	STATOI
2740.0	[m]	DC	STATOI
2755.0	[m]	DC	STATOI
2770.0	[m]	DC	STATOI
2785.0	[m]	DC	STATOI
2800.0	[m]	DC	STATOI
2815.0	[m]	DC	STATOI
2830.0	[m]	DC	STATOI

2845.0	[m]	DC	STATOI
2860.0	[m]	DC	STATOI
2875.0	[m]	DC	STATOI
2890.0	[m]	DC	STATOI
2905.0	[m]	DC	STATOI
2920.0	[m]	DC	STATOI
2935.0	[m]	DC	STATOI
2950.0	[m]	DC	STATOI
2959.0	[m]	DC	STATOI
2968.0	[m]	DC	STATOI
2977.0	[m]	DC	STATOI
2986.0	[m]	DC	STATOI
2995.0	[m]	DC	STATOI
3004.0	[m]	DC	STATOI
3013.0	[m]	DC	STATOI
3022.0	[m]	DC	STATOI
3031.0	[m]	DC	STATOI
3040.0	[m]	DC	STATOI
3049.0	[m]	DC	STATOI
3058.0	[m]	DC	STATOI
3067.0	[m]	DC	STATOI

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
332	NORDLAND GP
332	NAUST FM
349	MOLO FM
555	HORDALAND GP
555	BRYGGE FM
1366	ROGALAND GP
1366	TARE FM
1472	TANG FM
1556	NO FORMAL NAME
1585	TANG FM
1640	NO FORMAL NAME
1805	TANG FM
1840	SHETLAND GP
1840	SPRINGAR FM

2039	NISE FM
2282	NO FORMAL NAME
2322	NISE FM
2504	CROMER KNOLL GP
2504	LYSING FM
2543	LANGE FM
2655	LYSING FM
2691	LANGE FM
2889	NO FORMAL NAME
3050	LANGE FM

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
1864_1	pdf	2.21

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
1864_6610_3_1_COMPLETION_REPORT_AND_LOG	pdf	42.35

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL VDL GR	833	1742
CORGUN GR	403	765
CORGUN GR	942	1378
CORGUN GR	1390	1744
CORGUN GR	1807	2502
DIFL DAC CN CDL GR	919	1750
DIFL DAC CN CDL GR	1725	2877
FMT GR	1595	1735
FMT GR	1763	2674
HRDIP GR	919	1746
HRDIP GR	1741	2871

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	393.0	36	395.0	0.00	LOT
SURF.COND.	20	919.0	26	920.0	1.65	LOT
INTERM.	13 3/8	1744.0	17 1/2	1746.0	1.75	LOT
OPEN HOLE		3126.0	12 1/4	3126.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
550	1.03	17.0	8.0	WATER BASED	02.11.1992
938	1.03	20.0	7.0	WATER BASED	02.11.1992
938	1.03	20.0	6.5	WATER BASED	02.11.1992
938	1.03	20.0	6.5	WATER BASED	03.11.1992
938	1.03	18.0	6.0	WATER BASED	04.11.1992
938	1.03			WATER BASED	05.11.1992
938	1.03	22.0	5.5	WATER BASED	06.11.1992
996	1.15	26.0	7.5	WATER BASED	09.11.1992
1418	1.33	26.0	5.5	WATER BASED	09.11.1992
1456	1.33	24.0	5.5	WATER BASED	10.11.1992
1458	1.33	23.0	4.0	WATER BASED	11.11.1992
1560	1.33	30.0	7.0	WATER BASED	12.11.1992
1587	1.33	33.0	7.0	WATER BASED	13.11.1992
1625	1.33	31.0	6.5	WATER BASED	16.11.1992
1625	1.33	29.0	6.5	WATER BASED	16.11.1992
1625	1.33	29.0	6.5	WATER BASED	17.11.1992
1625	1.33	29.0	7.0	WATER BASED	18.11.1992
1625	1.33	29.0	6.0	WATER BASED	19.11.1992
1630	1.45	35.0	8.0	WATER BASED	15.02.1993
1640	1.33	33.0	7.0	WATER BASED	16.11.1992
1708	1.33	31.0	6.5	WATER BASED	16.11.1992
1724	1.33	29.0	6.5	WATER BASED	16.11.1992
1759	1.33	29.0	7.0	WATER BASED	18.11.1992
1759	1.33	29.0	6.5	WATER BASED	17.11.1992
1759	1.33	29.0	6.0	WATER BASED	19.11.1992

1759	1.33	28.0	5.5	WATER BASED	23.11.1992
1759	0.00	26.0	5.5	WATER BASED	23.11.1992
1763	1.03	26.0	5.0	WATER BASED	23.11.1992
1850	1.20	32.0	8.0	WATER BASED	24.11.1992
1999	1.20	25.0	5.5	WATER BASED	26.11.1992
1999	1.20	30.0	6.0	WATER BASED	26.11.1992
1999	1.20	29.0	6.0	WATER BASED	01.12.1992
2126	1.40	31.0	6.5	WATER BASED	08.02.1993
2172	1.20	29.0	6.0	WATER BASED	01.12.1992
2272	1.20	26.0	5.0	WATER BASED	01.12.1992
2272	1.20	27.0	5.0	WATER BASED	01.12.1992
2272	1.20	25.0	5.0	WATER BASED	01.12.1992
2272	1.20	27.0	5.0	WATER BASED	02.12.1992
2272	1.20	25.0	5.0	WATER BASED	03.12.1992
2272	1.20	26.0	5.0	WATER BASED	04.12.1992
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2272	1.20	27.0	7.0	WATER BASED	18.12.1992
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2272	1.20	19.0	3.5	WATER BASED	15.12.1992
2272	1.20	25.0	5.5	WATER BASED	16.12.1992
2272	1.20	25.0	5.0	WATER BASED	07.12.1992
2272	1.20	21.0	4.5	WATER BASED	07.12.1992
2272	1.20	24.0	5.5	WATER BASED	09.12.1992
2272	1.20	25.0	5.0	WATER BASED	07.12.1992
2272	1.20	25.0	5.5	WATER BASED	11.12.1992
2272	1.20	14.0	3.0	WATER BASED	14.12.1992
2292	1.25	26.0	5.0	WATER BASED	01.12.1992
2301	1.25	27.0	5.0	WATER BASED	01.12.1992
2306	1.25	25.0	5.0	WATER BASED	01.12.1992
2314	1.25	27.0	5.0	WATER BASED	02.12.1992
2405	1.25	25.0	5.0	WATER BASED	03.12.1992
2490	1.25	26.0	5.0	WATER BASED	04.12.1992
2510	1.25	25.0	5.0	WATER BASED	07.12.1992
2526	1.25	25.0	5.0	WATER BASED	07.12.1992
2532	1.25	21.0	4.5	WATER BASED	07.12.1992
2541	1.25	24.0	5.5	WATER BASED	09.12.1992
2662	1.25	25.0	5.5	WATER BASED	11.12.1992
2668	1.25	14.0	3.0	WATER BASED	14.12.1992
2692	1.25	21.0	4.0	WATER BASED	14.12.1992
2743	1.25	19.0	3.5	WATER BASED	15.12.1992

2870	1.25	25.0	5.5	WATER BASED	16.12.1992
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2913	1.25	27.0	5.5	WATER BASED	21.12.1992
2913	1.25	27.0	7.0	WATER BASED	18.12.1992
2913	1.25	25.0	6.5	WATER BASED	21.12.1992
2951	1.25	22.0	5.0	WATER BASED	23.12.1992
3003	1.25	24.0	5.5	WATER BASED	23.12.1992
3015	1.29	31.0	7.5	WATER BASED	28.12.1992
3015	1.29	31.0	7.5	WATER BASED	28.12.1992
3015	1.29	31.0	7.5	WATER BASED	28.12.1992
3015	1.29	31.0	7.5	WATER BASED	28.12.1992
3015	1.29	21.0	7.0	WATER BASED	28.12.1992
3030	1.29	25.0	6.0	WATER BASED	29.12.1992
3110	1.29	25.0	5.5	WATER BASED	04.01.1993
3126	1.40	31.0	7.0	WATER BASED	04.01.1993
3126	1.40	33.0	8.0	WATER BASED	04.01.1993
3126	1.40	29.0	7.0	WATER BASED	04.01.1993
3126	1.40	32.0	8.0	WATER BASED	04.01.1993
3126	1.40	31.0	7.0	WATER BASED	05.01.1993
3126	1.40	32.0	7.5	WATER BASED	06.01.1993
3126	1.40	36.0	9.5	WATER BASED	08.01.1993
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3126	1.40	33.0	7.5	WATER BASED	12.01.1993
3126	1.40	33.0	7.5	WATER BASED	12.01.1993
3126	1.40	33.0	7.5	WATER BASED	13.01.1993
3126	1.40	32.0	7.0	WATER BASED	14.01.1993
3126	1.40	30.0	7.5	WATER BASED	18.01.1993
3126	1.40	30.0	7.5	WATER BASED	18.01.1993
3126	1.40	32.0	7.5	WATER BASED	18.01.1993
3126	1.40	30.0	6.5	WATER BASED	20.01.1993
3126	1.40	28.0	7.5	WATER BASED	20.01.1993
3126	1.40	28.0	5.5	WATER BASED	25.01.1993
3126	1.40	32.0	7.0	WATER BASED	26.01.1993
3126	1.40	30.0	7.0	WATER BASED	26.01.1993
3126	1.40	33.0	6.0	WATER BASED	28.01.1993
3126	1.40	29.0	4.5	WATER BASED	29.01.1993
3126	1.40	30.0	5.0	WATER BASED	01.02.1993
3126	1.40	33.0	6.0	WATER BASED	01.02.1993
3126	1.40	31.0	6.0	WATER BASED	01.02.1993
3126	1.40	30.0	5.0	WATER BASED	02.02.1993

3126	1.40	33.0	6.0	WATER BASED	03.02.1993
3126	1.40	34.0	5.5	WATER BASED	05.02.1993
3126	1.40	36.0	5.5	WATER BASED	08.02.1993
3126	1.40	32.0	8.0	WATER BASED	04.01.1993
3126	1.40	25.0	5.0	WATER BASED	07.01.1993
3126	1.40	35.0	8.0	WATER BASED	12.01.1993
3126	1.40	32.0	5.5	WATER BASED	26.01.1993
3126	1.40	31.0	6.5	WATER BASED	27.01.1993
3126	1.40	34.0	6.0	WATER BASED	04.02.1993
3126	1.40	35.0	7.5	WATER BASED	09.02.1993
3126	1.40	31.0	6.5	WATER BASED	10.02.1993
3126	1.40	34.0	6.5	WATER BASED	08.02.1993
3126	1.45	39.0	8.0	WATER BASED	11.02.1993
3126	1.45	35.0	8.0	WATER BASED	12.02.1993
3126	1.45	36.0	8.5	WATER BASED	15.02.1993