



Generell informasjon

Brønnbane navn	6609/11-1
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORWEGIAN SEA
Brønn navn	6609/11-1
Seismisk lokalisering	NH 8102 - 415 SP 4335
Utvinningstillatelse	083
Boreoperatør	Norsk Hydro Produksjon AS
Boretillatelse	374-L
Boreinnretning	TREASURE SEEKER
Boredager	50
Borestart	19.05.1983
Boreslutt	07.07.1983
Frigitt dato	07.07.1985
Publiseringsdato	15.06.2005
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	DRY
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	238.0
Totalt målt dybde (MD) [m RKB]	3068.0
Totalt vertikalt dybde (TVD) [m RKB]	3067.0
Maks inklinasjon [°]	5.8
Temperatur ved bunn av brønnbanen [°C]	90
Eldste penetrerte alder	LATE TRIASSIC
Eldste penetrerte formasjon	ÅRE FM
Geodetisk datum	ED50
NS grader	66° 8' 13.9" N
ØV grader	9° 33' 47.89" E
NS UTM [m]	7335502.71
ØV UTM [m]	525429.99
UTM sone	32
NPDID for brønnbanen	15



Brønnhistorie

General

Wildcat well 6609/11-1 was drilled on the Northwestern side of the Helgeland Basin outside Mid Norway. The primary objective was to test sandstone reservoirs of Middle to Early Jurassic age in a structurally high position on a narrow SW-NE trending horst block. The secondary objective was to test sandstone reservoirs of Early Jurassic to Upper Triassic age. The well was planned to be drilled to 3200 m, 200 m into the Triassic.

Operations and results

Wildcat well 6609/11-1 was spudded with the semi-submersible installation Treasure Seeker on 19 May 1983 and drilled to TD at 3068 m in Late Triassic sediments of the Åre Formation. No major technical problems occurred during drilling. Operations were interrupted for 11 and a half days due to a crew strike. The well was drilled with seawater and hi-vis pills to 915 m and with gypsum/polymer mud from 915 m to TD.

The well encountered good quality sandstone reservoirs of Early Jurassic and Late Triassic age. These reservoirs were water bearing with minor amounts of residual hydrocarbons indicated on the logs. The uppermost part of the sandstone interval, 2546 - 2570 m had the highest reservoir quality encountered in the well. Porosities ranged from 15-30% (20.6% average in net sand) with a net/gross sand ratio of 0.85 and an average SW of 90%. The unit ranged from Sinemurian to Pliensbachian in age and consisted of massive to thinly bedded, very fine to fine grained sandstones with interbeds and stringers of shale, siltstone and limestone. Below 2570 m the sandstone units tended generally coarser grained and exhibited fining upward sequences with reduced porosity and net/gross ratio. The only recorded oil show in the well was on core no 1 at 2559.7 m to 2560.9 m. No significant mud gas levels were recorded. The Late Jurassic shales and the Early Jurassic coals and carbonaceous shales are rich source rocks for oil and gas. However, the Late Jurassic shales are immature in the well while the Early Jurassic sequence below ca 2800 m have reached only incipient oil window maturity (vitrinite reflectance ca 0.5% Ro).

One RFT run was made in the Tilje and Åre Formations and 21 formation pressure reading were taken. A water gradient of 0.099 bar/m (1.01 g/cm³) was calculated. No fluid sample was taken. Two conventional cores were cut, one from 2548.0 m to 2566.55 m in the top of the Tilje Formation and the other from 2717.0 m to 2735.0 m in the base of the Tilje Formation

The well was permanently abandoned on 7 July 1983 as a dry hole.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
340.00	3067.00



Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2548.0	2566.5	[m]
2	2717.0	2735.0	[m]

Total kjerneprøve lengde [m]	36.5
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



2548-2552m



2552-2556m



2556-2560m



2560-2564m



2564-2566m



2717-2721m



2721-2725m



2725-2729m



2729-2733m



2733-2734m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
1000.0	[m]	DC	OD
1100.0	[m]	DC	OD
1180.0	[m]	DC	OD
1190.0	[m]	DC	OD
1200.0	[m]	DC	OD
1210.0	[m]	DC	OD
1220.0	[m]	DC	OD
1230.0	[m]	DC	OD



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 12.5.2024 - 19:00

1240.0	[m]	DC	OD
1250.0	[m]	DC	OD
1260.0	[m]	DC	OD
1270.0	[m]	DC	OD
1280.0	[m]	DC	OD
1290.0	[m]	DC	OD
1300.0	[m]	DC	OD
1305.0	[m]	DC	OD
1310.0	[m]	DC	OD
1325.0	[m]	DC	OD
1335.0	[m]	DC	OD
1345.0	[m]	DC	OD
1350.0	[m]	DC	OD
1355.0	[m]	DC	OD
1365.0	[m]	DC	OD
1375.0	[m]	DC	OD
1385.0	[m]	DC	OD
1395.0	[m]	DC	OD
1400.0	[m]	DC	OD
1410.0	[m]	DC	OD
1430.0	[m]	DC	OD
1450.0	[m]	DC	OD
1465.0	[m]	DC	OD
1480.0	[m]	DC	OD
1500.0	[m]	DC	OD
1530.0	[m]	DC	OD
1550.0	[m]	DC	OD
1575.0	[m]	DC	OD
1600.0	[m]	DC	OD
1630.0	[m]	DC	APT
1650.0	[m]	DC	OD
1670.0	[m]	DC	APT
1680.0	[m]	DC	OD
1700.0	[m]	DC	OD
1750.0	[m]	DC	OD
1770.0	[m]	DC	APT
1775.0	[m]	DC	RRI
1795.0	[m]	SWC	RRI
1800.0	[m]	DC	OD
1810.0	[m]	DC	RRI



1830.0	[m]	SWC	RRI
1835.0	[m]	DC	OD
1845.0	[m]	DC	OD
1851.0	[m]	SWC	RRI
1855.0	[m]	DC	OD
1865.0	[m]	DC	OD
1867.0	[m]	DC	OD
1882.0	[m]	DC	RRI
1897.0	[m]	DC	OD
1912.0	[m]	DC	RRI
1925.0	[m]	DC	RRI
1925.0	[m]	DC	OD
1933.0	[m]	DC	RRI
1935.0	[m]	DC	RRI
1942.0	[m]	DC	RRI
1950.0	[m]	DC	RRI
1950.0	[m]	SWC	RRI
1955.0	[m]	DC	RRI
1955.0	[m]	DC	OD
1966.0	[m]	SWC	RRI
1972.0	[m]	DC	RRI
1985.0	[m]	DC	OD
1987.0	[m]	DC	RRI
1991.0	[m]	SWC	RRI
2002.0	[m]	DC	RRI
2011.0	[m]	SWC	RRI
2012.0	[m]	DC	RRI
2015.0	[m]	DC	OD
2017.0	[m]	DC	RRI
2032.0	[m]	DC	RRI
2034.0	[m]	SWC	RRI
2035.0	[m]	DC	RRI
2050.0	[m]	DC	RRI
2054.0	[m]	SWC	RRI
2060.0	[m]	SWC	RRI
2062.0	[m]	DC	RRI
2065.0	[m]	DC	RRI
2065.0	[m]	SWC	RRI
2065.0	[m]	DC	OD
2071.0	[m]	SWC	RRI



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 12.5.2024 - 19:00

2075.0	[m]	DC	RRI
2080.0	[m]	DC	RRI
2080.0	[m]	DC	OD
2095.0	[m]	DC	RRI
2100.0	[m]	DC	RRI
2100.0	[m]	SWC	RRI
2110.0	[m]	DC	RRI
2115.0	[m]	DC	OD
2115.0	[m]	DC	OD
2125.0	[m]	DC	RRI
2126.0	[m]	SWC	RRI
2140.0	[m]	DC	RRI
2140.0	[m]	SWC	RRI
2155.0	[m]	DC	RRI
2165.0	[m]	DC	OD
2170.0	[m]	DC	RRI
2179.0	[m]	SWC	RRI
2180.0	[m]	DC	RRI
2180.0	[m]	DC	OD
2195.0	[m]	DC	RRI
2200.0	[m]	DC	RRI
2200.0	[m]	SWC	RRI
2210.0	[m]	DC	RRI
2212.0	[m]	SWC	RRI
2215.0	[m]	DC	OD
2220.0	[m]	DC	OD
2224.5	[m]	SWC	RRI
2227.0	[m]	DC	RRI
2231.0	[m]	SWC	RRI
2240.0	[m]	DC	OD
2241.5	[m]	SWC	RRI
2242.0	[m]	DC	RRI
2254.0	[m]	SWC	RRI
2257.0	[m]	DC	RRI
2265.0	[m]	DC	OD
2272.0	[m]	DC	RRI
2284.0	[m]	SWC	RRI
2287.0	[m]	DC	RRI
2290.0	[m]	DC	OD
2302.0	[m]	DC	RRI



2315.0 [m]	DC	OD
2317.0 [m]	DC	RRI
2332.0 [m]	DC	RRI
2347.0 [m]	DC	RRI
2354.0 [m]	SWC	RRI
2362.0 [m]	DC	RRI
2365.0 [m]	DC	OD
2377.0 [m]	DC	RRI
2380.0 [m]	DC	OD
2385.0 [m]	SWC	RRI
2392.0 [m]	DC	RRI
2410.0 [m]	DC	OD
2415.0 [m]	DC	OD
2417.0 [m]	SWC	RRI
2437.0 [m]	DC	RRI
2440.0 [m]	DC	OD
2446.0 [m]	SWC	RRI
2452.0 [m]	DC	RRI
2465.0 [m]	DC	OD
2467.0 [m]	DC	RRI
2480.0 [m]	DC	OD
2482.0 [m]	DC	RRI
2486.5 [m]	SWC	RRI
2495.0 [m]	DC	RRI
2512.0 [m]	DC	RRI
2515.0 [m]	DC	OD
2519.0 [m]	SWC	RRI
2527.0 [m]	DC	RRI
2530.0 [m]	DC	OD
2535.5 [m]	SWC	RRI
2542.0 [m]	DC	RRI
2549.9 [m]	C	RRI
2550.0 [m]	DC	OD
2563.8 [m]	C	RRI
2565.2 [m]	C	RRI
2575.0 [m]	DC	OD
2591.0 [m]	SWC	RRI
2600.0 [m]	DC	OD
2607.0 [m]	SWC	RRI
2632.0 [m]	DC	RRI



2647.0	[m]	DC	RRI
2650.0	[m]	DC	OD
2662.0	[m]	DC	RRI
2677.0	[m]	DC	RRI
2682.0	[m]	SWC	RRI
2690.0	[m]	DC	RRI
2700.0	[m]	DC	OD
2702.0	[m]	DC	RRI
2717.0	[m]	DC	RRI
2719.2	[m]	C	RRI
2727.0	[m]	DC	RRI
2729.3	[m]	C	RRI
2734.1	[m]	C	RRI
2737.0	[m]	DC	RRI
2750.0	[m]	DC	OD
2752.0	[m]	DC	RRI
2767.0	[m]	DC	RRI
2775.0	[m]	DC	OD
2780.0	[m]	DC	RRI
2797.0	[m]	DC	RRI
2800.0	[m]	DC	OD
2812.0	[m]	DC	RRI
2842.0	[m]	DC	RRI
2850.0	[m]	DC	OD
2857.0	[m]	DC	RRI
2872.0	[m]	DC	RRI
2887.0	[m]	DC	RRI
2900.0	[m]	DC	OD
2901.0	[m]	SWC	RRI
2902.0	[m]	DC	RRI
2917.0	[m]	DC	RRI
2922.0	[m]	DC	OD
2932.0	[m]	DC	RRI
2947.0	[m]	DC	RRI
2950.5	[m]	SWC	RRI
2962.0	[m]	DC	RRI
2973.0	[m]	SWC	RRI
2977.0	[m]	DC	RRI
2992.0	[m]	DC	RRI
3005.0	[m]	DC	RRI



3005.0	[m]	SWC	RRI
3015.0	[m]	DC	RRI
3052.0	[m]	DC	RRI
3059.5	[m]	SWC	RRI
3067.0	[m]	DC	RRI

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
263	NORDLAND GP
263	NAUST FM
530	KAI FM
1255	HORDALAND GP
1255	BRYGGE FM
1479	ROGALAND GP
1479	TARE FM
1548	TANG FM
1640	SHETLAND GP
1640	SPRINGAR FM
1830	CROMER KNOLL GP
1830	LANGE FM
2022	LYR FM
2069	VIKING GP
2069	SPEKK FM
2226	MELKE FM
2467	BÅT GP
2467	ROR FM
2546	TILJE FM
2735	ÅRE FM

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
15_1	pdf	0.22
15_2	pdf	5.94

Dokumenter - eldre Søkeldirektoratets WDSS rapporter og andre relaterte dokumenter





Dokument navn	Dokument format	Dokument størrelse [KB]
15_01_WDSS_General_Information	pdf	0.17
15_02_WDSS_completion_log	pdf	0.31

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
15_01_Completion_Report_and_Composite_log	pdf	11.50

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL VDL	600	1849
CST	1217	1857
CST	1933	2486
CST	2159	3059
HDT	1200	1857
ISF LSS GR SP	260	1863
ISF LSS GR SP MSFL	1849	3067
LDT CNL GR CAL	323	3067
RFT	2554	3039
SHDT	1849	3067
VELOCITY	510	3044

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	325.0	36	332.0	0.00	LOT
SURF.COND.	20	896.0	26	915.0	1.58	LOT
INTERM.	13 3/8	1849.0	17 1/2	1864.0	2.00	LOT
OPEN HOLE		3068.0	12 1/4	3068.0	0.00	LOT

Boreslam





Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
332	1.05	100.0		spud mud	
915	1.07	43.0	11.0	water based	
1864	1.32	70.0	22.0	water based	
1864	1.30	53.0	18.0	water based	
2230	1.30	60.0	19.0	water based	
2566	1.31	59.0	19.0	water based	
2877	1.30	54.0	28.0	water based	
3068	1.30	54.0	28.0	water based	

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]
15 Formation pressure (Formasjonstrykk)	pdf	0.28

